

Message

This “Message” volume describes the content of the message which occurs at the time of the array failure.

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Chapter 1. Before Starting Trouble Analysis

A message reports the contents of the failures detected during the operation.

The failures detected during operation after the main switch of this unit is turned on and the state of the unit are reported.

The composition and description contents of each message are as follows.

(1) The following messages are indicated.

- CUDG detected message ...: 018xxxxx (“Chapter 2. CUDG Detected Messages” (MSG 02-0000))
- Failure messages: Hxxxxx · (“Chapter 3. Failure Messages” (MSG 03-0000))
- Progress messages: Ixxxxx · (“Chapter 4. Progress Messages” (MSG 04-0000))
- Flash detected messages...: Rxxxxx · (“Chapter 5. Flash Detected Messages” (MSG 05-0000))
- Warning messages.....: Wxxxxx · (“Chapter 6. Warning Messages” (MSG 06-0000))
- WEB messages: “Chapter 7. Web Error Messages” (MSG 07-0000)
- Hitachi Storage Navigator Modular 2 messages :
“Chapter 8. Hitachi Storage Navigator Modular 2 Error Messages” (MSG 08-0000)
- Sense Data.....: “Chapter 9. Failure Analysis by Sense Data” (MSG 09-0000)
- Failure Factor Codes of the Modular Volume Migration :
“Chapter 10. Failure Factor Codes of the Modular Volume Migration” (MSG 10-0000)

(2) How to read the table

(a) Message text	(b) Contents	(c) Recovery methods	(d) Collecting Error Information
H0AC00 [DCTL]	The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1/3) [Dual]. D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1/3) [Dual]. x : Controller # (0-1)	① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)	Collecting Error Information FDMP
HH730x ENC error inf. [Remove] (CTL-Y)	The I/O Module (ENC) or I/O Card (ENC) was removed. x : Controller # (0-1)	None	Collecting Error Information
HHA2xy H-IPC is not detected (CTL-x, I/F-y)	The Host I/O Board/Module (iSCSI) is installed, but H-IPC (Host iSCSI Protocol controller) LSI was unable to be recognized on PCI. x : Controller # (0-1) y : Host I/O Board # (0-1)	<div style="border: 2px solid black; padding: 5px;"> If the recovery methods are not written, the recovery methods described at the bottom of the section enclosed by a thick line are common to the messages in the section. </div> ① Replace the Host I/O Board displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information CTRC
HHA4xy H-IPC ECC error was detected (CTL-x, I/F-y)	The number of times of the ECC error detected when H-IPC LSI accessed the internal RAM exceeded the threshold value. x : Controller # (0-1) y : Host I/O Board # (0-1)		Collecting Error Information CTRC

(a) Message text : Message text is indicated.

(b) Description : Contents of failure are described concretely.

(c) Collecting Error Information : Display codes and collection methods are described. (Refer to [Table 1.1](#) for display codes.)

Table 1.1 Collecting Error Information List

Display code	Collecting Error Information	Error information you must collect
STRC	Collecting Simple Trace	Collect Simple Trace
CTRC	Collecting CTL Alarm Trace	Collect CTL Alarm Trace
FDMP	Collecting Full Dump	Collect Full Dump
PLOG		Collect Service PC Log, and Simple Trace
No display		None

Simple trace · : Collect Simple Trace (Refer to [Troubleshooting "5.3 Collecting Simple Trace" \(TRBL 05-0040\).](#))

CTL Trace ··· : Collect CTL Alarm Trace (Refer to [Troubleshooting "5.4 Collecting CTL Alarm Trace" \(TRBL 05-0130\).](#))

Full Dump···· : Collect Full Dump (Refer to [Troubleshooting "5.5 Collecting Full Dump" \(TRBL 05-0180\).](#))

(d) Recovery methods : How to recover from the failure concretely is described.

The procedure of the recovery methods is executed beginning at the top.

When “None” is written in the recovery methods, no recovery operation is required.

For the messages with no recovery methods written, the recovery methods described at the bottom of the section enclosed by a thick line are common to the messages in the section.

Because the status where the array is being started is in the middle of the transition to the status of the power turned on (Ready status) from the status of the power turned off, do not perform the recovery work which affects the operation of the array while the array is being started.

Also, the setting function or the reference function using the Hitachi Storage Navigator Modular 2 cannot be executed to the array which is being started.

(3) Conversion

Replace the term “Logical Unit (LU, LUN)” described in the “Message” volume with the “Volume (VOL)”.

Chapter 2. CUDG Detected Messages

(1) Examples of message display

Exsample : CUDG Detected Messages

01***** DCTL CUDG error (CTL-x, y)

x : Controller (0-1)

y : Doubtful part

(2) List of strings of doubtful part

The list of strings of “y: Doubtful part” is shown below.

• CBL

Embedded characters	Parts to be replaced	Reference page
CACHE-0	Cache memory slot #0	Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920)
CACHE-1	Cache memory slot #1	Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920)
CACHE-0/1	Cache memory slot #0 or #1	Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920)
Management module Slot-A	Management Module (LAN)	Replacement “2.2.10 Replacing a Management Module” (REP 02-1410)
Drive I/O module Slot-C	Drive I/O Module slot #C	Replacement “2.2.9 Replacing a Drive I/O Module” (REP 02-1320)
Drive I/O module Slot-D	Drive I/O Module slot #D	Replacement “2.2.9 Replacing a Drive I/O Module” (REP 02-1320)
Host I/O module Slot-E	Host I/O Module slot #E	Replacement “2.2.7 Replacing a Host I/O Board/Module” (REP 02-1100)
Host I/O module Slot -F	Host I/O Module slot #F	Replacement “2.2.7 Replacing a Host I/O Board/Module” (REP 02-1100)

• CBSS/CBSL

Embedded characters	Parts to be replaced	Reference page
CACHE-0	Cache memory slot #0	Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920)
CACHE-1	Cache memory slot #1	Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920)
CACHE-0/1	Cache memory slot #0 or #1	Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920)
I/F board-0	—	—
I/F board-1	Host I/O Board	Replacement “2.2.7 Replacing a Host I/O Board/Module” (REP 02-1100)

• CBXSS/CBXSL

Embedded characters	Parts to be replaced	Reference page
CACHE-0	Cache memory slot #0	Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920)
I/F board-0	—	—
I/F board-1	Host I/O Board	Replacement “2.2.7 Replacing a Host I/O Board/Module” (REP 02-1110)

0110****	MPU EFI CUDG error (CTL-x, y) A failure was detected by the MPU part diagnosis (EFI-CUDG). x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0110****	MPU PON CUDG error (CTL-x, y) A failure was detected by the MPU part diagnosis (PON-CUDG). x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
	Recovery methods ① Replace the damaged part displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② If it is not recovered yet, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
0131****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL register check. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0132****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL MCTL part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0133****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL MP part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
	Recovery methods ① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
0134****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL MDMA part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0135****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL DRR part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
	Recovery methods ① If the checked damaged part can be replaced, replace the part. (Refer to MSG 02-0000 for the detail.) ② If it is not recovered yet, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
0136****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL MSI part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
	Recovery methods ① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
0137****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL DUAL part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
	Recovery methods ① If the checked damaged part can be replaced, replace the part. (Refer to MSG 02-0000 for the detail.) ② If it is not recovered yet, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	

0138****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL DP_DMA part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0139****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL HP_DMA part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
013A****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL HP_DMA part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
013B****	DCTL CUDG error (CTL-x, y) A failure was detected by the DCTL BRIDGE part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0140****	DCTL CUDG error (CTL-*, y) A failure was detected by the DCTL PCI-e part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0141****	DCTL CUDG error (CTL-*, y) A failure was detected by the DCTL PCI-e part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0142****	DCTL CUDG error (CTL-*, y) A failure was detected by the DCTL PCI-e part diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0160****	CACHE CUDG error (CTL-x, y) A failure was detected by the CACHE diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
01609x01	CACHE CUDG error (CTL-x, CACHE -y) A failure was detected by the CACHE diagnosis. (The Cache Memory whose SUM value of the unique code is illegal is installed in SLOT #x.) x : Controller (0-1) y : Cache Memory # (0-1)	Collecting Error Information
01609x04	CACHE CUDG error (CTL-x, CACHE -y) A failure was detected by the CACHE diagnosis. (The Cache Memory whose OFFLINE CUDG is rejected or untested is installed in SLOT #x.) x : Controller (0-1) y : Cache Memory # (0-1)	Collecting Error Information
01609x05	CACHE CUDG error (CTL-x, CACHE -y) A failure was detected by the CACHE diagnosis. (The CS/DS is installed in SLOT #x.) x : Controller (0-1) y : Cache Memory # (0-1)	Collecting Error Information
0160Ax02	CACHE CUDG error (CTL-x, CACHE -y) A failure was detected by the CACHE diagnosis. (The Cache Memory whose unique code is illegal is installed in SLOT #x.) x : Controller (0-1) y : Cache Memory # (0-1)	Collecting Error Information
Recovery methods	① If the checked damaged part can be replaced, replace the part. (Refer to MSG 02-0000 for the detail.) ② If it is not recovered yet, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	

0170****	D-SPC CUDG error (CTL-x, y) A failure was detected by the D-SPC diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0181****	H-IPC CUDG error (CTL-x, y) A failure was detected by the H-IPC diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0182****	H-FPC CUDG error (CTL-x, y) A failure was detected by the H-FPC diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
0183****	H-IPC CUDG error (CTL-x, y) A failure was detected by the H-IPC diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
01B0****	Backup controller CUDG error (CTL-*, y) A failure was detected by the FlashBackup diagnosis. x : Controller (0-1) y : Suspected Part (Refer to MSG 02-0000 for the detail.)	Collecting Error Information
	Recovery methods	① If the checked damaged part can be replaced, replace the part. (Refer to MSG 02-0000 for the detail.) ② If it is not recovered yet, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)

Chapter 3. Failure Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

H0010x	[DCTL]The DRR0 error was detected (CTL-x) D-CTL LSI detected DRR0 error interruption. x : Controller # (0-1)	Collecting Error Information	STRC
H0020x	[DCTL]The DRR1 error was detected (CTL-x) D-CTL LSI detected DRR1 error interruption. x : Controller # (0-1)	Collecting Error Information	STRC
H0100x	[DCTL]The ECC write parity error was detected (CTL-x) D-CTL LSI detected a parity error in the ECC added part when executing write to the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
H0110x	[DCTL]The ECC generation error was detected (CTL-x) D-CTL LSI detected an ECC generation error in the ECC added part when executing write to the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement “2.2.5 Replacing a Controller” (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to “W01z0x CTL alarm”. (Refer to “Chapter 6. Warning Messages” (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H012xy	[DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y) D-CTL LSI detected an error of two bits or more when executing read to the Cache memory. x : Controller # (0-1) y : Cache Memory # (0-3)	Collecting Error Information	FDMP
	Recovery methods	① Replace the Cache Memory displayed in the message. (Refer to Replacement “2.2.6 Replacing a Cache Memory” (REP 02-0920) .)	
H0130x	[DCTL]The ECC correction failed (CTL-x) D-CTL LSI detected discrepancy of the ECC correction when executing read to the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
H0140x	[DCTL]The sequencer time-out error was detected (CTL-x) D-CTL LSI detected time-out of sequence or a parity error of time-out count. x : Controller # (0-1)	Collecting Error Information	FDMP
H0150x	[DCTL]The RCTL error was detected (CTL-x) D-CTL LSI detected that the Cache control part did not receive a response of the RCTL (CACHE-I/F) signal which indicates a response of read. x : Controller # (0-1)	Collecting Error Information	FDMP
H0160x	[DCTL]The RCLK error was detected (CTL-x) D-CTL LSI detected that the Cache control part did not receive a response of the RCLK (CACHE-I/F) signal which is a clock for taking read data. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement “2.2.5 Replacing a Controller” (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to “W01z0x CTL alarm”. (Refer to “Chapter 6. Warning Messages” (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

H0170x	[DCTL]The CACHE address was over the address space [MPU] (CTL-x) D-CTL LSI detected a Cache address over error when the Cache of MPU was accessed. x : Controller # (0-1)	Collecting Error Information	FDMP
H0180x	[DCTL]The address parity error was detected [MPU] (CTL-x) D-CTL LSI detected an address parity error in the transfer address received in the Cache control part. x : Controller # (0-1)	Collecting Error Information	FDMP
H0190x	[DCTL]The length parity error was detected (CTL-x) D-CTL LSI detected a length parity error in the transfer word length received in the Cache control part. x : Controller # (0-1)	Collecting Error Information	FDMP
H01A0x	[DCTL]The CACHE Address was over the address space [DMA] (CTL-x) D-CTL LSI detected a Cache address over error at the Cache access of H_PORT, D_PORT, DMA #0 or MDMA. x : Controller # (0-1)	Collecting Error Information	FDMP
H01B0x	[DCTL]The dummy area access error was detected (CTL-x) D-CTL LSI detected access to the access prohibited area in the added area of the 4- byte dummy data of the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
H01C0x	[DCTL]The address parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the address from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	CTRC
H01D0x	[DCTL]The length parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the length from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	CTRC
H01E0x	[DCTL]The BYTE-ENABLE parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the BYTE_EN from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	CTRC
H01F0x	[DCTL]The write data parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the write data from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	CTRC
H01G0x	[DCTL]The read data parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the read data from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	CTRC
H01H0x	[DCTL]The BYTE-ENABLE error of the slave command bridge was detected (CTL-x) D-CTL LSI detected an unfair pattern of BYTE_EN from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	CTRC
H01J0x	[DCTL]The length error was detected (CTL-x) D-CTL LSI detected an unfair pattern of length from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	CTRC
H01K0x	[DCTL]The address parity error of the register interface was detected (CTL-x) D-CTL LSI detected an error response (address parity error) of REG-I/F in the MP part. x : Controller # (0-1)	Collecting Error Information	CTRC
H01L0x	[DCTL]The write data parity error of the register interface was detected (CTL-x) D-CTL LSI detected an error response (write data parity error) of REG-I/F in the MP part. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H01M0x	[DCTL]The register interface error was detected (CTL-x) D-CTL LSI detected an error response of REG-I/F. x : Controller # (0-1)	Collecting Error Information	CTRC
H01N0x	[DCTL]The read data parity error was detected in the register interface (CTL-x) D-CTL LSI detected a parity error in the read data received in the REG-I/F part. x : Controller # (0-1)	Collecting Error Information	CTRC
H01P0x	[DCTL]The CACHE read data parity error was detected (CTL-x) D-CTL LSI detected a parity error in the data read from the Cache memory. x : Controller # (0-1)	Collecting Error Information	CTRC
H01Q0x	[DCTL]The MP sequencer error was detected (CTL-x) D-CTL LSI detected an error in the control sequence of the MP part. x : Controller # (0-1)	Collecting Error Information	FDMP
H01R0x	[DCTL]The master command bridge D1 port error was detected (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_D1. x : Controller # (0-1)	Collecting Error Information	STRC
H01S0x	[DCTL]The master command bridge D0 port error was detected (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_D0. x : Controller # (0-1)	Collecting Error Information	STRC
H01T0x	[DCTL]The master command bridge H1 port error was detected (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_H1. x : Controller # (0-1)	Collecting Error Information	STRC
H01U0x	[DCTL]The master command bridge H0 port error was detected (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_H0. x : Controller # (0-1)	Collecting Error Information	STRC
H01V0x	[DCTL]The refresh error was detected (CTL-x) D-CTL LSI detected an error in the refresh control part for the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
H01W0x	[DCTL]The CACHE0 error was detected (CTL-x) D-CTL LSI detected an error in the Cache0 part. x : Controller # (0-1)	Collecting Error Information	FDMP
H01X0x	[DCTL]The CACHE1 error was detected (CTL-x) D-CTL LSI detected an error in the Cache1 part. x : Controller # (0-1)	Collecting Error Information	FDMP
H01Y0x	[DCTL]The MCTL error was detected (CTL-x) D-CTL LSI detected an error interruption of MCTL. x : Controller # (0-1)	Collecting Error Information	STRC
H01Z0x	[DCTL]The slave command bridge error was detected [MP] (CTL-x) D-CTL LSI detected an error in Cmd_BridgeS_MP. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H0200x	[DCTL]The bridge error was detected [Host0] (CTL-x) D-CTL LSI detected a bridge error. (HP #0) x : Controller # (0-1)	Collecting Error Information	STRC
H0210x	[DCTL]The bridge error was detected [Host1] (CTL-x) D-CTL LSI detected a bridge error. (HP #1) x : Controller # (0-1)	Collecting Error Information	STRC
H0220x	[DCTL]The bridge error was detected [DRV0] (CTL-x) D-CTL LSI detected a bridge error. (D #0) x : Controller # (0-1)	Collecting Error Information	STRC
H0230x	[DCTL]The bridge error was detected [DRV1] (CTL-x) D-CTL LSI detected a bridge error. (D #1) x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H0240x	[DCTL]The bridge error was detected [external access] (CTL-x) D-CTL LSI detected a bridge error. (Ext_Accs) x : Controller # (0-1)	Collecting Error Information	CTRC
H0250x	[DCTL]The bridge error was detected [cross DRV0] (CTL-x) D-CTL LSI detected a bridge error. (Cross_Drv0) x : Controller # (0-1)	Collecting Error Information	STRC
H0260x	[DCTL]The bridge error was detected [cross DRV1] (CTL-x) D-CTL LSI detected a bridge error. (Cross_Drv1) x : Controller # (0-1)	Collecting Error Information	STRC
H0270x	[DCTL]The master command bridge error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_DUAL. x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	

H0280x	[DCTL]The message signal interrupt control error was detected (CTL-x) D-CTL LSI detected an error in MSI (Message Signal Interrupt) CTL. x : Controller # (0-1)	Collecting Error Information	CTRC
H0300x	[DCTL]The PCI root complex error was detected [P_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0310x	[DCTL]The unsupported request error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0320x	[DCTL]The PCI Express ECRC error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0330x	[DCTL]The malformed transaction layer protocol was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0340x	[DCTL]The receiver overflow was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0350x	[DCTL]The unexpected completion was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0360x	[DCTL]The completer abort was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0370x	[DCTL]The completion time-out was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0380x	[DCTL]The poisoned transaction layer protocol was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "poisoned TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0390x	[DCTL]The data link protocol error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03A0x	[DCTL]The training error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03B0x	[DCTL]The poison error of the completion without data was detected [P_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03C0x	[DCTL]The unsupported request was detected [P_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H03D0x	[DCTL]The completer abort was detected in the completion status [P_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03E0x	[DCTL]The size error was detected in the completion without data [P_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03F0x	[DCTL]The internal parity error of the configuration read was detected [P_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03G0x	[DCTL]The completion without data was discarded because of the time-out [P_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03H0x	[DCTL]The issued completion without data was discarded [P_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03J0x	[DCTL]The interrupt message to issue was discarded [P_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03K0x	[DCTL]The PCI device error was detected [internal bus error] [P_IRQ6] (CTL-x) D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03L0x	[DCTL]The PCI device error was detected [internal memory error] [P_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03M0x	[DCTL]The internal bus error was detected [P_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H03N0x	[DCTL]The rollover of the replay number was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H03P0x	[DCTL]The PCI root complex error was detected [H0_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03Q0x	[DCTL]The unsupported request error was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03R0x	[DCTL]The PCI Express ECRC error was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03S0x	[DCTL]The malformed transaction layer protocol was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03T0x	[DCTL]The receiver overflow was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03U0x	[DCTL]The unexpected completion was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03V0x	[DCTL]The completer abort was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03W0x	[DCTL]The completion time-out was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03X0x	[DCTL]The poisoned transaction layer protocol was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03Y0x	[DCTL]The data link protocol error was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H03Z0x	[DCTL]The training error was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #E side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		

H0400x	[DCTL]The poison error of the completion without data was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0410x	[DCTL]The unsupported request was detected [H0_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0420x	[DCTL]The completer abort was detected in the completion status [H0_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0430x	[DCTL]The size error was detected in the completion without data [H0_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #E side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	
H0440x	[DCTL]The internal parity error of the configuration read was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ③ Replace the Host I/O Board (Host I/O Module #E side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .)	

H0450x	[DCTL]The completion without data was discarded because of the timeout [H0_IRQ6] (CTL-x)	Collecting Error Information	STRC
	D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [H0_PCI_E_IRQ6]		
	x : Controller # (0-1)		
H0460x	[DCTL]The issued completion without data was discarded [H0_IRQ6](CTL-x)	Collecting Error Information	STRC
	D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [H0_PCI_E_IRQ6]		
	x : Controller # (0-1)		
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #E side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700)) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)		
H0470x	[DCTL]The interrupt message to issue was discarded [H0_IRQ6] (CTL-x)	Collecting Error Information	STRC
	When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [H0_PCI_E_IRQ6]		
	x : Controller # (0-1)		
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ Replace the Host I/O Board (Host I/O Module #E side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)		
H0480x	[DCTL]The PCI device error was detected [internal bus error] [H0_IRQ6] (CTL-x)	Collecting Error Information	STRC
	D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [H0_PCI_E_IRQ6]		
	x : Controller # (0-1)		
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #E side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)		
H0490x	[DCTL]The PCI device error was detected [internal memory error] [H0_IRQ6] (CTL-x)	Collecting Error Information	STRC
	D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [H0_PCI_E_IRQ6]		
	x : Controller # (0-1)		
H04A0x	[DCTL]The internal bus error was detected [H0_PCI6] (CTL-x)	Collecting Error Information	STRC
	D-CTL LSI detected the internal bus error interrupt of D-CTL. [H0_PCI_E_IRQ6]		
	x : Controller # (0-1)		
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).) ③ Replace the Host I/O Board (Host I/O Module #E side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)		

H04B0x	[DCTL]The rollover of the replay number was detected [H0_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04C0x	[DCTL]The unsupported request error was detected [H1_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04D0x	[DCTL]The unsupported request error was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04E0x	[DCTL]The PCI Express ECRC error was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04F0x	[DCTL]The malformed transaction layer protocol was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04G0x	[DCTL]The receiver overflow was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04H0x	[DCTL]The unexpected completion was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04J0x	[DCTL]The completer abort was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04K0x	[DCTL]The completion time-out was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04L0x	[DCTL]The poisoned transaction layer protocol was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "poisoned TLP (Transaction Layer Protocol)". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04M0x	[DCTL]The data link protocol error was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04N0x	[DCTL]The training error was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04P0x	[DCTL]The poison error of the completion without data was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		

H04Q0x	[DCTL]The unsupported request was detected [H1_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04R0x	[DCTL]The completer abort was detected in the completion status [H1_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04S0x	[DCTL]The size error was detected in the completion without data [H1_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)	
H04T0x	[DCTL]The internal parity error of the configuration read was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)	
H04U0x	[DCTL]The completion without data was discarded because of the timeout [H1_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04V0x	[DCTL]The issued completion without data was discarded [H1_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)	

H04W0x	[DCTL]The interrupt message to issue was discarded [H1_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ③ Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .)		
H04X0x	[DCTL]The PCI device error was detected [internal bus error] [H1_IRQ6] (CTL-x) D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing Host I/O Board/Module" (REP 02-1100) .) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		
H04Y0x	[DCTL]The PCI device error was detected [internal memory error] [H1_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H04Z0x	[DCTL]The internal bus error was detected [H1_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ③ Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .)		

H0500x	[DCTL]The rollover of the replay number was detected [H1_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② Replace the Host I/O Board (Host I/O Module #F side in case of the CBL) installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .) ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ④ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		
H0510x	[DCTL]The PCI root complex error was detected [D0_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0520x	[DCTL]The unsupported request error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0530x	[DCTL]The PCI Express ECRC error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0540x	[DCTL]The malformed transaction layer protocol was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0550x	[DCTL]The receiver overflow was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0560x	[DCTL]The unexpected completion was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0570x	[DCTL]The completer abort was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0580x	[DCTL]The completion time-out was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0590x	[DCTL]The poisoned transaction layer protocol was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H05A0x	[DCTL]The data link protocol error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05B0x	[DCTL]The training error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05C0x	[DCTL]The poison error of the completion without data was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05D0x	[DCTL]The unsupported request was detected [D0_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05E0x	[DCTL]The completer abort was detected in the completion status [D0_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05F0x	[DCTL]The size error was detected in the completion without data [D0_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05G0x	[DCTL]The internal parity error of the configuration read was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05H0x	[DCTL]The completion without data was discarded because of the timeout [D0_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05J0x	[DCTL]The issued completion without data was discarded [D0_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05K0x	[DCTL]The interrupt message to issue was discarded [D0_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05L0x	[DCTL]The PCI device error was detected [internal bus error] [D0_IRQ6] (CTL-x) D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05M0x	[DCTL]The PCI device error was detected [internal memory error] [D0_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H05N0x	[DCTL]The internal bus error was detected [D0_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05P0x	[DCTL]The rollover of the replay number was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05Q0x	[DCTL]The PCI root complex error was detected [D1_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05R0x	[DCTL]The unsupported request error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05S0x	[DCTL]The PCI Express ECRC error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05T0x	[DCTL]The malformed transaction layer protocol was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05U0x	[DCTL]The receiver overflow was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05V0x	[DCTL]The unexpected completion was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05W0x	[DCTL]The completer abort was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05X0x	[DCTL]The completion time-out was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05Y0x	[DCTL]The poisoned transaction layer protocol was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H05Z0x	[DCTL]The data link protocol error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H0600x	[DCTL]The training error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0610x	[DCTL]The poison error of the completion without data was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0620x	[DCTL]The unsupported request was detected [D1_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0630x	[DCTL]The completer abort was detected in the completion status [D1_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0640x	[DCTL]The size error was detected in the completion without data [D1_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0650x	[DCTL]The internal parity error of the configuration read was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0660x	[DCTL]The completion without data was discarded because of the timeout [D1_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0670x	[DCTL]The issued completion without data was discarded [D1_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0680x	[DCTL]The interrupt message to issue was discarded [D1_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H0690x	[DCTL]The PCI device error was detected [internal bus error] [D1_IRQ6] (CTL-x) D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H06A0x	[DCTL]The PCI device error was detected [internal memory error] [D1_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H06B0x	[DCTL]The internal bus error was detected [D1_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H06C0x	[DCTL]The rollover of the replay number was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H06D0x	[DCTL]The PCI root complex error was detected [E_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06E0x	[DCTL]The unsupported request error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06F0x	[DCTL]The PCI Express ECRC error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06G0x	[DCTL]The malformed transaction layer protocol was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06H0x	[DCTL]The receiver overflow was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06J0x	[DCTL]The unexpected completion was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06K0x	[DCTL]The completer abort was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06L0x	[DCTL]The completion time-out was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06M0x	[DCTL]The poisoned transaction layer protocol was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06N0x	[DCTL]The data link protocol error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06P0x	[DCTL]The training error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06Q0x	[DCTL]The poison error of the completion without data was detected [E_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06R0x	[DCTL]The unsupported request was detected [E_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		

H06S0x	[DCTL]The completer abort was detected in the completion status [E_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06T0x	[DCTL]The size error was detected in the completion without data [E_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06U0x	[DCTL]The internal parity error of the configuration read was detected [E_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06V0x	[DCTL]The completion without data was discarded because of the time-out [E_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06W0x	[DCTL]The issued completion without data was discarded [E_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06X0x	[DCTL]The interrupt message to issue was discarded [E_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06Y0x	[DCTL]The PCI request was discarded by the timeout [internal bus error] [E_IRQ6] (CTL-x) D-CTL LSI could not execute the request from the internal bus of D-CTL in the set time because the condition such as Credit was not enough. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H06Z0x	[DCTL]The PCI request was discarded by the internal bus error [E_IRQ6] (CTL-x) NSWC (internal but of D-CTL: I/F Slave Wrapper Control) set the error bit of TXDB (Transmit side Data Buffer) due to some errors on the internal bus of D-CTL. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		

H0700x	[DCTL]The PCI request was discarded [internal bus error] [E_IRQ6] (CTL-x) D-CTL LSI discarded the request from the internal path of D-CTL. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0710x	[DCTL]The PCI device error was detected [internal memory error] [E_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0720x	[DCTL]The internal bus error was detected [E_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0730x	[DCTL]The rollover of the replay number was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	CTRC
H0800x	[DCTL]The slave dual error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in the DUAL-Slave part. x : Controller # (0-1)	Collecting Error Information	CTRC
H0810x	[DCTL]The CACHE error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in the Cache part. [Dual] x : Controller # (0-1)	Collecting Error Information	CTRC
H0820x	[DCTL]The slave command bridge error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in Cmd_BridgeS. [Dual] x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
H09D0x	The machine check error was detected (CTL-x) The chipset detected a machine check error. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

H0A00x	[DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y/z) D-CTL LSI detected an ECC uncorrectable error of two bits or more from each of two Cache memories when reading the Cache memories. x : Controller # (0-1) y/z : Cache Memory # (0-3)	Collecting Error Information	FDMP
	Recovery methods	① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)	
H0A10x	DUAL-Slave error was detected [H_PORT] (CTL-x) When executing write to the Cache memory of another Controller, a hardware failure occurred in the DUAL-Slave part of D-CTL LSI of the Controller. x : Controller # (0-1)	Collecting Error Information	CTRC
H0A20x	DUAL-Cache error was detected [H_PORT] (CTL-x) When executing write to the Cache memory of another Controller, a hardware failure occurred in the Cache part of D-CTL LSI of the Controller. x : Controller # (0-1)	Collecting Error Information	CTRC
H0A30x	DUAL-CmdBridgeS error was detected [H_PORT] (CTL-x) When executing write to the Cache memory of another Controller, a hardware failure occurred in the CmdBrgS (DUAL) part of D-CTL LSI of the Controller. x : Controller # (0-1)	Collecting Error Information	CTRC
H0A40x	[DCTL] The error without the factor was detected in the DUAL I/F (CTL-x) A DUALS failure without the detailed factor occurred. x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
H0A500	PCI Configuration access error was detected [Host\$ _PCI Express core, 0xYYYYZZZZ] (CTL-x) An error occurred in the Configuration access of the HOST PCI Express core of D-CTL LSI. \$: Failed part core # (0-1) x : Controller # (0-1) Y : Optional code Z : Optional code	Collecting Error Information	CTRC
	Recovery methods	In case of the CBL ① When the failed part core # displayed in the message is "0", replace the Host I/O Module (E side) on the controller side displayed in the message. When the failed part core # is "1", replace the Host I/O Module (F side) on the Controller side displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) In case of the CBXSS/CBXSL/CBSS/CBSL ① When the failed part core # displayed in the message is "0", replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) When the failed part core # is "1", replace the Host I/O Board which is installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	

H0A600	PCI Configuration access error was detected [Drv\$_PCI Express core, 0xYYYYZZZZ] (CTL-x)	Collecting Error Information	CTRC
An error occurred in the Configuration access of the Drv PCI Express core of D-CTL LSI.			
\$: Failed part core # (0-1)			
x : Controller # (0-1)			
Y : Optional code			
Z : Optional code			
Recovery methods	<p>In case of CBL</p> <p>① When the failed part core # displayed in the message is "0", replace the Drive I/O Module (C side) on the Controller side displayed in the message. When the failed part core # is "1", replace the Drive I/O Module (D side) on the Controller side displayed in the message. (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).)</p> <p>② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>In case of CBXSS/CBXSL/CBSS/CBSL</p> <p>① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>		
H0A700	PCI Configuration access error was detected [DUAL_PCI Express core, 0xYYYYZZZZ] (CTL-x)	Collecting Error Information	CTRC
An error occurred in the Configuration access of the Dual PCI Express core of D-CTL LSI.			
x : Controller # (0-1)			
Y : Optional code			
Z : Optional code			
Recovery methods	<p>① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)</p> <p>② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.</p> <p>2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>		
H0A800	The initialization of PCI Express failed because of the hardware error [DUAL] (CTL-x)	Collecting Error Information	CTRC
The initial setting of DUAL PCI Express of the Controller failed.			
x : Controller # (0-1)			
Recovery methods	<p>① Press the soft reset button of the Controller in 20 to 30 seconds after inserting the Controller in the Controller Box. After that, if this message is displayed, disregard it.</p> <p>② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.</p> <p>2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>		
H0A900	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0)	Collecting Error Information	FDMP
D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0) [Dual].			
x : Controller # (0-1)			
H0AA00	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1)	Collecting Error Information	FDMP
D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1) [Dual].			
x : Controller # (0-1)			
Recovery methods	<p>① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)</p>		

H0AB00	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0/2) D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0/2) [Dual]. x : Controller # (0-1)	Collecting Error Information	FDMP
H0AC00	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1/3) D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1/3) [Dual]. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)	
H0AD0x	[DCTL]The bridge time-out was detected by the dual core error [C_BrgM_DUAL] (CTL-x) D-CTL LSI (Cmd_BridgeM) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	CTRC
H0AE0x	[DCTL]The bridge time-out was detected by the dual core error [external access] (CTL-x) D-CTL LSI (Ext_Accs) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	CTRC
H0AF0x	[DCTL]The bridge time-out was detected by the dual core error [cross DRV0] (CTL-x) D-CTL LSI (Cross_Drv0) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	CTRC
H0AG0x	[DCTL]The bridge time-out was detected by the dual core error [cross DRV1] (CTL-x) D-CTL LSI (Cross_Drv1) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm (CTL-x)" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
H0AHxy	EDC error was detected (CTL-x, I/F-y) The EDC error exceeded the threshold value. x : Controller # (0-1) y : Host I/O Board # (0-1)	Collecting Error Information	STRC
	Recovery methods	① Replace the Controller and Host I/O Board displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)	
H0B00x	Synchronized error was detected [CIT] (CTL-x) Synchronization of the interruption processing between MPU cores timed out. x : Controller # (0-1)	Collecting Error Information	FDMP
H0C00x	The synchronization processing error of the CTL cores was detected [ERR] (CTL-x) When the firmware tried to synchronize the internal processing between the cores of the local Controller Unit, the synchronization processing timed out (failure processing support). x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When "HJ3Axy Unsupported CACHE detected (CTL-x, CACHE-y)" is displayed before this message, maintain it according to the message. ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ④ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

H0D00x	Synchronization failure of the MPU core was detected [INM] (CTL-x)	Collecting Error Information	FDMP
	An error occurred in the initial setting between the MPU cores/the synchronization during the CHK1 reset.		
	x : Controller # (0-1)		
Recovery methods	<ol style="list-style-type: none"> ① 1. When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 2. When the array model is DF850MH and the firmware version is less than 0950/A, if the phenomenon occurs again after performing the maintenance work of ①-1., replace the Drive I/O Module "CTL-x, Slot-C" and the Drive I/O Module "CTL-x, Slot-D". (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).) 3. When the array has already started, perform the dummy replacement (*1) of the Controller displayed in the message after the work of ①-2. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 4. When the ALARM LED on the front of the Controller Box lights up, handle the blockage of the other Controller, and then start the array. ② 1. When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) 2. When the array model is DF850MH and the firmware version is less than 0950/A, if the phenomenon occurs again after performing the maintenance work of ②-1., replace the Drive I/O Module "CTL-x, Slot-C" and the Drive I/O Module "CTL-x, Slot-D". (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).) 3. Perform the dummy replacement (*1) of the Controller displayed in the message after the work of ②-2. ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. 		
	*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.		
H0E00x	Online microprogram update time-out was detected (CTL-x)	Collecting Error Information	
	When the user tried to perform the planned shutdown of the array, it was executing the online firmware replacement. Since the replacement timed out, the planned shutdown of the array was carried out.		
	x : Controller # (0-1)		
Recovery methods	<ol style="list-style-type: none"> ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ After confirming this message in the WEB Information Message or E-mail immediately before the planned shutdown of the array, if the planned shutdown of the array is carried out, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ④ The maintenance work is not required when the following conditions are all met because the internal retry processing was executed in the Controller. <ul style="list-style-type: none"> • When the planned shutdown is carried out, the Controller displayed in the message is not replaced. • After restarting the array, the ALARM LED on the front of the array of the Controller Box does not light up. • The ALM LED on the Controller displayed in this message does not light up. 		

H0F00x	The synchronization processing error of the CTL cores was detected [RCH] (CTL-x) The synchronization processing between the MPU cores timed out when the Controller or firmware is replaced or the data of the Cache memory is recovered from the running Controller by automatic reboot to the Controller after boot-up. x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① Perform the maintenance according to the detail of the recovery procedure in the Troubleshooting "11.1.1 System Down" (TRBL 11-0040) . Try to restart the device while retaining the hardware configuration when the array went down for avoiding the user data lost. The failed part is the Controller displayed in this message. Replace the Controller displayed in this message after restarting the array as much as possible.		
H0F100	The destage of the management information of DP pool failed When executing the planned shutdown of the array, the array became the alarm status because write of the DP management information to the chunk for the save area failed.	Collecting Error Information	CTRC
Recovery methods	① 1. Remove the power cables of the Controller Box. At this time, do not remove the Cache Backup Battery. 2. Connect the power cables to the Controller Box. 3. Turn on the main switch, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 4. Perform the maintenance referring to the message other than this message first. Especially, when the HDU failure message such as "HDU alarm" or "HDU error" is displayed, perform the maintenance according to the message. When no failure message is displayed, identify the cause of the write failure, and contact the Technical Support Center for replacing the failed part. 5. Check the format progress of all the DP pools defined at the customer site. 6. Execute the planned shutdown of the array again. ② When the phenomenon reappears, contact the Technical Support Center.		
H0F200	The staging of the management information of DP pool failed The array went down because the read of the DP management information from the chunk for the save area failed when the array was started.	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.24 Recovery Method when the Array went Down because the Load of the DP Management Information" (TRBL 11-1120) .		
H0F30x	The writing the initial data of DP Volume to CACHE failed [OWN CTL] (CTL-x) The initial data transfer of the DP volume to the Cache memory failed due to the Controller failure displayed in the message. x : Controller # (0-1)	Collecting Error Information	CTRC
H0F40x	The writing the initial data of DP Volume to CACHE failed [THE OTHER CTL] (CTL-x) The initial data transfer of the DP volume to the Cache memory failed due to the Controller failure displayed in the message. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① Replace the Controller indicated by "W01z0x CTL alarm (CTL-x)" displayed after this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .) ② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)		
H0F500	Model upgrade was attempted although Dynamic Provisioning function was enabled The array upgrade was attempted while the Dynamic Provisioning of the priced option, was enabled.	Collecting Error Information	STRC
Recovery methods	① 1. Return the array to the configuration before the upgrade. (Refer to Upgrade "6.4 When Returning Configuration of the Array after the Upgrade to that of the Chassis before the Upgrade" (UP06-0040) .) 2. When the user data of the DP Pool is necessary, request the customer/SE to backup the user data of the DP Pool. 3. Request the customer/SE to delete all the setting of the Dynamic Provisioning function of the priced option referring to the "Dynamic Provisioning User's Guide" . 4. Request the customer/SE to lock the license key of the Dynamic Provisioning function of the priced option. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020) .) 5. Execute the upgrade of the array model from the beginning again. (Refer to Upgrade (UP 00-0000) .) 6. Request the customer/SE to restore the backup data which was backed up in the procedure ①-2 to the upgraded array as needed.		

H0F600	The firmware has detected the error data in the DP management information of the array When the firmware attempted to store the DP management information in the Drive, the firmware detected an error of the DP management information in the Cache memory due to some failures.	Collecting Error Information	FDMP
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.25 Recovery Method when the Firmware Detected an Error of the DP Management Information and the Controller was Blocked" (TRBL 11-1180) .		
H0F700	The capacity of the cache memory was changed during the memory reconfiguration During the reconfigure memory processing, the planned shutdown was executed in the array and the addition/removal of the Cache memories was performed.	Collecting Error Information	STRC
Recovery methods	① 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 2. Remove the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 3. Install the Cache memories of the model names which were installed at the time of starting the array last time into the same Cache memory slots as last time. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) 4. Install the Controller in the array. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 5. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 6. Check that the array becomes Ready. 7. Check that "I6J300 The memory rearrangement process has completed successfully" is displayed in the Information Message on WEB. If "I6H200 The memory rearrangement process has failed [errcode-x]" is displayed, perform the maintenance according to the message. 8. After completing the reconfigure memory processing, execute the addition or removal of the Cache memory again. (Refer to Addition/Removal/Relocation (ADD 00-0000) .)		
H0F80x	Stack Watermark Over alert was detected [0xYYYYYYY] (CTL-x) An error of the program stack usage was detected. x : Controller # (0-1)	Collecting Error Information	STRC(*1)
Recovery methods	① When the message code "W01z0x CTL alarm" is displayed at the same time, perform the maintenance according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ② When the ALARM LED on the front of the Controller Box lights up, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
*1 : Only for the blocked Controller, change to the Maintenance Mode, and then collect a simple trace.			

H0F900 SED Authentication key error was detected

Collecting Error Information STRC

An error was detected when the authentication master key was restored.

Recovery methods	① 1. Request the customer/SE to provide the backup file of the master key and the password specified at the time of the backup. Note that, if the customer/SE has lost the backup file of the master key and the password, contact the Technical Support Center.
	2. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 3. Restore the master key. (Refer to "WEB" .) 4. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 5. Check that the array becomes Ready.
	When the message code "I6K100 The restoration of Master Authentication Key for SED does not succeed" is displayed at the same time
	① 1. The restored backup file of the master key and the password are incorrect. Check that there is no input error, and check with the customer/SE for the backup file and the password again. 2. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 3. Restore the master key. (Refer to "WEB" .) 4. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 5. Check that the array becomes Ready.
	② 1. When it does not recover even if there is no error in the backup file and the password or in step ①, the backup file may be damaged. Check with the customer/SE whether any other most recent backup file exists or not. If it does not exist, contact the Technical Support Center. 2. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 3. Restore the master key. (Refer to "WEB" .) 4. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 5. Check that the array becomes Ready.

H0FA0x Flash memory sum check error was detected (CTL-x)

Collecting Error Information FDMF

The read to the flash memory of the Controller failed due to the sum check error.

x : Controller # (0-1)

Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.
	② When "W01z0x CTL alarm (CTL-x)" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)
	③ When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)

H0FB00 SED cannot be used for system drive

Collecting Error Information STRC

The SAS (SED) Drive cannot be used as a system disk.

Recovery methods	① 1. Check from the purchase order or the configuration diagram what type of Drive is to be installed in the system disk.
	2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)
	3. Remove all the SAS (SED) Drives installed in HDU #0 to HDU #4 of Unit-0. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)
	4. Install the correct type of Drive in the system disk. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)
	5. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)

H0G0xy	Microprogram error [BIC] was detected (CTL-z) Logical discrepancy of the firmware was detected. (Back-end I/F conversion control) x : Characters y : Characters z : Controller # (0-1)	Collecting Error Information	STRC
H0G10x	ENC error info [CHECK SUM error] (CTL-x) For the SES command, it was determined that the response data of the ENC (H8S firmware) was abnormal by the CHECK SUM judgment. x : Controller # (0-1)	Collecting Error Information	STRC
H0G2xx	Microprogram error was detected [HDT] (CTL-y) An illegal logical error of the firmware was detected (HDT control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
H0G3xx	Pool resource errors were detected [POM] (CTL-y) An illegal logical error of the firmware was detected (Pool management). x : Optional code y : Controller # (0-1)	Collecting Error Information	STRC
H0G4xx	Microprogram error was detected [BKW] (CTL-y, code-xx) Logical discrepancy of the firmware occurred (backend monitoring). x : Optional code y : Controller # (0-1)	Collecting Error Information	STRC
H0G5xx	Microprogram error was detected [SEM] (CTL-y) An illegal logical error of the firmware was detected (SEM). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
H0G6xx	Microprogram error was detected [PDB] (CTL-y) The PDU operation failed because the Tray Power Saving function processing or OS (VxWorks) was logically illegal (PDB control). x : Optional code y : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H0H100	Access error of FCTL LSI was detected (CTL-x) Read or write of FCTL LSI of the Controller failed. x : Controller # (0-1)	Collecting Error Information	CTRC
H0H200	FCTL LSI error was detected (CTL-x) An error of FCTL LSI of the Controller was detected. x : Controller # (0-1)	Collecting Error Information	CTRC
H0H300	A LAN CTL0 LSI error was detected (CTL-x) A failure of LAN Controller 0 (user port) LSI of the Controller was detected. x : Controller # (0-1)	Collecting Error Information	CTRC
H0H400	A LAN CTL1 LSI error was detected (CTL-x) A failure of LAN Controller 0 (maintenance port) LSI of the Controller was detected. x : Controller # (0-1)	Collecting Error Information	CTRC
H0J000	SAS CTL chip error info [Read value of GPIO is different from Write value] (CTL-x) When reading the GPIO register of the SAS CTL chip of the Controller after writing by LOCATE LED control and others, the read value was different from the write value. x : Controller # (0-1)	Collecting Error Information	STRC
H0K10x	CPU(QPI) error was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error occurred in the internal bus of CPU. x : Controller # (0-1)	Collecting Error Information	FDMP
H0K20x	CPU(QPI) protocol error was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error of the protocol occurred in the internal bus of CPU. x : Controller # (0-1)	Collecting Error Information	FDMP
H0K30x	IIO Core error of CPU was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error occurred in the IIO core of CPU. x : Controller # (0-1)	Collecting Error Information	FDMP
H0K40x	Miscellaneous error of MPU was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error occurred in the MPU part other than the following. <ul style="list-style-type: none"> • The internal bus of CPU • The protocol of the internal bus of CPU • The IIO core of CPU. x : Controller # (0-1)	Collecting Error Information	FDMP
H0K50x	The number of CPU(QPI) errors exceeded the threshold [0xyyyyyyyy] (CTL-x) A failure was detected in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
H0K60x	The number of CPU(QPI) protocol errors exceeded the threshold [0xyyyyyyyy] (CTL-x) A protocol failure was detected in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
H0K70x	The number of CPU(QPI) protocol ecc errors exceeded the threshold [0xyyyyyyyy] (CTL-x) An ECC error occurred in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	FDMP
H0K80x	PCI Express device error was detected [CPU_A5] [0xyyyyyyyy] (CTL-x) The CUP of the Controller detected an unrecoverable failure in the PCI Express device (Port-A5). x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	<p>① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)</p> <p>③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.</p>		

H0K90x	The number of PCIe device errors exceeded the threshold [CPU_A5] [0xyyyyyyy] (CTL-x) The CPU of the Controller detected a failure in the PCI Express device (Port-A5) and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
H0KA0x	An uncorrectable PCI Express device error was detected [CPU_A0] [0xyyyyyyy] (CTL-x) The CPU of the Controller detected an uncorrectable error in the PCI Express device (Port-A0). x : Controller # (0-1)	Collecting Error Information	CTRC
H0KB0x	The number of PCIe device errors exceeded the threshold [CPU_A0] [0xyyyyyyy] (CTL-x) The CPU of the Controller detected a failure in the PCI Express device (Port-A0) and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
H0KC0x	The PCI Express device error was detected [ECTLp] [0xyyyyyyy] (CTL-x) An error occurred in ECTLplus LSI of the Controller. x : Controller # (0-1)	Collecting Error Information	CTRC
H0KD0x	The number of processor errors exceeded the threshold (CTL-x) A failure was detected in the CPU Cache Memory, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
H0KE0x	The number of correctable processor memory errors exceeded the threshold (CTL-x) The 1bit trouble occurred in the processor memory, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H0KF0x	The number of FCTL LSI errors exceeded the threshold (CTL-x) A failure occurred in FCTL2 LSI of the Controller, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① 1. When the device is a dual Controller system, the message "W01z0x CTL alarm (CTL-x)" is already displayed. Therefore, perform the maintenance according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② 1. When the array is a single Controller system, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ③ 3. Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	

H0L00x	FCTL LSI error was detected [code-yyyy] (CTL-z) The FCTL LSI access terminated abnormally. x : R (Read) or W (Write) y : FCTL register address z : Controller # (0-1)	Collecting Error Information	STRC
H0L10x	MPU TWI error was detected [code-yy] (CTL-z) The SMBus access of the Controller terminated abnormally. x : R (Read) or W (Write) y : SMBus register address z : Controller # (0-1)	Collecting Error Information	STRC
H0L20x	Flash memory access error was detected [code-yy] (CTL-z) The Flash memory access of the Controller terminated abnormally. x : Character code y : BANK # z : Controller # (0-1)	Collecting Error Information	STRC
H0M00x	[ECTL]The register interface error was detected (CTL-x) Read or write from/to the register of ECTL LSI of the Controller failed. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

H1000x	[DCTL]CACHE0 error was detected (CTL-x) D-CTL LSI of the Controller detected an error in the Cache 0 part. x : Controller # (0-1)	Collecting Error Information	STRC
H1010x	[DCTL]CACHE1 error was detected (CTL-x) D-CTL LSI of the Controller detected an error in the Cache 1 part. x : Controller # (0-1)	Collecting Error Information	STRC
H1020x	[DCTL]Bridge error was detected [BRG C] (CTL-x) D-CTL LSI of the Controller detected a bridge error. (bridge c) x : Controller # (0-1)	Collecting Error Information	STRC
H1030x	[DCTL]I2C error was detected [MP3] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#3) x : Controller # (0-1)	Collecting Error Information	STRC
H1040x	[DCTL]I2C error was detected [MP2] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#2) x : Controller # (0-1)	Collecting Error Information	STRC
H1050x	[DCTL]I2C error was detected [MP1] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#1) x : Controller # (0-1)	Collecting Error Information	STRC
H1060x	[DCTL]I2C error was detected [MP0] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#0) x : Controller # (0-1)	Collecting Error Information	STRC
H1070x	[DCTL]Internal bus warning was detected [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1080x	[DCTL]Non-fatal error of internal bus was detected [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1090x	[DCTL]Fatal error of internal bus was detected [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H10A0x	[DCTL] The number of internal bus warnings exceeded the threshold [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H10B0x	[DCTL] Fatal error of internal bus was detected [H0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H10C0x	[DCTL] Non-fatal error of internal bus was detected [H0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H10D0x	[DCTL]Internal bus warning was detected [H0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H10E0x	[DCTL]The number of internal bus warnings exceeded the threshold [H0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H10F0x	[DCTL]Fatal error of internal bus was detected [H1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1100x	[DCTL]Non-fatal error of internal bus was detected [H1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1110x	[DCTL]Internal bus warning was detected[H1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1120x	[DCTL]The number of internal bus warnings exceeded the threshold [H1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1130x	[DCTL]Fatal error of internal bus was detected [D0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1140x	[DCTL]Non-fatal error of internal bus was detected [D0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1150x	[DCTL]Internal bus warning was detected [D0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1160x	[DCTL]The number of internal bus warnings exceeded the threshold [D0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1170x	[DCTL]Fatal error of internal bus was detected [D1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1180x	[DCTL]Non-fatal error of internal bus was detected [D1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1190x	[DCTL]Internal bus warning was detected [D1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H11A0x	[DCTL]The number of internal bus warnings exceeded the threshold [D1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H11B0x	[DCTL]Internal bus warning was detected [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H11C0x	[DCTL]Non-fatal error of internal bus was detected [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H11D0x	[DCTL]Fatal error of internal bus was detected [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H11E0x	[DCTL]The number of internal bus warnings exceeded the threshold [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ④ 1. If failure still occurs again, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	
H11F0x	[DCTL]Internal bus warning was detected [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

H1200x	[DCTL]Non-fatal error of internal bus was detected [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1210x	[DCTL]Fatal error of internal bus was detected [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1220x	[DCTL]The number of internal bus warnings exceeded the threshold [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
H1230x	[DCTL]The violation of memory access from the other controller was detected (CTL-x) The D-CTL LSI of the Controller detected the address violation of the memory access from the remote Controller. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H13000	PCI Configuration access error was detected [B_PCI Express core, 0xyyyzzzz] (CTL-x) An error was detected in the Configuration access to the Backup PCI Express core in D-CTL LSI. x : Controller # (0-1) y : Error status in high 2 bytes z : Error status in low 2 bytes	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When this message is displayed after inserting the Controller into the Controller Box and the Controller displayed in this message is a recovering Controller, replace the Controller displayed in this message. ③ When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ④ When the ALM LED on the Controller displayed in this message lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ⑤ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	

H1400x	The synchronization error at both CTL cores was detected [HDP] (CTL-x) While starting the device, in the read processing of the DP management information from the DP pool, when the X core of the master Controller tried to synchronize with the Y core, the synchronization timed out. x : Controller # (0-1)	Collecting Error Information	STRC
H1410x	The synchronization error with the core(s) of the other CTL was detected [HDP] (CTL-x) While starting the device, in the read processing of the DP management information from the DP pool, when the X core of the master Controller tried to synchronize with the slave Controller, the synchronization timed out. x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
H14200	Synchronized error was detected [HDP] While starting the device, in the read processing of the DP management information from the DP pool, when the X core of the master controller tried to synchronize with the Y core or the slave controller, synchronization timed out.	Collecting Error Information	FDMP
Recovery methods	① 1. Remove two power cables of the Controller Box. Then, insert the two power cables into the connectors again (perform power-off non-volatilization start-up). 2. If this message is output again and the device does not start up, replace both Controllers at the same time (user data lost may occur due to volatilization of the Cache Memory).		
H1510x	ECTL+ register accesses failed (CTL-x) The E-CTL + register access failed. x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

H1600y	An error was detected at a request for backup controller [code-xx] (CTL-y) A request to the backup Controller failed. x : Request code (0x00-0xFF) 0x01=0x81:Restore REQ (An error was detected at the restoration from the flash memory to the cache memory.) 0x02=0x82:Erase REQ (An error was detected at the data erasure on the flash memory.) 0x03=0x83:Update Flash Firmware REQ (An error was detected at the firmware update of the flash memory.) 0x04=0x84:Get Backup History (An error was detected at the getting of the backup history.) 0x05=0x85:Clear Backup History (An error was detected at the erasure of the backup history.) 0x06=0x86:Adjust Battery Capacity (An error was detected at the adjustment of the battery capacity.) 0x07=0x87:Online CUDG Req (An error was detected at the routine diagnosis of the backup circuit on the controller.) 0x08=0x88:Get Battery Information (An error was detected at the getting of PS/battery information.) 0x09=0x89:Get Flash Information (An error was detected at the getting of flash device's information.) 0x0A=0x8A:Set Cache Mode (An error was detected at the setting of the Cache Mode to ENC (H8) firmware.) y : Controller # (0-1)	Collecting Error Information	STRC
H1700x	ENC error info [H8S error code-y] (CTL-x) Since it was detected that the H8S failure has occurred in the ENC from the acquired SES data, the Controller displayed in the message was blocked. x : Controller # (0-1) y : Register value 2 bytes	Collecting Error Information	
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
H1710x	ENC error inf. [Two Wire Interface error] (CTL-x) The ENC part of the Controller detected a failure in the Controller (between the environment microcomputer and I2CHub) or at TWI (Two Wire Interface) between the Controller and the Power Unit or between the Controller and the Cache Backup Battery (between two or more wires in total such as between I2CHub and Power Unit and between I2CHub and Cache Backup Battery). x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods In case of the CBSS/CBSL/CBXSS/CBXSL ① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② After the replacement, if the same message is output and the Controller does not recover, replace the Power Unit #0. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560) .) ③ After the replacement, if the same message is output and the Controller does not recover, replace the Power Unit #1. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560) .) ④ If the same message is still output and the Controller does not recover, contact the Technical Support Center. In case of the CBL ① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② After the replacement, if the same message is output and the Controller does not recover, replace the Power Unit #0 and Cache Backup Battery #0. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560) , Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430) .) ③ After the replacement, if the same message is output and the Controller does not recover, replace the Power Unit #1 and Cache Backup Battery #1. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560) , Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430) .) ④ If the same message is still output and the Controller does not recover, contact the Technical Support Center.		

H20100	Parity generation LA error [DRR] (CTL-x, DMA-yy) Illegal LA was detected when the (DRR Failure) x : Controller # (0-1) yy : D-CTL LSI port # 00-01 (DDR)	Collecting Error Information	CTRC
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .	
H203A0	DCTL time-out [H_PORT] D-CTL finish time-out was detected.	Collecting Error Information	CTRC
H204A1	DCTL time-out [D_PORT] D-CTL finish time-out was detected.	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)	
H205B0	DMA forced stop failed (CTL-x, DMA-yy) Forced stopping of DMA failed. x : Controller # (0-1) yy : D-CTL LSI port # 00-01 (DDR)	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H2091x	CACHE address over [OTH_CTL] (CTL-x) A cache address over error occurred in another Controller. x : Controller # (0-1)	Collecting Error Information	CTRC
H21000	DCTL address over [DMA#0] The cache address over occurred.	Collecting Error Information	STRC
H21100	DCTL address over [D_PORT] The cache address over occurred.	Collecting Error Information	STRC
H21200	DCTL address over [H_PORT] The cache address over occurred.	Collecting Error Information	STRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
HH22000	D-DMA error (PT-08, DRIVE-CACHE) [D-DMA failure trace] Port #08, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HH22100	D-DMA error (PT-09, DRIVE-CACHE) [D-DMA failure trace] Port #09, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HH22200	D-DMA error (PT-10, DRIVE-CACHE) [D-DMA failure trace] Port #10, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HH22300	D-DMA error (PT-11, DRIVE-CACHE) [D-DMA failure trace] Port #11, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HH22400	D-DMA error (PT-12, DRIVE-CACHE) [D-DMA failure trace] Port #12, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HH22500	D-DMA error (PT-13, DRIVE-CACHE) [D-DMA failure trace] Port #13, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
	Recovery methods	① Collect the CTL Alarm Trace. (Refer to Troubleshooting "5.4 Collecting CTL Alarm Trace" (TRBL 05-0130) .)	

HH22600	D-DMA error (PT-14, DRIVE-CACHE) [D-DMA failure trace] Port #14, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HH22700	D-DMA error (PT-15, DRIVE-CACHE) [D-DMA failure trace] Port #15, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
	Recovery methods ① Collect the CTL Alarm Trace. (Refer to Troubleshooting "5.4 Collecting CTL Alarm Trace" (TRBL 05-0090).)		
H301yy	ECC write parity error (CTL-x, DMA-y) D-CTL LSI of the Controller detected a parity error when it tried to write the data in the Cache memory. x : Controller # (0-1) yy : D-CTL LSI port # 00-01 (DDR) 10-1F (DDMA) 20-27 (HDMA) FF (unknown)	Collecting Error Information	CTRC
H302yy	ECC generate error (CTL-x, DMA-y) D-CTL LSI of the Controller detected a failure in the ECC generation when it writes the data in the Cache memory. x : Controller # (0-1) yy : D-CTL LSI port # 00-01 (DDR) 10-1F (DDMA) 20-27 (HDMA) FF (unknown)	Collecting Error Information	CTRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
H303xy	ECC uncorrectable error was detected (CTL-x, CACHE-y) D-CTL LSI of the Controller detected a failure that ECC could not correct the bit error when reading from the Cache memory. x : Controller # (0-1) y : Cache Memory # (0-3)	Collecting Error Information	CTRC
	Recovery methods ① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
H3030*	ECC uncorrectable error (CACHE-*) D-CTL LSI of the Controller detected a failure that ECC could not correct the bit error when reading from the Cache memory. (Cache slot cannot be specified)	Collecting Error Information	CTRC
	Recovery methods ① Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② If not recovered, replace all the Cache Memories installed in the Controller concerned. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)		

H30400	ECC correction failed (CTL-x, DMA-yy)	Collecting Error Information	CTRC
	D-CTL LSI of the Controller detected a failure when ECC corrected the bit error while executing read to the Cache memory.		
	x : Controller # (0-1)		
	yy : D-CTL LSI port #		
	00-01 (DDR)		
	10-1F (DDMA)		
	20-27 (HDMA)		
	FF (unknown)		
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
H305xy	H-FPC ECC error was detected (CTL-x, I/F-y)	Collecting Error Information	CTRC
	The ECC error count detected when H-FPC LSI accessed the internal RAM exceeded the threshold value.		
	x : Controller # (0-1)		
	y : Host I/O Board # (0-1)		
Recovery methods	① Replace the Host I/O Board (Fibre Channel) in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
H306xy	Please replace cache memory to recover from cache uncorrectable error (CTL-x, CACHE-y)	Collecting Error Information	CTRC
	An uncorrectable error of the Cache memory was detected by the automatic diagnosis of the Cache memory online.		
	x : Controller # (0-1)		
	y : Cache Memory # (0-3)		
Recovery methods	① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)		
H30B0x	CACHE uncorrectable ERR [OTH_CTL] (CTL-x)	Collecting Error Information	FDMP
	Cache uncorrectable error.		
	x : Controller # (0-1)		
Recovery methods	① Replace the Cache Memory. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) ② If not recovered, replace the above Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
H30Bxy	CACHE uncorrectable ERR [OTH_CTL] (CTL-x, CACHE-y)	Collecting Error Information	FDMP
	A Cache uncorrectable error occurred.		
	x : Controller # (0-1)		
	y : Cache Memory # (0-3)		
Recovery methods	① Replace the Cache Memory displayed in the message. When the Cache Memory number displayed is "*", replace all the Cache Memories mounted on the Controller designated. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)		
H30G00	ECC uncorrectable error was detected (CTL-x, CACHE-y/z)	Collecting Error Information	STRC
	D-CTL LSI of the Controller detected an ECC uncorrectable failure at the time of read from the Cache memory (damage of two Cache memories installed in the cache slots displayed in the message).		
	x : Controller # (0-1)		
	y/z : Cache Memory # (0-3)		
Recovery methods	① Replace the Cache memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		

H30K00	Backend error count of D-SPC LSI exceeded the threshold [CODE-y] (CTL-x) The number of times of the backend failure of the D-SPC (Drive-side SAS Protocol Chip) of the Controller exceeded the threshold value. x : Controller # (0-1) y : CODE # (0-FF)	Collecting Error Information	STRC
H30L00	Backend error count of D-SPC LSI exceeded the threshold [D-SPC REBOOT error] (CTL-x) The start of the D-SPC (Drive-side SAS Protocol Chip) of the Controller failed. x : Controller # (0-1)	Collecting Error Information	STRC
H30M00	Backend error count of D-SPC LSI exceeded the threshold [D-SPC FATAL] (CTL-x) A fatal error of the D-SPC (Drive-side SAS Protocol Chip) of the Controller was detected. x : Controller # (0-1)	Collecting Error Information	STRC
H30N00	Backend error count of D-SPC LSI exceeded the threshold [D-SPC Error] (CTL-x) The number of times of the D-SPC (Drive-side SAS Protocol Chip) failure of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
H30P00	D-SPC firmware download failed (CTL-x) The download processing of the firmware of the D-SPC (Drive-side SAS Protocol Chip) of the Controller failed. x : Controller # (0-1)	Collecting Error Information	STRC
H30Q00	The number of correctable D-SPC errors exceeded the threshold (CTL-x) The number of times of the backend PCI correctable error of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
H30R00	A CRC error was detected in D-SPC firmware stored in a local memory (CTL-x) A CRC error was detected in the D-SPC (Drive-side SAS Protocol Chip) firmware stored in the Controller (CS memory/DS memory). x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700)) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H31000	D-DMA error (PT-08, CACHE-DRIVE) [D-DMA failure trace] Port #08, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
H31100	D-DMA error (PT-09, CACHE-DRIVE) [D-DMA failure trace] Port #09, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
H31200	D-DMA error (PT-10, CACHE-DRIVE) [D-DMA failure trace] Port #10, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
H31300	D-DMA error (PT-11, CACHE-DRIVE) [D-DMA failure trace] Port #11, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
H31400	D-DMA error (PT-12, CACHE-DRIVE) [D-DMA failure trace] Port #12, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
H31500	D-DMA error (PT-13, CACHE-DRIVE) [D-DMA failure trace] Port #13, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
H31600	D-DMA error (PT-14, CACHE-DRIVE) [D-DMA failure trace] Port #14, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
H31700	D-DMA error (PT-15, CACHE-DRIVE) [D-DMA failure trace] Port #15, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
	Recovery methods	① Collect the CTL Alarm Trace. (Refer to Troubleshooting "5.4 Collecting CTL Alarm Trace" (TRBL 05-0130) .)	

H400yy	DMA error was detected (CTL-x, DMA-y) An error occurred in the DMA transfer. x : Controller # (0-1) yy : D-CTL LSI port # 00-01 (DDR) 10-1F (DDMA) 20-27 (HDMA) FF (unknown)	Collecting Error Information	STRC
H4010x	A CPU-PCIe bridge(PCH) error was detected in a controller(CTL-x) The CPU detected an error of the CPU-PCIe bridge PCH (Platform Controller Hub) in the Controller. x : Controller # (0-1)	Collecting Error Information	CTRC
H4020x	Number of CPU-PCIe bridge(PCH) errors in a controller exceeded the threshold (CTL-x) The CPU detected a correctable error of the CPU-PCIe bridge PCH (Platform Controller Hub) in the Controller, and the number of times of the correctable error occurrences exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H410xy	[ECTL]A register access error was detected in synchronize cache command process (CTL-x) As the SyncCache command was received, the E-CTL LSI register was updated for the Cache Backup Battery power source setting or the FLASH backup setting, but the register update failed. x : Controller # (0-1) y : Processing code 0 : Cache Backup Battery power source is off 1 : Cache Backup Battery power source is on 2 : FLASH backup is enabled 3 : FLASH backup is disabled	Collecting Error Information	STRC
	Recovery methods	① 1. When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 2. Refer to the other output Information Message on WEB and perform the maintenance work for the blockade of the other Controller. 3. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 4. Turn off the main switch, and then turn it on after 20 seconds or more elapse. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220) .) 5. Check that the ALM LED on the Controller displayed in the message does not light up. If it is lit, perform the maintenance in accordance with the displayed Information Message on WEB. 6. Request the customer/SE to issue the Synchronize Cache command to the array again. ② 1. If the ALM LED on the Controller displayed in the message lights up, record the Controller number. 2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 3. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 4. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 5. Check that the ALM LED on the Controller displayed in the message does not light up. If it is lit, perform the maintenance in accordance with the displayed Information Message on WEB. 6. Request the customer/SE to issue the Synchronize Cache command to the array again. ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

H44900	DUAL I/F write ready error [INT/HP#00] [REG82001454, Bit21] A ready time-out was detected in the HP #00 when the DCTL of the other system was reset.	Collecting Error Information	CTRC
H44A00	DUAL I/F write ready error [INT/HP#01] [REG82001454, Bit21] A ready time-out was detected in the HP #01 when the DCTL of the other system was reset.	Collecting Error Information	CTRC
H44B00	DUAL I/F write ready error [INT/HP#02] [REG82001454, Bit21] A ready time-out was detected in the HP #02 when the DCTL of the other system was reset.	Collecting Error Information	CTRC
H44C00	DUAL I/F write ready error [INT/HP#03] [REG82001454, Bit21] A ready time-out was detected in the HP #03 when the DCTL of the other system was reset.	Collecting Error Information	CTRC
H44D00	DUAL I/F write ready error [INT/DP#00] [REG82001454, Bit21] A ready time-out was detected in the DP #00 when the CTL of the other system was reset.	Collecting Error Information	CTRC
H44E00	DUAL I/F write ready error [INT/DP#01] [REG82001454, Bit21] A ready time-out was detected in the DP #01 when the CTL of the other system was reset.	Collecting Error Information	CTRC
H44F00	DUAL I/F write ready error [INT/DP#02] [REG82001454, Bit21] A ready time-out was detected in the DP #02 when the CTL of the other system was reset.	Collecting Error Information	CTRC
H45000	DUAL I/F write ready error [INT/DP#03] [REG82001454, Bit21] A ready time-out was detected in the DP #03 when the CTL of the other system was reset.	Collecting Error Information	CTRC
H45100	DUAL I/F write ready error [INT/DMA#0] [REG82001454, Bit21] A ready time-out was detected in the DMA #0 when the CTL of the other system was reset.	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED does not light up, check the Information Message on WEB, and replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
H500yx	An access error was detected in Host interface board (CTL-x, I/F-y) The register access of the Host I/O Module failed. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC
H5100x	A register interface error was detected in D-CTL LSI (CTL-x) An error was detected in the register access function of the D-CTL LSI of the Controller. x : Controller # (0-1)	Collecting Error Information	STRC
H5110x	Backup Controller# error info [firmware revision read error] (CTL-x) The acquisition of the firmware revision of the backup controller failed. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
H51200	Upgrade failed [Program Product] Since the Program Product is not locked, the model upgrade cannot be executed.	Collecting Error Information	STRC
	Recovery methods	① Return the array to the configuration before the upgrade. (Refer to Upgrade "6.4 When Returning Configuration of the Array after the Upgrade to that of the Chassis before the Upgrade" (UP06-0040).) ② Select [Settings] – [Licenses] of Hitachi Storage Navigator Modular 2, and check the unlocked Program Product. ③ Lock all the unlocked Program Products except for "Data Retention Utility" and "Dynamic Provisioning" in accordance with the "User's Guide" of each Program Product. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020).) ④ Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) ⑤ Perform the upgrade from the beginning again.	

H51300	Backend down [The number of Units after DBW is over the limit] (Unit-x)	Collecting Error Information	STRC
	<p>The Drive Boxes whose unit numbers are larger than the DBW are connected to the array exceeding the maximum number of Drive Boxes connected to under the DBW, the array failed to start.</p> <p>x : Unit ID # (0-79)</p>		
Recovery methods	<p>① 1. Turn off all the power supply of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. The Drive Boxes whose unit numbers are larger than the DBW cannot be connected to the array exceeding the maximum number of Drive Boxes connected to under the DBW. Review the connection of the Drive Boxes. Review the connection of the Drive Boxes. (Refer to Introduction "1.3.4 (6) Restriction on DBW connection configuration" (INTR 01-0333).)</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>		
H51400	Backend down [The number of DBWs exceeded the limit for the array]	Collecting Error Information	STRC
	<p>The DBW are connected to the array exceeding the maximum number of DBW, the array failed to start.</p>		
Recovery methods	<p>① 1. Turn off all the power supply of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Remove the DBWs to be equal or lower than the maximum number of DBW connections. (Refer to Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000).)</p> <p>3. Review the connection of the Drive Boxes. (Refer to Introduction "1.3.4 (6) Restriction on DBW connection configuration" (INTR 01-0333).)</p> <p>4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>		
H51500	Backend down [The number of HDU slots in DBW exceeded the limit] (Unit-x)	Collecting Error Information	STRC
	<p>Since the number of drive slots exceeded the upper limit of usable slots per back-end path (CBL : 240 slots, CBSS/CBSL : 240 slots) or the upper limit of usable slots per array (CBL : 960 slots, CBSS/CBSL : 360 slots), the DBW displayed in the message cannot fully install 84 Drives.</p> <p>Since DBWs which cannot fully install 84 Drives are connected, the array failed to start.</p> <p>x : Unit ID # (0-79)</p>		
Recovery methods	<p>① 1. Turn off all the power supply of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Since the upper limit number of usable slots is exceeded, the DBW cannot connect to the array. Review the connection of the Drive Boxes. (Refer to Introduction "1.3.4 (6) Restriction on DBW connection configuration" (INTR 01-0333).)</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>		
H51600	Backend down [The number of HDU slots is over the limit] (Unit-x)	Collecting Error Information	STRC
	<p>Since the number of drive slots exceeded the upper limit of usable slots per back-end path (CBL : 240 slots, CBSS/CBSL : 240 slots) or the upper limit of usable slots per array (CBL : 960 slots, CBSS/CBSL : 360 slots), the DBW displayed in the message cannot install any Drives.</p> <p>Since the Drive Boxes which cannot install any Drives are connected, the array failed to start.</p> <p>x : Unit ID # (0-79)</p>		
Recovery methods	<p>① 1. Turn off all the power supply of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Since the upper limit number of usable slots is exceeded, the Drive Boxes displayed in the message cannot install any Drives. Review the connection of the Drive Boxes. (Refer to Introduction "1.3.4 (6) Restriction on DBW connection configuration" (INTR 01-0333).)</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>		

H51700	Backend down [The drive box configuration is unsupported in Tray Power Saving]	Collecting Error Information	STRC
	Even though Tray Power Saving is unlocked, the connection configuration of the Drive Box that Tray Power Saving does not support (Drive Boxes other than DBWs are connected or the number of DBW connections is more than four) was detected and the array failed to start.		
Recovery methods	<ol style="list-style-type: none"> 1. Turn off the power of the Controller Box and all Drive Boxes. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Even though Tray Power Saving is unlocked, Drive Boxes other than DBWs are added and five or more DBWs are connected when the array is offline. Therefore, return the DBW connection configuration to the one whose array is online (a Drive Box has four DBWs or less). 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		
H51800	KMS's key is not imported from KMS with Storage Navigator Modular 2	Collecting Error Information	STRC
	The acquisition of the encryption key information from the Key Manager Server (KMS) timed out.		
Recovery methods	<ol style="list-style-type: none"> 1. Turn off the main switch of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Check that the Key Management Server is running. If not, start the Key Management Server. 3. Turn on the power of the array again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		
H5190x	Backup controller error was detected [CODE-yy] (CTL-x)	Collecting Error Information	STRC
	When starting the array after recovery from the power outage, it was detected that the flashback was not operating due to Hot Swap IC trouble of the Controller.		
	x : Controller # (0-1)		
	y : Error occurrence information code		
Recovery methods	<ol style="list-style-type: none"> 1. When the ALM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 2. When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) 		

H90210 CTL failure	Collecting Error Information	CTRC
The Controller was blocked		
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
H90320 Watch-dog time-out	Collecting Error Information	CTRC
A watchdog time-out occurred.		
Recovery methods	① Replace the Controller of whose ALM LED is on and the Cache memory on the Controller concerned. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .)	
HA010x CUDG error (CTL-x)	Collecting Error Information	STRC
An CUDG error was detected while the array was starting. (RAM CUDG)		
x : Controller # (0-1)		
Recovery methods	① 1. Perform the maintenance according to the message code "W01z0x CTL alarm (CTL-x)" displayed at the same time. (Refer to Chapter 6. Warning Messages" (MSG 06-0000) .) 2. Replace the Controller shown in this message code (in case of a dual controller system, the ALM LED also lights up). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
HA020x RTC alarm (CTL-x)	Collecting Error Information	CTRC
A RTC failure occurred or the RTC battery was used up.		
x : Controller # (0-1)		
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)	
HA030x M-DMA transfer time-out was detected (CTL-x)	Collecting Error Information	CTRC
The M-DMA transfer timed out.		
x : Controller # (0-1)		
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in the message and all Cache Memories installed in the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920)) ② When the ALM LED on the Controller displayed in the message lights up, replace the Controller displayed in the message and all Cache Memories installed in the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920)) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
HA0310 IDMA transfer time-out	Collecting Error Information	CTRC
IDMA transfer time-out occurred. (2 msec)		
HA0311 IDMA retry error	Collecting Error Information	CTRC
IDMA failed in retry.		
HA0312 IDMA multiple run	Collecting Error Information	CTRC
The system was running when IDMA was started.		
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
HA042x Flash memory write error (CTL-x)	Collecting Error Information	STRC
Writing in flash memory failed.		
x : Controller # (0-1)		
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

HA050x M-DMA multiple run error was detected (CTL-x)		Collecting Error Information	CTRC
When it tried to start M-DMA, M-DMA was already operating.			
x : Controller # (0-1)			
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in the message and all Cache Memories installed in the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ② When the ALM LED on the Controller displayed in the message lights up, replace the Controller displayed in the message and all Cache Memories installed in the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HA0531 SOCKET open error		Collecting Error Information	CTRC
An OPEN error was caused by the socket.			
HA0532 ACCEPT open error		Collecting Error Information	CTRC
An OPEN error was caused by the accept.			
Recovery methods	① 1. Replace the LAN cable. 2. Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
HA060x M-DMA retry error was detected (CTL-x)		Collecting Error Information	CTRC
Retry of M-DMA failed.			
x : Controller # (0-1)			
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in the message and all Cache Memories installed in the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ② When the ALM LED on the Controller displayed in the message lights up, replace the Controller displayed in the message and all Cache Memories installed in the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HA07xy Uncorrectable ECC error was detected (CTL-x, CACHE-y)		Collecting Error Information	CTRC
A bit failure uncorrectable by ECC was detected when D-CTL LSI of the Controller read the data from the Cache memory.			
x : Controller # (0-1)			
y : Cache Memory # (0-3)			
HA0800 Uncorrectable ECC error was detected (CTL-x, CACHE-y/z)		Collecting Error Information	CTRC
A bit failure uncorrectable by ECC was detected when D-CTL LSI of the Controller read the data from the Cache memory. (A failure of two Cache memories installed in the Cache slots displayed in the message)			
x : Controller # (0-1)			
y/z : Cache Memory # (0-3)			
Recovery methods	① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
HB0210 Target abort INT status error		Collecting Error Information	CTRC
The target abortion INT status is illegal.			
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)		

HB0421	H-FPC PCI STS REG error [RMA]	Collecting Error Information	CTRC																																																
The master abort occurred when the Fibre Channel Protocol Controller (H-FPC) LSI on the host side made the master access to the PCI.																																																			
HB0522	H-FPC PCI STS REG error [DPE]	Collecting Error Information	CTRC																																																
A parity error of data occurred when the Fibre Channel Protocol Controller (H-FPC) LSI on the host side made the master access to the PCI																																																			
HB0623	H-FPC PCI INT STS REG err [UBE]	Collecting Error Information	CTRC																																																
To the register of the Fibre Channel Protocol Controller (H-FPC) LSI on the host side that must be accessed in units of four bytes, access was made in the other manner.																																																			
HB0800	Command end INI INT status error	Collecting Error Information	CTRC																																																
An illegal operation, in which an interruption to terminate the execution of the command issued from the local DF to the remote DF occurred though there was no table concerned, occurred.																																																			
HB0900	Target abort INI INT status error	Collecting Error Information	CTRC																																																
Inconsistency of termination statuses of a command issued from the local system to the remote system occurred. (The Fibre Channel Protocol Controller (H-FPC) LSI on the host side detected the target abort but the DMA did not.)																																																			
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700))																																																		
HB0A0x	H-FPC hardware error (Port-x)	Collecting Error Information	CTRC																																																
The number of times that the host side Fibre Channel Protocol Controller (H-FPC) LSI performed the unexpected operations exceeded the threshold value.																																																			
x : Port # (A-H)																																																			
HB0Bxy	H-FPC soft reset has ended in failure (Port-xy)	Collecting Error Information	STRC																																																
The software reset of the host side Fibre Channel Protocol Controller (H-FPC) LSI failed.																																																			
x : Controller # (0-1)																																																			
y : Port # (A-H)																																																			
Recovery methods	① Replace the Host I/O Board/Module which installs the port displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .)																																																		
	② If not recovered, replace the Controller which installs the port displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)																																																		
HB0Cxz	H-FPC is not detected (CTL-x, I/F-y)	Collecting Error Information	CTRC																																																
The Host I/O Board/Module is installed, but the host side Fibre Channel Protocol Controller (H-FPC) LSI is not recognized on PCI.																																																			
x : Controller # (0-1)																																																			
y : Host I/O Board # (0-1)																																																			
z : Object port #																																																			
<table><tr><td>z</td><td>I/F #0</td><td>I/F #1</td></tr><tr><td>1</td><td>A</td><td>E</td></tr><tr><td>2</td><td>B</td><td>F</td></tr><tr><td>3</td><td>A, B</td><td>E, F</td></tr><tr><td>4</td><td>C</td><td>G</td></tr><tr><td>5</td><td>A, C</td><td>E, G</td></tr><tr><td>6</td><td>B, C</td><td>F, G</td></tr><tr><td>7</td><td>A, B, C</td><td>E, F, G</td></tr><tr><td>8</td><td>D</td><td>H</td></tr><tr><td>9</td><td>A, D</td><td>E, H</td></tr><tr><td>a</td><td>B, D</td><td>F, H</td></tr><tr><td>b</td><td>A, B, D</td><td>E, F, H</td></tr><tr><td>c</td><td>C, D</td><td>G, H</td></tr><tr><td>d</td><td>A, C, D</td><td>E, G, H</td></tr><tr><td>e</td><td>B, C, D</td><td>F, G, H</td></tr><tr><td>f</td><td>A, B, C, D</td><td>E, F, G, H</td></tr></table>				z	I/F #0	I/F #1	1	A	E	2	B	F	3	A, B	E, F	4	C	G	5	A, C	E, G	6	B, C	F, G	7	A, B, C	E, F, G	8	D	H	9	A, D	E, H	a	B, D	F, H	b	A, B, D	E, F, H	c	C, D	G, H	d	A, C, D	E, G, H	e	B, C, D	F, G, H	f	A, B, C, D	E, F, G, H
z	I/F #0	I/F #1																																																	
1	A	E																																																	
2	B	F																																																	
3	A, B	E, F																																																	
4	C	G																																																	
5	A, C	E, G																																																	
6	B, C	F, G																																																	
7	A, B, C	E, F, G																																																	
8	D	H																																																	
9	A, D	E, H																																																	
a	B, D	F, H																																																	
b	A, B, D	E, F, H																																																	
c	C, D	G, H																																																	
d	A, C, D	E, G, H																																																	
e	B, C, D	F, G, H																																																	
f	A, B, C, D	E, F, G, H																																																	
Recovery methods	① Replace the Host I/O Board/Module displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .)																																																		
	② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)																																																		

HB0Dyy FPC is not detected (CTL-x)		Collecting Error Information	STRC
The detection of the Fibre Channel Protocol Controller (FPC) LSI failed.			
x : Controller # (0-1)			
y : Code			
z : Chip error code			
(y:z) =			
		y	z
		01	Path-0
		02	Path-1
		03	Path-0/1
		04	Path-2
		05	Path-0/2
		06	Path-1/2
		07	Path-0/1/2
		08	Path-3
		09	Path-0/3
		0A	Path-1/3
		0B	Path-0/1/3
		0C	Path-2/3
		0D	Path-0/2/3
		0E	Path-1/2/3
		0F	Path-0/1/2/3
		10	Path-0A
		11	Path-0/Port-0A
Recovery methods	① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)		
	② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		

HB0E00 Fatal iSCSI protocol chip error was detected (CTL-x, I/F-y, Code-z)

Collecting Error Information STRC

A PCIe failure or a fatal error such as hung-up occurred in iSCSI Protocol Chip.

x : Controller # (0-1)

y : Host I/O Board # (0-1)

z : Error factory code #

Code	Error factory
0	Fatal Error (Melformed TLP Status)
1	Fatal Error (Receiver Overflow Status)
2	Fatal Error (Flow Control Protocol Error Status)
3	Fatal Error (Data Link Protocol Error Status)
4	Heart Beat (Hardware Error)
5	Heart Beat (Chip Fatal Error)

Recovery methods	①	1. When the ALARM LED on the front of the Controller Box lights up, replace the Host I/O Board displayed in this message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)
		2. If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
	②	1. When the ALM LED on the Controller displayed in this message lights up, replace the Host I/O Board displayed in this message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-0800).)
		2. If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
	③	When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.

HB0F00 iSCSI protocol chip overheating was detected (CTL-x, I/F-y)

Collecting Error Information STRC

Abnormal temperature occurred in iSCSI Protocol Chip of the iSCSI interface.

x : Controller # (0-1)

y : Host I/O Board # (0-1)

Recovery methods	①	Perform the maintenance according to the message text "W3Rzhx Host I/O Module alarm (CTL-w, I/F-x)" displayed at the same time.
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HD0100 DFPC error over [DFPCINM]

Collecting Error Information CTRC

The Controller was detached because the number of errors of the Fibre Channel Protocol Controller (D-FPC) LSI on the drive side exceeded the threshold value.

HD020x D-FPC hardware error (Path-x, Code-y)

Collecting Error Information CTRC

The software reset of the Fibre Channel Protocol Controller (D-FPC) LSI on the drive side failed.

x : Path # (0-7)

y : Detailed code

Recovery methods	①	Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
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HD0300 D-FPC detected PCI error

Collecting Error Information STRC

The Fibre Channel Protocol Controller (D-FPC) LSI on the drive side detected the PCI error.

Recovery methods	①	When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)
	②	In the case other than ①, replace the Controller which shows this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)

HD1100	HDU CDB check code error [RETRY]	Collecting Error Information	CTRC
	The Controller was blocked since the retry NG occurred in the drive check code.		
HD1200	HDU CDB check code error [OVER]	Collecting Error Information	CTRC
	The Controller was blocked since the drive check code exceeded the threshold value.		
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HD21xy	Host transfer DMA error was over the threshold (CTL-x, DMA-y)	Collecting Error Information	CTRC
	A hardware failure occurred in the CmdBrgS (Host_DMA) part of D-CTL LSI of the Controller.		
	x : Controller # (0-1)		
	y : D-CTL LSI port # (0-7, F)		
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
		② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)	
		③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
HD220x	CACHE error over (CACHE-x) [CRECT]	Collecting Error Information	CTRC
	The occurrence count of cache correctable errors exceeded the threshold value by the DMA transfer. (during the dual controller operation)		
	x : Cache Memory # (0-1, *)		
	Recovery methods	When cache number is "0 to 1"	
		① Replace the Cache Memory. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)	
		② If not recovered, replace the above Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
		When cache number is "*"	
		① Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
		② If not recovered, replace all the Cache Memories installed in the Controller concerned. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)	
HD2400	DRR time-out	Collecting Error Information	CTRC
	A time-out of the waiting for DRR completion occurred.		
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HD27xx	Drive transfer DMA error over (DMA-xx)	Collecting Error Information	CTRC
	Number of DMA hardware failures concerning data transfer to a drive exceeded the threshold value.		
	xx : D-CTL LSI port #		
	00-01 (DDR)		
	10-1F (DDMA)		
	20-27 (HDMA)		
	FF (unknown)		
HD5Exy	Host transfer DMA error was detected (CTL-x, DMA-y)	Collecting Error Information	CTRC
	A DMA hardware failure occurred in the data transfer between the host interface part of the Controller and the Cache memory.		
	x : Controller # (0-1)		
	y : D-CTL LSI port # (0-7, F)		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800).	

HD5F00	DCTL hard error [OWN CTL]	Collecting Error Information	CTRC
An error occurred in the Controller in the own system during the DMA process for the Controller restoration.			
HD5G00	DCTL hard error [OTH ER CTL]	Collecting Error Information	CTRC
An error occurred in the Controller in the other system during the DMA process for the Controller restoration.			
Recovery methods	<p>① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)</p> <p>② In the case other than ①, replace the Controller which shows this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>		
HE0710	Backend loop change error [OWN]	Collecting Error Information	CTRC
The loop switch was changed and the newly selected loop had a failure, too.			
Recovery methods	<p>① When the ALARM LED on the array lights up, refer to see Troubleshooting "11.1.1 System Down" (TRBL 11-0040).</p> <p>② When one of the following messages is displayed before this message, take recovery actions according to the message.</p> <ul style="list-style-type: none"> • W01z0x CTL alarm • W09zab HDU alarm • W0Bzab Spare HDU alarm • W0Fzf0 ENC alarm • I30100 HDU error <p>③ 1. When the array fails to start, turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Remove the power cables from the Power Units of all arrays.</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>④ Perform the maintenance according to Troubleshooting Chapter 7. "Trouble Analysis by LED Indication" (TRBL 07-0000).</p>		
HE0711	Backend loop change error [OTH]	Collecting Error Information	CTRC
The loop switch was changed and the newly selected loop had a failure, too.			
Recovery methods	<p>① When the ALARM LED on the array lights up, refer to see Troubleshooting "11.1.1 System Down" (TRBL 11-0040).</p> <p>② When one of the following messages is displayed before this message, take recovery actions according to the message.</p> <ul style="list-style-type: none"> • W01z0x CTL alarm • W09zab HDU alarm • W0Bzab Spare HDU alarm • W0Fzf0 ENC alarm • I30100 HDU error <p>③ 1. When the array fails to start, turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Remove the power cables from the Power Units of all arrays.</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>④ Perform the maintenance according to Troubleshooting Chapter 7. "Trouble Analysis by LED Indication" (TRBL 07-0000).</p>		

HE0A31	BKW job time-out	Collecting Error Information	CTRC
	Back end monitoring job finish waiting time-out occurred.		
Recovery methods	① Turn on the power of the array again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) ② Replace the Controller indicated by "W01z0x CTL alarm" displayed after this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .) ③ When the ALARM LED on the front side of the Controller Box lights up, replace the Controller which shows this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
HE0C00	Controller thermal error was detected [own controller] (CTL-x)	Collecting Error Information	STRC
	Since the Controller detected a temperature error, the firmware blocked the local Controller.		
	x : Controller # (0-1)		
HE0D00	Controller thermal error was detected [the other controller] (CTL-x)	Collecting Error Information	STRC
	Since the Controller detected a temperature error, the firmware blocked the remote Controller.		
	x : Controller # (0-1)		
Recovery methods	When the planned shutdown of the array is not executed automatically ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. When the planned shutdown of the array is executed automatically ① Perform the maintenance referring to Troubleshooting "11.1.30 Recovery Method when the Planned Shutdown of the Array was Executed Automatically" (TRBL 11-1430) .		
HE0E00	Array shutdown was automatically executed due to thermal alarm (CTL-x)	Collecting Error Information	STRC
	Since the Controller detected a temperature error, the firmware executed the planned shutdown of the array.		
	x : Controller # (0-1)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.30 Recovery Method when the Planned Shutdown of the Array was Executed Automatically" (TRBL 11-1430) .		

HE21xy I/F board type error (CTL-x, I/F board-y)	Collecting Error Information	STRC
<p>An illegal value was detected when the installation status of the Host I/O Board was acquired with TWSI. Or unsupported Host I/O Board was installed.</p> <p>x : Controller # (0-1)</p> <p>y : Host I/O Board # (1)</p>		
Recovery methods	<p>① When "W3Rxyz Host I/O Module alarm" is displayed immediately before this message, execute the recovery method in the message.</p> <p>② Check if the Host I/O Board displayed in the message is the one that supported by the firmware installed in the array.</p> <p>③ When the Host I/O Board that is not supported is installed, replace it with the supported Host I/O Board. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)</p> <p>④ Check if the types of the Host I/O Board are unified between the Controllers or the installation statuses are not different. When the types are different or the installation statuses are inconsistent, unify the Host I/O Board.</p> <p>⑤ If not recovered, check if the Host I/O Board displayed in the message is not loosening. When it is loosening, reinstall the Host I/O Board. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)</p> <p>⑥ If the failure is not recovered, replace the Host I/O Board displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Module/Board" (REP 02-1100).)</p> <p>⑦ If not recovered yet, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>	
HE2200 The power-on/off time-out of the array unit was detected (Unit-x)	Collecting Error Information	STRC
<p>Power ON or OFF of the Drive Box by electric power saving was not completed within the specified time.</p> <p>x : Unit ID # (0-79)</p>		
Recovery methods	<p>① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).)</p> <p>② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)</p> <p>③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.</p>	
HE23xy The initialization of PCI Express failed because of hardware error [Host] (CTL-x, I/F-y)	Collecting Error Information	CTRC
<p>A failure between links of PCI-Express was detected in PCI-Express bus between D-CTL LSI of the Controller and the Host Host I/O Module/Board.</p> <p>x : Controller # (0-1)</p> <p>y : Host I/O Board # (1)</p>		
Recovery methods	<p>① Replace the Host I/O Board displayed in the message text "W3Rzhx Interface Board alarm (CTL-w, I/F-x)" which was displayed at the same time with this message. (Refer to Replacement "2.2.7 Replacing a Host I/O Module/Board" (REP 02-1100).)</p> <p>② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>	

HF0100	Data transfer check error [SEGPOSERR] (Data assurance check) An illegal cache writing segment position was detected.	Collecting Error Information	CTRC
	Recovery methods ① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		
HF0101	Data transfer check error [WRNODTYBK] (Data assurance check) A block which was not dirty was written in the Drive.	Collecting Error Information	CTRC
HF0102	Data transfer check error [RDDTYBLK] (Data assurance check) Data were read into a dirty block.	Collecting Error Information	CTRC
HF0103	Data transfer check error [RDSEGERR] (Input/Output data assurance check) An illegal segment to be read was detected.	Collecting Error Information	CTRC
HF0104	Data transfer check error [WSGQATERR] (Data assurance check) Contradiction occurred in the queue attribute of the write segment.	Collecting Error Information	CTRC
HF0105	Data transfer check error [WSEGPDEV] (Input/Output data assurance check) An illegal Drive to be written was detected.	Collecting Error Information	CTRC
HF0106	Data transfer check error [WSEGLOCK] (Input/Output data assurance check) An illegal Drive to be written was detected.	Collecting Error Information	CTRC
HF0107	Data transfer check error [CCPLUNERR] (Data assurance check) An illegal LUN was detected when data were copied between Cache memories.	Collecting Error Information	CTRC
HF0108	Data transfer check error [CCPLBAERR] (Data assurance check) An illegal LBA was detected when data were copied between Cache memories.	Collecting Error Information	CTRC
HF0109	Data transfer check error [PARLUNERR] (Data assurance check) An illegal LUN was detected when parity was generated.	Collecting Error Information	CTRC
HF010A	Data transfer check error [PARLBAERR] (Data assurance check) An illegal LBA was detected when parity was generated.	Collecting Error Information	CTRC
HF010B	Data transfer check error [QUEUEERR] (Data assurance check) Contradiction occurred in transfer of the queue.	Collecting Error Information	CTRC
HF010C	Data transfer check error [COWDRVERR] (Data assurance check) Data to be written together are dispersed in multiple Drives.	Collecting Error Information	CTRC
HF010D	Data transfer check error [LACHEKMOD] (Data assurance check) Contradiction occurred in specification of LA check.	Collecting Error Information	CTRC
HF010E	Data transfer check error [DSTPOSERR] (Data assurance check) An illegal writing position was detected during destaging.	Collecting Error Information	CTRC
	Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② If not recovered, replace the all Cache Memory. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .)		
HF0112	Data transfer check error [CMPNGSP] (Data assurance check) A duplex compare of SGCB was detected. (Generation of parity)	Collecting Error Information	CTRC
HF0113	Data transfer check error [CMPNGCP] (Data assurance check) A duplex compare of SGCB was detected. (Copying between Cache memories)	Collecting Error Information	CTRC
	Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② If not recovered, replace the above Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		

HF0116	Data transfer check error was detected [SSGQATERR] (CTL-x) (Data guarantee check) When trying to perform the DMA transfer of the LU data of RAID0+1, the firmware detected that the attribute of the segment queue, which manages the segment of the Cache Memory, was illegal. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HF0117	Data transfer check error [BUFSGQATERR] A contradiction in the queue attribute of the buffer segment occurred.	Collecting Error Information	CTRC
HF0118	Data transfer check error WRBUFTODTY] (Data assurance check) A writing of data in a buffer segment into a dirty block was attempted.	Collecting Error Information	CTRC
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② If not recovered, replace the all Cache Memorys. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .)		
HF0119	Data transfer check error was detected [MAPERR] (CTL-x) The firmware detected that D-CTL LSI of the Controller transferred the block of the Cache memory. x : Controller # (0-1)	Collecting Error Information	CTRC
HF011A	Data transfer check error was detected [LOCLUERR] (CTL-x) The firmware detected that D-CTL LSI of the Controller transferred the segment of the expected LU and the different LU. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HF011B	Data transfer check error was detected [RMTLUERR] (CTL-x) The firmware detected that the LU of the remote array to execute the remote copy and the LU to perform the DMA transfer differ. x : Controller # (0-1)	Collecting Error Information	CTRC
HF011C	Data transfer check error was detected [PAIRERR] (CTL-x) The firmware detected the DMA transfer of the remote copy when a pair of the remote copy is other than "PAIR" and "COPY". x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

HF020x	Directory check error (CTL-x) An uncorrectable contradiction was detected in a cache directory. x : Controller # (0-1)	Collecting Error Information	CTRC
HF0300	Data transfer check error [STGLUNERR] (Data assurance check) A LUN error was detected during a staging.	Collecting Error Information	CTRC
HF0400	Data transfer check error [NTMPRD] (Data assurance check) A LUN error was detected during a staging.	Collecting Error Information	CTRC
	Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② If not recovered, replace the Cache Memories. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		
HF050x	Data transfer check error was detected [DTYMPERR] (CTL-x) (Data guarantee check) The firmware detected that the dirty map, which manages the dirty data of the Cache memory, was illegal. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HF0700	Data transfer check error [LU OWNERSHIP] (Data guarantee check) It was detected that the DMA transfer tried to operate illegally for the LU without owner right.	Collecting Error Information	CTRC
	Recovery methods ① 1. When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 2. If not recovered, replace the all Cache Memories. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ② 1. When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) 2. If not recovered, replace the all Cache Memories. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HF080x	ENC recovery failed [Linkup error] (CTL-x) The recovery of the ENC part of the Controller failed because the ENC part of the inserted Controller was not registered in the discover map of the backend. x : Controller # (0-1)	Collecting Error Information	CTRC
HF100x	Data transfer check error [RDSEGERR] A segment error was detected in the Drive which tried to execute read. x : Controller # (0-1)	Collecting Error Information	CTRC
HF110x	Data transfer check error [WSEGPDEV] A segment error was detected in the Drive which tried to execute write.	Collecting Error Information	CTRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

HF2000 Array has gone down [PSTYPEERR-x] (DBX-(y1-y2), PS-z)

Collecting Error Information STRC

Since the Power Unit installed in the DBX is determined as an unsupported component, the system went down.

x : Value of register PSKIND

y : y1 : DBX # (0-19)

y2 : DBX type (A : VRKA-A, B : VRKA-B)

z : Power Unit # (0-1)

Recovery methods

- ① 1. Replace the Power Unit displayed in the message to the Power Unit for the DBX.
2. Turn off the main switch. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
3. Turn on the main switch, and restart the array. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- ② 1. If the same message is displayed and the array does not become Ready, replace the I/O Card (ENC) #0.
2. Turn off the main switch. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
3. Turn on the main switch, and restart the array. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- ③ 1. If the same message is displayed and the array does not become Ready, replace the I/O Card (ENC) #1.
2. Turn off the main switch. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
3. Turn on the main switch, and restart the array. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- ④ If not recovered yet, contact the Technical Support Center and perform the maintenance in accordance with the instruction.

HF700x SAS address registration failed (CTL-x)

Collecting Error Information STRC

For the ENC part of the Controller displayed in the message, the registration of the I/O Module (ENC) or I/O Card (ENC) of the Drive Box and the SAS address of the Drive failed.

x : Controller # (0-1)

Recovery methods

- ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)
- ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to ["Chapter 6. Warning Messages" \(MSG 06-0000\)](#).)
- ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.

HG0100	CTL communication send time-out Communication receiving waiting time-out occurred.	Collecting Error Information	CTRC
HG0210	OTH CTL Response time-out [CMDFMWR] Time-out occurred in communication of request for updating the flash memory of the other system. (CMD)	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HG0311	OTH CTL Response time-out [OFW] Communication waiting time-out occurred in the other system during off-line monitoring.	Collecting Error Information	CTRC
	Recovery methods	① 1. Was this message displayed when the ENC firmware or the drive firmware was replaced off-line? 2. Change the mode of both controllers to Maintenance. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 3. Replace the ENC firmware or the drive firmware off-line again. (Refer to Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000) or Troubleshooting "Chapter 14. Procedure for Replacing the Offline Drive Firmware" (TRBL 14-0000).) ② Contact the Technical Support Center.	
HG0312	Resource release time-out General resource release waiting time-out occurred.	Collecting Error Information	CTRC
HG0413	Data share job time-out Job time-out occurred for request for share.	Collecting Error Information	CTRC
HG0514	LU-CTL change time-out Time-out occurred while LU was changed.	Collecting Error Information	CTRC
HGA000	Staging job time-out A time-out occurred because a staging job was not completed within a certain period.	Collecting Error Information	STRC
HGA100	Data staging time-out A time-out of waiting for staging completion occurred during the Copy-on-write SnapShot restoration copy job.	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HGA200	DP pool copy time-out (CTL-x) A time-out of waiting for Copy-on-write SnapShot copy completion occurred during the Copy-on-write SnapShot restoration control job. x : Controller # (0-1)	Collecting Error Information	CTRC
HGA300	Data restore time-out A time-out of waiting for restore copy completion occurred during the Copy-on-write SnapShot restoration control job.	Collecting Error Information	CTRC
HGA400	DP pool wait time-out (CTL-x) A time-out of waiting for the pool resource ensuring occurred during the Copy-on-write SnapShot restoration control job. x : Controller # (0-1)	Collecting Error Information	CTRC
HGA50x	Resource release time-out was detected [Core] (CTL-x) The securing timed out because the shared resource (integrated resource) between the cores of MPU is not released. x : Controller # (0-1)	Collecting Error Information	CTRC
HGA60x	The forced DMA#0 suspend process timed out (CTL-x) [D-DMA Transfer Failure] The DMA transfer terminated abnormally involved in a DMA transfer failure of other ID. x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

HH010x	System parameter undefined (CTL-x) A system parameter is not set. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① Set the system parameter correctly in the WEB maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).)		
HH030x	FLASH-RAM program I/F error (CTL-x) Illegal interface between the flash boot program and RAM program was detected. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
HH0400	Unsupported function enabled A function which the system did not support was set.	Collecting Error Information	CTRC
Recovery methods	① Set the system parameter correctly in the WEB maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).)		
HH0510	Task make error [INMTSKERR] Generation of the initial setting task failed.	Collecting Error Information	CTRC
HH0620	JOB make error Generation of a job at start up failed.	Collecting Error Information	CTRC
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
HH0930	No system HDU The system area of the all Drives became unavailable.	Collecting Error Information	CTRC
HH0931	No system HDU Information on takeover in the system area for all Drives became unusable.	Collecting Error Information	CTRC
Recovery methods	① Contact the Technical Support Center.		
HH0A40	System HDU access error Since access could not be made to the system area of the all Drives because of a system area access error, the Controller was blocked.	Collecting Error Information	CTRC
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
HH0C00	HDU removed before PS ON (Unit-x, HDU-y) The Drive used until previous operation is not mounted when P/S is turned on. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
Recovery methods	① Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) ② Remove the power cables from the Power Units of all arrays. ③ When the Drive is not installed in the installation position of the Drive displayed in the message, install the Drive of the same model name as the Drive installed in the Ready status. When it is installed, replace the Drive. (Refer to Replacement "2.2.1 Replacing Drive" (REP 02-0050).) ④ Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		
HH0E0x	CACHE access error (CACHE-x) [PON] A cache access error (unrecoverable) occurred when P/S was turned on. x : Cache Memory # (0-3)	Collecting Error Information	CTRC
Recovery methods	① Replace the Cache Memory. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) ② If not recovered, replace the above Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		

HH0Fxx	RKA removed before PS ON (Unit-x)	Collecting Error Information	STRC
	The additional frame which the Drive used last time belonged to was not connected when the power was turned on. x : Unit ID # (1-79)		
Recovery methods	① Make sure that the Drive Box is installed and connected, and then start up the array again. ② Analyze the failure following Troubleshooting "7.1 Trouble Analysis by LED Indication of Front Bezel" (TRBL 07-0000) for the Unit # concerned.		
HH1070	PIN segment error [PINSEGOV]	Collecting Error Information	CTRC
	Cache segments are insufficient for recovery of the PIN data of the information taken over.		
HH1180	DCTL hard error [PS ON]	Collecting Error Information	CTRC
	A DMA hardware failure occurred while PS is turned on.		
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
HH1290	System down selected [USRDATLST]	Collecting Error Information	CTRC
	When data were lost, system shutdown was selected by the user.		
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.2 The Array does not become Ready : Case 1 (Loading Failure)" (TRBL 11-0070) .		
HH12A0	Forced parity correction time-out	Collecting Error Information	CTRC
	Time-out occurred during forced parity correction operation while P/S is turned on.		
Recovery methods	① Replace the Drive. (Refer to Replacement "2.2.1 Replacing Drive" (REP 02-0050) .) When you want to know a model name of the Drive or a revision of the drive firmware, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040) . ② Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
HH13B0	System change failed [PIN]	Collecting Error Information	CTRC
	The upgrade cannot be made because a pinned segment exists in the state in which the system change has not been made normally.		
Recovery methods	① 1. Return the Drive to the array of the lower grade model and reboot the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 2. Make the upgrade again after eliminating the pinned segment.		
HH13B1	System change failed [PSOFF]	Collecting Error Information	CTRC
	The upgrade cannot be made because the system change has not been made normally.		
Recovery methods	① 1. Return the Drive to the array of the lower grade model and reboot the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 2. Turn off the power of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 3. Make the upgrade again. (Refer to Upgrade (UP 00-0000) .)		
HH16D0	CTL recovery failed [DRR ERR]	Collecting Error Information	CTRC
	The DRR failure was detected when the Controller was inserted in the state in which the array power was on, and then the cache memory of the inserted Controller was being restored.		
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		

HH1B0x	ENC recovery failed [ENC function failure] (CTL-x)	Collecting Error Information	CTRC
Though recovery of the Controller (in the Controller Box) was attempted, it failed because a failure occurred in the ENC. x : Controller # (0-1)			
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HH1J00	ENC error inf. [CUDG ECTLREGERR]	Collecting Error Information	CTRC
The Controller was detached because an CUDG ECTL register error occurred in the ENC.			
HH1K00	ENC error inf. [CUDG ENC RDTYOV]	Collecting Error Information	CTRC
A ready time-out of the ENC in another system was detected.			
HH1L00	ENC error inf. [CUDG SRAMERR]	Collecting Error Information	CTRC
The Controller was detached because an CUDG SRAM Parity error occurred in the ENC.			
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
HH1M00	ENC error inf. [CUDG ENCCOMERR]	Collecting Error Information	CTRC
The Controller was detached because an CUDG ENCCOMERR error occurred in the ENC.			
HH1N00	ENC error inf. [ENCCOMERR]	Collecting Error Information	CTRC
The Controller was detached because an CUDG ENCCOMERR error occurred in the ENC.			
HH1P00	ENC error inf. [ECTL force test]	Collecting Error Information	CTRC
The Controller was detached because an parity error occurred in the ENC.			
HH1Q00	SES error inf. [SES-HDU error]	Collecting Error Information	CTRC
The Controller was detached because both of the two SES drives could not access the ENC.			
HH1W00	ENC inf. [REGPERR]	Collecting Error Information	CTRC
REGPERR occurred in ENC and the corresponding CTL was detached.			
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② If not recovered yet, contact the Technical Support Center. (*1)		
*1 : If ALM LED (red) lights on, and the same message is displayed again in spite of replacing the Controller in ①, the Controller on the opposite side may have a failure. Replace the Controller on the opposite side with the power turned off after checking with the customer.			
HH1X00	ENC inf. [RAMPERR]	Collecting Error Information	CTRC
RAMPERR occurred in ENC and the corresponding CTL was detached.			
HH1Y00	ENC inf. [WDTCNTPERR]	Collecting Error Information	CTRC
WDTCNTPERR occurred in ENC and the corresponding CTL was detached.			
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
HH1Z0x	ENC recovery NG Loop-NG (CTL-x)	Collecting Error Information	STRC
An ENC recovery failure (Controller Box) x : Controller # (0-1)			
Recovery methods	① Collect Simple trace and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)		

HH270x	I/F Board is not installed (CTL-x) The Host I/O Board is not installed. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	<ul style="list-style-type: none"> ① When the Host I/O Board is not installed in the Controller displayed in the message, install the Host I/O Board in the Controller. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).) ② When the Host I/O Board is installed in the Controller displayed in the message, replace the Host I/O Board. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ③ If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).) 		
HH2900	Cache capacity reduced although copy function enable The cache capacity was reduced in the state in which any one of the copy functions (TrueCopy remote replication, TrueCopy Extended Distance, ShadowImage in-system replication, Copy-on-write SnapShot, and Modular Volume Migration) was valid.	Collecting Error Information	FDMP
Recovery methods	① Return the cache capacity to that at the time when the power was turned off. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)		
HH2B00	Upgrade failed [PSOFF] The upgrade from the lower grade model to the higher grade model cannot be made because the deliberate shutdown has not been performed.	Collecting Error Information	STRC
Recovery methods	<ul style="list-style-type: none"> ① 1. Refer to Upgrade "6.4 When Returning Configuration of the Array after the Upgrade to that of the Chassis before the Upgrade" (UP06-0040) and return it to the hardware configuration of the lower model. 2. Perform the deliberate shutdown of the array after booting it while it is the lower grade model. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220).) 3. Execute the procedure for the upgrade from the lower grade model to the higher grade model. 		
HH2C00	Upgrade failed [Single] The upgrade from the lower grade model to the upper grade model could not be made because the "System Startup Attribute" was set as the "Single Mode".	Collecting Error Information	STRC
Recovery methods	<ul style="list-style-type: none"> ① 1. Refer to Upgrade "6.4 When Returning Configuration of the Array after the Upgrade to that of the Chassis before the Upgrade" (UP06-0040) and return it to the hardware configuration of the lower model. 2. Change the mode to the Maintenance mode after booting the array while it is the lower grade model. (Refer to WEB "3.1 Transferring to the Maintenance Mode" (WEB 03-0000).) 3. Execute the "Go to Normal Mode" after setting the "System Setup Attribute" as the "Dual Active Mode". (Refer to WEB "3.2.1 System" (WEB 03-0070).) 4. Boot the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 5. Execute the procedure for the upgrade from the lower grade model to the higher grade model. 		
HH2D00	Upgrade failed [Microprogram revision] The upgrade from the lower grade model to the higher grade model cannot be made because the versions of their firmware are different from each other.	Collecting Error Information	STRC
Recovery methods	① Install the firmware of the higher grade model, whose system revision is the same as that of the firmware of the lower model, in the Drive. (Refer to Upgrade "5.14 Firmware Update Installation for Array after Upgrade" (UP 05-0780).)		
HH2F00	Downgrade failed [Subsystem can not take over the user data] The array start-up of the lower model failed because it tried to downgrade from the upper model to the lower model.	Collecting Error Information	STRC
Recovery methods	<ul style="list-style-type: none"> ① Execute the initial setup to the array that is the hardware configuration of the lower model, and start up the array when operating the array as a lower model. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ② If you operate the array as an upper model, upgrade the hardware configuration of the array to the upper model. ③ Connect the power cables to all Power Units of the array. ④ Start the array of the upper model. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		

HH2Q00 CTL recovery failed [time-out]	Collecting Error Information CTRC
The recovery of the Controller was not completed within the specified time by rebooting the Controller due to replacement of the Controller with the array power turned on, update installation of the firmware, or automatic recovery of the blocked Controller.	
Recovery methods	<ol style="list-style-type: none"> ① 1. Remove the Controller whose recovery reboot fails and ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 2. Check if the size, the slot position and the number of the Cache Memories to be installed in the removed Controller are correct. 3. •When the installation of the Cache Memories is incorrect, install the Cache Memories in the Controller correctly. Then install the Controller again. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920), Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) •When the installation of the Cache Memories is correct, replace the removed Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 4. If not recovered yet, perform the planned shutdown of the subsystem. For the opportunity of the planned shutdown of the subsystem, decide it by consulting with the customer/SE. 5. Replace the other Control Unit (it cannot be replaced with the subsystem power turned on) (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 6. Turn on the power of the subsystem. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)

HH600x	ENC error inf. [Header error] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that the header of the acquired SES data was abnormal. x : Controller # (0-1)	
HH610x	ENC error inf. [Fixed No. error] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that the fixed value of the acquired SES data was abnormal. x : Controller # (0-1)	
HH620x	ENC error inf. [SES Rev. error] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that the SES revision information of the acquired SES data was abnormal. x : Controller # (0-1)	
HH630x	ENC error inf. [F/W Rev. error] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that the revision information of the ENC firmware of the acquired SES data was abnormal. x : Controller # (0-1)	
HH640x	ENC error inf. [ECTL Rev. error] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that the revision information of ECTL of the acquired SES data was abnormal. x : Controller # (0-1)	
HH650x	ENC error inf. [ENC Reboot error] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that the ENC was rebooting from the acquired SES data asynchronously with the firmware. x : Controller # (0-1)	
HH660x	ENC error inf. [Slot No. error] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that the ENC number of the acquired SES data did not match with the accessed ENC number. x : Controller # (0-1)	
HH6700	ENC error inf. [CUDG error code-y] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that a CUDG error had occurred in the ENC from the SES data acquired by other system. x : Controller # (0-1) y : Optional code	
HH6800	ENC error inf. [PK error code-y] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that a PK failure had occurred in the ENC from the acquired SES data. x : Controller # (0-1) y : Optional code	
HH6900	ENC error inf. [SXP error code-y] (CTL-x)	Collecting Error Information
	The Controller displayed in the message was blocked because it was detected that an SXP failure had occurred in the ENC from the acquired SES data. x : Controller # (0-1) y : Optional code	
Recovery methods	<p>① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)</p> <p>③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.</p>	

HH7000	ENC error inf. [Write error code-y] (CTL-x)	Collecting Error Information	
	The Controller displayed in the message was blocked because it was detected that an SES write failure had occurred in the ENC from the acquired SES data. x : Controller # (0-1) y : Optional code		
HH710x	ENC error inf. [Write error] (CTL-x)	Collecting Error Information	
	The ENC displayed in the message was blocked because it was detected that the write data to the ENC did not match with the read data from the ENC in the processing command to the ENC. x : Controller # (0-1) y : Optional code		
HH720x	ENC recovery failed (CTL-x)	Collecting Error Information	STRC
	The I/O Module (ENC) or I/O Card (ENC) replacement failed due to an ENC failure. x : Controller # (0-1)		
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
HH730x	ENC error inf. [Remove] (CTL-x)	Collecting Error Information	
	The I/O Module (ENC) or I/O Card (ENC) was removed. x : Controller # (0-1)		
	Recovery methods	None	
HH740x	The backend PCI error count exceeded the threshold (CTL-x)	Collecting Error Information	CTRC
	The number of failures occurred exceeded the threshold value while performing PCI HARD RESET of the backend part of the Controller. x : Controller # (0-1)		
HH750x	Backend link error was detected (CTL-x)	Collecting Error Information	
	It was identified that the backend Link failed part was the Controller displayed in the message. x : Controller # (0-1)		
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

HH7600	Backend down [ENC type error] (Unit-x, ENC-y)	Collecting Error Information
	When the array started, an unsupported I/O Module (ENC) or I/O Card (ENC) or Drive Box was detected in the Drive Box. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
Recovery methods	<ul style="list-style-type: none"> ① When the array displayed in the message is the DBF, perform the maintenance in accordance with Troubleshooting "11.1.39 Recovery Method when the DIP-Switch Setting of the I/O Module (ENC) is Incorrect" (TRBL 11-2950). ② <ul style="list-style-type: none"> 1. Remove the power cables of the Power Units of all the arrays. 2. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC)/I/O Card(ENC)" (REP 02-1500).) 3. Connect the power cables to the Power Units of all the arrays. ③ <ul style="list-style-type: none"> 1. Remove the power cables of the Power Units of all the arrays. 2. Replace the Drive Box displayed in the message to the Drive Box supported by the relevant system. (Refer to Replacement "2.2.14 Replacing a Drive Box of Rack Mount Style" (REP 02-1900).) 3. Connect the power cables to the Power Units of all the arrays. 	
HH7800	The array unit is missing (Unit-x)	Collecting Error Information
	The Drive Box displayed in the message was unable to be recognized temporarily or constantly due to a Power Unit failure (including the case that the power of the Drive Box was turned off when the array was Ready). x : Unit ID # (0-79)	
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.20 Recovery Method when a Power Unit Failure of the Drive Box Occurred" (TRBL 11-1050) .	
HH7900	More than the maximum number of array units are connected	Collecting Error Information
	The Drive Box more than or equal to the connectable number was detected when the array started.	
Recovery methods	<ul style="list-style-type: none"> ① <ul style="list-style-type: none"> 1. Turn off the Power Units of all arrays. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Remove the power cables from the Power Units of the array. 3. Review the number of Drive Box connected to the array so that the number of Drive Box does not exceed the maximum number. 4. Install the power cables to the Power Units of the array. 5. Turn on the Power Unit of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 	
HH7Dxy	Microprogram error [ISM]	Collecting Error Information CTRC
	Logical illegality was detected in the firmware. (iSCSI Sequence Manager) x : Detailed code y : Detailed code	
HH7Exy	Microprogram error [ILM]	Collecting Error Information CTRC
	Logical illegality was detected in the firmware. (iSCSI login control) x : Detailed code y : Detailed code	
HH7Fxy	Microprogram error [ISD]	Collecting Error Information CTRC
	Logical illegality was detected in the firmware. (iSCSI driver) x : Detailed code y : Detailed code	
Recovery methods	<ul style="list-style-type: none"> ① When "W01z0x CTL alarm (CTL-x)" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 	

HH7Gxy	H-IPC soft reset has ended in failure (Port-xy) A soft reset of the H-IPC (Host iSCSI Protocol Controller) LSI failed. x : Controller # (0-1) y : Port # (0 : A, 1 : B, 4 : E, 5 : F)	Collecting Error Information	STRC
Recovery methods	① Replace the Host I/O Board/Module (iSCSI) which installs the Port number displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).)		
HH7N00	H-IPC PCI STS REG error [OPE] A parity error was detected when the H-IPC LSI accessed the internal Cache.	Collecting Error Information	CTRC
HH7P00	H-IPC PCI STS REG error [ILE] A parity error was detected when the H-IPC LSI accessed the internal RAM.	Collecting Error Information	CTRC
HH7Q00	H-IPC PCI STS REG error [ICE] A parity error was detected when the H-IPC LSI accessed the internal RAM.	Collecting Error Information	CTRC
Recovery methods	① There is no problem when the ALM LED does light up because the internal retry processing was executed in the Controller. ② When the ALM LED on the Controller displayed in the message does not light up, replace the Host I/O Board/Module (1Gbps iSCSI) installed in the Controller. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)		
HH7R00	H-IPC PCI STS REG error [OCE] A Cache parity error was detected when the H-IPC LSI accessed the external local RAM.	Collecting Error Information	CTRC
HH7S00	H-IPC PCI STS REG error [DPE] A data parity error was detected when it accessed the PCI as the PCI master.	Collecting Error Information	CTRC
Recovery methods	① There is no problem when the ALM LED does not light up because the internal retry processing was executed in the Controller. ② When "W01z0x CTL alarm" is displayed after this message, replace the Controller and the Host I/O Board/Module (1Gbps iSCSI) installed in the Controller, which are instructed in the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) , Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ③ When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller displayed in the message and the Host I/O Board/Module (1Gbps iSCSI) installed in the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)		

HH7V00	The Additional Chassis removed before PS ON (Unit-x)	Collecting Error Information	STRC
	Subtract the array in which the Drive to configure the formatted volume or the Spare Drive storing the recovered data is installed, then turn on the array power. x : Unit ID # (1-79)		
Recovery methods	<ol style="list-style-type: none"> ① 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Remove the power cables from the Power Units of all array. 3. Return the subtracted array to the array configuration before the subtraction. 4. Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 5. If there is the Spare Drive in use in the array to be subtracted, replace the blocked Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).) 6. Check that the copy back operates and the status of the Spare Drive becomes ready. 7. If there is the Drive which configures the formatted volume in the array to be subtracted, check with the user if the data of the volume is necessary. If the data is necessary, request the user to backup the data. 8. Delete the volume. (Refer to System Parameter "4.3.4 Deleting Volume" (SYSPR 04-0430).) 9. Subtract the array again. (Refer to Addition/Removal/Relocation "2.3 Removing Drive Box on Rack Frame" (ADD 02-0130).) 10. When the array of the unit ID# displayed in the message is connected, perform Troubleshooting "7.1 Trouble Analysis by LED Indication of Front Bezel" (TRBL 07-0000). 		
HH7Wxy	H-IPC firmware initialization failed (CTL-x, I/F-y)	Collecting Error Information	STRC
	The iSCSI firmware failed to start. y : Host I/O Board # (0-1)		
Recovery methods	<ol style="list-style-type: none"> ① Replace the Host I/O Board displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 		

HH800x	DBX recognition failed during the start-up process [BKW] (CTL-x)	Collecting Error Information
	Since the Controller displayed in the message detected an error of the recognition of the DBX while starting the array, the array start was stopped. x : Controller # (0-1)	
Recovery methods	① Perform the maintenance according to the message code displayed at the same time. • I5J300 DBX serial number error was detected [discrepancy between DBX-A and DBX-B] (DBX-x) • I5J400 DBX serial number error was detected [DBXs have same product serial number] (DBX-x, DBX-y)	
HH8100	DBX serial number error was detected [discrepancy between ENC's of DBX] (DBX-(xx-y))	Collecting Error Information
	The DBX serial number did not match between the I/O Card (ENC) in the DBX at the time of the device start. x : DBX # (0-19) y : DBX type (A : VRKA-A, B : VRKA-B)	
Recovery methods	① 1. Record the A-side or B-side displayed in the message. 2. Turn off the power of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 3. Replace the I/O Card (ENC) of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 5. If the phenomenon is not resolved, replace the I/O Card (ENC) #1 of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 6. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	
HH8E00	Single Mode although copy function enable	Collecting Error Information STRC
	The array could not be started because System Startup Attribute was set to Single Mode even though Copy-on-write SnapShot or TrueCopy Extended Distance of the priced option was effective.	
Recovery methods	① 1. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000) .) 2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB. (Refer to WEB "3.2.1 System" (WEB 03-0070) .) 3. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530) .)	
HH8F00	Not enough Cache memory to use copy function	Collecting Error Information STRC
	The array did not start because the capacity of the Cache memory to use Copy-on-write SnapShot or TrueCopy Extended Distance was insufficient due to the upgrade of the model.	
Recovery methods	① 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0230) .) 2. Add the Cache memory in the capacity that the upgrade of the model is possible. (Refer to Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460) .) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	
HH8G00	Single Mode although Modular Volume Migration enable	Collecting Error Information STRC
	The array could not be started because System Startup Attribute was set to Single Mode even though Modular Volume Migration of the priced option was effective.	
Recovery methods	① 1. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000) .) 2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB. (Refer to WEB "3.2.1 System" (WEB 03-0070) .) 3. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530) .)	

HH8H00	ShadowImage function is not effective when single mode for CTL is set Although "ShadowImage in-system replication" of the priced option is valid, the array could not start because the system start attribute of the system parameter was set to the single mode.	Collecting Error Information	STRC
Recovery methods	<ol style="list-style-type: none"> 1. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB. (Refer to WEB "3.2.1 System" (WEB 03-0070).) 3. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 4. <ul style="list-style-type: none"> • When using "ShadowImage in-system replication" of the priced option, set up the array to a dual controller system. • When using the array as a single controller system, lock "ShadowImage in-system replication" of the priced option, and then set up the array to a single controller system. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020).) 		
HH8J00	The system drives are composed of SAS HDUs and SATA HDUs. The SAS Drives and the SAS7.2K Drives are mixed in the system drive.	Collecting Error Information	STRC
Recovery methods	<ol style="list-style-type: none"> 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Configure the array drive again only with the Drives which have the same I/F. 3. Turn on the array power again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		
HH8K00	TrueCopy function is not effective when single mode for CTL is set Although "TrueCopy remote replication" of the priced option is valid, the array could not start because the system start attribute of the system parameter was set to the single mode.	Collecting Error Information	STRC
Recovery methods	<ol style="list-style-type: none"> 1. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB. (Refer to WEB "3.2.1 System" (WEB 03-0070).) 3. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 4. <ul style="list-style-type: none"> • When using "TrueCopy remote replication" of the priced option, set up the array to a dual controller system. • When using the array as a single controller system, lock "TrueCopy remote replication" of the priced option, and then set up the array to a single controller system. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020).) 		
HH8L0x	D-SPC detected the internal hardware error (CTL-x) D-SPC (Drive side SAS Protocol Chip) detected "internal hardware error" of D-SPC LSI. x : Controller # (0-1)	Collecting Error Information	CTRC
HH8U0x	D-SPC detected firmware error (CTL-x) The hardware detected FW defect. x : Controller # (0-1)	Collecting Error Information	CTRC
HH8V0x	The initialization of PCI Express failed because of the hardware error [Drv] (CTL-x) PCI hardware reset of D-SPC (Drive side SAS Protocol Chip) failed. x : Controller # (0-1)	Collecting Error Information	CTRC
Recovery methods	<ol style="list-style-type: none"> ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. 		

HH8W00	Backend has been down [All the routes have been blockaded] Failures occurred in both Routes (Normal Route and Alternate Route) and the Controller was not be able to access the Drives.	Collecting Error Information	FDMP
Recovery methods	① Turn off the main switch. ② Perform maintenance according to the warning message displaying the I/O Module (ENC) or I/O Card (ENC) or Controller. ③ Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		
HH920x	Backend diagnosis time-out was detected [code-x] The diagnosis of the backend part was not completed within the specified time. x : Optional code	Collecting Error Information	
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HH930x	SCSI response of ENC was "BUSY" (CTL-x) Expander responded "busy" for the status of the SCSI command response (SCSI STATUS ERROR BUSY (Expander)). x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)		
HH940x	SCSI response of ENC was "QUEUE FULL" (CTL-x) Expander responded "Queue full" for the status of the SCSI command response. (SCSI STATUS ERROR QUEUE_FULL (Expander)) x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)		
HH950x	Expander error of the CTL was detected [04-3400] (CTL-x) The ENC part of the Controller responded the check condition frame whose sense key/sense code is 04/3400. x : Controller # (0-1)	Collecting Error Information	STRC
HH960x	Intermittent Expander error of the CTL was over the threshold [04-3400] (CTL-x) The count that received the check condition frame, whose sense key/sense code is 04/3400, from the ENC part of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
HH970x	Expander error of the CTL was detected [05-CCCC] (CTL-x) The ENC part of the Controller responded the check condition frame whose sense key/sense code is 05/CCCC. x : Controller # (0-1)	Collecting Error Information	STRC
HH980x	Intermittent Expander error of the CTL was over the threshold [05-****] (CTL-x) The count that received the check condition frame, whose sense key/sense code is 05/****, from the ENC part of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
HH990x	Expander error of the CTL was detected [05-CCCC] (CTL-x) The ENC part of the Controller responded the check condition frame whose sense key/sense code is 05/CCCC. x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

HH9A0x	Intermittent Expander error of the CTL was over the threshold [05-CCCC] (CTL-x) The count that received the check condition frame, whose sense key/sense code is 05/CCCC, from the ENC part of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
HH9B0x	Expander error of the CTL was detected [0B-4400] (CTL-x) The ENC part of the Controller responded the check condition frame whose sense key/sense code is 0B/4400. x : Controller # (0-1)	Collecting Error Information	STRC
HH9C0x	Intermittent Expander error of the CTL was over the threshold [0B-4400] (CTL-x) The count that received the check condition frame, whose sense key/sense code is 0B/4400, from the ENC part of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
HH9F0x	Expander error of the CTL was detected [Unexpected SSB] (CTL-x) The ENC part of the Controller transmitted the check condition frame to which an unexpected sense key is set. x : Controller # (0-1)	Collecting Error Information	STRC
HH9G0x	Intermittent Expander error of the CTL was over the threshold [Unexpected SSB] (CTL-x) The count that received the check condition frame, to which an unexpected sense key is set, from the ENC part of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
HH9H00	Backend down [Unit#ERR] (Unit-x) When the array started, the Drive Box whose Unit # is inconsecutive was detected (for example, the case that the rearmost chassis was connected to the Path incorrectly due to connecting the SAS(ENC) cable incorrectly). x : Unit ID # (0-79)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.19 Recovery Method when the Down of the Array Occurred due to the Incorrect SAS(ENC) Cable Connection" (TRBL 11-1030) .	
HH9K0x	ENC error was detected [Linkdown] (CTL-x) Link down was detected in the ENC part of the Controller. x : Controller # (0-1)	Collecting Error Information	
HH9L0x	Unsupported ENC was detected [ENC type error] (CTL-x) When the Controller was inserted in the Controller Box, an unsupported ENC part was detected in the Controller. x : Controller # (0-1)	Collecting Error Information	
	Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	
HH9M0x	SAS Firmware error was detected (CTL-X) A hardware failure of SAS CTL was detected in the same route during the backend route diagnosis operation. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

HH9N0x	ENC recovery failed [Cable error] (CTL-x)	Collecting Error Information	CTRC
	It was detected that the SAS(ENC) cables were connected incorrectly when the array power was ON and the Controller or the firmware was replaced. x : Controller # (0-1)		
Recovery methods	<ol style="list-style-type: none"> 1. Remove the Controller displayed in the message. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460).) 2. There are one or more SAS(ENC) cables connected incorrectly to the backend path which the Controller displayed in the message configures. Review the wiring of all the SAS(ENC) cables of the backend path which the Controller displayed in the message configures 3. Rewire the SAS(ENC) cable correctly 4. Insert the Controller in the chassis. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).) 		
HH9P00	System Startup Attribute is set to Single Mode although DP function is enabled	Collecting Error Information	STRC
	When starting the device, the firmware did not start the device and made the array go down because "System Startup Attribute" of "System Parameter" was set to the "Single Mode" although the Dynamic Provisioning function is enabled.		
Recovery methods	<ol style="list-style-type: none"> 1. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 2. Change [System Startup Attribute] of System Parameter to [Dual Active Mode] from WEB. (Refer to WEB "3.2.1 System" (WEB 03-0070).) 3. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 		
HH9Q00	The system drives are composed of different types drives	Collecting Error Information	STRC
	The SAS Drives, the SAS7.2K Drives or the Flash Drives are mixed in the system drives.		
Recovery methods	<ol style="list-style-type: none"> 1. If this message is displayed at the time of starting the array and the array goes down, turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Reconfigure the system drives only with the SAS Drives, the SAS7.2K Drives or the Flash Drives. 3. Turn on the array power again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 1. If this message is displayed at the time of replacing the Drives or adding the Drives, check the type (SAS Drives, the SAS7.2K Drives or Flash Drives) of the already installed system drives. 2. Replace the Drives of the same type (SAS Drives, the SAS7.2K Drives or Flash Drives) as the already installed system drives. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).) 		
HH9R00	Two or more HDUs have serial number problem	Collecting Error Information	STRC
	Either of the followings occurred.		
	<ul style="list-style-type: none"> • In two or more Drives, the serial number of the configuration information acquired at the time of starting the array last time or during the operation did not match serial number of the configuration information acquired at the time of starting the array this time. • In two or more Drives, the serial number acquired before powering off the array by Tray Power Saving did not match the serial number acquired after the array powered on. 		
Recovery methods	<ol style="list-style-type: none"> 1. Perform the maintenance according to the message code "i6G100 The serial number of the HDU is different from the configuration info (Unit-x HDU-y)" displayed at the same time. 2. Perform the maintenance according to Troubleshooting "11.1.26 Recovery Method when the Drive Serial Number Acquired at the time of Starting the Array and the Serial Number of the Configuration Information do not Match" (TRBL 11-1200). 		
HH9S00	Upgrade failed [background LU format has not been completed]	Collecting Error Information	STRC
	Since the background LU formatting is not completed, the upgrade of the array model cannot be executed.		
Recovery methods	<ol style="list-style-type: none"> 1. Return the array to the configuration before the upgrade. (Refer to Upgrade "6.4 When Returning Configuration of the Array after the Upgrade to that of the Chassis before the Upgrade" (UP06-0040).) 2. Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 3. Wait until the LU formatting running in the background is completed. 4. When the LU formatting running in the background is all completed, execute the upgrade of the array model from the beginning again. (Refer to Upgrade (UP 00-0000).) 		

HH9T00	The cache memory capacity has been reduced before background LU format is completed	Collecting Error Information	STRC
	Since the background LU formatting is not completed, the removal of the Cache Memory cannot be executed.		
Recovery methods	<ol style="list-style-type: none"> 1. Turn off the main switch of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Return the Cache Memory to the installation before the removal. (Refer to Addition/Removal/Relocation "2.4.3 Removing a Cache Memory" (ADD 02-0320).) 3. Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 4. Wait until the LU formatting running in the background is completed. 5. When the LU formatting running in the background is all completed, execute the Cache Memory removal from the beginning again. (Refer to Addition/Removal/Relocation "2.4.3 Removing a Cache Memory" (ADD 02-0320).) 		
HH9U00	Backend down [Cable error] (Unit-x)	Collecting Error Information	
	When the array started, an improper connection of the SAS(ENC) cable of the Drive Box was detected.		
	x : Unit ID # (0-79)		
Recovery methods	<ol style="list-style-type: none"> 1. Turn off the input power switch of the array. 2. A connection error of the SAS (ENC) cables has occurred on the backend path to which the Drive Box with the box number displayed in the message is connected. Check the wiring of all the connected SAS (ENC) cables and connect the SAS (ENC) cables correctly again. 3. Turn on the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		
HH9V00	Model upgrade failed [Array can not take over the user data.]	Collecting Error Information	STRC
	The model upgrade was performed between the unsupported models.		
	Example: Model upgrade HUS100 series (model downgrade).		
Recovery methods	<ol style="list-style-type: none"> 1. Check Upgrade "3.1 Prerequisites" (UP 03-0000). Example: Did you try to upgrade the array which is not supporting the model upgrade? • Is the array after the hardware upgrade operation a model that cannot be upgraded from the array before the hardware upgrade operation? 2. Change it to the maintenance mode. 3. If the update installation of the firmware was performed more than once in the array of the existing hardware configuration, perform the following operation. (Refer to Upgrade "5.14 (2) Set the operation mode in the Maintenance Mode." (UP 05-0780).) <ol style="list-style-type: none"> 1. Cancel the firmware installation guard check. (Refer to Upgrade "6.4.1 Procedure for Removing Guard Check against Installation of the Firmware for the Chassis before the Upgrade" (UP 06-0060).) 2. Cancel the downgrade check. (Refer to Upgrade "6.4.2 Procedure for Removing Downgrade Check" (UP 06-0070).) 3. Perform the update installation of the firmware of the array before the model upgrade operation. (Refer to Upgrade "5.14 Firmware Update Installation for Array after Upgrade" (UP 05-0780).) 4. Turn off the main switch on the front of the Controller Box. 5. Perform the procedure of the hardware upgrade operation (hardware) backward. 6. Return the cables and others to the array configuration before the model upgrade. 7. Turn on the power of the array. 8. Check the procedure again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 9. Check that the ALARM LED or WANING LED on the front of the Controller Box goes out and no failure has occurred. 10. If "HH13B0 System change failed [PIN]" has occurred, perform the maintenance according to the recovery method in the message. 11. When moving to the hardware upgrade operation, be sure to execute the planned shutdown. 12. Perform the upgrade operation from the beginning again. 		

HH9W00 Default setup error was detected in array boot-up	Collecting Error Information STRC
The array failed to start up because its power was turned off and on while the array was not started yet.	
Recovery methods	<p>① 1. When the array is not started after the initial setup, change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).)</p> <p>2. Perform the initial setup from the beginning again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)</p> <p>② 1. In the case other than ①, change it to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).)</p> <p>2. Click [Others] in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.6 Other" (WEB 03-0510).)</p> <p>3. Set [Configuration Clear Mode] of the [Others] window to "Configuration Clear". (Refer to WEB "3.6 Other" (WEB 03-0510).)</p> <p>4. Click [Go to Normal Mode] of the menu frame to start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>
HH9Y0x ENC recovery failed [linkup error in the other route] (CTL-x)	Collecting Error Information CTCR
<p>By the SAS address check performed at the time of Controller replacement (checking whether the information on the backend path between the operating Controller and the Controller to be replaced is matched or not), the I/O Module (ENC) or I/O Card (ENC) in LinkDown was detected by a failure of the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the Controller to be replaced (I/O Module (ENC) or I/O Card (ENC) #1 in case of Controller #0 and I/O Module (ENC) or I/O Card (ENC) #0 in case of Controller #1), the Controller recovery failed.</p> <p>x : Controller # (0-1)</p>	
Recovery methods	<p>Disregard to the message text "W01z0x CTL alarm" displayed at the same time.</p> <p>① 1. When the ALM LED on the front of the Controller Box lights up (the system of the device is shut down), refer to the other output Information Message, and replace the failed part. (Refer to Replacement "Chapter 2. Parts Replacement" (REP 02-0000).)</p> <p>2. Turn off the main switch, and then turn it on after 20 seconds or more elapse. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220).)</p> <p>3. 1. By the maintenance in ①-1, if the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the Controller number displayed in this message (I/O Module (ENC) or I/O Card (ENC) #1 in case of Controller #0 and I/O Module (ENC) or I/O Card (ENC) #0 in case of Controller #1) is not replaced, collect the simple trace to identify the failed part, and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> <p>2. If the Controller displayed in this message is blocked again after restarting the device, perform the maintenance according to the newly displayed message. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>② 1. When the ALM LED on the front of the Controller Box does not light up (the device is operating), refer to the other output Information Message, and perform the maintenance (for replacing the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the Controller number displayed in this message (I/O Module (ENC) or I/O Card (ENC) #1 in case of Controller #0 and I/O Module (ENC) or I/O Card (ENC) #0 in case of Controller #1), it is necessary to perform the planned shutdown of the device in advance. Discuss the date and time with the customer/SE for performing the planned shutdown of the device). (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. 1. By the maintenance in ②-1, if the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the Controller number displayed in this message (I/O Module (ENC) or I/O Card (ENC) #1 in case of Controller #0 and I/O Module (ENC) or I/O Card (ENC) #0 in case of Controller #1) is not replaced, collect the simple trace to identify the failed part, and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> <p>2. By the maintenance in ②-1, when the planned shutdown of the device is performed, if the Controller displayed in this message is blocked again after restarting the device, perform the maintenance according to the newly displayed message. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>
HH9X00 Multiple FMD batteries are not charged	Collecting Error Information STRC
Multiple Flash Drives (FMDs) with uncharged batteries exist.	
Recovery methods	Perform the maintenance referring to Troubleshooting "11.1.41 Recovery Method when Multiple Flash Drives (FMD) in the Same Array Go Down due to the Uncharged Battery Status" (TRBL 11-2980) .

HHA0xy	H-IPC hardware error was detected (CTL-x, I/F-y) The number of times to which H-IPC (Host iSCSI Protocol controller) LSI operated beyond the assumption exceeded the threshold value. x : Controller # (0-1) y : Host I/O Board # (0-1)	Collecting Error Information	STRC
HHA1xy	iSCSI firmware load failed (CTL-x, I/F-y) The iSCSI firmware load failed. x : Controller # (0-1) y : Host I/O Board # (0-1)	Collecting Error Information	STRC
HHA2xy	H-IPC is not detected (CTL-x, I/F-y) The Host I/O Board/Module (iSCSI) is installed, but H-IPC (Host iSCSI Protocol controller) LSI was unable to be recognized on PCI. x : Controller # (0-1) y : Host I/O Board # (0-1)	Collecting Error Information	CTRC
HHA4xy	H-IPC ECC error was detected (CTL-x, I/F-y) The number of times of the ECC error detected when H-IPC LSI accessed the internal RAM exceeded the threshold value. x : Controller # (0-1) y : Host I/O Board # (0-1) Recovery methods ① Replace the Host I/O Board displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information	CTRC
HHB100	ENC error info [E-CTL error] (CTL-x) The E-CTL LSI failure of the controller was detected. x : Controller # (0-1)	Collecting Error Information	STRC
HHB20x	ENC error info [MPU time out error] (CTL-x) The MPU time-out was detected during the SES command processing for H8S of the Controller. x : Controller # (0-1)	Collecting Error Information	STRC
HHB30x	ENC error info [DMA time out error] (CTL-x) The DMA time-out was detected during the SES command processing for H8S of the Controller. x : Controller # (0-1)	Collecting Error Information	STRC
HHB40x	ENC error info [Response code error-yyyy] (CTL-x) The response of the SES command received from the ENC (H8S) was abnormal. x : Controller # (0-1) y : H8 response code Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	Collecting Error Information	STRC

HHC00x	Expander error of the CTL was detected [02-****] (CTL-x) The check condition "02/****" was detected by the ENC of the Controller. x : Controller # (0-1)	Collecting Error Information	STRC
HHC10x	Intermittent Expander error of the CTL was over the threshold [02-****] (CTL-x) The count of detecting the check condition "02/****" by the ENC of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
HHC20x	Expander error of the CTL was detected [04-****] (CTL-x) The check condition "04/****" was detected by the ENC of the Controller. x : Controller # (0-1)	Collecting Error Information	STRC
HHC30x	Intermittent Expander error of the CTL was over the threshold [04-****] (CTL-x) The count of detecting the check condition "04/****" by the ENC of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	
HHC40x	Backend down [Configuration error] (Unit-x) The SES command could not be issued for both I/O Modules (ENCs) by the Path cable cross checking. x : Unit ID # (0-79)	Collecting Error Information	STRC
	Recovery methods	① 1. Make a note of the unit number displayed in the message. 2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 3. Replace both of I/O Module (ENC) #0 and I/O Module (ENC) #1 of the unit number noted in Item 1. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 4. Turn on the main switch and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 5. Check that the same message is not displayed. When the same message is displayed again, contact the Technical Support Center.	
HHC50x	ENC recovery failed [Linkup error in the own route] (CTL-x) In the SAS(ENC) cable connection illegality check performed at the time of replacing the controller, since the LinkDown ENC was detected due to the ENC failure on the controller to be replaced, the controller recovery failed. x : Controller # (0-1)	Collecting Error Information	STRC
HHC60x	ENC recovery failed [Configuration error] (CTL-x) When replacing the Controller, the firmware failed to issue the SES command for ENC by the cable cross check of the back-end path. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① 1. Remove the Controller displayed in the message. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460) .) 2. Review the cable connection because the SAS (ENC) cable is improperly connected to the I/O Module (ENC) or I/O Card (ENC) displayed in the message "I5L600 ENC error was detected [Cable error] (Unit-x, ENC-y)". 3. Review all the SAS (ECN) cable connections whether any other SAS (ENC) cables are improperly connected to the back-end path of the Controller displayed in the message. 4. Rewire the SAS(ENC) cable correctly. 5. Insert the Controller in the chassis. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730) .) ② If not recovered, collect the simple trace to identify the failed part, and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040) .)	

HHC700 Backend down [SideCard linkup error] (Unit-x, SideCard-y) Both Side Cards (A and B) of UPPER/LOWER in the DBW box cannot be recognized (Linkup cannot be confirmed). x : Unit ID # (0-79) y : Side Card # (U=UPPER, L=LOWER)	Collecting Error Information STRC
Recovery methods	① 1. Make a note of the box number and the position of the Side Card displayed in the message. 2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 3. Turn off the power of the DBW. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 4. Replace both Side Cards-A/B of the Box written down in Item No. 1. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030).) 5. Turn on the power of the DBW. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 6. Turn on the main switch and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 7. Check that the same message is not displayed. When the same message is displayed again, contact the Technical Support Center.
HHC800 DBX serial number error was detected [discrepancy between ENC's of DBX] (Unit-x) The DBX serial number did not match between the I/O Card (ENC) in the DBX at the time of the device start. x : DBX # (0-19)	Collecting Error Information
Recovery methods	① 1. Record the A-side or B-side displayed in the message. 2. Turn off the power of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 3. Replace the I/O Card (ENC) of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 5. If the phenomenon is not resolved, replace the I/O Card (ENC) #1 of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 6. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)
HHC900 Array has gone down [PSTYPEERR-xx] (Unit-y, PS-z) Since the Power Unit installed in the DBX is determined as an unsupported component, the system went down. x : Value of register PSKIND y : DBX # (0-19) z : Power Unit # (0-1)	Collecting Error Information STRC
Recovery methods	① 1. Replace the Power Unit displayed in the message to the Power Unit for the DBX. 2. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 3. Start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ② 1. If the same message is displayed and the array does not become Ready, replace the I/O Card (ENC) #0. 2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 3. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ③ 1. If the same message is displayed and the array does not become Ready, replace the I/O Card (ENC) #1. 2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 3. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ④ If not recovered yet, contact the Technical Support Center and perform the maintenance in accordance with the instruction.
HHCA00 Backend down [ENC firmware revision error] The array failed to start. The I/O Module (ENC) of the DBW installing the ENC firmware which does not support the mixed configuration of DBWs and Drive Boxes other than DBWs is detected. The mixed configuration of DBWs and Drive Boxes other than DBWs cannot be established.	Collecting Error Information STRC
Recovery methods	① Perform the maintenance in accordance with the message "IAIV00 DBW ENC firmware does not support mixed unit configuration (Unit-x, ENC-y)" displayed at the same time.

HI0100 PS OFF failed [DSTG HUNG]	Collecting Error Information	CTRC
Hang-up of destaging processing of the other system was detected when the plan was stopped.		
HI0201 PS OFF failed [POFNONCLD]	Collecting Error Information	CTRC
When PS is turned off, the information taken over is not set in the COLD state.		
HI0202 PS OFF failed [POFNOJOB]	Collecting Error Information	CTRC
When PS is turned off, the plan stopping job has not been executed.		
HI0310 OTHPS OFF time-out	Collecting Error Information	CTRC
Time-out in waiting for communication of the other system occurred while the plan was being stopped.		
Recovery methods	① Do not remove the Controller or Cache Backup Battery while performing the following procedures. Disregard to the message text "W01z0x CTL alarm (CTL-x)" displayed at the same time. 1. Remove the power cable from the Power Unit, and install the power cable after waiting for one minute. 2. Turn on the main switch. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ② If the WARNING LED or ALARM LED on the front of the Controller Box lights up when the array is starting or after starting, perform the maintenance according to the displayed message. ③ Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) ④ Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
HI0420 System down selected [PS OFF]	Collecting Error Information	CTRC
When the plan could not be stopped, system shutdown was selected by the user.		
HI050x CACHE access error (CACHE-x) [POFF]	Collecting Error Information	CTRC
When the plan was stopped, system shutdown was caused by a cache access error. (unrecoverable)		
x : Cache Memory # (0-1)		
Recovery methods	① Perform the maintenance according to the message text "W0T000 PS OFF failed [CACHE ERR]" displayed at the same time. Disregard to the message text "W01z0x CTL alarm (CTL-x)" displayed at the same time.	
HI0600 PS OFF failed [PIN]	Collecting Error Information	CTRC
The sequential shutdown could not be done because of the too much pinned data.		
Recovery methods	① Do not remove the Controller or Cache Backup Battery while performing the following procedures. Disregard to the message text "W01z0x CTL alarm (CTL-x)" displayed at the same time. 1. Remove the power cable from the Power Unit, and install the power cable after waiting for one minute. 2. Turn on the main switch. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ② If the WARNING LED or ALARM LED on the front of the Controller Box lights up when the array is starting or after starting, perform the maintenance according to the displayed message. ③ Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) ④ Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	

HJ01xx	Microprogram error [INM] Logical discrepancy of the firmware was detected. (Initial setting) x : Optional code	Collecting Error Information	CTRC
HJ02xx	Microprogram error [POF] Logical discrepancy of the firmware was detected. (Stop of plan) x : Optional code	Collecting Error Information	CTRC
HJ03xx	Microprogram error [RST] Logical discrepancy of the firmware was detected. (Reset) x : Optional code	Collecting Error Information	CTRC
HJ04xx	Microprogram error [SCK] Logical discrepancy of the firmware was detected. (Kernel) x : Optional code	Collecting Error Information	CTRC
HJ050x	Microprogram error [CIT] Logical discrepancy of the firmware was detected. (Interruption) x : Optional code	Collecting Error Information	CTRC
HJ06xx	Microprogram error [RSM] Logical discrepancy of the firmware was detected. (Resource control) x : Optional code Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information	CTRC
HJ07xx	Microprogram error [FTD] Logical discrepancy of the firmware was detected. (Tachyon driver control) x : Optional code Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	Collecting Error Information	CTRC
HJ08xx	Microprogram error [FSM] Logical discrepancy of the firmware was detected. (Sequence Manager) x : Optional code	Collecting Error Information	CTRC
HJ09xx	Microprogram error [LSM] Logical discrepancy of the firmware was detected. (Link service control) x : Optional code	Collecting Error Information	CTRC
HJ0Axx	Microprogram error [HSC] Logical discrepancy of the firmware was detected. x : Optional code	Collecting Error Information	CTRC
HJ0Bxx	Microprogram error [NCR] Logical discrepancy of the firmware was detected. (NCR) x : Optional code	Collecting Error Information	CTRC
HJ0Dxx	Microprogram error [SCP] Logical discrepancy of the firmware was detected. (SCP control) x : Optional code	Collecting Error Information	CTRC
HJ0Exx	Microprogram error [CMD] Logical discrepancy of the firmware was detected. (Command) x : Optional code Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information	CTRC

HJ0Fxx	Microprogram error [PRS] Logical discrepancy of the firmware was detected. (Reading first) x : Optional code	Collecting Error Information	CTRC
HJ10xx	Microprogram error [COW] Logical discrepancy of the firmware was detected. (Writing together) x : Optional code	Collecting Error Information	CTRC
HJ11xx	Microprogram error [RCH] Logical discrepancy of the firmware was detected. (Cache control) x : Optional code Logical discrepancy of the firmware was detected. (Cache control)	Collecting Error Information	CTRC
HJ12xx	Microprogram error [RAD] Logical discrepancy of the firmware was detected. (RAID control) x : Optional code Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information	CTRC
HJ13xx	Microprogram error [DSC] Logical discrepancy of the firmware was detected. (I/O execution control) x : Optional code Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	Collecting Error Information	CTRC
HJ14xx	Microprogram error [DMA] Logical discrepancy of the firmware was detected. (Data transfer control) x : Optional code	Collecting Error Information	CTRC
HJ15xx	Microprogram error [ERR] Logical discrepancy of the firmware was detected. (Assistance in failure processing) x : Optional code	Collecting Error Information	CTRC
HJ16xx	Microprogram error [RCF] Logical discrepancy of the firmware was detected. (Configuration control) x : Optional code	Collecting Error Information	CTRC
HJ17xx	Microprogram error [DRC] Logical discrepancy of the firmware was detected. (Recovery of Drive) x : Optional code	Collecting Error Information	CTRC
HJ18xx	Microprogram error [OFW] Logical discrepancy of the firmware was detected. (Off-line monitoring) x : Optional code	Collecting Error Information	CTRC
HJ19xx	Microprogram error [ONW] Logical discrepancy of the firmware was detected. (On-line monitoring) x : Optional code	Collecting Error Information	CTRC
HJ1Axx	Microprogram error [DST] Logical discrepancy of the firmware was detected. (Emergency destaging) x : Optional code	Collecting Error Information	CTRC
HJ1Bxx	Microprogram error [CPR] Logical discrepancy of the firmware was detected. (Forced recovery of parity) x : Optional code Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information	CTRC

HJ1Cxx	Microprogram error [COM] Logical discrepancy of the firmware was detected. (Common function) x : Optional code	Collecting Error Information	CTRC
HJ1Dxx	Microprogram error [SV1] Logical discrepancy of the firmware was detected. (SVP I/F) x : Optional code	Collecting Error Information	CTRC
HJ1Exx	Microprogram error [LUC] Logical discrepancy of the firmware was detected. (Common function) x : Optional code	Collecting Error Information	CTRC
HJ1Fxx	Microprogram error [PR0] Logical discrepancy of the firmware was detected. (Communication between Controllers) x : Optional code	Collecting Error Information	CTRC
HJ20xx	Microprogram error [BKW] Logical discrepancy of the firmware was detected. (Back end control) x : Optional code	Collecting Error Information	CTRC
HJ22xx	Microprogram error [CCP] Logical discrepancy of the firmware was detected. (Coupling copy job) x : Optional code	Collecting Error Information	CTRC
HJ23xx	Microprogram error [MDU] Logical discrepancy of the firmware was detected. (during an execution of drive firmware renewal job) x : Optional code	Collecting Error Information	CTRC
HJ24xx	Microprogram error [SDW] Logical discrepancy of the firmware was detected. (Takeover writing job) x : Optional code	Collecting Error Information	CTRC
HJ25xx	Microprogram error [RVD] Logical discrepancy of the firmware was detected. (RVR data transfer job) x : Optional code	Collecting Error Information	CTRC
HJ26xx	Microprogram error [RVP] Logical discrepancy of the firmware was detected. (RVR communication job) x : Optional code	Collecting Error Information	CTRC
HJ27xx	Microprogram error [RVM] Logical discrepancy of the firmware was detected. (RVR management) x : Optional code	Collecting Error Information	CTRC
HJ28xx	Microprogram error [STG] Logical discrepancy of the firmware was detected. (Staging job) x : Optional code	Collecting Error Information	CTRC
HJ29xx	Microprogram error [SPL] Logical discrepancy of the firmware was detected. (mistake specializing control) x : Optional code	Collecting Error Information	CTRC
HJ2Axx	Microprogram error [SML] Logical discrepancy of the firmware was detected. (in the SendMail control) x : Optional code	Collecting Error Information	CTRC
HJ2Bxx	Microprogram error [SNP] A logical error occurred. (Copy-on-write SnapShot job) x : Optional code	Collecting Error Information	CTRC
HJ2Cxx	Microprogram error [POM] A logical error occurred. (Pool management) x : Optional code	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	

HJ2Dxx	Microprogram error [SNR] A logical error occurred. (Copy-on-write SnapShot restoration control) x : Optional code	Collecting Error Information	CTRC
HJ2Exx	Microprogram error [SAM] A logical error occurred. (S-Vol area management control) x : Optional code	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HJ2Fxx	Microprogram error [QFM] An illegal logical error of the firmware was detected (Quick Format control). x : Optional code	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HJ30xx	Microprogram error [SMR] A logical error occurred. (SMART control) x : Optional code	Collecting Error Information	CTRC
HJ31xx	Microprogram error [DRF] A logical error occurred. (Drive flash control) x : Optional code	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HJ32xx	Microprogram error [OPR] An illegal logical error of the firmware was detected (Online forced parity recovery control). x : Optional code	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HJ33xx	Microprogram error [MPC] Logical illegality of the firmware was detected. (Multi-protocol management control) x : Optional code	Collecting Error Information	CTRC
HJ34xx	Microprogram error [JSD] Logical illegality of the firmware was detected. (Job support driver) x : Optional code	Collecting Error Information	CTRC
	Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HJ35xx	Microprogram error [NSM] A logical incorrectness of the firmware was detected. (NAS Sequence Manager control) x : Detailed code	Collecting Error Information	CTRC
	Recovery methods	① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	

HJ37xx	Microprogram error [DMI]	Collecting Error Information	CTRC
	An illegal logical error of the firmware was detected (DDCB management information R/W job)		
	x : Optional code		
Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
HJ3Axy	Unsupported CACHE detected (CTL-x, CACHE-y)	Collecting Error Information	STRC
	An unsupported Cache memory was detected.		
	x : Controller # (0-1)		
	y : Cache Memory # (0-3)		
Recovery methods	① Replace the Cache Memory displayed in this message to the Cache Memory supported by the Controller of the array and the firmware revision. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) , Firmware "1.8 Adaptable Firmware Revision" (FIRM 01-1670).)		
HJ3Bxx	Microprogram error [MAP]	Collecting Error Information	CTRC
	Logical illegality was detected in the firmware (intermediate LU mapping management).		
	x : Optional code		
HJ3Cxx	Microprogram error [LMG]	Collecting Error Information	CTRC
	Logical illegality was detected in the firmware (Modular Volume Migration management).		
	x : Optional code		
Recovery methods	① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② In the case other than ①, replace the Controller which shows this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).)		
HJ40xx	Microprogram error [BCM]	Collecting Error Information	CTRC
	Logical discrepancy of the firmware was detected. (Backend common control)		
	x : Optional code		
HJ41xx	Microprogram error [BDM]	Collecting Error Information	CTRC
	Logical discrepancy of the firmware was detected. (Backend drive management control)		
	x : Optional code		
HJ42xx	Microprogram error [BER]	Collecting Error Information	CTRC
	Logical discrepancy of the firmware was detected. (Backend failure process control)		
	x : Optional code		
HJ43xx	Microprogram error [BKD]	Collecting Error Information	CTRC
	Logical discrepancy of the firmware was detected. (Backend diagnosis control)		
	x : Optional code		
HJ44xx	Microprogram error [BPD]	Collecting Error Information	CTRC
	Logical discrepancy of the firmware was detected. (Backend protocol driver control)		
	x : Optional code		
HJ45xx	Microprogram error [BSM]	Collecting Error Information	CTRC
	Logical discrepancy of the firmware was detected. (Backend SAS management control)		
	x : Optional code		
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

HJ49xx	Microprogram error was detected [RGX] (CTL-y) An illegal logical error of the firmware was detected (RAID group extended control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	None	
HJ4Axx	Microprogram error was detected [HDP] (CTL-y) An illegal logical error of the firmware was detected (HDP control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to Chapter 6. Warning Messages (MSG 06-0000).) ② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
HJ4B00	There is not enough Cache memory to use DP function The array did not start because the Cache memory capacity to use the Dynamic Provisioning function was insufficient by upgrading the model.	Collecting Error Information	STRC
	Recovery methods	① 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Remove the power cables of the Controller Box. 3. Add the Cache memory capacity so that the Dynamic Provisioning function can be used. (Refer to Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460).) 4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
HJ4C00	Cache memory is removed although DP function is enabled The Cache memory capacity was removed when the Dynamic Provisioning function was unlocked and enabled.	Collecting Error Information	STRC
	Recovery methods	① 1. When using the Dynamic Provisioning function, turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Remove the power cables of the Controller Box. 3. Return the Cache memory capacity to the capacity before removing the Cache memory. 4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ② 1. When removing the Cache memory without using the Dynamic Provisioning function, turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Remove the power cables of the Controller Box. 3. Return the Cache memory capacity temporarily to the capacity before removing the Cache memory. 4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 5. Lock the Dynamic Provisioning function of the priced option. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020).) 6. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 7. Remove the Cache memory. (Refer to Addition/Removal/Relocation "2.4.3 Removing a Cache Memory" (ADD 02-0320).)	
HJ4Dxx	Microprogram error was detected [OCV] (CTL-y) An illegal logical error of the firmware was detected (Online cache verify control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to Chapter 6. Warning Messages (MSG 06-0000).) ② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	

HJ4Exx	Microprogram error was detected [GPC] (CTL-y) An illegal logical error of the firmware was detected (General-purpose copy job). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
HJ4Fxx	Microprogram error was detected [ZDD] (CTL-y) An illegal logical error of the firmware was detected (Zero "0" data deletion job control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
HJ4Gxx	Microprogram error was detected [PRM] (CTL-y) An illegal logical error of the firmware was detected (Pool optimization management). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
HJ4Kxx	Microprogram error was detected [CYM] (CTL-y) An illegal logical error of the firmware was detected (Copy system intermediate control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
HJ4Lxx	Microprogram error was detected [WRC] (CTL-y) An illegal logical error of the firmware was detected (Write extension remote copy job). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
HJ4Mxx	Microprogram error was detected [DAC] (CTL-y) An illegal logical error of the firmware was detected (DAC control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. ② When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED (red) on the front side of the Controller Box lights up, replace the Controller whose ALM LED lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
HJ4Nxx	Microprogram error was detected [DIR] (CTL-y) An illegal logical error of the firmware was detected (Directory configuration change control). x : Optional code y : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① 1. When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. 2. Execute reconfigure memory again. ② 1. When the ALARM LED on the front of the Controller Box does not light up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 2. Execute reconfigure memory again. ③ 1. When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 2. After the array becomes Ready, execute reconfigure memory again.	

HJ4Pxx	Microprogram error was detected [MML] (CTL-y) An illegal logical error of the firmware was detected (Memory hierarchy control). x : Optional code y : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
HK0100	DDR error (DMA-xx) Forcible blockade by debug option. xx : D-CTL LSI port # 00-01 (DDR)	Collecting Error Information	CTRC
HK0300	D-DMA error (PT-04, DRIVE-CACHE) [D-DMA failure trace] Port #04, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HK0400	D-DMA error (PT-05, DRIVE-CACHE) [D-DMA failure trace] Port #05, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HK0500	D-DMA error (PT-06, DRIVE-CACHE) [D-DMA failure trace] Port #06, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HK0600	D-DMA error (PT-07, DRIVE-CACHE) [D-DMA failure trace] Port #07, Drive → Cache (forcible blockade by debug option)	Collecting Error Information	CTRC
HK0700	D-DMA error (PT-04, CACHE-DRIVE) [D-DMA failure trace] Port #04, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
HK0800	D-DMA error (PT-05, CACHE-DRIVE) [D-DMA failure trace] Port #05, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
HK0900	D-DMA error (PT-06, CACHE-DRIVE) [D-DMA failure trace] Port #06, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
HK0A00	D-DMA error (PT-07, CACHE-DRIVE) [D-DMA failure trace] Port #07, Cache → Drive (forcible blockade by debug option)	Collecting Error Information	CTRC
Recovery methods	① Collect the CTL Alarm Trace. (Refer to Troubleshooting "5.4 Collecting CTL Alarm Trace" (TRBL 05-0130) .)		
HL0000	Other CTL workQPanic The processing became unable to be continued because a capacity of the task control queue became full.	Collecting Error Information	CTRC
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
HSA000	DFPC error detect [SYSTEM DOWN] The PDEV time-out occurred frequently in the screening or self heat-run system.	Collecting Error Information	FDMP
Recovery methods	① Execute full dumps from all the Controllers and contact the department for coping with troubles. (Refer to Troubleshooting "5.5 Collecting Full Dump" (TRBL 05-0180) .)		
HSA10x	SELF HEATRAN: The destage of cache data failed (CTL-x) In the Drive test of the LT short version SELF HEATRAN system, write to the cache data (pseudo planned shutdown) to the Drive to be executed before the test of the test pattern 121 failed. x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	None		

HZ0200 Sink error	Collecting Error Information CTRC
When the Down mode was set for the RAM in order to perform a debug, a command was detected that was not executed at all during the specified period (three seconds in default).	
Recovery methods	① Get a trace of the Controller detachment. (Refer to Troubleshooting "5.4 Collecting CTL Alarm Trace" (TRBL 05-0130) .)
HZ0C00 TWSI access error was detected [Read, xx-yy-aa] (CTL-w)	Collecting Error Information STRC
An error was detected when read of TWSI (Two Wired Serial Interface) operated. xx : Optional code yy : Optional code aa : Optional code w : Controller # (0-1)	
HZ0D00 TWSI access error was detected [Write, xx-yy-aa] (CTL-w)	Collecting Error Information STRC
An error was detected when write of TWSI (Two Wired Serial Interface) operated. xx : Optional code yy : Optional code aa : Optional code w : Controller # (0-1)	
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.
HZ0H0x Directory reinitialization failed (CTL-x)	Collecting Error Information STRC
Writing to the cache memory failed when the directory was reinitialized after the other one of the dual Controller was detached while the array was being booted.	
x : Controller # (0-1)	
Recovery methods	① Replace the Controller shown in this message. Besides, take appropriate actions against the detachment of the other one of the dual Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② If the trouble is not solved, replace all the cache memories in the Controller displayed in this message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .)
HZ0Lxx DSC detected IOLIST error	Collecting Error Information STRC
An illegal transition status of the I/O request list queue was detected by the I/O execution control.	
Recovery methods	① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)

HZ0M00 DM-LU write failed	Collecting Error Information CTRC		
<p>Write to the DMLU failed, and the array became the alarm status.</p> <table border="1"> <tr> <td>Recovery methods</td><td> <ol style="list-style-type: none"> 1. Remove the power cables of the Controller Box. 2. Connect the power cables to the Controller Box. 3. Turn on the main switch, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 4. Check if the messages to require the Drive replacement such as "HDU alarm" and "HDU error" are displayed referring to the WEB Information Message. 5. If the message to require the Drive replacement is displayed, perform the maintenance according to the message. If the messages to require the Drive replacement such as "HDU alarm" and "HDU error" are not displayed, go to the procedure ①-10.. 6. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 7. When the planned shutdown of the array is completed, the maintenance work is completed. When the planned shutdown of the array fails and this message is displayed again, if the array goes down, the maintenance work needs to be continued. Firstly, remove the power cables of the Controller Box. 8. Connect the power cables to the Controller Box. 9. Turn on the main switch, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 10. Connect Hitachi Storage Navigator Modular 2 to the array. 11. Check the LU # of the DMLU. When two DMLUs are created, check each LU #. 12. Check if the DMLU is a DP Volume. When two DMLUs are created, check if the DMLU is a DP Volume for each DMLU. 13. When the DMLU is not a DP Volume, contact the Technical Support Center. In case the DMLU is a DP Volume, if either DMLU is a DP Volume when two DMLUs are created, request the customer/SE to create the free capacity more than or equal to the minimum capacity of the DMLU (10 G bytes) in the DP pool to which the DMLU belongs. 14. Check that the formatting of the DP pool created in the step ①-13. is completed (it takes a long time before completing the formatting). 15. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) </td></tr> </table>		Recovery methods	<ol style="list-style-type: none"> 1. Remove the power cables of the Controller Box. 2. Connect the power cables to the Controller Box. 3. Turn on the main switch, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 4. Check if the messages to require the Drive replacement such as "HDU alarm" and "HDU error" are displayed referring to the WEB Information Message. 5. If the message to require the Drive replacement is displayed, perform the maintenance according to the message. If the messages to require the Drive replacement such as "HDU alarm" and "HDU error" are not displayed, go to the procedure ①-10.. 6. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 7. When the planned shutdown of the array is completed, the maintenance work is completed. When the planned shutdown of the array fails and this message is displayed again, if the array goes down, the maintenance work needs to be continued. Firstly, remove the power cables of the Controller Box. 8. Connect the power cables to the Controller Box. 9. Turn on the main switch, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 10. Connect Hitachi Storage Navigator Modular 2 to the array. 11. Check the LU # of the DMLU. When two DMLUs are created, check each LU #. 12. Check if the DMLU is a DP Volume. When two DMLUs are created, check if the DMLU is a DP Volume for each DMLU. 13. When the DMLU is not a DP Volume, contact the Technical Support Center. In case the DMLU is a DP Volume, if either DMLU is a DP Volume when two DMLUs are created, request the customer/SE to create the free capacity more than or equal to the minimum capacity of the DMLU (10 G bytes) in the DP pool to which the DMLU belongs. 14. Check that the formatting of the DP pool created in the step ①-13. is completed (it takes a long time before completing the formatting). 15. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)
Recovery methods	<ol style="list-style-type: none"> 1. Remove the power cables of the Controller Box. 2. Connect the power cables to the Controller Box. 3. Turn on the main switch, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 4. Check if the messages to require the Drive replacement such as "HDU alarm" and "HDU error" are displayed referring to the WEB Information Message. 5. If the message to require the Drive replacement is displayed, perform the maintenance according to the message. If the messages to require the Drive replacement such as "HDU alarm" and "HDU error" are not displayed, go to the procedure ①-10.. 6. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 7. When the planned shutdown of the array is completed, the maintenance work is completed. When the planned shutdown of the array fails and this message is displayed again, if the array goes down, the maintenance work needs to be continued. Firstly, remove the power cables of the Controller Box. 8. Connect the power cables to the Controller Box. 9. Turn on the main switch, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 10. Connect Hitachi Storage Navigator Modular 2 to the array. 11. Check the LU # of the DMLU. When two DMLUs are created, check each LU #. 12. Check if the DMLU is a DP Volume. When two DMLUs are created, check if the DMLU is a DP Volume for each DMLU. 13. When the DMLU is not a DP Volume, contact the Technical Support Center. In case the DMLU is a DP Volume, if either DMLU is a DP Volume when two DMLUs are created, request the customer/SE to create the free capacity more than or equal to the minimum capacity of the DMLU (10 G bytes) in the DP pool to which the DMLU belongs. 14. Check that the formatting of the DP pool created in the step ①-13. is completed (it takes a long time before completing the formatting). 15. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 		
HZ0N0x Kernel processing error (CTL-x)	Collecting Error Information CTRC		
<p>The Kernel of the Controller's OS stopped illegally. x : Controller # (0-1)</p> <table border="1"> <tr> <td>Recovery methods</td><td> <ol style="list-style-type: none"> ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to Chapter 6. Warning Messages" (MSG 06-0000).) ② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).) ③ If this failure still occurs again, replace all Cache memories of the Controller displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) </td></tr> </table>		Recovery methods	<ol style="list-style-type: none"> ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to Chapter 6. Warning Messages" (MSG 06-0000).) ② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).) ③ If this failure still occurs again, replace all Cache memories of the Controller displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)
Recovery methods	<ol style="list-style-type: none"> ① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to Chapter 6. Warning Messages" (MSG 06-0000).) ② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700).) ③ If this failure still occurs again, replace all Cache memories of the Controller displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 		
HZ0Pxx Cache capacity reduced although Cache Partition Manager enable	Collecting Error Information STRC		
<p>The cache memory capacity was reduced though Cache Partition Manager was valid (causing detachment of the both Controllers). x : The original cache memory capacity per Controller (G bytes) (01-08)</p> <table border="1"> <tr> <td>Recovery methods</td><td> <ol style="list-style-type: none"> ① 1. Return the cache memory capacity to the original one. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 2. Reboot the disk array unit. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) </td></tr> </table>		Recovery methods	<ol style="list-style-type: none"> ① 1. Return the cache memory capacity to the original one. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 2. Reboot the disk array unit. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)
Recovery methods	<ol style="list-style-type: none"> ① 1. Return the cache memory capacity to the original one. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 2. Reboot the disk array unit. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		

HZ0S00 Not enough Cache memory to use Cache Partition Manager	Collecting Error Information	STRC
The Cache capacity to use Cache Partition Manager was insufficient due to the upgrade of the model.		
Recovery methods	① Add the Cache memory in the capacity to be able to upgrade the model. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)	
HZ0T00 Changing to x failed as Cache Partition Manager is enable	Collecting Error Information	STRC
The system start attribute was changed although the Cache partition management function was effective.		
x : Single Mode or Dual Active Mode		
Recovery methods	① Restore the system start attribute. (Refer to System Parameter "8.1 Setting Boot Options" (SYSPR 08-0000).)	

Chapter 4. Progress Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

• Detail of the message code variable value

	Contents	Detailed contents									
z	Chassis type	1 : CBL E : DBF	2 : CBSS F : The type is unknown	3 : CBSL	4 : CBXSS	5 : CBXL	A : DBS	B : DBL	C : DBX	D : DBW	
a	Drive type code	5 : SSD		7 : SAS7.2K 7,200 rpm		A : SAS 10,000 rpm		B : SAS 15,000 rpm		C : FMD Z : The type is unknown	
b	Drive model name code	SSD	5 : 0 : 2HGDM, 1 : 4HGDM, 2 : 8HGDM, 3 : 2HGDML, 4 : 4HGDML, 5 : 8HGDML								
		SAS 7.2K	7 : 0 : 2TNL, 1 : 2TNX, 2 : 3TNL, 3 : 3TNX, 5 : 3TNW, 6 : 4TNL, 7 : 4TNX 8 : 4TNW								
		SAS	A : 0 : 3HGSS, 1 : 6HGSS, 2 : 9HGSS 6 : 9HGS L 8 : 12HGSS B : 3 : 3HGSSH 7 : 3HGSLH								
		FMD	C : 0 : 1R6FM								
		Z : Classification is impossible									
c	Drive model name	Character string : 0 to 8 characters									
d	Cache Memory type	0 : Intermix or The type is unknown			4 : 4 G bytes		8 : 8 G bytes				
e	Cache Backup Battery type	0 : CBS		1 : CBL							
f	I/O Module (ENC) or I/O Card (ENC) type	0 : I/O Module (ENC) for DBS, DBL									
		1 : I/O Card (ENC) for DBX									
		2 : I/O Module (ENC) for DBW									
		3 : I/O Module (ENC) for DBF									
		F : The type is unknown									
g	Host Connector type	0 : 4G FC		1 : 8G FC		2 : 10G iSCSI					
h	I/F type	0 : The type is unknown			1 : FC 4 G – 4 Ports		2 : FC 8 G – 4 Ports		3 : iSCSI 1 G – 2 Ports		
		4 : iSCSI 10 G – 2 Ports			F : Unmount						
i	Host I/O type	0 : FC 4 G – 4 Ports			1 : FC 8 G – 4 Ports		2 : iSCSI 1 G – 2 Ports		3 : iSCSI 10 G – 2 Ports		
		F : Unmount			Z : The type is unknown						
j	Drive I/O type	0 : SAS6G		6 : SAS6GE		E : The type is unknown		F : Unmount			
k	Management Module type	0 : Management module				F : Unmount					
l	I/F Module slot code ^(*)	A : Management module (LAN)					B : Management module (UPS)				
		C : Drive I/O module (C side)					D : Drive I/O module (D side)				
		E : Host I/O module (E side)					F : Host I/O module (F side)				
m	Power supply type	0 : AC Power supply			1 : DC Power supply						
n	Side Card type	0 : Side Card [A]			1 : Side Card [B]						
p	Side Card code ⁽²⁾	0 : Side Card-A-U			1 : Side Card-B-U		2 : Side Card-A-L		3 : Side Card-B-L		
		Unknown : SideCard-X-X									

*1 : For the location of the part to be replaced, refer to [Replacement “2.1.1 Parts Locations \(5\) CBL/CBLD” \(REP 02-0031\)](#).

*2 : For the location of the part to be replaced, refer to [Replacement “2.1.1 Parts Locations \(9\) DBW” \(REP 02-0040\)](#).

- Details of the firmware types of DBWs of the message code

Firmware types of DBWs	Value
Firmware for ENC (Firmware)	00
Firmware for ENC (Bootloader)	01
Firmware for ENC (MainCPLD)	02
Firmware for ENC (VPD)	03
Firmware for ENC (Config)	04
Firmware for ENC (PowerCPLD)	05
Firmware for SideCard A (Firmware)	06
Firmware for SideCard A (Bootloader)	07
Firmware for SideCard A (CPLD)	08
Firmware for SideCard A (VPD 24Exp)	09
Firmware for SideCard A (VPD 36Exp)	10
Firmware for SideCard A (Config24Exp)	11
Firmware for SideCard A (Config36Exp)	12
Firmware for SideCard B (Firmware)	13
Firmware for SideCard B (Bootloader)	14
Firmware for SideCard B (CPLD)	15
Firmware for SideCard B (VPD 24Exp)	16
Firmware for SideCard B (VPD 36Exp)	17
Firmware for SideCard B (Config24Exp)	18
Firmware for SideCard B (Config36Exp)	19
Firmware for Midplane (CPLD)	20
Firmware for Midplane (VPD)	21
Firmware for PS0 (Firmware)	22
Firmware for PS0 (VPD)	23
Firmware for FAN0 (Firmware)	24
Firmware for PS1 (Firmware)	25
Firmware for PS1 (VPD)	26
Firmware for FAN1 (Firmware)	27
Firmware for FAN2 (Firmware)	28
Firmware for FAN3 (Firmware)	29
Firmware for FAN4 (Firmware)	30

I0010x	CTL recovered (CTL-x)	Collecting Error Information
	The Controller recovered by replacing the Controller in the status of the array powering on. x : Controller # (0-1)	
I0030x	Battery recovered (Battery-x)	Collecting Error Information
	The battery voltage became recovered. x : Cache Backup Battery # (0-1)	
	Recovery methods	None
I0040x	Battery backup circuit recovered (CTL-x)	Collecting Error Information
	The battery charging circuit recovered. x : Controller # (0-1)	
	Recovery methods	① When "W01z0x CTL alarm (CTL-x)" is displayed before this message, disregard "I0040x Battery backup circuit recovered (CTL-x)".
I00500	FAN recovered (CTL-Unit, FAN-xy)	Collecting Error Information
	The Fan Module recovered from the failure. x : Controller # (0-1) y : Fan Module # (0-2)	
I00500	FAN recovered (Unit-x, FAN-y)	Collecting Error Information
	The Fan Module recovered from the failure. x : Unit ID # (0-79) y : Fan Module # (0-4)	
	Recovery methods	① Replace the Fan Module. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520) .)
I006z0	PS recovered (Unit-x ^(*) , PS-y)	Collecting Error Information
	The voltage of the power supply recovered. x : Unit ID # (0-79) y : Power Unit # (0-1) z : Power supply type (0 = AC Power Unit, 1 = AC Power Unit)	
	Recovery methods	None
	*1 : In case of the Controller Box (CBL), "Unit-x" is displayed as "CTL-Unit".	
I007ab	HDU recovered (Unit-x, HDU-y)	Collecting Error Information
	The Drive was recovered. x : Unit ID # (0-79) y : Drive # (0-83) a : Drive type code (Refer to MSG 04-0000 for the detail) b : Drive model name code (Refer to MSG 04-0000 for the detail)	
I00800	Data recovery to spare HDU (Unit-x, HDU-y)	Collecting Error Information
	Data was recovered to the Spare Disk. x : Unit ID # (0-79) y : Drive # (0-83)	
I009ab	Spare HDU recovered (Unit-x, HDU-y)	Collecting Error Information
	The Spare Disk was recovered. x : Unit ID # (0-79) y : Drive # (0-83) a : Drive type code (Refer to MSG 04-0000 for the detail) b : Drive model name code (Refer to MSG 04-0000 for the detail)	
	Recovery methods	None

I00Bf0	ENC recovered (Unit-x, ENC-y) The PK failure of SW recovered. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) f : I/O Module (ENC) or I/O Card (ENC) type (Fixed value : 0)	Collecting Error Information
I00D0x	UPS recovered (UPS-x) The UPS was recovered. x : UPS # (0-1)	Collecting Error Information
I030xy	Path recovered by web operation (Remote-x, Path-y) The path was recovered by an operation from the Web. x : Remote # (Array ID) y : Path # (0-7)	Collecting Error Information
I031xy	Path recovered automatically (Remote-x, Path-y) The path recovered automatically. x : Remote # (Array ID) y : Path # (0-7)	Collecting Error Information
I04000	Unreadable PIN recovered Data has been restored due to recovery of the drives from the unreadable PIN.	Collecting Error Information
I0430x	Backend route recovered (Path-x) The backend path failure was removed and the backend path recovered. x : Path # (0-7)	Collecting Error Information
I04500	SideCard recovered (Unit-xx, SideCard-p-p) The Side Card recovered from the failure. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information
I046lx	Host I/O module recovery start (CTL-x, Slot-l) Host I/O Module recovery starts by Host I/O Module insertion at maintenance replacement due to a Host I/O Module failure. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000 for the detail)	Collecting Error Information
I047yx	Interface Board recovery start (CTL-x, I/F-y) Host I/O Board recovery starts by Host I/O Board insertion at maintenance replacement due to a Host I/O Board failure. x : Controller # (0-1) y : Host I/O Board # (0-1)	Collecting Error Information
I04800	No RAID group remains on an unconnected unit (RG-x) The RAID group displayed in the message is not in the unconnected Drive Box. x : RAID group # (0-199)	Collecting Error Information
I04900	No spare HDU remains on an unconnected unit There is no Spare Drive in an unconnected Drive Box. Recovery methods : None	Collecting Error Information

I10000	Array is ready [The firmware version *****] The unit is ready.	Collecting Error Information	
I11000	All raid group initialized All RAID groups were deleted.	Collecting Error Information	
I111xx	RAID group deleted (RG-y) RAID groups was deleted. x : The number of RAID groups in hexadecimal number (00-C7) y : RAID group # (0-199)	Collecting Error Information	
I12000	ALL LU initialized All volumes were deleted. (This is also displayed when the LU #0 is created.)	Collecting Error Information	
I12100	LU deleted (LU-x) Volumes were deleted. x : LU # (0-4095)	Collecting Error Information	
I12200	LU format completed (LU-x) Volume formatting was completed. x : LU # (0-4095) Recovery methods None	Collecting Error Information	
I12300	LU format failed (LU-x) Volume formatting stopped abnormally. x : LU # (0-4095) Recovery methods ① When one of the following messages is displayed at the same time, follow the recovery procedure given by the message. • W09zab HDU alarm (Unit-x, HDU-y, Type-c) ② A Confirm that a Drive to which the objective LU is allotted is mounted. ③ If it is confirmed in the step ② that all the Drives are installed and no failure has occurred in them, format the object volume again.	Collecting Error Information	STRC
I12400	LU format start (LU-x) An volume formatting was started. x : LU # (0-4095)	Collecting Error Information	
I12500	Unified LUs separated (UNI:LU-x) Dissolution of all volume unification (to dissolve unification of all the unified volumes and to split them into internal volumes) was executed. x : An internal LU # of a unified LU to be spitted. (0-4095) Recovery methods None	Collecting Error Information	
I12600	Last LU separated from unified LU (UNI:LU-x) A separation of a final volume of a unified volume (to separate the last one of the internal volumes which have been combined with a unified volume) was executed. x : An internal LU # of a unified LU to be spitted. (0-4095)	Collecting Error Information	
I12700	LU reappeared (LU-x) An internal volume(s) was validated again through splitting of an unified volume separation of a final volume. x : An LU # of an internal LU which has been separated and validated. (0-4095) Recovery methods None	Collecting Error Information	

I13000 Spare HDU defined (Unit-x, HDU-y) A Spare Disk is registered. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
I13100 Spare HDU deleted (Unit-x, HDU-y) Registration of a disk is called off. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods None	Collecting Error Information
I14000 System copy started (Unit-x, HDU-y) System copy was started. x : Unit ID # (0-79) y : Drive # (0-4) Recovery methods ① Do not change the configuration during the system copy. Because of copying the system information after the configuration change, if the operations for changing the system configuration (Volume creation, format, LU owner right change) are overlapped, the message may be displayed multiple times. Also, when the firmware was replaced online after changing the system configuration, the message may be displayed two or more times, but it is not a problem.	Collecting Error Information
I14100 System copy completed (Unit-x, HDU-y) System copy terminated normally. x : Unit ID # (0-79) y : Drive # (0-4) Recovery methods None	Collecting Error Information
I14200 System copy failed (Unit-x, HDU-y) System copy failed. x : Unit ID # (0-79) y : Drive # (0-4) Recovery methods ① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) When you want to make sure of a model name and drive firmware revision of the Drive, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040) .	Collecting Error Information STRC
I15000 Data recovery started (Unit-x, HDU-y) Data recovery was started. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
I15100 Data recovery completed (Unit-x, HDU-y) Data recovery terminated normally. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods None	Collecting Error Information

I15200 Data recovery failed (Unit-x, HDU-y)	Collecting Error Information STRC		
Data recovery failed. x : Unit ID # (0-79) y : Drive # (0-83)	<table border="1"> <tr> <td>Recovery methods</td><td> ① When the following messages is displayed before this message, perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)" (TRBL 11-0700). • I30100 HDU error (Unit-x, HDU-y) • W0L000 Unreadable PIN detected (Unit-x, HDU-y) When the following messages is displayed before this message, perform the maintenance according to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally : Case 2 (Drive Failure)" (TRBL 11-0720). • W0Bzab Spare HDU alarm </td></tr> </table>	Recovery methods	① When the following messages is displayed before this message, perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)" (TRBL 11-0700) . • I30100 HDU error (Unit-x, HDU-y) • W0L000 Unreadable PIN detected (Unit-x, HDU-y) When the following messages is displayed before this message, perform the maintenance according to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally : Case 2 (Drive Failure)" (TRBL 11-0720) . • W0Bzab Spare HDU alarm
Recovery methods	① When the following messages is displayed before this message, perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)" (TRBL 11-0700) . • I30100 HDU error (Unit-x, HDU-y) • W0L000 Unreadable PIN detected (Unit-x, HDU-y) When the following messages is displayed before this message, perform the maintenance according to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally : Case 2 (Drive Failure)" (TRBL 11-0720) . • W0Bzab Spare HDU alarm		
I15300 Data recovery partial (Unit-x, HDU-y)	Collecting Error Information STRC		
A part of the data could not be recovered, and the data restoration was completed by managing the data as it is not possible to read. (Incomplete writing is registered.) x : Unit ID # (0-79) y : Drive # (0-83)	<table border="1"> <tr> <td>Recovery methods</td><td> ① Perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)" (TRBL 11-0700). </td></tr> </table>	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)" (TRBL 11-0700) .
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error)" (TRBL 11-0700) .		
I15A00 Dynamic sparing start (Unit-x, HDU-y) [z]	Collecting Error Information		
Dynamic sparing started. x : Unit ID # (0-79) y : Drive # (0-83) z : Detailed code			
I18000 PIN-over recovered	Collecting Error Information		
The PIN threshold value lowered.			
I19000 Online microprogram update completed [The firmware version *****]	Collecting Error Information		
The hot replacement of the firmware was completed.			
<table border="1"> <tr> <td>Recovery methods</td><td>None</td></tr> </table>	Recovery methods	None	
Recovery methods	None		

<p>I1A00x Permanent LU disable (Default CTL-x)</p> <p>LU residence is not changed.</p> <p>x : Default Controller # (0-2) (In case of 2, it is applied to both Controllers.)</p> <p>Recovery methods ① Set the unit in the ready state and turn off the power, then turn on the power again.</p>	Collecting Error Information
<p>I1A10x Permanent LU deleted (Default CTL-x)</p> <p>LU residence is deleted. (When RAID group/LU is deleted)</p> <p>x : Default Controller # (0-2)</p>	Collecting Error Information
<p>I1A2xy A permanent LU warning has been cancelled (CTL-x, ERR-y)</p> <p>The resident off-warning of Cache Residency Manager was cancelled.</p> <p>x : Default Controller # (0-1)</p> <p>y : Factor code of cancelled warning</p> <p>0: Too large LU</p> <p>1: Cache access error</p> <p>2: Regression of Controller</p> <p>3: • A Cache Backup Battery error or a Power Unit error of the Controller Box • A Cache Backup Battery error for one Controller and a Power Unit error of the Controller Box</p> <p>4: Abnormal battery charging circuit</p> <p>5: The number of the PIN data (data which failed to write to the Drive) exceeded the threshold value.</p>	Collecting Error Information
<p>I1A30x Permanent LU enable (Default CTL-x)</p> <p>The Turbo LU residence function was turned on.</p> <p>x : Default Controller # (0-1)</p>	Collecting Error Information
<p>I1B000 Forced parity correction started</p> <p>Forced parity correction processing was started.</p>	Collecting Error Information
<p>I1B100 Forced parity correction completed</p> <p>Forced parity correction processing was finished.</p>	Collecting Error Information
<p>I1E000 Online verify completed [odd unit]</p> <p>Check of the frames with odd numbers was completed in the online verification.</p>	Collecting Error Information
<p>I1E100 Online verify completed [even unit]</p> <p>Check of the frames with even numbers was completed in the online verification.</p>	Collecting Error Information
<p>I1E200 LU access enable [QuickShadow pair canceled] (LU-x)</p> <p>Read/Write to P-VOL enabled.</p> <p>x : LU # (0-4095)</p> <p>Recovery methods None</p>	Collecting Error Information STRC
<p>I1E300 LU access disable [QuickShadow restore failed] (LU-x)</p> <p>Read/Write to P-VOL disabled.</p> <p>x : LU # (0-4095)</p> <p>Recovery methods ① Cancel all the pairs of the V-VOL in the P-VOL.</p>	Collecting Error Information STRC
<p>I1F000 Data pool load failed</p> <p>The loading of pool information failed.</p> <p>Recovery methods None</p>	Collecting Error Information STRC

I1G00x PSUE occurred [QuickShadow] (Data pool-x) All pairs in the data pool changed to PSUE status. x : Data pool # (0-63)	Collecting Error Information STRC
I1G100 PSUE occurred (LU-x) All pairs to which P-VOL belongs changed to PSUE status. x: LU # (0-4095) Recovery methods ① Release the pair which became PSUE, and create the pair again.	Collecting Error Information STRC
I1G200 PSUE occurred (ShadowImage) A pair, whose status was changed to PSUE, exists. Recovery methods ① Refer to Troubleshooting "Chapter 6. Data Collection when a Failure Occurs in Program Product (P.P.)" (TRBL 06-0000) to collect necessary information.	Collecting Error Information STRC
I1G300 CTL recovery start (CTL-x) Because the recovery operation has been started, do not pull out the Controller. x : Controller # (0-1)	Collecting Error Information
I1G400 Quick Format started (LU-x) The Quick Format started a job that executes a formatting in the background. x : LU # (0-4095)	Collecting Error Information
I1G500 Quick Format completed (LU-x) A formatting of the whole area in the LU was completed. x : LU # (0-4095) Recovery methods None	Collecting Error Information
I1G600 Quick Format Suspended Quick Format was suspended since power shutdown and battery lost occurred, and the map controlling the formatted area was lost. Recovery methods ① User data may be lost. Confirm the situation to user. And execute format again. Afterwards, restore the backup data. (Refer to System Parameter "4.3 Setting Volume" (SYSPR 04-0250) .)	Collecting Error Information
I1G70x FC I/F ports remain offline (CTL-x) The Host I/O Board/Module (Fibre Channel) was made offline according to the instruction issued by Hitachi Storage Navigator Modular 2 at the time of the firmware hot replacement. x : Controller # (0-1) Recovery methods ① When Hitachi Storage Navigator Modular 2 completes execution of the procedure for hot replacement of the firmware, the Fibre Channel interface port becomes online.	Collecting Error Information
I1G80x FC I/F ports change to online (CTL-x) The Host I/O Board/Module (Fibre Channel) was made online according to the instruction issued by Hitachi Storage Navigator Modular 2 at the time of the firmware hot replacement. x : Controller # (0-1) Recovery methods None	Collecting Error Information
I1G900 SATA HDU limit over [Self-monitoring] (Unit-x, HDU-y) The count of drive errors exceeded its threshold value. x : Unit ID # (1-79) y : Drive # (0-83) Recovery methods ① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .)	Collecting Error Information

I1GA00	Forced parity correction is stopped [user directions] The forced parity correction was suspended because the Hitachi Storage Navigator Modular 2 instructed for the suspension during the forced parity correction process.	Collecting Error Information	
I1GB00	Forced parity correction is started (LU-x) The forced parity correction was started. x : LU # (0-4095)	Collecting Error Information	
I1GC00	Forced parity correction is completed (LU-x) The forced parity correction was completed. x : LU # (0-4095)	Collecting Error Information	
I1GD00	Forced parity correction is stopped [HDU alarm] The forced parity correction was stopped because of a drive detachment. Recovery methods: None	Collecting Error Information	
I1GE00	Forced parity correction is stopped [Too Many Unreadable PINs] (LU-x) The forced parity correction was stopped because a number of registered unwritten data per volume exceeded a certain value. x : LU # (0-4095) Recovery methods: ① Perform the maintenance according to Troubleshooting "11.1.3 [Recovery method-5] : Incomplete write occurred during the forced parity correction." (TRBL 11-0300).	Collecting Error Information	STRC
I1GG00	HDU changed to spare (Unit-x, HDU-y) The configuration information was changed as follows. The data drive, which had been restored in the Active Spare mode, was changed to a Spare Drive. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods: None	Collecting Error Information	STRC
I1GH00	Forced parity correction stopped by too many PINs (RG-x, LU-y) The forced parity correction of the target volume was suspended because the PIN over for each RAID group became near. x : RAID group # (0-199) y : LU # (0-4095)	Collecting Error Information	STRC
I1GJ00	Forced parity correction stopped by too many PINs (PTT-x, LU-y) The forced parity correction of the target volume stopped because PIN-over for each partition became close. x : Cache Partition # (0-31) y : LU # (0-4095)	Collecting Error Information	STRC
I1GK00	Forced parity correction stopped by too many PINs (DIR-x, LU-y) The forced parity correction of the target volume stopped because PIN-over for each DIR became close. x : Directory # (0 or 1) y : LU # (0-4095) Recovery methods: ① Perform the maintenance according to Troubleshooting "11.1.3 [Recovery method-4] : PIN over occurred during the forced parity correction." (TRBL 11-0280).	Collecting Error Information	STRC
I1GM00	The mode parameter change start The rewrite of the mode parameter of the Drive started.	Collecting Error Information	
I1GN00	The mode parameter change complete The rewrite of the mode parameter of the Drive was completed. Recovery methods: None	Collecting Error Information	

I1GS00 The mode parameter file not found(Unit-x, HDU-y)		Collecting Error Information
The Drive specific information file of the Drive displayed in the message was not found.		
x : Unit ID # (0-79)		
y : Drive # (0-83)		
Recovery methods	<ol style="list-style-type: none"> ① 1. Wait until the utility mode is terminated. 2. If the Drive displayed in this message is a Flash Drive (FMD), the maintenance work is not required. 3. Turn off all the power supply of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 4. Prepare the most recent directory in which the specific information file of the Drive displayed in the message is stored. 5. Turn on all the power supply of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 6. Perform the write of the Drive specific information again by resetting the utility mode. 7. Turn off all the power supply of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 	
I1GT00 All DM-LU canceled		Collecting Error Information
Only one DMLU was defined and the system released DMLU in WARNING with write of all DMLU disabled.		
Recovery methods	None	
I1GU00 Modification of Cache Partition skipped (PIN or Unreadable PIN)		Collecting Error Information STRC
The setting of cache partitions could not be changed because pinned data existed.		
Recovery methods	<ol style="list-style-type: none"> ① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800). ② When either of the following messages is displayed before this message, take recovery actions according to the message. <ul style="list-style-type: none"> • W0L000 Unreadable PIN detected • W0M000 Unreadable PIN detected ③ Check whether pinned data exist or not. (Refer to Troubleshooting "8.2.1 Displaying Logical Unit Failure Data Information" (TRBL 08-0090).) When the pinned data exist, refer to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760). ④ Boot the array after executing the deliberate shutdown in order to change the setting of cache partitions. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220).) 	
I1GV00 Modular Volume Migration completed (LU-x/y)		Collecting Error Information
One Modular Volume Migration is completed.		
x : Internal LU # of the P-VOL (0-4095)		
y : Internal LU # of the S-VOL (0-4095)		
I1GW00 Modular Volume Migration stopped (LU-x/y)		Collecting Error Information
Modular Volume Migration was cancelled because the instruction of cancellation was received or the pair was changed to PSUE.		
x : Internal LU # of the P-VOL (0-4095)		
y : Internal LU # of the S-VOL (0-4095)		
I1GX00 Modular Volume Migration started (LU-x/y)		Collecting Error Information
One Modular Volume Migration started.		
x : Internal LU # of the P-VOL (0-4095)		
y : Internal LU # of the S-VOL (0-4095)		
I1GY00 The request of spin up of disk drives is accepted (RG-x)		Collecting Error Information
The spin-up was instructed by Hitachi Storage Navigator Modular 2 to the Drive which was made to spin down for the power saving.		
x : RAID group # (0-199)		
I1GZ00 The spin up of disk drives completed (RG-x)		Collecting Error Information
The Drive which was made to spin-down for the power saving spun-up.		
x : RAID group # (0-199)		
Recovery methods	None	

<p>I1H000 The request of spin down of disk drives s is accepted (RG-x)</p> <p>The spin-down was instructed to the Drive for the power saving from Hitachi Storage Navigator Modular 2.</p> <p>x : RAID group # (0-199)</p>	Collecting Error Information
<p>I1H100 The spin down of disk drives completed (RG-x)</p> <p>The spin down of the Drives which was executed by Hitachi Storage Navigator Modular 2 in accordance with the command of the set power saving was completed.</p> <p>x : RAID group # (0-199)</p>	Collecting Error Information
<p>I1H200 The recovery for the disk drives of power saving started (RG-x)</p> <p>Because a failure occurred in the Drives to which the spin-down of the power saving was set, all the Drives in the RAID Group displayed in the message were spin up, and the post-processing of the failure started.</p> <p>x : RAID group # (0-199)</p>	Collecting Error Information
<p>I1H300 The recovery for the disk drives of power saving completed (RG-x)</p> <p>The post-processing of the failure of the Drives to which the spin-down of the power saving was set was completed. And, the Drives of the RAID Group displayed in the message were spin-down again according to the setting of the power saving.</p> <p>x : RAID group # (0-199)</p>	Collecting Error Information
<p>I1H400 Automatic health check of disk drives started (RG-x)</p> <p>The health check (it confirms that the adhesion of the head and the disk is prevented and the spindle motor rotates) started in the Drive which was made to spin-down for the power saving started.</p> <p>x : RAID group # (0-199)</p>	Collecting Error Information
<p>I1H500 Automatic health check of disk drives completed (RG-x)</p> <p>The health check (it confirms that the adhesion of the head and the disk is prevented and the spindle motor rotates) of the Drive which was made to spin-down for the power saving was completed.</p> <p>x : RAID group # (0-199)</p> <p>Recovery methods None</p>	Collecting Error Information
<p>I1H600 PSUE occurred [SnapShot]</p> <p>All SnapShot pairs were changed to PSUE, and the V-VOL data of the pairs changed to PSUE was discarded.</p> <p>Recovery methods ① To recover the SnapShot pair from PSUE, request the customer to execute the pair creation (paircreate) after executing the pair release (pairsplit-S) for the pair.</p>	Collecting Error Information STRC

I30100	HDU error (Unit-x, HDU-y)	Collecting Error Information	STRC
PDEV should be blocked because of an error, but it is not blocked since redundancy is insufficient.			
x : Unit ID # (0-79)			
y : Drive # (0-83)			
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally : Case 2 (Drive Failure)" (TRBL 11-0720) .		
I30200	System HDU error	Collecting Error Information	STRC
There is a drive which cannot handle the system before the system is ready.			
Recovery methods	① Solve the failure according to "I14200 System copy failed (CTL-x)" indicated before the message.		
I30300	HDU read capacity failed (Unit-x, HDU-y)	Collecting Error Information	
The insertion of the Drive failed because the capacity of the replaced Drive was small.			
x : Unit ID # (0-79)			
y : Drive # (0-83)			
Recovery methods	① Replace it with the Drive of the same capacity or more as the Drive before the replacement. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .)		
I30400	HDU spin up failed (Unit-x, HDU-y)	Collecting Error Information	
An insertion of a Drive failed because of a Drive failure.			
x : Unit ID # (0-79)			
y : Drive # (0-83)			
I30500	HDU read capacity failed (Unit-x, HDU-y)	Collecting Error Information	
An insertion of a Drive failed because of an illegal read capacity.			
x : Unit ID # (0-79)			
y : Drive # (0-83)			
Recovery methods	① Pull out the Drive and insert it again. ^(*) (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .)		
	② If the trouble is not solved in spite of the above operation, replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .)		
*1 : If this message is issued frequently, it is suspected that one of the following cases have occurred.			
• Symptom : Spin-up operation repeats interruption and restart because of contention with the RAID Manager command in the case where the ShadowImage in-system replication function is used.			
Corrective action : Contact the system manager. If RAID Manager command is issued by polling in a short period, check the manual and change the value to be appropriate.			
• Symptom : A spin up operation repeats an interruption and restart because LU switchings occur frequently.			
Corrective action : Check the setting of the owner right to the LU and change it so that the LU switching does not occur owing to an I/O command issued by a host.			
I30E00	HDU calibration was detected (Unit-x, HDU-y)	Collecting Error Information	
The update processing of the correction table operated in the Drive for executing the RRO calibration.			
x : Unit ID # (0-79)			
y : Drive # (0-83)			
Recovery methods	None		

I41000	HDU error over (Unit-x, HDU-y) [HDRVC]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the recovered mechanism system. x : Unit ID # (0-79) y : Drive # (0-83)	
I41100	HDU error over (Unit-x, HDU-y) [HDUNR]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered mechanism system. x : Unit ID # (0-79) y : Drive # (0-83)	
I41200	HDU error over (Unit-x, HDU-y) [MDRCV]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the recovered medium system. x : Unit ID # (0-79) y : Drive # (0-83)	
I41300	HDU error over (Unit-x, HDU-y) [MDUNR]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered medium system. x : Unit ID # (0-79) y : Drive # (0-83)	
I41400	HDU error over (Unit-x, HDU-y) [RWRCV]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the recovered R/W system. x : Unit ID # (0-79) y : Drive # (0-83)	
I41500	HDU error over (Unit-x, HDU-y) [RWUNR]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered R/W system. x : Unit ID # (0-79) y : Drive # (0-83)	
I41600	HDU error over (Unit-x, HDU-y) [IFRCV]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the recovered I/F. x : Unit ID # (0-79) y : Drive # (0-83)	
I41700	HDU error over (Unit-x, HDU-y) [IFUNR]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered I/F. x : Unit ID # (0-79) y : Drive # (0-83)	
I41800	HDU error over (Unit-x, HDU-y) [CHRCV]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the recovered hardware. x : Unit ID # (0-79) y : Drive # (0-83)	
I41900	HDU error over (Unit-x, HDU-y) [CHUNR]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered hardware. x : Unit ID # (0-79) y : Drive # (0-83)	
I41A00	HDU error over (Unit-x, HDU-y) [SCRCV]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the recovered SCSI I/F. x : Unit ID # (0-79) y : Drive # (0-83)	
	Recovery methods	① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) When you want to make sure of a model name and drive firmware revision of the Drive, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040) .

I41B00	HDU error over (Unit-x, HDU-y) [SCUNR]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an error in the un-recovered SCSI I/F. x : Unit ID # (0-79) y : Drive # (0-83)	
I41C00	HDU error over (Unit-x, HDU-y) [ONVRCV]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of a correctable error in the on-line verification. x : Unit ID # (0-79) y : Drive # (0-83)	
I41D00	HDU error over (Unit-x, HDU-y) [ONVUNR]	Collecting Error Information
	The Drive at the position indicated with x and y exceeds the threshold value because of an uncorrectable error in the on-line verification. x : Unit ID # (0-79) y : Drive # (0-83)	
I41E00	HDU error over (Unit-x, HDU-y) [ONVHER]	Collecting Error Information
	In the Drive located at a position shown as xy, the error count exceeded its threshold value owing to hardware errors (errors other than recovered error and media error) occurred in an online verification. x : Unit ID # (0-79) y : Drive # (0-83)	
I41F00	HDU error over (Unit-x, HDU-y) [REAOV]	Collecting Error Information
	An excess over the threshold value of the reassignment execution count occurred. x : Unit ID # (0-79) y : Drive # (0-83)	
	Recovery methods	① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) When you want to make sure of a model name and drive firmware revision of the Drive, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040) .
I4200x	Online micro-update (CTL-x)	Collecting Error Information
	The firmware of the Controller was replaced in the state in which the array power was on. Recovery methods: None	
I43000	HDU byte check error (Unit-x, HDU-y)	Collecting Error Information STRC
	A failure was detected by the Drive diagnosis. x : Unit ID # (0-79) y : Drive # (0-83)	
	Recovery methods	① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) When you want to make sure of a model name and drive firmware revision of the Drive, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040) .

I44000 SED authentication failed (Unit-x, HDU-x)	Collecting Error Information	STRC
<ul style="list-style-type: none">• Since the authenticated SAS (SED) Drive was inserted in the other array, the SAS (SED) Drive authentication failed.• The authentication of the SAS (SED) Drives failed because the model was upgraded without restoring the master key or the master key was not restored from the maintenance mode after replacing both Controllers while the array power was turned off (there is no volume definition for the SAS (SED) Drive). <p>x : Unit ID # (0-79) y : Drive # (0-83)</p>		
Recovery methods	When this message is displayed not for all the installed SAS (SED) Drives but for a part of the SAS (SED) Drives. ① Replace the relevant SAS (SED) Drives displayed in this message to new SAS (SED) Drives. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)	
	When this message is displayed for all the installed SAS (SED) Drives ① 1. Request the customer/SE to provide the backup file and its password of the master key. 2. Connect Hitachi Storage Navigator Modular 2 to the array. 3. Restore the master key. (Refer to "System Parameter" .) 4. Perform the dummy replacement ^(*) for all the SAS (SED) Drives displayed in the message text "HDU error" which is displayed at the same time as this message. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).) 5. Perform the dummy replacement ^(*) for all the SAS (SED) Drives displayed in the message text "HDU alarm". (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).) 6. Check that this message is not displayed. 7. Request the customer/SE to update the master key.	
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.		
I44100 The counter of intermittent HDU error was over the threshold (Unit-x, HDU-y) [DIAG]	Collecting Error Information	STRC
The drive internal diagnosis error counter exceeded the threshold value. x : Unit ID # (0-79) y : Drive # (0-83)		
Recovery methods	① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).) When you want to make sure of a model name and drive firmware revision of the Drive, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040).	
I44200 SSD write count exceeded the threshold (Unit-x, HDU-y)	Collecting Error Information	STRC
The Flash Drive (SSD) was blocked because the accumulated Write count (life ratio) of the Flash Drive (SSD) exceeded the threshold value. x : Unit ID # (0-79) y : Drive # (0-83)		
Recovery methods	① When the message "HDU alarm" or "HDU error" is displayed at the same time for the Drive displayed in this message, perform the maintenance in accordance with the message.	
I44300 SSD write count Early Alert (Unit-x, HDU-y)	Collecting Error Information	STRC
The cumulative write count (lifetime rate) of the Flash Drive (SSD) becomes 90 % or more of the threshold value. The time for the preventive maintenance (replacement) of the Flash Drive (SSD) is close. x : Unit ID # (0-79) y : Drive # (0-83)		
SSD write count Early Alert [z%] (Unit-x, HDU-y) ^(*)		Collecting Error Information STRC
The accumulated Write count (life ratio) of the Flash Drive (SSD) is at the threshold value set for the array (default value: 90%) or more and the preventive replacement time of the Flash Drive (SSD) displayed in the message comes closer. x : Unit ID # (0-79) y : Drive # (0-83) z : Threshold value (90, 95-98)		
Recovery methods	① The Write count of the Flash Drive (SSD) displayed in the message comes closer to the upper limit. Therefore, plan the preventive replacement of such Flash Drive (SSD) with the customer/SE. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)	
*1 : Firm ware is Ver.0917/B or more.		

I44400	FMD write count Early Alert [z%] (Unit-x, HDU-y)	Collecting Error Information	STRC
	<p>The accumulated Write count (life ratio) of the Flash Drive (FMD) is at the set threshold value (default value: 90%) or more and the preventive replacement time of the Flash Drive (FMD) displayed in the message comes closer.</p> <p>x : Unit ID # (0-79) y : Drive # (0-83) z : Threshold value (90, 95-98)</p>		
	Recovery methods	<p>① The Write count of the Flash Drive (FMD) displayed in the message comes closer to the upper limit. Therefore, plan the preventive replacement of such Flash Drive (FMD) with the customer/SE. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>	
I44500	FMD battery life Early Alert [z%] (Unit-x, HDU-y)	Collecting Error Information	STRC
	<p>The battery life ratio of the Flash Drive (FMD) is at the set threshold value (default value: 90%) or more and the preventive replacement time of the Flash Drive (FMD) displayed in the message comes closer or the battery life ratio of the Flash Drive (FMD) reached 100% and the preventive replacement time of the Flash Drive (FMD) displayed in the message has come.</p> <p>x : Unit ID # (0-79) y : Drive # (0-83) z : Threshold value (90, 95-98)</p>		
	Recovery methods	<p>When the battery life ratio is less than 100%</p> <p>① The battery life of the Flash Drive (FMD) displayed in the message comes closer to the upper limit. Therefore, plan the preventive replacement of such Flash Drive (FMD) with the customer/SE. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>	
		<p>When the battery life ratio is 100%</p> <p>① Perform the preventive replacement of the Flash Drive (FMD) displayed in the message because its battery life reached the upper limit. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>	
I44600	SSD write count exceeded the threshold [Self-Monitoring] (Unit-x, HDU-y)	Collecting Error Information	
	<p>The self media check function of the firmware detected that the accumulated Write count (life ratio) acquired by the Flash Drive (SSD) exceeded the threshold value.</p> <p>x : Unit ID # (0-79) y : Drive # (0-83)</p>		
	Recovery methods	None	

<p>I52400 HDU response timeout (Unit-x, HDU-y)</p> <p>A Drive failure was detected by frame sending diagnosis.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p> <p>When you want to make sure of a model name and drive firmware revision of the Drive, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040).</p>
<p>I53500 PSUE occurred [QuickShadow]</p> <p>When Copy-on-write SnapShot was executed, it was moved to PSUE.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Refer to Troubleshooting "Chapter 6. Data Collection when a Failure Occurs in Program Product (P.P.)" (TRBL 06-0000) to collect necessary information.</p>
<p>I53A0g Host connector recovered (Portxy)</p> <p>The Host Connector was recovered from a failure.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p> <p>g : Host connector type (Refer to (MSG 04-0000) for the detail)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>None</p>
<p>I54E00 Battery error inf. [More battery unit is required] (Battery-x)</p> <p>The number of Cache Backup Battery is less than the minimum number of installed units.</p> <p>x : Cache Backup Battery # (0-1)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>① Install the minimum number of Cache Backup Battery to be installed. (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).)</p>
<p>I54F00 PS error inf. [PS status error] (Unit-x ^(*), PS-y)</p> <p>An error of the Power Unit of the Controller Box or Drive Box was detected.</p> <p>x : Unit ID # (0-79)</p> <p>y : Power Unit # (0-1)</p>	<p>Collecting Error Information</p>
<p>I54G00 PS error inf. [Remove] (Unit-x, ^(*) PS-y)</p> <p>The removal of the Power Unit of the Controller Box or Drive Box was detected.</p> <p>x : Unit ID # (0-79)</p> <p>y : Power Unit # (0-1)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>① Perform the maintenance according to the message text "PS alarm" displayed at the same time.</p>
<p>*1 : In case of the Controller Box (CBL), "Unit-x" is displayed as "CTL-Unit".</p>	
<p>I54H0z FAN error inf. [Remove] (CTL-Unit, FAN-xy)</p> <p>The Fan Module was removed.</p> <p>x : Controller # (0-1)</p> <p>y : Fan Module # (0-2)</p> <p>z : Fan serial # (0-5)</p> <p>[z] : [xy]</p> <p>0 : [00], 1 : [01], 2 : [02]</p> <p>3 : [10], 4 : [11], 5 : [12]</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Perform the maintenance according to "W06z00 FAN alarm (CTL-Unit, FAN-xy)" displayed at the same time or before this message.</p>
<p>I54J00 ENC error inf. [Remove] (Unit-x, ENC-y)</p> <p>The I/O Module (ENC) or I/O Card (ENC) of the Drive Box was removed.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>① Insert the I/O Module (ENC) or I/O Card (ENC) of the Drive Box in the slot of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p>

<p>I54K00 Array shutdown was automatically executed due to FAN alarm (CTL-Unit)</p> <p>The planned shutdown of the array was executed automatically due to a FAN error.</p> <p>Recovery methods ① Perform the maintenance according to Troubleshooting "11.1.30 Recovery Method when the Planned Shutdown of the Array was Executed Automatically" (TRBL 11-1430).</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>I54L0x Battery error inf. [Remove] (Battery-x)</p> <p>The Cache Backup Battery was removed.</p> <p>x : Cache Backup Battery # (0-1)</p> <p>Recovery methods ① 1. Check if the Cache Backup Battery displayed in the message is surely inserted all the way in the slot. 2. When the Cache Backup Battery is surely inserted all the way in the slot, replace the Cache Backup Battery. (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).) When it was removed consciously for removal, the executed removal procedure was incorrect. Therefore, insert the Cache Backup Battery once and check the message of "I0030x Battery recovered (Battery-x)", and then remove the Cache Backup Battery in the correct procedure. (Refer to Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000).)</p>	<p>Collecting Error Information</p>
<p>I54N0x Battery error inf. [Charge circuit error] (Battery-x)</p> <p>An error of the charging circuit of the Cache Backup Battery was detected.</p> <p>x : Cache Backup Battery # (0-1)</p>	<p>Collecting Error Information</p>
<p>I54Q0x Battery error inf. [I/F error] (Battery-x)</p> <p>An I/F failure of the Cache Backup Battery was detected.</p> <p>x : Cache Backup Battery # (0-1)</p> <p>Recovery methods ① Replace the Cache Backup Battery displayed in the message. (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).)</p>	<p>Collecting Error Information</p>
<p>I54S0x Battery error info [Voltage error] (Battery-x)</p> <p>An error of the Cache Backup Battery voltage was detected.</p> <p>x : Cache Backup Battery # (0-1)</p> <p>Recovery methods In case of the CBSS/CBSL/CBXSS/CBXSL ① 1. Check whether the Cache Backup Battery displayed in the message is surely inserted all the way or not. 2. When the Cache Backup Battery is surely inserted all the way into the slot, replace the Cache Backup Battery displayed in this message. (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).) In case of the CBL ① Replace the Cache Backup Battery displayed in the message. (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).)</p>	<p>Collecting Error Information</p>
<p>I54U0x The battery was added (Battery-x)</p> <p>A Cache Backup Battery was added.</p> <p>x : Cache Backup Battery # (0-1)</p>	<p>Collecting Error Information</p>
<p>I54W0x The battery removed (Battery-x)</p> <p>A Cache Backup Battery was subtracted.</p> <p>x : Cache Backup Battery # (0-1)</p> <p>Recovery methods None</p>	<p>Collecting Error Information</p>
<p>I54Z00 PS error inf. [FAN speed error code-z/z] (Unit-x, PS-y)</p> <p>A fan error was detected in the Power Unit of the Controller Box or Drive Box.</p> <p>x : Unit ID # (0-79) y : Power Unit # (0-1) z : Optional code</p> <p>Recovery methods ① Perform the maintenance according to the message text "PS alarm" displayed at the same time. ② If this failure still occurs, replace Controller #0 or I/O Module(ENC) or I/O Card(ENC) #0 in the same array. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700), Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) ③ If this failure still occurs, replace Controller #1 or I/O Module(ENC) or I/O Card(ENC) #1 in the same array. . (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700), Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p>	<p>Collecting Error Information</p>

<p>I55000 FAN error inf. [FAN speed error code-z/z] (Unit-x, FAN-y)</p> <p>An error of the Fan Module was detected.</p> <p>x : Unit ID # (0-79)</p> <p>y : Fan Module # (0-4)</p> <p>z : Optional code</p>	Collecting Error Information
<p>Recovery methods</p>	① Perform the maintenance according to the message text "FAN alarm" displayed at the same time.
<p>I55100 PS error inf. [FAN speed error code-y/y] (CTL-Unit, PS-x)</p> <p>An error of the fan in the Power Unit was detected.</p> <p>x : Power Unit # (0-1)</p> <p>y : Optional code</p>	Collecting Error Information
<p>Recovery methods</p>	None
<p>I55200 FAN error inf. [FAN speed error code-z/z] (CTL-Unit, FAN-xy)</p> <p>An error of the Fan Module was detected.</p> <p>x : Controller # (0-1)</p> <p>x : Fan Module # (0-2)</p> <p>y : Internal code</p>	Collecting Error Information STRC
<p>Recovery methods</p>	① Perform the maintenance according to "W06z00 FAN alarm (CTL-Unit, FAN-xy)" displayed at the same time or before this message.
<p>I55300 Please replace the Air Filter of Bezel</p> <p>The Air Filter in the Front Bezel of the DC Power Unit passed the time for replacement.</p>	Collecting Error Information
<p>Recovery methods</p>	① Replace the Air Filter in the Front Bezel of the DC Power Unit. Replacement "3.3.2 Replacing the Air Filter of the Front Bezel" (REP 03-0050)
<p>I55400 SideCard error Info [Remove] (Unit-x, SideCard-p-p)</p> <p>The removal of the Side Card was detected.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p>	Collecting Error Information STRC
<p>Recovery methods</p>	<p>① 1. Perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Turn off the breaker (Power Unit) of the box displayed in the message.</p> <p>3. Check that the Side Card displayed in the message is not removed.</p> <ul style="list-style-type: none"> • When the Side Card is removed, install it in the array correctly. • When the Side Card is not removed, replace the Side Card. (Refer to "2.2.16 Replacing a Side Card" (REP 02-2030).) <p>4. Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>5. Check that the Side Card displayed in the message is normal.</p>
<p>I55500 Array shutdown was automatically executed due to FAN alarm (Unit-x)</p> <p>The planned shutdown was automatically executed due to a FAN Module error.</p> <p>x : Unit ID # (0-79)</p>	Collecting Error Information STRC
<p>Recovery methods</p>	① Perform the maintenance according to Troubleshooting "11.1.30 Recovery Method when the Planned Shutdown of the Array was Executed Automatically" (TRBL 11-1430) .
<p>I55600 FAN error info [FAN rotor error code-z] (Unit-x, FAN-y)</p> <p>An error of the Fan Module was detected.</p> <p>x : Unit ID # (0-79)</p> <p>y : Fan Module # (0-4)</p> <p>z : Internal code</p>	Collecting Error Information STRC
<p>Recovery methods</p>	① Perform the maintenance according to the message text "FAN alarm" displayed at the same time.

I55700	FAN error info [Remove] (Unit-x, FAN-y)	Collecting Error Information	STRC
	The Fan Module was removed.		
	x : Unit ID # (0-79)		
	y : Fan Module # (0-4)		
	Recovery methods	① Perform the maintenance according to the message text "FAN alarm" displayed at the same time.	
I55800	PS error info [PS status error code-z] (Unit-x, PS-y)	Collecting Error Information	STRC
	A high-temperature error or an electric current error was detected in the Power Unit (PS).		
	x : Unit ID # (0-79)		
	y : Power Unit # (0-1)		
	z : Internal code		
	Recovery methods	① Perform the maintenance according to the message text "PS alarm" displayed at the same time.	
I55900	PS error info [PS input error code-z] (Unit-x, PS-y)	Collecting Error Information	STRC
	An AC/DC error was detected in the Power Unit (PS).		
	x : Unit ID # (0-79)		
	y : Power Unit # (0-1)		
	z : Internal code		
	Recovery methods	① Check the connection status of the power cable of the Power Unit (PS) displayed in the message. <ul style="list-style-type: none"> • If the power cable is removed or connected loosely, connect the power cable tightly. • For the Power Unit (PS) of the DBW Box, check that the power switch of the PS itself is turned on. If it is OFF, switch it to ON. • When using Tray Power Saving, check that the Raritan-made PDU outlet power is on (the LED (red) on the Raritan-made PDU outlet lights up). If it is not on, refer to the "User's Guide" of the Raritan-made PDU and perform the power-on setting for the Raritan-made PDU outlet. ② If there is no problem on the connection status of the power cable and the power switch, replace the Power Unit. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560) .)	
I55A00	PS error info [Unexpected error code-z] (Unit-x, PS-y)	Collecting Error Information	STRC
	An unanalyzable power unit failure was detected in the Power Unit (PS).		
	x : Unit ID # (0-79)		
	y : Power Unit # (0-1)		
	z : Internal code		
	Recovery methods	① Perform the maintenance according to the message text "PS alarm" displayed at the same time.	
I55B00	Access error was detected in both internal communication lines [TWI] (Unit-x, ENC-y)	Collecting Error Information	STRC
	Failures occurred in both of two TWIs (Two Wire Interfaces) in the DBW.		
	x : Unit ID # (0-79)		
	y : I/O Module (ENC) # (0-1)		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.37 Recovery Method of the Failures Occurred in Two Interfaces in DBW" (TRBL 11-2910) .	
I55C00	Access error was detected in internal communication line [SGPIO] (Unit-x, ENC-y)	Collecting Error Information	STRC
	A failure occurred in SGPIO in the DBW box.		
	x : Unit ID # (0-79)		
	y : I/O Module (ENC) # (0-1)		
	Recovery methods	① Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) ② If not recovered yet, the box needs to be replaced. Contact the Technical Support Center.	

I55D00 FAN error info [Unexpected error code-z] (Unit-x, FAN-y)	Collecting Error Information STRC
An unanalyzable FAN Module error was detected.	
x : Unit ID # (0-79)	
y : Fan Module # (0-4)	
z : Internal code	
Recovery methods	① Perform the maintenance according to the message text "FAN alarm" displayed at the same time. ② 1. If recovered, collect a simple trace, and send to the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).) 2. If not recovered, contact the Technical Support Center.
I55E00 FAN error info [VPD error code-z] (Unit-x, FAN-y)	Collecting Error Information STRC
The illegal VPD was detected in the Fan Module.	
x : Unit ID # (0-79)	
y : Fan Module # (0-4)	
z : Internal code	
Recovery methods	① Replace the Fan Module displayed in the message to the FAN Module for the DBW box. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520).)
I55F00 PS error info [VPD error code-z] (Unit-x, FAN-y)	Collecting Error Information STRC
The illegal VPD was detected in the Power Unit.	
x : Unit ID # (0-79)	
y : Power Unit # (0-1)	
z : Internal code	
Recovery methods	① Replace the Power Unit displayed in the message to the Power Unit for the DBW box. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)
I55G00 Array shutdown was automatically executed due to drawer open (Unit-x, Drawer-y)	Collecting Error Information STRC
Since the drawer is left pulled out, the inside of the drawer became high temperature. Because the array is under a dangerous condition, it executed the planned shutdown automatically.	
x : Unit ID # (0-79)	
y : Drawer location (0=Upper, 1=Lower)	
Recovery methods	① Close the open drawer tightly. (Refer to Installation "1.4.1 How to Attach/Remove Front Bezel (4)-(b)" (INST 01-0202).)
I55H00 Array shutdown was automatically executed due to FRU removing (Unit-x, Drawer-y)	Collecting Error Information STRC
Since any of each part of the I/O Module (ENC), I/O Card (ENC), Fan Module and Power Unit was removed and left as is, the inside of the drawer became high temperature. Because the array is under a dangerous condition, it executed the planned shutdown automatically.	
x : Unit ID # (0-79)	
y : Drawer location (0=Upper, 1=Lower)	
Recovery methods	① 1. If there are uninstalled I/O Modules (ENCs), Fan Modules and Power Units, install them. (Refer to Installation "2.4.7 Installing Components" (INST 02-0640).) 2. Replace the blocked Fan Module. (Refer to Replacement "2.2.3 Replacing a Fan Module (2)" (REP 02-0551).)
I55I00 ENC error inf. [Baseplane temperature sensor] (Unit-x, ENC-y)	Collecting Error Information STRC
The temperature sensor installed in the drawer.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) # (0-1)	
Recovery methods	① Replace the blocked I/O Module (ENC). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)
I55J00 Voltage error was detected (Unit-x, PS-y)	Collecting Error Information STRC
It detected that a voltage error occurred in the Power Unit.	
x : Unit ID # (0-79)	
y : Power Unit # (0-1)	
Recovery methods	① Replace the blocked Power Unit. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)

<p>I55K00 Current error was detected (Unit-x, PS-y)</p> <p>It detected that a current failure occurred in the Power Unit.</p> <p>x : Unit ID # (0-79)</p> <p>y : Power Unit # (0-1)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Replace the blocked Power Unit. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)</p>
<p>I55L00 ENC error info [TWI access between ENC and ENC] (Unit-x, ENC-y)</p> <p>A failure occurred in I2C bus0 in the DBW box.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>② 1. If not recovered, perform the planned shutdown once for the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Replace the I/O Module (ENC) on the opposite side of the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>③ If not recovered yet, contact the Technical Support Center.</p>
<p>I55M00 ENC error info [TWI access between ENC and FRUs] (Unit-x, ENC-y)</p> <p>A failure occurred in I2C bus1 or I2C bus2 in the DBW box.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) (ENC) # (0-1)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① 1. Replace the Fan Module #0. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520).)</p> <p>2. Perform the dummy replacement^(*) of the blocked I/O Module (ENC) every time a FAN is replaced. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Check that the I/O Module (ENC) recovers.</p> <p>4. If not recovered yet, replace the Fan Modules from Fan Module #1 to FAN #4 sequentially until it recovers. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520).)</p> <p>② 1. When it is not recovered yet even if all the Fan Modules are replaced, replace the Power Unit #0. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)</p> <p>2. Perform the dummy replacement^(*) of the blocked I/O Module (ENC) every time a FAN is replaced. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Check that the I/O Module (ENC) recovers.</p> <p>4. Replace the Power Unit #1. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)</p> <p>③ 1. When it is not recovered even if all the power units are replaced, replace the Blocked I/O Module (ENC). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>2. Check that the I/O Module (ENC) recovers.</p> <p>④ 1. If not recovered yet, perform the planned shutdown once for the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Replace the I/O Module (ENC) on the opposite side of the Blocked I/O Module (ENC) while keeping the power of the DBW where the failure has occurred turned on. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Check that the Module WNG LED on the Ops Panel installed in the front of the box went out.</p> <p>4. If the Module WNG LED does not go out, contact the Technical Support Center.</p>

*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.

<p>I55N00 ENC error info [TWI access in ENC] (Unit-x, ENC-y)</p> <p>A failure occurred in I2C bus3 in the DBW box.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>Recovery methods ① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>I55P00 ENC error info [Unexpected error] (Unit-x, ENC-y)</p> <p>An unidentified I/O Module (ENC) failure occurred.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>Recovery methods ① Replace the blocked I/O Module (ENC). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>② If not recovered, contact the Technical Support Center.</p>	<p>Collecting Error Information</p> <p>STRC</p>

156000	SCSI response error of SideCard was detected (Unit-x, SideCard-p-p) The status other than good, check condition, busy and queue full was detected by the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156100	SCSI "BUSY" response of SideCard was detected (Unit-x, SideCard-p-p) The BUSY status was detected by the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156200	SCSI "QUEUE FULL" response of SideCard was detected (Unit-x, SideCard-p-p) The QUEUE FULL status was detected by the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156300	Expander error of the SideCard was detected [04-xxxx] (Unit-x, SideCard-p-p) The check condition "04/xxxx" was detected by the Expander of the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156400	Expander error count of SideCard was over the threshold [04-xxxx] (Unit-x, SideCard-p-p) The count of detecting the check condition "04/xxxx" by the Expander of the Side Card exceeded the threshold value. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156500	Expander error of the SideCard was detected [05-xxxx] (Unit-x, SideCard-p-p) The check condition "05-xxxx" was detected by the Expander of the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156600	Expander error count of SideCard was over the threshold [05-xxxx] (Unit-x, SideCard-p-p) The count of detecting the check condition "05-xxxx" by the Expander of the Side Card exceeded the threshold value. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156700	Expander error of the SideCard was detected [05-CCCC] (Unit-x, SideCard-p-p) The check condition "05-CCCC" was detected by the Expander of the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156800	Expander error count of SideCard was over the threshold [05-CCCC] (Unit-x, SideCard-p-p) The count of detecting the check condition "05-CCCC" by the Expander of the Side Card exceeded the threshold value. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156900	Expander error of the SideCard was detected [0B-4400] (Unit-x, SideCard-p-p) The check condition "0B-4400" was detected by the Expander of the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156A00	Expander error count of SideCard was over the threshold [0B-4400] (Unit-x, SideCard-p-p) The count of detecting the check condition "0B-4400" by the Expander of the Side Card exceeded the threshold value. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
156B00	Unexpected SSB of the SideCard was detected (Unit-x, SideCard-p-p) The sense key which is out of the management target was detected by the Expander of the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to the message text "SideCard alarm" displayed at the same time.	

I56C00	<p>Unexpected SSB count of SideCard was over the threshold (Unit-x, SideCard-p-p)</p> <p>The count of detecting the sense key which is out of the management target by the Expander of the Side Card exceeded the threshold value.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p>	Collecting Error Information	STRC
I56D00	<p>Expander error count of SideCard was over the threshold [CODE-z] (Unit-x, SideCard-p-p)</p> <p>The D-SPC (SAS Protocol CHIP on the Drive side) detected a failure on the Expander target of the Side Card, and the failure detection count exceeded the threshold value.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p> <p>z : Code # (0-FF)</p>	Collecting Error Information	STRC
I56E00	<p>Backend link error was detected(Unit-x, SideCard-p-p)</p> <p>The identified that the back-end Link failed part is the Side Card displayed in the message.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p> <p>Recovery methods ① Perform the maintenance according to the message text "SideCard alarm" displayed at the same time.</p>	Collecting Error Information	STRC
I5G000	<p>ENC error info. [Header error] (Unit-x, ENC-y)</p> <p>The ENC displayed in the message was blocked because it detected that the header of the SES data acquired from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box was abnormal.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p> <p>Recovery methods ① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time.</p> <p>② If not recovered, when the relevant drive box is DBW, contact the Technical Support Center.</p>	Collecting Error Information	

15G100	ENC error inf. [Fixed No. error] (Unit-x, ENC-y)	Collecting Error Information
	The ENC displayed in the message was blocked because it was detected that the fixed value of the SES data acquired from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box was abnormal.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
15G200	ENC error inf. [SES Rev. error] (Unit-x, ENC-y)	Collecting Error Information
	The ENC displayed in the message was blocked because it was detected that the SES revision information of the SES data acquired from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box was abnormal.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
15G300	ENC error inf. [F/W Rev. error] (Unit-x, ENC-y)	Collecting Error Information
	The ENC displayed in the message was blocked because it was detected that the revision information of the ENC firmware of the SES data acquired from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box was abnormal.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
15G400	ENC error inf. [ECTL Rev. error] (Unit-x, ENC-y)	Collecting Error Information
	The ENC displayed in the message was blocked because it was detected that the revision information of ECTL of the SES data acquired from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box was abnormal.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
15G500	ENC error inf. [ENC Reboot error] (Unit-x, ENC-y)	Collecting Error Information
	The I/O Module (ENC) or I/O Card (ENC) displayed in the message was blocked because it detected from the acquired SES data that the I/O Module (ENC) or I/O Card (ENC) of the Drive Box rebooted asynchronously with the command of the firmware of the array.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
15G600	ENC error inf. [Slot No. error] (Unit-x, ENC-y)	Collecting Error Information
	The I/O Module (ENC) or I/O Card (ENC) displayed in the message was blocked because it detected that the ENC number of the acquired SES data and that of the accessed Drive Box are mismatched.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
15G700	ENC error inf. [CUDG error code-z] (Unit-x, ENC-y)	Collecting Error Information
	The I/O Module (ENC) or I/O Card (ENC) displayed in the message was blocked because it detected that a CUDG error occurred in the I/O Module (ENC) or I/O Card (ENC) of the Drive Box by the SES data acquired from other system ENC of the Drive Box.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
	z : Optional code	
15G900	ENC error inf. [SXP error code-z] (Unit-x, ENC-y)	Collecting Error Information
	The I/O Module (ENC) or I/O Card (ENC) displayed in the message was blocked because it detected that an SXP failure occurred in the I/O Module (ENC) or I/O Card (ENC) of the Drive Box by the acquired SES data.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
	z : Optional code	
15GB00	ENC error inf. [Write error] (Unit-x, ENC-y)	Collecting Error Information
	The I/O Module (ENC) or I/O Card (ENC) displayed in the message was blocked because it detected that the write data to the ENC and the read data from the I/O Module (ENC) or I/O Card (ENC) are mismatched by the processing command to the ENC of the Drive Box.	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
	Recovery methods	① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time.

I5H000 Backend link error was detected (Unit-x, ENC-y)	Collecting Error Information
It was identified that the backend Link failed part was the I/O Module (ENC) or I/O Card (ENC) in the Drive Box displayed in the message.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
Recovery methods	① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.
I5H100 Backend link error was detected (Unit-x, HDU-y)	Collecting Error Information
It was identified that the backend Link failed part was the Drive displayed in the message.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
Recovery methods	① Perform the maintenance according to the message text "HDU alarm" displayed at the same time with this message.
I5H3xy The search for the failure part of backend route error started (Path-x, Route-y) (*1)	Collecting Error Information
Search (RES) of the failed part by the backend route started.	
x : Path # (0-7)	
y : Route # (0-1)	
*1 : If the Controller # (Route # displayed in the message code I5H3xy) that displayed this message is blocked after displaying the message, the END message (message code I5H4xy) of the processing which searches the failed part of the back-end route is not displayed in the Information Message.	
I5H4xy The search for the failure part of backend route error ended (Path-x, Route-y)	Collecting Error Information
Search (RES) of the failed part by the backend route was completed.	
x : Path # (0-7)	
y : Route # (0-1)	
Recovery methods	None
I5H50x The backend postcode status error was detected (CTL-x)	Collecting Error Information CTRC
A queue, whose transition status of POST of simple JOB is illegal, was detected.	
x : Controller # (0-1)	
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
	② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)
	③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.
I5H60x The initialization of PCI Express failed because of the hardware error [DUAL] (CTL-X)	Collecting Error Information CTRC
The initial setting of DUAL PCI Express of the Controller displayed in the message failed.	
x : Controller # (0-1)	
Recovery methods	① Press the software reset button in 20 to 30 seconds after inserting the Controller in the Controller Box. If this message is displayed afterwards, disregard this message.
	② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
	③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
	3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)

15H800 Added unit failed [ENC type error] (Unit-x, ENC-y)	Collecting Error Information
When the Drive Box was added, the unsupported I/O Module (ENC) or I/O Card (ENC) was detected.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
Recovery methods	<p>① When the array displayed in the message is the DBF, perform the maintenance in accordance with Troubleshooting "11.1.39 Recovery Method when the DIP-Switch Setting of the I/O Module (ENC) is Incorrect" (TRBL 11-2950).</p> <p>② 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</p> <p>2. Remove the SAS(ENC) cables connecting the Drive Box to be added and the existing array.</p> <p>3. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>4. Add the Drive Box correctly again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>③ 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</p> <p>2. Remove the SAS(ENC) cables connecting the Drive Box to be added and the existing array.</p> <p>3. Replace it to the Drive Box supported by the relevant system, and perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p>
15H900 Unsupported ENC was detected [ENC type error] (Unit-x, ENC-y)	Collecting Error Information
When inserting the I/O Module (ENC) or I/O Card (ENC) in the Drive Box, an unsupported I/O Module (ENC) or I/O Card (ENC) was detected in the Drive Box.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
Recovery methods	<p>① When the array displayed in the message is the DBF, perform the maintenance in accordance with Troubleshooting "11.1.39 Recovery Method when the DIP-Switch Setting of the I/O Module (ENC) is Incorrect" (TRBL 11-2950).</p> <p>② Perform the maintenance according to the message text "ENC alarm" displayed at the same time.</p>
15HA00 Added unit failed [Cable error] (Unit-x, ENC-y)	Collecting Error Information
When adding the Drive Box, an improper connection of the SAS(ENC) cable was detected.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
Recovery methods	<p>① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</p> <p>2. Remove the Drive Box to be added from the array. (Refer to Replacement "2.2.14 Replacing a Drive Box of Rack Mount Style" (REP 02-1900).)</p> <p>3. Check the wiring of the SAS(ENC) cable connected to the I/O Module (ENC) or I/O Card (ENC) displayed in the message, and wire the SAS(ENC) cable correctly again.</p> <p>4. Add the Drive Box correctly again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p>
15HB00 ENC recovery failed [Cable error] (Unit-x, ENC-y)	Collecting Error Information
When inserting the I/O Module (ENC) or I/O Card (ENC) in the Drive Box, an improper connection of the SAS(ENC) cable was detected.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
Recovery methods	<p>① 1. Remove the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>2. There are one or more SAS(ENC) cables connected incorrectly to the backend path of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. Review the wiring of all the SAS(ENC) cables of the backend path of the I/O Module (ENC) or I/O Card (ENC) displayed in the message.</p> <p>3. Rewire the SAS(ENC) cables correctly</p> <p>4. Insert the I/O Module (ENC) or I/O Card (ENC) in the Drive Box again. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p>

<p>I5HC00 ENC error was detected [Linkdown] (unit-x, ENC-y)</p> <p>Link down was detected in the I/O Module (ENC) or I/O Card (ENC) of the Drive Box.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p>	Collecting Error Information
<p>I5HV00 SCSI response error of ENC was detected (Unit-x, ENC-y)</p> <p>The D-SPC (Drive-side SAS Protocol Chip) received the status other than the status byte code is good, check condition, busy and queue full from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box displayed in the message.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p> <p>Recovery methods ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.</p>	Collecting Error Information STRC
<p>I5HW00 HDU error [HDU Status = Command is not completed] (Unit-x, HDU-y)</p> <p>Other status failures occurred due to the Drive failure.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	Collecting Error Information
<p>I5HX00 HDU error [HDU Status = Busy] (Unit-x, HDU-y)</p> <p>"status busy" occurred due to the Drive failure.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	Collecting Error Information
<p>I5HY00 HDU error [HDU Status = Queue full] (Unit-x, HDU-y)</p> <p>"status queue full" occurred due to the Drive failure.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods ① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.</p>	Collecting Error Information
<p>I5HZ00 HDU failure is detected [Command retry failed by PDEV time-out of HDU] (Unit-x, HDU-y)</p> <p>It detected "PDEV TO failure retry over" of the command issued to the Drive.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods ① Replace the blocked Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>	Collecting Error Information

15I100	HDU recovery failed [Linkup error] (Unit-x, HDU-y)	Collecting Error Information	STRC
The recovery of the Drive failed because the inserted Drive was not registered in the discover map.			
x : Unit ID # (0-79)			
y : Drive # (0-83)			
Recovery methods	① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.		
15I200	ENC recovery failed [Linkup error] (Unit-x, ENC-y)	Collecting Error Information	STRC
The recovery of the I/O Module (ENC) or I/O Card (ENC) failed because the I/O Module (ENC) or I/O Card (ENC) inserted in the Drive Box was not registered in the back-end discover map.			
x : Unit ID # (0-79)			
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)			
Recovery methods	① 1. Check the wiring of the SAS(ENC) cable connected to the I/O Module (ENC) or I/O Card (ENC) displayed in the message, and wire the SAS(ENC) cable correctly again. 2. Perform the dummy replacement ^(*) of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) ② Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) ③ 1. If not recovered, replace the connection source of the I/O Module (ENC) or I/O Card (ENC) (I/O Module (ENC) or I/O Card (ENC) or Controller). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) , Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 2. Perform the dummy replacement ^(*) of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) ④ 1. If not recovered yet, replace the SAS (ENC) cable connected to the I/O Module(ENC) or I/O Card(ENC) displayed in the message. (Refer to Replacement "2.2.12 Replacing a SAS(ENC) Cable" (REP 02-1680).) ⑤ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other I/O Module(ENC) or I/O Card(ENC) (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.			
15I500	SCSI response of ENC was "BUSY" (Unit-x, ENC-y)	Collecting Error Information	STRC
Expander responded "busy" for the status of the SCSI command response (SCSI STATUS ERROR BUSY (Expander)).			
x : Unit ID # (0-79)			
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)			
15I600	SCSI response of ENC was "QUEUE FULL" (Unit-x, ENC-y)	Collecting Error Information	STRC
Expander responded "Queue full" for the status of the SCSI command response. (SCSI STATUS ERROR QUEUE_FULL (Expander))			
x : Unit ID # (0-79)			
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)			
15I700	Expander error of the ENC was detected [04-3400] (Unit-x, ENC-y)	Collecting Error Information	STRC
The ENC responded the check condition frame whose sense key/sense code is 04/3400.			
x : Unit ID # (0-79)			
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)			
15I800	Intermittent ENC error was over the threshold [04-3400] (Unit-x, ENC-y)	Collecting Error Information	STRC
The count that received the check condition frame, whose sense key/sense code is 04/3400, from the ENC exceeded the threshold value.			
x : Unit ID # (0-79)			
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)			
Recovery methods	① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.		

15I900	Expander error of the ENC was detected [05-****] (Unit-x, ENC-y) The ENC responded the check condition frame whose sense key/sense code is 05/****. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15IA00	Intermittent ENC error was over the threshold [05-****] (Unit-x, ENC-y) The count that received the check condition frame, whose sense key/sense code is 05/****, from the ENC exceeded the threshold value. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15IB00	Expander error of the ENC was detected [05-CCCC] (Unit-x, ENC-y) The ENC responded the check condition frame whose sense key/sense code is 05/CCCC. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15IC00	Intermittent ENC error was over the threshold [05-CCCC] (Unit-x, ENC-y) The count that received the check condition frame, whose sense key/sense code is 05/CCCC, from the ENC exceeded the threshold value. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15ID00	Expander error of the ENC was detected [0B-4400] (Unit-x, ENC-y) The ENC responded the check condition frame whose sense key/sense code is 0B/4400. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15IE00	Intermittent ENC error was over the threshold [0B-4400] (Unit-x, ENC-y) The count that received the check condition frame, whose sense key/sense code is 0B/4400, from the ENC exceeded the threshold value. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15IH00	Expander error of the ENC was detected [Unexpected SSB] (Unit-x, ENC-y) The ENC transmitted the check condition frame to which an unexpected sense key is set. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15IJ00	Intermittent ENC error was over the threshold [Unexpected SSB] (Unit-x, ENC-y) The count that received the check condition frame, to which an unexpected sense key is set, from the ENC exceeded the threshold value. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15IK00	Expander error count of the ENC was over the threshold [CODE-z] (Unit-x, ENC-y) D-SPC (Drive-side SAS Protocol Chip) detected a failure of the ENC and the failure count exceeded the threshold value. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) z : CODE # (0-FF)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.	
15IL00	HDU error count was over the threshold [CODE-z] (Unit-x, HDU-y) D-SPC (Drive-side SAS Protocol Chip) detected a Drive failure and the failure count exceeded the threshold value. x : Unit ID # (0-79) y : Drive # (0-83) z : CODE # (0-FF)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.	

<p>15J000 The power-on of the array unit failed [ENC type error] (Unit-x, ENC-y)</p> <p>When the array power-on of Tray Power Saving operated, an unsupported I/O Module (ENC) was detected.</p> <p>x : Unit ID # (1-3)</p> <p>y : I/O Module (ENC) # (0-1)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① 1. Wait until one of the following messages appears: "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)" or "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)".</p> <p>2. If the displayed message is "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)", replace the I/O module (ENC) indicated in the message "15J000 The power-on of the array unit failed [ENC type error] (Unit-x, ENC-y)". (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. If the displayed message is "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)", no action is required.</p>
<p>15J100 The power-on of the array unit failed [Cable error] (Unit-x, ENC-y)</p> <p>An improper connection of the SAS(ENC) cable was detected when the power of the chassis was turned on.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>① 1. Check the wiring of the SAS(ENC) cable connected to the I/O Module (ENC) or I/O Card (ENC) displayed in the message, and wire the SAS(ENC) cable correctly again.</p> <p>2. Turn on the power of the chassis again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>
<p>15J200 ENC error info [DBX serial number error] (Unit-x, ENC-y)</p> <p>The serial number of the Drive Box was unable to be acquired due to the SES access error of the ENC.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>① If the message text "ENC alarm" indicating the same I/O Module (ENC) or I/O Card (ENC) is displayed at the same time as this message, perform the maintenance in accordance with the message "ENC alarm".</p> <p>② 1. If this message is displayed while adding the Drive Box, remove the Drive Box displayed in this message from the rack frame. (Refer to Replacement "2.2.14 Replacing a Drive Box" (REP 02-1900).)</p> <p>2. Replace the I/O Module (ENC) or I/O Card (ENC) of the Drive Box displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Add the Drive Box again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p>
<p>15J300 DBX serial number error was detected [discrepancy between DBX-A and DBX-B] (DBX-x)</p> <p>The serial number of the DBX did not match between the DBX-A and the DBX-B.</p> <p>x : DBX # (0-19)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>① 1. If this message is displayed while starting the array, check whether the SAS (ENC) cable connected to the DBX is connected correctly or not.</p> <p>2. When the SAS(ENC) cable is connected incorrectly, turn off the power of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>3. Connect the SAS(ENC) cable correctly again.</p> <p>4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>② 1. If this message is displayed while adding the DBX, check whether the SAS (ENC) cable of the DBX displayed in the message is connected correctly or not.</p> <p>2. If the SAS (ENC) cable is connected incorrectly, remove the DBX displayed in this message from the rack frame.</p> <p>3. Connect the SAS(ENC) cable correctly again.</p> <p>4. Add the DBX again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p>

15J400 DBX serial number error was detected [DBXs have same serial number] (DBX-x, DBX-y)

Collecting Error Information

Two DBXs which have the same serial number were detected.

x : DBX # (0-19)

y : DBX # (0-19)

Recovery
methods

- ① 1. If this message is displayed while starting the array, check whether the SAS (ENC) cable connected to the DBX is connected correctly or not.
2. When the SAS(ENC) cable is connected incorrectly, turn off the power of the array. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
3. Connect the SAS(ENC) cable correctly again.
4. Turn on the power of the array. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- ② 1. If this message is displayed while adding the DBX, the serial number of the DBX displayed in the message is already duplicated with the DBX connected to the array. Therefore, replace the DBX. (Refer to [Replacement "2.2.14 Replacing a Drive Box" \(REP 02-1900\)](#).)
2. Add the DBX again. (Refer to [Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" \(ADD 01-0690\)](#).)

15J500 DBX serial number error was detected [discrepancy between ENC's of DBX] (DBX-(x-y))

Collecting Error Information

The serial number of the DBX did not match between the I/O Module (ENC) or I/O Card (ENC) in the DBX at the time of the addition while operating the array.

x : DBX # (0-19)

y : DBX type (A : VRKA-A, B : VRKA-B)

Recovery
methods

- ① 1. Remove the SAS (ENC) cable connected to the DBX displayed in the message.
2. Replace the I/O Card (ENC) #0 of the added DBX displayed in the message. (Refer to [Replacement "2.2.11 Replacing an I/O Module\(ENC\) or I/O Card\(ENC\)" \(REP 02-1500\)](#).)
3. Add the DBX again. (Refer to [Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" \(ADD 01-0690\)](#).)
4. If the phenomenon is not resolved, replace the I/O Card (ENC) #1 of the DBX displayed in the message. (Refer to [Replacement "2.2.11 Replacing an I/O Module\(ENC\) or I/O Card\(ENC\)" \(REP 02-1500\)](#).)
5. Add the DBX again. (Refer to [Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" \(ADD 01-0690\)](#).)

I5J600 Added unit failed [Cable error] (Unit-x)	Collecting Error Information
<p>When adding the Drive Box, an improper connection of the SAS(ENC) cable was detected.</p> <p>x : Unit ID # (0-79)</p>	
Recovery methods	<p>① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</p> <p>2. Remove the SAS(ENC) cables connecting the Drive Box to be added and the existing array.</p> <p>3. The power cables may have been inserted into the power connectors loosely. Be sure to insert the power cables firmly into the power connectors on two Power Units of the Drive Box to be added.</p> <p>When a Drive Box to be added is DBW, check that the power switch of the Power Unit in the Drive Box is turned on. If it is off, turn it on.</p> <p>4. Check the wiring of the SAS(ENC) cables connected to the Drive Box to be added, and wire the SAS(ENC) cables correctly again.</p> <ul style="list-style-type: none"> When the Drive Box to be added is DBW, check that the power switch of the Power Unit of the Drive Box to be added is turned on. If it is turned off, switch it to on. <p>5. Add the Drive Box correctly again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>② 1. If the addition of the Drive Box fails even though Step ① is executed, wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</p> <p>2. Remove the SAS (ENC) cables connecting the Drive Box to be added and the existing array.</p> <p>3. Replace the I/O Module (ENC) (or I/O Card (ENC)) #0 of the Drive Box to be added. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>4. Add the Drive Box correctly again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>③ 1. If the addition of the Drive Box fails even though Step ② is executed, wait until the message code "I85900 Added unit failed (Unit-x)" is displayed.</p> <p>2. Remove the SAS (ENC) cables connecting the Drive Box to be added and the existing array.</p> <p>3. Replace the I/O Module (ENC) (or I/O Card (ENC)) #1 of the Drive Box to be added. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>4. Add the Drive Box correctly again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p>
I5J700 The power-on of the array unit failed [Cable error] (Unit-x)	Collecting Error Information STRC
<p>When the array power-on of Tray Power Saving operated, a wrong connection of the SAS (ENC) cable was detected.</p> <p>x : Unit ID # (1-3)</p>	
Recovery methods	<p>① 1. Wait until one of the following messages appears: "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)" or "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)".</p> <p>2. If the displayed message is "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)", check the SAS(ENC) cable connected to the array indicated in the message "I5J700 The power-on of the array unit failed [Cable error] (Unit-x)" and correctly connect it.</p> <p>3. If the displayed message is "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)", no action is required.</p>
I5JBxy Backend route recovered (Path-x, Route-y)	Collecting Error Information
<p>The firmware detected that suspected failed part was removed in the Path displayed in the backend route message.</p> <p>x : Path # (0-7)</p> <p>y : Route # (0-1)</p>	
Recovery methods	None
I5JCzx Suspected failure part has been detected (CTL-x)	Collecting Error Information
<p>The firmware determined that suspected failed part could be the Controller displayed in the message as the result of identifying a failed part in the backend route.</p> <p>x : Controller # (0-1)</p> <p>z : Chassis type (Refer to MSG 04-0000) for the detail)</p>	
Recovery methods	<p>① Perform the maintenance according to the message text "W40000 Backend route warning has been detected (Path-x, Route-y)" displayed at the same time.</p>

<p>15JDf0 Suspected failure part has been detected (Unit-x, ENC-y)</p> <p>The firmware determined that suspected failed part could be the I/O Module (ENC) or I/O Card (ENC) displayed in the message as the result of identifying a failed part in the backend route.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card(ENC) # (0-1)</p> <p>f : I/O Module (ENC) or I/O Card (ENC) type (Refer to MSG 04-0000 for the detail)</p>	Collecting Error Information
<p>15JEab Suspected failure part has been detected (Unit-x, HDU-y)</p> <p>The firmware determined that suspected failed part could be the Drive displayed in the message as the result of identifying a failed part in the backend route.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>a : Drive type code (Refer to MSG 04-0000 for the detail)</p> <p>b : Drive model name code (Refer to MSG 04-0000 for the detail)</p> <p>Recovery methods ① Perform the maintenance according to the message text "W40000 Backend route warning has been detected (Path-x, Route-y)" displayed at the same time.</p>	Collecting Error Information
<p>15JF00 PS error info [PS status error code-y. z] (Unit-w, PS-x)</p> <p>An error of the Power Unit was detected.</p> <p>w : Unit ID # (0-79)</p> <p>x : Power Unit # (0-1)</p> <p>y : Internal code</p> <p>z : Internal code</p>	Collecting Error Information STRC
<p>15JG00 PS error info [FAN speed error code-y. z] (Unit-w, PS-x)</p> <p>An error of the fan in the Power Unit was detected.</p> <p>w : Unit ID # (0-79)</p> <p>x : Power Unit # (0-1)</p> <p>y : Internal code</p> <p>z : Internal code</p> <p>Recovery methods ① Perform the maintenance according to the message text "W07zy0 PS alarm (Unit-w, PS-x)" displayed at the same time.</p>	Collecting Error Information STRC
<p>15JH00 TWI access error was detected [TWI-z] (Unit-x, PS-y)</p> <p>A failure occurred in TWI (Two Wire Interface) between the Power Unit and the I/O Module (ENC) or I/O Card (ENC).</p> <p>x : Unit ID # (0-79)</p> <p>y : Power Unit # (0-1)</p> <p>z : TWI (1-2)</p> <p>Recovery methods</p> <p>① Replace the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)</p> <p>② If it does not recover, replace the I/O Module (ENC) or I/O Card (ENC) in the remote system side (ENC-1 for PS-0 and ENC-0 for PS-1). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>③ Even if it does not recover, replace the I/O Module (ENC) or I/O Card (ENC) in the local system side (ENC-0 for PS-0 and ENC-1 for PS-1). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>④ 1. If not recovered yet, perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Replace the chassis displayed in the message. (Refer to Replacement "2.2.13 Replacing a Controller Box of Rack Mount Style t" (REP 02-1840), Replacement "2.2.14 Replacing a Drive Box of Rack Mount Style" (REP 02-1900).)</p> <p>3. Check with the customer/SE for the maintenance work date.</p>	Collecting Error Information STRC

15JJ00	ENC recovery failed [linkup error in the other route] (Unit-x, ENC-y)	Collecting Error Information	STRC
<p>By the SAS address check performed at the time of Controller replacement (checking whether the information on the backend path between the operating Controller and the Controller to be replaced is matched or not), the I/O Module (ENC) or I/O Card (ENC) in LinkDown was detected by a failure of the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the Controller to be replaced (I/O Module(ENC) or I/O Card(ENC) #1 in case of I/O Module (ENC) or I/O Card (ENC) #0 and I/O Module(ENC) or I/O Card(ENC) #0 in case of I/O Module (ENC) or I/O Card (ENC) #1), the Controller recovery failed.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p>			
Recovery methods	<p>Disregard to the message text "W0Fzf0 ENC alarm (Unit-x, ENC-y)" displayed at the same time.</p> <p>① 1. When the ALM LED on the front of the Controller Box lights up (the system of the device is shut down), refer to the other output Information Message, and replace the failed part. (Refer to Replacement "Chapter 2. Parts Replacement" (REP 02-0000).)</p> <p>2. Turn off the main switch, and then turn it on after 20 seconds or more elapse. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220).)</p> <p>3. 1. By the maintenance in ①-1, if the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the I/O Module (ENC) or I/O Card (ENC) number displayed in this message (I/O Module (ENC) or I/O Card (ENC) #1 in case of I/O Module (ENC) or I/O Card (ENC) #0 and I/O Module (ENC) or I/O Card (ENC) #0 in case of I/O Module (ENC) or I/O Card (ENC) #1) is not replaced, collect the simple trace to identify the failed part, and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> <p>2. If the I/O Module (ENC) or I/O Card (ENC) displayed in this message is blocked again after restarting the device, perform the maintenance according to the newly displayed message. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>② 1. When the ALM LED on the front of the Controller Box does not light up (the device is operating), refer to the other output Information Message, and perform the maintenance (for replacing the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the I/O Module (ENC) or I/O Card (ENC) number displayed in this message (I/O Module (ENC) or I/O Card (ENC) #1 in case of I/O Module (ENC) or I/O Card (ENC) #0 and I/O Module (ENC) or I/O Card (ENC) #0 in case of I/O Module (ENC) or I/O Card (ENC) #1), it is necessary to perform the planned shutdown of the device in advance. Discuss the date and time with the customer/SE for performing the planned shutdown of the device). (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. 1. By the maintenance in ②-1, if the I/O Module (ENC) or I/O Card (ENC) which has the number paired with the I/O Module (ENC) or I/O Card (ENC) number displayed in this message (I/O Module (ENC) or I/O Card (ENC) #1 in case of I/O Module (ENC) or I/O Card (ENC) #0 and I/O Module (ENC) or I/O Card (ENC) #0 in case of I/O Module (ENC) or I/O Card (ENC) #1) is not replaced, collect the simple trace to identify the failed part, and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> <p>2. By the maintenance in ②-1, when the planned shutdown of the device is performed, if the I/O Module (ENC) or I/O Card (ENC) displayed in this message is blocked again after restarting the device, perform the maintenance according to the newly displayed message. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>		

15JK00	PS error info [PS input error] (CTL-Unit, PS-x) Input voltage trouble of the Power Unit (PS) was detected. x : Power Unit # (0-1)	Collecting Error Information	STRC
15JL00	PS error info [PS input error code-z.z] (Unit-x, PS-y) Input voltage trouble of the Power Unit (PS) was detected. x : Unit ID # (0-79) y : Power Unit # (0-1) z : Internal code (1 byte)	Collecting Error Information	STRC
Recovery methods	Disregard to the message text "W08zy0 PS alarm (CTL-Unit, PS-x)" displayed at the same time. ① Check the connection status of the power cable of the Power Unit (PS) displayed in the message. If the power cable is removed or connected loosely, connect the power cable tightly. ② 1. If there is no problem on the connection status of the power cables, check whether the power is supplied or not. 2. When the power is supplied, replace the Power Unit. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560) .)		
15JN00	Suspected failure part has been detected (Unit-x, SideCard-p-p) As a result of the search and isolation of the failed part of the back-end path, the firmware determined that the suspected failure part may be the I/O Module (ENC) and I/O Card (ENC) to be installed in the Side Card displayed in the message. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	
Recovery methods	① Perform the maintenance according to the message text "W40000 Backend route warning has been detected (Path-x, Route-y)" displayed at the same time.		
15JP00	ENC error info. [opposite ENC of the installed ENC may have error] (Unit-x, ENC-y) Since the inserted I/O Module (ENC) and I/O Card (ENC) cannot be accessed, the I/O Module (ENC) and I/O Card (ENC) on the opposite side of the inserted I/O Module (ENC) and I/O Card (ENC) were accessed. However, because an error was detected, the inserted I/O Module (ENC) and I/O Card (ENC) were blocked again as a recovery failure. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	
Recovery methods	① When the system does not fail, perform the dummy replacement ^(*) of the Blocked I/O Module (ENC) and I/O Card (ENC). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) ② 1. When the system fails, perform the maintenance in accordance with the failure message other than the I/O Module (ENC) and I/O Card (ENC) displayed in this message. 2. Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)		
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.			
15JM0x	Suspected failure part has been detected (CTL-x, Slot-l) The firmware determined that suspected failed part could be the Drive I/O Module displayed in the message as the result of identifying a failed part in the backend route. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	
Recovery methods	① Perform the maintenance according to the message text "W40000 Backend route warning has been detected (Path-x, Route-y)" displayed at the same time.		

15K000	Expander error of the ENC was detected [02-****] (Unit-x, ENC-y) The check condition "02/****" was detected by the Expander. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15K100	Intermittent ENC error was over the threshold [02-****] (Unit-x, ENC-y) The count of detecting the check condition "02/****" by the Expander exceeded the threshold value. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) Recovery methods ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.	Collecting Error Information	STRC
15K200	Expander error of the SideCard was detected [02-****] (Unit-x, SideCard-p-p) The check condition "02/****" was detected by the Expander of the Side Card. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information	STRC
15K300	Expander error count of SideCard was over the threshold [02-****] (Unit-x, SideCard-p-p) The count of detecting the check condition "02/****" by the Expander of the Side Card exceeded the threshold value. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail) Recovery methods ① Perform the maintenance according to the message text "SideCard alarm" displayed at the same time.	Collecting Error Information	STRC
15K400	Expander error of the ENC was detected [04-****] (Unit-x, ENC-y) The check condition "04/****" was detected by the Expander. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information	STRC
15K500	Intermittent ENC error was over the threshold [04-****] (Unit-x, ENC-y) The count of detecting the check condition "04/****" by the Expander exceeded the threshold value. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) Recovery methods ① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.	Collecting Error Information	STRC
15K600	ENC recovery failed [Configuration error] (Unit-x, ENC-y) At the time of inserting the I/O Module (ENC), the SES command could not be issued for both I/O Modules (ENCs) in the Path cable cross-check. x : Unit ID # (0-79) y : I/O Module (ENC) # (0-1) Recovery methods ① 1. Check the wiring of the SAS(ENC) cable connected to the I/O Module (ENC) displayed in the message, and wire the SAS(ENC) cable correctly again. 2. Perform the dummy replacement ^(*) of the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) ② If not recovered, replace the I/O Module (ENC). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) ③ If not recovered yet, contact the Technical Support Center.	Collecting Error Information	STRC
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.			
15K700	HDU mounting locations for DBW are incorrect (Unit-x) The Drive mounting location of the DBW Box is incorrect. x : Unit ID # (0-79) Recovery methods ① Perform the maintenance according to the message text "HDU mounting alarm (Unit-x)" displayed at the same time.	Collecting Error Information	

<p>15K800 Incorrect HDU mounting locations for DBW are resolved (Unit-x)</p> <p>The violation of the rules of the Drive mounting location of the DBW Box was resolved.</p> <p>x : Unit ID # (0-79)</p> <p>Recovery methods None</p>	Collecting Error Information
<p>15K900 SideCard recovery failed (Unit-x, SideCard-p-p)</p> <p>The recovery of Side Card failed.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p> <p>Recovery methods ① Replace the blocked Side Card. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030).) When the other factor message is displayed with this message at the same time, perform the maintenance in accordance with the message.</p>	Collecting Error Information STRC
<p>15KA00 SideCard error info [TWI access] (Unit-x, SideCard-p-p)</p> <p>A I2C failure has occurred in the Side Card.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p> <p>Recovery methods ① 1. Check that the array stops after turning off the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Turn off the power of the DBW Box in which a failure has occurred. 3. Replace the blocked Side Card. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030).) 4. Turn on the power of the DBW Box, and then turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 5. If a failure is not removed, contact the Technical Support Center.</p>	Collecting Error Information STRC
<p>15KB00 SideCard error info [VPD read error] (Unit-x, SideCard-p-p)</p> <p>The VPD read trouble occurred in Side Card.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p>	Collecting Error Information STRC
<p>15KC00 SideCard error info [other] (Unit-x, SideCard-p-p)</p> <p>The unknown trouble occurred in Side Card.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p> <p>Recovery methods ① 1. Perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Turn off the power of the box displayed in the message. 3. Replace the blocked Side Card. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030).) 4. Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 5. Check that the Side Card displayed in the message is normal.</p>	Collecting Error Information STRC
<p>15KD00 SideCard error info [ENC removed] (Unit-x, SideCard-p-p)</p> <p>Since the I/O Module (ENC) connected to Side Card was removed, the recovery of Side Card failed.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p> <p>Recovery methods ① The replacement of Side Card is unnecessary. Turn off the power of the array, and then turn it on.</p>	Collecting Error Information STRC

I5KE00 Added unit failure info [Header error] (Unit-x, ENC-y)	Collecting Error Information STRC
Since the trouble was detected by the header of the SES data acquired by the I/O Module (ENC) at the time of the DBW addition, the addition terminated abnormally.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) # (0-1)	
Recovery methods	<ol style="list-style-type: none"> ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Remove the Drive Box to be added from the operating array. 3. Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 4. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)
② If not recovered, contact the Technical Support Center.	
I5KF00 Added unit failure info [TWI access between ENC and FRUs] (Unit-x, ENC-y)	Collecting Error Information STRC
Since the trouble was detected by either or both of I2C bus 1 and I2C bus 2 in the array at the time of the DBW addition, the addition terminated abnormally.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) # (0-1)	
Recovery methods	<ol style="list-style-type: none"> ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. After that, replace all the Power Units whose alarm LEDs are lit or blinking, Fan Modules and I/O Modules (ENCs). (Refer to Replacement "Chapter 2. Parts Replacement" (REP 02-0000).) 2. If they are already replaced, wait for 4 minutes. 3. Write down the types (Power Unit, Fan Module, I/O Module (ENC)) of the modules which are not replaced and the slot numbers. 4. If the Module WNG LED on the front of the box displayed in the message is not blinking, perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) ② 1. Check with the written note whether there are any I/O Modules (ENCs) which are not replaced or not. 2. If there are any Modules (ENCs) which are not replaced, replace those I/O Modules (ENC) one by one. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) Wait 4 minutes for every replacement, and if the Module WNG LED on the front of the box displayed in the message is not blinking, perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) ③ 1. Check with the written note whether there are any Fan Modules which are not replaced or not. 2. If there are any Fan Modules which are not replaced, replace those Fan Modules one by one. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520).) Wait 1 minutes and 30 seconds for every replacement, and if the Module WNG LED on the front of the box displayed in the message is not blinking, perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) ④ 1. Check with the written note whether there are any Power Units which are not replaced or not. 2. If there are any Power Units which are not replaced, replace those Power Units one by one. (Refer to Replacement "2.2.4 Replacing a Power Units" (REP 02-0560).) Wait 5 seconds for every replacement, and if the Module WNG LED on the front of the box displayed in the message is not blinking, perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) ⑤ If not recovered, contact the Technical Support Center.

I5KG00 Added unit failure info [TWI access between ENC and ENC] (Unit-x, ENC-y) Since the trouble was detected by I2C bus 0 in the array at the time of the DBW addition, the addition terminated abnormally. x : Unit ID # (0-79) y : I/O Module (ENC) # (0-1)	Collecting Error Information STRC
Recovery methods	① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 3. Perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690) .) ② 1. Replace the opposite side of the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 2. Perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690) .) ③ If not recovered, contact the Technical Support Center.
I5KH00 Added unit failure info [SGPIO] (Unit-x, ENC-y) Since the trouble was detected by SGPIO in the array at the time of the DBW addition, the addition terminated abnormally. x : Unit ID # (0-79) y : I/O Module (ENC) # (0-1)	Collecting Error Information STRC
I5KI00 Added unit failure info [Baseplane temperature sensor] (Unit-x, ENC-y) Since the trouble was detected by the temperature sensor in the array at the time of the DBW addition, the addition terminated abnormally. x : Unit ID # (0-79) y : I/O Module (ENC) # (0-1)	Collecting Error Information STRC
I5KJ00 Added unit failure info [ENC unexpected failure] (Unit-x, ENC-y) Since the unknown trouble was detected by the I/O Module (ENC) in the array at the time of the DBW addition, the addition terminated abnormally. x : Unit ID # (0-79) y : I/O Module (ENC) # (0-1)	Collecting Error Information STRC ① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 3. Perform the addition again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690) .) ② If not recovered, contact the Technical Support Center.
I5KK00 SideCard recovery failed [Linkup error] (Unit-x, SideCard-p-p) Since the ENC part of the inserted Side Card was not registered in the backend discover map, the Side Card recovery failed. x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail)	Collecting Error Information STRC Recovery methods ① 1. Write down the array numbers and the Side Card positions displayed in the message. 2. Turn off the main switch to turn off the power of the array. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220) .) 3. Replace Side Card of the array written down in Item 1. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030) .) 4. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 5. Check that the same message is not displayed. 6. If the same message is displayed again, contact the Technical Support Center.

I5KL00 SideCard error info. [ENC may have error] (Unit-x, SideCard-p-p)	Collecting Error Information STRC
<p>Since the access to the I/O Module (ENC) of the array in which Side Card was inserted is impossible, the inserted Side Card was blocked again as a recovery failure.</p> <p>x : Unit ID # (0-79)</p> <p>p : Side Card code (Refer to MSG 04-0000 for the detail)</p>	
Recovery methods	<p>① When this message is displayed, the maintenance of Side Card is unnecessary.</p> <p>② When the system has not gone down, turn off/on the array.</p> <p>③ 1. When the system has gone down, perform the maintenance in accordance with the other message. 2. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>
I5KM00 DBX Cable error was detected (Unit-x, Unit-y)	Collecting Error Information STRC
<p>Either of the following errors was detected in the connection order of the DBX Box.</p> <ul style="list-style-type: none"> • Next to DBX-A is not DBX-B in the connection order of DBX #. • Before DBX-B is not DBX-A in the connection order of DBX #. <p>x : DBX # (0-19)</p> <p>y : DBX # (0-19)</p>	
Recovery methods	<p>① 1. Perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Check whether the SAS (ENC) cable connected to the DBX is connected correctly or not.</p> <p>3. When changing the connection actually, the user data backup/restore and the configuration information (RAID Group/Volume) change may be required. Contact the Technical Support Center for the instructions.</p>
I5KN00 DBX serial number error was detected [discrepancy between DBX-A and DBX-B] (Unit-x)	Collecting Error Information
<p>The serial number of the DBX did not match between the DBX-A and the DBX-B.</p> <p>x : DBX # (0-19)</p>	
Recovery methods	<p>① 1. If this message is displayed while starting the array, check whether the SAS (ENC) cable connected to the DBX is connected correctly or not.</p> <p>2. When the SAS(ENC) cable is connected incorrectly, turn off the power of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>3. Connect the SAS(ENC) cable correctly again.</p> <p>4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>② 1. If this message is displayed while adding the DBX, check whether the SAS (ENC) cable of the DBX displayed in the message is connected correctly or not.</p> <p>2. If the SAS (ENC) cable is connected incorrectly, remove the DBX displayed in this message from the rack frame.</p> <p>3. Connect the SAS(ENC) cable correctly again.</p> <p>4. Add the DBX again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p>
I5KP00 DBX serial number error was detected [DBXs have same serial number] (Unit-x, Unit-y)	Collecting Error Information
<p>Two DBXs which have the same serial number were detected.</p> <p>x : DBX # (0-19)</p> <p>y : DBX # (0-19)</p>	
Recovery methods	<p>① 1. If this message is displayed while starting the array, check whether the SAS (ENC) cable connected to the DBX is connected correctly or not.</p> <p>2. When the SAS(ENC) cable is connected incorrectly, turn off the power of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>3. Connect the SAS(ENC) cable correctly again.</p> <p>4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>② 1. If this message is displayed while adding the DBX, the serial number of the DBX displayed in the message is already duplicated with the DBX connected to the array. Therefore, replace the DBX. (Refer to Replacement "2.2.14 Replacing a Drive Box" (REP 02-1900).)</p> <p>2. Add the DBX again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p>

I5KQ00 DBX serial number error was detected [discrepancy between ENC's of DBX] (Unit-x)	Collecting Error Information
The serial number of the DBX did not match between the I/O Module (ENC) or I/O Card (ENC) in the DBX at the time of the addition while operating the array.	
x : DBX # (0-19)	
Recovery methods	<ol style="list-style-type: none"> ① 1. Remove the DBX Box displayed in this message from the rack frame. 2. Replace the I/O Card (ENC) # 0 of the added DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 3. Add the DBX again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) 4. If the phenomenon is not resolved, replace the I/O Card (ENC) #1 of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 5. Add the DBX again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)
I5KR00 PS error info [PS type error code-xx] (Unit-y, PS-z)	Collecting Error Information STRC
Since the Power Unit installed in the DBX is determined as the unsupported component, the recovery of the Power Unit failed.	
x : Value of register PSKIND	
y : DBX # (0-19)	
z : Power Unit # (0-1)	
Recovery methods	<ol style="list-style-type: none"> ① Replace the Power Unit displayed in the message to the Power Unit for the DBX. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).) ② 1. If the same message is displayed and the recovery of the Power Unit fails, replace the I/O Card (ENC) #0. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 2. Perform the dummy replacement (*1) of the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).) ③ 1. If the same message is displayed and the recovery of the Power Unit fails, replace the I/O Card (ENC) #1. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 2. Perform the dummy replacement (*1) of the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).) ④ If not recovered yet, contact the Technical Support Center and perform the maintenance in accordance with the instruction.
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.	

I5KS00 Added unit failure info [PS type error code-xx] (Unit-y, PS-z)	Collecting Error Information	STRC
<p>Since the Power Unit installed in the DBX of the addition target is determined as the unsupported component, the addition of the DBX failed.</p> <p>x : Value of register PSKIND y : DBX # (0-19) z : Power Unit # (0-1)</p>		
Recovery methods	<p>① 1. Remove the DBX Box displayed in this message from the rack frame.</p> <p>2. Replace the Power Unit displayed in the message to the Power Unit for the DBX. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)</p> <p>3. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>② 1. If the same message is displayed and the addition fails, remove the DBX Box displayed in this message from the rack frame.</p> <p>2. Replace the I/O Card (ENC) #0 of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>③ 1. If the same message is displayed and the addition fails, remove the DBX Box displayed in this message from the rack frame.</p> <p>2. Replace the I/O Card (ENC) #1 of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>④ If not recovered yet, contact the Technical Support Center and perform the maintenance in accordance with the instruction.</p>	
I5KT00 ENC firmware download info [DBW ENC Vender Revision Check error code-zz] (Unit-x, ENC-y)	Collecting Error Information	STRC
<p>After replacing the ENC firmware of the I/O Module (ENC) of DBW, the ENC firmware revision for the I/O Module (ENC) acquired by the I/O Module (ENC) was the different revision from the downloaded ENC firmware.</p> <p>x : Unit ID # (0-79) y : I/O Module (ENC) # (0-1) z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)</p>		
Recovery methods	<p>① Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p>	
I5KU00 ENC firmware download info [DBW CardA Vender Rev Check err code-zz] (Unit-x, SideCard-p-p)	Collecting Error Information	STRC
<p>After replacing the ENC firmware of the Side Card-A of DBW, the ENC firmware revision for the I/O Module (ENC) acquired by the Side Card-A was the different revision from the downloaded ENC firmware.</p> <p>x : Unit ID # (0-79) p : Side Card code (Refer to MSG 04-0000 for the detail) z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)</p>		
Recovery methods	<p>① Replace the Side Card-A displayed in the message. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030).)</p>	
I5KV00 ENC firmware download info [DBW Midplane Vender Revision Check error code-zz] (Unit-x)	Collecting Error Information	STRC
<p>After replacing the ENC firmware of the Midplane of DBW, the ENC firmware revision for the I/O Module (ENC) acquired by the Midplane was the different revision from the downloaded ENC firmware.</p> <p>x : Unit ID # (0-79) z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)</p>		
Recovery methods	<p>① Contact the Technical Support Center.</p>	

15KW00	ENC firmware download info [DBW PS Vender Revision Check error code-zz] (Unit-x, PS-y)	Collecting Error Information	STRC
	After replacing the ENC firmware of the Power Unit of DBW, the ENC firmware revision for the I/O Module (ENC) acquired by the Power Unit was the different revision from the downloaded ENC firmware.		
	x : Unit ID # (0-79)		
	y : Power Unit # (0-1)		
	z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)		
Recovery methods	① Replace the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560) .)		
15KY00	ENC firmware download info [DBW FAN Vender Revision Check error code-zz] (Unit-x, FAN-y)	Collecting Error Information	STRC
	After replacing the ENC firmware of the Fan Module of DBW, the ENC firmware revision for the I/O Module (ENC) acquired by the Fan Module was the different revision from the downloaded ENC firmware.		
	x : Unit ID # (0-79)		
	y : Fan Module # (0-4)		
	z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)		
Recovery methods	① Replace the Fan Module displayed in the message. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520) .)		
15KY00	Added unit failed [Configuration error] (Unit-x)	Collecting Error Information	STRC
	When the SES command for the cable connecting check was issued at the time of the DBW addition, the abnormal response was returned.		
	x : Unit ID # (0-79)		
Recovery methods	① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Remove the SAS(ENC) cables connecting the Drive Box to be added and the existing array. 3. Replace both I/O Modules (ENCs) of the Drive Box to be added. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 4. Reconnect the existing array and the Drive Box to be added with the SAS (ENC) cables. 5. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6.2 Connection and Recognition of the Drive Box" (ADD 01-0770) .) ② If not recovered, collect the simple trace to identify the failed part, and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040) .)		
15KZ00	Added unit failed [SideCard Linkdown] (Unit-x, SideCard-p-p)	Collecting Error Information	STRC
	At the time of the DBW addition, a failure of which Side Card becomes a failed part was detected.		
	x : Unit ID # (0-79)		
	p : Side Card code (Refer to MSG 04-0000 for the detail)		
Recovery methods	① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Remove the SAS(ENC) cables connecting the Drive Box to be added and the existing array. 3. Replace Side Card displayed in the message of the Drive Box to be added. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030) .) 4. Reconnect the existing array and the Drive Box to be added with the SAS (ENC) cables. 5. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6.2 Connection and Recognition of the Drive Box" (ADD 01-0770) .) ② If not recovered, collect the simple trace to identify the failed part, and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040) .)		

I5L000	ENC error info [firmware update failed code-zz] (Unit-x, ENC-y)	Collecting Error Information	STRC
	Since the ENC firmware replacement of the I/O Modules (ENCs) was not completed normally, the relevant I/O Modules (ENC) were blocked.		
	x : Unit ID # (0-79)		
	y : I/O Module (ENC) # (0-1)		
	z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)		
	Recovery methods	① Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)	
I5L100	SideCard error info [firmware update failed code-zz] (Unit-x, SideCard-p-p)	Collecting Error Information	STRC
	Since the ENC firmware replacement of the Side Card was not completed normally, the relevant I/O Modules (ENC) were blocked.		
	x : Unit ID # (0-79)		
	p : Side Card code (Refer to MSG 04-0000 for the detail)		
	z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)		
	Recovery methods	① Replace the Side Card-A displayed in the message. (Refer to Replacement "2.2.16 Replacing a Side Card" (REP 02-2030).)	
I5L200	PS error info [firmware update failed code-zz] (Unit-x, PS-y)	Collecting Error Information	STRC
	Since the ENC firmware replacement of the Power Unit was not completed normally, the relevant I/O Modules (ENC) were blocked.		
	x : Unit ID # (0-79)		
	y : Power Unit # (0-1)		
	z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)		
	Recovery methods	① Replace the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)	
I5L300	FAN error info [firmware update failed code-zz] (Unit-x, FAN-y)	Collecting Error Information	STRC
	Since the ENC firmware replacement of the Fan Module was not completed normally, the relevant I/O Modules (ENC) were blocked.		
	x : Unit ID # (0-79)		
	y : Fan Module # (0-4)		
	z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)		
	Recovery methods	① Replace the Fan Module displayed in the message. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520).)	
I5L400	ENC firmware download info [Updating was aborted by Expander code-zz] (Unit-x, ENC-y)	Collecting Error Information	STRC
	The Expander suspended the ENC firmware replacement processing of any of the I/O Modules (ENCs), Side Card, Midplane, Power Units and Fan Modules.		
	x : Unit ID # (0-79)		
	y : I/O Module (ENC) # (0-1)		
	z : Firmware type # of DBW (Refer to MSG 04-0001 for the detail)		
I5L500	HDU recovered from self-reboot (Unit-x, HDU-y)	Collecting Error Information	
	The drive self-reboot is completed and the drive recovered from the "Not Ready" status which repeats the sense key/sense code (02/0401) response to the accessible status.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	Recovery methods	None	

<p>I5L600 ENC error was detected [Cable error] (Unit-x, ENC-y)</p> <p>The improper connection of the SAS (ENC) cable was detected.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>I5L700 ENC error was detected [SES command error] (Unit-x, ENC-y)</p> <p>The command which the firmware issued for the I/O Module (ENC) or I/O Card (ENC) to check the cable connection validity terminated abnormally.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Perform the maintenance according to the message code displayed at the same time.</p> <ul style="list-style-type: none"> • HH9N0x ENC recovery failed [Cable error] (CTL-x) • W0Fzf0 ENC alarm (Unit-x, ENC-y)
<p>I5YB00 Loop S1 error (Path-x, Loop-y)</p> <p>The error count of LOOP S1 exceeded its threshold value.</p> <p>x : Path # (0-7)</p> <p>y : Loop # (0-1)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>None</p>
<p>I5YP00 ENC firmware download info [Revision Check error] (Unit-x, ENC-y)</p> <p>The firmware revision acquired from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box that replaced the ENC firmware was different from the uploaded ENC firmware revision.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>① The ENC firmware displayed in the message is not updated. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message to update the ENC firmware. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) However, the back-end redundancy is lost while replacing the I/O Module (ENC) or I/O Card (ENC). Check that the customer has no problem on the operation, and then perform it.</p>
<p>I5YY00 ENC error inf. [PK error code-z] (Unit-x, ENC-y)</p> <p>The I/O Module (ENC) or I/O Card (ENC) displayed in the message was blocked because it detected that a package failure occurred in the I/O Module (ENC) or I/O Card (ENC) of the Drive Box from the acquired SES data.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p> <p>z : Optional code</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>① Perform the maintenance according to "I55B00 Access error was detected in both internal communication lines [TWI] (Unit-x, ENC-y)".</p> <p>② Perform the maintenance according to "I55C00 Access error was detected in internal communication line [SGPIO] (Unit-x, ENC-y)".</p> <p>③ Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time.</p>

I6010x LAN failure (CTL-x)	Collecting Error Information
The LAN state is invalid. x : Controller # (0-1)	
Recovery methods	① Confirm the LAN cable. ② A Replace the Controller of the No. indicated with x. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
I603xy Obstacle part unknown (Path-x, Loop-y)	Collecting Error Information STRC
Failed part was not identified by Loop diagnosis. x : Path # (0-7) y : Loop # (0-1)	
Recovery methods	① When one of the following messages is displayed before this message, take recovery actions according to the message. <ul style="list-style-type: none"> • W01z0x CTL alarm (CTL-x) • W09zab HDU alarm (Unit-x, HDU-y, Type-c) • W0Bzab Spare HDU alarm (Unit-x, HDU-y, Type-c) • W0Fzf0 ENC alarm (Unit-x, ENC-y) • I30100 HDU error (Unit-x, HDU-y)
I6070x CACHE error over (CACHE-x) [CRECT]	Collecting Error Information
The occurrence count of cache correctable errors exceeded the threshold value by the DMA transfer. (during the single controller operation.) x : Cache Memory # (0-1, *)	
Recovery methods	① 1. Perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Replace the other Cache Memory in the message. (it cannot be replaced with the array power turned on) (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 3. If not recovered, Execute the planned shutdown of the array again. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 4. Replace the Controller installed in the Cache Memory in the message. (it cannot be replaced with the array power turned on) (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
I61000 ENC error inf. [parity error]	Collecting Error Information
Because a parity error occurred in the ENC, the ENC concerned was blocked.	
Recovery methods	None
I61D00 Shutdown Warning	Collecting Error Information
The cache volatilized because the previous sequential shutdown had not been executed.	
Recovery methods	① From the next time on, turn off the power using the main switch.
I61E00 PIN-over [Forced parity correction]	Collecting Error Information STRC
A parity correction was terminated because an amount of pinned data exceeded its threshold value.	
Recovery methods	None
I620xy Link error was detected in the attached link (Port-xy)	Collecting Error Information STRC
The link system failure on the link where the board displayed in the message is connected occurred more than the threshold value count within the fixed time. x : Controller # (0-1) y : Port # (A-H)	
Recovery methods	① Perform the maintenance referring to Troubleshooting "Chapter 9. Procedure for Investigating Disk Array System Regarding Fibre Channel Failure" (TRBL 09-0000).

I621xy Link error in the path	Collecting Error Information STRC
<p>The illegal transferred data length occurred more times than the threshold value within a certain period caused by a failure that had occurred in the path concerned.</p> <p>x : Path # (0-7)</p> <p>y : Target ID (0)</p>	
Recovery methods	<p>① Perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910).</p>
I622xy Link down time-out was detected (Port-xy)	Collecting Error Information STRC
<p>The port displayed in the message and in which the remote path is set has not linked up for more than the specified time.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p>	
Recovery methods	<p>When a port is a Fibre Channel interface</p> <p>① 1. When the port displayed in the message has the link-up record, ask the customer/SE for the cooperation and replace any of the connection devices on the Fibre Channel link where the port displayed in the message is established (Host I/O Board/Module in which the port displayed in the message is installed, host connector of the port displayed in the message, optical cable, GBIC <Fibre Channel Switch, HBA>, Fibre Channel Switch, Host I/O Board/Module of the remote array, host connector of the remote array, extender, etc.).</p> <p>2. Check that the Fibre Channel link links up and "Path alarm" recovers.</p> <p>② 1. When the port displayed in the message has no link-up record, request the customer/SE to check if the following items are satisfied for the settings of the port displayed in the message and the port to be connected directly.</p> <ul style="list-style-type: none"> • "Transfer rate" is the same or "transfer rate" supported by both ports exists, and a setting expected as a system is executed. • Topology is the same. • "Port address" is unmatched. <p>2. If not recovered, ask the customer/SE for the cooperation and replace any of the connection devices on the Fibre Channel link where the port displayed in the message is established (Host I/O Board/Module in which the port displayed in the message is installed, host connector of the port displayed in the message, optical cable, GBIC <Fibre Channel Switch, HBA>, Fibre Channel Switch, Host I/O Board/Module of the remote array, host connector of the remote array, extender, etc.).</p> <p>3. Check that the Fibre Channel link links up and "Path alarm" recovers.</p> <p>③ Perform the maintenance according to Troubleshooting "Chapter 9. Procedure for Investigating Disk Array System Regarding Fibre Channel Failure" (TRBL 09-0000).</p> <p>When a port is an iSCSI interface</p> <p>① 1. When the port displayed in the message has the link-up record, ask the customer/SE for the cooperation and replace any of the connection devices on the link where the port concerned displayed in the message is established (Host I/O Board/Module in which the port displayed in the message is installed, LAN cable, LAN Switch, Host I/O Board/Module of the remote array).</p> <p>2. Check that the iSCSI link links up and "Path alarm" recovers.</p> <p>② 1. When the port displayed in the message has no link-up record, request the customer/SE to check if the following items are satisfied for the settings of the port displayed in the message and the port to be connected directly.</p> <ul style="list-style-type: none"> • "Negotiation mode (transfer rate, full duplex/half duplex)" is the same or "transfer rate" supported by both ports exists and a setting expected as a system is executed. <p>2. Ask the customer/SE for the cooperation and replace any of the connection devices on the link where the port displayed in the message is established (Host I/O Board/Module in which the port displayed in the message is installed, LAN cable, LAN Switch, Host I/O Board/Module of the remote array, etc.).</p> <p>3. Check that the iSCSI link links up and "Path alarm" recovers.</p> <p>③ Perform the maintenance according to Troubleshooting "Chapter 10. Procedure for the iSCSI System Failure Determination on the Disk Array System Side" (TRBL 10-0000).</p>

I623xy The target of remote path cannot be connected (Port-xy)

Collecting Error Information STRC

<In the case of the direct connection>

Although the array array displayed in the message tried to log in the remote array, the remote array was not connected.

Alternatively, when the port displayed in the message linked up, the Loop Map of LILP indicated "the node on the Loop is not one-to-one connection" (although Fabric Switch is not connected, the array other than two array arrays, the array array which displayed the message the remote array of the remote site of the remote copy, is connected).

<In the case of the connection via SW>

Although the array displayed in the message tried to log in the remote array, the serial number (WWN) of the remote array was not registered in NameServer of SWFabric Switch.

<iSCSI port>

The connection and login from the array which displayed the message to the array of the remote site of the remote copy were terminated abnormally or timed out.

< When remote array is AMS2100/2300/2500>

In case of AMS2100/2300/ 2500 whose H/W revision of the remote array is "0200", the firmware version of AMS2100/2300/2500 of the local array was "less than 0890/A".

< When remote array is AMS200/WMS100>

- The firmware version of AMS200/WMS100 of the remote array was "less than 0760".

- The Host I/O Board/Module (4 Gbps Fibre Channel) option was not installed in AMS200/WMS100 of the remote array.

x : Controller # (0-1)

y : Port # (A-H)

Recovery methods	When a port is a Fibre Channel interface
	<ol style="list-style-type: none"> ① 1. Request the customer/SE to check if the setting of the remote path of the array which displayed the message and the setting of the remote path of the remote array (interface type, remote array ID, local port #, remote port #) are correct. 2. When the setting of the remote path is incorrect, request the customer/SE to delete the remote path consists of the ports displayed in the message, and then create the remote path again using the correct setting value. ② 1. Request the customer/SE to check if the connection devices between the array which displayed the message and the remote array of the remote site (array displayed in the message, optical cable, GBIC <Fibre Channel Switch HBA>, Fibre Channel Switch, remote array of the remote copy, extender, etc.) are connected correctly. 2. When the connection devices are not connected correctly, request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the "User's Guide" of the remote copy after reconstructing the system. ③ 1. Ask the customer/SE for the cooperation and replace any of the connection devices between the array which displayed the message and the remote array of the remote site of the remote copy (Host I/O Board/ Module in which the port displayed in the message is installed, host connector of the port displayed in the message, optical cable, GBIC <Fibre Channel Switch, HBA>, Fibre Channel Switch, Host I/O Board/Module of the remote array, host connector of the remote array, extender, etc.) 2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the "User's Guide" of the remote copy. ④ 1. Perform the maintenance according to Troubleshooting "Chapter 9. Procedure for Investigating Disk Array System Regarding Fibre Channel Failure" (TRBL 09-0000). 2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.
	When a port is an iSCSI interface
	<ol style="list-style-type: none"> ① Request the customer/SE to check if the remote port IP address set to the array which displayed the message and the remote port TCP port number match the IP address of the remote array by the remote path consists of the ports which displayed the message and the TCP port number. Furthermore, request the customer/SE to confirm whether the remote port IP address, the subnet mask and the default gateway are set correctly in the remote path setting or not. ② Request the customer/SE to check that the remote system of the remote copy is starting.

To be continued to the next page.

	<p>③ 1. Request the customer/SE to check if the connection devices between the array which displayed the message and the remote array of the remote site (Host I/O Board/Module in which the port displayed in the message is installed, LAN cable, LAN Switch, Host I/O Board/Module of the remote array, WAN Optimization Controller <WOC>, etc.) are connected correctly.</p> <p>2. When the connection devices are not connected correctly, request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to the "User's Guide" of the remote copy after reconstructing the system.</p>
	<p>④ 1. Ask the customer/SE for the cooperation and replace any of the connection devices between the array which displayed the message and the remote array of the remote site of the remote copy (Host I/O Board/ Module in which the port displayed in the message is installed, LAN cable, LAN Switch, Host I/O Board/Module of the remote array, WAN Optimization Controller <WOC>, etc.).</p> <p>2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to "User's Guide" of the remote copy.</p>
	<p>⑤ 1. Perform the maintenance according to Troubleshooting "Chapter 10. Procedure for the iSCSI System Failure Determination on the Disk Array System Side" (TRBL 10-0000).</p> <p>2. Request the customer/SE to check that "Path alarm" is recovered by executing the recovery of the remote path on WEB according to "User's Guide" of the remote copy.</p>

I624xy Login resources of remote array for remote copy are not enough (Port-xy)

Collecting Error Information STRC

<Fibre Channel port>

When the array which displayed the message logged in the remote array of the remote site of the remote copy by the set remote path, "Since the ports of the remote array are connected to the maximum number of initiators, the array which displayed this message cannot log in the port of the remote array." is reported by the response by the PLOGI command from the remote array.

<iSCSI port>

When the array which displayed the message logged in the remote array of the remote site of the remote copy by the set remote path, "Since the ports of the remote array are connected to the maximum connectable number of initiators, the array which displayed this message cannot log in the port of the remote array." is reported by the login response from the remote array.

x : Controller # (0-1)

y : Port # (A-H)

Recovery

When a port is a Fibre Channel interface

methods

- ① 1. Request the customer/SE to reduce one or more host computers connected to the ports of the remote array of the remote copy by the remote path consists of the ports displayed in the message.
2. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.

When a port is an iSCSI interface

- ① 1. Request the customer/SE to check if the priced option of the remote copy is unlocked in the remote array of the remote site viewed from the array displayed in the message. (Refer to [System Parameter "14.1 Procedure for Unlocking the License of Priced Option" \(SYSPR 14-0000\)](#).)
2. When the priced option of the remote copy was not unlocked, request the customer/SE to unlock the priced option of the remote copy. (Refer to [System Parameter "14.1 Procedure for Unlocking the License of Priced Option" \(SYSPR 14-0000\)](#).)
3. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.
- ② 1. Request the customer/SE to check if the other unexpected array (B) logs in the port of the remote array (A) of the remote site viewed from the array array displayed in the message as the remote copy connection (concretely, the serial number of the remote array (A) of the remote site is set as the remote array ID in the remote path property window of Hitachi Storage Navigator Modular 2 for the other unexpected array (B)).
2. When the other unexpected array (B) logs in the port of the remote array (A) of the remote site as the remote copy connection, request the customer/SE to delete the remote path of the other unexpected array (B).
3. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.
- ③ 1. Request the customer/SE to reduce one or more host computers connected to the ports of the remote array of the remote copy by the remote path consists of the ports displayed in this message.
2. Request the customer/SE to execute the recovery of the remote path on WEB according to the "User's Guide" of the remote copy.

I625xy Fabric connection failed (Port-xy)	Collecting Error Information STRC
<p>The transmission or response of the FLOGI, PLOGI, RCS_ID, SCR or RSCN frame which tried to be issued to Fabric Switch terminated abnormally by the login sequence for the remote-side disk array system of the set remote path (a failure that the frame of the login sequence is damaged or timed out has occurred between the array and Fabric Switch).</p> <p>x : Controller # (0-1) y : Port # (A-H)</p>	
Recovery methods	<p>① Replace the Host I/O Board/Module. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)</p> <p>② Replace the host connector. (Refer to Replacement "2.2.8 Replacing a Host Connector" (REP 02-1230).)</p> <p>③ Replace the optical cable, extender, GBIC of Switch, Switch itself, etc. (Refer to manual of each product.)</p>
I62600 Path login failed	Collecting Error Information STRC
Sending and response of PLOGI and PRLI done at the time of a log-in to the set path terminated abnormally.	
I62700 Link down time-out [Path]	Collecting Error Information STRC
To a port to which a path has been set but no link up to the path has been done for longer than the regulated time, a setting of another path was requested.	
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910).
I62800 Path alarm for CTL alarm	Collecting Error Information STRC
The path was detached as a result of the CTL detachment.	
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
I62900 Remote equipment ID error	Collecting Error Information STRC
Path detach occurred due to inconsistency of remote equipment IDs.	
I62A00 Remote option disable [RVRF]	Collecting Error Information STRC
A path detachment occurred because the optional function of the remote DF was locked.	
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910).
I62B00 Port un-mounting error	Collecting Error Information STRC
The remote path has been blocked after the Host I/O Board/Module whose port has set the remote path has been removed from the array or has been blocked.	
Recovery methods	<p>① 1. Replace the Host I/O Board/Module. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).)</p> <p>2. Check [Copy] - [TrueCopy Path Information] of the menu frame in the WEB window (Normal Mode) to verify if the remote path has been recovered (the remote path status is "Normal").</p> <p>② 1. If the Host I/O Board/Module has been removed from the array, install the Host I/O Board/Module to the array. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).)</p> <p>2. Check [Copy] - [TrueCopy Path Information] of the menu frame in the WEB window (Normal Mode) to verify if the remote path has been recovered (the remote path status is "Normal").</p>
I62D00 Remote option disable [TrueCopy Basic]	Collecting Error Information STRC
A path detachment occurred because the optional TrueCopy remote replication function of the remote DF was locked.	
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910).
I63000 Write uncompleted block detected	Collecting Error Information STRC
An incomplete writing was detected at the time of the staging in a data copying from the primary volume to the secondary volume.	
Recovery methods	① Reformat the volume concerned. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500).)

169000	E-Mail parameter set failed	Collecting Error Information	STRC
	A setting of the E-mail parameters failed when making initial settings of the E-mail.		
169100	E-Mail send failed	Collecting Error Information	STRC
	A sending of a mail for informing of a failure occurrence failed.		
	Recovery methods	① Check the E-mail parameters and make the setting again.	
16C000	LU ownership was changed (LU-x/y->z)	Collecting Error Information	
	The switching in LU unit occurred.		
	x : LU # (0-4095)		
	y : Directory # before switching (last two digits : 0-1)		
	Core # of MPU (first two digits : 0-1)		
	z : Switching destination directory # (last two digits : 0-1)		
	Core # of MPU (first two digits : 0-1)		
	Recovery methods	None	
16D000	Replication data released threshold is exceeded in DP pool (DP pool-x)	Collecting Error Information	STRC
	The usage rate of the DP pool exceeded the threshold value of the replication data release.		
	x : Data pool # (0-63)		
	Recovery methods	① 1. Delete an unnecessary pair in the SnapShot pair which is using the DP pool displayed in the message. Or secure the DP pool capacity by adding the DP pool. 2. When the pair changed to PSUE is a SnapShot pair, release the pair, and then create a pair again. When the pair changed to PSUE is a TrueCopy Extended Distance pair, resynchronize the pair. As for the methods above, ask the user to execute the methods.	
16D100	Replication depletion alert threshold is exceeded in DP pool (DP pool-x)	Collecting Error Information	STRC
	The usage rate of the DP pool exceeded the threshold value of the replication depletion warning.		
	x : Data pool # (0-63)		
	Recovery methods	① Check that there is the volume which meets either of the following conditions by using [Copy] – [SnapShot Information] – [P-VOL Information] of the menu frame in the WEB window (normal mode). <ul style="list-style-type: none"> • The number of Management Pool is the same as the number of the DP pool displayed in the message. • The number of Replication Pool is the same as the number of the DP pool displayed in the message. ② The usage rate of the DP pool exceeded the threshold value of the replication depletion warning. Therefore, request the customer/SE to delete the SnapShot pair and TrueCopy Extended Distance pair that can be deleted among the volumes described in ① and increase the free capacity of the DP pool. Or request the customer/SE to add the capacity of the DP pool displayed in the message and increase the free capacity of the DP pool.	
16D300	Unreadable PIN resisted (Unit-x, HDU-y, LU-z)	Collecting Error Information	STRC
	The write incomplete area was registered in the P-VOL because there was the unreadable area in the pool volume during the restoration of the P-VOL of Copy-on-write SnapShot.		
	Or the incomplete write was registered in the S-VOL because there was the unreadable area in the pool volume when restoring the S-VOL due to S-VOL-Takeover as a result of executing the [horctakeover] command with TrueCopy Extended Distance.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	z : LU # (0-4095)		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.15 The Incomplete Write Area was Registered in the Restored LU" (TRBL 11-0850) .	
16D400	Remote path setting is not supported on the remote array	Collecting Error Information	STRC
	It was the firmware that the remote array (array of the communication partner) was unsupported.		
	Recovery methods	① 1. Update the firmware of the remote device to the version in which TrueCopy Modular Distributed of the priced option is supported. 2. Execute the path recovery instruction from WEB/Hitachi Storage Navigator Modular 2.	

I6D500 PSUE occurred [TrueCopy Basic] The array was started up with the cache that had volatilized owing to a power failure when a TrueCopy remote replication pair is in the status other than SMPL.	Collecting Error Information STRC
Recovery methods ① Perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910) .	
I6DH00 Staging failed [Forced parity correction] (LU-x) The correction cannot be made because the forced parity correction is in progress. x : LU # (0-4095)	Collecting Error Information STRC
Recovery methods ① Get the simple trace after the forced parity correction is completed and contact the department for coping with troubles. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040) .)	
I6DJ00 Forced parity correction LU is gone The volume that required the forced parity correction disappeared.	Collecting Error Information
Recovery methods None	
I6DK00 Incomplete differential data detected An incomplete DDCB was detected in the cascade connection of Copy-on-write SnapShot with TrueCopy remote replication/TrueCopy Extended Distance.	Collecting Error Information STRC
I6DL00 P-VOL read failed [TrueCopy Basic] The P-VOL became unable to be read.	Collecting Error Information
I6DM00 QuickShadow SMPL command received [TrueCopy Basic] Copy-on-write SnapShot received a command to split its pair.	Collecting Error Information
Recovery methods ① Split the TrueCopy remote replication/TrueCopy Extended Distance pair. When forming the pair again, form a Copy-on-write SnapShot pair first and then form a TrueCopy remote replication/TrueCopy Extended Distance pair.	
I6DN00 Uncorrectable forced parity correction LU is gone The volume, the forced restoration for which by means of parity could not be continued, disappeared.	Collecting Error Information
Recovery methods None	
I6DP00 Bitmap Data Error [TrueCopy Basic] Data of a TrueCopy remote replication pair may have been lost.	Collecting Error Information
Recovery methods ① Split a pair whose volume, which is in RAID 1 or RAID 1+0 TC and has a capacity of 1 T bytes or larger, is in the PSUE status. If an volume next to the volume concerned is in the PSUE status, split it also.	
I6DQ00 The change process of DP management information has started (Pool-x) The change processing of the DP management information by creating, adding the capacity of, deleting or reinitializing the DP Pool started. x : Pool # (0-63)	Collecting Error Information
I6DR00 The change process of DP management information has completed (Pool-x) The change processing of the DP management information by creating, adding the capacity of, deleting or reinitializing the DP Pool terminated. x : Pool # (0-63)	Collecting Error Information
I6DS00 Cable connection detected (Unit-x, ENC-y, Path-z) The SAS(ENC) cable of the chassis #, ENC # and PATH # displayed in the message was connected (for the exclusive of the self heatrun system). x : Unit ID # (1-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) z : Path # (0-7)	Collecting Error Information
Recovery methods None	

I6DY00 Drive response diagnosis detected the slowdown of HDU I/O performance (Unit-x, HDU-y)	Collecting Error Information	STRC
<p>When the I/O performance of the Drive is monitored for a certain period of time, it detected that the I/O performance of the Drive displayed in the message is extremely inferior to other Drives in the RAID group to which the Drive belongs (in case of RAID 1, the I/O performance of the Drive displayed in the message is inferior to the expected value).</p> <p>x : Unit ID # (0-79) y : Drive # (0-83)</p>		
Recovery methods	<p>① Perform the maintenance according to the message text "HDU alarm" displayed at the same time with this message.</p> <p>② Replace the Drive displayed in the message. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>	
I6E200 ENC error inf. [Write error code-z] (Unit-x, ENC-y)	Collecting Error Information	
<p>The I/O Module (ENC) or I/O Card (ENC) displayed in the message was blocked because it detected that an SES write failure occurred in the I/O Module (ENC) or I/O Card (ENC) of the Drive Box by the acquired SES data.</p> <p>x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) z : Optional code</p>		
Recovery methods	<p>① Perform the maintenance according to the message text "ENC alarm" or "ENC recovery failed" displayed at the same time.</p>	
I6E400 Ownership change by LU failed (LU-x)	Collecting Error Information	STRC
<p>The change of the volume unit failed because of the heavy I/O load given by a host computer.</p> <p>x : LU # (0-4095)</p>		
Recovery methods	<p>① Try again after giving some pause to operation of Hitachi Storage Navigator Modular 2 or RAID Manager.</p>	
	<p>② When operation of RAID Manager failed, a pair status of TrueCopy remote replication, TrueCopy Extended Distance, ShadowImage in-system replication, or Copy-on-write SnapShot has been changed to PSUE. Therefore, change the status from PSUE first.</p>	
	<p>③ When the operation is not successful after trying it twice, stop the job and then perform the operation.</p>	
I6E500 TWSI access error was detected [Read, xx-yy-aa]	Collecting Error Information	STRC
<p>An error was detected when read of TWSI (Two Wired Serial Interface) operated.</p> <p>xx : Optional code yy : Optional code aa : Optional code</p>		
I6E600 TWSI access error was detected [Write, xx-yy-aa]	Collecting Error Information	
<p>An error was detected when write of TWSI (Two Wired Serial Interface) operated.</p> <p>xx : Optional code yy : Optional code aa : Optional code</p>		
I6EF00 Forced parity correction LU changed status	Collecting Error Information	
<p>Because the forced parity correction was executed or skipped, the volume that was in the forced parity correction status of "Uncorrected and Drive Detached" (which indicates that an instruction to execute or skip the forced parity correction is required), no longer exists.</p>		
I6EG00 PIN over recovered [directory threshold] (DIR-x)	Collecting Error Information	
<p>The excess of the threshold value of pinned data in each directory was solved. (Directory: Unit of cache domain management)</p> <p>x : Directory # (0 or 1)</p>		
I6EH00 PIN over recovered [partition threshold] (DIR-x, PTT-y)	Collecting Error Information	
<p>The excess of the threshold value of pinned data in each partition was solved.</p> <p>x : Directory # (0 or 1) y : Cache Partition # (0-31)</p>		
I6EJ00 PIN over recovered [RAID group threshold] (DIR-x, RG-y)	Collecting Error Information	
<p>The excess of the threshold value of pinned data in a RAID group was solved.</p> <p>x : Directory # (0 or 1) y : RAID group # (0-199)</p>		
Recovery methods	<p>None</p>	

I6EK00	DM-LU canceled (LU-x)	Collecting Error Information	
	The write disabled DMLU was cancelled (Display of the DMLU cancellation message).		
	x : LU # (0-4095)		
	Recovery methods	None	
I6EL00	DM-LU read failed	Collecting Error Information	STRC
	When the array was booted, reading from the DMLU failed owing to a trouble such as a drive error.		
	Recovery methods	① Replace the Drive pointed out in the message, "HDU alarm. (Resolve the pair and reform it.) (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)	
I6EM00	DM-LU recovered (LU-x)	Collecting Error Information	
	The DMLU was recovered from the trouble.		
	x : LU # (0-4095)		
I6EN00	DM-LU write enable	Collecting Error Information	
	The deliberate shutdown was enabled because the DMLU, which was accessible for writing, was created.		
	Recovery methods	None	
I6EP00	Changing to xfailed as Cache Partition Manager is enable	Collecting Error Information	STRC
	The system start attribute was changed although the Cache partition management function was effective.		
	x : Single Mode or Dual Active Mode		
	Recovery methods	① Restore the system start attribute. (Refer to System Parameter "8.1 Setting Boot Options" (SYSPR 08-0000).)	
		② Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
I6ER00	Modular Volume Migration failed (LU-x/y)	Collecting Error Information	STRC
	One Modular Volume Migration terminated abnormally.		
	x : Internal LU # of the P-VOL (0-4095)		
	y : Internal LU # of the S-VOL (0-4095)		
I6ES00	Modular Volume Migration failed	Collecting Error Information	STRC
	One or more Modular Volume Migrations terminated abnormally.		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.16 Recovery Method of the Modular Volume Migration which Terminated Abnormally" (TRBL 11-0880).	

I6EV00 Drive spin down canceled [ERR-x] (RG-y)

Collecting Error Information STRC

The instruction of the spin-down of the Drive to aim at the power saving was accepted from Hitachi Storage Navigator Modular 2.

x : Factor code

- 1 : Failure due to the I/O from the host
- 2 : Failure due to the copy system PP command existed
- 3 : Failure due to the I/O from the host and the copy system PP command existed
- 4 : Failure due to the failure occurrence
- 16 : Failure due to the planned shutdown or the power-off of the array.

y : RAID group # (0-199)

Recovery methods	In case the factor code is "01"	
	①	1. A command is issued from the initiator for the volumes created in the RAID Group displayed in the message, so that stop all the operations which use these volumes, and request the customer/SE to change the customer's system to the status that the command is not issued to these volumes.
		2. Request the customer/SE to execute the spin down of the Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.
	In case the factor code is "02"	
	②	1. The operation of the copy system function (one of Modular Volume Migration, TrueCopy Extended Distance, TrueCopy remote replication, copy-on-write SnapShot and ShadowImage in-system replication, or two or more functions) of the priced option is being executed from RAID Manager for the volumes created in the RAID Group displayed in the message, so that wait for the maintenance work until the processing of the copy system function for these volumes is completed.
		2. Request the customer/ SE to execute the spin down of the Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.
	In case the factor code is "03"	
	③	1. The operation of the copy system function (one of Modular Volume Migration, TrueCopy Extended Distance, TrueCopy remote replication, copy-on-write SnapShot and ShadowImage in-system replication, or two or more functions) of the priced option is being executed from RAID Manager for the volumes created in the RAID Group displayed in the message, so that wait for the maintenance work until the processing of the copy system function for these volumes is completed.
		2. A command is issued from the initiator for the volumes created in the RAID Group displayed in the message, so that stop all the operations which use these volumes, and request the customer/ SE to change the customer's system to the status that the command is not issued to these volumes.
		3. Request the customer/ SE to execute the spin down of the Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.
	In case the factor code is "04"	
	④	1. One of the following message codes is displayed in the Information Message of WEB. Perform the maintenance according to the recovery method of the message code. <ul style="list-style-type: none"> • I30100 HDU error (Unit-x, HDU-y) • W0L000 Unreadable PIN detected (Unit-x, HDU-y) • W0M000 Unreadable PIN detected (Unit-*, HDU-*) • W0R000 User data lost (LU-x) • W3G000 PIN is over directory threshold [write through] (DIR-x) • W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y) • W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y)
		2. Request the customer/ SE to execute the spin down of the Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.
	In case the factor code is "16"	
	⑤	Request the customer/ SE to execute the spin down of the Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.

I6EY00 Power saving recovery failed and power saving of the disk drives was canceled (RG-x) The post-processing of the failure of the Drives to which the spin-down of the power saving was set terminated abnormally. Therefore, the spin-down setting of the power saving for the RAID Group displayed in the message was cancelled. x : RAID group # (0-199)	Collecting Error Information STRC
Recovery methods	① 1. When the factor code is four, one of the following message codes is displayed in the Information Message of WEB. At first, remove the PIN segment according to the recovery method of the message code. <ul style="list-style-type: none"> • W0L000 Unreadable PIN detected (Unit-x, HDU-y) • W0M000 Unreadable PIN detected (Unit-*, HDU-*) • W3G000 PIN is over directory threshold [write through] (DIR-x) • W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y) • W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y) 2. Request the customer/SE to execute the spin down of the Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.
I6EZ00 Health check failed and power saving of the disk drives was canceled (RG-x) The health check for the power saving Drives which were spin-down terminated abnormally due to the drive failure. Therefore, the spin-down setting of the power saving for the RAID Group displayed in the message was cancelled. x : RAID group # (0-199)	Collecting Error Information STRC
Recovery methods	① 1. When the factor code is four, one of the following message codes is displayed in the Information Message of WEB. At first, remove the PIN segment according to the recovery method of the message code. <ul style="list-style-type: none"> • W0L000 Unreadable PIN detected (Unit-x, HDU-y) • W0M000 Unreadable PIN detected (Unit-*, HDU-*) • W3G000 PIN is over directory threshold [write through] (DIR-x) • W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y) • W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y) 2. Request the customer/SE to execute the spin down of the Drive to aim at the power saving from Hitachi Storage Navigator Modular 2 again.
I6FExx Microprogram error [BKW] (code-x) Logical discrepancy of the firmware occurred (backend monitoring). x : Optional code	Collecting Error Information STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.
I6FF00 ENC recovery failed (Unit-x, ENC-y) The I/O Module (ENC) or I/O Card (ENC) replacement of the Drive Box failed due to an I/O Module (ENC) or I/O Card (ENC) failure. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information STRC
Recovery methods	① Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .)

I6G000 The I/F type of the disk drive is different from other system drives (Unit-x HDU-y)	Collecting Error Information	STRC
The drive of a different type (SAS Drive/ SAS7.2K Drives/Flash Drive) from other system drives was inserted in the system drive.		
x : Unit ID # (0-79)		
y : Drive # (0-83)		

Recovery methods ① Replace the Drive displayed in the message to the same type of the Drive as other system drives. (Refer to [Replacement "2.2.1 Replacing a Drive" \(REP 02-0050\)](#).)

I6G100 The serial number of the HDU is different from the configuration info (Unit-x HDU-y)	Collecting Error Information	STRC
It was detected that the serial number of the inquiry data acquired from the drive or the drive type name was different from the value acquired at the last spinup when starting the array or spinning up the drive which was spun down due to electric power saving.		
x : Unit ID # (0-79)		
y : Drive # (0-83)		

Recovery methods

- ① 1. Check that the order of connecting the Drive Box is not different from the order when the array was Ready previously or the order of connecting the Drive Box is not different from the order before powering off the Drive Box by the Tray Power Saving function.
If the order of connecting the Drive Box is different from the order when the array was Ready previously or the order is different from the order before the Tray Power Saving function powers off the Drive Box, turn off the array. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
2. Reconnect the SAS (ENC) cable so that the order of connecting the Drive Box is the same as the order when the array was Ready previously or the Drive Box was powered on or the order of connecting the Drive Box is the same as the order before the Tray Power Saving function powers off the Drive Box.
3. Turn on the array power. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0240\)](#).)
- ② 1. Check if each SAS(ENC) cable is connected correctly between the expected chassis. If there is any SAS(ENC) cable that is not connected correctly, turn off the array power. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
2. Connect the SAS(ENC) cable correctly again.
3. Turn on the array power. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- ③ 1. Check if each SAS(ENC) cable is connected to the ENC connector of the expected Controller or to the ENC connector of the ENC. If there is any SAS(ENC) cable that is not connected correctly, turn off the array power. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
2. Connect the SAS(ENC) cable correctly again.
3. Turn on the array power. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- ④ 1. If the ALM LED on the front of the array lights up and the array goes down, check that the Drive mounting position is not changed when the Tray Power Saving function powers off the Drive Box.
If the Drive mounting position is changed when the Tray Power Saving function powers off the Drive Box, return the Drives to the mounting positions before change (the Drive mounting position which configures the RAID group cannot be changed).
2. Turn off the main switch. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).)
3. Turn on the array power. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- ⑤ 1. If the Drives are replaced when the array is powered off, perform the dummy replacement ^(*) of the drives displayed in this message. (Refer to [Replacement "2.2.1 Replacing a Drive" \(REP 02-0050\)](#).)
2. If the Drive is not recovered yet, replace the Drive displayed in the message.

*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.

<p>I6G200 The read of the drive signature failed (Unit-x, HDU-y, Code-zz)</p> <p>Read of the Drive-specific information failed. Or the data of the Drive-specific information was illegal.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>z : Code # (00-02)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Perform the maintenance in accordance with the message text "HDU alarm" which was displayed at the same time as Code-zz displayed in this message.</p> <p>Code-00 : Read of the Drive-specific information failed. Replace the blocked Drive.</p> <p>Code-01 : The Drive capacity of the Drive-specific information is illegal.</p> <ul style="list-style-type: none"> • Replace the blocked Drive with the Drive of the same Drive capacity or more in the RAID group to which the blocked Drive belongs. • In case of a Spare Drive, replace it with the Drive of the same Drive capacity or more in the RAID group which exists in the system. <p>Code-02 : The Drive performance of the Drive-specific information is illegal.</p> <ul style="list-style-type: none"> • Replace the blocked Drive with the Drive of the same performance or more in the RAID group to which the blocked Drive belongs.
<p>I6G300 The serial number of the disk drive is illegal (Unit-x, HDU-y)</p> <p>It was detected that the serial number of the inquiry data of the Drive or the Drive model name was an illegal value.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Perform the maintenance according to the message text "HDU alarm" displayed at the same time with this message.</p>
<p>I6G400 The I/F type of the inserted HDU is different from the removed HDU (Unit-x, HDU-y)</p> <p>The type of the drive (SAS Drive/SAS7.2K Drive/Flash Drive) after the replacement is different from the drive before the replacement.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Replace the Drive displayed in the message to the Drive of the same type as the Drive before the replacement.</p>
<p>I6G500 Cycle time threshold over occurred (CTG-x)</p> <p>The time required for the cycle copy of TrueCopy Extended Distance in the consistency group displayed in the message exceeded the set cycle time.</p> <p>x : Consistency Group # (0-63)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>None</p>
<p>I6G70x Collecting simple trace failed (CTL-x)</p> <p>The collection of the simple trace terminated abnormally.</p> <p>x : Controller # (0-1)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>① 1. In case of the dual controller system, collect the simple trace from the other Controller. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> <p>2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>When the array is in the normal mode, consult with the customer/SE and decide the opportunity to replace the Controller.</p>
<p>I6G8xy Remote path recovered by the command from Storage Navigator Modular 2 (Remote-x, Path-y)</p> <p>When the command to recover the remote path was executed from Hitachi Storage Navigator Modular 2, the remove path recovered.</p> <p>x : Remote # (Array ID)</p> <p>y : Path # (0-7)</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>None</p>

16G9xy The target of remote path was not found (Port-xy)

Collecting Error Information

STRC

The array of the remote site of TrueCopy remote replication or TrueCopy Extended Distance cannot be recognized due to the problem of the remote copy setting or remote path connection.

x : Controller # (0-1)

y : Port # (A-H)

- | | | |
|------------------|--|---|
| Recovery methods | ① | 1. Request the customer/SE to check if [Remote Array ID] in the remote path property window of Hitachi Storage Navigator Modular 2 connected to the array which displayed the message matches the serial number of the remote array of the remote copy. |
| | | 2. When the remote array ID and the serial number of the remote array of the remote copy differ, request the customer/SE to delete the remote path consists of the ports displayed in the message and create the remote path again using the correct remote array ID. |
| | ② | 1. Request the customer/ SE to check if the array which displayed the message is connected correctly to the remote array of the remote copy. |
| | | 2. When the array of the remote copy are not connected correctly, request the customer/SE to delete the remote path consists of the ports displayed in this message, connect the remote path correctly again, and then create the remote path again. |
| | ③ | 1. When the port displayed in the message is the Fibre Channel interface, request the customer/SE to check if [Local Port] and [Remote Port] in the remote path property window of Hitachi Storage Navigator Modular 2 are set correctly with the remote path consists of the ports. |
| | | 2. When the setting is incorrect such as [Local Port] and [Remote Port] are different from the expected port number or physical configuration, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the correct setting values of [Local Port] and [Remote Port]. |
| | ④ | 1. When the port displayed in the message is the Host I/O Board/Module (iSCSI), request the customer/SE to check if [Remote Port IP Address] and [Remote Port TCP Port Number] in the remote path property window of Hitachi Storage Navigator Modular 2 are the expected setting values by the remote path consists of the ports. |
| | | 2. When either value of [Remote Port IP Address] and [Remote Port TCP Port Number] is set incorrectly, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the correct setting value. |
| | ⑤ | 1. When the port displayed in the message is the Host I/O Board/Module (iSCSI), request the customer/SE to check if [Remote Port IP Address] and [Remote Port TCP Port Number] in the remote path property window of Hitachi Storage Navigator Modular 2 match "IP address of the remote array for the array which displayed this message" and "TCP port number of the remote array for the array which displayed this message" by the remote path consists of the ports. |
| | | 2. When either value of [Remote Port IP Address] and [Remote Port TCP Port Number] is set incorrectly, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the correct setting value. |
| ⑥ | 1. When the port displayed in the message is the Fibre Channel interface, request the customer/SE to check if [Local Port] and [Remote Port] in the remote path property window of Hitachi Storage Navigator Modular 2 are set in the port of the same Controller #. | |
| | 2. When [Local Port] and [Remote Path] are not set in the port of the same Controller #, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the port number of the same Controller. | |
| ⑦ | 1. When the port displayed in the message is the iSCSI interface, request the customer/SE to check if [Local Port IP Address] and [Remote Port IP Address] in the remote path property window of Hitachi Storage Navigator Modular 2 are set by the IP address of the port of the same Controller #. | |
| | 2. When [Local Port IP Address] and [Remote Port IP Address] are not set by the IP address of the port of the same Controller #, request the customer/SE to delete the remote path consists of the ports, and then create the remote path again using the IP address of the port of the same Controller. | |

To be continued to the next page.

	<ul style="list-style-type: none"> ⑧ 1. Request the customer/SE to check if the Controller of the array which displayed the message and the Controller of the remote array are connected with the same Controller # by the remote path consists of the ports displayed in the message. 2. When the remote path between the array which displayed the message and remote array is not connected to the same Controller #, request the customer/SE to delete the remote path consists of the ports displayed in the message, connect the remote path again so that it connects to the port of the same Controller # between the local site and remote site array, and create the remote path again. ⑨ 1. When the customer is operating two-way remote copy, request the customer/SE to check if [Remote Array ID] in the remote path property window of Hitachi Storage Navigator Modular 2 matches the serial number of the array which displayed the message in the remote array of the remote site viewed from the array which displayed the message. 2. When the remote array ID and the serial number of the array which displayed the message differ, request the customer/SE to delete the remote path consists of the ports displayed in the message, and then create the remote path again for the remote array of the remote site viewed from the array which displayed the message. 		
I6GAXy	<p>Login resources of local array for remote copy are not enough (Port-xy)</p> <p>Since the maximum number of initiators that can log in immediately is already logged in for the ports displayed in the message, the array which displayed the message cannot receive login from the remote array of the remote copy.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p> <p>Recovery methods</p> <ul style="list-style-type: none"> ① Request the customer/SE to review the hardware configuration of the system and the system settings and reduce the host computers which log in the ports so that the remote array of the remote copy can log in the ports displayed in the message. 	Collecting Error Information	STRC
I6GBxy	<p>Path login authentication error (Port-xy)</p> <p>Since the remote path was set in the array which displayed the message, the array which displayed the message logged in the remote array of the remote copy. However, the CHAP authentication failed.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p> <p>Recovery methods</p> <ul style="list-style-type: none"> ① 1. When it is operated with the remote copy whose remote path setting is one-way, request the customer/SE to check if [CHAP Secret] in the remote path property window of Hitachi Storage Navigator Modular 2 is unselected (disabled). 2. When [CHAP Secret] is selected (set as enabled), request the customer/SE to delete the remote path, unselect (disable) the CHAP secret, and then create the remote path again. ② 1. When the remote path setting was operated in the two-way remote copy, request the customer/SE to check if [CHAP Secret] is selected (enabled) in the remote path property window of Hitachi Storage Navigator modular2. 2. •When [CHAP Secret] is unselected (disabled), request the customer/SE to delete the remote path, set the CHAP secret, and then create the remote path again. •When [CHAP Secret] is selected (enabled), request the customer/SE to delete the remote path consists of the ports displayed in the message, and then create the remote path again using the CHAP secret of the same value for both arrays of the local site and remote site of the remote copy. 	Collecting Error Information	STRC
I6GC00	<p>Drive spinup was canceled by hardware error (RG-x)</p> <p>Since a hardware error was detected, spinup of the Drive by the Power Saving/Power Saving Plus function was not executed.</p> <p>x : RAID group # (0-199)</p> <p>Recovery methods</p> <ul style="list-style-type: none"> ① Perform the maintenance according to the message code "I6GD00 The power-on of the array unit failed (Unit-x)" displayed next to this message. ② Instruct the spinup again. 	Collecting Error Information	STRC
I6GD00	<p>The power-on of the array unit failed (Unit-x)</p> <p>Turning on the power of the chassis failed.</p> <p>x : Unit ID # (0-79)</p> <p>Recovery methods</p> <ul style="list-style-type: none"> ① Perform the maintenance according to the message code output at the same time. 	Collecting Error Information	STRC

I6GE00	[Performance]Queue-full occurs often (Port=wx, Connected host num.=y, Queue depth=z)	Collecting Error Information	STRC
<p>Although the number of commands that can be processed at the same time is 512 (or 1024)^(*) per one port of the host interface part of the array, the array responded to the host computer "Queue full" more than the threshold value per unit time because the port displayed in the message continued to receive the commands more than 512 (or 1024)^(*) at the same time from multiple or one host computer. The I/O performance of the host computer connected to the port of the host interface part displayed in this message may deteriorate.</p> <p>w : Controller # (0-1) x : Port # (A-H) y : Host connection # (0-255) z : Command multiplex number (512/1024)^(*)</p>			
Recovery methods	<p>① 1. When this message is displayed in the array after the customer/SE newly constructed the system or the path switching of the system operated, request the customer/SE to "review the number of hosts connected to the port displayed in this message or the number of tags per host" because the number of commands that can be processed at the same time is 512 (or 1024)^(*) per one port of the host interface part of the array.</p> <p>2. When this message is displayed after the customer/SE added a host to the array or changed the number of tags of the host, request the customer/SE to "review the number of hosts connected to the port displayed in this message or the number of tags per host" because the port of the array came to respond to the host "queue full" by having changed the setting of the system.</p> <p>3. If the message is still displayed after performing the above two steps and the number of commands to be processed at the same time is not set to 1024 by the Port Option setting, request the customer/SE to set it to 1024. For the setting method, change [Command Queue Expansion Mode] to [Enable]. (Refer to System Parameter "8.3 Setting Port Options" (SYSPR 08-0080).)</p>		
<p>*1 : In case the host interface is Fibre Channel, the number of commands to be processed at the same time can be set to 1024 by the Port Option setting in the firmware version 0935/A or more. In case of iSCSI, it can be set in the firmware version 0937/A or more.</p>			
I6GF00	The error of the data transfer length was detected in the drive write (Unit-x, HDU-y)	Collecting Error Information	STRC
<p>When the Controller writes the data in the Drive, the Controller received command complete from the Drive before receiving a data transfer complete report. As a result, the Controller judged that the Drive fails.</p> <p>x : Unit ID # (0-79) y : Drive # (0-83)</p>			
Recovery methods	<p>① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.</p>		
I6GG00	PIN over recovered [pool threshold] (DIR-x, Pool-y)	Collecting Error Information	
<p>The DP pool recovered from the PIN over.</p> <p>x : Directory # (0 or 1) y : Pool # (0-63)</p>			
Recovery methods	<p>None</p>		
I6GH00	DP Pool Consumed Capacity Early Alert (Pool-x)	Collecting Error Information	STRC
<p>The DP pool consumed capacity exceeded the Early Alert threshold value.</p> <p>x : Pool # (0-63)</p>			
I6GI00	DP Pool Consumed Capacity Depletion Alert (Pool-x)	Collecting Error Information	STRC
<p>The DP pool consumed capacity exceeded the Depletion Alert threshold value.</p> <p>x : Pool # (0-63)</p>			
I6GJ00	DP Pool Consumed Capacity Over (Pool-x)	Collecting Error Information	STRC
<p>The DP pool consumed capacity reached the upper limit, and the DP pool unused capacity was depleted.</p> <p>x : Pool # (0-63)</p>			
I6GK00	Over Provisioning Ratio Forewarning (Pool-x)	Collecting Error Information	STRC
<p>The DP volume capacity of the DP pool exceeded the Over Provisioning Ratio Forewarning threshold value.</p> <p>x : Pool # (0-63)</p>			
Recovery methods	<p>① Request the customer/SE to add the DP pool capacity referring to the "Dynamic Provisioning User's Guide".</p>		

<p>I6GL00 Over Provisioning Ratio Overwarning (Pool-x)</p> <p>The DP volume capacity of the DP pool exceeded the Over Provisioning Ratio Overwarning threshold value.</p> <p>x : Pool # (0-63)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Request the customer/SE to add the DP pool capacity referring to the "Dynamic Provisioning User's Guide".</p>
<p>I6GP00 The staging of the management information of DP pool failed</p> <p>When starting the array, read of the DP management information from the chunk for the save area failed. This changed all the ShadowImage pairs using the DP volumes to PSUE. Moreover, the DP pools were all changed to unformatted.</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Check that "I6HS00 The format of all DP pools started because the read of these management data failed" is displayed in the Information Message on WEB after this message.</p> <p>② Perform the maintenance according to Troubleshooting "11.1.24 Recovery Method when the Array went Down because the Load of the DP Management Information" (TRBL 11-1120).</p>
<p>I6GQ00 Forced parity correction stopped by too many PINs (POOL-x, LU-y)</p> <p>Since the PIN number of the DP Pool displayed in the message came close to the threshold value of the array, the firmware stopped the forced parity correction processing.</p> <p>x : Pool # (0-63))</p> <p>y : LU # (0-4095)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Perform the maintenance according to Troubleshooting "11.1.3 [Recovery method-4] : PIN over occurred during the forced parity correction." (TRBL 11-0280).</p>
<p>I6GR00 Authentication failure of Host connector was detected (Portxy)</p> <p>It was detected that the Host connector of the port displayed in the message was an unauthenticated product by authenticating the Host Connector.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>I6GS00 The failure of Host connector was detected (Portxy)</p> <p>It was detected that the Host Connector of the port displayed in the message had a failure by checking failures of the Host Connector.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Replace the Host Connector displayed in the message. (Refer to Replacement "2.2.8 Replacing a Host Connector" (REP 02-1230).)</p>
<p>I6GT00 Transfer rate supported by host connector is not the same as Host I/O Module (Portxy)</p> <p>The Host Connector of the incorrect transfer rate was inserted into the port displayed in the message.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>STRC</p> <p>① Insert the Host Connector of the same transfer rate as the Host I/O Board/Module with the port displayed in the message into the port displayed in the message. (Refer to Replacement "2.2.8 Replacing a Host Connector" (REP 02-1230).)</p>

I6GU00 R/W command for the LUN is rejected due to invalid LUN process of array (LU-xxxx, yyyy)	Collecting Error Information
<p>Although a host read command or host write command was issued to the DP Volume displayed in the message, the firmware deterred the host access to the DP Volume displayed in the message because the firmware detected that "the received command is internally processed as a command for a different LU from the DP Volume to which the command was issued".</p> <p>x : LU # (0-4095) y : LU # (0-4095)</p>	
Recovery methods	<ol style="list-style-type: none"> ① 1. Request the customer/SE to "refer to the system logs of the host computer and specify the DP Volume in which a failure has occurred for all the DP Volume including the DP Volume # displayed in the message". 2. Send the simple trace to the Technical Support Center. 3. The Technical Support Center should check the analysis result of the system logs of the host computer and the simple trace, eliminate the logs not attributable to the DP Volume failure, and specify the DP Volume in which a failure has occurred. 4. Inform the customer/SE of "the control information of the DP Volume specified by the Technical Support Center became illegal due to a failure of the array, and the user data of these DP Volume cannot be recovered". 5. Check the customer/SE that "he/she has the LU setting information for the DP Volume in which a failure has occurred". If the customer/SE does not have the setting information of the DP Volume, request him/her to "record the setting information of the DP Volume". 6. Format all the DP Volume specified in the procedure ①-3 after acquiring the permission from the customer/SE. 7. Request the customer/SE to "create the file system again and restore the backup data as needed".
I6GV00 Move drive (Unit-x1, HDU-y1) to slot (Unit-x2, HDU-y2) because of serial number problem	Collecting Error Information STRC
<p>At the time of starting the array, when the Drive serial number is acquired from the Drive, the Drive whose installation slot is replaced at the previous array starting time and this array starting time was detected.</p> <p>x : Unit ID # (0-79) y : Drive # (0-83)</p>	
Recovery methods	<ol style="list-style-type: none"> ① Perform the maintenance according to Troubleshooting "11.1.26 Recovery Method when the Drive Serial Number Acquired at the time of Starting the Array and the Serial Number of the Configuration Information do not Match" (TRBL 11-1200).
I6GW00 Internal temperature is over the threshold for Long Life Support	Collecting Error Information
The temperature in the array exceeded the upper limit temperature.	
Recovery methods	<ol style="list-style-type: none"> ① 1. Select "Settings" – "Environmental Information" in Hitachi Storage Navigator Modular 2, and check the most recent "Array Temperatures". 2. When the most recent "Array Temperatures" exceeds the upper limit temperature, request the customer/SE to improve the array installation environment. The upper limit temperature is displayed in the window. 3. When the most recent "Array Temperatures" does not exceed the upper limit temperature, check that there is the measurement point which exceeds the upper limit temperature referring to the temperature in the array in order from the most recent measurement point. Then, request the customer/SE to improve the array installation environment.
I6GX00 Internal temperature has dropped to the threshold for Long Life Support or below	Collecting Error Information
The temperature in the array decreased to the upper limit value or less.	
Recovery methods	None

16GYxx The setting change of the DP Capacity Mode has failed (Code-xx)

Collecting Error Information STRC

Error factor code : 01

The DP Capacity Mode change terminated abnormally because the Cache Memory capacity is insufficient.

Error factor code : 02

The DP Capacity Mode change terminated abnormally because the sequential shutdown for flushing the dirty data in the Cache Memory to the Drive is not performed.

Error factor code : 03

The DP Capacity Mode change terminated abnormally because the PIN exists.

xx : Error factor code

01 = The user data area is insufficient (the size of the installed Cache memory is insufficient).

02 = The planned shutdown has not completed normally

03 = The PIN data exists in the Cache Memory.

Recovery methods	In case the error factor code is "01"
	<ol style="list-style-type: none"> ① 1. Contact the customer/SE that the size of the Cache memory installed in the array is insufficient for changing the DP capacity mode. Then, request the customer/SE to check the Cache Memory capacity necessary for changing the DP Capacity Mode and order the necessary additional Cache Memories referring to Troubleshooting in the "Dynamic Provisioning User's Guide". 2. Add the arranged Cache Memory to the array. (Refer to Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460).) 3. Select [Performance] – [DP Optimization] of Hitachi Storage Navigator Modular 2, click the [Change Capacity Mode] button on the upper right of the DP Optimization window and change the DP Capacity Mode from "Regular Capacity" to "Maximum Capacity" again. 4. Select the array sequential shutdown or [Performance] – [DP Optimization] of Hitachi Storage Navigator Modular 2, click the [Reconfigure Memory] button on the upper right of the DP Optimization window and perform the memory reconfiguration. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 5. • When the sequential shutdown is executed, turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) • When the memory is reconfigured, wait until "Reconfigure Memory Status" in "DP Capacity Mode" in [Summary] from [Performance] - [DP Optimization] of Hitachi Storage Navigator Modular 2 is changed to "Normal". Since the display of "Reconfigure Memory Status" is not updated automatically, click the [Refresh Information] button on the upper right of the window to display the most recent "Reconfigure Memory Status".
	In case the error factor code is "02"
	<ol style="list-style-type: none"> ② 1. Select the array sequential shutdown or [Performance] – [DP Optimization] of Hitachi Storage Navigator Modular 2, click the [Reconfigure Memory] button on the upper right of the DP Optimization window and perform the memory reconfiguration. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. • When the sequential shutdown is executed, turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) • When the memory is reconfigured, wait until "Reconfigure Memory Status" in "DP Capacity Mode" in [Summary] from [Performance] - [DP Optimization] of Hitachi Storage Navigator Modular 2 is changed to "Normal". Since the display of "Reconfigure Memory Status" is not updated automatically, click the [Refresh Information] button on the upper right of the window to display the most recent "Reconfigure Memory Status".
	In case the error factor code is "03"
	<ol style="list-style-type: none"> ③ 1. If any of the following messages is displayed before this message, perform the maintenance in accordance with the recovery method of the displayed message. <ul style="list-style-type: none"> • W3G000 PIN is over directory threshold [write through] (DIR-x) • W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y) • W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y) 2. If either of the following messages is displayed before this message, perform the maintenance in accordance with the message. <ul style="list-style-type: none"> • W0L000 Unreadable PIN detected (Unit-x, HDU-y) • W0M000 Unreadable PIN detected (Unit-*, HDU-*)

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		<ol style="list-style-type: none"> 3. Check the availability of the PIN data. (Refer to Troubleshooting "8.3.1 Displaying Volume Failure Data Information" (TRBL 08-0130).) 4. When the PIN data exists, refer to Troubleshooting "11.1.11 A Failure Occurred during Operation: Case 1 (PIN Over) (TRBL 11-0760)" and cancel the PIN. 5. Select the array sequential shutdown or [Performance] – [DP Optimization] of Hitachi Storage Navigator Modular 2, click the [Reconfigure Memory] button on the upper right of the DP Optimization window and perform the memory reconfiguration. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 6. <ul style="list-style-type: none"> • When the sequential shutdown is executed, turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) • When the memory is reconfigured, wait until "Reconfigure Memory Status" in "DP Capacity Mode" in [Summary] from [Performance] - [DP Optimization] of Hitachi Storage Navigator Modular 2 is changed to "Normal". Since the display of "Reconfigure Memory Status" is not updated automatically, click the [Refresh Information] button on the upper right of the window to display the most recent "Reconfigure Memory Status".
I6GZ00	<p>The number of the channel port error has exceeded the threshold (PortXX)</p> <p>The detection count of the channel port path failures exceeded the threshold value.</p> <p>x : Port # (0A-0H, 1A-1H)</p>	<p>Collecting Error Information</p> <p>STRC</p>
	Recovery methods	<p>① Perform the maintenance referring to Troubleshooting "11.1.28 Failure Determination and Recovery Methods of Fibre Channel Port Path" (TRBL 11-1250).</p>

<p>I6H000 A part of the capacity in the DP pool cannot be used causing by DP pool error</p> <p>Since the DP pool capacity is smaller than the set size due to a failure which has occurred during DP pool creation, the user cannot use part of the DP pool capacity. To recover the DP pool from the failure, it is required to restart the array after performing the planned shutdown.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Restart the array after performing the planned shutdown. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>The value of the DP pool capacity is changed to the expected value by the automatic recovery function at the time of array startup.</p> <p>Consult with the customer/SE to decide the date & time for performing the planned shutdown of the array.</p>
<p>I6H100 Unformatted area remains in the LU (LU-xxxx). Please contact support for assistance</p> <p>Although the LU displayed in the message seems to be formatted completely from the Information Message on WEB or Hitachi Storage Navigator Modular 2, the unformatted area is actually remained in the LU due to the firmware defect before the update.</p> <p>x : LU # (0-4095)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Contact the Technical Support Center for the instructions.</p>
<p>I6H200 The memory reconfiguration process has failed [errcode-x]</p> <p>The reconfigure memory processing failed.</p> <p>x : Failure factor code</p> <p>1: Timeout</p> <p>2: Drive is being restored</p> <p>3: DMA transfer error</p> <p>4: PIN enable</p>	<p>Collecting Error Information</p>
<p>Recovery methods</p>	<p>When errcode is "01"</p> <p>② 1. The load of the host I/O was high, and the reconfigure memory processing was not completed within the specified time (ten minutes).</p> <p>Check with the customer/SE if an unexpected host operation is not operated.</p> <p>2. When it is reported from the customer/SE that the undue host operation is not performed, since it is required to perform the setting operation during the time when the load of the host I/O becomes low or during the period when the host I/O operations stops, request the customer/SE to reset the date and time of the setting operation.</p> <p>3. Execute reconfigure memory again.</p> <p>When errcode is "02"</p> <p>② 1. Wait until the drive restoration is completed.</p> <p>Any of the following messages is displayed in the Information Message on WEB.</p> <ul style="list-style-type: none"> • I14100 System copy completed • I15100 Data recovery completed • I15300 Data recovery partial <p>2. Execute reconfigure memory again.</p> <p>When errcode is "03"</p> <p>③ 1. Perform the maintenance according to the message which was displayed immediately before this message (Controller blockade/DRR failure/LA LRC error).</p> <p>2. Execute reconfigure memory again.</p> <p>When errcode is "04"</p> <p>④ 1. To recover the failure, it is required to perform the planned shutdown or restart of the array. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220).)</p> <p>Contact the customer/SE. Then, wait until the customer's system is prepared.</p> <p>2. Whether the message of "PIN is over" is displayed or not, perform the maintenance according to Troubleshooting "11.1.11 Failures occurred during the operation: Case 1 (PIN OVER)" (TRBL 11-0760).</p> <p>3. Execute reconfigure memory again.</p>

I6H300	The DP invalid flag was cleared. Please contact support for assistance. When replacing the firmware, an invalid flag was detected in the DP management information. Therefore, the firmware cleared the flag information.	Collecting Error Information	
Recovery methods	① Contact the Technical Support Center for the instructions.		
I6H400	Start to check DP management information. The check of the DP management information started.	Collecting Error Information	
I6H500	Complete to check DP management information. The check of the DP management information was completed.	Collecting Error Information	
Recovery methods	None		
I6H600	Security command to SED was failed (Unit-x, HDU-y) The security command for the SAS (SED) Drive failed. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
Recovery methods	① Perform the dummy replacement ^(*) of the blocked SAS (SED) Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).) ② If it does not recover in ①, replace the SAS (SED) Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)		
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.			
I6H700	HDU information setup start The write of the Drive specific information started.	Collecting Error Information	
I6H800	HDU information setup complete The write of the Drive specific information was completed.	Collecting Error Information	
Recovery methods	None		
I6H900	The drive signature file not found (Unit-x, HDU-y) The Drive specific information file of the Drive displayed in the message was not found. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	
Recovery methods	① 1. Wait until the utility mode is terminated. 2. If the Drive displayed in this message is a Flash Drive (FMD), the maintenance work is not required. 3. Turn off all the power supply of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 4. Prepare the most recent directory in which the specific information file of the Drive displayed in the message is stored. 5. Turn on all the power supply of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 6. Perform the write of the Drive specific information again by resetting the utility mode.		

I6HA0x	Online microprogram update is started (CTL-x) Reboot the Controller displayed in the message to execute the online firmware replacement. x : Controller # (0-1)	Collecting Error Information
I6HB0x	Online microprogram update is being executed (CTL-x) The online firmware replacement for one Controller is completed. Next, execute the online firmware replacement for the Controller displayed in this message. x : Controller # (0-1)	Collecting Error Information
I6HE0x	Online microprogram update will be executed (CTL-x) The online firmware replacement for one Controller is completed. Next, execute the online firmware replacement for the Controller displayed in this message. x : Controller # (0-1)	Collecting Error Information
I6HF00	LU has been shrunk (LU-xxxx) The LU was reduced. x : Internal LU # (0-4095)	Collecting Error Information
I6HG00	RG Expansion started (RG-x) The RAID group extension started. x : RAID group # (0-199)	Collecting Error Information
I6HH00	RG Expansion has been completed (RG-x) The RAID group extension terminated. x : RAID group # (0-199)	Collecting Error Information
I6HJ00	RG Expansion has been stopped by user operation (RG-x) The RAID group extension was interrupted by the user. x : RAID group # (0-199)	Collecting Error Information
I6HK00	DP pool format started (DP Pool-x) The firmware started the DP pool format. x : Pool # (0-63)	Collecting Error Information
I6HL00	DP pool format has completed (DP Pool-x) The DP pool format was completed. x : Pool # (0-63)	Collecting Error Information
I6HM00	DP pool has been deleted (DP Pool-x) The DP pool was deleted. x : Pool # (0-63)	Collecting Error Information
I6HN00	DP pool initialization was executed (DP Pool-x) The DP pool was initialized. x : Pool # (0-63)	Collecting Error Information
I6HP00	DP pool has been expanded (DP Pool-x) Since the user added the DP pool capacity, the firmware added RAID groups to the DP pool. x : Pool # (0-63)	Collecting Error Information
I6HQ00	LU has been created (LU-x) The firmware created DP Volume. x : LU # (0-4095)	Collecting Error Information
I6HR00	LU has been expanded (LU-x) The firmware extended the DP Volume. x : LU # (0-4095)	Collecting Error Information
	Recovery methods	None

I6HS00 The format of all DP pools started because the read of these management data failed The format of all DP pools started because the read of the DP management information failed. All the volumes in the DP pool are formatted and all the users in the DP pool are erased.	Collecting Error Information STRC		
<table> <tr> <td>Recovery methods</td><td> When the firmware revision is less than 0970/A ① The firmware started to format the DP Pool. Request the customer/SE to format all the volumes belonging to the DP Pool. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500).) When the firmware revision is 0970/A or more ① Since the firmware started to format the DP Pool, all the DP-VOLs changed to unformatted. Request the customer/SE to format all the volumes belonging to the DP Pool. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500).) </td></tr> </table>	Recovery methods	When the firmware revision is less than 0970/A ① The firmware started to format the DP Pool. Request the customer/SE to format all the volumes belonging to the DP Pool. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500).) When the firmware revision is 0970/A or more ① Since the firmware started to format the DP Pool, all the DP-VOLs changed to unformatted. Request the customer/SE to format all the volumes belonging to the DP Pool. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500).)	
Recovery methods	When the firmware revision is less than 0970/A ① The firmware started to format the DP Pool. Request the customer/SE to format all the volumes belonging to the DP Pool. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500).) When the firmware revision is 0970/A or more ① Since the firmware started to format the DP Pool, all the DP-VOLs changed to unformatted. Request the customer/SE to format all the volumes belonging to the DP Pool. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500).)		
I6HT00 DP Pool Optimization started [Zero Page Reclaim] (LU-x) DP Pool optimization [Zero Page Reclaim] started. x : LU # (0-4095)	Collecting Error Information		
I6HU00 DP Pool Optimization has completed [Zero Page Reclaim] (LU-x) DP Pool optimization [Zero Page Reclaim] has completed. x : LU # (0-4095)	Collecting Error Information		
I6HV00 DP Pool Optimization started [Rebalance] (LU-x) DP Pool optimization [Rebalance] started. x : LU # (0-4095)	Collecting Error Information		
I6HW00 DP Pool Optimization has completed [Rebalance] (LU-x) DP Pool optimization [Rebalance] has completed. x : LU # (0-4095)	Collecting Error Information		
I6HX00 DP Pool Optimization has been aborted by user operation (LU-x) DP Pool optimization was cancelled by the user's instruction. x : LU # (0-4095)	Collecting Error Information		
I6HY00 DP Pool Optimization has been aborted due to the user operation (LU-x) DP Pool optimization processing was unable to be continued by the user operation and the processing was stopped. x : LU # (0-4095)	Collecting Error Information		
<table> <tr> <td>Recovery methods</td><td>None</td></tr> </table>	Recovery methods	None	
Recovery methods	None		

16HZ00 DP Pool Optimization failed (LU-x, Code-yy)

Collecting Error Information STRC

The DP Pool optimization processing terminated abnormally due to the following factors (yy).

x : LU # (0-4095)

y : 01 = DP Pool detachment

02 = DP Pool depletion

03 = Destage time-out for DP management information

Recovery methods	When Code-yy is "01" [DP Pool Detachment]
	<p>Since the status of the DP Pool to which the LU # displayed as an error belongs is not normal, it cannot be processed.</p> <p>Request the customer/SE for the measures against "A DP pool is blocked." on Table 7.1 in "Chapter 7 Troubleshooting" described in "Dynamic Provisioning User's Guide".</p>
	When Code-yy is "02" [DP Pool Depletion]
	<p>① Check the tier mode of the volume of the LU # displayed in the message in the [Volumes] tab window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2.</p> <p>1. When the tier mode is disabled, arrange the same type of drives which configure the LU (volume) displayed in the message for the number of Drives as those which configure the RAID Group where the LU (volume) displayed in the message belongs to.</p> <p>Acquire the Drive types and the number of Drives of the DP Pool whose capacity is depleted in the following procedure.</p> <ul style="list-style-type: none"> Refer to [RAID Level] and [Drive Types] of the volume of the LU# displayed in the message in the [Volume] tab from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2. <p>2. When the tier mode is enabled, check the tier of the DP Pools to which the LU (volume) belongs and arrange the same type of Drives as those which configure the tier whose capacity is depleted for the number of Drives which configure the RAID Group.</p> <p>Acquire the Drive Types of the tier whose capacity is depleted and the number of Drives of the RAID Group in the following procedure.</p> <ol style="list-style-type: none"> Check the DP Pool number of the DP Pool to which the volume of the LU # displayed in the message belongs in the [Volumes] tab from [Performance] – [DP Tier Management] of Hitachi Storage Navigator Modular 2. Select the [DP Pools] tab in the DP Tier Management window. Select the DP Pool number which was checked earlier in the [DP Pools] tab window. Select the [Scanning Details] tab in the DP Pool window. Refer to "RAID Level" and "Drive Type" of the tier whose "Current" of "Utilization Percent" is 100% in the [Scanning Details] tab window. <p>② By using the prepared Drive, create a RAID group of the same RAID level, the same number of Drives, and the same number of parity groups as the RAID group to which the LU (Volume) displayed in the message belongs. (Refer to System Parameter "4.2.1 Creating RAID Group" (SYSPR 04-0030).)</p> <p>③ Create a volume in the RAID group. (Refer to System Parameter "4.3.1 Preparing for Volume Setting" (SYSPR 04-0290).)</p> <p>④ Request the customer/SE to add the DP Pool capacity using the volume created in ③ referring to "Dynamic Provisioning User's Guide".</p> <p>When adding the capacity, the newly created RAID Group in ② needs to be created in the same Drive Type as that of the DP Pool currently used and the same RAID Level.</p>
	When Code-yy is "03" [Destage time-out for DP management information]
	<p>① Request the customer/SE to stop the operation using the DP pool.</p> <p>Specify the target DP Pool from the DP Pool number to which the volume of the LU # displayed in the message belongs in the [Volumes] tab from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2.</p> <p>② In the DP Optimization window from [Performance] – [DP Optimization] of Hitachi Storage Navigator Modular 2, check off the Volume of the LU # displayed in the message, press the [Optimize DP] button and press the [OK] button in the output window to execute DP optimization.</p> <p>Request the customer/SE to wait until DP optimization is completed while stopping the operation to use the DP Pool, restart other operations and, when the DP optimization is completed normally, restart the operation to use the DP Pool.</p>

To be continued to the next page.

	<p>③ Even if DP optimization terminates abnormally, request the customer/SE to stop all the operations.</p> <ol style="list-style-type: none">1. Execute the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)2. Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)3. Execute DP optimization again while stopping the operation to use the DP Pool. When DP optimization is completed normally, request the customer/SE to restart the operation to use the DP Pool. <p>④ Even if the DP pool optimization still terminated abnormally, send the simple trace to the Technical Support Center and follow the maintenance work instruction by the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p>
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16J000	HDU error counter is over the threshold [Self-Monitoring] (Unit-x, HDU-y) In the self media check function of the firmware, the failure counter acquired from the Drive exceeded the threshold value of the drive maintenance (dynamic sparing starting factor message). x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
16J100	The SCSI Reservation for the LU has been forced to release by user (Code-xxx, LU-yyyy) SCSI reservation for the volume specified by the user was forcibly opened by the user operation. x : OPR = The volume reserve by the Open Reserve command was opened. KEY = The Key of the Persistent Group Reserve was opened. PGR = The volume reserve by the Persistent Group Reserve command was opened. y : LU # (0-4095)	Collecting Error Information
16J200	The memory reconfiguration process has started The reconfigure memory processing was started.	Collecting Error Information
16J300	The memory reconfiguration process has completed successfully The reconfigure memory processing was completed.	Collecting Error Information
16J400	The memory reconfiguration process has been canceled by user The reconfigure memory processing was interrupted by the user.	Collecting Error Information
16J500	The request to spin down disk drives yyy minutes later is accepted(RG-XX) The instruction to spin down the Drives in the RAID group displayed in the message after the I/O monitoring time (yyy) displayed in the message passed was accepted from the Hitachi Storage Navigator Modular 2. x : RAID group # (0-199) y : I/O monitoring time (minute) (0-720)	Collecting Error Information
16J600	The pre-allocation of DP pool for the LU has started (LU-x) Since the Full Capacity Mode was set to the Provisioning Attributes of the DP Volume displayed in the message, the assignment of the DP pool capacity for full capacity of the DP Volume was started. x : LU # (0-4095)	Collecting Error Information
16J700	The pre-allocation of DP pool for the LU has completed (LU-x) The assignment of the DP pool capacity for full capacity of the DP Volume displayed in the message was completed. x : LU # (0-4095)	Collecting Error Information
16J800	The pre-allocation of DP pool for the LU has been aborted (LU-x) Since the Full Capacity Mode was released from the Provisioning Attributes of the DP Volume displayed in the message, the assignment of the DP pool capacity which was operating in the background for full capacity of the DP Volume was suspended. x : LU # (0-4095)	Collecting Error Information
16J900	The refresh of Master Authentication Key for SED has started The master key change was started.	Collecting Error Information
16JA00	The refresh of Master Authentication Key for SED has completed The master key change was completed.	Collecting Error Information
16JB00	SED authentication has started The SAS (SED) Drive authentication was started.	Collecting Error Information
16JC00	SED authentication has completed The authentication processing was completed for all the installed and recognized SAS (SED) Drives. Moreover, the SAS (SED) Drives which failed for the authentication is blocked.	Collecting Error Information
16JF00	Data check started (LU-x) The data check started for the volume displayed in the message. x : LU # (0-4095)	Collecting Error Information
16JG00	Data check ended (LU-x) The data check was completed for the volume displayed in the message. x : LU # (0-4095)	Collecting Error Information
	Recovery methods	None

I6JH00 Data check stopped [code-x] (LU-y)	Collecting Error Information
<p>The data check terminated forcibly because it was unable to be executed for the LU displayed in the message.</p> <p>x : Forced termination factor code</p> <p>1 : The data check was suspended by Hitachi Storage Navigator Modular 2 during the data check.</p> <p>2 : The data check of the relevant LU stopped because PIN exceeded the threshold value during the data check.</p> <p>3 : The data check of the relevant LU stopped because the write-incomplete PIN exceeded the threshold value during the data check.</p> <p>4 : The data check of the relevant LU stopped because a hardware error (SPC error) occurred in drive read during the data check.</p> <p>y : LU # (0-4095)</p>	
I6JJ00 Data check completed normally (LU-x)	Collecting Error Information
<p>By the data check, there was no LRC error block and the data was normal for the LU displayed in the message.</p> <p>x : LU # (0-4095)</p>	
I6JK0x The store data of the backup controller has been restored to the cache memory (CTL-x)	Collecting Error Information
<p>When starting the array, the firmware restores the stored data of the backup controller in the cache memory, and the restoration was completed normally.</p> <p>When the restoration is performed, the starting time of the array takes about three to five minutes more compared to the time when the restoration is not performed. (store: saves the data in the cache memory in the backup Controller if the storage performance condition is met when detecting that there is no power feeding to the Controller)</p> <p>x : Controller # (0-1)</p>	
I6JL0x Erasure of store data of backup controller has started (CTL-x)	Collecting Error Information
<p>Deletion of the store data in the backup controller was started.</p> <p>x : Controller # (0-1)</p>	
I6JM0x Erasure of store data of backup controller has completed (CTL-x)	Collecting Error Information
<p>Deletion of the store data in the backup controller was completed.</p> <p>x : Controller # (0-1)</p> <p>Recovery methods: None</p>	
I6JN00 PSUE occurred (Group-xxxx, Pair name-yyyy)* ⁽¹⁾	Collecting Error Information STRC
<p>The SnapShot pair was changed to the PSUE status.</p> <p>x : The group name is displayed in the character string</p> <p>y : The pair name is displayed in the character string</p> <p>Recovery methods:</p> <p>① Refer to "Copy-on-write SnapShot User's Guide" and identify the SnapShot pair whose mode was changed to the PSUE status from [Group Name] and [Pair Name] displayed in the message.</p> <p>② Cancel the SnapShot pair once.</p> <p>③ Refer to "Copy-on-write SnapShot User's Guide" and recreate the SnapShot pair cancelled in Step ②.</p> <p>*1 : When the Group (group name) is not specified, "Ungrouped" is displayed.</p>	
I6JP00 DBW-ddump collection started (Unit-x)	Collecting Error Information STRC
<p>The ddump collection of DBW started.</p> <p>x : Unit ID # (0-79)</p>	
I6JQ00 DBW-ddump collection completed (Unit-x)	Collecting Error Information STRC
<p>The ddump collection of DBW was completed normally.</p> <p>x : Unit ID # (0-79)</p>	
I6JR00 DBW-ddump collection failed due to ENC I/F error (Unit-x)	Collecting Error Information STRC
<p>The ddum collection of DBW terminated abnormally.</p> <p>x : Unit ID # (0-79)</p> <p>Recovery methods: None</p>	

16JS0I The addition of Host I/O module started (Slot-I)	Collecting Error Information
<p>The addition of the Host I/O Module whose array status is Ready started.</p> <p>I : I/F Module slot code (Refer to MSG 04-0000) for the detail)</p>	
Recovery methods	<p>① Insert the Host I/O Module into the slot of the addition target, give the addition start instruction from Hitachi Storage Navigator Modular 2 and proceed to the addition procedure. (Refer to Addition/Removal/Relocation "1.4.4 Adding a FC Host I/O Board/Module (2)" (ADD 01-0561), Addition/Removal/Relocation "1.4.5 Adding an iSCSI Host I/O Board/Module (2)" (ADD 01-0632).)</p>
16JT00 The addition of Host interface board started	Collecting Error Information
<p>The addition of the Host I/O Board whose array status is Ready started.</p>	
Recovery methods	<p>① Insert the Host I/O Board, give the addition start instruction from Hitachi Storage Navigator Modular 2 and proceed to the addition procedure. (Refer to Addition/Removal/Relocation "1.4.4 Adding a FC Host I/O Board/Module (2)" (ADD 01-0561), Addition/Removal/Relocation "1.4.5 Adding an iSCSI Host I/O Board/Module (2)" (ADD 01-0632).)</p>
16JU0I The addition of Host I/O module completed (Slot-I)	Collecting Error Information
<p>The addition of the Host I/O Module whose array status is Ready was completed.</p>	
<p>I : I/F Module slot code (Refer to MSG 04-0000) for the detail)</p>	
16JV00 The addition of Host interface board completed	Collecting Error Information
<p>The addition of the Host I/O Board whose array status is Ready was completed.</p>	
Recovery methods	None
16JW0I The removal of Host I/O module started (Slot-I)	Collecting Error Information
<p>The removal of the Host I/O Module whose array status is Ready started.</p>	
<p>I : I/F Module slot code (Refer to MSG 04-0000) for the detail)</p>	
Recovery methods	<p>① Check the status of the Host I/O Module in Hitachi Storage Navigator Modular 2 to proceed the removal. (Refer to Addition/Removal/Relocation "2.4.4 Removing a FC Host I/O Board/Module (2)" (ADD 02-0431), Addition/Removal/Relocation "2.4.5 Removing an iSCSI Host I/O Board/Module (2)" (ADD 02-0501).)</p>
16JX00 The removal of Host interface board started	Collecting Error Information
<p>The removal of the Host I/O Board whose array status is Ready started.</p>	
Recovery methods	<p>① Check the status of the Host I/O Board in Hitachi Storage Navigator Modular 2 to proceed the removal. (Refer to Addition/Removal/Relocation "2.4.4 Removing a FC Host I/O Board/Module (2)" (ADD 02-0431), Addition/Removal/Relocation "2.4.5 Removing an iSCSI Host I/O Board/Module (2)" (ADD 02-0501).)</p>
16JY0I The removal of Host I/O module completed (Slot-I)	Collecting Error Information
<p>The removal of the Host I/O Module whose array status is Ready was completed.</p>	
<p>I : I/F Module slot code (Refer to MSG 04-0000) for the detail)</p>	
16JZ00 The removal of Host interface board completed	Collecting Error Information
<p>The removal of the Host I/O Board whose array status is Ready was completed.</p>	
Recovery methods	None
16K000 Master Authentication Key for SED is not restored	Collecting Error Information
<p>It was detected at the time of the system start that the master authentication key was not restored after turning off the array power and replacing both Controllers while the Data At Rest Encryption function was enabled.</p>	
16K100 The restoration of Master Authentication Key for SED does not succeed	Collecting Error Information
<p>It was detected at the time of the system start that the restoration of the master authentication key failed while the array power was turned off.</p>	
Recovery methods	<p>① Perform the maintenance according to the message text "H0F900 Authentication key error was detected" displayed at the same time.</p>

<p>I6L200 Write to the P-VOL failed [SnapShot]</p> <p>Write cannot be executed for the P-VOL of SnapShot.</p> <p>Recovery methods ① Perform the maintenance according to the message text "I1H600 PSUE occurred [SnapShot]" displayed at the same time.</p>	Collecting Error Information
<p>I6L300 LRC error block was detected on the HDU (Unit-x, HDU-y)</p> <p>By the data check, the LRC error block was detected on LBA (LBA in the message displayed at the same time) which has either Drive (Drive displayed in the message) of a data disk and a mirror disk.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	Collecting Error Information
<p>I6L301 at H-LUN-xxxx, Host LBA-0xaaaaaaaaaaaaaaaa, Drive LBA-0xbbbbbbbbbbbbbbbb</p> <p>A host LUN, a host LBA and a drive LBA of the LRC error block detected by the data check (message code "I6L300") are indicated.</p> <p>x : LU # (0-4095)</p> <p>Recovery methods None</p>	Collecting Error Information
<p>I6L500 LRC error block was detected on the HDU (Unit-aa, HDU-bb) and HDU (Unit-cc, HDU-dd)</p> <p>By the data check, the LRC error block was detected on the same drive LBA of the data disk and the mirror disk.</p> <p>a : Data disk side Unit ID #</p> <p>b : Data disk side Drive #</p> <p>c : Mirror disk side Unit ID #</p> <p>d : Mirror disk side Drive #</p>	Collecting Error Information
<p>I6L501 at H-LUN-xxxx, Host LBA-0xeEEEEEEEEEEEEEE, Drive LBA-0xfFFFFFFFFFFFFFFF</p> <p>A host LUN, a host LBA and a drive LBA of the LRC error block detected by the data check (message code "I6L500") are indicated.</p> <p>x : LU # (0-4095)</p>	Collecting Error Information
<p>I6L600 Data check ended abnormally caused by HDU failure (Unit-x, HDU-y)</p> <p>The data check terminated because the Drive in the check target was blocked while executing the data check.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods None</p>	Collecting Error Information
<p>I6L700 The invalid management information of SnapShot function was detected</p> <p>At the time of starting the array, it was detected that the SnapShot management information was invalid.</p> <p>Recovery methods</p> <p>When TrueCopy Extended Distance was used</p> <p>① Request the customer/SE to resynchronize all the pairs of TrueCopy Extended Distance changed to PSUE according to "TrueCopy Extended Distance User's Guide".</p> <p>When Copy-on-write SnapShot was used</p> <p>② Request the customer/SE to cancel all the pairs of Copy-on-write SnapShot changed to PSUE according to "Copy-on-write SnapShot User's Guide", and then, to recreate the cancelled SnapShot pairs.</p>	Collecting Error Information STRC

I6L800 Invalid Data pool information was detected (LU-x)	Collecting Error Information	STRC
At the time of the copy operation of SnapShot, TrueCopy Extended Distance or TrueCopy remote replication, it was detected that the SnapShot management information was invalid. x : LU # (0-4095)		
Recovery methods	When TrueCopy Extended Distance was used ① 1. When SnapShot and TrueCopy Extended Distance are cascaded, and the volume displayed in the message is the P-VOL of SnapShot and the P-VOL of TrueCopy Extended Distance, sort out all the V-VOLs whose volume displayed in the message is the P-VOL. Since the SnapShot pairs of the volume displayed in the message are all cancelled in the maintenance work after this, request the customer/SE to back up the V-VOLs of SnapShot which were sorted out previously as needed. 2. Request the customer/SE to cancel all the pairs of TrueCopy Extended Distance and Copy-on-write SnapShot related to the LU displayed in the message, and then, to recreate the cancelled pairs of TrueCopy Extended Distance and Copy-on-write SnapShot referring to "Copy-on-write SnapShot User's Guide" and "TrueCopy Extended Distance User's Guide". When TrueCopy remote replication was used ① 1. Since all the SnapShot pairs configured of the P-VOL of the volume displayed in the message are all cancelled in the maintenance work after this, check LU# of the SnapShot P-VOL of the volume displayed in the message. 2. Sort out all the V-VOLs of the checked SnapShot P-VOL. 3. Request the customer/SE to back up the V-VOLs of SnapShot which were sorted out previously as needed. 4. Cancel TrueCopy remote replication related to the volume displayed in the message and all the SnapShot pairs configured of the volume of the SnapShot P-VOL which was checked in ②-1 referring to "TrueCopy remote replication User's Guide" and "Copy-on-write SnapShot User's Guide". 5. Request the customer/SE to recreate the cancelled pairs of TrueCopy remote replication and Copy-on-write SnapShot.	
I6M000 Flash parameter update of iSCSI protocol chip started (CTL-x, I/F-y)	Collecting Error Information	
Rewrite of the Flash information of iSCSI Protocol Chip started. x : Controller # (0-1) y : Host I/O Board/Module # (0-1)		
I6M100 Flash parameter update of iSCSI protocol chip was completed (CTL-x, I/F-y)	Collecting Error Information	
Rewrite of the Flash information of iSCSI Protocol Chip was completed. x : Controller # (0-1) y : Host I/O Board # (0-1)		
Recovery methods	None	
I6N90x FCTL LSI error was detected [code-yyyy] (CTL-z)	Collecting Error Information	STRC
The periodic monitoring processing of FCTL LSI trouble of the Controller detected a failure. x :Read/Write type (R or W) y :FCTL register address z : Control Unit # (0-1)		
Recovery methods	[In case of a dual Controller configuration] When [System Startup Attribute] of the boot option is set to "Dual Active Mode" (default) ① 1. Check the Controller number displayed in the message. 2. Perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 3. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 4. If the other Controller is not installed in the Controller, install both Controllers in the Controller. 5. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) [In case of a single Controller configuration] When [System Startup Attribute] of the boot option is set to "Single Mode" ① None (The Controller replacement is not required because the failed part is a dual controller configuration.)	

i6P00x [DCTL]The number of internal bus warnings exceeded the threshold [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information STRC
i6P10x [DCTL]The number of internal bus warnings exceeded the threshold [H0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [H0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information STRC
i6P20x [DCTL]The number of internal bus warnings exceeded the threshold [H1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [H1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information STRC
i6P30x [DCTL]The number of internal bus warnings exceeded the threshold [D0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information STRC
i6P40x [DCTL]The number of internal bus warnings exceeded the threshold [D1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information STRC
<div>Recovery methods</div> <div>① 1. When the device is a dual Controller system, the message "W01z0x CTL alarm (CTL-x)" is already displayed. Therefore, perform the maintenance according to the message. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</div> <div>② 1. When the array is a single Controller system, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</div>	
i6P50x [DCTL]The number of internal bus warnings exceeded the threshold [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information STRC
<div>Recovery methods</div> <div>① 1. When the device is a dual Controller system, the message "W01z0x CTL alarm (CTL-x)" is already displayed. Therefore, perform the maintenance according to the message. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</div> <div>② 1. When the array is a single Controller system, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</div> <div>③ 1. If failure still occurs again, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</div>	

I6P60x	[DCTL]The number of internal bus warnings exceeded the threshold [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	<ol style="list-style-type: none"> ① 1. When the device is a dual Controller system, the message "W01z0x CTL alarm (CTL-x)" is already displayed. Therefore, perform the maintenance according to the message. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② 1. When the array is a single Controller system, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		
I6Q000	The disk drives will spin down by user request in yyy minutes (RG-x) The instruction to spin down the Drives in the RAID group displayed in the message after the I/O monitoring time (yyy) displayed in the message passed was accepted from the Hitachi Storage Navigator Modular 2. x : RAID group # (0-199) y : I/O monitoring time (minute) (0-720)	Collecting Error Information	
I6Q100	The disk drives have spun down by user request (RG-x) The Drive instructed by Hitachi Storage Navigator Modular 2 has spun down completely. x : RAID group # (0-199)	Collecting Error Information	
I6Q200	The disk drives will spin up by user request (RG-x) The spin-up instruction was received from Hitachi Storage Navigator Modular 2. x : RAID group # (0-199)	Collecting Error Information	
I6Q300	The disk drives have spun up by user request (RG-x) The Drive instructed by Hitachi Storage Navigator Modular 2 has spun up completely. x : RAID group # (0-199)	Collecting Error Information	
I6Q400	The disk drives will spin down by I/O link in yyy minutes (RG-x) The power-saving instruction such as "After I/O monitoring time (yyy) displayed in the message elapses, enable I/O Link and spin down the Drive of the RAID group displayed in the message" was received from Hitachi Storage Navigator Modular 2. x : RAID group # (0-199) y : I/O monitoring time (minute) (0-720)	Collecting Error Information	
I6Q500	The disk drives will power off by I/O link in yyy minutes (RG-x) The power-saving instruction such as "After I/O monitoring time (yyy) displayed in the message elapses, enable I/O Link and power off the Drive of the RAID group displayed in the message" was received from Hitachi Storage Navigator Modular 2. x : RAID group # (0-199) y : I/O monitoring time (minute) (0-720)	Collecting Error Information	
I6Q600	The request to cancel I/O linked Power Saving has been issued (RG-x) The release instruction of the power saving (I/O Link is enabled) was received from Hitachi Storage Navigator Modular 2. x : RAID group # (0-199)	Collecting Error Information	
I6Q700	I/O linked Power Saving has been canceled (RG-x) The power saving (I/O Link is enabled) instructed by Hitachi Storage Navigator Modular 2 has released completely. x : RAID group # (0-199)	Collecting Error Information	
I6Q800	DP Pool Shrinking started (DP Pool-x, DP RG-y) DP Pool capacity reduction started. x : DP pool # (0-63) y : DP RAID group # (0-199)	Collecting Error Information	
Recovery methods	None		

<p>I6Q900 DP Pool Shrinking is completed (DP Pool-x, DP RG-y) DP Pool capacity reduction was completed. x : DP pool # (0-63) y : DP RAID group # (0-199)</p>	Collecting Error Information
<p>I6QA00 DP Pool Shrinking has been aborted by user (DP Pool-x, DP RG-y) DP Pool capacity reduction was suspended by the user's instruction. x : DP pool # (0-63) y : DP RAID group # (0-199)</p>	Collecting Error Information
<p>I6QB00 SELF HEATRUN:Began the test pattern CTL-[xxx] The Self Heatrun system started the Controller pattern test displayed in the message. x : Test pattern number (101-592)</p> <p>Recovery methods None</p>	Collecting Error Information
<p>I6QC0x SELF HEATRUN:Self heatrun of CTL-x terminated due to the other CTL blockage Since the remote Controller was blocked, the Controller test of the Self Heatrun system terminated abnormally. x : Controller # (0-1)</p> <p>Recovery methods ① 1. Perform the maintenance in accordance with the displayed message "W01z0x CTL alarm (CTL-x)" for the blocked Controller (the Controller on the reverse side of the Controller displayed in this message). 2. Execute the Controller test of the Self Heatrun for both Controllers from the beginning again.</p>	Collecting Error Information
<p>I6QDxy SELF HEATRUN:Self heatrun of CTL-x terminated due to QUIT of the other CTL-y Since the Controller test of the remote Controller quit, the Controller test of the Self Heatrun system terminated abnormally. x : Local Controller # (0-1) y : Remote Controller # (0-1)</p>	Collecting Error Information
<p>I6QE0x SELF HEATRUN:Self heatrun of CTL-x terminated due to QUIT of the CTL-x Since the Controller test of the local Controller quit, the Controller test of the Self Heatrun system terminated abnormally. x : Controller # (0-1)</p> <p>Recovery methods ① Execute the Controller test of the Self Heatrun from the beginning again.</p>	Collecting Error Information
<p>I6QF0x SELF HEATRUN:Self heatrun of CTL-x is suspended due to QUIT of both CTLs Since the Controller test of both Controllers quit, the Controller test of the Self Heatrun system suspended. x : Controller # (0-1)</p> <p>Recovery methods ① Execute the Controller test of the Self Heatrun again.</p>	Collecting Error Information
<p>I6QG00 Rekey of encryption volume completed (LU-xxxx/yyyy) Rekey of encryption volume LU # (xxxx) was completed by performing volume migration from encryption volume LU # (xxxx) to encryption volume LU # (yyyy). x : Internal LU # (0-4095) of P-VOL of volume migration y : Internal LU # (0-4095) of S-VOL of volume migration</p>	Collecting Error Information
<p>I6QH0x Encryption key initialization failed (CTL-x, Slot-I) Encryption key initialization of the blocked Drive I/O Module failed. x : Controller # (0-1) I : I/F Module slot code (refer to MSG 04-0000) for the details)</p>	Collecting Error Information
<p>I6QI0x Encryption key initialization was completed (CTL-x, Slot-I) Encryption key initialization of the blocked Drive I/O Module succeeded. x : Controller # (0-1) I : I/F Module slot code (refer to MSG 04-0000) for the details)</p>	Collecting Error Information
<p>I6QJ00 Encryption key restore is completed Restoring encryption key information succeeded.</p> <p>Recovery methods None</p>	Collecting Error Information

I6QK00	DP management information check is completed The DP pool management information check was completed.	Collecting Error Information
I6QL00	FMD Dump collection started (Unit-x, HDU-y) The collection of the dump started. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
I6QM00	FMD Dump collection completed (Unit-x, HDU-y) The collection of the dump terminated normally. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
I6QN00	FMD Dump collection failed (Unit-x, HDU-y) The collection of the dump terminated abnormally. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
I6QP00	The power-on of the array unit has been completed by a retry (Unit-x) The power-on of the array by Tray Power Saving was completed by the internal retry. x : Unit ID # (1-3)	Collecting Error Information
I6QQ00	HDU error counter is over the threshold [Self-Monitoring] (Unit-x, HDU-y) The self media check function of the firmware detected that the error counter acquired by the Drive exceeded the threshold value of the Drive replacement. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
I6QR00	HDU error counter is over the threshold (Unit-x, HDU-y) The self media check function of the firmware detected that the error counter acquired by the Drive exceeded the threshold value of the Drive replacement. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
I6QS00	Dynamic sparing start (Unit-x, HDU-y, Type-c) [z] Dynamic sparing start. x : Unit ID # (0-79) y : Drive # (0-83) c : Disk Drive model name (Character string : 0 to 8 characters) z : Error code Recovery methods None	Collecting Error Information
I6QT00	Waiting for KMS's key import with Storage Navigator Modular 2 The acquisition of the encryption key information from the Key Management Server (KMS) is in the waiting status. • The array needs to acquire the encryption key information from the Key Management Server at the time of start-up because the Data At Rest Encryption function of the priced option is used, "Encryption Keys Generated on" is set to "Key Management Server" in the [Encryption Environment] tab window from [Security] – [Data At Rest Encryption] – [Encryption Environment] of Hitachi Storage Navigator Modular 2, and "Protect the Volumes by the Key Management Server" is set to "Enabled". Recovery methods ① Request the customer/SE to check the checkbox of the target array in the [Arrays] window of Hitachi Storage Navigation Modular 2 and press the [Import Key from Key Management Server] button.	Collecting Error Information
I6QU00	KMS' key is imported from KMS with Storage Navigator Modular 2 The acquisition of the encryption key information from the Key Management Server (KMS) was completed normally. Recovery methods None	Collecting Error Information

170000	The number of Rretrying of reset command exceeded the threshold (Unit-x, HDU-y) The number of times of the retry of the reset command (LUR) for the drive exceeded the threshold value. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
170100	HDU error over [02/0401 is detected at sequences other than SpinUp] (Unit-x, HDU-y) The sense key/sense code (02/0401) response by the drive self-reboot continued exceeding the monitoring time-out period. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
170200	HDU failure is detected [02/0401 keeps happening for monitoring time] (Unit-x, HDU-y) The detection count of the sense key/sense code (02/0401) response by the drive self-reboot exceeded the threshold value. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.	
18100x	PS OFF failed[FCTL](CTL-x) Access to FCTL LSI of the Controller failed, and the power unit of the device cannot be turned off. x : Controller # (0-1)	Collecting Error Information	CTRC
18200x	The number of CPU(QPI) errors exceeded the threshold [0xyyyyyyy] (CTL-x) A failure was detected in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
18300x	The number of CPU(QPI) protocol errors exceeded the threshold [0xyyyyyyy] (CTL-x) A protocol failure was detected in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	CTRC
18400x	The number of PCIe device errors exceeded the threshold [CPU_A5] [0xyyyyyyy] (CTL-x) The CUP of the Controller detected an unrecoverable failure in the PCI Express device (Port-A5). x : Controller # (0-1)	Collecting Error Information	CTRC
	Recovery methods	① 1. When the device is a dual Controller system, the message "W01z0x CTL alarm (CTL-x)" is already displayed. Therefore, perform the maintenance according to the message. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② 1. When the array is a single Controller system, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 3. Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	
185000	The installation of the add unit is started (Unit-x) The online addition of the Drive Box started. x : Unit ID # (1-79)	Collecting Error Information	
	Recovery methods	None	
185100	Added unit failure info. [MICROCHG] The online addition of the Drive Box failed because the firmware replacement is operating.	Collecting Error Information	
	Recovery methods	① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Wait until the firmware replacement is completed. 3. Perform the addition of the Drive Box again from the beginning.	
185200	Added unit failure info. [WARNING] The online addition of the Drive Box failed because the array is in the Warning status.	Collecting Error Information	
	Recovery methods	① 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. When the array is in the Warning status, recover the failure that changed the array to the Warning status referring to the other output Information Message. 3. Check that the WARN LED on the front of the Controller Box goes out. 4. Perform the addition of the Drive Box again from the beginning.	

185300 Added unit failure info. [ENCMICROCHG]	Collecting Error Information	
The online addition of the Drive Box failed because the ENC firmware replacement is operating.		
Recovery methods	<ol style="list-style-type: none"> 1. Wait until the message code "185900 Added unit failed (Unit-x)" is displayed. 2. When executing the online ENC firmware download, wait until it is completed. 3. Perform the addition of the Drive Box again from the beginning. 	
	<ol style="list-style-type: none"> 2. 1. Wait until the message code "185900 Added unit failed (Unit-x)" is displayed. 2. When the automatic ENC firmware download is operating, wait until it is completed. If the READY LED on the front of the Controller Box is blinking, wait until the LED lights up. 3. Execute the addition of the Drive Box again using Hitachi Storage Navigator Modular 2. 	
185400 Added unit failure info. [BKDIAG]	Collecting Error Information	STRC
The online addition of the Drive Box failed because the backend diagnosis processing is operating.		
Recovery methods	<ol style="list-style-type: none"> 1. Wait until the message code "185900 Added unit failed (Unit-x)" is displayed. 2. Wait for about five minutes until the backend diagnosis processing is completed. 3. Perform the addition of the Drive Box again from the beginning. 	
185500 Added unit failure info [ENC failure] (Unit-x, ENC-y)	Collecting Error Information	STRC
Since the trouble of the I/O Module (ENC) or I/O Card (ENC) of the added array was detected at the time of the array addition, the addition failed.		
x : Unit ID # (1-79)		
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)		
Recovery methods	<ol style="list-style-type: none"> 1. Wait until the message code "185900 Added unit failed (Unit-x)" is displayed. 2. Remove the Drive Box to be added from the operating array. 3. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 4. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) 	
185600 Added unit failure info. [TIMEOUT]	Collecting Error Information	STRC
Since the addition processing of the array timed out at the time of the array addition, the addition failed.		
Recovery methods	<ol style="list-style-type: none"> 1. Wait until the message code "185900 Added unit failed (Unit-x)" is displayed. 2. Remove the Drive Box to be added from the operating array. 3. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) 2. If not recovered, collect the Simple Trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).) 	
185700 Added unit failure info. [MICROBKW]	Collecting Error Information	STRC
A logical failure of the firmware occurred in the online addition processing of the Drive Box.		
Recovery methods	<ol style="list-style-type: none"> 1. Wait until the message code "185900 Added unit failed (Unit-x)" is displayed. 2. Remove the Drive Box to be added from the operating array. 3. Replace the Controller in which the failure occurred. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 4. Perform the addition of the Drive Box again from the beginning. 5. If not recovered, collect the Simple Trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).) 	
185800 The installation of the add unit was completed (Unit-x)	Collecting Error Information	
The online addition of the Drive Box was completed normally.		
x : Unit ID # (1-79)		
Recovery methods	None	

I85900 Added unit failed (Unit-x)	Collecting Error Information
<p>The online addition processing of the Drive Box terminated abnormally.</p> <p>x : Unit ID # (1-79)</p>	
Recovery methods	<ol style="list-style-type: none"> ① 1. Remove the power cables of the Additional Chasses to be added. 2. Remove the Drive Box to be added from the existing chassis. 3. The message to indicate a factor the addition failure of the Drive Box is displayed between the message codes "I85000 The installation of the add unit is started (Unit-x)" and "I85900 Added Unit failed (Unit-x)". Perform the maintenance according the recovery method of that message. 4. Add the Drive Box correctly again.
I85A00 PCI configuration access error was detected [DUAL_PCI Express core, 0xyyyzzzz] (CTL-x)	Collecting Error Information STRC
<p>An error was detected by access to the PCI configuration register of the Dual PCI Express core of D-CTL LSI.</p> <p>x : Controller # (0-1)</p> <p>y : Optional code</p> <p>z : Optional code</p>	
Recovery methods	<ol style="list-style-type: none"> ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (When the firmware of the Controller displayed in this message is being replaced, it is not necessary to replace the firmware of this Controller again after replacing the Controller.) (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② When this message is displayed after inserting the Controller and the displayed Controller is being recovered, replace the Controller displayed in this message. ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (When this message is displayed while executing the firmware replacement, it is not necessary to execute the firmware replacement again after replacing the Controller.) (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)
I85B00 More than the maximum number of added units are connected	Collecting Error Information
The Drive Box more than or equal to the connectable number was detected when the Drive Box was added.	
Recovery methods	① The maximum number of Drive Box is connected to the array. Review the work instructions.
I85C0I The addition of Host I/O module failed (Slot-I)	Collecting Error Information STRC
<p>Since the trouble of the added Host I/O Module was detected, the addition of the Host I/O Module whose array status is Ready failed.</p> <p>I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)</p>	
Recovery methods	① 1. Perform the maintenance according to the message text "WA1zi0 Host I/O module alarm (CTL-w, Slot-I)" displayed at the same time.
I85D00 The addition of Host interface board failed	Collecting Error Information STRC
Since the trouble of the added Host I/O Board was detected, the addition of the Host I/O Board whose array status is Ready failed.	
Recovery methods	① 1. Perform the maintenance according to the message text "W3Rzhx Interface Board alarm (CTL-w, I/F-x)" displayed at the same time.
I85E0I The removal of Host I/O module failed (Slot-I)	Collecting Error Information STRC
<p>In the removal of the Host I/O Module whose array status is Ready, a failure of the Host I/O Module was found, and the Host I/O Module became removable.</p> <p>I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)</p>	
Recovery methods	① Remove the Host I/O Module inserted in the slot of the removal target. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460) .)
I85F00 The removal of Host interface board failed	Collecting Error Information STRC
In the removal of the Host I/O Board whose array status is Ready, a failure of the Host I/O Board was found, and the Host I/O Board became removable.	
Recovery methods	① Remove the Host I/O Board. (Refer to Addition/Removal/Relocation "2.4.4 Removing a FC Host I/O Board/Module" (ADD 02-0370) , Addition/Removal/Relocation "2.4.5 Removing an iSCSI Host I/O Board/Module" (ADD 02-0440) .)

I85Glx Added Host I/O module error info [Type error] (CTL-x, Slot-l) In the processing of the addition of the Host I/O module whose array status is Ready, different types of Host I/O Modules were detected between Controllers. x : Controller # (0-1) l : I/F Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).	
I85H0x Added Host interface board error info [Type error] (CTL-x) In the processing of the addition of the Host I/O Board whose array status is Ready, different types of Host I/O Board were detected between Controllers. x : Controller # (0-1)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).	
I85Ilx Added Host I/O module error info [Unsupported procedure] (CTL-x, Slot-l) In the processing of the addition of the Host I/O Module whose array status is Ready, a Host I/O Module other than the Host I/O Module was detected in the Host I/O Module slot. x : Controller # (0-1) l : I/F Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).	
I85J0x Added Host interface board error info [Unsupported procedure] (CTL-x) In the processing of the addition of the Host I/O Board whose array status is Ready, the unsupported Host I/O Board was installed. x : Controller # (0-1)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).	
I85K00 H-FPC online CUDG error [Code-xxxxyyyy] (CTL-i, Slot-l) A CUDG error was detected while adding the Host I/O Module (Fibre Channel). x : Error code y : Error code i : Controller # (0-1) l : I/F Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).	
I85L00 H-FPC online CUDG error [Code-xxxxyyyy] (CTL-i, I/F-z) A CUDG error was detected while adding the Host I/O Board (Fibre Channel). x : Error code y : Error code i : Controller # (0-1) z : Host I/O Board # (0-1)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).	
I85M00 H-IPC online CUDG error [Code-xxxxyyyy] (CTL-i, Slot-l) A CUDG error was detected while adding the Host I/O Module (iSCSI). x : Error code y : Error code l : Controller # (0-1) l : I/F Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).	

I85N00 H-IPC online CUDG error [Code-xxxxyyy] (CTL-i, I/F-z)	Collecting Error Information	STRC
<p>A CUDG error was detected while adding the Host I/O Board (iSCSI).</p> <p>x : Error code</p> <p>y : Error code</p> <p>i : Controller # (0-1)</p> <p>z : Host I/O Board # (0-1)</p>		
Recovery methods	<p>① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).</p>	
I85P0I Addition of Host I/O module was rejected (Slot-I)	Collecting Error Information	
<p>The replacement of the Host I/O Module could not be started because the status was either of the followings.</p> <ul style="list-style-type: none"> • The Host I/O Module was being added • The Host I/O Module was being replaced for the maintenance <p>I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)</p>		
Recovery methods	When the addition is in process	
	① Check that "I6JU0I The addition of Host I/O module completed (Slot-I)" is displayed and the addition is completed.	
	② Remove the inserted Host I/O Module. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 01-0460) .)	
	③ Replace the Host I/O Module again. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .)	
	When the maintenance replacement is in process	
	① Check that "IAA1i0 Host I/O module recovered (CTL-x, Slot-I)" is displayed and the replacement of the Host I/O Module is completed.	
	② Remove the inserted Host I/O Module. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460) .)	
	③ Replace the Host I/O Module again. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100) .)	

I85Q00 Added unit failure info. [ENC firmware revision error]

Collecting Error Information STRC

The automatic download of the ENC firmware of the existing box is not completed.

Since a part of the existing boxes or all ENC firmware have the version which does not support the mixed configuration of DBWs and Drive Boxes other than DBWs, adding Drive Boxes online failed.

Recovery methods

- ① 1. The automatic ENC firmware download should be completed.
When "IZYS00 Automatic ENC firmware download started" is displayed in the Information Message on WEB, the automatic ENC firmware download has already started. Therefore, wait until the message "IZYR00 Automatic ENC firmware download completed successfully" is displayed and the automatic ENC firmware download is completed.
2. When the automatic ENC firmware replacement is set to "Disabled", change the setting to "Enabled" and start the automatic ENC firmware replacement (changing the setting starts the replacement).
 - 1 Check whether [Automatic Update] of the ENC firmware under [Maintenance] – [ENC Firmware] of Hitachi Storage Navigator Modular 2 is "Disabled". (Refer to [Troubleshooting "8.3.6 Replacing the Online ENC Firmware" \(TRBL 08-0270\)](#).)
 - 2 When [Automatic Update] is "Disabled", click the [Change Automatic Update] button in the upper right of the window.
 - 3 Check the checkbox of [Automatic Update] in the Change Automatic Update window and click the [OK] button.
 - 4 Check that "IZYS00 Automatic ENC firmware download started" is displayed in the Information Message on WEB (changing the setting of [Automatic Update] to "Enabled" starts the automatic ENC firmware download).
 - 5 Wait until "IZYR00 Automatic ENC firmware download completed successfully" is displayed in the Information Message on WEB and the automatic ENC firmware download is completed.
 - 6 After "IZYR00 Automatic ENC firmware download completed successfully" is displayed, click the [Change Automatic Update] button to change the setting of [Automatic Update] to "Disabled".
 - 7 Uncheck the checkbox of [Automatic Update] in the Change Automatic Update window and click the [OK] button.
3. Add the Drive Box again. (Refer to [Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" \(ADD 01-0690\)](#).)

I85R00 Added unit failed [The number of HDU slots is over the limit per backend path] (Unit-x)

Collecting Error Information STRC

Since the number of drive slots in the existing boxes reached the maximum usable number for the back-end path to add Drive Boxes, adding Drive Boxes failed (no Drive could be installed in the boxes to be added).

x : Unit ID # (0-79)

Recovery methods

- ① The array cannot add Drive Boxes.
Follow the procedure below and separate the Drive Boxes to be added.
1. Wait until "I85900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB.
2. When "I85900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB, remove the SAS (ENC) cables connecting the Drive Boxes to be added and the existing boxes.

I85S00 Added unit failed [The number of Units is over the limit per backend path] (Unit-x)

Collecting Error Information STRC

Since the number of connecting Drive Boxes exceeds the maximum connectable number for the back-end path to add DBWs, the addition failed (the relevant back-end path could not add DBWs).

x : Unit ID # (0-79)

Recovery methods

- ① The back-end path to add DBWs cannot add DBWs.
Follow the procedure below and separate the DBWs to be added from the existing Drive Boxes.
1. Review the Drive Box connection and check addible Drive Boxes other than DBWs. (Refer to [Introduction "1.3.4 \(6\) Restriction on DBW connection configuration" \(INTR 01-0333\)](#).)
2. Wait until "I85900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB.
3. When "I85900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB, remove the SAS (ENC) cables connecting the DBWs to be added and the existing boxes.

I85T00 Added unit failed [The number of DBWs is over the limit for the array] (Unit-x) Since the number of the existing DBWs is already the maximum connectable number, the DBW addition failed (DBW cannot be added). x : Unit ID # (0-79)	Collecting Error Information STRC
Recovery methods	① The array cannot add DBWs. Follow the procedure below and separate the DBWs to be added from the existing Drive Boxes. 1. Review the Drive Box connection and check addible Drive Boxes other than DBWs. (Refer to Introduction "1.3.4 (6) Restriction on DBW connection configuration"(INTR 01-0333).) 2. Wait until "185900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB. 3. When "185900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB, remove the SAS (ENC) cables connecting the DBWs to be added and the existing boxes.
I85U00 Added unit failed [The number of HDU slot in DBW is over the limit] (Unit-x) By adding the DBW, the number of Drive slots exceeded the upper limit usable per back-end path (CBL : 240 slots, CBSS/CBSL : 240 slots) or exceeded the upper limit usable for the array system (CBL : 960 slots, CBSS/CBS L: 360 slots). As a result, the DBW addition failed because the DBW could not install 84 Drives fully(the relevant back-end path could not add DBWs). x : Unit ID # (0-79)	Collecting Error Information STRC
Recovery methods	① The back-end path to add DBWs cannot add DBWs. Follow the procedure below and separate the DBWs to be added. 1. Review the Drive Box connection and check addible Drive Boxes other than DBWs. (Refer to Introduction "1.3.4 (6) Restriction on DBW connection configuration"(INTR 01-0333).) 2. Wait until "185900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB. 3. When "185900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB, remove the SAS (ENC) cables connecting the DBWs to be added and the existing boxes.
I85V00 Added unit failure info [Added DBW ENC firmware revision error] (Unit-x) Either of the following conditions failed to add Drive Boxes online. • Since the ENC firmware of the DBW to be added online has the version which does not support the mixed configuration of DBWs and Drive Boxes other than DBWs, adding Drive Boxes online failed. • Since the I/O Module (ENC) trouble prevented to acquire the firmware version, adding Drive Boxes online failed. x : Unit ID # (0-79)	Collecting Error Information STRC
Recovery methods	① 1. Perform the maintenance in accordance with the message "IAIV00 DBW ENC firmware does not support mixed unit configuration (Unit-x, ENC-y)" displayed at the same time. 2. Add the Drive Box again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)
I85W00 Added unit failure info. [The number of Units after DBW is over the limit] (Unit-x) Unable to connect the added Drive Box because the maximum connection number ^(*) with DBW has been exceeded. x : Unit ID # (0-79)	Collecting Error Information
Recovery methods	① The array cannot add Drive Boxes. Follow the procedure below and separate the Drive Boxes to be added from the existing Drive Boxes. 1. Wait until "185900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB. 2. When "185900 Added unit failed (Unit-x)" is displayed in the Information Message on WEB, remove the SAS (ENC) cables connecting the Drive Boxes to be added and the existing boxes.
*1 : If DBW is connected, the number of Drive Boxes to be added is limited to 11 in HUS150 or 5 in HUS130.	

I8600x The number of processor errors exceeded the threshold (CTL-x) A failure was detected in the CPU Cache Memory, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information CTRC
I8700x The number of correctable processor memory errors exceeded the threshold (CTL-x) The 1bit trouble occurred in the processor memory, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information CTRC
I8800x The number of CPU(QUI) protocol ecc errors exceeded the threshold [0xyyyyyyy] (CTL-x) An ECC error occurred in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information FDMP
I8900x The number of FCTL LSI errors exceeded the threshold (CTL-x) A failure occurred in FCTL2 LSI of the Controller, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information STRC
I8A00x The number of PCIe device errors exceeded the threshold [CPU_A0] [0xyyyyyyy] (CTL-x) The CPU of the Controller detected a failure in the PCI Express device (Port-A5) and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information CTRC

Recovery methods

- ① 1. When the device is a dual Controller system, the message "W01z0x CTL alarm" is already displayed. Therefore, perform the maintenance according to the message.
2. Replace the Controller displayed in the message. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)
- ② 1. When the array is a single Controller system, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.
2. Replace the Controller displayed in the message. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)
3. Turn on the array power. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)

1900xx	RSP abort command P (Key [0B], Code [xy])	Collecting Error Information	STRC
	The response failure (Aborted Command Path) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Upper two figures of a sense code		
	y : Lower two figures of a sense code		
190100	Command time out	Collecting Error Information	STRC
	The time-out exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
1902xx	RSP abort command C (Key [0B], Code [xy])	Collecting Error Information	STRC
	The response failure (Aborted Command CTL) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Upper two figures of a sense code		
	y : Lower two figures of a sense code		
1903xx	RSP etc. (Key [x])	Collecting Error Information	STRC
	The response failure (off-range sense key) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Sense key		
1904xx	RSP hard error (Key [04], Code [xy])	Collecting Error Information	STRC
	The response failure (Hard Error) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Upper two figures of a sense code		
	y : Lower two figures of a sense code		
1905xx	RSP medium error (Key [03], Code [xy])	Collecting Error Information	STRC
	The response failure (Medium Error) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Upper two figures of a sense code		
	y : Lower two figures of a sense code		
1906xx	RSP illegal request (Key [05], Code [xy])	Collecting Error Information	STRC
	The response failure (Illegal Request) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Upper two figures of a sense code		
	y : Lower two figures of a sense code		
1907xx	RSP miscompare (Key [0E], Code [xy])	Collecting Error Information	STRC
	The response failure (Miscompare) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Upper two figures of a sense code		
	y : Lower two figures of a sense code		
1908xx	RSP not ready (Key [02], Code [xy])	Collecting Error Information	STRC
	The response failure (Not Ready) exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : Upper two figures of a sense code		
	y : Lower two figures of a sense code		
1909xx	RSP status error [x]	Collecting Error Information	STRC
	The SCSI status error in a response exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	x : SCSI status		
190A00	RSP other field error	Collecting Error Information	STRC
	The field error in a response exceeds the threshold value in an execution of a command issued from the local DF to the remote DF.		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910) .	

<p>I9100x Battery error info [Battery serial number error] (Battery-x)</p> <p>Acquiring the serial number of the Cache Backup Battery failed.</p> <p>x : Cache Backup Battery # (0-1)</p> <p>Recovery methods ① Perform the maintenance according to the message text "Battery alarm" displayed at the same time.</p>	Collecting Error Information STRC
<p>I92000 PS error info [PS serial number error] (Unit-x, PS-y)</p> <p>Acquiring the serial number of the Power Unit failed.</p> <p>x : Unit ID # (0)</p> <p>y : Power Unit # (0-1)</p> <p>Recovery methods ① Perform the maintenance according to the message text "PS alarm" displayed at the same time.</p>	Collecting Error Information STRC
<p>IA0000 Coupling started (LU-x/y)</p> <p>An initial copy was started.</p> <p>x : Copy source LU # (0-4095)</p> <p>y : Copy destination LU # (0-4095)</p>	Collecting Error Information
<p>IA1000 Beginning of a series of PSUE messages</p> <p>The processing to change all the related pairs to PSUE started for the following.</p> <ul style="list-style-type: none"> Because the DMLU or the DP pool was blocked. Because the number of the following three PINs to which the DMLU or the DP pool belongs exceeded the threshold value. <ul style="list-style-type: none"> Directory Partition RAID group 	Collecting Error Information STRC
<p>IA2000 End of a series of PSUE messages</p> <p>The processing to change the DMLU whose access failed or all the pairs related to the DP pool to PSUE was completed.</p> <p>Recovery methods None</p>	Collecting Error Information STRC
<p>IA3E00 Pair cache partition(s) changed to auto selection mode</p> <p>The setting of the pair Cache partition whose segment size of the Cache partition is not corresponding among the pair Cache partition set to LU was changed to the Auto setting.</p> <p>Recovery methods ① 1. Check if the segment size of the pair Cache partition corresponds to the segment size of the Cache partition of the LU for the LU belongs to the Cache partition which changed the segment size.</p> <p>2. If it is necessary for the customer's system environment, set the segment size of the Cache partition which is not corresponding to the same value as the segment size of the Cache partition of the LU, or reset the pair Cache partition of the LU.</p>	Collecting Error Information STRC

IAA0j0 Drive I/O module recovered (CTL-x, Slot-l) The Drive I/O Module recovered from failure. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000) for the detail) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)	Collecting Error Information
IAA1i0 Host I/O module recovered (CTL-x, Slot-l) The Host I/O Board/Module recovered from failure. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail) i : Host I/O type (Refer to MSG 04-0000) for the detail)	Collecting Error Information
IAA2k0 Management module recovered (CTL-x, Slot-l) The Management Module recovered from failure. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000) for the detail) k : Management Module type (Refer to MSG 04-0000) for the detail) Recovery methods None	Collecting Error Information
IAB0j0 Drive I/O module error info [Type error] (CTL-x, Slot-l) <ul style="list-style-type: none"> The unsupported Drive I/O Module was installed. The Host I/O Module is installed in the Drive I/O Module slot. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000) for the detail) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount) Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .	Collecting Error Information STRC
IAB1i0 Host I/O module error info [Type error] (CTL-x, Slot-l) There is any of the following factors. <ul style="list-style-type: none"> Different types of Host I/O Modules are installed between the same Host I/O Module slots of both Controllers. In the same Host I/O Module slots of both controllers, the Host I/O Module is installed in one side. However, in the slot displayed in the message, the unsupported Host I/O Module is installed. In the same Host I/O Module slots of both controllers, the Host I/O Module is installed in one side. However, in the slot displayed in the message, the Drive I/O Module is installed. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000) for the detail) i : Host I/O type (Refer to MSG 04-0000) for the detail) Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .	Collecting Error Information STRC
IAB2j0 Drive I/O module error info [Not installed] (CTL-x, Slot-l) The Drive I/O Module is not installed. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000) for the detail) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount) Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .	Collecting Error Information STRC
IAB3i0 Host I/O module error info [Not installed] (CTL-x, Slot-l) The Host I/O Board/Module is not installed. x : Controller # (0-1) l : I/F Module slot code (Refer to MSG 04-0000) for the detail) i : Host I/O type (Refer to MSG 04-0000) for the detail) Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .	Collecting Error Information STRC

IAB4k0	Management module error info [Not installed] (CTL-x, Slot-I)	Collecting Error Information	STRC
	The Management Module is not installed.		
	x : Controller # (0-1)		
	I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)		
	k : Management Module type (0 : Management module, F : Unmount)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.32 Recovery Method at the Time of Management Module Blockade" (TRBL 11-1530) .		
IAB5j0	Drive I/O module error info [Status error] (CTL-x, Slot-I)	Collecting Error Information	STRC
	A hardware failure has occurred in the Drive I/O Module.		
	x : Controller # (0-1)		
	I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)		
	j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .		
IAB6i0	Host I/O module error info [Status error] (CTL-x, Slot-I)	Collecting Error Information	STRC
	A hardware failure has occurred in the Host I/O Board/Module.		
	x : Controller # (0-1)		
	I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)		
	i : Host I/O type (Refer to (MSG 04-0000) for the detail)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .		
IAB7k0	Management module error info [Status error] (CTL-x, Slot-I)	Collecting Error Information	STRC
	A hardware failure has occurred in the Management Module.		
	x : Controller # (0-1)		
	I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)		
	k : Management Module type (0 : Management module, F : Unmount)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.32 Recovery Method at the Time of Management Module Blockade" (TRBL 11-1530) .		
IAB8j0	Drive I/O module error info [Removed] (CTL-x, Slot-I)	Collecting Error Information	STRC
	The Drive I/O Module was removed.		
	x : Controller # (0-1)		
	I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)		
	j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .		
IAB9i0	Host I/O module error info [Removed] (CTL-x, Slot-I)	Collecting Error Information	STRC
	The Host I/O Board/Module was removed.		
	x : Controller # (0-1)		
	I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)		
	i : Host I/O type (Refer to (MSG 04-0000) for the detail)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .		
IABAk0	Management module error info [Removed] (CTL-x, Slot-I)	Collecting Error Information	STRC
	The Management Module was removed.		
	x : Controller # (0-1)		
	I : I/F Module slot code (Refer to (MSG 04-0000) for the detail)		
	k : Management Module type (0 : Management module, F : Unmount)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.32 Recovery Method at the Time of Management Module Blockade" (TRBL 11-1530) .		

IABJ0	Drive I/O module was removed (CTL-x, Slot-I)	Collecting Error Information	
	<ul style="list-style-type: none"> Even though [Number of drive I/O module] of System Parameter is set to "1" in the WEB window, when the Drive I/O Module is installed in the slot #D of the Drive I/O Module, the Drive I/O Module was removed. (Refer to WEB "3.2.1 System" (WEB 03-0070).) When [Number of drive I/O module] of System Parameter is set to "1" in the WEB window and the Host I/O Module is incorrectly installed in the slot #D of the Drive I/O Module, the Host I/O Module was removed. (Refer to WEB "3.2.1 System" (WEB 03-0070).) 		
	x : Controller # (0-1) I : I/F Module slot code (Refer to (MSG 04-0000) for the detail) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)		
	Recovery methods	None	
IABCI0	Host I/O module was removed (CTL-x, Slot-I)	Collecting Error Information	
	The I/O Module was removed from the Host I/O Module slot in accordance with any of the following cases. <ol style="list-style-type: none"> The unsupported Host I/O Module was removed. The Drive I/O Module is installed in the Host I/O module slot, and the Drive I/O Module was removed. In the Host I/O Module slot which was not installed at the time of the array start, the Host I/O Module is installed (unsupported procedure) after being Ready and the Host I/O Module was removed. In the Host I/O Module slot which was not installed at the time of the array start, the Drive I/O Module is installed (unsupported procedure) after being Ready and the Drive I/O Module was removed. In the Host I/O Module slot which was not installed at the time of the array start, the unsupported Host I/O Module is installed (unsupported procedure) after being Ready and the Host I/O Module was removed. In the Host I/O Module slot which was not installed at the time of the array start, the unsupported Drive I/O Module is installed (unsupported procedure) after being Ready and the Drive I/O Module was removed. 		
	x : Controller # (0-1) I : I/F Module slot code (Refer to (MSG 04-0000) for the detail) i : Host I/O type (Refer to (MSG 04-0000) for the detail)		
	Recovery methods	None	
IABDJ0	Preventive maintenance on Drive I/O module was performed (CTL-x, Slot-I)	Collecting Error Information	STRC
	The Drive I/O Module was blocked due to the preventive maintenance. x : Controller # (0-1) I : I/O Module slot code (Refer to (MSG 04-0000) for the detail) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)		
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .	
IABEI0	Preventive maintenance on Host I/O module was performed (CTL-x, Slot-I)	Collecting Error Information	STRC
	The Host I/O Board/Module was blocked due to the preventive maintenance. x : Controller # (0-1) I : I/O Module slot code (Refer to (MSG 04-0000) for the detail) i : Host I/O type (Refer to (MSG 04-0000) for the detail)		
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .	
IABFK0	Preventive maintenance on Management module was performed (CTL-x, Slot-I)	Collecting Error Information	STRC
	The Management Module was blocked due to the preventive maintenance. x : Controller # (0-1) I : I/O Module slot code (Refer to (MSG 04-0000) for the detail) k : Management Module type (0 : Management module, F : Unmount)		
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.32 Recovery Method at the Time of Management Module Blockade" (TRBL 11-1530) .	

IAC0j0 Drive I/O module is installed by unsupported procedure (CTL-x, Slot-l) Collecting Error Information STRC

When the Drive I/O Module number is set to "1", the Drive I/O Module or the Host I/O Board/Module was installed in the unusable Drive I/O Module slot #D.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)

Recovery methods ① Perform the maintenance referring to [Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade"](#) (TRBL 11-1680).

IAC1i0 Host I/O module is installed by unsupported procedure (CTL-x, Slot-l) Collecting Error Information STRC

- The Drive I/O Module was installed in the Host I/O Board/Module slot
- The Host I/O Board/Module was installed in the Host I/O Board/Module slot which was unused at the time of the array start while operating the array.
- For the same Host I/O Module slots of both Controllers, the I/O Module was installed in accordance with any of the following cases.

HOST I/O Module slot on the Controller #0 side	HOST I/O Module slot on the Controller #1 side
Unsupported product	Unsupported product
Unsupported product	Uninstalled
Unsupported product	Drive I/O Module
Uninstalled	Unsupported product
Uninstalled	Drive I/O Module
Drive I/O Module	Unsupported product
Drive I/O Module	Uninstalled
Drive I/O Module	Drive I/O Module

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

i : Host I/O type (Refer to [MSG 04-0000](#)) for the detail)

Recovery methods ① Perform the maintenance referring to [Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade"](#) (TRBL 11-2180).

IAD0lx Backend error count of D-SPC exceeded the threshold [D-SPC REBOOT error] (CTL-x, Slot-l) Collecting Error Information STRC

The start of the D-SPC (Drive-side SAS Protocol Chip) of the Drive I/O Module failed.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

IAD1lx Backend error count of D-SPC LSI exceeded the threshold [D-SPC FATAL] (CTL-x, Slot-l) Collecting Error Information STRC

A fatal error of the D-SPC (Drive-side SAS Protocol Chip) of the Drive I/O Module was detected.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

IAD2lx Backend error count of D-SPC LSI exceeded the threshold [CODE-z] (CTL-x, Slot-l) Collecting Error Information STRC

The number of times of the backend failure of the D-SPC (Drive-side SAS Protocol Chip) of the Drive I/O Module exceeded the threshold value.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

z : Optional code (0-FF)

IAD3lx Backend link error was detected (CTL-x, Slot-l) Collecting Error Information STRC

The firmware of the array detected a backend Link failure and identifies the failed part as the Drive I/O Module.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

Recovery methods ① Perform the maintenance referring to [Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade"](#) (TRBL 11-1680).

IAD4lx	D-SPC firmware error was detected (CTL-x, Slot-l) While operating the path diagnosis of the backend, an error of the D-SPC (Drive-side SAS Protocol Chip) was detected. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
IAD5lx	An initialization of PCIe failed because of the hardware error [Drv] (CTL-x, Slot-l) The initial setting of the PCI Express between the D-SPC (Drive-side SAS Protocol Chip) and the Controller of the Drive I/O Module failed due to a hardware failure. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
IAD6lx	Backend error count of D-SPC LSI exceeded the threshold [D-SPC Error] (CTL-x, Slot-l) The number of times of the D-SPC (Drive-side SAS Protocol Chip) failure of the Drive I/O Module exceeded the threshold value. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
IAD7lx	D-SPC firmware download failed (CTL-x, Slot-l) The download processing of the firmware of the D-SPC (Drive-side Protocol Chip) of the Drive I/O Module failed. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
IAD8lx	The number of correctable D-SPC errors exceeded the threshold (CTL-x, Slot-l) The number of times of the backend PCI correctable error of the Drive I/O Module exceeded the threshold value. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680).	
IAD900	D-SPC firmware download started The download of the firmware of the D-SPC (Drive-side SAS Protocol Chip) started.	Collecting Error Information	
IADA00	D-SPC firmware download completed successfully The download of the firmware of the D-SPC (Drive-side SAS Protocol Chip) was completed normally.	Collecting Error Information	
IAE00x	Backup Controller#x firmware download started The download of the automatic backup controller firmware started. x : Controller # (0-1)	Collecting Error Information	
IAE10x	Backup Controller#x firmware download completed The download of the automatic backup controller firmware terminated. x : Controller # (0-1)	Collecting Error Information	
	Recovery methods	None	
IAE20x	Backup Controller#x firmware download failed The download of the automatic backup controller firmware failed. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

<p>IAF000 Automatic Backup Controller firmware download completed successfully</p> <p>The download of the automatic backup controller firmware was completed normally.</p> <p>Recovery methods: None</p>	<p>Collecting Error Information</p>
<p>IAF100 Automatic Backup Controller firmware download failed</p> <p>The download of the automatic backup controller firmware was terminated abnormally.</p> <p>Recovery methods:</p> <ul style="list-style-type: none"> ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. 	<p>Collecting Error Information</p> <p>STRC</p>
<p>IAF200 Automatic Backup Controller firmware download started</p> <p>The download of the automatic backup controller firmware started.</p> <p>Recovery methods:</p> <ul style="list-style-type: none"> ① Suspend the maintenance work temporarily. ② Check that the message code "IAF000 Automatic Backup Controller firmware download completed successfully" or "IAF100 Automatic Backup Controller firmware download failed" was displayed, and then restart the suspended maintenance work. 	<p>Collecting Error Information</p>
<p>IAG00x CUDG error [Interface board] (CTL-x, I/F-y)</p> <p>In case of the CBSS/CBSL/CBXSS/CBXSL, a CUDG error was detected in the Host I/O Board/Module while starting the following Controller (RAM CUDG)</p> <p>A CUDG error was detected in the Host I/O Board of HUS110/HUS130 in the following cases (RAM CUDG).</p> <ul style="list-style-type: none"> • When starting the array • When replacing the Controller • When replacing the firmware in the single ware configuration • When replacing the firmware by stopping the I/O of one Controller at a time in the dual Controller configuration <p>x : Controller # (0-1)</p> <p>y : Host I/O Board # (1)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>IAG10x CUDG error [Host I/O module] (CTL-x, Slot-l)</p> <p>A CUDG error was detected in the Host I/O Module of CBL in the following cases (RAM CUDG).</p> <ul style="list-style-type: none"> • When starting the array • When replacing the Controller • When replacing the firmware in the single ware configuration • When replacing the firmware by stopping the I/O of one Controller at a time in the dual Controller configuration <p>x : Controller # (0-1)</p> <p>l : I/O Module slot code (Refer to (MSG 04-0000) for the detail)</p> <p>Recovery methods:</p> <ul style="list-style-type: none"> ① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540). 	<p>Collecting Error Information</p> <p>STRC</p>

IAH00x CUDG error [Drive I/O module] (CTL-x, Slot-I)	Collecting Error Information STRC
<p>A CUDG error was detected in the Drive I/O Module of HUS150 in the following cases (RAM CUDG).</p> <ul style="list-style-type: none"> • When starting the array • When replacing the Controller • When replacing the firmware in the single ware configuration • When replacing the firmware by stopping the I/O of one Controller at a time in the dual Controller configuration <p>x : Controller # (0-1) I : I/O Module slot code (Refer to MSG 04-0000) for the detail)</p>	
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680).
IAH100 Array shutdown was automatically executed due to PS alarm (Unit-x)	Collecting Error Information STRC
<p>The planned shutdown of the array was executed automatically due to errors of two Power Units in one box.</p> <p>x : Unit ID # (0-79)</p>	
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.30 Recovery Method when the Planned Shutdown of the Array was Executed Automatically" (TRBL 11-1430).
IAH2yx An EDC error was detected in PCIe between FC protocol chip and D-CTL LSI (CTL-x, I/F-y)	Collecting Error Information STRC
<p>The number of times of the EDC error between the D-CTL LSI and the Fibre Channel Protocol Chip exceeded the threshold value.</p> <p>x : Controller # (0-1) y : Host I/O Board # (1)</p>	
IAH3yx An ECC error was detected in Fibre Channel protocol chip (CTL-x, I/F-y)	Collecting Error Information STRC
<p>The number of times of the ECC error which was detected when the Fibre Channel Protocol Chip accessed the internal RAM exceeded the threshold value.</p> <p>x : Controller # (0-1) y : Host I/O Board # (1)</p>	
IAH4yx Fibre Channel protocol chip cannot be recognized (CTL-x, I/F-y)	Collecting Error Information STRC
<p>Although the Host I/O Board (Fibre Channel) is installed, the Fibre Channel Protocol Chip could not be recognized on the PCI.</p> <p>x : Controller # (0-1) y : Host I/O Board # (1)</p>	
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).
IAH60x A permanent LU warning (CTL-x, ERR-9)	Collecting Error Information
<p>The Cache Backup Battery is normal, but its remaining capacity is small. Therefore, the resident volume of the resident Cache Residency Manager became unusable (it takes about the maximum of 1.5 hours to complete the charging).</p> <p>x : Controller # (0-1)</p>	
Recovery methods	① Wait until the charging of the Cache Backup Battery progresses and "IAH70x A permanent LU warning has been cancelled (CTL-x, ERR-9)" is displayed in the Information Message on WEB.
IAH70x A permanent LU warning has been cancelled (CTL-x, ERR-9)	Collecting Error Information
<ul style="list-style-type: none"> • When the Cache Backup Battery was fully charged or its remaining capacity was insufficient, the "Battery Charging Write Command" was changed from [Write Through] to [Write Back]. • Because the Cache Backup Battery became abnormal, the resident off-warning was cancelled ("Cache Backup Battery is normal but its remaining capacity is insufficient" "IAH60x A permanent LU warning (CTL-x, ERR-9)"). <p>x : Controller # (0-1)</p>	
Recovery methods	None

IAH800 Quick Format Failed [Code-xx] (LU-yyyy)	Collecting Error Information STRC
<p>Since the reference or the update of the management information of the LU format failed, the LU format failed.</p> <p>x : Factor code</p> <p>03 = Partial data loss (Read/write of the data is impossible due to incomplete write and the drive dual (triplicate in case of RAID6) failure in one RAID group.)</p> <p>04 = Other failures (Staging time-out or time-out for securing the cache segment, a failure of the page format of the hidden LU and others.)</p> <p>y : LU# (0-4095)</p>	
<p>Recovery methods</p>	<p>① 1. Check that the Information Message is not displayed on the WEB which displays the LU number from 2098 to 2147 for CBSS/CBSL/CBXSS/CBXSL and the LU number from 4296 to 4495 for CBL. If it is displayed, follow the message and perform the maintenance.</p> <p>2. Format the volume displayed in the message "IAH800 Quick Format Failed [Code-xx] (LU-yyyy)". (Refer to System Parameter "4.3.6 Formatting Volume"(SYSPR 04-0500).)</p>
IAH900 Quick Format Failed [Code-xx]	Collecting Error Information STRC
<p>Since the management information of the LU format is lost, the LU format failed.</p> <p>x : Factor code</p> <p>01 = Disappearance of the differential bitmap due to the cache data volatilization while the power is turned off</p> <p>02 = Differential bitmap loss due to the volume blockade of the hidden volume (dual or triplicate failure of the drive) or user data loss</p>	
<p>Recovery methods</p>	<p>In case the factor code is "01"</p> <p>① Select [Group] – [Volume] of Hitachi Storage Navigator Modular 2 and execute the volume format for the volume whose "Status" in the [Volume] tab window is "Unformat (Format Failure)". (Refer to System Parameter "4.3.6 Formatting Volume"(SYSPR 04-0500).)</p> <p>In case the factor code is "02"</p> <p>① 1. Check that the message code "W0E000 LU alarm (LU-x)" is displayed. 2. For the LU displayed in the message code "W0E000 LU alarm (LU-x)", follow Troubleshooting "11.1.13 A Failure Occurred during Operation : Case 3 (Volume Blockade)" (TRBL 11-0820) and perform the maintenance.</p>
IAHA0x An access error was detected in Host interface board (CTL-x, I/F-y)	Collecting Error Information STRC
<p>The register access of the Host I/O Board failed.</p> <p>x : Controller # (0-1)</p> <p>y : Host I/O Board # (1)</p>	
<p>Recovery methods</p>	<p>① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).</p>
IAHB0x A hardware error was detected in Fibre Channel protocol chip (CTL-x, I/F-y)	Collecting Error Information STRC
<p>The number of times, which the Fibre Channel Chip operated outside assumption, exceeded the threshold value.</p> <p>x : Controller # (0-1)</p> <p>y : Host I/O Board # (1)</p>	
<p>Recovery methods</p>	<p>① Perform the maintenance according to the message text "W3Rzhx Interface Board alarm (CTL-w, I/F-x)" displayed at the same time.</p>
IAHC0x A hardware error was detected in Fibre Channel protocol chip (CTL-x, Slot-l)	Collecting Error Information STRC
<p>The number of times, which the Fibre Channel Chip operated outside assumption, exceeded the threshold value.</p> <p>x : Controller # (0-1)</p> <p>l : I/O Module slot code (Refer to (MSG 04-0000) for the detail)</p>	
IAHD0x Fibre Channel protocol chip cannot be recognized (CTL-x, Slot-l)	Collecting Error Information STRC
<p>Although the Host I/O Module is installed, Fibre Channel Chip could not be recognized on the PCI.</p> <p>x : Controller # (0-1)</p> <p>l : I/O Module slot code (Refer to (MSG 04-0000) for the detail)</p>	
<p>Recovery methods</p>	<p>① Perform the maintenance according to the message text "WA1zi0 Host I/O module alarm (CTL-w, Slot-l)" displayed at the same time.</p>

<p>IAHE0x An EDC error was detected in PCIe between FC protocol chip and D-CTL LSI (CTL-x, Slot-l)</p> <p>The number of times of the EDC error between the D-CTL LSI and the Fibre Channel Protocol Chip exceeded the threshold value.</p> <p>x : Controller # (0-1)</p> <p>l : I/O Module slot code (Refer to MSG 04-0000) for the detail)</p>	Collecting Error Information	STRC
<p>IAHF0x An ECC error was detected in Fibre Channel protocol chip (CTL-x, Slot-l)</p> <p>The number of times of the ECC error which was detected when the Fibre Channel Protocol Chip accessed the internal RAM exceeded the threshold value.</p> <p>x : Controller # (0-1)</p> <p>l : I/O Module slot code (Refer to MSG 04-0000) for the detail)</p>	Collecting Error Information	STRC
<p>IAHGxy Fibre Channel protocol chip soft reset has ended in failure (Port-xy)</p> <p>The software reset of Fibre Channel Protocol Chip failed.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p>	Collecting Error Information	STRC
<p>IAHHxy PCI Interrupt Status register error [DPE] in Fibre Channel protocol chip (CTL-x, Port-xy)</p> <p>When Fibre Channel Protocol Chip accessed the master of PCI, the parity error of the PCI data was detected.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p>	Collecting Error Information	STRC
<p>IAHlxy PCI Interrupt Status register error [UBE] in Fibre Channel protocol chip (CTL-x, Port-xy)</p> <p>The illegal access occurred for the Fibre Channel Protocol Chip register.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p>	Collecting Error Information	STRC
<p>IAHJxy PCI Interrupt Status register error [RMA] in Fibre Channel protocol chip (CTL-x, Port-xy)</p> <p>When Fibre Channel Protocol Chip accessed the master of PCI, interruption of the PCI access (master abort) occurred.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p>	<p>Recovery methods</p> <p>[In case of the CBL]</p> <p>① Perform the maintenance according to the message text "WA1zi0 Host I/O module alarm (CTL-w, Slot-l)" displayed at the same time.</p> <p>[In case of the CBSS/CBSL/CBXSS/CBXSL]</p> <p>① Perform the maintenance according to the message text "W3Rzhx Interface Board alarm (CTL-w, I/F-x)" displayed at the same time.</p>	STRC

IAI0yx	The overheating of iSCSI protocol chip was detected (CTL-x, I/F-y) A temperature error occurred in the iSCSI Protocol Chip of the Host I/O Board (iSCSI). x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC												
IAI1yx	EDC error was detected in PCIe between iSCSI protocol chip and D-CTL LSI (CTL-x, I/F-y) The number of times of the EDC error between the D-CTL LSI and the iSCSI Protocol Chip exceeded the threshold value. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC												
IAI2yx	An initialization of iSCSI protocol chip firmware failed (CTL-x, I/F-y) The start of the iSCSI Protocol Chip firmware failed. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC												
IAI3yx	iSCSI protocol chip cannot be recognized (CTL-x, I/F-y) Although the Host I/O Board (iSCSI) is installed, iSCSI Protocol Chip could not be recognized on the PCI. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC												
IAI4yx	A load of iSCSI protocol chip firmware failed (CTL-x, I/F-y) The load of the iSCSI Protocol Chip firmware failed. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC												
IAI5yx	A hardware error was detected in iSCSI protocol chip (CTL-x, I/F-y) The number of times, which the iSCSI Protocol Chip operated outside assumption, exceeded the threshold value. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC												
IAI6yx	An ECC error was detected in iSCSI protocol chip (CTL-x, I/F-y) The number of times of the ECC error which was detected when the iSCSI Protocol Chip accessed the internal RAM exceeded the threshold value. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC												
IAI7yx	A fatal error was detected in iSCSI protocol chip (CTL-x, I/F-y, Code-z) A hang-up failure (Fatal Error) occurred in the iSCSI Protocol Chip. x : Controller # (0-1) y : Host I/O Board # (1) z : Error factory code # 5 = Heart Beat (Chip Fatal Error)	Collecting Error Information	STRC												
IAI8yx	A flash parameter update of iSCSI protocol chip failed (CTL-x, I/F-y, Code-z) The rewrite of the Flash information of the iSCSI Protocol Chip failed. x : Controller # (0-1) y : Host I/O Board # (1) z : ASCII character <table><tr><th>Code</th><th>Error factory</th></tr><tr><td>0</td><td>The rewrite of the CRB Init & Board Configuration failed.</td></tr><tr><td>1</td><td>The rewrite of the BootLoader failed.</td></tr><tr><td>2</td><td>The rewrite of the FW Image failed.</td></tr><tr><td>3</td><td>The rewrite of the Pegtune failed.</td></tr><tr><td>4</td><td>The check of the Flash Revision failed.</td></tr></table>	Code	Error factory	0	The rewrite of the CRB Init & Board Configuration failed.	1	The rewrite of the BootLoader failed.	2	The rewrite of the FW Image failed.	3	The rewrite of the Pegtune failed.	4	The check of the Flash Revision failed.	Collecting Error Information	STRC
Code	Error factory														
0	The rewrite of the CRB Init & Board Configuration failed.														
1	The rewrite of the BootLoader failed.														
2	The rewrite of the FW Image failed.														
3	The rewrite of the Pegtune failed.														
4	The check of the Flash Revision failed.														
IAI9yx	Host interface board error info [Type error] (CTL-x, I/F-y) The type of the module installed in the same Host I/O Module slot between the Controllers differs. x : Controller # (0-1) y : Host I/O Board # (1) <table><tr><td>Recovery methods</td><td>① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).</td></tr></table>	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540) .	Collecting Error Information	STRC										
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540) .														

IAIAyx	Host interface board error info [Not installed] (CTL-x, I/F-y) The Host I/O Board is not installed. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC
IAIByx	Host interface board error info [Status error] (CTL-x, I/F-y) A hardware failure has occurred in the Host I/O Board. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC
IAICyx	Host interface board error info [Removed] (CTL-x, I/F-y) The Host I/O Board was removed. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC
IAIDyx	Host interface board was removed (CTL-x, I/F-y) The Host I/O Board whose installation is unsupported was removed. x : Controller # (0-1) y : Host I/O Board # (1) Recovery methods: None	Collecting Error Information	
IAIEyx	Preventive maintenance on host interface board was performed (CTL-x, I/F-y) The Host I/O Board was blocked due to the preventive maintenance. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC
IAIFyx	Host interface board is installed by unsupported procedure (CTL-x, I/F-y) • The Host I/O Board was installed in the Host I/O Board slot • The Host I/O Board was installed in the Host I/O Board slot which was unused at the time of the array start while operating the array. x : Controller # (0-1) y : Host I/O Board # (1)	Collecting Error Information	STRC
IAIGyx	An initialization of PCIe failed because of the hardware error [Host] (CTL-x, I/F-y) A failure between the PCI-Express links was detected in the PCI-Express bus between the D-CTL LSI of the Controller and the Host I/O Board. x : Controller # (0-1) y : Host I/O Board # (1) Recovery methods: ① Perform the maintenance referring to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540) .	Collecting Error Information	STRC
IAIHhy	Interface Board recovered (CTL-x, I/F-y) The Host I/O Board recovered from failure. x : Controller # (0-1) y : Host I/O Board # (1) h : I/F type (Refer to MSG 04-0000) for the detail) Recovery methods: None	Collecting Error Information	

IAI00 LU accesses failed due to DP pool access error. [Code-xx] (LU-yyyy)

Collecting Error Information STRC

In the internal processing of SnapShot and TrueCopy Extended Distance, since the access for the chunk in which the management information of SnapShot/TrueCopy Extended Distance is stored failed, the LU access processing displayed in the message also failed.

Factor code 1 : [LU not usable] DP pool was blocked.

Factor code 2 : [Write incomplete data occurred] The incomplete write data occurred in the chunk in which the management information of SnapShot/TrueCopy Extended Distance is stored.

Factor code 3 : [Number of PINs exceeded threshold value] The number of PINs exceeded the threshold value in the chunk in which the management information of SnapShot/TrueCopy Extended Distance is stored, in the directory and partition to which this chunk belongs or in the RAID group.

Factor code 4 : [Depletion of DP pool capacity] The DP pool capacity was depleted.

Factor code 5 : [Others] The staging time-out, the segment lock time-out, the page format failure and others in the chunk in which the management information of SnapShot/TrueCopy Extended Distance is stored.

Factor code 6 : [Temporary depletion of DP pool capacity] The DP pool capacity was temporarily depleted.

x : Factor code (1-6)

y : LU # (0-4095)

Recovery methods	Factor code 1
	<ol style="list-style-type: none"> ① 1. Check that the message code "W0Q000 LU alarm" is displayed and perform the maintenance in accordance with the recovery method of the displayed message. 2. Check that the message code "PSUE occurred" is displayed. <ul style="list-style-type: none"> • When using SnapShot, refer to "Troubleshooting" in the "Copy-on-write SnapShot User's Guide" and perform the maintenance. • When using TrueCopy Extended Distance, refer to "Troubleshooting" in the "TrueCopy Extended Distance User's Guide" and perform the maintenance.
	Factor code 2
	<ol style="list-style-type: none"> ① 1. Check that the message code "W0L000 Unreadable PIN detected (Unit-x, HDU-y)" is displayed and perform the maintenance in accordance with the recovery method of the displayed message. 2. Check that the message code "PSUE occurred" is displayed. <ul style="list-style-type: none"> • When using SnapShot, refer to "Troubleshooting" in the "Copy-on-write SnapShot User's Guide" and perform the maintenance. • When using TrueCopy Extended Distance, refer to "Troubleshooting" in the "TrueCopy Extended Distance User's Guide" and perform the maintenance.
	Factor code 3
	<ol style="list-style-type: none"> ① 1. Check that one or more messages are displayed among the following messages and perform the maintenance for all the displayed messages in accordance with the recovery method of the message code. <ul style="list-style-type: none"> • W3G000 PIN is over directory threshold [write through] (DIR-x) • W3J000 PIN is over partition threshold [write through] (DIR-x, PTT-y) • W3L000 PIN is over RAID group threshold [write through] (DIR-x, RG-y) • W71000 The number of PINs exceeded partition threshold [write through] (DIR-x, Management Area) 2. Check that the message code "PSUE occurred" is displayed. <ul style="list-style-type: none"> • When using SnapShot, refer to "Troubleshooting" in the "Copy-on-write SnapShot User's Guide" and perform the maintenance. • When using TrueCopy Extended Distance, refer to "Troubleshooting" in the "TrueCopy Extended Distance User's Guide" and perform the maintenance.
	Factor code 4
	<ol style="list-style-type: none"> ① 1. Check that the message code "I6D000 Replication data released threshold is exceeded in DP pool (DP pool-x)" is displayed and perform the maintenance in accordance with the recovery method of the displayed message. 2. Check that the message code "PSUE occurred" is displayed. <ul style="list-style-type: none"> • When using SnapShot, refer to "Troubleshooting" in the "Copy-on-write SnapShot User's Guide" and perform the maintenance. • When using TrueCopy Extended Distance, refer to "Troubleshooting" in the "TrueCopy Extended Distance User's Guide" and perform the maintenance.

To be continued to the next page.

	Factor code 5	① Collect the simple trace and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)		
	Factor code 6	① 1. • When using SnapShot, click the [Pairs] tab of [Replication] – [Local Replication] of Hitachi Storage Navigator Modular 2 and search a pair of which the Primary Volume or the Secondary Volume matches with the LU# displayed in the message. • When using TrueCopy Extended Distance, search a pair of which the Local VOL or the Remote VOL matches with the LU# displayed in the message in the Pairs window of [Replication] – [Remote Replication] of Hitachi Storage Navigator Modular 2. 2. Check the number of the DP Pool "Management Area" (Management Area DP Pool number) of the pair in ①-1. 3. Refer to the "Status" of the DP Pool of the number in ①-2 in the DP Pools window of [Group] – [Volumes] of Hitachi Storage Navigation Modular 2. • When the "Status" is "Normal (Formatting (nn%))", the DP Pool formatting is operating. Therefore wait until the DP pool formatting is completed and the "Status" is changed to "Normal". • When the "Status" is "Normal" or after the "Status" is changed to "Normal", check that the message "PSUE occurred" is displayed. 4. • When using SnapShot, refer to "Troubleshooting" in the "Copy-on-write SnapShot User's Guide" and perform the maintenance. • When using TrueCopy Extended Distance, refer to "Troubleshooting" in the "TrueCopy Extended Distance User's Guide" and perform the maintenance.		
IAIJ0	Management module is installed by unsupported procedure (CTL-x, Slot-I)	Collecting Error Information	STRC	<p>The Management Module (LAN), the Host I/O Module and the Drive I/O Module were installed in the slots of the Management Module (UPS). Or the module installed in the slot could not be recognized as the Management Module (UPS) as the I2C failure although the Management Module (UPS) is installed in the slot of the Management Module (UPS).</p> <p>x : Controller # (0-1)</p> <p>I : I/O Module slot code (Refer to (MSG 04-0000) for the detail)</p>
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.32 Recovery Method at the Time of Management Module Blockade" (TRBL 11-1530).		
IAIK0	Management module was removed (CTL-x, Slot-I)	Collecting Error Information	STRC	<p>The Management Module (LAN) inserted into the slot of the Management Module (UPS), the Host I/O Module, the Drive I/O Module or the Management Module (UPS) which could not be recognized due to the I2C failure was removed.</p> <p>x : Controller # (0-1)</p> <p>I : I/O Module slot code (Refer to (MSG 04-0000) for the detail)</p>
	Recovery methods	None		
IAL0x	Number of CPU-PCIe bridge(PCH) errors in a controller exceeded the threshold (CTL-x)	Collecting Error Information	STRC	<p>The CPU detected a correctable error of the CPU-PCIe bridge PCH (Platform Controller Hub) in the Controller, and the number of times of the correctable error occurrences exceeded the threshold value.</p> <p>x : Controller # (0-1)</p>
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (The message code "W01z0x CTL alarm" is not displayed in the Information Message on WEB.) (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

IAIM00	Dynamic Tiering Monitor data was lost [Code-xx]	Collecting Error Information
	Since the monitor date used in Dynamic Tiering was lost, start taking the monitor data from the beginning. It takes about 4 hours until the enabled monitor date can be acquired.	
	x : Factor code	
	01 : Loss by power-off cache volatilization	
	02 : Write to the Drive has failed at the time of the previous planned shutdown.	
	03 : Read of the monitor data from the Drive failed.	
	04 : Loss by the read failure of the Dynamic Provisioning area from the Drive	
	Recovery methods	None
IAINlx	The removal of Host I/O module can be removed (CTL-x, Slot-l)	Collecting Error Information
	The removal of the Host I/O Module whose array status is Ready terminated normally and the Host I/O Module became removable.	
	x : Controller # (0-1)	
	l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	
	Recovery methods	① Remove the Host I/O Module inserted in the slot of the removal target. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 01-0460).)
IAIP0x	The removal of Host interface board can be removed (CTL-x)	Collecting Error Information
	The removal of the Host I/O Board whose array status is Ready terminated normally and the Host I/O Board became removable.	
	x : Controller # (0-1)	
	Recovery methods	① Remove the Host I/O Board. (Refer to Addition/Removal/Relocation "2.4.4 Removing a FC Host I/O Board/Module" (ADD 02-0370) , Addition/Removal/Relocation "2.4.5 Removing an iSCSI Host I/O Board/Module" (ADD 02-0440) .)
IAIQ00	The change of pair status failed [SnapShot] (CTG-xx, code-yyyyy)	Collecting Error Information
	After receiving the split command to the SnapShot pair, the pair could not be changed to the Split (PSUS in RAID Manager) status due to a failure.	
	x : Consistency Group # (0-1023)	
	y : Error detailed code	
	Recovery methods	① Perform the maintenance according to the message text "I1H600 PSUE occurred [SnapShot]" displayed at the same time.
IAIR00	The destage of the DP management information by the page relocation restarted	Collecting Error Information
	The destage of the DP management information by the page relocation restarted.	
	Recovery methods	None
IAIS00	The page relocation failed due to time-out of the destage of the DP management info	Collecting Error Information
	The destage of the DP management information failed during the page relocation.	STRC
	Recovery methods	① Check whether "IAIR00 The destage of the DP management information by the page relocation restarted" is displayed after "IAIS00 The page relocation failed due to time-out of the destage of the DP management info" or not. When "IAIR00 The destage of the DP management information by the page relocation restarted" is displayed, the failure factor of the destage of the DP management information is resolved. Therefore, terminate the maintenance work. ② When "IAIR00 The destage of the DP management information by the page relocation restarted" is not displayed, perform the planned shutdown of the array, and then restart the array. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220) .) For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.

IAIT0x The CTL recovery may take time as replication is working on data transfer (CTL-x)	Collecting Error Information		
<p>The Controller recovery takes time because the data transfer of TrueCopy Extended Distance is running in the operating Controller.</p> <p>x : Controller # (0-1)</p> <table border="1"> <tr> <td>Recovery methods</td><td> <p>① The Controller recovery takes more time than usual because the operating Controller is executing the data transfer of TrueCopy Extended Distance. When the data transfer being executed in the local array and the remote array of TrueCopy Extended Distance is completed, the Controller recovery processing proceeds. Therefore, wait for a while until the Controller recovers.</p> <p>The predicted time of data transfer completion can be checked in the following method by using Hitachi Storage Navigator Modular 2 CLI.</p> <p>(1) When Hitachi Storage Navigator Modular 2 CLI is installed in the service PC, register the array in Hitachi Storage Navigator Modular 2 CLI.</p> <p>(2) Enter "aureplicationremote -unit <array name> -refer -groupinfo" in the command line and check the displayed [Prediction Time of Transfer Completion]. When multiple groups are displayed, refer to the longest [Prediction Time of Transfer Completion].</p> </td></tr> </table>		Recovery methods	<p>① The Controller recovery takes more time than usual because the operating Controller is executing the data transfer of TrueCopy Extended Distance. When the data transfer being executed in the local array and the remote array of TrueCopy Extended Distance is completed, the Controller recovery processing proceeds. Therefore, wait for a while until the Controller recovers.</p> <p>The predicted time of data transfer completion can be checked in the following method by using Hitachi Storage Navigator Modular 2 CLI.</p> <p>(1) When Hitachi Storage Navigator Modular 2 CLI is installed in the service PC, register the array in Hitachi Storage Navigator Modular 2 CLI.</p> <p>(2) Enter "aureplicationremote -unit <array name> -refer -groupinfo" in the command line and check the displayed [Prediction Time of Transfer Completion]. When multiple groups are displayed, refer to the longest [Prediction Time of Transfer Completion].</p>
Recovery methods	<p>① The Controller recovery takes more time than usual because the operating Controller is executing the data transfer of TrueCopy Extended Distance. When the data transfer being executed in the local array and the remote array of TrueCopy Extended Distance is completed, the Controller recovery processing proceeds. Therefore, wait for a while until the Controller recovers.</p> <p>The predicted time of data transfer completion can be checked in the following method by using Hitachi Storage Navigator Modular 2 CLI.</p> <p>(1) When Hitachi Storage Navigator Modular 2 CLI is installed in the service PC, register the array in Hitachi Storage Navigator Modular 2 CLI.</p> <p>(2) Enter "aureplicationremote -unit <array name> -refer -groupinfo" in the command line and check the displayed [Prediction Time of Transfer Completion]. When multiple groups are displayed, refer to the longest [Prediction Time of Transfer Completion].</p>		
IAIU00 DP Pool Shrinking failed (DP Pool-x, DP RG-y, Code-zz)	Collecting Error Information STRC		
<p>The pool capacity shrinking processing terminated abnormally.</p> <p>x : DP pool # (0-63)</p> <p>y : DP RAID group # (0-199)</p> <p>z : Error factory code # (01-11)</p> <p>Error factory code 01 : [DP Pool was blocked] The DP pool status to which the DP RAID Groups displayed in the message belongs is not normal.</p> <p>Error factory code 02 : [DP Volume was blocked] The DP volume status in the DP Pool to which the DP RAID Groups displayed in the message belongs is not normal.</p> <p>Error factory code 03 : [DP Pool was depleted] The DP Pool capacity to which the DP RAID Groups displayed in the message belongs is depleted.</p> <p>Error factory code 04 : [Excess PIN number threshold value occurred] PIN was detected in the DP RAID Groups displayed in the message.</p> <p>Error factory code 05 : [PIN was detected (at the time of user data/save data destage)] PIN was detected in the DP RAID Groups displayed in the message.</p> <p>Error factory code 06 : [DP Management Information destage timed out] The management information destage time-out of the DP Pool to which the DP RAID Groups displayed in the message belongs occurred.</p> <p>Error factory code 07 : [Invalid DP Pool was detected] The illegal management information of the DP Pool to which the DP RAID Groups displayed in the message belongs was detected.</p> <p>Error factory code 08 : [Online forced parity recovery is executed] The online forced parity correction is in execution for the DP volume in the DP Pool to which the DP RAID Groups displayed in the message belongs.</p> <p>Error factory code 09 : [Drive is restored] The Drive restoration is operating for the drives in the DP RAID Groups displayed in the message.</p> <p>Error factory code 10 : [DM-LU write incompleteness was detected] DM-LU write incompleteness was detected in the DP RAID Groups displayed in the message.</p> <p>Error factory code 11 : [DM-LU errors were detected] DM-LU errors (staging time-out, segment lock time-out, page format failure, etc.) were detected in the DP RAID Groups displayed in the message.</p>			
Recovery methods	<p>Error factory code : [01]</p> <p>① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.</p> <ul style="list-style-type: none"> -1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list. -2 Click the DP Pool # displayed in the message and display the DP Pool window. -3 Click the [DP RAID Groups] tab and display the DP RAID Groups list. -4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button. <p>2. Perform the maintenance referring to Problems "A DP pool is blocked." in Troubleshooting described in "Dynamic Provisioning User's Guide".</p>		

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Error factory code : [02]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Perform the maintenance referring to [Problems “A DP-VOL is blocked.”](#) in [Troubleshooting](#) described in “[Dynamic Provisioning User’s Guide](#)”.

Error factory code : [03]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Perform the maintenance referring to [Problems “The DP pool capacity was depleted.”](#) in [Troubleshooting](#) described in “[Dynamic Provisioning User’s Guide](#)”.

Error factory code : [04]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Perform the maintenance referring to [Troubleshooting “11.1.11 A Failure Occurred during Operation : Case 1 \(PIN Over\)” \(TRBL 11-0760\)](#).

Error factory code : [05]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Perform the maintenance referring to [Troubleshooting “11.1.11 A Failure Occurred during Operation : Case 1 \(PIN Over\)” \(TRBL 11-0760\)](#).

Error factory code : [06]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Perform the planned shutdown of the array and restart it. (Refer to [Installation “1.5 Power On/Off Procedure” \(INST 01-0220\)](#).) For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.

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Error factory code : [07]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Perform the planned shutdown of the array and restart it. (Refer to [Installation "1.5 Power On/Off Procedure" \(INST 01-0220\)](#).) For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.

Error factory code : [08]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Reduce pool capacity again after completing the DP Volume online forced parity recovery. Check that the message "I6DJ00 Forced parity correction LU is gone" is displayed in Information message on WEB at the completion of the DP Volume online forced parity recovery.

Error factory code : [09]

- ① 1. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
2. Inform the customer of the completion/SE of drive recovery in the DP Pool indicated in the message and retry pool shrinking. Check that any of the following messages is displayed in Information Message on WEB at the completion of drive restoration.
 - I141000 System copy completed (Unit-x, HDU-y)
 - I151000 Data recovery completed (Unit-x, HDU-y)
 - I153000 Data recovery partial (Unit-x, HDU-y)

Error factory code : [10]

- ① 1. Perform the maintenance in accordance with the message "W0L000 Unreadable PIN detected (Unit-x, HDU-y)" or "W0M000 Unreadable PIN detected (Unit-*, HDU-*)".
2. Cancel the pool shrinking in the DP RAID Groups displayed in the message in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Cancel Shrink Pool Capacity] button.
3. Shrink the pool capacity again in accordance with the following procedure.
 - 1 Click the [DP Pools] tab in the volume window from [Groups] – [Volumes] of Hitachi Storage Navigator Modular 2 and display the DP Pool list.
 - 2 Click the DP Pool # displayed in the message and display the DP Pool window.
 - 3 Click the [DP RAID Groups] tab and display the DP RAID Groups list.
 - 4 Select the DP RAID Groups displayed in the message and click the [Shrink Pool Capacity] button.

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	Error factory code : [11]	
	① Collect Simple trace and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)	
IAIV00	DBW ENC firmware does not support mixed unit configuration (Unit-x, ENC-y)	Collecting Error Information STRC
	Either of the following conditions failed to start the array.	
	<ul style="list-style-type: none"> • Since the ENC firmware of the I/O Module (ENC) of the DBW displayed in the message has the version which does not support the mixed configuration of DBWs and Drive Boxes other than DBWs, the array failed to start. • Since the firmware of the array could not acquire the ENC firmware version of the I/O Module (ENC) of the DBW displayed in the message, the array failed to start. 	
	x : Unit ID # (0-79)	
	y : I/O Module (ENC) # (0-1)	
Recovery methods	<p>When the array fails to start after adding DBWs offline</p> <p>① 1. Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>3. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>When the array fails to start after adding Drive Boxes other than DBWs offline</p> <p>① 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Remove the Drive Boxes added offline.</p> <p>3. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>4. When the array becomes Ready, the ENC firmware automatic download should operate.</p> <p>When the message "IZYS00 Automatic ENC firmware download started" is displayed after the message "I10000 Array is ready [The firmware version *****]", the automatic ENC firmware download has already started. Therefore, wait until the message "IZYR00 Automatic ENC firmware download completed successfully" is displayed and the automatic ENC firmware download is completed.</p> <p>5. -1 Check whether [Automatic Update] of the ENC firmware under [Maintenance] – [ENC Firmware] of Hitachi Storage Navigator Modular 2 is "Disabled". (Refer to Troubleshooting "8.3.6 Replacing the Online ENC Firmware" (TRBL 08-0270).)</p> <p>-2 When [Automatic Update] is "Disabled", click the [Change Automatic Update] button in the upper right of the window.</p> <p>-3 Check the checkbox of [Automatic Update] in the Change Automatic Update window and click the [OK] button.</p> <p>-4 Check that "IZYS00 Automatic ENC firmware download started" is displayed in the Information Message on WEB (changing the setting of [Automatic Update] to "Enabled" starts the automatic ENC firmware download).</p> <p>-5 Wait until "IZYR00 Automatic ENC firmware download completed successfully" is displayed in the Information Message on WEB and the automatic ENC firmware download is completed.</p> <p>-6 After "IZYR00 Automatic ENC firmware download completed successfully" is displayed, click the [Change Automatic Update] button to change the setting of [Automatic Update] to "Disabled".</p> <p>-7 Uncheck the checkbox of [Automatic Update] in the Change Automatic Update window and click the [OK] button.</p> <p>6. Add the Drive Boxes removed in Step ①-1. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>When the array fails to start because the user simply starts the array without adding Drive Boxes offline before starting the array</p> <p>① 1. For the following reasons, replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <ul style="list-style-type: none"> • The ENC firmware of the I/O Module (ENC) displayed in the message has the version which does not support the mixed configuration of DBWs and Drive Boxes other than DBWs. • Due to the I/O Module (ENC) trouble, the firmware of the array could not acquire the ENC firmware version from the I/O Module (ENC) displayed in the message. <p>2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>3. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>	

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	When this message is displayed except for adding Drive Boxes offline		
	① For the following reasons, replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) <ul style="list-style-type: none"> The ENC firmware of the I/O Module (ENC) displayed in the message has the version which does not support the mixed configuration of DBWs and Drive Boxes other than DBWs. Due to the I/O Module (ENC) trouble, the firmware of the array could not acquire the ENC firmware version from the I/O Module (ENC) displayed in the message. 		
IAIWf0	Drive I/O module error info. [Encryption function is not supported] (CTL-x, Slot-l)	Collecting Error Information	STRC
	The Drive I/O Module not for encryption (BS6G) was inserted for the array whose Data At Rest Encryption license (DARE) is unlocked.		
	x : Controller # (0-1)		
	l : I/F Module slot code (refer to MSG 04-0000 for the details)		
	f : I/O Module (ENC) or I/O Card (ENC) type (Refer to MSG 04-0000 for the detail)		
Recovery methods	① Replace the Drive I/O Module displayed in this message to a Drive I/O Module (Encryption). (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).)		
IAIXf0	Drive I/O module error info. [Encryption key is not initialized] (CTL-x, Slot-l)	Collecting Error Information	STRC
	The Drive I/O Module (Encryption) whose Data At Rest Encryption license (DARE) is locked or whose encryption key is set (encryption key is not initialized) for the array in "Encryption Environment" from [Security] – [Data At Rest Encryption] under the Hitachi Storage Navigator Modular 2 is enabled was inserted.		
	x : Controller # (0-1)		
	l : I/F Module slot code (refer to MSG 04-0000 for the details)		
	f : I/O Module (ENC) or I/O Card (ENC) type (Refer to MSG 04-0000 for the detail)		
Recovery methods	① Check whether the inserted Drive I/O Module (Encryption) is the Drive I/O Module (Encryption) being used in the other array. If the inserted Drive I/O Module (Encryption) is the Drive I/O Module (Encryption) being used in the other array, the Drive I/O Module (Encryption) cannot be used in the array. Remove the inserted Drive I/O Module from the slot. Then, prepare a Drive I/O Module (Encryption) to be installed in the array (encryption key is not set) and insert it into the slot. ② Replace the Drive I/O Module (Encryption) displayed in this message. (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).)		
IAIY00	Encryption properties of HDU and RAID Group mismatch (Unit-x, HDU-y)	Collecting Error Information	STRC
	The encryption status of the drive does not match that of the RAID group to which the drive belongs.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
Recovery methods	Disregard "W09zab HDU alarm (Unit-x, HDU-y, Type-c)" which is displayed at the same time as this message. ① 1. Remove the Drive displayed in the message from the slot. 2. In the "Assignable Drives" tab window from [Security] – [Data At Rest Encryption] under the Hitachi Storage Navigator Modular 2, select "Checkbox" of the Drive displayed in the message and press the "Assign Keys" button. (Key ID assign) 3. Insert the removed Drive into the slot again and proceed to the Drive replacement. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)		

IAIZ0x Drive I/O module error info. [Encryption keys are mismatched] (CTL-x, Slot-I)	Collecting Error Information STRC
<p>The Drive I/O Module (Encryption) whose Controller has the unmatched encryption key and key was inserted into the slot for the array set in the encryption environment ("Encryption Environment" from [Security] – [Data At Rest Encryption] under the Hitachi Storage Navigator Modular 2 is enabled).</p> <p>x : Controller # (0-1)</p> <p>I : I/F Module slot code (refer to MSG 04-0000) for the details)</p>	
Recovery methods	<p>If the inserted I/F Module is the Drive I/O Module (Encryption) being used in the other array or another slot of the array, execute the following ① or ②. Otherwise, execute the following ③.</p> <p>① If the message "IAIZ0x Drive I/O module error info. [Encryption keys are mismatched] (CTL-x, Slot-I)" is displayed on only one of the Controllers, execute the following procedure.</p> <ol style="list-style-type: none"> 1. If a message "I6QI0x Encryption key initialization was completed (CTL-x, Slot-I)", where "x" and "I" is the same to the message "IAIZ0x Drive I/O module error info. [Encryption keys are mismatched] (CTL-x, Slot-I)", is displayed, move to ①-2. If a message "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" is displayed or these messages are not displayed in 10 minutes, move to ①-8. 2. Remove the Drive I/O Module (Encryption) displayed in this message. 3. Insert the Drive I/O Module (Encryption) of ①-2 to the same slot. 4. If a message "IAIZ0x Drive I/O module error info. [Encryption keys are mismatched] (CTL-x, Slot-I)", where "x" is the same to the previous "IAIZ0x Drive I/O module error info. [Encryption keys are mismatched] (CTL-x, Slot-I)" and "I" is the other slot, is displayed, move to ①-5. Otherwise the recovery is completed. 5. Remove the Drive I/O Module (Encryption) of ①-4 from the slot. 6. Insert the Drive I/O Module (Encryption) of ①-5 to the same slot. 7. If a message "I6QI0x Encryption key initialization was completed (CTL-x, Slot-I)", where "x" and "I" is the same to ①-4 is displayed, the recovery is completed. If a message "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" is displayed or these messages are not displayed in 10 minutes, move to ①-8. 8. Replace the Drive I/O Module (Encryption) displayed in this message. (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).) If one or more messages "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" are displayed, replace those Drive I/O Modules (Encryption) first. (If multiple "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" messages are displayed, there is no particular order among the replacement of their Drive I/O Modules.) 9. If the Controller is recovered, the recovery is complete. If not recovered, collect the Simple Trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).) <p>② If the message "IAIZ0x Drive I/O module error info. [Encryption keys are mismatched] (CTL-x, Slot-I)" is displayed on both of the Controllers and messages "W01z0x CTL alarm (CTL-x)" are also displayed on them, execute the following procedure.</p> <ol style="list-style-type: none"> 1. If messages "I6QI0x Encryption key initialization was completed (CTL-x, Slot-I)" are displayed on the both of the Controllers, turn off the main switch, and move to ②-2. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) If a message "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" is displayed on either of the controller or these messages are not displayed in 10 minutes, move to ②-5. 2. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) If the READY LED (green) on the front side of the array lights up after four minutes usually, the recovery is completed. Otherwise, move to ②-3. 3. If the message "I6QI0x Encryption key initialization was completed (CTL-x, Slot-I)" where "I" is the other slot against the slot "I" of is displayed on both of the Controllers, turn off the main switch, and move to ②-4. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) If a message "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" is displayed on either of the Controller or these messages are not displayed in 10 minutes, move to ②-5. <p>To be continued to the next page.</p>

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| | <p>4. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)
If the READY LED (green) on the front side of the array lights up after four minutes usually, the recovery is completed. Otherwise, move to ②-5.</p> |
| | <p>5. Replace the Drive I/O Module (Encryption) displayed in this message. (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).)
If one or more messages "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" are displayed, replace those Drive I/O Modules (Encryption) first. (If multiple "I6QH0x Encryption key initialization failed (CTL-x, Slot-I)" messages are displayed, there is no particular order among the replacement of their Drive I/O Modules.)</p> |
| | <p>6. If the Controller is recovered, the recovery is complete.
If not recovered, collect the Simple Trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> |
| ③ | <p>1. To the customer and the SE, please request to stop host I/O to the encryption volumes of the array.</p> |
| | <p>2. Replace the Drive I/O Module (Encryption) displayed in this message. (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).)</p> |
| | <p>3. If the Controller is recovered, move to ③-4.
If not recovered, collect the Simple Trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> |
| | <p>4. Request the customer and the SE to restore Encryption keys from the back up by Hitachi Storage Navigator Modular 2 (for GUI).</p> |
| | <p>5. Request the customer and the SE to start again host I/O to the encryption volumes of the array.</p> |
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IAJ000 DP mangement information may be invalid. Please reboot the array with power cycle The DP pool management information and a part of the DT pool management information may be lost due to the previously occurred power-off (non-volatile cache).	Collecting Error Information STRC
Recovery methods ① 1. Perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 2. Turn on the array power. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 3. The Pool whose part of the information may be lost when performing ①-2 is displayed in the Information Message on WEB. Therefore, back up the volume belonging to the displayed Pool. 4. Format the Pool whose part of the information displayed in the Information Message on WEB may be lost. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500) .) 5. Restore the back-up data to the Pool volume after completing the formatting.	
IAJ01x A slot access error was detected in Host I/O module (CTL-x, Slot-l) The register access of the Host I/O Module failed. x : Controller # (0-1) l : I/O Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .	
IAJ100 DP management information is invalid (DP Pool-xx) The DP pool management information which became invalid due to the previously occurred power-off (non-volatile cache) was detected. x : Data pool # (0-63)	Collecting Error Information STRC
Recovery methods ① 1. Back up the DP VOL belonging to the DP Pool displayed in the message. 2. Reinitialize the DP Pool displayed in the message. 3. Display the volume window from [Group] - [Volume] of Hitachi Storage Navigator Modular 2. 4. Select all the volumes whose [DP Pool] column in the volume window matches the DP pool number displayed in the message and the [status] column is displayed as "Unformat". Click the [VOL Format] button and format the unformatted DP VOL. (Refer to System Parameter "4.3.6 Formatting Volume" (SYSPR 04-0500) .) 5. Restore the back-up data to the DP volume after completing the formatting. ② When the invalid DP pool management information is detected, the firmware changes all the pairs in use to PSUE by the fee-basis option as shown below. Therefore, recover the pairs from the PSUE status in accordance with the following procedure. 1. When using TrueCopy Extended Distance of the fee-basis option, resynchronize all the TrueCopy Extended Distance pairs changed to PSUE in accordance with the "TrueCopy Extended Distance User's Guide" . 2. When using Copy-on-write SnapShot of the fee-basis option, cancel all the Copy-on-write SnapShot pairs changed to PSUE in accordance with the "Copy-on-write SnapShot User's Guide" . Then, request the customer/SE to recreate the cancelled SnapShot pairs. 3. When using ShadowImage in-system replication of the fee-basis option, resynchronize all the ShadowImage in-system replication pairs changed to PSUE in accordance with the "ShadowImage in-system replication User's Guide" . 4. When using TrueCopy remote replication of the fee-basis option, resynchronize all the TrueCopy remote replication pairs changed to PSUE in accordance with the "TrueCopy remote replication User's Guide" .	
IAJ11x A fatal error was detected in iSCSI protocol chip (CTL-x, Slot-l, Code-z) A Fatal Error occurred in the iSCSI Protocol Chip of the Host I/O Module. x : Controller # (0-1) l : I/O Module slot code (Refer to (MSG 04-0000) for the detail) z : Error factory code # 5 = Heart Beat (Chip Fatal Error)	Collecting Error Information STRC
Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .	

IAJ200 FMD write count exceeded the threshold (Unit-x, HDU-y)	Collecting Error Information STRC
<p>The Flash Drive (FMD) was blocked because the accumulated Write count (life ratio) of the Flash Drive (FMD) exceeded the threshold value.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	
<p>Recovery methods</p>	<p>① When the message "W09zab HDU alarm (Unit-x, HDU-y, Type-c)" or "I30100 HDU error (Unit-x, HDU-y)" is displayed at the same time for the Drive displayed in this message, perform the maintenance in accordance with the message.</p>
IAJ21x The overheating of iSCSI protocol chip was detected (CTL-x, Slot-I)	Collecting Error Information STRC
<p>A temperature error occurred in the iSCSI Protocol Chip of the Host I/O Module.</p> <p>x : Controller # (0-1)</p> <p>I : I/O Module slot code (Refer to MSG 04-0000) for the detail)</p>	
<p>Recovery methods</p>	<p>① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).</p>
IAJ30x A health check error was detected in array, PDU, and/or their connection (CTL-x)	Collecting Error Information STRC
<p>The health check function between the array and PDU of Tray Power Saving detected a failure.</p> <p>x : Controller # (0-1)</p>	
<p>Recovery methods</p>	<p>① 1. Request the customer/SE to check and perform the following.</p> <ul style="list-style-type: none"> • Check whether a failure has not occurred in the LAN cable. If it has occurred, replace the LAN cable. • Check whether a failure has not occurred in the LAN HUB. If it has occurred, replace the LAN HUB. • Check whether the physical network connection among the array, LAN HUB and Raritan-made PDU is configured correctly. If not, configure the network connection correctly. • Check whether the power is supplied to the Raritan-made PDU. If not, supply the power to the Raritan-made PDU. • Check whether the IP address of the Raritan-made PDU is set correctly. If it is set with incorrect values, set a correct IP address for the Raritan-made PDU. • Check whether the telnet setting of the Raritan-made PDU is enabled. If not, make the telnet setting of the Raritan-made PDU enabled. <p>2. Connect the service PC to the maintenance port for the Controller displayed in the message and check that the WEB window is displayed. If the WEB window is not displayed, replace the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>3. When you can confirm the connection with the maintenance port, request the customer/SE to check and perform the following.</p> <ul style="list-style-type: none"> • Check whether a failure has not occurred in the Raritan-made PDU. If it has occurred, maintain the Raritan-made PDU. For the connection between the array and the Raritan-made PDU, refer to Installation "2.4.12 Connecting the Power Cables (4) In the case of the Tray Power Saving" (INST 02-1313). <p>4. Select [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 referring to the "Tray Power Saving User's Guide", click the [Execute Connection Test] button and request the customer/SE to execute the connection test.</p> <p>5. Check the power unit displayed in the message with [Connection Status] in the table selected from [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 and request the customer/SE to check that [OK] is displayed.</p>

IAJ3lx A flash parameter update of iSCSI protocol chip failed (CTL-x, Slot-l, Code-y)

Collecting Error Information STRC

The rewrite of the Flash information of the iSCSI Protocol Chip of the Host I/O Module failed.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

y : ASCII character

Code	Error factory
0	The rewrite of the CRB Init & Board Configuration failed.
1	The rewrite of the BootLoader failed.
2	The rewrite of the FW Image failed.
3	The rewrite of the Pegtune failed.
4	The check of the Flash Revision failed.

Recovery methods ① Perform the maintenance referring to [Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" \(TRBL 11-2180\)](#).

IAJ400 A PDU connection error was detected in Tray Power Saving (Unit-x, PS-y, code-z)

Collecting Error Information STRC

The failed due to the following factors.

- The array power-off of the Tray Power Saving function failed.
- The array power-on of the Tray Power Saving function failed.
- The connection test of the Tray Power Saving function failed.

x : Unit ID # (1-3)

y : Power Unit # (0-1)

z : Failure factor code

Recovery methods ① 1. When "I55900 PS error info [PS input error code-z] (Unit-x, PS-y)" is displayed, follow the message and perform the maintenance.

2. Perform the maintenance according to the failure factor code displayed in the message.

When the failure factor code is "Code-A2"

① A blocked Controller exists. Check the other displayed message and maintain the blocked Controller. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)

② Select [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 referring to the "Tray Power Saving User's Guide", click the [Execute Connection Test] button and request the customer/SE to execute the connection test.

③ Check the power unit displayed in the message with [Connection Status] in the table selected from [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 and request the customer/SE to check that [OK] is displayed.

When the failure factor code is "Code-B1"

① Check whether the physical network connection among the array, LAN HUB and Raritan-made PDU is configured correctly.

If not, configure the network connection correctly.

② Check whether the password set for the Raritan-made PDU is "storage".

If not, set the password to "storage".

③ Select [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 referring to the "Tray Power Saving User's Guide", click the [Execute Connection Test] button and request the customer/SE to execute the connection test.

④ Check the power unit displayed in the message with [Connection Status] in the table selected from [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 and request the customer/SE to check that [OK] is displayed.

To be continued to the next page.

	<p>When the failure factor code is "Code-B2"</p> <p>① Check whether the physical network connection among the array, LAN HUB and Raritan-made PDU is configured correctly. If not, configure the network connection correctly.</p> <p>② Check whether the Raritan-made PDU does not have trouble. If it has any trouble, maintain the PDU. For the connection between the array and the Raritan-made PDU, refer to Installation "2.4.12 Connecting the Power Cables (4) In the case of the Tray Power Saving" (INST 02-1313).</p> <p>③ Select [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 referring to the "Tray Power Saving User's Guide", click the [Execute Connection Test] button and request the customer/SE to execute the connection test.</p> <p>④ Check the power unit displayed in the message with [Connection Status] in the table selected from [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 and request the customer/SE to check that [OK] is displayed.</p> <p>When the failure factor code is "Code-C1" or "Code-C2"</p> <p>① Request the customer/SE to check and perform the following.</p> <ul style="list-style-type: none"> • Check whether a failure has not occurred in the LAN cable. If it has occurred, replace the LAN cable. • Check whether a failure has not occurred in the LAN HUB. If it has occurred, replace the LAN HUB. • Check whether the physical network connection among the array, LAN HUB and Raritan-made PDU is configured correctly. If not, configure the network connection correctly. • Check whether the power is supplied to the Raritan-made PDU. If not, supply the power to the Raritan-made PDU. • Check whether the IP address of the Raritan-made PDU is set correctly. If it is set with incorrect values, set a correct IP address for the Raritan-made PDU. • Check whether the telnet setting of the Raritan-made PDU is enabled. If not, make the telnet setting of the Raritan-made PDU enabled. <p>② Connect the service PC to the maintenance port for the Controller with the same number as "y" of "PS-y" displayed in the message and check that the WEB window is displayed. If the WEB window is not displayed, replace the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>③ When you can confirm the connection with the maintenance port, request the customer/SE to check and perform the following.</p> <ul style="list-style-type: none"> • Check whether a failure has not occurred in the Raritan-made PDU. If it has occurred, maintain the Raritan-made PDU. For the connection between the array and the Raritan-made PDU, refer to Installation "2.4.12 Connecting the Power Cables (4) In the case of the Tray Power Saving" (INST 02-1313). <p>④ Select [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 referring to the "Tray Power Saving User's Guide", click the [Execute Connection Test] button and request the customer/SE to execute the connection test.</p> <p>⑤ Check the power unit displayed in the message with [Connection Status] in the table selected from [Energy Saving] – [Tray Power Saving] of Hitachi Storage Navigator Modular 2 and request the customer/SE to check that [OK] is displayed.</p>
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IAJ4lx	An initialization of iSCSI protocol chip firmware failed (CTL-x, Slot-l) The start of the iSCSI firmware of the Host I/O Module failed. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).		
IAJ500	Tray Power OFF is set to Enable (Unit-x) The array power-off of the Tray Power Saving function was set to Enabled. x : Unit ID # (1-3)	Collecting Error Information	
Recovery methods	None		
IAJ5lx	A load of iSCSI protocol chip firmware failed (CTL-x, Slot-l) The load of the iSCSI firmware of the Host I/O Module failed. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).		
IAJ600	Tray Power OFF is set to Disable (Unit-x) The array power-off of the Tray Power Saving function was set to Disabled. x : Unit ID # (1-3)	Collecting Error Information	
Recovery methods	None		
IAJ6lx	A hardware error was detected in iSCSI protocol chip (CTL-x, Slot-l) The iSCSI Protocol Chip operated unexpectedly and the number of times of the operation exceeded the threshold value. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).		
IAJ700	The power-on of the array unit failed in Tray Power Saving (Unit-x) The array power-on of Tray Power Saving failed. x : Unit ID # (1-3)	Collecting Error Information	STRC
Recovery methods	① 1. Perform the maintenance according to the message displayed at the same time. <ul style="list-style-type: none"> • I5J000 The power-on of the array unit failed [ENC type error] (Unit-x, ENC-y) • I5J700 The power-on of the array unit failed [Cable error] (Unit-x) • IAJ900 The power-on of the array unit failed [Linkup error] (Unit-x) • IAJA00 The power-on of the array unit failed [SES command error] (Unit-x) 2. Turn off the main switch of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 3. After 20 seconds or more elapse, turn on the main switch of the array to restart. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		
IAJ7lx	iSCSI protocol chip cannot be recognized (CTL-x, Slot-l) Although the Host I/O Module of the iSCSI interface is installed, the iSCSI Protocol Chip could not be recognized on the PCI. x : Controller # (0-1) l : I/O Module slot code (Refer to MSG 04-0000) for the detail)	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).		

IAJ800 Added unit failed [Unsupported ENC was detected in Tray Power Saving] (Unit-x, ENC-y)	Collecting Error Information	STRC
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The addition failed due to the following factors.

- The addition failed because the I/O Module (ENC), I/O Card (ENC) or Drive Box that Tray Power Saving does not support was added for the array whose Tray Power Saving license is unlocked.
- The addition failed because the Drive Box with the I/O Card (ENC) installed was added without locking the Tray Power Saving license.

x : Unit ID # (1-3)

y : I/O Module (ENC) or I/O Card (ENC) # (0-1)

Recovery methods	<p>When using the Tray Power Saving function continuously</p> <ol style="list-style-type: none"> 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Remove the SAS(ENC) cables connecting the Drive Box to be added and the existing array. 3. Check whether the array displayed in the message and the I/O Module (ENC) or I/O Card (ENC) installed in the array are those supported by Tray Power Saving. If any one of the array, I/O Module (ENC) and I/O Card (ENC) is a part not supported by Tray Power Saving, replace the part so that a set of the array and the I/O Module (ENC) or I/O Card (ENC) is configured with the parts supported by Tray Power Saving. (Refer to Replacement "Chapter 2. Parts Replacement" (REP 02-0000).) 4. Add the Drive Box again using the Drive Box configured with the parts supported by Tray Power Saving. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).) <p>When forgetting to lock the license of the Tray Power Saving function before starting the addition work</p> <ol style="list-style-type: none"> 1. Wait until the message code "I85900 Added unit failed (Unit-x)" is displayed. 2. Remove the SAS(ENC) cables connecting the Drive Box to be added and the existing array. 3. Request the customer/SE to lock the license key of the Tray Power Saving function. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020).) 4. Add the Drive Box correctly again. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)
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IAJ8lx An ECC error was detected in iSCSI protocol chip (CTL-x, Slot-l)	Collecting Error Information	STRC
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The number of times of the ECC error which was detected when the iSCSI Protocol Chip accessed the internal RAM exceeded the threshold value.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

Recovery methods	<ol style="list-style-type: none"> 1. Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).
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IAJ900 The power-on of the array unit failed [Linkup error] (Unit-x)	Collecting Error Information	STRC
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When the array power-on of Tray Power Saving operated, the firmware could not confirm the connection for both routes of the array.

x : Unit ID # (1-3)

Recovery methods	<ol style="list-style-type: none"> 1. Wait until one of the following messages appears: "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)" or "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)". 2. -1 If the displayed message is "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)", check the SAS(ENC) cable connected to the array indicated in the message "IAJ900 The power-on of the array unit failed [Linkup error] (Unit-x)" and correctly connect it. -2 Insert the power cables firmly into the power connectors of the Power Unit connected to the array displayed in the message. -3 If the displayed message is "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)", no action is required.
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IAJ9lx iSCSI protocol chip detected an EDC error (CTL-x, Slot-l)	Collecting Error Information	STRC
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The number of times of the EDC error which occurred in the iSCSI data transfer exceeded the threshold value.

x : Controller # (0-1)

l : I/O Module slot code (Refer to [MSG 04-0000](#)) for the detail)

Recovery methods	<ol style="list-style-type: none"> 1. Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180).
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IAJA00 The power-on of the array unit failed [SES command error] (Unit-x) When the array power-on of Tray Power Saving operated, the firmware issued the SES command to the I/O Module (ENC) of the array for checking the connection of the SAS (ENC) cable, and the I/O Module (ENC) responded abnormally. x : Unit ID # (1-3)	Collecting Error Information STRC
Recovery methods	<ol style="list-style-type: none"> 1. Wait until one of the following messages appears: "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)" or "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)". 2. If the displayed message is "IAJ700 The power-on of the array unit failed in Tray Power Saving (Unit-x)", replace two I/O modules (ENCs) in the array indicated in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) 3. If the displayed message is "I6QP00 The power-on of the array unit has been completed by a retry (Unit-x)", no action is required.
IAJAlx An initialization of PCIe failed because of the hardware error [Host] (CTL-x, Slot-l) A failure between links of PCI-Express was detected in PCI-Express bus between D-CTL LSI of the Controller and the Host Host I/O Module. x : Controller # (0-1) l : I/O Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information STRC
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .
IAJB00 FMD battery is not charged (Unit-x, HDU-y) Flash Drives (FMDs) with uncharged batteries exist. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information STRC
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.40 Recovery Method when Flash Drives (FMD) are Blocked Due to Uncharged Batteries" (TRBL 11-2970) .
IAJBlx A flash parameter update of iSCSI protocol chip started (CTL-x, Slot-l) The rewrite of the Flash information of the iSCSI Protocol Chip started. x : Controller # (0-1) l : I/O Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information
Recovery methods	None
IAJC00 FMD battery error was detected (Unit-x, HDU-y) The Flash Drive (FMD) was blocked due to a Flash Drive (FMD) battery error. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information STRC
Recovery methods	<ol style="list-style-type: none"> 1. Perform the maintenance according to the message "W09zab HDU alarm (Unit-x, HDU-y, Type-c)" or "I30100 HDU error (Unit-x, HDU-y)" displayed at the same time. 2. To transfer the Flash Drive (FMD) by air or ship is restricted because of battery failure. Please escalate Technical Support Center.
IAJC1x A flash parameter update of iSCSI protocol chip completed (CTL-x, Slot-l) The rewrite of the Flash information of the iSCSI Protocol Chip was completed. x : Controller # (0-1) l : I/O Module slot code (Refer to (MSG 04-0000) for the detail)	Collecting Error Information
Recovery methods	None

IAJDxy Fabric connection failed to cause inaccessibility from host (Port-xy)	Collecting Error Information STRC
<p>The frame sequence (sending or responding to FLOGI, PLOGI, RCS_ID, RFT_ID, RPT_ID, SCR, RSCN frames) that the array issued to Fabric Switch terminated abnormally (frame damages of the login sequence or failures such as time-out occur between the array and Fabric Switch).</p> <p>As a result, the host cannot access the array.</p> <p>x : Controller # (0-1)</p> <p>y : Port # (A-H)</p>	
<p>Recovery methods</p>	<p>① Confirm with the customer/SE whether the host can access the array via the port displayed in the message.</p> <p>If the host cannot access the array, perform the following recovery procedure.</p> <p>② 1. Check that the Link failure has not occurred in the port displayed in the message.</p> <ul style="list-style-type: none"> Specifically, when a part having the port displayed in the message is a controller, check HALM LED and Link LED of the FC interface connector in accordance with Troubleshooting "7.2 Trouble Analysis by LED Indication of Each Part (5-4) LED Indication Pattern (FC Interface Connector part) on Controller (CBXSL/CBXSS/CBSL/CBSS) Table 7.2.9" (TRBL 07-0340). If a part having the port displayed in the message is a Host I/O Board or a Host I/O Module, check HALM LED and Link LED of the FC interface connector in accordance with Troubleshooting "7.2 Trouble Analysis by LED Indication of Each Part (a) FC Host I/O Module 7.2.12" (TRBL 07-0370). <p>2. If the Link failure was detected in ②-1, perform the maintenance.</p> <p>3. After the maintenance, confirm with the customer/SE whether the host can access the array.</p> <p>If the host still cannot access the array, perform procedure ③.</p> <p>If the Link failure was not detected by HALM LED and Link LED of the FC interface connector, perform the following recovery procedure.</p> <p>③ 1. Replace the host connector of the port displayed in the message. (Refer to Replacement "2.2.8 Replacing a Host Connector" (REP 02-1230).)</p> <p>However, if the controller, Host I/O Board or Host I/O Module and Host Connector are already replaced in procedure ②, skip procedure ③ and perform procedure ④.</p> <p>2. Check whether the host can access the array.</p> <p>If the host still cannot access the array, perform procedure ④.</p> <p>④ 1. Replace a part (Host I/O Board, Host I/O Module or Controller) having the port displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100), or Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>During the replacement, the host cannot access all ports of the replacement parts. Before the replacement, request the customer/SE to stop all the host access using the port of a part to be replaced. Furthermore, after completing the replacement, request the customer/SE to restart the host access.</p> <p>However, if the Controller and Host I/O Board or Host I/O Module are already replaced in procedure ②, skip procedure ④ and perform procedure ⑤.</p> <p>2. Check whether the host can access the array.</p> <p>If the host still cannot access the array, perform procedure ⑤.</p> <p>⑤ 1. Request the customer/SE to replace the devices excluding the array and the parts (optical cables, extenders, Fabric Switch GBIC, Fabric Switch main body, etc.) between the array and Fabric Switch.</p> <p>However, if the devices excluding the array and the parts are already replaced in procedure ②, skip procedure ⑤ and perform procedure ⑥.</p> <p>2. Check whether the host can access the array.</p> <p>If the host still cannot access the array, perform procedure ⑥.</p> <p>⑥ Contact the Technical Support Center.</p>
IAJE00 An encryption key is assigned to HDU in RAID Group in unconnected unit (RG-x)	Collecting Error Information STRC
<p>An encryption key is allocated to the unconnected array and a Drive belonging to the RAID Group or DP RAID Groups exists (an encryption key is allocated and a Drive belonging to the RAID Group (or DP RAID Group) exists. This message is output when the Drive is reduced in the Drive Box without deleting the RAID Group (or DP RAID Group)).</p> <p>x : RAID group # (0-199)</p>	
<p>Recovery methods</p>	<p>① 1. Perform the maintenance according to the "WA5000 A RAID group exists on an unconnected unit (RG-x)".</p> <p>2. Check that the message "IAJF00 No encryption key is assigned to HDU in unconnected unit" is displayed.</p>

IAJF00	No encryption key is assigned to HDU in unconnected unit The Drive to which an encryption key is allocated does not exist in the unconnected array.	Collecting Error Information
IAJG00	Command response delay occurs due to overload (LU-x, RG-y ^(*) , PTT-z ^(*)) Command response delay for the normal volume occurred due to the host I/O overload. x : LU # (0-4095) y : RAID group # (0-199) z : Cache Partition # (0-31)	Collecting Error Information
IAJH00	Command response delay occurs due to overload (LU-x, DP-y ^(*) , PTT-z ^(*)) Command response delay for the virtual volume occurred due to the host I/O overload. x : LU # (0-4095) y : DP # (0-63) z : Cache Partition # (0-31)	Collecting Error Information
IAJI00	FMD write count exceeded the threshold [Self-Monitoring] (Unit-x, HDU-y) The self media check function of the firmware detected that the accumulated Write count (life ratio) acquired by the Flash Drive (FMD) exceeded the threshold value. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
IAJJ00	FMD battery error was detected [Self-Monitoring] (Unit-x, HDU-y) The self media check function of the firmware detected a Flash Drive (FMD) battery error. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information
	Recovery methods	None
*1 : In case that the host I/O overload judgement is within the threshold value, "RG-***", "DP-***", and "PTT-***" are displayed.		

IAJK0x Illegal Data Encryption Key is detected (CTL-x, Slot-I)

Collecting Error Information STRC

An error of the Data Encryption Key (DEK) was detected.

Due to this error, the firmware cannot set the Data Encryption Key in SPCve of the controller and access the encryption volume.

When the Host I/O is executed in the encryption volume, either of the following messages is displayed.

- When "HJ44xx Microprogram error [BPD]" is displayed, the Controller blockade has occurred.
- When "IAD2lx Backend error count of D-SPC LSI exceeded the threshold [CODE-z] (CTL-x, Slot-I)" is displayed, the blockade of the I/O Module, either Controller or both Controllers has occurred.

x : Controller # (0-1)

I : I/F Module slot code (refer to [MSG 04-0000](#)) for the details)

Recovery methods	<ol style="list-style-type: none"> 1. Request the customer/SE to stop the access (Host I/O, etc.) to the array due to either of the following reasons. <ul style="list-style-type: none"> • When the Host I/O is executed in the encryption volume due to an error of the Data Encryption Key, the blockade of the I/O Module, either Controller or both Controllers occurs. • The array is turned off in the following recovery procedure. 2. When the array is starting up, wait until the array completely starts or the system goes down. 3. In a series of the processing such as starting the array or replacing the firmware or Controller, check whether "HJ44xx Microprogram error [BPD]" or "IAD2lx Backend error count of D-SPC LSI exceeded the threshold [CODE-z] (CTL-x, Slot-I)" is displayed at the same time with this message. 4. Check that which of the following statuses applies. <ul style="list-style-type: none"> • When the Controller displayed in "HJ44xx Microprogram error [BPD]" or "IAD2lx Backend error count of D-SPC LSI exceeded the threshold [CODE-z] (CTL-x, Slot-I)" is blocked, proceed to ①-5. • When "HJ44xx Microprogram error [BPD]" or "IAD2lx Backend error count of D-SPC LSI exceeded the threshold [CODE-z] (CTL-x, Slot-I)" is displayed in both Controllers and they are blocked, proceed to ①-6. • When neither of "HJ44xx Microprogram error [BPD]" and "IAD2lx Backend error count of D-SPC LSI exceeded the threshold [CODE-z] (CTL-x, Slot-I)" is displayed, proceed to ①-7. 5. -1 Perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) -2 Turn on the array power again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) -3 Return to ①-3 (when the blockade of either Controller or both Controllers occurs even if it is repeated three times, contact the Technical Support Center). 6. -1 Turn off the main switch of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) -2 Turn on the array power again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) -3 Return to ①-3 (when the blockade of either Controller or both Controllers occurs even if it is repeated three times, contact the Technical Support Center). 7. When the Controller blockade has occurred, perform the maintenance in accordance with the displayed message. 8. Check that neither of the Controllers is blocked. 9. Request the customer/SE to restore the Data Encryption Key. 10. When the restoration of the Data Encryption Key is completed, perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 11. Turn on the array power again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 12. Request the customer/SE to restart the access (Host I/O, etc.) to the array.
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IAJL0x	Backup controller error was detected [CODE-yy] (CTL-x)	Collecting Error Information	STRC
When starting the array after recovery from the power outage, it was detected that the flashback was not operating due to Hot Swap IC trouble of the Controller.			
x : Controller # (0-1)			
y : Error occurrence information code			
Recovery methods		[In case of a dual Controller configuration]	
		When [System Startup Attribute] of the boot option is set to "Dual Active Mode" (default)	
		① 1. When the ALM LED on the Controller not displayed in the message lights up, maintain it in accordance with "W01z0x CTL alarm (CTL-x)".	
		2. When the Controller not displayed in the message is removed, install it in the Controller Chassis. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
		3. Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
		[In case of a single Controller configuration]	
		When [System Startup Attribute] of the boot option is set to "Single Mode"	
		1. Check the Controller number displayed in the message.	
		2. Perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)	
		3. Replace the Controller displayed in the message. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	

IB0000	Coupling completed (LU- x/y) An initial copy completed normally. x : Copy source LU # (0-4095) y : Copy destination LU # (0-4095)	Collecting Error Information	
IB100x	SNMP function recovered (CTL-x) The SNMP function recovered from the Warning status by the setting change. x : Controller # (0-1)	Collecting Error Information	
IB110x	SNMP error cleared by stopping SNMP Agent Support Function (CTL-x) The Warning status of the SNMP function was cancelled because the SNMP Agent Support Function was locked or disabled. x : Controller # (0-1) Recovery methods: None	Collecting Error Information	
IB1300	SNMP configuration It was detected that the configuration of the SNMP was illegal. Recovery methods: <ol style="list-style-type: none"> 1. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2. 2. If not recovered, check if the character string entered in CONFIG.TXT is not 256 characters or more. In the case of 256 or more characters, change to the character string of 255 characters or less. 2. 1. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again. 2. If not recovered yet, check if there is any error in the format of CONFIG.TXT or that the own IP address is not set to the Trap issue destination. If there is any error, correct the format or IP address. 3. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again. 	Collecting Error Information	STRC
IB1400	SNMP agent detected the error The SNMP agent detected an error. Recovery methods: <ol style="list-style-type: none"> 1. Check if the character string entered in CONFIG.TXT is not 256 characters or more. In the case of 256 or more characters, change to the character string of 255 characters or less. 2. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again. 3. If not recovered yet, check if there is any error in the format of CONFIG.TXT or that the own IP address is not set to the Trap issue destination. If there is any error, correct the format or IP address. 2. 1. Load CONFIG.TXT from the Hitachi Storage Navigator Modular 2 again. 2. If not recovered yet, replace the Controller displayed in "W3Q00x SNMP error occurred in the SNMP function". (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 	Collecting Error Information	STRC
IB1500	SNMP IP address error The SNMP agent cannot start because the IP address of the LAN port for the user is "0". Recovery methods: <ol style="list-style-type: none"> 1. Set the IP address of the LAN port for the user. 2. Disable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2. 3. Enable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2. 4. If not recovered, repeat ① again. 5. If not recovered yet, replace the Controller displayed in "W3Q00x SNMP error occurred in the SNMP function". (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 	Collecting Error Information	STRC
IB1600	SNMP Initialization error The initialization of the SNMP function failed Recovery methods: <ol style="list-style-type: none"> 1. Disable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2. 2. Enable the SNMP Agent Support Function from the Hitachi Storage Navigator Modular 2. 3. If not recovered, repeat ① again. 4. If not recovered yet, replace the Controller displayed in "W3Q00x SNMP error occurred in the SNMP function". (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 	Collecting Error Information	STRC
IB1700	SNMP RAM Device allocation error for SNMP Securing the SNMP information to the RAM failed. Recovery methods: <ol style="list-style-type: none"> 1. Replace the Controller displayed in "W3Q00x SNMP error occurred in the SNMP function". (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 	Collecting Error Information	STRC

IB1900	Remote copy failed (CTG-x)	Collecting Error Information	STRC
<p>The instruction of the pair formation or the resynchronization of TrueCopy Extended Distance was accepted, and the data transfer failed while the status of the pair was the copy (this message may be displayed even if the message "IB1B00 Remote copy started" which started the copy is not displayed in advance).</p> <p>x : Consistency Group # (0-63)</p>			
Recovery methods		① Execute the initial copy or the resynchronization again.	
IB1A00	Remote resync started (LU-x/y, CTG-z)	Collecting Error Information	
<p>The resynchronization of the TrueCopy Extended Distance pair started.</p> <p>x : Internal LU # of Primary LU (0-4095)</p> <p>y : Internal LU # of Secondary LU (0-4095)</p> <p>z : Consistency Group # (0-63)</p>			
IB1B00	Remote copy started (LU-x/y, CTG-z)	Collecting Error Information	
<p>An initial copy of the TrueCopy Extended Distance pair started.</p> <p>x : Internal LU # of Primary LU (0-4095)</p> <p>y : Internal LU # of Secondary LU (0-4095)</p> <p>z : Consistency Group # (0-63)</p>			
IB1C00	Remote resync completed (CTG-x, y/z)	Collecting Error Information	
<p>The resynchronization of the pair of TrueCopy Extended Distance was completed.</p> <p>x : Consistency Group # (0-63)</p> <p>y : The number of LUs that the resynchronization was completed (1-2046)</p> <p>z : The number of all LUs during the resynchronization in the consistency group (1-2046)</p>			
IB1D00	Remote copy completed (CTG-x, y/z)	Collecting Error Information	
<p>The initial copy or the resynchronization of the pair of TrueCopy Extended Distance was completed (z of the message text "CTG-x, y/z" may not be consistent with the number of the message "IB1B00 Remote copy started" which started the copy).</p> <p>x : Consistency Group # (0-63)</p> <p>y : The number of LUs that the copy was completed (1-2046)</p> <p>z : The number of all LUs during the copy in the consistency group (1-2046)</p>			
Recovery methods		None	
IB1E00	Remote option disable [TrueCopy Extended Distance]	Collecting Error Information	STRC
<p>Since the setting of the remote copy is inappropriate on the remote array (array of the communication partner), the remote copy cannot operate.</p> <p>The following causes are considered.</p> <ol style="list-style-type: none"> 1. The license key of TrueCopy Extended Distance is locked on the remote array (array of the communication partner). 2. The license key of TrueCopy Extended Distance is unlocked on the remote array (array of the communication partner), but it is disabled. 3. The license keys of TrueCopy Extended Distance and TrueCopy Modular Distributed are unlocked on the remote array (array of the communication partner), but they are enabled. 			
Recovery methods		<p>① When the license key of TrueCopy Extended Distance of the priced option is locked on the remote array (array of the communication partner), unlock the license key of TrueCopy Extended Distance. (Refer to System Parameter "14.1 Procedure for Unlocking the License of Priced Option" (SYSPR 14-0000).)</p> <p>② When the license key of TrueCopy Extended Distance of the priced option is unlocked on the remote array (array of the communication partner), but it is disabled, enable the license key of TrueCopy Extended Distance. (Refer to System Parameter "14.3 Setting Enabling or Disabling of the License" (SYSPR 14-0040).)</p> <p>③ When the license keys of TrueCopy Extended Distance of the priced option and TrueCopy Modular Distributed are unlocked on the remote array (array of the communication partner), but they are enabled, set [Replication] – [Remote Path] – [Distributed Mode] of Hitachi Storage Navigator Modular 2 to [Edge] on the remote array (array of the communication partner) or lock the license key of TrueCopy Modular Distributed of the priced option. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020).)</p>	

IB1F00	PSUE occurred [Snapshot] (CTG-x, MU-y) The "pairsplit-mscas" command was not completed because "pairsplit" in the pair of Copy-on-write SnapShot of the remote array could not be executed due to the internal processing waiting of the remote array. [PSUE factor of the pair of Copy-on-write SnapShot] x : Consistency Group # (0-1023) y : Mirroring # of Copy-on-write SnapShot (0-1032)	Collecting Error Information	STRC
Recovery methods	① Release the Copy-on-write SnapShot pair cascaded to the S-Vol of the pair of TrueCopy Extended Distance by indicating "pairsplit-mscas", and form the pair again.		
IB1G00	Pair status changed by the error (CTG-x) The pair of TrueCopy Extended Distance changed in the abnormal status because a failure occurred. x : Consistency Group # (0-63)	Collecting Error Information	STRC
IB1H00	Pair status changed by no available DP pool (CTG-x) The pair of TrueCopy Extended Distance changed in the abnormal status because the usage rate of the data pool exceeded the threshold value. x : Consistency Group # (0-63)	Collecting Error Information	STRC
Recovery methods	① When the message code "IB1M00 The change of the remote pair status failed" is displayed immediately before it, perform the maintenance according to the message. ② Remove the failure which changed it in the abnormal status for the pair of TrueCopy Extended Distance in the consistency group referring to " Command Control Interface Reference Guide ". ③ Reform the pair of TrueCopy Extended Distance. The method of the pair reformation differs depending on the status of the pair. ④ Execute the resynchronization for the pair which changed to PSUE and PFUS. Or form the pair again after releasing it. Reform the pair after releasing it for the pair which changed to PSUS (R/W impossible).		
IB1M00	The change of the remote pair status failed (LU-x/y, code-z) The change of the pair status on the remote side failed in the resynchronization of TrueCopy Extended Distance. x : LU# of the pair of the local side array (0-4095) y : The number of LUs of the pair of the remote side array (0-4095) z : Error detailed code	Collecting Error Information	STRC
Recovery methods	① Perform the resynchronization of the pair of TrueCopy Extended Distance again after recovering the error factor indicated by the error detailed code referring to the " TrueCopy Extended Distance User's Guide ".		
IB1N00	P-VOL read failed [TrueCopy] The P-VOL became unable to be read.	Collecting Error Information	
IB1P00	SnapShot SMPL command received [TrueCopy] Copy-on-write SnapShot received a command to split its pair.	Collecting Error Information	
Recovery methods	① Split the TrueCopy remote replication pair. When forming the pair again, form a Copy-on-write SnapShot pair first and then form a TrueCopy remote replication pair.		
IB1Q00	LU access enable [Snapshot pair canceled] (LU-x) Read/Write to P-VOL enabled. x : LU # (0-4095)	Collecting Error Information	STRC
Recovery methods	None		
IB1R00	LU access was disabled [Snapshot restore failed] The SnapShot pair was changed to PSUE during the SnapShot restoration. x : LU # (0-4095)	Collecting Error Information	STRC
Recovery methods	① Refer to " Copy-on-write SnapShot User's Guide " and cancel all the pairs of the primary LU. ② Refer to " Copy-on-write SnapShot User's Guide " and request the customer/SE to re-execute the pair creation (paircreate). The target SnapShot pair is a SnapShot pair whose "Pair Status" is Failure (R) among the SnapShot pairs listed in the tree view [Replication] – [Local Replication] – [Pair] window of Hitachi Storage Navigator Modular 2.		

IB1S0x PSUE occurred [SnapShot] (DP pool-xx)	Collecting Error Information STRC
<p>All SnapShot pairs which are using the DP pool displayed in the message were changed (SnapShot) to PSUE, and the data of all V-VOLs of the pair was discarded.</p> <p>x : Data pool # (0-63)</p>	
Recovery methods	<p>① For recovering the SnapShot pair from PSUE, refer to "Copy-on-write SnapShot User's Guide" and cancel the pair (pairsplit-S) for the pair.</p> <p>② Request the customer/SE to re-execute the pair creation (paircreate). The target SnapShot pair is a SnapShot pair whose "Replication Data" or "Management Area" of "DP pool" matches the DP pool number displayed in the message among the SnapShot pairs listed in the tree view [Replication] – [Local Replication] – [Pairs] window of Hitachi Storage Navigator Modular 2.</p>
IB1T00 PSUE occurred [TrueCopy] (LU-xP/yS)	Collecting Error Information STRC
<p>The local side array (this array) of TrueCopy remote replication changed the pair status of the P-VOL to PSUE.</p> <p>x : LU# (0-4095) of the P-VOL of the local side array (this array)</p> <p>y : LU# (0-4095) of the S-VOL of the remote side array</p>	
Recovery methods	<p>① 1. Recover the failure which caused PSUE referring to the "Command Control Interface Reference Guide".</p> <p>2. Perform the resynchronization for the pair which displayed the message.</p>
IB1U00 PSUE occurred [TrueCopy] (LU-xS/yP)	Collecting Error Information STRC
<p>The local side array (this array) of TrueCopy remote replication changed the pair status of the S-VOL to PSUE.</p> <p>x : LU# (0-4095) of the S-VOL of the local side array (this array)</p> <p>y : LU# (0-4095) of the P-VOL of the remote side array</p>	
Recovery methods	<p>① 1. Collect a simple trace from the remote side array (array of the communication partner). (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p> <p>2. Recover the failure which caused PSUE referring to the "Command Control Interface Reference Guide".</p> <p>3. Perform the resynchronization for the pair which displayed the message.</p>
IB1V00 PSUE occurred [TrueCopy]	Collecting Error Information STRC
The status of the pair of TrueCopy remote replication changed the pair status of the LU to PSUE for all the LUs other than SMPL.	
Recovery methods	<p>① When the status of the path with the remote side array (array of the communication partner) is not normal, recover the path to normal referring to the "Command Control Interface Reference Guide".</p> <p>② When the status of the path with the remote side array (array of the communication partner) is normal, perform the resynchronization for the pair.</p>
IB1W00 Remote option disable [TrueCopy]	Collecting Error Information STRC
Since the setting of the remote copy is inappropriate on the remote array (array of the communication partner), the remote copy cannot operate.	
The following causes are considered.	
<ol style="list-style-type: none"> 1. The license key of TrueCopy remote replication is locked on the remote array (array of the communication partner). 2. The license key of TrueCopy remote replication is unlocked on the remote array (array of the communication partner), but it is disabled. 3. The license keys of TrueCopy remote replication and TrueCopy Modular Distributed are unlocked on the remote array (array of the communication partner), but they are enabled. 	
Recovery methods	<p>① When the license key of TrueCopy remote replication of the priced option is locked on the remote array (array of the communication partner), unlock the license key of TrueCopy remote replication. (Refer to System Parameter "14.1 Procedure for Unlocking the License of Priced Option" (SYSPR 14-0000).)</p> <p>② When the license key of TrueCopy remote replication of the priced option is unlocked on the remote array (array of the communication partner), but it is disabled, enable the license key of TrueCopy remote replication. (Refer to System Parameter "14.3 Setting Enabling or Disabling of the License" (SYSPR 14-0040).)</p> <p>③ When the license keys of TrueCopy remote replication of the priced option and TrueCopy Modular Distributed are unlocked on the remote array (array of the communication partner), but they are enabled, set [Replication] – [Remote Path] – [Distributed Mode] of Hitachi Storage Navigator Modular 2 to [Edge] on the remote array (array of the communication partner) or lock the license key of TrueCopy Modular Distributed of the priced option. (Refer to System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020).)</p>

IB1Y00	Audit logs were cleared	Collecting Error Information	STRC
	The monitoring log was initialized.		
	Recovery methods	None	
IB20xy	The creation of default certificate failed (CTL-x)	Collecting Error Information	STRC
	The creation of the SSL default certificate file failed.		
	x : Controller # (0-1)		
	y : Error factor # (1-3)		
	Recovery methods	① 1. Perform the planned shutdown of the array and restart it. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220).) 2. If not recovered, contact the Technical Support Center.	
IB21xy	The creation of user certificate failed (CTL-x)	Collecting Error Information	STRC
	The creation of the SSL user certificate file failed.		
	x : Controller # (0-1)		
	y : Error factor # (1-3)		
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.21 Recovery Method when the Creation of the SSL User Certificate File Failed" (TRBL 11-1060).	
IB220x	The error was detected in the SSL certificate (CTL-x)	Collecting Error Information	STRC
	The array array detected that the imported SSL certificate data was illegal when the secure communication was received from the host computer application.		
	x : Controller # (0-1)		
	Recovery methods	① 1. Request the customer/SE to start Hitachi Storage Navigator Modular 2. 2. Request the customer/SE to log in Hitachi Storage Navigator Modular 2. 3. Request the customer/SE to select the array array in which the failure occurred and click the "Array Edit" button. 4. Check whether the port to be used in the array edit window is "Normal Port" or "Secure Port". 5. When the port to be used is "Secure Port", request the customer/SE to change the port to be used to "Normal Port". When the port to be used is "Normal Port", go to step 6. 6. Request the customer/SE to press the [OK] button in the array edit window. 7. Request the customer/SE to create a user certificate and private key according to User's Guide "Changing Server Certificate and Private Key" of the array. 8. • When the main window of the array is displayed, request the customer/SE to update the user certificate and private key according to User's Guide "Changing Server Certificate and Private Key" . • When the main window of the array is not displayed, connect to WEB. Then, open the WEB window (http://Array IP address/sslc_init/). A [User Name] and a [Password] may be requested. In that case, input "maintenance" for the [User Name] and "hosyu9500" for the [Password]. After that, initialize the certificate in the WEB window. Request the customer/SE to execute the setting of "Port to Be Used", "Valid/Invalid of Normal Port" and the update of "Server Certificate and Private Key" as needed. 9. When it is completed normally, return the port to be used to "Secure Port" in the array edit window.	

IB2300	Remote array is Hub array	Collecting Error Information	STRC
	Although this array was "Hub array" of the remote copy or "Normal array", the remote array of the remote copy was also "Hub array".		
IB2400	Remote array is not Edge array	Collecting Error Information	STRC
	Although this array was "Hub array" of the remote copy, the remote array was not "Edge array".		
	Recovery methods	<ol style="list-style-type: none"> ① 1. Specify the remote array referring to "W0K0xy Path alarm (Remote-x, Path-y)" displayed with this message at the same time. 2. Request the customer/ SE to review the setting of the Distributed mode for this array and the remote array of the remote copy. 3. <ul style="list-style-type: none"> • When the TrueCopy Modular Distributed function is used, specify the array which should be originally "Edge array" on the array configuration for this array and the remote array of the remote copy, and request the customer/ SE to change the Distributed mode of the array which should be originally "Edge array" to "Edge". • When the TrueCopy Modular Distributed function is unused, specify the array which should be originally "Normal array" on the system configuration for this array and the remote array of the remote copy, and request the customer/ SE to change the Distributed mode of the array which should be originally "Normal array" to "Normal". 4. Request the customer/ SE to execute the path recovery command. 	
IC0000	Coupling failed (LU- x/y)	Collecting Error Information	
	An initial copy terminated abnormally.		
	x : Copy source LU # (0-4095)		
	y : Copy destination LU # (0-4095)		
	Recovery methods	① Define the pair of the ShadowImage in-system replication again.	
IC1000	Coupling stopped (LU- x/y)	Collecting Error Information	
	After performing the following, when the ShadowImage pair is in the SplitPending status, the user instructed the resynchronization (not specifying the normal mode or quick mode). Therefore, the initial copy in the background was stopped.		
	<ul style="list-style-type: none"> • After specifying the quick mode and creating a ShadowImage pair • After specifying the quick mode during the initial copy operation of ShadowImage and splitting the ShadowImage pair 		
	x : Copy source LU # (0-4095)		
	y : Copy destination LU # (0-4095)		
ID0000	Resync started (LU- x/y)	Collecting Error Information	
	A resynchronization was started.		
	x : Copy source LU # (0-4095)		
	y : Copy destination LU # (0-4095)		
	Recovery methods	None	

ID1000	LU accesses failed due to DM-LU access error [Code-xx] (LU-yyyy)	Collecting Error Information	STRC
<p>Since the DMLU access failed in the internal processing of ShadowImage, True Copy or Modular Volume Migration, the LU access processing displayed in the message also failed.</p> <p>Factor code 1 : [LU not available] DMLU was blocked.</p> <p>Factor code 2 : [Write incomplete data occurred] Write incomplete data occurred in DMLU (refer to "User's Guide (PSUE recovery)").</p> <p>Factor code 3 : [Number of PINs exceeded threshold value] The number of PINs exceeded the threshold value in the directory to which the DMLU belongs, the partition or the RAID group.</p> <p>Factor code 4 : [Others] Staging time-out of DMLU, segment lock time-out of DMLU or page format failure of DMLU and others.</p> <p>x : Factor code (1-4)</p> <p>y : LU # (0-4095)</p>			
Recovery methods	<p>Factor code 1 : Perform the maintenance according to the message text "W0E000 LU alarm (LU-x)", the message text "PSUE occurred" and the "User's Guide" of the priced option which was changed to PSUE.</p> <p>Factor code 2 : Perform the maintenance according to the message text "W0L000 (or W0M000) Unreadable PIN detected (Unit-x, HDU-y)", the message text "PSUE occurred" and the "User's Guide" of the priced option which was changed to PSUE.</p> <p>Factor code 3 : Perform the maintenance according to the message text "W0L000 (or W0M000) Unreadable PIN detected (Unit-x, HDU-y)", the message text "PSUE occurred" and the "User's Guide" of the priced option which was changed to PSUE.</p> <p>Factor code 4 : Collect Simple trace and contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p>		
ID2000	PS error info [I/F error] (Unit-x, PS-y)	Collecting Error Information	
<p>The interface failure between the power supply and the H8 environment microcomputer was detected.</p> <p>x : Unit ID # (0)</p> <p>y : Power Unit # (0-1)</p>			
Recovery methods	① Perform the maintenance according to the message text "PS alarm" displayed at the same time.		
ID2100	Flash backup does not work due to the lack of the amount of battery charge (Battery-x)	Collecting Error Information	STRC
<p>Since the Cache Backup Battery has small remaining capacity, the backup of the cache data to the backup Controller cannot be performed in case of power outage. (it takes about 1.5 hour at a maximum until the battery charge is completed)</p> <p>x : Cache Backup Battery # (0-1)</p>			
ID2200	Flash backup has become possible with the battery ready (Battery-x)	Collecting Error Information	STRC
<p>The Cache Backup Battery charge makes it possible to perform the backup of the cache data to the backup Controller in case of power outage.</p> <p>x : Cache Backup Battery # (0-1)</p>			
Recovery methods	None		
ID2300	Battery error info [Battery charging time-out] (Battery-x)	Collecting Error Information	
<p>A failure of the charge-discharge substrate of the Cache Backup Battery was detected (the Cache Backup Battery capacity does not reach the expected value even after passing a certain period of time).</p> <p>x : Cache Backup Battery # (0-1)</p>			
Recovery methods	① Perform the maintenance according to the message text "PS alarm" displayed at the same time.		
ID2400	PS error info [Battery charging time-out] (Unit-x, PS-y)	Collecting Error Information	
<p>A failure of the charge-discharge substrate of the Cache Backup Battery (installed in the power supply) was detected (the Cache Backup Battery capacity does not reach the expected value even after passing a certain period of time).</p> <p>x : Unit ID # (0)</p> <p>y : Power Unit # (0-1)</p>			
Recovery methods	① Perform the maintenance according to the message text "PS alarm" displayed at the same time.		

IE0000 Resync completed (LU- x/y)	Collecting Error Information	
A resynchronization completed normally. x : Copy source LU # (0-4095) y : Copy destination LU # (0-4095)		
Recovery methods	None	
IE400x Access error was detected in Two Wire Interface [TWI-0](CTL-x)	Collecting Error Information	STRC
A failure has occurred at TWI (Two Wire Interface) in the Controller (between the environment microcomputer and I2CHub). x : Controller # (0-1)		
Recovery methods	① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② After the replacement, if the same message is output and the Controller does not recover, replace the Power Unit #0. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).) ③ After the replacement, if the same message is output and the Controller does not recover, replace the Power Unit #1. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).) ④ If the same message is still output and the Controller does not recover, contact the Technical Support Center.	
IE410x Access error was detected in Two Wire Interface between Battery and CTL-x (BAT-y)	Collecting Error Information	STRC
A failure has occurred at TWI (Two Wire Interface) between the Cache Backup Battery and the Controller. x : Controller # (0-1) y : Cache Backup Battery # (0-1)		
Recovery methods	① Replace the Cache Backup Battery displayed in the message. (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).) ② After the replacement, if the same message is displayed and the Cache Backup Battery does not recover, replace the Power Unit (PS-0 in case the Cache Backup Battery displayed in the message is BAT-0 and PS-1 in case of BAT-1). (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).) ③ After the replacement, if the same message is displayed and the Cache Backup Battery does not recover, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ④ After the replacement, if the same message is displayed and the Cache Backup Battery does not recover, replace the Controller on the reverse side of the Controller replaced in ③. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ⑤ The Cache Backup Battery is still not recovered, contact the Technical Support Center.	
IE420x Access error was detected in Two Wire Interface between PS and CTL-x (Unit-y, PS-z)	Collecting Error Information	STRC
A failure has occurred at TWI (Two Wire Interface) between the Controller and the Power Unit. x : Controller # (0-1) y : Unit ID # (0) z : Power Unit # (0-1)		
Recovery methods	① Replace the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).) ② After the replacement, if the same message is displayed and the Power Unit does not recover, replace the Cache Backup Battery (BAT-0 in case the Power Unit displayed in the message is PS-0 and BAT-1 in case of PS-1). (Refer to Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430).) ③ After the replacement, if the same message is displayed and the Power Unit does not recover, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ④ After the replacement, if the same message is displayed and the Power Unit does not recover, replace the Controller on the reverse side of the Controller replaced in ③. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ⑤ The Cache Backup Battery is still not recovered, contact the Technical Support Center.	

<p>IF0000 Resync failed (LU- x/y)</p> <p>A resynchronization terminated abnormally.</p> <p>x : Copy source LU # (0-4095)</p> <p>y : Copy destination LU # (0-4095)</p> <p>Recovery methods ① Define the pair of the ShadowImage in-system replication again.</p>	Collecting Error Information
<p>IF1000 Resync stopped (LU-x/y)</p> <p>After performing the following, when the ShadowImage pair is in the SplitPending status, the user instructed the resynchronization (not specifying the normal mode or quick mode). Therefore, the resynchronization copy in the background was stopped.</p> <ul style="list-style-type: none"> After specifying the quick mode during the resynchronization copy operation of ShadowImage and splitting the ShadowImage pair <p>x : Copy source LU # (0-4095)</p> <p>y : Copy destination LU # (0-4095)</p> <p>Recovery methods None</p>	Collecting Error Information
<p>IF3000 Added unit failure info [PS type error code-xx] (DBX-(y1-y2), PS-z)</p> <p>Since the Power Unit installed in the DBX of the addition target is determined as the unsupported component, the addition of the DBX failed.</p> <p>x : Value of register PSKIND</p> <p>y : y1 : DBX # (0-19)</p> <p>y2 : DBX type (A : VRKA-A, B : VRKA-B)</p> <p>z : Power Unit # (0-1)</p> <p>Recovery methods</p> <p>① 1. Remove the SAS (ENC) cable connected to the DBX displayed in the message.</p> <p>2. Replace the Power Unit displayed in the message to the Power Unit for the DBX. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)</p> <p>3. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>② 1. If the same message is displayed and the addition fails, remove the SAS (ENC) cable connected to the DBX displayed in this message.</p> <p>2. Replace the I/O Card (ENC) #0 of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>③ 1. If the same message is displayed and the addition fails, remove the SAS (ENC) cable connected to the DBX displayed in this message.</p> <p>2. Replace the I/O Card (ENC) #1 of the DBX displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>3. Perform the addition of the Drive Box again from the beginning. (Refer to Addition/Removal/Relocation "1.6 Adding the Additional Drive Box to the Rack Frame" (ADD 01-0690).)</p> <p>④ If not recovered yet, contact the Technical Support Center and perform the maintenance in accordance with the instruction.</p>	Collecting Error Information STRC

IF4000	PS error info [PS type error code-x] (DBX-(y1-y2), PS-z)	Collecting Error Information	STRC
Since the Power Unit installed in the DBX is determined as the unsupported component, the recovery of the Power Unit failed.			
x : Value of register PSKIND			
y : y1 : DBX # (0-19)			
y2 : DBX type (A : VRKA-A, B : VRKA-B)			
z : Power Unit # (0-1)			
Recovery methods	① Replace the Power Unit displayed in the message to the Power Unit for the DBX. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)		
	② 1. If the same message is displayed and the recovery of the Power Unit fails, replace the I/O Card (ENC) #0. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)		
	2. Perform the dummy replacement (*) of the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)		
	③ 1. If the same message is displayed and the recovery of the Power Unit fails, replace the I/O Card (ENC) #1. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)		
	2. Perform the dummy replacement (*) of the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)		
	④ If not recovered yet, contact the Technical Support Center and perform the maintenance in accordance with the instruction.		
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.			
IF5000	Number of PINs became less than or equal to partition threshold (DIR-x, Management Area)	Collecting Error Information	
The number of PIN data of the partition used as the management area recovered to less than or equal to the threshold value.			
x : Directory # (0 or 1)			
Recovery methods	None		
IF6000	SAS address registration failed (Unit-x, ENC-y)	Collecting Error Information	STRC
For the I/O Module (ENC) or I/O Card (ENC) displayed in the message, the registration of the I/O Module (ENC) or I/O Card (ENC) of the subsequent Drive Box and the SAS address of the Drive failed.			
x : Unit ID # (0-79)			
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)			
Recovery methods	① Perform the maintenance according to the message text "ENC alarm" displayed at the same time.		

IG0000	PSUE occurred (LU- x/y)	Collecting Error Information	STRC
	The pair status was changed to PSUE when the Shadow Image function was being used.		
	x : Primary LU # (0-4095)		
	y : Secondary LU # (0-4095)		
	Recovery methods	① Make a recovery from the failure already occurred. Refer to Troubleshooting "Chapter 6 Data Collection when a Failure Occurs in Program Product (P.P.)" (TRBL 06-0000) to collect necessary information.	
IH0000	LU unified (UNI : LU-x,M : LU-x,S : LU-y)	Collecting Error Information	
	LUs were unified.		
	x : LU # of the unified LU after the unification and a Main LU (0-4095)		
	y : LU # of a Sub LU before the unification (0-4095)		
IQ0000	Remote copy started (LU- x/y)	Collecting Error Information	
	The TrueCopy remote replication/TrueCopy Extended Distance initial copy was started.		
	x : Number of an internal LU of the local DF (0-4095)		
	y : Number of an internal LU of the remote DF (0-4095)		
IR0000	Remote copy completed (LU- x/y)	Collecting Error Information	
	The initial copy by the TrueCopy remote replication/TrueCopy Extended Distance was completed normally.		
	x : Number of an internal LU of the local DF (0-4095)		
	y : Number of an internal LU of the remote DF (0-4095)		
	Recovery methods	None	
IS0000	Remote copy failed (LU- x/y)	Collecting Error Information	STRC
	The initial copy by the TrueCopy remote replication/TrueCopy Extended Distance terminated abnormally.		
	x : Number of an internal LU of the local DF (0-4095)		
	y : Number of an internal LU of the remote DF (0-4095)		
	Recovery methods	① Define the pair of the TrueCopy remote replication/TrueCopy Extended Distance again.	
IT0000	Remote resync started (LU- x/y)	Collecting Error Information	
	The re-synchronization by TrueCopy remote replication/ TrueCopy Extended Distance was started.		
	x : Number of an internal LU of the local DF (0-4095)		
	y : Number of an internal LU of the remote DF (0-4095)		
IU0000	Remote resync completed (LU- x/y)	Collecting Error Information	
	The re-synchronization by the TrueCopy remote replication/ TrueCopy Extended Distance was completed normally.		
	x : Number of an internal LU of the local DF (0-4095)		
	y : Number of an internal LU of the remote DF (0-4095)		
	Recovery methods	None	
IV0000	Remote resync failed (LU- x/y)	Collecting Error Information	STRC
	The re-synchronization by the TrueCopy remote replication/ TrueCopy Extended Distance terminated abnormally.		
	x : Number of an internal LU of the local DF (0-4095)		
	y : Number of an internal LU of the remote DF (0-4095)		
	Recovery methods	① Perform the re-synchronization using the TrueCopy remote replication/TrueCopy Extended Distance again.	

IW0000	Remote PSUE occurred (LU-xP/yS) In the local DF (this array) controlled by the TrueCopy remote replication/TrueCopy Extended Distance, the pair status of the primary LU was changed to PSUE. x : Number of an internal LU of the local DF (0-4095) y : Number of an internal LU of the remote DF (0-4095)	Collecting Error Information	STRC
IX0000	SRC PSUE occurred (LU-xS/yP) In the local DF (this array) controlled by the TrueCopy remote replication/TrueCopy Extended Distance, the pair status of the secondary LU was changed to PSUE. x : Number of an internal LU of the local DF (0-4095) y : Number of an internal LU of the remote DF (0-4095) Recovery methods ① Perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910) .	Collecting Error Information	STRC
IXX000	SELF HEATRUN: Began self heatrun The self heatrun was started.	Collecting Error Information	
IXX100	SELF HEATRUN: The number of defined LU is x The defined LUN (self heatrun execution target LU) was displayed. x : LU # (0-4095)	Collecting Error Information	
IXX200	SELF HEATRUN: Finished self heatrun The execution of the self heatrun was completed.	Collecting Error Information	
IXX300	SELF HEATRUN: Began loop test [loop (x)] The loop test was started. x : Loop # (0-1)	Collecting Error Information	
IXX400	SELF HEATRUN: Finished loop test [loop (x)] The loop test was completed. x : Loop # (0-1)	Collecting Error Information	
IXX500	SELF HEATRUN Began the test pattern SAS-[xx] The SELF HEATRUN system started the test of the SAS test pattern displayed in the message. x : Test pattern number	Collecting Error Information	
IXX600	SELF HEATRUN: Began the test pattern SATA-[x] The execution of the test pattern was started. x : Test pattern number	Collecting Error Information	
IXX700	SELF HEATRUN: Began the test pattern [x] The execution of the test pattern of the input file was started. x : Test pattern number	Collecting Error Information	
IXX800	SELF HEATRUN: Finished the test pattern [x] The execution of the test pattern was completed. x : Test pattern number	Collecting Error Information	
IXX900	SELF HEATRUN: execution time [x:y:z] The time required for the test was displayed. x : Execution time (hh) y : Execution time (mm) z : Execution time (ss) Recovery methods None	Collecting Error Information	

IXXA00 SELF HEATRAN: HDU alarm (Unit-x, HDU-y)	Collecting Error Information	STRC
The drive failure occurred.		
x : Unit ID # (0-79)		
y : Drive # (0-83)		
Recovery methods	① Analyze the failure of the Drive displayed in this message.	
IXXB00 SELF HEATRAN: Online verify stopped	Collecting Error Information	
The online verify was stopped.		
IXXC00 SELF HEATRAN: Online verify started	Collecting Error Information	
The online verify was started.		
IXXD00 SELF HEATRAN: started the collection of statistical information (Time takes 85~300sec.)	Collecting Error Information	
The statistical information collection was started.		
IXXE00 SELF HEATRAN: finished the collection of statistical information	Collecting Error Information	
The statistical information collection was completed.		
IXXF00 LBA = x	Collecting Error Information	
LBA was detected when the drive failure occurred.		
x : Logical block address		
Recovery methods	None	
IXXG00 Key/Code = x/y	Collecting Error Information	
The sense key/sense code was detected when the drive failure occurred.		
x : sense key		
y : sense code		
IXXH00 Cmd/Len(blk) =x/y	Collecting Error Information	
The operation code and the number of transfer blocks were detected when the drive failure occurred.		
x : Operation code		
y : Number of transfer blocks		
Recovery methods	None	
IXXI00 [SELF HEATRAN] Configuration error was detected (Too many units are connected)	Collecting Error Information	
Since the Drive Box whose Unit # is 13 or more are connected in the self heat-run system, a sufficient load examination may not be performed when executing the heat-run to all HDUs.		
Recovery methods	① 1. Delete the RAID Groups and the volumes created in the Drive Box whose Unit # is 13 or more. (Refer to System Parameter "4.2.4 Deleting RAID group" (SYSPR 04-0100) , System Parameter "4.3.4 Deleting Volume" (SYSPR 04-0430) .) 2. Subtract the number of the Drive Box to be connected to the number of the chassis whose Unit # is 12 or less. (Refer to Addition/Removal/Relocation "Chapter 2. Removing Optional Components" (ADD 02-0000) .) 3. Execute the self heat-run again.	
IXXJ00 SELF HEATRAN Began the test pattern SSD-[xx]	Collecting Error Information	
The self heatrun system started the test of the Flash Drive test pattern displayed in the message.		
xx : Test pattern number		
IXXK00 SELF HEATRAN : Unsupported HDU Product Identification (Unit-x, HDU-y)	Collecting Error Information	
A Drive with the product ID which does not support the firmware for the LT (Lead Time) shortened version of self heatrun system was detected.		
x : Unit ID # (0-79)		
y : Drive # (0-83)		
IXXL00 SELF HEATRAN:Began the test pattern SAS7K-[xx]	Collecting Error Information	
The self heatrun system started the test of the SAS7.2K Drives test pattern displayed in the message.		
xx : Test pattern number		
Recovery methods	None	

IY0000 HDU error report (Unit-x, HDU-y) [z-z]	Collecting Error Information
Drive detachment because of a failure (bad ALPA) drive error report receipt.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
z-z : Detail code	
IY0600 DFPC error detect (Unit-x, HDU-y) [HDU TIME OUT]	Collecting Error Information
Drive detachment because of a failure (PDEV time-out) detected by the DFPC.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0800 HDU online verify error (Unit-x, HDU-y) [04-3200]	Collecting Error Information
Drive detachment owing to detection of sector exhaustion in the online verification.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0900 HDU removed (Unit-x, HDU-y)	Collecting Error Information
Drive detachment because of pulling out of the drive.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0A00 HDU detach command receive (Unit-x, HDU-y)	Collecting Error Information
Drive detachment instructed by the Mode Select command.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0B00 Dynamic sparing command receive (Unit-x, HDU-y)	Collecting Error Information
Drive detachment owing to a dynamic sparing instructed by the Mode Select command.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0C00 Staging error (Unit-x, HDU-y)	Collecting Error Information
Drive detachment because of a staging failure.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0D00 HDU intermittent error over (Unit-x, HDU-y)	Collecting Error Information
Drive detachment because of the exceeded threshold value of the HDU intermittent failure count.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0E00 Dynamic sparing error (Unit-x, HDU-y) [MEDIUM]	Collecting Error Information
Drive detachment because of the exceeded threshold value of media error count occurs in the dynamic sparing.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0F00 LA error [errcode:LUN] (Unit-x, HDU-y)	Collecting Error Information
Drive detachment because of an LA error. (LUN)	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0G00 LA error [errcode:LBA] (Unit-x, HDU-y)	Collecting Error Information
Drive detachment because of an LA error. (LBA)	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
IY0H00 LRC error(Unit-x, HDU-y)	Collecting Error Information
Drive detachment because of an LRC error.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
Recovery methods	None

<p>IY0I00 Backend diagnostic error (Unit-x, HDU-y) [HDU ERROR]</p> <p>Drive detachment because of a backend diagnostic error.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	Collecting Error Information
<p>IY0J00 Backend diagnostic error (Unit-x, HDU-y) [DUAL PORT]</p> <p>Drive detachment because of a dual port failure of a drive.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods: None</p>	Collecting Error Information
<p>IY0K00 HDU inquiry failed (Unit-x, HDU-y)</p> <p>Due to the following failures, the firmware blocked the Drive.</p> <ul style="list-style-type: none"> • Due to the Inquiry command failure when starting the drive, the firmware blocked the Drive. • Since the number of Drives of the Drive Boxes exceeded the upper limit of the number of Drives to be installed which the firmware supports, the firmware blocked the Drives. • Since the number of drive slots of the Drive Boxes exceeded the upper limit of the number of drive slots which the firmware supports, the firmware blocked the Drives. <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods: ① Check whether the message "IY1C00 Installed HDD numbers exceeded the limit for the array (Unit-x, HDU-y)" (Drives exceeding the upper limit of the specification are installed) or "IY1800 Installed HDD numbers are over the limit for one backend path (Unit-x, HDU-y)" (Drives exceeding the upper limit of the specification are installed for the back-end path connecting the Drives displayed in the message) which indicates the same Drives with this message is displayed at the same time with this message.</p> <ul style="list-style-type: none"> • When it is displayed, perform the maintenance in accordance with the message "IY1C00 Installed HDD numbers exceeded the limit for the array (Unit-x, HDU-y)" or "IY1800 Installed HDD numbers are over the limit for one backend path (Unit-x, HDU-y)" displayed at the same time. • When it is not displayed, perform the maintenance in accordance with the message "W09zab HDU alarm (Unit-x, HDU-y, Type-c)" displayed at the same time. 	Collecting Error Information
<p>IY0L00 HDU read capacity failed (Unit-x, HDU-y)</p> <p>Drive detachment because of a failure of the Read Capacity command at the time of the drive start-up.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods: None</p>	Collecting Error Information
<p>IY0M00 Forced parity correction PIN-over (Unit-x, HDU-y)</p> <p>The drive was detached owing to a PIN-over during a forced parity correction.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods: ① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p> <p>When you want to make sure of a model name and drive firmware revision of the Drive, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040).</p>	Collecting Error Information
<p>IY0P00 HDU error outside of regulation [SMR] (Unit-x, HDU-y)</p> <p>Detachment of the drive under the SMART control because of its nonstandard head</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	Collecting Error Information
<p>IY0Q00 HDU error time-out [SMR] (Unit-x, HDU-y)</p> <p>Detachment of a drive under the SMART control because of a time-out of a response to a command.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p> <p>Recovery methods: ① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>	Collecting Error Information

IY0R00	HDU error status [SMR] (Unit-x, HDU-y)	Collecting Error Information
	Detachment of a drive under the SMART control because of an abnormal state of the heads. x : Unit ID # (0-79) y : Drive # (0-83)	
IY0T00	Write and compare error occurred (Unit-x, HDU-y)	Collecting Error Information STRC
	The drive was detached because a comparison error occurred during the write and compare operation of the writing assurance function. x : Unit ID # (0-79) y : Drive # (0-83)	
IY0U00	SMART sequence error over [SMR] (Unit-x, HDU-y)	Collecting Error Information
	Detachment of a drive under the SMART control. x : Unit ID # (0-79) y : Drive # (0-83)	
	Recovery methods	① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .)
IY0V00	P-VOL HDU error [ShadowImage]	Collecting Error Information
	A double failure of drives (a failure of a single drive in the case of RAID 0) occurred in a ShadowImage in-system replication P-VOL.	
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally : Case 2 (Drive Failure)" (TRBL 11-0720) and "11.1.10 Data Recovery does not Terminate Normally: Case 3 (Spare Drive Failure)" (TRBL 11-0740) .
IY0W00	HDU intermittent error over 3 (Unit-x, HDU-y)	Collecting Error Information
	The Drive was blocked because the intermittent failure of the Drive exceeded the threshold value. Drive blockade 3 (LRC/LUN/LBA) x : Unit ID # (0-79) y : Drive # (0-83)	
	Recovery methods	① Perform the maintenance according to the message text "HDU alarm" or "HDU error" displayed at the same time.
IY0X00	Data recovery restarted over by HDU alarm (Unit-x, HDU-y)	Collecting Error Information
	Because drive detachment of a RAID group of RAID 6 occurred during the correction operation of it, the correction operation was restarted from the beginning. x : Unit ID # (0-79) y : Drive # (0-83)	
IY0Y00	Write sequence error was detected (Unit-x, HDU-y)	Collecting Error Information
	[D-DMA Transfer Failure] When the data was read from the Drive, an error of the WRITE_SEQUENCE code was detected in D-PORT #04 to #07 of D-CTL LSI. x : Unit ID # (0-79) y : Drive # (0-83)	
	Recovery methods	None

IY1000	HDU write/read error (Unit-x, HDU-y) A Drive failure was detected in the Drive diagnosis. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
IY1100	The spin up of the disk drive failed (Unit-x, HDU-y) The spin-up of the Drive which was spin-down for the power saving failed. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
IY1200	The spin down of the disk drive failed (Unit-x, HDU-y) The spin-down of the Drive for the power saving failed. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
IY1300	The error in the inquiry data of the disk drive was detected (Unit-x, HDU-y) It was detected that the Inquiry data of the Drive displayed in the message was different before the spin-down due to the power saving and after the spin-up of this time. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	STRC
IY1400	The error in the read capacity data of the disk drive was detected (Unit-x, HDU-y) A sector size error was detected in the Read capacity data acquired from the Drive displayed in the message. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods ① Perform the maintenance according to "HDU alarm" displayed after this message. • W09zab HDU alarm (Unit-x, HDU-y, Type-c)	Collecting Error Information	STRC
IY1500	Data recover cannot be started because of non available spare HDUs (Unit-x, HDU-y) Since a Spare Drive that can recover the data of the failed Drive was not in the array, the data of the failed Drive was not recovered to a Spare Drive. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods ① Replace the Drive displayed in the message. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) ② If you want to recover the data of the failed Drive to a Spare Drive first before replacing the failed Drive, set a Spare Drive newly, and execute the reconstruction of the data from Hitachi Storage Navigator Modular 2. The concrete work is shown below. 1. Check if a Drive that can recover the data of the failed Drive is in the array. Specifically, check if a Drive to meet the following conditions of (a), (b), (c) and (d) is in the array. If there is no Drive to meet the above-mentioned conditions, check if a Drive to meet the conditions of (a), (b), (c) and (e) is in the array. If there is no Drive to meet the conditions in the array, you cannot construct the data of the failed Drive even though you set a Spare Drive newly. (a) It does not belong to any RAID Groups. (b) It is not set to the Spare Drive. (c) It has the same I/F as the I/F of the failed Drive. (d) Same model name as the failed Drive. (e) In the RAID Group to which the failed Drive belongs, it has the same capacity or more for the Drive that has the smallest capacity among the Drives to configure the RAID Group. 2. Select one Drive to meet the conditions of a Spare Drive, and set the Drive to a Spare Disk. 3. Execute the reconstruction of the data from Hitachi Storage Navigator Modular 2.	Collecting Error Information	

IY1600	LA/LRC error was detected (Unit-x, HDU-y)	Collecting Error Information	
	The Drive was blocked because the LA/LRC error exceeded the threshold value.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	Recovery methods	① Perform the maintenance according to the message text "HDU alarm" or "HDU error" displayed at the same time.	
IY1700	HDU error was detected [RSP Code Error] (Unit-x, HDU-y)	Collecting Error Information	STRC
	The firmware received "SCSI Response frame" whose "RESPONSE_CODE field" is an invalid value from the Drive.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	Recovery methods	① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.	
IY1800	Installed HDD numbers are over the limit for one backend path (Unit-x, HDU-y)	Collecting Error Information	STRC
	You cannot use the Drive displayed in the message because the Drive exceeding the maximum connection number per back-end path is installed in the chassis.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	Recovery methods	① Review the Drive configuration of the array and the specification of the back-end path, and install the Drive again.	
IY1900	Unsupported HDU was detected (Unit-x, HDU-y)	Collecting Error Information	STRC
	It was detected that the unsupported Drive was installed.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	Recovery methods	① Replace the Drive displayed in the message to the Drive supported by the firmware of the array. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) ② 1. Remove the Drive displayed in the message once. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) 2. Upgrade the version of the firmware of the array to the version which supports this Drive. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) .) 3. Insert this Drive again. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .)	
IY1A00	Invalid HDU interface had been recognized (Unit-x, HDU-y)	Collecting Error Information	STRC
	An invalid type of the interface in the Drive was detected due to a temporary ENC (Expander) failure.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	Recovery methods	① Perform the maintenance according to the message text "HDU alarm" displayed at the same time.	
IY1B00	Data recovery does not start by memory error of SATA HDD (Unit-x, HDU-y)	Collecting Error Information	STRC
	The drive restoration of the RAID Group became unable to be executed because a memory failure occurred in the operating SATA drive in the degenerating RAID group.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally : Case 2 (Drive Failure)" (TRBL 11-0720) .	

IY1C00 Installed HDD numbers exceeded the limit for the array (Unit-x, HDU-y)	Collecting Error Information	STRC
<p>The HDU slot displayed in the message cannot be used because the number of the DBX connected to the array which exceeds the specified number in the array specification, or the DBX is connected to the array in a different way from the connection method specified in the array specification.</p> <p>x : Unit ID # (0-79) y : Drive # (0-83)</p>		
Recovery methods	<p>① 1. Remove the Drive displayed in the message from the slot.</p> <p>2. Refer to Introduction "1.3.4 (4) Restriction on DBX connection configuration and connection examples" (INTR 01-0330), and then investigate the connecting point of the DBX which does not match the array specification.</p> <p>3. Refer to Introduction "1.3.4 (4) Restriction on DBX connection configuration and connection examples" (INTR 01-0330), and then confirm a correct connection method for DBX.</p> <p>4. Consider the procedure for reconnecting the DBX correctly. Examples of the procedure are shown below.</p> <p>(Example a) When no RAID group and no Spare Drive are set to the array; a-1. After perform planned shut down for the array, turn off the array power. a-2. Install the removed Drive in the slot again. a-3. Reconnect the Controller Box, and Drive Box which includes the DBX correctly. a-4. Turn on the array power, and start the array.</p> <p>(Example b) When the RAID group and Spare Drive are set to all Drives, and reconnecting all Drive Box is needed for reconnecting the DBX correctly; b-1. Back up all the array settings such as RAID group, Spare Drive and priced options. b-2. Back up all the user data. b-3. Delete all the array settings. b-4. After perform planned shut down for the array, turn off the array power. b-5. Install the removed Drive in the slot again. b-6. Reconnect the Controller Box and Drive Box which includes DBX correctly. b-7. Turn on the power array, and start the array. b-8. Make all the array settings such as RAID group, Spare Drive and priced options again. b-9. Restore all the user data.</p>	
IY1D00 System area failure was detected in the disk drive (Unit-x, HDU-y)	Collecting Error Information	STRC
<p>In the data recovery of the system disk where volume was being created, a failure was detected in the system disk whose the system area was being recovered during the system copy operation.</p> <p>x : Unit ID # (0-79) y : Drive # (0-4)</p>		
Recovery methods	<p>① When one of the following messages is displayed at the same time, follow the recovery procedure given by the message.</p> <ul style="list-style-type: none"> • W09zab HDU alarm (Unit-x, HDU-y, Type-c) 	
IY1G00 SED security function test error was detected (Unit-x, HDU-y CODE-z)	Collecting Error Information	STRC
<p>An error was detected in the SAS (SED) Drives security function test.</p> <p>x : Unit ID # (0-79) y : Drive # (0-83) z : Error detailed factor code</p> <p>01= The authentication was executed by a value other than the MSID value, and it was successful (Expectation: Authentication failure).</p> <p>02= A read command was issued, and a good response was sent (Expectation: 07/20-02 response).</p>		
Recovery methods	<p>① Replace the blocked Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>	

IY2000 Restore started (Group-xxxx, Pair name-yyyy) ^(*) The restoration of Copy-on-write SnapShot started. x : The group name is displayed in the character string y : The pair name is displayed in the character string	Collecting Error Information
IY2100 Restore completed (Group-xxx, Pair name-yyyy) ^(*) The restoration of Copy-on-write SnapShot was completed normally. x : The group name is displayed in the character string y : The pair name is displayed in the character string Recovery methods: None	Collecting Error Information
*1 : When the Group (group name) is not specified, "Ungrouped" is displayed.	
IY2200 Restore failed (Group-xxxx, Pair name-yyyy) ^(*) The restoration of Copy-on-write SnapShot terminated abnormally due to Drive failures, controller failures and others. Or, it terminates due to the pair deletion and others. x : The group name is displayed in the character string y : The pair name is displayed in the character string Recovery methods: <ul style="list-style-type: none"> ① Refer to "Copy-on-write SnapShot User's Guide" and cancel the pair (inform the customer/SE in advance of requesting the pair recreation at the end of the recovery procedure). ② Request the customer/SE to restore the data by copying the backup data to the old P-VOL of SnapShot. ③ Refer to "Copy-on-write SnapShot User's Guide" and recreate the cancelled pair. 	Collecting Error Information STRC
*1 : When the Group (group name) is not specified, "Ungrouped" is displayed.	

IZ0000	HDU firmware download start An updating of the drive firmware was started.	Collecting Error Information	
IZ0100	HDU firmware download end An updating of the drive firmware was completed.	Collecting Error Information	
IZ0200	HFWD completed (Unit-x, HDU-y) An updating of the drive firmware was completed normally. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods: None	Collecting Error Information	
IZ0300	HDU update failed (Unit-x, HDU-y) The drive firmware updating or the physical format utility processing abnormally. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods: <ol style="list-style-type: none"> 1. Turn off the main switch after a rewriting of the drive firmware or a process of the physical format utility is completed (after a message, "IZ0G00 HDU firmware download failed" is displayed and the READY LED (green) on the front side of the array blinks slowly (once/second)). 2. Remove the power cables from the Power Units of all the installed arrays. 3. Turn on the main switch of the array. (Check that the READY LED (green) on the front of the Controller Box lights up after four minutes usually.) (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 4. When the ALARM LED (red) or WARNING LED (orange) on the front side of the array is on, maintain it according to the Information message. 5. Replace a Drive pointed out in the message. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).) 6. Execute the drive firmware update of the physical format utility again. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000) when replacing the drive firmware) 	Collecting Error Information	STRC
IZ0600	HFWD no target HDU When an attempt is made to update the drive firmware, the target drive does not exist. However, there is no problem if this message appears when the target Drive already has the latest version of firmware. Recovery methods: <ol style="list-style-type: none"> ① Check whether the specified drive firmware is correct or not. If it is wrong, replace the drive firmware again by specifying the correct one. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).) ② The maintenance work is not required for the drive firmware to be rewritten because either of the following conditions is met. <ul style="list-style-type: none"> • The corresponding Drive is not installed. • The corresponding Drive is installed and the drive firmware revision before rewritten is more than or equal to the drive firmware revision to be written for the Drive. 	Collecting Error Information	
IZ0700	HFWD no redundancy [PG] (Unit-x, HDU-y) Though the drive was the one whose firmware was to be updated, the updating was aborted because it was impossible to preserve redundancy of a parity group. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	
IZ0800	HFWD no redundancy [SYS] (Unit-x, HDU-y) Though the drive was the one whose firmware was to be updated, the updating was aborted because it was impossible to preserve redundancy of the system drive. x : Unit ID # (0-79) y : Drive # (0-83)	Collecting Error Information	
IZ0900	HFWD no redundancy [SES] (Unit-x, HDU-y) Though the drive was the one whose firmware was to be updated, the updating was aborted because it was impossible to preserve redundancy of the SES drive. x : Unit ID # (0-79) y : Drive # (0-83) Recovery methods: None	Collecting Error Information	

IZ0A00 HDU update failed by CTL alarm (Unit-x, HDU-y)	Collecting Error Information STRC
The drive firmware updating or the physical format utility processing failed due to the Controller blockade.	
x : Unit ID # (0-79)	
y : Drive # (0-83)	
Recovery methods	<ol style="list-style-type: none"> ① Make sure that "W01z0x CTL alarm (CTL-x)" is displayed in the Information message or the ALM LED on the Controller is lit. ② Search a cause of the failure by referring to (recording) a statement displayed in the Information message. ③ Turn off the main switch after a rewriting of the drive firmware or a process of the physical format utility is completed ("IZ0G00 HDU firmware download failed" is displayed and the READY LED (green) on the front side of the array blinks slowly (once/second)). ④ Remove the power cables from the Power Units of all the installed arrays. ⑤ Turn on the main switch of the array. (Check that the READY LED (green) on the front of the Controller Box lights up after four minutes usually.) (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ⑥ When the ALARM LED (red) or WARNING LED (orange) on the front side of the array is on, maintain it according to the Information message. ⑦ Execute the drive firmware update of the physical format utility again. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000) when replacing the drive firmware)
IZ0B00 HFWD CACHE destage check error	Collecting Error Information
This cannot be executed because the data unwritten to the Drive (unsaved information) remains in the cache.	
Recovery methods	<ol style="list-style-type: none"> ① 1. When the volume format operates in the background, wait until all the volume formats are completed (start Hitachi Storage Navigator Modular 2, click the array device name, select [Group] – [Volume], and wait until [Status] of the [Volume] tab changes from "Normal (Quick Formatting (xx)%) " to "Normal"). 2. When the DP pool format operates in the background, wait until all the DP pool formats are completed (start Hitachi Storage Navigator Modular 2, click the array device name, select [Group] – [Volume], and wait until [Status] of the [DP Pool] tab changes from "Normal (Formatting (xx)%) " to "Normal"). 3. When the data recovery processing (dynamic sparing, correction copy or copy back) operates, wait until the data recovery processing is completed (if "I15000 Data recovery started (Unit-x, HDU-y)" is displayed in the Information Message on WEB, wait until "I15100 Data recovery completed" is displayed). 4. When the system copy operates, wait until the system copy is completed (if "I14000 System copy started (Unit-x, HDU-y)" is displayed in the Information Message on WEB, wait until "I14100 System copy completed (Unit-x, HDU-y)" is displayed). 5. Check if there is the PIN data (start Hitachi Storage Navigator Modular 2^(*), click the array device name, and [Total Amount] is not "0" in the PIN information of the [Maintenance] – [ENC Firmware].) <ul style="list-style-type: none"> • When the intermediate PIN (the number of intermediate failures is not "0") or the physical PIN (the number of physical failures is not "0") exists, perform the maintenance according to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760). • When the unwritten PIN (the number of unwritten PINs is not "0") exists, perform the maintenance according to Troubleshooting "11.1.14 A Failure Occurred during Operation : Case 4 (Incomplete Writing)" (TRBL 11-0840). 6. Perform the regular sequential shutdown. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 7. Turn on the main switch of the array. (Check that the READY LED (green) on the front of the Controller Box lights up.) (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 8. When the ALARM LED (red) or WARNING LED (orange) on the front side of the arrays is on, maintain it according to the Information message. 9. Execute the drive firmware update of the physical format utility again. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000) when replacing the drive firmware)
*1 : In case Hitachi Storage Navigator Modular 2 is Ver.22.00 or less, check [Settings] – [Advanced Settings] – "Start Advanced Settings" – [Maintenance] – [ENC Micro Update].	

IZ0C00 HDU update failed by Loop alarm (Unit-x, HDU-y)	Collecting Error Information
<p>The drive firmware updating or the physical format utility processing failed due to the Loop failure.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	
Recovery methods	<p>① Search a cause of the detachment by referring to (recording) a statement on the Fibre Channel loop detachment in the Information message.</p> <p>② Turn off the main switch after a rewriting of the drive firmware or a process of the physical format utility is completed ("IZ0100 HDU firmware download end" is displayed and the READY LED (green) on the front side of the array blinks slowly (once/second)).</p> <p>③ Remove the power cables from the Power Units of all the installed arrays.</p> <p>④ Turn on the main switch of the array. (Check that the READY LED (green) on the front of the Controller Box lights up.) (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>⑤ When the ALARM LED (red) or WARNING LED (orange) on the front side of the array is on, maintain it according to the Information message.</p> <p>⑥ Execute the drive firmware update of the physical format utility again. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000) when replacing the drive firmware)</p>
IZ0E00 HDU firmware update was skipped (Unit-x, HDU-y)	Collecting Error Information STRC
<p>The drive firmware replacement was not executed for the Drive displayed in the message. It is due to any of the following reasons.</p> <ul style="list-style-type: none"> • A Drive which configures the parity group including the blocked Drive • A Drive which was blocked before executing the drive firmware replacement • A Drive in the electric power saving mode • A Drive which is executing a system copy or trying to execute a system copy <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	
Recovery methods	<p>① Perform the maintenance according to Troubleshooting "11.1.18 Recovery Method for Drives which Skipped Drive Firmware Replacement" (TRBL 11-1020).</p>
IZ0F00 HDU firmware update failed by the internal CHK1 Reset of a controller (Unit-x, HDU-y)	Collecting Error Information STRC
<p>The drive firmware replacement stopped because CHK1 reset for internal retry was executed in the Controller.</p> <p>x : Unit ID # (0-79)</p> <p>y : Drive # (0-83)</p>	
Recovery methods	<p>① Check that "IZ0G00 HDU firmware download failed" is output in the Information message on WEB.</p> <p>② Replace the drive firmware again. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).)</p>
IZ0G00 HDU firmware download failed	Collecting Error Information STRC
<p>The drive firmware replacement terminated abnormally.</p> <p>Recovery methods</p> <p>① Perform the maintenance according to the message displayed at the same time or the dialog message. If a message or a dialog message is not displayed, the drive firmware replacement is stopped in the internal processing and it is re-executed 24 hours later. Therefore, the maintenance is not required.</p>	

IZ0H00 HDU firmware update was rejected because the prerequisite is upheld	Collecting Error Information	STRC
Since any of the following processing was already operating, the drive firmware replacement was not able to start.		
<ul style="list-style-type: none"> • Online firmware replacement • Firmware replacement with the array power turned on • ENC firmware replacement with the array power tuned on • Automatic ENC firmware replacement • Back-end failed part isolation diagnosis 		
Recovery methods	<p>① 1. When the message code "I6HA0x Online microprogram update is started" or "W3B00x Online micro-update started" is displayed and "I19000 Online microprogram update completed [The firmware version *****]" or "W01z0x CTL alarm" is not displayed, wait until "I19000 Online microprogram update completed [The firmware version *****]" or "W01z0x CTL alarm" is displayed.</p> <p>2. Replace the drive firmware. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).)</p> <p>② 1. When the message code "IZY000 ENC firmware download started" is displayed and "IZY100 ENC firmware download completed" or "IZYM00 ENC firmware download error was detected" is not displayed, wait until "IZY100 ENC firmware download completed" or "IZYM00 ENC firmware download error was detected" is displayed.</p> <p>2. Replace the drive firmware. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).)</p> <p>③ 1. When the message code "IZYS00 Automatic ENC firmware download started" is displayed and "IZYR00 Automatic ENC firmware download completed successfully" or "IZYQ00 Automatic ENC firmware download failed" is not displayed, wait until "IZYR00 Automatic ENC firmware download completed successfully" or "IZYQ00 Automatic ENC firmware download failed" is displayed.</p> <p>2. Replace the drive firmware. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).)</p> <p>④ 1. When the message code "I5H3xy The search for the failure part of backend route error started" is displayed and "I5H4xy The search for the failure part of backend route error ended" is not displayed, wait until "I5H4xy The search for the failure part of backend route error ended" is displayed.</p> <p>2. Replace the drive firmware. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).)</p>	
IZW000 ENC firmware download info [CHG ENCMFPLANE error] (Unit-x, ENC-y)	Collecting Error Information	
When rebooting the I/O Module(ENC) or I/O Card(ENC) of the Drive Box after completing the download of the ENC firmware, switching of the valid ENC firmware failed.		
x : Unit ID # (0-79)		
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)		
Recovery methods	<p>① The ENC firmware displayed in the message is not updated. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message to update the ENC firmware. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) However, the back-end redundancy is lost while replacing the I/O Module (ENC) or I/O Card (ENC). Check that the customer has no problem on the operation, and then perform it.</p>	
IZW100 ENC firmware download info [CHG ENCMFPLANE error] (CTL-x)	Collecting Error Information	
After completing the ENC firmware download, the ENC firmware switching failed at the time of ENC reboot.		
x : Controller # (0-1)		
Recovery methods	<p>① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>	
IZW200 ENC firmware download info [ENC REBOOT error] (Unit-x, ENC-y)	Collecting Error Information	
The I/O Module(ENC) or I/O Card(ENC) reboot of the Drive Box after completing the ENC firmware download failed.		
x : Unit ID # (0-79)		
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)		
Recovery methods	<p>① The ENC firmware displayed in the message is not updated. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message to update the ENC firmware. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) However, the back-end redundancy is lost while replacing the I/O Module (ENC) or I/O Card (ENC). Check that the customer has no problem on the operation, and then perform it.</p>	

<p>IZW300 ENC firmware download info [ENC REBOOT error] (CTL-x)</p> <p>After completing the ENC firmware download, reboot of the ENC part of the Controller failed.</p> <p>x : Controller # (0-1)</p> <p>Recovery methods ① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>	<p>Collecting Error Information</p>
<p>IZW400 ENC firmware download info [Header error] (Unit-x, ENC-y, Firmware-zz)</p> <p>When downloading the ENC firmware of DBW, it was detected that the value of the data guarantee area (header area) of the SES data for the SES command was an abnormal value.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>z : Firmware type # of DBW (Refer to MSG 04-0001) for the detail)</p> <p>Recovery methods ① Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>IZW500 ENC firmware download info [SES command error] (Unit-x, ENC-y, Firmware-zz)</p> <p>When downloading the ENC firmware of DBW, the issued SES command terminated abnormally.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>z : Firmware type # of DBW (Refer to MSG 04-0001) for the detail)</p> <p>Recovery methods ① 1. When the array is in the warning status, refer to the other displayed Information Message and recover the failure which changes the array to the warning status.</p> <p>2. Check that the WARNING LED on the array goes out.</p> <p>3. If the automatic download of the ENC firmware is operating when the message is first output, check that the automatic download of the ENC firmware is completed normally.</p> <p>4. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again. (Refer to Troubleshooting "Chapter 12. Procedure for Online ENC Firmware Download" (TRBL 12-0000), Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000).)</p> <p>② 1. Replace the I/O Module (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>2. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again. (Refer to Troubleshooting "Chapter 12. Procedure for Online ENC Firmware Download" (TRBL 12-0000), Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000).)</p> <p>③ Even if it is not completed normally, collect the simple trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>IZW600 ENC firmware download info [ENC firmware data error] (Unit-x, ENC-y, Firmware-zz)</p> <p>When downloading the ENC firmware of DBW, the STATUS error was detected in the response of the issued SES command.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>z : Firmware type # of DBW (Refer to MSG 04-0001) for the detail)</p> <p>Recovery methods ① If this failure occurs while the automatic download of the ENC firmware is operating (for starting and terminating the automatic download of the ENC firmware, refer to Firmware "1.5 Checking the Start and the Termination of the ENC Firmware/Backup Controller Firmware Automatic Download" (FIRM 01-1550)), the data of the ENC firmware stored in the system disk of the array may be illegal. Therefore, execute the firmware replacement (refer to Firmware "1.2 Outline of Procedure for Installation (Update Installation)" (FIRM 01-0010)) online (by doing this, the normal data of the ENC firmware is stored in the system disk of the array).</p> <p>② 1. If this failure occurs when the online ENC firmware download (when the firmware is updated by Hitachi Storage Navigator Modular 2) or the offline ENC firmware download (only in the product line) is executed, the data of the ENC firmware to be installed located in the management PC may be illegal. Therefore, acquire the data of the ENC firmware again.</p> <p>2. Execute the firmware download again in the same procedure.</p>	<p>Collecting Error Information</p> <p>STRC</p>

IZW800 ENC microprogram download info [ENC firmware validity error] (Unit-x, ENC-y, code-z)	Collecting Error Information STRC
<p>Because the ENC firmware file transferred to the array is broken, the ENC firmware cannot be downloaded.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) # (0-1)</p> <p>z : Code # (00-05)</p> <p>00 : ENC firmware (A-side data) for 3G-Expander</p> <p>01 : ENC firmware (B-side data) for 3G-Expander</p> <p>02 : ENC firmware (A-side data) for 6G-Expander (3G operation mode)</p> <p>03 : ENC firmware (B-side data) for 6G-Expander (3G operation mode)</p> <p>04 : ENC firmware (A-side data) for 6G-Expander (6G operation mode)</p> <p>05 : ENC firmware (B-side data) for 6G-Expander (6G operation mode)</p>	
IZW90x ENC microprogram download info [ENC firmware validity error] (CTL-x, code-y)	Collecting Error Information STRC
<p>Because the ENC firmware (for the ENC of the controller) file transferred to the array is broken, the ENC firmware cannot be downloaded.</p> <p>x : Controller # (0-1)</p> <p>y : Code # (00-07)</p> <p>00 : ENC firmware (A-side data) for 3G-Expander</p> <p>01 : ENC firmware (B-side data) for 3G-Expander</p> <p>02 : ENC firmware (A-side data) for 6G-Expander (3G operation mode)</p> <p>03 : ENC firmware (B-side data) for 6G-Expander (3G operation mode)</p> <p>04 : ENC firmware (A-side data) for 6G-Expander (6G operation mode)</p> <p>05 : ENC firmware (B-side data) for 6G-Expander (6G operation mode)</p> <p>06 : ENC firmware (A-side data) for environmental microcomputer</p> <p>07 : ENC firmware (B-side data) for environmental microcomputer</p>	
Recovery methods	<ol style="list-style-type: none"> ① 1. Remove the LAN cable connecting the service PC and the array, and then insert it. 2. Check that the link LED (green) on the LAN connector lights up always. If the link LED (green) on the LAN connector does not light up always, the LAN cable may be disconnected. Replace the LAN cable. 3. Delete the ENC firmware file remained on the service PC. 4. Copy the ENC firmware file to the service PC again from the CD-ROM or DVD which stores the ENC firmware file to be downloaded. 5. Execute the procedure of the ENC firmware download from the beginning again. 6. If the phenomenon is not resolved, the ENC firmware file may be broken. Obtain a new CD-ROM/DVD again. 7. Execute the procedure of the ENC firmware download from the beginning again.
IZWA00 Target ENC not found	Collecting Error Information
<p>Either of the following messages was detected.</p> <ul style="list-style-type: none"> The ENC firmware was downloaded but the target I/O Module (ENC) or I/O Card (ENC) did not exist. The ENC firmware was downloaded off-line but all the ENC firmware revisions of the I/O Module (ENC) or I/O Card (ENC) installed in the array were the same as or newer than the ENC firmware revisions selected by the download. 	
Recovery methods	<ol style="list-style-type: none"> ① 1. Check whether the ENC firmware revisions selected by the download are the revisions to be downloaded. 2. When the ENC firmware revisions selected by the download are incorrect, select the correct ENC firmware and download the ENC firmware off-line again. (Refer to Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000).) When the ENC firmware selected by the download is correct, proceed to the procedure ②-1. ② 1. Check whether the off-line ENC firmware download is required. (Refer to Troubleshooting "13.6.5 Downloading Offline ENC Firmware (2)" (TRBL 13-0200).) 2. When the off-line ENC firmware download is not required, the recovery procedure is completed. When the off-line ENC firmware download is required, proceed to the procedure ③-1. ③ 1. Acquire the ENC firmware file in the service PC again. 2. Download the ENC firmware off-line again. (Refer to Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000).) 3. When this message is still displayed even if downloading the ENC firmware off-line again, contact the Technical Support Center.

IZY000	ENC firmware download started The download of the ENC firmware started.	Collecting Error Information
IZY100	ENC firmware download completed The download of the ENC firmware terminated.	Collecting Error Information
IZY20x	ENC#x firmware download started An ENC firmware downloading was started. x : I/O Module (ENC) or I/O Card (ENC) # (0-1)	Collecting Error Information
IZY40x	ENC#x firmware download completed An ENC firmware downloading was completed. x : I/O Module (ENC) or I/O Card (ENC) # (0-1) Recovery methods: None	Collecting Error Information
IZY500	ENC firmware download info [Header error] (Unit-x, ENC-x) When downloading the ENC firmware in the I/O Module (ENC) or I/O Card (ENC) of the Drive Box, it was detected that the value of the data assured area was abnormal by the SES data from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box for the SES command. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) Recovery methods: ① The ENC firmware displayed in the message is not updated. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message to update the ENC firmware. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) However, the back-end redundancy is lost while replacing the I/O Module (ENC) or I/O Card (ENC). Check that the customer has no problem on the operation, and then perform it.	Collecting Error Information
IZY800	ENC firmware download info [SES command error] (Unit-x, ENC-y) When downloading the ENC firmware in the I/O Module (ENC) or I/O Card (ENC) of the Drive Box, the issued SES command terminated abnormally. x : Unit ID # (0-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) Recovery methods: ① 1. When the array is in the Warning status, recover the failure that changed the array to the Warning status referring to the other output Information Message. 2. Check that the WARNING LED on the array goes out. 3. If the automatic download of the ENC firmware is operating when the message is first output, check that the automatic download of the ENC firmware is completed normally. 4. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again. ② 1. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .) 2. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again. ③ If not recovered yet, collect the Simple Trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040) .)	Collecting Error Information

IZY900 ENC firmware download info [ENC firmware data error] (Unit-x, ENC-y)	Collecting Error Information
<p>When downloading the ENC firmware, a STATUS error was detected from the STATUS READ command response from the I/O Module (ENC) or I/O Card (ENC) of the Drive Box.</p> <p>x : Unit ID # (0-79)</p> <p>y : I/O Module (ENC) or I/O Card (ENC) # (0-1)</p>	
Recovery methods	<p>① 1. If this failure occurs while executing the online ENC firmware download or the offline ENC firmware download, the data of the ENC firmware to be installed may be illegal. Therefore, acquired the data of the ENC firmware again.</p> <p>2. Execute the online ENC firmware download or the offline ENC firmware download again.</p> <p>② The ENC firmware displayed in the message is not updated. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message to update the ENC firmware. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).) However, the back-end redundancy is lost while replacing the I/O Module (ENC) or I/O Card (ENC). Check that the customer has no problem on the operation, and then perform it. If this failure occurs while operating the automatic download of the ENC firmware, do not replace the I/O Module (ENC) or I/O Card (ENC) and execute the online firmware replacement.</p>
IZYA00 CACHE destage check error was detected in ENC firmware download	Collecting Error Information
There is the data (dirty data, takeover information and others) which requires destage in the Cache Memory.	
Recovery methods	<p>① 1. Perform the planned shutdown. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).)</p> <p>2. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p> <p>3. Perform the download of the ENC firmware again from the beginning.</p>
IZYB00 A file open error of ENC firmware was detected [xxxxxxxxxxx]	Collecting Error Information
A file open error occurred in the download file of the ENC firmware displayed in the message.	
xxxxxxxxxxx : Error replacement file name	
IZYB01 A file read error of ENC firmware was detected [xxxxxxxxxxx]	Collecting Error Information
A file read error occurred in the download file of the ENC firmware displayed in the message.	
xxxxxxxxxxx : Error replacement file name	
IZYB02 An ENC firmware file size exceeds the threshold [xxxxxxxxxxx]	Collecting Error Information
A file exceeding the specified capacity was detected in the download file of the ENC firmware displayed in the message.	
xxxxxxxxxxx : Error replacement file name	
IZYB03 An ENC firmware file size is different from expected one [xxxxxxxxxxx]	Collecting Error Information
It was detected that the file was different from the defined capacity in the download file of the ENC firmware displayed in the message.	
xxxxxxxxxxx : Error replacement file name	
Recovery methods	① Acquire the ENC firmware file in the service PC again.

IZYB04 A read data error of ENC firmware was detected [xxxxxxxxxxx]		Collecting Error Information
<p>[When the firmware revision is less than 0950/A]</p> <p>Either of the following messages was detected.</p> <ul style="list-style-type: none"> It was detected that the information described in the file was insufficient in the download file of the ENC firmware displayed in the message. The ENC firmware was downloaded off-line but the download target I/O Module (ENC) or I/O Card (ENC) did not exist. The ENC firmware was downloaded off-line but all the ENC firmware revisions of the I/O Module (ENC) or I/O Card (ENC) installed in the array were the same as or newer than the ENC firmware revisions selected by the download. <p>[When the firmware revision is 0950/A or more]</p> <p>It was detected that the information described in the file was insufficient in the download file of the ENC firmware displayed in the message.</p> <p>xxxxxxxxxxx : Error replacement file name</p>		
Recovery methods	<p>When the firmware revision is less than 0950/A</p> <p>① 1. Check whether the ENC firmware revisions selected by the download are the revisions to be downloaded.</p> <p>2. When the ENC firmware revisions selected by the download are incorrect, select the correct ENC firmware and download the ENC firmware off-line again. (Refer to Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000).)</p> <p>When the ENC firmware selected by the download is correct, proceed to the procedure ②-1.</p> <p>② 1. Check whether the off-line ENC firmware download is required. (Refer to Troubleshooting "13.6.5 Downloading Offline ENC Firmware (2)" (TRBL 13-0200).)</p> <p>2. When the off-line ENC firmware download is not required, the recovery procedure is completed.</p> <p>When the off-line ENC firmware download is required, proceed to the procedure ③-1.</p> <p>③ 1. Acquire the ENC firmware file in the service PC again.</p> <p>2. Download the ENC firmware off-line again. (Refer to Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000).)</p> <p>④ When this message is still displayed even if downloading the ENC firmware off-line again, contact the Technical Support Center.</p> <p>When the firmware revision is 0950/A or more</p> <p>① 1. Acquire the ENC firmware file in the service PC again.</p> <p>2. Download the ENC firmware off-line again. (Refer to Troubleshooting "Chapter 13. Procedure for Offline ENC Firmware Download" (TRBL 13-0000).)</p> <p>3. When this message is still displayed even if downloading the ENC firmware off-line again, contact the Technical Support Center.</p>	
IZYK00 Read command response time over		Collecting Error Information
50 or more read commands, which were instructed by a host and took longer than 100 ms for the drive to respond, were detected.		
IZYL00 Write command response time over		Collecting Error Information
50 or more write commands, which were instructed by a host and took longer than 100 ms for the drive to respond, were detected.		
IZYM00 ENC firmware download error was detected (Unit-x ^(*))		Collecting Error Information
A failure was detected in the download of the ENC firmware for the I/O Module (ENC) or I/O Card (ENC) of the Controller Box or Drive Box.		
x : Unit ID # (1-79)		
Recovery methods	None	
*1 : In case of the Controller Box (CBL), "Unit-x" is displayed as "CTL-Unit".		

IZYQ00 Automatic ENC firmware download failed	Collecting Error Information	STRC
The download of the automatic backup controller firmware was terminated abnormally.		
Recovery methods	① Make sure that the "IZY20x ENC#x firmware download started" and "IZYM00 ENC firmware download error was detected (Unit-x)" were displayed before this message.	
	② Take recovery actions following messages displayed between the "IZY20x ENC#x firmware download started t" and "IZYM00 ENC firmware download error was detected (Unit-x)".	
IZYR00 Automatic ENC firmware download completed successfully	Collecting Error Information	
The download of the automatic backup controller firmware was completed normally.		
Recovery methods	None	
IZYS00 Automatic ENC firmware download started	Collecting Error Information	
The download of the automatic backup controller firmware started.		
The following are conditions and this message is displayed.		
<ul style="list-style-type: none"> • After the array is Ready • After recovering the Drive/I/O Module (ENC) or I/O Card (ENC)/Controller • After replacing the firmware • After completing the chassis addition 		
Recovery methods	① Suspend the maintenance work. ② Restart the suspended maintenance work after checking that the message code "IZYR00 Automatic ENC firmware download completed successfully" or "IZYQ00 Automatic ENC firmware download failed" is displayed.	
IZYT00 ENC firmware download info [Header error] (CTL-x)	Collecting Error Information	
When downloading the ENC firmware, it was detected that the value of the data guarantee area was abnormal in the SES data for the SES command.		
x : Controller # (0-1)		
Recovery methods	① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
IZYU00 ENC firmware download info [SES command error] (CTL-x)	Collecting Error Information	
When downloading the ENC firmware, the issued SES command terminated abnormally.		
x : Controller # (0-1)		
Recovery methods	① 1. When the array is in the Warning status, recover the failure that changed the array to the Warning status referring to the other output Information Message.	
	2. Check that the WARNING LED on the array goes out.	
	3. If the automatic download of the ENC firmware is operating when the message is first output, check that the automatic download of the ENC firmware is completed normally.	
	4. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again.	
	② 1. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500) .)	
	2. If the online ENC firmware download or the offline ENC firmware download is operating when the message is first output, execute the online ENC firmware download or the offline ENC firmware download again.	
	③ If not recovered yet, collect the Simple Trace, and then contact the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040) .)	

IZYV00 ENC firmware download info [ENC firmware data error] (CTL-x)	Collecting Error Information
When downloading the ENC firmware, a STATUS error was detected in the response of the STATUS READ command from the ENC.	
x : Controller # (0-1)	
Recovery methods	<p>① Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>② If this failure occurs while the automatic download of the ENC firmware is operating, the data of the ENC firmware stored in the system disk of the array may be illegal. Therefore, stored the normal data of the ENC firmware in the array disk of the array by executing the online firmware replacement.</p> <p>③ 1. If this failure occurs while executing the online ENC firmware download or the offline ENC firmware download, the data of the ENC firmware to be installed may be illegal. Therefore, acquired the data of the ENC firmware again.</p> <p>2. Execute the online ENC firmware download or the offline ENC firmware download again.</p>
IZYW00 ENC firmware download info [Revision Check error] (CTL-x)	Collecting Error Information
After replacing the ENC firmware, the firmware revision acquired from the I/O Module (ENC) or I/O Card (ENC) was different from the revision of the downloaded ENC firmware.	
x : Controller # (0-1)	
Recovery methods	① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)
IZYY00 ENC firmware download info [GET ENCMFPLANE error] (Unit-x, ENC-y)	Collecting Error Information
When downloading the ENC firmware and rebooting the I/O Module (ENC) or I/O Card (ENC) of the Drive Box, it detected that the area different from the one updated the ENC firmware between two areas where the ENC firmware in the Flash memory of the I/O Module (ENC) or I/O Card (ENC) is stored was enabled.	
x : Unit ID # (0-79)	
y : I/O Module (ENC) or I/O Card (ENC) # (0-1)	
Recovery methods	① The ENC firmware displayed in the message is not updated. Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message to update the ENC firmware. However, the back-end redundancy is lost while replacing the I/O Module (ENC) or I/O Card (ENC). Check that the customer has no problem on the operation, and then perform it. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)
IZYZ00 ENC firmware download info [GET ENCMFPLANE error] (CTL-x)	Collecting Error Information
When the I/O Module (ENC) or I/O Card (ENC) was rebooted by downloading the ENC firmware, it was detected that the area different from the area which updated the ENC firmware was enabled between two areas where the ENC firmware in the Flash memory of the I/O Module (ENC) or I/O Card (ENC) was stored.	
x : Controller # (0-1)	
Recovery methods	① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)

IZZ000 HFWD file open error [x] A file open error was detected. x : A name of the file concerning the error	Collecting Error Information
IZZ001 HFWD file read error [x] A file read error was detected. x : A name of the file concerning the error	Collecting Error Information
IZZ002 HFWD file size over [x] A file size over occurred. x : A name of the file concerning the error	Collecting Error Information
IZZ003 HFWD read data over [x] Data read from the file was illegal. x : A name of the file concerning the error <div> <div>Recovery methods</div> <div> ① Copy the drive firmware file from the supplied medium to the PC and replace the drive firmware again. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).) ② If not recovered yet, call the Technical Support Center for coping with troubles. </div> </div>	Collecting Error Information
IZZ004 HFWD file size mismatch [x] A file size is different from the estimated one. x : A name of the file concerning the error <div> <div>Recovery methods</div> <div> ① Copy the drive firmware file from the supplied medium to the PC and replace the drive firmware again. (Refer to Troubleshooting "Chapter 14. Procedure for Replacing the Online Drive Firmware" (TRBL 14-0000).) ② If not recovered yet, call the Technical Support Center for coping with troubles. </div> </div>	Collecting Error Information

Chapter 5. Flash Detected Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

R100yy	FPC is not detected (CTL-x) The detection of the FPC failed. x : Controller # (0-1) y : Chip error code (y:z) = (01 : Path-0) (02 : Path-1) (03 : Path-0/1) (04 : Path-2) (05 : Path-0/2) (06 : Path-1/2) (07 : Path-0/1/2) (08 : Path-3) (09 : Path-0/3) (0A : Path-1/3) (0B : Path-0/1/3) (0C : Path-2/3) (0D : Path-0/2/3) (0E : Path-1/2/3) (0F : Path-0/1/2/3) (10 : Port-0A) (11 : Path-0/PortA)	Collecting Error Information	STRC
Recovery methods	① When “W01z0x CTL alarm” is displayed after this message, maintain it according to the message. (Refer to “Chapter 6. Warning Messages” (MSG 06-0000) .) ② In the case other than ①, replace the Controller displayed in the message. (Refer to Replacement “2.2.5 Replacing a Controller” (REP 02-0700) .)		
R1010x	The backend PCI error count exceeded the threshold (CTL-x) The retry count of PCI HARD RESET for the backend part of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	FDMP
R1020x	The initialization of PCI Express failed because of the hardware error [Drv] (CTL-x) The initial setting of the Drv-side PCI Express core of the Controller became an error. x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement “2.2.5 Replacing a Controller” (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to “W01z0x CTL alarm”. (Refer to “Chapter 6. Warning Messages” (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
R20Q00	Vector registration failure [OFFREQ] The vector registration of the OFFREQ interrupt failed.	Collecting Error Information	FDMP
R20R00	Vector registration failure [DCTLERR] The vector registration of the DCTLERR interrupt failed.	Collecting Error Information	FDMP
R20S00	Vector registration failure [DRAMERR] The vector registration of the DRAMERR interrupt failed.	Collecting Error Information	FDMP
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement “2.2.5 Replacing a Controller” (REP 02-0700) .)		

R2280x	[DCTL]The ECC write parity error was detected (CTL-x) D-CTL LSI detected a parity error in the ECC added part when executing write to the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
R2290x	[DCTL]The ECC generation error was detected (CTL-x) D-CTL LSI detected an ECC generation error in the ECC added part when executing write to the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
R22Axy	[DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y) D-CTL LSI detected an error of two bits or more when executing read to the Cache memory. x : Controller # (0-1) y : Cache Memory # (0-1)	Collecting Error Information	FDMP
	Recovery methods ① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .)		
R22B0x	[DCTL]The ECC correction failed (CTL-x) D-CTL LSI detected discrepancy of the ECC correction when executing read to the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
R22C0x	[DCTL]The sequencer time-out error was detected (CTL-x) D-CTL LSI detected time-out of sequence or a parity error of time-out count. x : Controller # (0-1)	Collecting Error Information	FDMP
R22D0x	[DCTL]The RCTL error was detected (CTL-x) D-CTL LSI detected that the Cache control part did not receive a response of the RCTL (CACHE-I/F) signal which indicates a response of read. x : Controller # (0-1)	Collecting Error Information	FDMP
R22E0x	[DCTL]The RCLK error was detected (CTL-x) D-CTL LSI detected that the Cache control part did not receive a response of the RCLK (CACHE-I/F) signal which is a clock for taking read data. x : Controller # (0-1)	Collecting Error Information	FDMP
R22F0x	[DCTL]The CACHE address was over the address space [MPU] (CTL-x) D-CTL LSI detected a Cache address over error when the Cache of MPU was accessed. x : Controller # (0-1)	Collecting Error Information	FDMP
R22G0x	[DCTL]The address parity error was detected [MPU] (CTL-x) D-CTL LSI detected an address parity error in the transfer address received in the Cache control part. x : Controller # (0-1)	Collecting Error Information	FDMP
R22H0x	[DCTL]The length parity error was detected (CTL-x) D-CTL LSI detected a length parity error in the transfer word length received in the Cache control part. x : Controller # (0-1)	Collecting Error Information	FDMP
R22J0x	[DCTL]The CACHE Address was over the address space [DMA] (CTL-x) D-CTL LSI detected a Cache address over error at the Cache access of H_PORT, D_PORT, DMA #0 or MDMA. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R22K0x	[DCTL]The dummy area access error was detected (CTL-x) D-CTL LSI detected access to the access prohibited area in the added area of the 4- byte dummy data of the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
R22L0x	[DCTL]The address parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the address from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	FDMP
R22M0x	[DCTL]The length parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the length from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	FDMP
R22N0x	[DCTL]The BYTE-ENABLE parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the BYTE_EN from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	FDMP
R22P0x	[DCTL]The write data parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the write data from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	FDMP
R22Q0x	[DCTL]The read data parity error was detected in the slave command bridge (CTL-x) D-CTL LSI detected a parity error in the read data from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	FDMP
R22R0x	[DCTL]The BYTE-ENABLE error of the slave command bridge was detected (CTL-x) D-CTL LSI detected an unfair pattern of BYTE_EN from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	FDMP
R22S0x	[DCTL]The length error was detected (CTL-x) D-CTL LSI detected an unfair pattern of length from Cmd_BridgeS. x : Controller # (0-1)	Collecting Error Information	FDMP
R22T0x	[DCTL]The address parity error of the register interface was detected (CTL-x) D-CTL LSI detected an error response (address parity error) of REG-I/F in the MP part. x : Controller # (0-1)	Collecting Error Information	FDMP
R22U0x	[DCTL]The write data parity error of the register interface was detected (CTL-x) D-CTL LSI detected an error response (write data parity error) of REG-I/F in the MP part. x : Controller # (0-1)	Collecting Error Information	FDMP
R22V0x	[DCTL]The register interface error was detected (CTL-x) D-CTL LSI detected an error response of REG-I/F. x : Controller # (0-1)	Collecting Error Information	FDMP
R22W0x	[DCTL]The read data parity error was detected in the register interface (CTL-x) D-CTL LSI detected a parity error in the read data received in the REG-I/F part. x : Controller # (0-1)	Collecting Error Information	FDMP
R22Y0x	[DCTL]The CACHE read data parity error was detected (CTL-x) D-CTL LSI detected a parity error in the data read from the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
R22Z0x	[DCTL]The MP sequencer error was detected (CTL-x) D-CTL LSI detected an error in the control sequence of the MP part. x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R2300x	[DCTL]The master command bridge D1 port error was detected (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_D1. x : Controller # (0-1)	Collecting Error Information	FDMP
R2310x	[DCTL]The master command bridge D0 port error was detected (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_D0. x : Controller # (0-1)	Collecting Error Information	FDMP
R2320x	[DCTL]The refresh error was detected (CTL-x) D-CTL LSI detected an error in the refresh control part for the Cache memory. x : Controller # (0-1)	Collecting Error Information	FDMP
R2330x	[DCTL]The CACHE0 error was detected (CTL-x) D-CTL LSI detected an error in the Cache0 part. x : Controller # (0-1)	Collecting Error Information	FDMP
R2340x	[DCTL]The CACHE1 error was detected (CTL-x) D-CTL LSI detected an error in the Cache1 part. x : Controller # (0-1)	Collecting Error Information	FDMP
R2350x	[DCTL]The MCTL error was detected (CTL-x) D-CTL LSI detected an error interruption of MCTL. x : Controller # (0-1)	Collecting Error Information	FDMP
R2360x	[DCTL]The slave command bridge error was detected [MP] (CTL-x) D-CTL LSI detected an error in Cmd_BridgeS_MP. x : Controller # (0-1)	Collecting Error Information	FDMP
R2370x	[DCTL]The bridge error was detected [DRV0] (CTL-x) D-CTL LSI detected a bridge error. (D #0) x : Controller # (0-1)	Collecting Error Information	FDMP
R2380x	[DCTL]The bridge error was detected [DRV1] (CTL-x) D-CTL LSI detected a bridge error. (D #1) x : Controller # (0-1)	Collecting Error Information	FDMP
R2390x	[DCTL]The bridge error was detected [external access] (CTL-x) D-CTL LSI detected a bridge error. (Ext_Accs) x : Controller # (0-1)	Collecting Error Information	FDMP
R23A0x	[DCTL]The bridge error was detected [cross DRV0] (CTL-x) D-CTL LSI detected a bridge error. (Cross_Drv0) x : Controller # (0-1)	Collecting Error Information	FDMP
R23B0x	[DCTL]The bridge error was detected [cross DRV1] (CTL-x) D-CTL LSI detected a bridge error. (Cross_Drv1) x : Controller # (0-1)	Collecting Error Information	FDMP
R23C0x	[DCTL]The master command bridge error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in Cmd_BridgeM_DUAL. x : Controller # (0-1)	Collecting Error Information	FDMP
R23D0x	[DCTL]The message signal interrupt control error was detected (CTL-x) D-CTL LSI detected an error in MSI (Message Signal Interrupt) CTL. x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R23E0x	[DCTL]The PCI root complex error was detected [P_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". x : Controller # (0-1)	Collecting Error Information	FDMP
R23F0x	[DCTL]The unsupported request error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23G0x	[DCTL]The PCI Express ECRC error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23H0x	[DCTL]The malformed transaction layer protocol was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23J0x	[DCTL]The receiver overflow was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23K0x	[DCTL]The unexpected completion was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23L0x	[DCTL]The completer abort was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23M0x	[DCTL]The completion time-out was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23N0x	[DCTL]The poisoned transaction layer protocol was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "poisoned TLP (Transaction Layer Protocol)". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23P0x	[DCTL]The data link protocol error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23Q0x	[DCTL]The training error was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23R0x	[DCTL]The poison error of the completion without data was detected [P_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23S0x	[DCTL]The unsupported request was detected [P_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23T0x	[DCTL]The size error was detected in the completion without data [P_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R23U0x	[DCTL]The internal parity error of the configuration read was detected [P_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23V0x	[DCTL]The completion without data was discarded because of the time-out [P_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23W0x	[DCTL]The issued completion without data was discarded [P_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23Y0x	[DCTL]The interrupt message to issue was discarded [P_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R23Z0x	[DCTL]The PCI device error was detected [internal bus error] [P_IRQ6] (CTL-x) D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2400x	[DCTL]The PCI device error was detected [internal memory error] [P_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2410x	[DCTL]The rollover of the replay number was detected [P_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2420x	[DCTL]The PCI root complex error was detected [D0_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2430x	[DCTL]The unsupported request error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2440x	[DCTL]The PCI Express ECRC error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2450x	[DCTL]The malformed transaction layer protocol was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2460x	[DCTL]The receiver overflow was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2470x	[DCTL]The unexpected completion was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2480x	[DCTL]The completer abort was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R2490x	[DCTL]The completion time-out was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24A0x	[DCTL]The poisoned transaction layer protocol was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24B0x	[DCTL]The data link protocol error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24C0x	[DCTL]The training error was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24D0x	[DCTL]The poison error of the completion without data was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24E0x	[DCTL]The unsupported request was detected [D0_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24F0x	[DCTL]The completer abort was detected in the completion status [D0_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24G0x	[DCTL]The size error was detected in the completion without data [D0_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24H0x	[DCTL]The internal parity error of the configuration read was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24J0x	[DCTL]The completion without data was discarded because of the timeout [D0_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24K0x	[DCTL]The issued completion without data was discarded [D0_IRQ6](CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24L0x	[DCTL]The interrupt message to issue was discarded [D0_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R24M0x	[DCTL]The PCI device error was detected [internal bus error] [D0_IRQ6] (CTL-x) D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24N0x	[DCTL]The PCI device error was detected [internal memory error] [D0_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24P0x	[DCTL]The rollover of the replay number was detected [D0_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24Q0x	[DCTL]The PCI root complex error was detected [D1_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24R0x	[DCTL]The unsupported request error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24S0x	[DCTL]The PCI Express ECRC error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24T0x	[DCTL]The malformed transaction layer protocol was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24U0x	[DCTL]The receiver overflow was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24V0x	[DCTL]The unexpected completion was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24W0x	[DCTL]The completer abort was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Completer abort". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24Y0x	[DCTL]The completion time-out was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R24Z0x	[DCTL]The poisoned transaction layer protocol was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R2500x	[DCTL]The data link protocol error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2510x	[DCTL]The training error was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2520x	[DCTL]The poison error of the completion without data was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2530x	[DCTL]The unsupported request was detected [D1_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2540x	[DCTL]The completer abort was detected in the completion status [D1_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2550x	[DCTL]The size error was detected in the completion without data [D1_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2560x	[DCTL]The internal parity error of the configuration read was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2570x	[DCTL]The completion without data was discarded because of the timeout [D1_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2580x	[DCTL]The issued completion without data was discarded [D1_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2590x	[DCTL]The interrupt message to issue was discarded [D1_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25A0x	[DCTL]The PCI device error was detected [internal bus error] [D1_IRQ6] (CTL-x) D-CTL LSI detected "D-CTL internal bus error" of [PCI device error interrupt]. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25B0x	[DCTL]The PCI device error was detected [internal memory error] [D1_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25C0x	[DCTL]The rollover of the replay number was detected [D1_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R25D0x	[DCTL]The PCI root complex error was detected [E_IRQ6] (CTL-x) D-CTL LSI received "PCI RC (Root Complex) error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25E0x	[DCTL]The unsupported request error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Unsupported request error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25F0x	[DCTL]The PCI Express ECRC error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "ECRC error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25G0x	[DCTL]The malformed transaction layer protocol was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "malformed TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25H0x	[DCTL]The receiver overflow was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Receiver overflow". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25J0x	[DCTL]The unexpected completion was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Unexpected completion". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25L0x	[DCTL]The completion time-out was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Completion time-out". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25M0x	[DCTL]The poisoned transaction layer protocol was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Poisoned TLP (Transaction Layer Protocol)". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25N0x	[DCTL]The data link protocol error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Data Link Protocol error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25P0x	[DCTL]The training error was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "Training error". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25Q0x	[DCTL]The poison error of the completion without data was detected [E_IRQ6] (CTL-x) D-CTL LSI detected that the status was "success" in "completion" in the issued read request (including write/read of configuration register), but the data was "poisoned data". [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25R0x	[DCTL]The unsupported request was detected [E_IRQ6] (CTL-x) D-CTL received UR (Unsupported Request) in the status of "completion" in the request other than write/read of the issued configuration register. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25S0x	[DCTL]The completer abort was detected in the completion status [E_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		

R25T0x	[DCTL]The size error was detected in the completion without data [E_IRQ6] (CTL-x) The status of "completion" of the issued request was "success", but D-CTL LSI received the data other than the requested data size. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25U0x	[DCTL]The internal parity error of the configuration read was detected [E_IRQ6] (CTL-x) D-CTL LSI detected an internal Parity error for read of the Configuration register from the PCI bus. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25V0x	[DCTL]The completion without data was discarded because of the time-out [E_IRQ6] (CTL-x) D-CTL LSI tried to issue Cpl (Completion)/CplD (Completion without Data) for the request from the PCI bus, but a response of the request timed out because the condition such as "credit" was not enough, and the Cpl/CplD was discarded. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25W0x	[DCTL]The issued completion without data was discarded [E_IRQ6] (CTL-x) D-CTL LSI discarded Cpl (Completion)/CplD (Completion without Data) for the read request to the internal bus of D-CTL from the PCI bus. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25Y0x	[DCTL]The interrupt message to issue was discarded [E_IRQ6] (CTL-x) When D-CTL LSI tried to issue "Assert/Deassert INTx", it could not issue it for some reasons and discarded it. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R25Z0x	[DCTL]The PCI request was discarded by the timeout [internal bus error] [E_IRQ6] (CTL-x) D-CTL LSI could not execute the request from the internal bus of D-CTL in the set time because the condition such as Credit was not enough. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		

R2600x	[DCTL]The PCI request was discarded by the internal bus error [E_IRQ6] (CTL-x) NSWC (internal but of D-CTL: I/F Slave Wrapper Control) set the error bit of TXDB (Transmit side Data Buffer) due to some errors on the internal bus of D-CTL. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2610x	[DCTL]The PCI request was discarded [internal bus error] [E_IRQ6] (CTL-x) D-CTL LSI discarded the request from the internal path of D-CTL. [E_PCI_E_IRQ6] x : Controller # (0-1) (Controller # in which a failure occurred)	Collecting Error Information	FDMP
R2620x	[DCTL]The PCI device error was detected [internal memory error] [E_IRQ6] (CTL-x) D-CTL LSI detected "Internal memory error" of [PCI device error interrupt]. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2630x	[DCTL]The internal bus error was detected [E_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2640x	[DCTL]The rollover of the replay number was detected [E_IRQ6] (CTL-x) D-CTL LSI detected "roll-over" of REPLAY_NUMBER. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2650x	[DCTL]The slave dual error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in the DUAL-Slave part. x : Controller # (0-1)	Collecting Error Information	FDMP
R2660x	[DCTL]The CACHE error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in the Cache part. [Dual] x : Controller # (0-1)	Collecting Error Information	FDMP
R2670x	[DCTL]The slave command bridge error was detected in the DUAL I/F (CTL-x) D-CTL LSI detected an error in Cmd_BridgeS. [Dual] x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
R2680x	[DCTL]The completer abort was detected in the completion status [P_IRQ6] (CTL-x) D-CTL LSI received CA (Complete Abort) in the status of "completion" for the request other than write/read of the issued configuration register. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R2690x	[DCTL]The internal bus error was detected [P_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	

R26A0x	[DCTL]The internal bus error was detected [D0_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
R26B0x	[DCTL]The internal bus error was detected [D1_PCI6] (CTL-x) D-CTL LSI detected the internal bus error interrupt of D-CTL. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods <ul style="list-style-type: none"> ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. 		
R26C00	[DCTL]The uncorrectable CACHE error was detected (CTL-x, CACHE-y/z) D-CTL LSI detected an ECC uncorrectable error of two bits or more from each of two Cache memories when reading the Cache memories. x : Controller # (0-1) y/z : Cache Memory # (0-1)	Collecting Error Information	FDMP
	Recovery methods <ul style="list-style-type: none"> ① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 		
R26D00	[DCTL]The error without the factor was detected in the DUAL I/F (CTL-x) DUALS of D-CTL LSI detected a failure, but there was no detailed factor in the register of DUALS. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods <ul style="list-style-type: none"> ① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		
R26E00	PCI Configuration access error was detected [Host\$_PCI Express core, 0xYYYYZZZZ] (CTL-x) An error occurred in the Configuration access of the HOST PCI Express core of D-CTL LSI. \$: Failed part core # (0-1) x : Controller # (0-1) yy : Optional code zz : Optional code	Collecting Error Information	FDMP
	Recovery methods <ul style="list-style-type: none"> In case of the CBL <ul style="list-style-type: none"> ① When the failed part core # displayed in the message is "0", replace the Host I/O Module (E side) on the controller side displayed in the message. When the failed part core # is "1", replace the Host I/O Module (F side) on the Controller side displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) In case of the CBXSS/CBXSL/CBSS/CBSL <ul style="list-style-type: none"> ① When the failed part core # displayed in the message is "0", replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) When the failed part core # is "1", replace the Host I/O Board which is installed in the Controller displayed in the message. (Refer to Replacement "2.2.7 Replacing a Host I/O Board/Module" (REP 02-1100).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 		

R26F00	PCI Configuration access error was detected [Drv\$_PCI Express core, 0xYYYYZZZZ] (CTL-x)	Collecting Error Information	FDMP
An error occurred in the Configuration access of the Drv PCI Express core of D-CTL LSI.			
\$: Failed part core # (0-1)			
x : Controller # (0-1)			
yy : Optional code			
zz : Optional code			
Recovery methods	In case of CBL ① When the failed part core # displayed in the message is "0", replace the Drive I/O Module (C side) on the Controller side displayed in the message. When the failed part core # is "1", replace the Drive I/O Module (D side) on the Controller side displayed in the message. (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) In case of CBXSS/CBXSL/CBSS/CBSL ① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
R26G00	PCI Configuration access error was detected [DUAL_PCI Express core, 0xYYYYZZZZ] (CTL-x)	Collecting Error Information	FDMP
An error occurred in the Configuration access of the Dual PCI Express core of D-CTL LSI.			
x : Controller # (0-1)			
Recovery methods	① Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to Chapter 6. Warning Messages" (MSG 06-0000).) ② Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ③ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)		
R26H00	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0) D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0) [Dual].	Collecting Error Information	FDMP
x : Controller # (0-1)			
R26J00	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1) D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1) [Dual].	Collecting Error Information	FDMP
x : Controller # (0-1)			
R26K00	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-0/2) D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#0/2) [Dual].	Collecting Error Information	FDMP
x : Controller # (0-1)			
R26L00	[DCTL]The uncorrectable CACHE error was detected in the DUAL I/F (CTL-x, CACHE-1/3) D-CTL LSI detected an ECC uncorrectable error in the Cache part (CACHE#1/3) [Dual].	Collecting Error Information	FDMP
x : Controller # (0-1)			
Recovery methods	① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).)		

R26M0x	[DCTL]The bridge time-out was detected by the dual core error [C_BrgM_DUAL] (CTL-x) D-CTL LSI (Cmd_BridgeM) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	FDMP
R26N0x	[DCTL]The bridge time-out was detected by the dual core error [external access] (CTL-x) D-CTL LSI (Ext_Accs) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	FDMP
R26P0x	[DCTL]The bridge time-out was detected by the dual core error [cross DRV0] (CTL-x) D-CTL LSI (Cross_Drv0) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	FDMP
R26Q0x	[DCTL]The bridge time-out was detected by the dual core error [cross DRV1] (CTL-x) D-CTL LSI (Cross_Drv1) detected the PCI-Express transfer time-out occurred by a failure of the PCI-Express clock (DUAL core). x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)	
R2700x	The initialization of PCI Express failed because of the hardware error [Primary] (CTL-x) The initial setting of DCTL Primary PCI Express of the Controller displayed in the message failed due to a hardware error. x : Controller # (0-1)	Collecting Error Information	FDMP
R2710x	The initialization of PCI Express failed because of the hardware error [BKUP] (CTL-x) The initial setting of DCTL Backup PCI Express of the Controller displayed in the message failed due to a hardware error. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)	
R2720x	Cache initialization failed (CTL-x, CACHE-y) The initial setting of the CACHE part of the Cache Memory or D-CTL LSI of the Controller displayed in the message failed. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 a Replacing Controller" (REP 02-0700).)	
R2730x	Cache format write failed(CTL-x) CACHE format write of the Controller displayed in the message failed due to a D-CTL LSI failure. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)	

R2740x A register interface error was detected in D-CTL LSI (CTL-x)		Collecting Error Information	STRC
The abort processing of the register access function of the D-CTL LSI timed out.			
x : Controller # (0-1)			
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
R2750x [DCTL]The violation of memory access from the other controller was detected (CTL-x)		Collecting Error Information	FDMP
The D-CTL LSI of the Controller detected the address violation of the memory access from the remote Controller.			
x : Controller # (0-1)			
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		
R312xy ECC uncorrectable error (CTL-z)		Collecting Error Information	FDMP
The ECC uncorrectable error occurred while the hardware error interrupt was being suppressed.			
x : Code (1 : LDR) (2 : MNT) (3 : INS) (4 : COM)			
y : Detail code #			
z : Controller # (0-1)			
Recovery methods	① Replace all the cache memories installed in the Controller. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ② If not recovered, replace the Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
R3130x [CSDS]The uncorrectable error on the write was detected [0xyyyyyyyy] (CTL-x)		Collecting Error Information	FDMP
The chipset detected DED (double error detect) in write to DRAM from chipset.			
x : Controller # (0-1)			
R3140x [CSDS]The uncorrectable read memory error was detected [0xyyyyyyyy] (CTL-x)		Collecting Error Information	FDMP
The chipset detected DED (double error detect).			
x : Controller # (0-1)			
R3150x The processor system bus error was detected [0xyyyyyyyy] (CTL-x)		Collecting Error Information	FDMP
The chipset detected a Processor system bus error.			
x : Controller # (0-1)			
R3160x The internal bus error of the chipset was detected [0xyyyyyyyy] (CTL-x)		Collecting Error Information	FDMP
The chipset detected an NSI (internal bus of chipset) error.			
x : Controller # (0-1)			
R3170x The PCI Express device error was detected [chipset] [0xyyyyyyyy] (CTL-x)		Collecting Error Information	FDMP
The chipset detected an error of the PCI Express device.			
x : Controller # (0-1)			
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		

R3180x	The specific PCI Express unit error was detected [chipset] [0xyyyyyyy] (CTL-x) The chipset detected an error other than the standard of PCI Express. x : Controller # (0-1)	Collecting Error Information	FDMP
R3190x	The PCI Express error message was received [chipset] [0xyyyyyyy] (CTL-x) The chipset detected a PCI error of the standard of PCI Express. x : Controller # (0-1)	Collecting Error Information	FDMP
R31A0x	The error was detected in the buffer unit of the chipset [0xyyyyyyy] (CTL-x) The chipset detected an error in the buffer unit of chipset. x : Controller # (0-1)	Collecting Error Information	FDMP
R31B0x	The machine check error was detected (CTL-x) The chipset detected a machine check error. x : Controller # (0-1)	Collecting Error Information	FDMP
R31C0x	The LPC bridge error was detected [0xyyyyyyy] (CTL-x) The chipset detected an error in the LPC bridge. x : Controller # (0-1)	Collecting Error Information	FDMP
R31D0x	[CSDS]The double error detection retry was over the threshold [0xyyyyyyy] (CTL-x) The chipset detected retry of Double error. x : Controller # (0-1)	Collecting Error Information	FDMP
R31E0x	[CSDS]The correctable read memory error was over the threshold [0xyyyyyyy] (CTL-x) The chipset detected a correctable read. x : Controller # (0-1)	Collecting Error Information	FDMP
R31F0x	The correctable PCIe device error was over the threshold [chipset] [0xyyyyyyy] (CTL-x) The chipset detected a correctable error of the PCI Express device. x : Controller # (0-1)	Collecting Error Information	FDMP
R3210x	The correctable PCI Express error message was received [0xyyyyyyy] (CTL-x) The chipset detected a correctable error of the PCI Express standard. x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
R322xy	CACHE correctable error was over the threshold [CRECT] (CTL-x, CACHE-y) A Cache correctable error exceeded the threshold value. x : Controller # (0-1) y : Cache Memory # (0-1)	Collecting Error Information	FDMP
	Recovery methods ① Replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) ② If not recovered, replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		

R40Z0x	The initialization of PCI Express failed because of the hardware error [DUAL] (CTL-x)	Collecting Error Information	FDMP
	The initial setting of the DUAL PCI-Express core became an error.		
	x : Controller # (0-1) (Controller # that detected a failure)		
Recovery methods	<ol style="list-style-type: none"> ① 1. If this message is displayed when the array power is turned on, perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Remove the Controller on the other side of the Controller which is displayed in the message temporarily. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460).) 3. Check if the Cache Memory installed in the Controller is correctly installed. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).) 4. Install the Controller again. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).) 5. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 6. If not recovered, perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 7. Remove the Controller again. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460).) 8. Replace the Cache Memory. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 9. Install the Controller again. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).) 10. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 11. If not recovered yet, perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 12. Perform the maintenance according to the message code "W01z0x CTL alarm" displayed at the same time. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) 13. If not recovered yet, perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 14. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 15. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) ② 1. If this message is displayed when the Controller is replaced while the array power is turned on, replace the Controller whose recovery failed again. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 2. If not recovered, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 3. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 		

R53200	A bad LBA was detected in START80A.DAT file It was detected that write LBA of the upload file of the firmware was illegal.	Collecting Error Information	STRC
R53300	A bad LBA was detected in START80X.DAT file It was detected that write LBA of the upload file of the firmware was illegal.	Collecting Error Information	STRC
Recovery methods	① 1. Acquire the firmware from DVD again. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) 2. Reinstall the firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)		
R53400	The model check error was detected in the upload file When the chassis type written in the file of the read firmware was checked, an error was detected.	Collecting Error Information	
Recovery methods	① 1. Acquire the file of the firmware again. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) 2. Reinstall the firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)		
R53500	D-SPC firmware download was started The firmware download of SAS CTL (D-SPC) started.	Collecting Error Information	
R53600	D-SPC firmware download was completed successfully The firmware download of SAS CTL (D-SPC) was completed normally.	Collecting Error Information	
Recovery methods	None		
R537xy	D-SPC firmware download was failed The firmware download of SAS CTL (D-SPC) failed. x : Any code	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
R5390x	D-SPC detected the firmware error (CTL-x) D-SPC (Drive-side SAS Protocol Chip) detected a firmware defect. x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
R53Cxy	The creation of default certificate failed (CTL-x) The creation of the SSL default certificate file failed. x : Controller # (0-1) y : Error factor # (1-3)	Collecting Error Information	STRC
Recovery methods	① 1. Perform the planned shutdown of the array and restart it. (Refer to Installation "1.5 Power On/Off Procedure" (INST 01-0220).) 2. If not recovered, contact the Technical Support Center.		
R53D00	Unsupported controller was detected by the firmware which had tried to be installed The unsupported Controller was detected by the firmware installed in the array.	Collecting Error Information	STRC
Recovery methods	① Check if the firmware is the correct version. If the firmware version is incorrect, install the correct firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) When the firmware is correct, replace the Controller displayed in the message to the Controller supported by the firmware to be installed in the array, and then install the firmware again. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) , Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)		

R54100	A bad LBA was detected in the uploaded firmware file It was detected that the write LBA value written in the firmware upload file was illegal.	Collecting Error Information	STRC
Recovery methods	① 1. Acquire the firmware from DVD again. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) 2. Reinstall the firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)		
R54S00	A firmware downgrading error was detected [Code-xx] For the firmware of the old version (version downgrade firmware), the firmware cannot be downgraded currently due to the following factors (however, even if there are multiple conditions that cannot perform the version downgrade, the number of conditions to be pointed out at one time must be one. For example, if there are two conditions that cannot perform the version downgrade, when trying to downgrade the version of the firmware again after performing the recovery procedure for the conditions pointed out in the WEB message, the WEB message which points out the second condition is displayed). <ul style="list-style-type: none"> • The unsupported function is enabled • The unsupported function is operating • The unsupported hardware (Drive, I/O Module and others) is installed x : Version downgrade factor code	Collecting Error Information	STRC
Recovery methods	① The version downgrade procedure differs depending on the factor code. Perform the maintenance according to Firmware "1.7 Restrictions of the Version Downgrade of the Firmware" (FIRM 01-1640).		
R54T00	The firmware installation has failed because the firmware has a problem [Code-xx] In the firmware to be installed, a problem of which the folder and the storage file do not match was detected. Therefore, Initial Setup and the update installation cannot be executed. x : Error factor code	Collecting Error Information	STRC
Recovery methods	When error factor code is "01" ① The correct firmware is not stored in the DF850MH folder. Obtain the correct firmware and perform Initial Setup or the update installation again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).) When error factor code is "02" ① The correct firmware is not stored in the DF850MHD folder. Obtain the correct firmware and perform Initial Setup or the update installation again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)		
R54U00	The firmware detected the unsupported controller [Code-xx] (CTL-y) [Code-01] The firmware installed in the array detected the unsupported Controller (module revision : G or more). [Code-02] The Cache Memory which is not supported by the firmware installed in the array is installed. x : Detail code # y : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	When detail code is "01" ① • Replace the Controller where the message is displayed to the Controller whose module revision is less than G. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) • When the replaced Controller is correct, move to the maintenance mode (refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) and install the firmware of the version 0920/B or more in the array (refer to WEB "3.3.1 Microprogram" (WEB 03-0270).). For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. When detail code is "02" ② 1. Change the array to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) Consult with the customer/SE and decide the opportunity to change the array to the maintenance mode. 2. Install the firmware of the version 0930/A or more. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)		

R54V00	Unsupported firmware was installed to the controller [Code-yy] (CTL-x) [Code-01] The FM1 MAIN firmware or the FM1 INS firmware to be installed does not support the Controller whose module revision is G or more. [Code-02] In the FM1 MAIN firmware to be installed or in the FM1 INS firmware, the unsupported Cache Memory is installed. x : Controller # (0-1) y : Detail code #	Collecting Error Information	STRC
Recovery methods	When detail code is "01" ① Install the firmware whose version is 0920/B or more. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) When detail code is "02" ① Install the firmware whose version is 0930/A or more. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)		
R54W00	The error of Initial setup was detected because Drive I/O module(Encrypt) is installed Since the encryption Drive I/O Module is installed in the slot of the Drive I/O Module, Initial Setup of the firmware which does not support the encryption Drive I/O Module cannot be performed.	Collecting Error Information	STRC
Recovery methods	① Install the firmware which supports the encryption Drive I/O Module. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) When installing the firmware which does not support the encryption Drive I/O Module by Initial Setup ② 1. Click [Go to Normal Mode] in the menu frame in the WEB window to start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 2. Check that the array becomes Ready. 3. Refer to Upgrade "Chapter 8. Upgrading to the Drive I/O Module (Encryption)" (UP 08-0000) and replace all the installed encryption Drive I/O Modules to the conventional Drive I/O Modules. (Refer to Replacement "2.2.9 Replacing a Drive I/O Module" (REP 02-1320).) 4. Start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 5. Check that the array becomes Ready. 6. Change the array to the maintenance mode. (Refer to WEB "Chapter 3 The Maintenance Mode Operation Procedure" (WEB 03-0000).) 7. Perform Initial Setup again to install the firmware. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)		
R54X0x	Encryption key initialization failed (CTL-x, Slot-I) Encryption key initialization of the blocked Drive I/O Module failed. x : Controller # (0-1) I : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side)	Collecting Error Information	
R54Y0x	Encryption key initialization was completed (CTL-x, Slot-I) Encryption key initialization of the blocked Drive I/O Module succeeded. x : Controller # (0-1) I : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side)	Collecting Error Information	
Recovery methods	None		
R54Z00	The error of Initial setup was detected because DBF is connected The Initial Setup for the firmware which does not support a DBF cannot be performed because the DBF is connected to the Drive Box Unit #0.	Collecting Error Information	STRC
Recovery methods	① Install the firmware which supports the DBF. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)		

<p>R6000x FCTL LSI error was detected [code-yyyy] (CTL-z)</p> <p>The FCTL LSI access terminated abnormally.</p> <p>x : R (Read) or W (Write)</p> <p>y : FCTL register address</p> <p>z : Controller # (0-1)</p> <p><When the code is "050C"></p> <p>CTL#z detected a failure of the other Controller Box. Therefore, the replacement of CTL#z may fail or the Controller Box on the opposite side of CTL#z may be blocked after replacing CTL#z due to a Controller Box failure on the opposite side of CTL#z.</p> <p>Prepare two Controller Boxes as maintenance parts.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>R6010x MPU TWI error was detected [code-yy] (CTL-z)</p> <p>The SMBus access of the Controller terminated abnormally.</p> <p>x : R (Read) or W (Write)</p> <p>y : SMBus register address</p> <p>z : Controller # (0-1)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>R6020x Flash memory access error was detected [code-yy] (CTL-z)</p> <p>The Flash memory access of the Controller terminated abnormally.</p> <p>x : Character code</p> <p>y : BANK #</p> <p>z : Controller # (0-1)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>R6030x A CPU-PCIe bridge(PCH) error was detected in a controller (CTL-x)</p> <p>The CPU detected an error of the CPU-PCIe bridge PCH (Platform Controller Hub) in the Controller.</p> <p>x : Controller # (0-1)</p>	<p>Collecting Error Information</p> <p>FDMP</p>
<p>R6040x Number of CPU-PCIe bridge(PCH) errors in a controller exceeded the threshold (CTL-x)</p> <p>The CPU detected a correctable error of the CPU-PCIe bridge PCH (Platform Controller Hub) in the Controller, and the number of times of the correctable error occurrences exceeded the threshold value.</p> <p>x : Controller # (0-1)</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>FDMP</p> <p>① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)</p>
<p>R70000 PCI Configuration access error was detected[B_PCI Express core.0xyyyzzzz] (CTL-x)</p> <p>An error was detected in the Configuration access to the Backup PCI Express core in D-CTL LSI.</p> <p>x : Controller # (0-1)</p> <p>y : Error status in high 2 bytes</p> <p>z : Error status in low 2 bytes</p> <p>Recovery methods</p>	<p>Collecting Error Information</p> <p>FDMP</p> <p>① When this message is displayed after inserting the Controller into the Controller Box and the Controller displayed in this message is a recovering Controller, replace the Controller displayed in this message.</p> <p>② When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>③ When the ALM LED on the Controller displayed in this message lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>④ 1. If not recovered yet, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.</p> <p>2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</p>

RA00xx	Microprogram error [FLS]	Collecting Error Information	FDMP
	A system shutdown occurred because of a logical contradiction. x : Any code		
	Recovery methods	① Turn on the power again. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	
RA01xx	Microprogram error [COM]	Collecting Error Information	FDMP
	Logical illegality of the firmware was detected. (common function). x : Any code		
	Recovery methods	① When "W01z0x CTL alarm" is displayed after this message, maintain it according to the message. (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	
		② In the case other than ①, replace the Controller which shows this message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)	
RA0410	Host name delete error	Collecting Error Information	FDMP
	The network download function failed to delete the host name.		
RA0411	NFS unmount error	Collecting Error Information	FDMP
	An NFS unmounting resulted in an error during operation of the network download function.		
	Recovery methods	① Replace the Controller which displayed the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)	
RA0412	NFS mount error	Collecting Error Information	FDMP
	An NFS mounting resulted in an error during operation of the network download function.		
	Recovery methods	① Check the Host IP Address entered in the WEB window and the Path (main system storage directory) of the firmware.	
		② If the error occurs again, replace the Controller which displayed the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)	
RA0413	Host name add error	Collecting Error Information	FDMP
	The network download function failed to add the host name.		
	Recovery methods	① Replace the Controller which displayed the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)	
RA0414	NFS file open error	Collecting Error Information	FDMP
	A file opening resulted in an error during operation of the network download function.		
	Recovery methods	① Check the Host IP Address entered in the WEB window and the Path (main system storage directory) of the firmware.	
		② If the error occurs again, replace the Controller which displayed the message. (Refer to Replacement "2.2.5 Replacing Controller" (REP 02-0700) .)	
RA0415	System file error	Collecting Error Information	FDMP
	An error was detected in a file in the directory storing the system during operation of the network download function.		
	Recovery methods	① Check if the directory, in which the main system is stored, entered in the Web window and the files stored in it are correct.	
		② Replace the Controller if the error recurs. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
RA30xy	CACHE size mismatch b/w. CTL (CACHE-x)	Collecting Error Information	STRC
	A cache mounting error occurred. x : Cache Memory # (0-1)		
	Recovery methods	① 1. Check if the Cache Memory is installed in a correct location by referring to the location of the corresponding Cache Memory on the normal mate Controller. (Refer to Troubleshooting "8.2.1 Maintenance with the Hitachi Storage Navigator Modular 2 (GUI Version)" (TRBL 08-0090) .)	
		2. Replace the Cache Memory. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .)	

RA4000	CTL synchronized error	Collecting Error Information	FDMP
	Synchronization failed.		
Recovery methods	<ol style="list-style-type: none"> ① 1. It is displayed in the "Controller 0" box or the "Controller 1" box, not in the "Controller 0/1 Common" box in the Information Message on WEB. Refer to the Controller box of the controller on the other side of the Controller Box which displayed the message. 2. When the message of "RED0j0 Drive I/O module error info [Type error] (CTL-x, Slot-I)" is displayed, follow Troubleshooting "11.1.33 Recovery Method at the Time of Backend Module Blockade" (TRBL 11-1680) and perform the maintenance. 3. When the message of "RED0j0 Drive I/O module error info [Type error] (CTL-x, Slot-I)" is not displayed, replace the Controller whose ALM LED (red) lights up. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 		
RA4100	CTL initial synchronized error	Collecting Error Information	FDMP
	Time-out occurred in another system because of an initial synchronization.		
Recovery methods	<ol style="list-style-type: none"> ① Click the Information Message in the WEB window and scroll the window of [Controller 0] and [Controller 1]. When the CUDG error is displayed, follow the recovery method in the CUDG detection message. (Refer to "Chapter 2. CUDG Detected Messages" (MSG 02-0000).) ② When the CUDG error is not displayed, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 		
RA4200	Maintenance mode synchronized error	Collecting Error Information	FDMP
	A synchronization error occurred in maintenance mode.		
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)		
RA6000	CTL number mismatch	Collecting Error Information	
	The single mode is set in the system parameter but dual mode is selected actually.		
RA6100	System parameter undefined	Collecting Error Information	
	System parameter information (common) is not set.		
Recovery methods	① Set the system parameter correctly in the WEB maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).)		
RA7000	Microprogram revision mismatch	Collecting Error Information	
	The systems drive-loaded between Controllers are mismatched.		
Recovery methods	<ol style="list-style-type: none"> ① If this message is displayed when the array power is turned on, turn on the power again. ② 1. If this message is displayed when the array power is on and the Controller is replaced, the replaced Controller and the SAS(ENC) cable of the Drive Box are not connected correctly. First, check the SAS(ENC) cable connection. 2. Remove the replaced Controller temporarily. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460).) 3. Connect the SAS(ENC) cable correctly again. 4. Install the Controller again. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).) ③ Replace the Controller to a new Controller again. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ④ If not recovered yet, contact the Technical Support Center. 		

<p>RA7600 CTL unit type is different between the controllers</p> <p>It was detected that the types of Controller #0 and Controller #1 are mismatched due to the occurrence of any one of the following failures at the time of the system start, Controller replacement with the array power tuned on or firmware replacement.</p> <ul style="list-style-type: none"> • Controller installation error • Controller failure • PCI bus failure between the Controllers • Power Unit failure of the Controller <p>Since the revision of D-CTL LSI of each Controller is not the allowed combination, you cannot install the Controller #0 and the Controller #1, which are already installed in the current array, in the array at the same time (for debug).</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>RA7900 System HDU spin up failed</p> <p>Spin-up of the system drive failed.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>RA7A00 CACHE installation error (CACHE-0)</p> <p>The Cache Memory is not installed in slot #0.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>RA7A01 CACHE installation error (CACHE-0/1)</p> <p>Although the Cache Memories must be installed in both slot #0 and slot #1, it is only installed in either slot or it is installed in neither slot.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>RA7E0x CTL unit type error detected (CTL-x)</p> <p>An illegal Frame type was detected.</p> <p>x : Controller # (0-1)</p>	<p>Collecting Error Information</p> <p>STRC</p>

RA7F00	TWSI access error was detected [Read, xx-yy-aa] In case where the Flash program of the early stage, which the Controller began to start, is operating, an error was detected when read of TWSI (Two Wired Serial Interface) operated. xx : Optional code yy : Optional code aa : Optional code	Collecting Error Information	STRC
RA8000	TWSI access error was detected [Write, xx-yy-aa] In case where the Flash program of the early stage, which the Controller began to start, is operating, an error was detected when write of TWSI (Two Wired Serial Interface) operated. xx : Optional code yy : Optional code aa : Optional code	Collecting Error Information	STRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
RA830x	CACHE sleep termination process time-out The release of Cache sleep (status before the Cache Memory becomes electrically usable) timed out. x : 1=LDR, 2=MNT, 3=INS	Collecting Error Information	FDMP
RA840x	PONCNT parity error PONCNT parity error. x : 1=LDR, 2=MNT, 3=INS	Collecting Error Information	FDMP
RA850x	DDR2 I/O buffer error The adjustment of the impedance for the I/O buffer of DDR2 terminated abnormally. x : 1=LDR, 2=MNT, 3=INS	Collecting Error Information	FDMP
RA870x	The setting of CACHE termination failed The setting of the terminate value of the Cache Memory terminated abnormally. x : 1=LDR, 2=MNT, 3=INS	Collecting Error Information	FDMP
RA880x	CTL number error It was detected that the SLOT # bit of the PLD GPIO #0 register was an abnormal value. x : 1=LDR, 2=MNT, 3=INS	Collecting Error Information	FDMP
RA8900	DCTL hard register error [EMACIN/A_CTLIN] The other Controller is not installed on the register or the blocked status was detected at the same time.	Collecting Error Information	FDMP
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② If not recovered, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.		
RA8A00	DCTL EMACIN not detected The EMACIN bit error occurred during insertion of the Controller performed in the state in which the array power was on.	Collecting Error Information	FDMP
	Recovery methods ① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
RA8F00	The coexistence error of the system drives was detected SAS HDU are mixed in the system drive.	Collecting Error Information	FDMP
	Recovery methods ① 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 2. Configure the system drive only SAS HDU again. 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)		

RA8G0x	The MAC address error was detected (CTL-x) It was detected that the MAC address was illegal. x : Controller # (0-1)	Collecting Error Information	STRC
RA8H0x	The chipset error was detected at the early stage of the CTL initialization (CTL-x) In starting of the Controller, a failure of "chipset" occurred in the early stage. x : Controller # (0-1)	Collecting Error Information	FDMP
RA8Ixy	Microprogram error was detected [BCM] Logical discrepancy of the firmware was detected. (Back-end common control) x : Characters y : Characters Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	Collecting Error Information	STRC
RA8Jxy	Microprogram error was detected [BDM] Logical discrepancy of the firmware was detected. (Back-end drive management control) x : Characters y : Characters	Collecting Error Information	STRC
RA8Kxy	Microprogram error was detected [BER] Logical discrepancy of the firmware was detected. (Back-end failure processing control) x : Characters y : Characters	Collecting Error Information	STRC
RA8Lxy	Microprogram error was detected [BPD] Logical discrepancy of the firmware was detected. (Back-end protocol driver control) x : Characters y : Characters	Collecting Error Information	STRC
RA8Mxy	Microprogram error was detected [BSM] Logical discrepancy of the firmware was detected. (Back-end SAS management control) x : Characters y : Characters	Collecting Error Information	STRC
RA8Nxy	Microprogram error was detected [DSC] Logical discrepancy of the firmware was detected. (I/O execution control) x : Characters y : Characters	Collecting Error Information	STRC
RA8P00	Backend error count of D-SPC LSI exceeded the threshold [CODE-y] (CTL-x) The number of times of the backend failure of the D-SPC (Drive-side SAS Protocol Chip) of the Controller exceeded the threshold value. x : Controller # (0-1) y : Code # (0-FF)	Collecting Error Information	STRC
RA8Q00	Backend error count of D-SPC LSI exceeded the threshold [D-SPC REBOOT error] (CTL-x) The start of the D-SPC (Drive-side SAS Protocol Chip) of the Controller failed. x : Controller # (0-1) Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.	Collecting Error Information	STRC

RA8R00 Backend error count of D-SPC LSI exceeded the threshold [D-SPC FATAL] (CTL-x) A fatal error of the D-SPC (Drive-side SAS Protocol Chip) of the Controller was detected. x : Controller # (0-1)	Collecting Error Information STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.
RA8S0x ENC recovery failed [Cable error] (CTL-x) When replacing the Controller or firmware, the firmware detected that the SAS (ENC) cables between the Controller and the Drive Box was connected improperly. x : Controller # (0-1)	Collecting Error Information STRC
Recovery methods	① 1. Remove the Controller displayed in the message. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460) .) 2. Review the cable connection because the SAS (ENC) cable is improperly connected to the I/O Module (ENC) or I/O Card (ENC) displayed in the message "I5L600 ENC error was detected [Cable error] (Unit-x, ENC-y)". 3. Review all the SAS (ECN) cable connections whether any other SAS (ENC) cables are improperly connected to the back-end path of the Controller displayed in the message. 4. Rewire the SAS(ENC) cable correctly. 5. Insert the Controller in the chassis. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730) .)
RA9000 Task make error Generation of a task or a semaphore failed.	Collecting Error Information FDMP
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)

RAA100	Remote reboot execute A remote rebooting was done.	Collecting Error Information	
RAA200	Option data initialized The unlocking information was initialized owing to an occurrence of a sum check error in the take-over information area (FM) in which the unlocking information is stored.	Collecting Error Information	
	Recovery methods	None	
RB0000	Upload system error An incorrect firmware (with an incorrect file and/or directory configuration) was specified during an upload.	Collecting Error Information	STRC
	Recovery methods	① 1. Acquire the firmware from DVD again. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) 2. Reinstall the firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)	
RB0100	File remove error Deletion of a file on the RAM disk failed.	Collecting Error Information	STRC
	Recovery methods	① Turn on the power again. ② If the problem is not solved in spite of the above operation, replace the Controller on which the ALM LED is lit (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
RB0400	System parameter update error Update of the system parameters failed at the time of start-up. (The threshold value concerning the system parameter update was exceeded.)	Collecting Error Information	STRC
RB0500	System parameter load failed Reading of the system parameter information from the system area failed.	Collecting Error Information	STRC
	Recovery methods	① Reset the system parameters correctly in the Maintenance mode of the Web. ② If the system is still abnormal, replace the above Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
RB0800	System parameter update failed Writing on all drives failed.	Collecting Error Information	STRC
	Recovery methods	① Reset the system parameters correctly in the Maintenance mode of the Web. ② If not recovered yet, replace the Drives #0 to #4 of the Controller BOX or the Drives #0 to #4 of the Drive BOX corresponding to the unit ID#0 connected to the CBL. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)	
RB0900	System parameter update partially complete Writing on one to four system drives failed.	Collecting Error Information	STRC
	Recovery methods	① Turn on the power again. ② If the system is still abnormal, reset the system parameters correctly in the Maintenance mode of the Web. (Refer to WEB "3.2 Reference/Setting of the System Parameter and Initialize" (WEB 03-0060).)	
RB0A00	Upload file SUM check error A sum check error occurred in a read file during a upload.	Collecting Error Information	STRC
	Recovery methods	① 1. Acquire the firmware from DVD again. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) 2. Reinstall the firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)	
RB0Cxy	CACHE pair check error (CACHE-x/y) Cache pair check error (Caches installed in the Slot #0, Slot #1, Slot#2 and Slot#3 are different each other.) x : Cache Memory # (0-1)	Collecting Error Information	STRC
	Recovery methods	① Make the caches in the two slots the same.	
RB0D00	RAM disk create failed Creation of the RAM disk failed.	Collecting Error Information	FDMP
	Recovery methods	① Turn on the power again. ② If the problem is not solved in spite of the above operation, replace the Controller on which the ALM LED is lit. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	

RB0G00	Initial setup of microprogram failed Although "Install Guard" displayed in "http://lpadress/instlgrd" is set to [Disable], it tried to execute [Initial setup] of the firmware.	Collecting Error Information	STRC
Recovery methods	① Change "Install Mode" on the Microprogram Setup window to [Update] and perform the update installation of the firmware. (Refer to Upgrade "5.14 Firmware Update Installation for Array after Upgrade" (UP 05-0780) .)		
RB0I00	Bad LBA detected in START80M.DAT It was detected that the write LBA of the uploaded file was an illegal value.	Collecting Error Information	STRC
RB0J00	Bad LBA detected in START80S.DAT It was detected that the write LBA of the uploaded file was an illegal value.	Collecting Error Information	STRC
Recovery methods	① 1. Acquire the firmware from DVD again. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) .) 2. Reinstall the firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) .)		
RB3000	File size error An error was detected in file size.	Collecting Error Information	STRC
RB3100	File open error Opening of file failed.	Collecting Error Information	STRC
RB3200	File read error Reading of file failed.	Collecting Error Information	STRC
RB3500	Bad block ID An illegal block ID was detected.	Collecting Error Information	STRC
RB7000	Program size too large The program is too large in size.	Collecting Error Information	
Recovery methods	① Check the firmware you want to install.		
RB8000	Old microprogram exists There was another system when installation was started.	Collecting Error Information	
Recovery methods	① If installation may be continued (In this case, all the data in the Drive are deleted (The RAID group and LU deformation are initialized)), insert the next FD and continue installation. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) .) ② When the data in the Drive need to be saved, stop the work and perform update installation. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) .)		
RB8100	Install failed Installation failed.	Collecting Error Information	FDMP
Recovery methods	① The cause of the failure is indicated under the message. Solve the failure according to the procedure indicated under the message.		
RB8200	Install partially complete Installation failed in a part of the drive.	Collecting Error Information	FDMP
Recovery methods	① Perform the maintenance according to [Procedure of locating failed part when the message of "Install partially complete" is output]. (Refer to Firmware "Chapter 3. Procedure for Isolating Cause of Drive Failure when "Install partially complete" Message is Output" (FIRM 03-0000) .)		
RB8300	Empty system retry full install Update installation cannot be executed since a system does not exist in the Drive.	Collecting Error Information	
Recovery methods	① Execute new installation. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000) .) ② 1. In case of the model upgrade, check Upgrade "3.1 Prerequisites" (UP03-0000) . Example : • Was the array which does not support the model upgrade tried to be upgraded? • Is the array after the hardware upgrade work the model which cannot be upgraded from the array before the hardware upgrade work? 2. Perform the maintenance according to Upgrade "6.2 When "RB8300 Empty System retry full install" Occurs" (UP 06-0010) .		

RB8400	Download failed	Collecting Error Information	STRC
	Drive-loading failed.		
Recovery methods	<p>① Check the part number of the Controller which was installed at the time of last start-up and the part number of the Controller which was installed at the time of this start-up. If the part numbers differ, install the Controller with the same part number as the Controller which was installed at the time of last start-up.</p> <p>② 1. If this message is displayed when turning on the power of the array, check whether the Controller and the SAS (ENC) cable of the Drive Box are connected correctly or not.</p> <p>2. When there is no problem on the cable connection, perform the maintenance in accordance with Troubleshooting "11.1.2 The Array does not Become Ready : Case 1 (Loading Failure)" (TRBL 11-0070).</p> <p>③ 1. If this message is displayed when a Controller is replaced with the array power on, check if DBW is connected to the array.</p> <ul style="list-style-type: none"> • If DBW is connected to the array, check if the module revision of the inserted Controller is F or more. • If the module revision of the Controller is less than F, replace it by a Controller whose revision is F or more. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) • If DBW is not connected to the array or the module revision of the inserted Controller is F or more with DBW connected to the array, the inserted Controller and the SAS (ENC) cable is not properly connected. Check the SAS (ENC) cable for proper connection. <p>2. Remove the replaced Controller temporarily. (Refer to Installation "2.4.2 (3) Removing the Controller, Host I/O Module and Drive I/O Module." (INST 02-0460).)</p> <p>3. Connect the SAS(ENC) cable correctly again.</p> <p>4. Install the Controller again. (Refer to Installation "2.4.7 (3) Installing the Controller, Cache Memory, Host I/O Board/Module and Drive I/O Module." (INST 02-0730).)</p> <p>④ Replace the Controller to a new Controller again. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>⑤ If not recovered yet, contact the Technical Support Center.</p>		
RB8500	Microprogram extract error	Collecting Error Information	
	Depression of main firmware failed.		
Recovery methods	<p>① Execute update installation. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)</p> <p>② If not recovered, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>		
RBA000	A check error of firmware downgrading [Parameter "Down Grade Check" is not enabled.]	Collecting Error Information	
	Although the version down of the firmware was attempted, the update installation terminated abnormally because Down Grade Check was not Disable.		
Recovery methods	<p>① Change the setting of the downgrade check to Disable, and then updating installation of the firmware again. (Refer to WEB "3.3 Setup" (WEB 03-0270).)</p>		
RBC000	No drive available	Collecting Error Information	STRC
	There is not a Drive to install.		
Recovery methods	<p>① In case of CBL, check if the array of the unit ID #0 is a connectable Drive Box.</p> <p>If it is not so, install the array again so that the array of the unit ID #0 may become a connectable Drive Box. (Refer to Replacement "2.2.14 Replacing a Drive Box" (REP 02-1900).)</p> <p>② Replace the Drives #0 to #4 of the array of the unit ID #0 one at a time. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p>		
RBC10x	Drive block size error (Unit-0, HDU-x)	Collecting Error Information	
	The value of the block size of the capacity data reported from the Drive was other than the specified value.		
	x : Drive# (0-83)		
RBC20x	Unknown drive (Unit-0, HDU-x)	Collecting Error Information	
	The value of the logical block address of the capacity data reported from the Drive was equal to or less than the size of the system area.		
	x : Drive# (0-83)		
Recovery methods	<p>① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)</p> <p>Check the model name of the Drive or the drive firmware revision. (Refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040).)</p>		

RBE000	Flash memory write error	Collecting Error Information	STRC
	Writing in the flash memory failed.		
Recovery methods	<ol style="list-style-type: none"> ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② If not recovered, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).) ③ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller. 		
RBE100	Flash memory SUM check error	Collecting Error Information	FDMP
	A sum check error is detected in the flash memory.		
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
RBE200	Flash program update error	Collecting Error Information	
	When the FM firmware which failed in maintenance of the flash version is updated, its version is not matched to the version of the main firmware.		
Recovery methods	<ol style="list-style-type: none"> ① Perform the installation upgrade. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) ② If not recovered, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 		
RBE300	Flash program update start	Collecting Error Information	
	Updating of the FM1 flash program was started by the latest REV maintenance function of the flash program.		
RBE301	Flash program update end	Collecting Error Information	
	Updating of the FM1 flash program was started by the latest REV maintenance function of flash program.		
Recovery methods	None		
RBE500	Initial setup error by LU access restriction	Collecting Error Information	STRC
	The Initial setup failed because access to the LU was restricted.		
Recovery methods	① The Initial setup is impossible. To update the firmware, do it by means of the update installation.		
RBE600	Config clear restart error by LU access restriction	Collecting Error Information	STRC
	The Config clear restart failed because access to the LU was restricted.		
Recovery methods	① The Config clear restart is impossible. To reboot, specify the TakeOver (takeover reboot).		
RBE900	Upgrade failed (the installed microprogram is incorrect)	Collecting Error Information	
	The upgrade from the lower model to the upper model failed.		
Recovery methods	① Perform the update installation of the firmware for the upper model which is the same revision as the firmware installed in the lower model. (Refer to Upgrade "5.14 Firmware Update Installation for Array after Upgrade" (UP 05-0780) .)		
RBEA00	Downgrade failed (the installed microprogram is incorrect)	Collecting Error Information	
	The installation of the firmware for the lower model to the chassis of the upper model failed.		
Recovery methods	<ol style="list-style-type: none"> ① 1. The firmware of the lower model to be installed must be the same revision as the firmware whose revision is already installed in the array. 2. Change it to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 3. Set "Install Guard" displayed in http://IPaddress/instlgrd to [Disable] and click the [Change] button. 4. Click [Others] in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.6 Other" (WEB 03-0510).) 5. Set [Down Grade Check] of the [Others] window to "Disable". (Refer to WEB "3.6 Other" (WEB 03-0510).) 6. Install the firmware of the lower model of the revision which is the same as the firmware revision displayed in the WEB window (update installation). (Refer to Upgrade "5.14 Firmware Update Installation for Array after Upgrade" (UP 05-0780).) 		

RBEN00	Installation of the other CTL detected on install mode	Collecting Error Information	FDMP
	The start-up could not be made because the FM mode was the installation mode (for emergency) at the time of the installation of a Controller of the other system.		
	Recovery methods	① When the FM MODE is the installation mode, pull out the JP and make the start-up again. ② If not recovered, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	
RBEQ00	An installation error of firmware downgrading [Maintenance Mode before array boots up]	Collecting Error Information	STRC
	The downgrade installation of the firmware cannot be performed because it entered the maintenance mode before the array starts.		
RBES00	An installation error of firmware downgrading [FLASH program version error in two CTLs]	Collecting Error Information	STRC
	Because the FLASH firmware version is not consistent between the Controllers, the firmware downgrade installation cannot be performed.		
	Recovery methods	① 1. Click [Go to Normal Mode] of the menu frame in the WEB window, and start the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 2. Install the firmware again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)	
RBET00	Check sum error detected in all system drives	Collecting Error Information	STRC
	Check sum error was detected in all system drives during installing the firmware update.		
	Recovery methods	① 1. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) 2. Turn on the main switch again after 20 seconds or more elapsed after turning it off. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).) 3. Change it to the maintenance mode after the READY LED (green) lights on or "RB8400 Download failed" is displayed on the Information Message of WEB and the array goes down. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 4. Update the firmware again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).) 5. When the firmware is updated, if this message is displayed and this failure occurs even if the above-mentioned recovery method is repeated three times, perform new installation. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)	
RBEU00	Bad LBA detected in START80H.DAT	Collecting Error Information	STRC
	It was detected that the write LBA of the uploaded file was illegal		
	Recovery methods	① 1. Acquire the firmware from DVD again. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).) 2. Reinstall the firmware. (Refer to Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000).)	
RC100x	[DCTL]Bridge error was detected [BRG C] (CTL-x) D-CTL LSI of the Controller detected a bridge error. (bridge c) x : Controller # (0-1)	Collecting Error Information	FDMP
RC200x	[DCTL]I2C error was detected [MP3] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#3) x : Controller # (0-1)	Collecting Error Information	FDMP
RC300x	[DCTL]I2C error was detected [MP2] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#2) x : Controller # (0-1)	Collecting Error Information	FDMP
RC400x	[DCTL]I2C error was detected [MP1] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#1) x : Controller # (0-1)	Collecting Error Information	FDMP
RC500x	[DCTL]I2C error was detected [MP0] (CTL-x) D-CTL LSI of the Controller detected an I2C error. (MP#0) x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W010x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000).)	

RC600x	[DCTL]Internal bus warning was detected [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RC700x	[DCTL]Non-fatal error of internal bus was detected [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RC800x	[DCTL]Fatal error of internal bus was detected [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RC900x	[DCTL]The number of internal bus warnings exceeded the threshold [P_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [P_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RCA00x	[DCTL]Fatal error of internal bus was detected [D0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RCB00x	[DCTL]The number of internal bus warnings exceeded the threshold [D0_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [D0_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	
RCC00x	[DCTL]Internal bus warning was detected [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RCD00x	[DCTL]Non-fatal error of internal bus was detected [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RCE00x	[DCTL]Fatal error of internal bus was detected [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RCF00x	[DCTL]The number of internal bus warnings exceeded the threshold [Dual_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [E_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .) ③ 1. If failure still occurs again, perform the planned shutdown of the array. For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE. 2. Replace the other Controller (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) 3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)	

RD100x	[DCTL]Internal bus warning was detected [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the warning status. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RD200x	[DCTL]Non-fatal error of internal bus was detected [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the non-fatal error. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RD300x	[DCTL]Fatal error of internal bus was detected [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RD400x	[DCTL]The number of internal bus warnings exceeded the threshold [B_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [B_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RD500x	CPU (QPI) error was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error occurred in the internal bus of CPU. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RD600x	CPU (QPI) protocol error was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error of the protocol occurred in the internal bus of CPU. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RD700x	IIO Core error of CPU was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error occurred in the IIO core of CPU. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RD800x	Miscellaneous error of MPU was detected [0xyyyyyyyy] (CTL-x) An uncorrectable error occurred in the MPU part other than the following. • The internal bus of CPU • The protocol of the internal bus of CPU • The IIO core of CPU. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RD900x	The number of CPU (QPI) errors exceeded the threshold [0xyyyyyyyy] (CTL-x) A failure was detected in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RDA00x	The number of CPU(QPI) protocol errors exceeded the threshold [0xyyyyyyyy] (CTL-x) A protocol failure was detected in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RDB00x	The number of CPU(QPI) protocol ECC errors exceeded the threshold [0xyyyyyyyy] (CTL-x) An ECC error occurred in the internal bus of CPU, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RDC00x	PCI Express device error was detected [CPU_A5] [0xyyyyyyyy] (CTL-x) The CUP of the Controller detected an unrecoverable failure in the PCI Express device (Port-A5). x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		

RDD00x	The number of PCIe device errors exceeded the threshold [CPU_A5] [0xyyyyyyyy] (CTL-x) The CPU of the Controller detected a failure in the PCI Express device (Port-A5) and the number of times of the failure exceeded the threshold value. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RDE00x	An uncorrectable PCI Express device error was detected [CPU_A0] [0xyyyyyyyy] (CTL-x) The CPU of the Controller detected an uncorrectable error in the PCI Express device (Port-A0). x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RDF00x	The number of PCIe device errors exceeded the threshold [CPU_A0] [0xyyyyyyyy] (CTL-x) The CPU of the Controller detected a failure in the PCI Express device (Port-A0) and the number of times of the failure exceeded the threshold value. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		

RE100x	PCI Express device error was detected [ECTL] [0xyyyyyyyy] (CTL-x) An error occurred in ECTL LSI of the Controller. x : Controller # (0-1) y : Register information	Collecting Error Information	FDMP
RE200x	Access error of FCTL LSI was detected (CTL-x) Read or write of FCTL LSI of the Controller failed. x : Controller # (0-1)	Collecting Error Information	FDMP
RE300x	The number of correctable processor memory errors exceeded the threshold (CTL-x) The 1bit trouble occurred in the processor memory, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	FDMP
RE400x	The number of FCTL LSI errors exceeded the threshold (CTL-x) A failure occurred in FCTL2 LSI of the Controller, and the number of times of the failure exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	FDMP
RE500x	[DCTL]Fatal error of internal bus was detected [D1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected the fatal error. [D1_PCI_E_IRQ6] x : Controller # (0-1)	Collecting Error Information	FDMP
RE600x	[DCTL]The number of internal bus warnings exceeded the threshold [D1_IRQ6] (CTL-x) D-CTL LSI of the Controller detected a correctable error, and the number of times of the occurrence exceeded the threshold value. [D1_PCI_E_IRQ6] x : Controller # (0-1) Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	Collecting Error Information	FDMP
RE700x	BIOS program update started (CTL-x) The most recent version retention function of BIOS started the update of the BIOS program.	Collecting Error Information	
RE800x	BIOS program update end was completed (CTL-x) The update of the BIOS program was completed by the most update version retention function of BIOS. Recovery methods None	Collecting Error Information	
RE900x	BIOS program update error was detected (CTL-x) The update of the BIOS program failed using the most recent version retention function of BIOS. Although the update processing of BIOS was executed, the BIOS version after the update processing and the BIOS version of the firmware bundle were not matched. x : Controller # (0-1) Recovery methods ① 1. If "W01z0x CTL alarm" is displayed on the same controller # as this message, disregard "W01z0x CTL alarm". 2. Perform the update installation of the firmware in the maintenance mode. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270) .) ② If not recovered, replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	Collecting Error Information	
REA00x	A LAN CTL0 LSI error was detected (CTL-x) A failure of LAN Controller 0 (user port) LSI of the controller was detected. x : Controller # (0-1)	Collecting Error Information	FDMP
REA10x	A LAN CTL1 LSI error was detected (CTL-x) A failure of LAN Controller 1 (maintenance port) LSI of the controller was detected. x : Controller # (0-1) Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	Collecting Error Information	FDMP

REA20x	FCTL LSI error was detected (CTL-x) An error of FCTL LSI of the controller was detected. x : Controller # (0-1)	Collecting Error Information	FDMP
REB10x	[ECTL]The register interface error was detected (CTL-x) Read or write from/to the register of ECTL LSI of the Controller failed. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		
REC00x	An error was detected at a request for backup controller [code-xx] (CTL-y) A request to the backup Controller failed. x : Request code (0x00-0xFF) 0x01:Restore REQ 0x02:Erase REQ 0x03:Update Flash Firmware REQ 0x04:Get Backup History 0x05:Clear Backup History 0x06:Adjust Battery Capacity 0x07:Online CUDG Req 0x08:Get Battery Information 0x09:Get Flash Information 0x0A:Set Cache Mode y : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		
RED0j0	Drive I/O module error info [Type error] (CTL-x, Slot-l) • The unsupported Drive I/O Module was installed. • The Host I/O Module is installed in the Drive I/O Module slot. x : Controller # (0-1) l : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)	Collecting Error Information	STRC
RED1j0	Drive I/O module error info [Not installed] (CTL-x, Slot-l) The Drive I/O Module is not installed. x : Controller # (0-1) l : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)	Collecting Error Information	STRC
RED2j0	Drive I/O module error info [Status error] (CTL-x, Slot-l) A hardware failure has occurred in the Drive I/O Module. x : Controller # (0-1) l : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)	Collecting Error Information	STRC
	Recovery methods ① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .		

RED3j0	Drive I/O module error is detected (CTL-x, Slot-l) A failure occurred in the Drive I/O Module. This message shows a type (either of the Drive I/O Module and Drive I/O Module (Encryption)) of the failed Drive I/O Module with the message code. The failure factor is output in the other message. x : Controller # (0-1) l : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side) j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)	Collecting Error Information	
	Recovery methods None		
REE00x	Cache memory configuration is changed with store data left (CTL-x, CACHE-y, type-z) When the store data is stored in the backup controller, the array did not perform the planned shutdown and the addition or removal of the Cache Memory was performed. x : Controller # (0-1) y : Cache Memory # (0-1) z : Cache Memory in the capacity to be installed (4:4 G bytes/8:8 G bytes)	Collecting Error Information	FDMP
	Recovery methods ① 1. This message may be output for multiple cache memories. Record this message for all the Cache Memories. 2. Turn off the main switch. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 3. For both Controllers, once replace the Cache Memory in the Cache Memory slot # "y" to the Cache Memory of "z". (Refer to Replacement "2.2.6 Replacing Cache Memory" (REP 02-0920) .) 4. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 5. After the array becomes Ready, perform the planned shutdown of the array. 6. Add or remove the Cache Memory again by returning the position of the Cache Memory to the original position. 7. Turn on the main switch, and restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .)		
REE10x	Backup controller error was detected [CODE-yy] (CTL-x) A failure has occurred in the backup Controller. x : Controller # (0-1) y : Optional code	Collecting Error Information	FDMP
REE20x	ECTL+ LSI error was detected in a controller booting (CTL-x) In the ECTL+LSI setting at the time of starting the Controller as shown below, when the register read was executed immediately after register write, a different value from the write value was read. • When starting the array • When rebooting the array • When replacing the Controller • When replacing the fault-tolerant firmware • When replacing the firmware in the single ware configuration • When replacing the firmware by stopping the I/O of one Controller at a time in the dual Controller configuration x : Controller # (0-1)	Collecting Error Information	FDMP
	Recovery methods ① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm (CTL-x)". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)		

RG00yx	Backend error count of D-SPC exceeded the threshold [D-SPC REBOOT error] (CTL-x, Slot-y) The start of the D-SPC (Drive-side SAS Protocol Chip) of the Drive I/O Module failed. x : Controller # (0-1) y : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side)	Collecting Error Information	STRC
RG10yx	Backend error count of D-SPC LSI exceeded the threshold [D-SPC FATAL] (CTL-x, Slot-y) A fatal error of the D-SPC (Drive-side SAS Protocol Chip) of the Drive I/O Module was detected. x : Controller # (0-1) y : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side)	Collecting Error Information	STRC
RG20yx	Backend error count of D-SPC LSI exceeded the threshold [CODE-zz] (CTL-x, Slot-y) The number of times of the backend failure of the D-SPC (Drive-side SAS Protocol Chip) of the Drive I/O Module exceeded the threshold value. x : Controller # (0-1) y : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side) z : Optional code (0-FF)	Collecting Error Information	STRC
RG30yx	An initialization of PCIe failed because of the hardware error [Drv] (CTL-x, Slot-y) The initial setting of the PCI Express between the D-SPC (Drive-side SAS Protocol Chip) and the Controller of the Drive I/O Module failed due to a hardware failure. x : Controller # (0-1) y : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side)	Collecting Error Information	STRC
RG40yx	Backend error count of D-SPC LSI exceeded the threshold [D-SPC Error] (CTL-x, Slot-y) The number of times of the D-SPC (Drive-side SAS Protocol Chip) failure of the Drive I/O Module exceeded the threshold value. x : Controller # (0-1) y : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .	
RG500x	Backend error count of D-SPC LSI exceeded the threshold [D-SPC Error] (CTL-x) The number of times of the D-SPC (Drive-side SAS Protocol Chip) failure of the Controller exceeded the threshold value. x : Controller # (0-1)	Collecting Error Information	STRC
	Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	
RG600x	D-SPC firmware download failed (CTL-x, Slot-y) The download processing of the firmware of the D-SPC (Drive-side SAS Protocol Chip) of the Drive I/O Module failed. x : Controller # (0-1) y : I/O Module slot code C : Drive I/O module (C side) D : Drive I/O module (D side)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .	

RG700x D-SPC firmware download failed (CTL-x) The download processing of the firmware of the D-SPC (Drive-side SAS Protocol Chip) of the Controller failed. x : Controller # (0-1)	Collecting Error Information	STRC
RG800x A CRC error was detected in D-SPC firmware stored in a local memory (CTL-x) A CRC error was detected in the D-SPC (Drive-side SAS Protocol Chip) firmware stored in the Controller (CS memory/DS memory). x : Controller # (0-1)	Collecting Error Information	STRC
RG900x Microprogram error was detected [BIC] (CTL-x) Logical discrepancy of the firmware was detected. (Back-end I/F conversion control) x : Controller # (0-1)	Collecting Error Information	STRC
Recovery methods	① When the ALARM LED on the front of the Controller Box lights up, replace the Controller displayed in this message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ② When the ALM LED on the Controller displayed in this message lights up, perform the maintenance according to "W01z0x CTL alarm". (Refer to "Chapter 6. Warning Messages" (MSG 06-0000) .)	

Chapter 6. Warning Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

• Detail of the message code variable value

	Contents	Detailed contents									
z	Chassis type	1 : CBL E : DBF	2 : CBSS F : The type is unknown	3 : CBSL	4 : CBXSS	5 : CBXL	A : DBS	B : DBL	C : DBX	D : DBW	
a	Drive type code	5 : SSD		7 : SAS7.2K 7,200 rpm		A : SAS 10,000 rpm		B : SAS 15,000 rpm		C : FMD Z : The type is unknown	
b	Drive model name code	SSD	5 : 0 : 2HGDM, 1 : 4HGDM, 2 : 8HGDM, 3 : 2HGDML, 4 : 4HGDML, 5 : 8HGDM								
		SAS 7.2K	7 : 0 : 2TNL, 1 : 2TNX, 2 : 3TNL, 3 : 3TNX, 5 : 3TNW, 6 : 4TNL, 7 : 4TNX 8 : 4TNW								
		SAS	A : 0 : 3HGSS, 1 : 6HGSS, 2 : 9HGSS 6 : 9HGS B : 3 : 3HGSSH 7 : 3HGSLH								
		FMD	C : 0 : 1R6FM								
		Z : Classification is impossible									
c	Drive model name	Character string : 0 to 8 characters									
d	Cache Memory type	0 : Intermix or The type is unknown			4 : 4 G bytes		8 : 8 G bytes				
e	Cache Backup Battery type	0 : CBS		1 : CBL							
f	I/O Module (ENC) or I/O Card (ENC) type	0 : I/O Module (ENC) for DBS, DBL									
		1 : I/O Card (ENC) for DBX									
		2 : I/O Module (ENC) for DBW									
		3 : I/O Module (ENC) for DBF									
		F : The type is unknown									
g	Host Connector type	0 : 4G FC		1 : 8G FC		2 : 10G iSCSI					
h	I/F type	0 : The type is unknown			1 : FC 4 G – 4 Ports		2 : FC 8 G – 4 Ports		3 : iSCSI 1 G – 2 Ports		
		4 : iSCSI 10 G – 2 Ports			F : Unmount						
i	Host I/O type	0 : FC 4 G – 4 Ports			1 : FC 8 G – 4 Ports		2 : iSCSI 1 G – 2 Ports		3 : iSCSI 10 G – 2 Ports		
		F : Unmount			Z : The type is unknown						
j	Drive I/O type	0 : SAS6G		6 : SAS6GE		E : The type is unknown		F : Unmount			
k	Management Module type	0 : Management module				F : Unmount					
l	I/F Module slot code ^(*)	A : Management module (LAN)					B : Management module (UPS)				
		C : Drive I/O module (C side)					D : Drive I/O module (D side)				
		E : Host I/O module (E side)					F : Host I/O module (F side)				
m	Power supply type	0 : AC Power supply			1 : DC Power supply						
n	Side Card type	0 : Side Card [A]			1 : Side Card [B]						
p	Side Card code ⁽²⁾	0 : Side Card-A-U			1 : Side Card-B-U		2 : Side Card-A-L		3 : Side Card-B-L		
		Unknown : SideCard-X-X									

*1 : For the location of the part to be replaced, refer to [Replacement “2.1.1 Parts Locations \(5\) CBL/CBLD” \(REP 02-0031\)](#).

*2 : For the location of the part to be replaced, refer to [Replacement “2.1.1 Parts Locations \(9\) DBW” \(REP 02-0040\)](#).

W01z0x	CTL alarm (CTL-x) ^(*)	Collecting Error Information	CTRC
The Controller was regressed (It had a failure or was not connected), or a failure was detected in the Controller of another system during the initial setting operation.			
x : Controller # (0-1)			
z : Chassis type (Refer to (MSG 06-0000) for the detail)			
Recovery methods	<p>① When "I19000 Online microprogram update completed [The firmware version *****]" is displayed before this message, it shows that no Controller failure has occurred.</p> <p>② When the ALARM LED (red) is lit, take a recovery action according to in Troubleshooting "11.1.1 System Down" (TRBL 11-0040).</p> <p>③ Take the recovery actions according to the messages listed in Troubleshooting "4.5 The Priority Error Messages when "CTL alarm" is Displayed" (TRBL 04-0200).</p> <p>④ If only "H90210 CTL failure" is displayed besides this message, connect the Controller on which the ALM LED is illuminating to the Web, and follow the recovery instruction message displayed on the Web.</p> <p>⑤ When the failures have occurred in both I/O Module (ENC) or I/O Card (ENC) #0 and Controller #0 of Unit #0 connected to the CBL, replace I/O Module (ENC) or I/O Card (ENC) #0. Moreover, when the failures have occurred in both I/O Module (ENC) or I/O Card (ENC) #1 and Controller #1 of Unit #0 connected to the CBL, replace I/O Module (ENC) or I/O Card (ENC) #1. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</p> <p>⑥ Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p> <p>⑦ When the ALARM LED on the front of the Controller Box does not light up and the ALM LED on the Controller displayed in the message does not light up either, the maintenance work is not necessary because the internal retry processing was executed in the Controller.</p>		
*1 : The message may be displayed twice at the same timing, however, there is no problem. Perform the maintenance according to the message.			
W02000	Other CTL removed	Collecting Error Information	STRC
A shutdown occurred in MPU on the Controller of another system.			
Recovery methods	① Replace the Controller whose ALM LED is on. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
W03z0x	Battery alarm (Battery-x)	Collecting Error Information	STRC
An error occurred in the Cache Backup Battery.			
x : Cache Backup Battery # (0-1)			
z : Chassis type (Refer to (MSG 06-0000) for the detail)			
Recovery methods	① Perform the maintenance according to the recovery procedure of the message text "Battery error inf." or "Battery error info" displayed at the same time with the message.		
W0400x	Battery back up circuit alarm (CTL-x)	Collecting Error Information	
The battery backup circuit failed.			
x : Controller # (0-1)			
Recovery methods	<p>① When any one of the following messages is displayed, follow the recovery procedure given by it.</p> <ul style="list-style-type: none">• W03z0x Battery alarm (Battery-x) <p>② If only "W0400x Battery back up circuit alarm (CTL-x)" is displayed, replace a Controller that has the number "x". (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</p>		
W05z00	FAN alarm (Unit-x, FAN-y)	Collecting Error Information	
The Fan Module failed.			
x : Unit ID # (0-79)			
y : Fan Module # (0-4)			
z : Chassis type (Refer to (MSG 06-0000) for the detail)			
Recovery methods	① Replace the Fan Module displayed in the message. (Refer to Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520) .)		

<p>W06z00 FAN alarm (CTL-Unit, FAN-xy)</p> <p>The Fan Module failed.</p> <p>x : Controller # (0-1)</p> <p>y : Fan Module # (0-2)</p> <p>z : Chassis type (Refer to MSG 06-0000) for the detail)</p>	Collecting Error Information
<p>Recovery methods</p>	<p>① Perform the maintenance according to Troubleshooting "11.1.31 Recovery Method when a FAN Failure of the CBL Occurs" (TRBL 11-1450).</p>
<p>W07zy0 PS alarm (Unit-w, PS-x)</p> <p>An error occurred in the Power Unit.</p> <p>w : Unit ID # (0-79)</p> <p>x : Power Unit # (0-1)</p> <p>y : Power supply type (0 = AC Power Unit, 1 = DC Power Unit)</p> <p>z : Chassis type (Refer to MSG 06-0000) for the detail)</p>	Collecting Error Information
<p>W08zy0 PS alarm (CTL-Unit, PS-x)</p> <p>An error occurred in the Power Unit.</p> <p>x : Power Unit # (0-1)</p> <p>y : Power supply type (0 = AC Power Unit, 1 = DC Power Unit)</p> <p>z : Chassis type (Refer to MSG 06-0000) for the detail)</p>	Collecting Error Information
<p>Recovery methods</p>	<p>① When one of the following messages is displayed at the same time, follow the recovery procedure given by the message.</p> <ul style="list-style-type: none"> • I5JK00 PS error info [PS input error] (CTL-Unit, PS-x) • I5JL00 PS error info [PS input error code-z.z] (Unit-x, PS-y) <p>② Replace the Power Unit displayed in the message. (Refer to Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560).)</p>

W09zab HDU alarm (Unit-x, HDU-y, Type-c)

Collecting Error Information STRC

The Drive is blocked.

- x : Unit ID # (0-79)
 y : Drive # (0-83)
 z : Chassis type (Refer to [MSG 06-0000](#)) for the detail)
 a : Drive type code (Refer to [MSG 06-0000](#)) for the detail)
 b : Drive model name code (Refer to [MSG 06-0000](#)) for the detail)
 c : Drive model name (Character string : 0 to 8 characters)

W0Bzab Spare HDU alarm (Unit-x, HDU-y, Type-c)

Collecting Error Information STRC

A failure occurred in the Spare Disk.

- x : Unit ID # (0-79)
 y : Drive # (0-83)
 z : Chassis type (Refer to [MSG 06-0000](#)) for the detail)
 a : Drive type code (Refer to [MSG 06-0000](#)) for the detail)
 b : Drive model name code (Refer to [MSG 06-0000](#)) for the detail)
 c : Drive model name (Character string : 0 to 8 characters)

Recovery methods

① When one of the following messages is displayed at the same time, follow the recovery procedure given by the message.

- IY1800 Installed HDD numbers are over the limit for one backend path (Unit-x, HDU-y)
- IY1C00 Installed HDD numbers exceeded the limit for the array (Unit-x, HDU-y)
- IAIY00 Encryption properties of HDU and RAID Group mismatch (Unit-x, HDU-y)

② Replace the Drive.^{(*)1} (Refer to [Replacement "2.2.1 Replacing a Drive" \(REP 02-0050\)](#).)

When you want to know a model name of the Drive or a revision of the drive firmware, refer to [Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of a Drive" \(REP 01-0040\)](#).

③ 1. If not recovered, replace either of the following.

- Replace the Controller when the blocked Drive is installed in the array. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)
- Replace the I/O Module (ENC) or I/O Card (ENC) when the blocked Drive is installed in the Drive Box. (Refer to [Replacement "2.2.11 Replacing an I/O Module\(ENC\) or I/O Card\(ENC\)" \(REP 02-1500\)](#).)

Replace the following parts referring to the detected Controller # and detected core # of the underlined part of "07/29/2008 10:01:00 00 W09A3J HDU alarm ..." on the message. (Refer to [Troubleshooting "4.3 \(1\) \(b\) Flash/RAM firmware detection message" \(TRBL 04-0140\)](#).)

: Detect Controller #/Detect Core

#	Replacement Part Locations
00	Controller #0/
01	I/O Module(ENC) or I/O Card(ENC) #0
10	Controller #2/
11	I/O Module(ENC) or I/O Card(ENC) #1

2. Perform the dummy replacement ^{(*)2} for the Drive displayed in the message after replacing the Controller or I/O Module (ENC) or I/O Card (ENC).

④ 1. If not recovered yet, replace the other Controller or I/O Module (ENC) or I/O Card (ENC). (Refer to [Replacement "2.2.5 Replacing Controller" \(REP 02-0700\)](#), [Replacement "2.2.11 Replacing an I/O Module\(ENC\) or I/O Card\(ENC\)" \(REP 02-1500\)](#).)

2. Perform the dummy replacement ^{(*)1} for the Drive displayed in the message. (Refer to [Replacement "2.2.1 Replacing a Drive" \(REP 02-0050\)](#).)

*1 : The sequential shutdown may be failed if the Drive is in the blocked status. Maintain the blocked Drive before executing the sequential shutdown.

*2 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.

W0D000	HDU inquiry error (Unit-x, HDU-y)	Collecting Error Information	STRC
An inquiry error occurred in a Drive inserted with the power turned on. x : Unit ID # (0-79) y : Drive # (0-83)			
Recovery methods	① Replace the Drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .) ^(*) When you want to know a model name of the Drive or a revision of the drive firmware, refer to Replacement "1.1.2 Procedure for Making Sure of Model Name and Drive Firmware of Drive" (REP 01-0040) .		
*1 : The sequential shutdown may be failed if the Drive is in the blocked status. Maintain the blocked Drive before executing the sequential shutdown.			
W0E000	LU alarm (LU-x)	Collecting Error Information	STRC
Volume was blocked. x : LU # (0-4095)			
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.3 A Failure Occurred during Operation : Case 3 (Volume Blockade)" (TRBL 11-0820) .		
W0Fzf0	ENC alarm (Unit-x, ENC-y)	Collecting Error Information	STRC
A failure occurred in the I/O Module (ENC) or I/O Card (ENC). x : Unit ID # (1-79) y : I/O Module (ENC) or I/O Card (ENC) # (0-1) z : Chassis type (Refer to MSG 06-0000) for the detail) f : I/O Module (ENC) or I/O Card (ENC) type (Refer to MSG 06-0000) for the detail)			
Recovery methods	<div>① 1. Check the wiring of the SAS(ENC) cable connected to the I/O Module (ENC) or I/O Card (ENC) displayed in the message, and wire the SAS(ENC) cable correctly again.</div> <div>2. Perform the dummy replacement ^(*) of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>② Replace the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>③ 1. If not recovered or the phenomenon reoccurs, replace the connection source of the I/O Module (ENC) or I/O Card (ENC) (I/O Module (ENC) or I/O Card (ENC) or Controller) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500), Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)</div> <div>2. Perform the dummy replacement ^(*) of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>④ 1. If not recovered or the phenomenon reoccurs, replace the SAS (ENC) cable connecting the I/O Module (ENC) or I/O Card (ENC) displayed in the message and the connection source (I/O Module (ENC) or I/O Card (ENC)). (Refer to Replacement "2.2.12 Replacing a SAS(ENC) Cable" (REP 02-1680).)</div> <div>2. Perform the dummy replacement ^(*) of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>⑤ 1. If not recovered, replace the connection destination (farther side from the Controller) of the I/O Module (ENC) or I/O Card (ENC) (replace the I/O Module (ENC) or I/O Card (ENC)). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>2. Perform the dummy replacement ^(*) of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>⑥ 1. If not recovered or the phenomenon reoccurs, replace the SAS (ENC) cable connecting the I/O Module (ENC) or I/O Card (ENC) displayed in the message and the connection destination (I/O Module (ENC) or I/O Card (ENC)). (Refer to Replacement "2.2.12 Replacing a SAS(ENC) Cable" (REP 02-1680).)</div> <div>2. Perform the dummy replacement ^(*) of the I/O Module (ENC) or I/O Card (ENC) displayed in the message. (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>⑦ 1. If not recovered yet, perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260).) For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.</div> <div>2. Replace the other I/O Module(ENC) or I/O Card(ENC) (it cannot be replaced with the array power turned on). (Refer to Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500).)</div> <div>3. Turn on the power of the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230).)</div>		
*1 : This means that the part concerned is removed, and it is reinstalled after 20 seconds or more passed.			

W0Hz0x	UPS alarm (UPS-x)	Collecting Error Information	
	Abnormality occurred in the UPS. Or it detected that the UPS interlock cable could not be connected to the UPS.		
	x : UPS # (0-1)		
	z : Chassis type (Refer to MSG 06-0000) for the detail)		
Recovery methods	① Refer to System Parameter "Chapter 16. Setting Power Interlock" (SYSPR 16-0000) to check if the Current setting of the Power Interlock Mode is corresponding to the connection status between the array and the UPS, using Hitachi Storage Navigator Modular 2. If the setting is incorrect, set the correct value. (The change will be updated to default value after the planned shut down.) ② Check if the UPS interlock cable is connected firmly to the Controller and the UPS. If it is connected loosely, connect the UPS interlock cable firmly.		
W0Jzdy	CACHE alarm (CTL-x, CACHE-y)	Collecting Error Information	STRC
	A cache access error occurred. (unrecoverable)		
	x : Controller # (0-1)		
	y : Cache Memory # (0-1)		
	d : Cache Memory type (Refer to MSG 06-0000) for the detail)		
	z : Chassis type (Refer to MSG 06-0000) for the detail)		
Recovery methods	① Perform the maintenance according to "I6070x CACHE error over (CACHE-x) [CRECT]". ② Replace the Cache Memory. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ③ If not recovered, replace the above Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)		
W0K0xy	Path alarm (Remote-x, Path-y)	Collecting Error Information	
	A detachment of the path between the DF's occurred.		
	x : Remote # (Array ID)		
	y : Path # (0-7)		
Recovery methods	① Check whether the power supply of the remote array as a pair turns on or not. Turn on if the power off. ② Check whether the remote equipment is in the Ready status and the path blockage is recovered or not. ③ If it has not recovered, perform the maintenance according to Troubleshooting "11.1.17 Path Blockade Occurs in the TrueCopy remote replication/TrueCopy Extended Distance Function" (TRBL 11-0910) .		
W0L000	Unreadable PIN detected (Unit-x, HDU-y)	Collecting Error Information	STRC
	An unreadable PIN with a failed drive identified has occurred.		
	x : Unit ID # (0-79)		
	y : Drive # (0-83)		
Recovery methods	① When "H20100 Parity generation LA error [DRR] (CTL-x, DMA-yy)" is displayed after this message and the ALARM LED (red) on the Front Bezel lights up, perform Troubleshooting "11.1.1 System Down" (TRBL 11-0040) . ② When "W3D00 Forced parity correction LU is detected" is displayed before this message and the forced parity correction is being executed, perform the maintenance according to Troubleshooting "11.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 11-0150) . ③ When the message code "H20100 Parity generation LA error [DRR] (CTL-x, DMA-yy)" is displayed after this message, perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) . ④ When the message is displayed during the Drive restoration and "I15300 Data recovery partial (Unit-x, HDU-y)" is displayed after completing it, perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error) (1)" (TRBL 11-0700) . ⑤ When the message is displayed during the Drive restoration and "I15200 Data recovery failed (Unit-x, HDU-y)" is displayed after completing it, perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error) (2)" (TRBL 11-0710) . ⑥ When "I6D300 Unreadable PIN resisted (Unit-x, HDU-y, LU-z)" is displayed with this message at the same time, perform the maintenance according to the message. ⑦ When a RAID level of the RAID group, one of whose components is the failed Drive, is RAID 0, perform the maintenance according to Troubleshooting "11.1.14 A Failure Occurred during Operation: Case 4 (Incomplete Writing)" (TRBL 11-0840) . ⑧ When this message is still displayed, perform the maintenance according to Troubleshooting "11.1.42 Recovery Method when Incomplete Write was Registered in the DMLU, Replication DP Pool or Management Area DP Pool" (TRBL 11-2990) .		

W0M000	Unreadable PIN detected (Unit-*, HDU-*)	Collecting Error Information	STRC
An unreadable PIN without a failed drive identified has occurred.			
*: This denotes that the failed drive, which caused the incomplete writing, could not be specified.			
Recovery methods	<p>① When "H20100 Parity generation LA error [DRR] (CTL-x, DMA-yy)" is displayed after this message and the ALARM LED (red) on the Front Bezel lights up, perform Troubleshooting "11.1.1 System Down" (TRBL 11-0040).</p> <p>② When "W3D00 Forced parity correction LU is detected" is displayed before this message and the forced parity correction is being executed, perform the maintenance according to Troubleshooting "11.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 11-0150).</p> <p>③ When the message code "H20100 Parity generation LA error [DRR] (CTL-x, DMA-yy)" is displayed after this message, perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800).</p> <p>④ When the message is displayed during the Drive restoration and "I15300 Data recovery partial (Unit-x, HDU-y)" is displayed after completing it, perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error) (1)" (TRBL 11-0700).</p> <p>⑤ When the message is displayed during the Drive restoration and "I15200 Data recovery failed (Unit-x, HDU-y)" is displayed after completing it, perform the maintenance according to Troubleshooting "11.1.8 Data Recovery does not Terminate Normally : Case 1 (Read Error) (2)" (TRBL 11-0710).</p> <p>⑥ When "I6D300 Unreadable PIN resisted (Unit-x, HDU-y, LU-z)" is displayed with this message at the same time, perform the maintenance according to the message.</p> <p>⑦ When a RAID level of the RAID group, one of whose components is the failed Drive, is RAID 0, perform the maintenance according to Troubleshooting "11.1.14 A Failure Occurred during Operation: Case 4 (Incomplete Writing)" (TRBL 11-0840).</p> <p>⑧ When this message is still displayed, perform the maintenance according to Troubleshooting "11.1.42 Recovery Method when Incomplete Write was Registered in the DMLU, Replication DP Pool or Management Area DP Pool" (TRBL 11-2990).</p>		
W0N00x	Parity generation LA error [DRR] (CTL-x, DMA-yy)	Collecting Error Information	STRC
An LA error was detected at the time of parity generation. (DRR failure)			
x : Controller # (0-1)			
yy : D-CTL LSI port #			
00-01 (DDR)			
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		
W0Pz0g	Host connector alarm (Portxy)	Collecting Error Information	STRC
A trouble occurred in the Host Connector.			
x : Controller # (0-1)			
y : Port # (A-H)			
z : Chassis type (Refer to (MSG 06-0000) for the detail)			
g : Host connector type (Refer to (MSG 06-0000) for the detail)			
Recovery methods	① Replace the Host Connector displayed in the message. (Refer to Replacement "2.2.8 Replacing a Host Connector" (REP 02-1230) .)		
W0Q000	LU alarm	Collecting Error Information	STRC
LU blockage occurred.			
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.13 A Failure Occurred during Operation : Case 3 (Volume Blockade)" (TRBL 11-0820) .		
W0R000	User data lost (LU-x)	Collecting Error Information	STRC
The user data were lost since the Cache memory was volatilized. (*1)			
x : LU # (0-4095)			
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 11-0150) .		
*1 : When "LU-0000" is displayed, the LU #0 data or the configuration information on the array is lost.			
Check the LU #0 status in the Hitachi Storage Navigator Modular 2, and if LU #0 has errors, follow the recovery methods ①. If it is normal, the recovery operation is not needed.			

W0S000	PS OFF failed [NO HDU]	Collecting Error Information	STRC
	The plan was not stopped since there was not a Drive to save the information to be taken over.		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.6 The Power cannot be Turned Off : Case 3 (Controller Failure)" (TRBL 11-0660) .	
W0T000	PS OFF failed [CACHE ERR]	Collecting Error Information	STRC
	The plan was not stopped since a cache failure occurred and the PIN data could not be saved.		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.7 The Power cannot be Turned Off : Case 4 (Cache Memory Failure)" (TRBL 11-0680) .	
W0U0yy	DMA error (CTL-x, DMA-y)	Collecting Error Information	STRC
	An error occurred in the DMA transfer.		
	x : Controller # (0-1)		
	yy : D-CTL LSI port #		
	00-01 (DDR)		
	10-1F (DDMA)		
	20-27 (HDMA)		
	FF (unknown)		
	Recovery methods	① Replace the Controller displayed in the message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
W0V0xy	LA error [errcode:LUN] (D_PT-00, CTL-x, TRNS-y)	Collecting Error Information	STRC
	An LA error (including a LUN error) occurred in the Drive Port #00.		
	x : Controller # (0-1)		
	y : Transfer direction		
	R : Read direction		
	W : Write direction		
W0W0xy	LA error [errcode:LUN] (D_PT-01, CTL-x, TRNS-y)	Collecting Error Information	
	An LA error (including a LUN error) occurred in the Drive Port #01.		
	x : Controller # (0-1)		
	y : Transfer direction		
	R : Read direction		
	W : Write direction		
W0Y0xy	LA error [errcode:LUN] (H_PT-00, CTL-x, TRNS-y)	Collecting Error Information	STRC
	An LA error (including a LUN error) occurred in the Host Port #00.		
	x : Controller # (0-1)		
	y : Transfer direction		
	R : Read direction		
	W : Write direction		
W0Z0xy	LA error [errcode:LUN] (H_PT-01, CTL-x, TRNS-y)	Collecting Error Information	STRC
	An LA error (including a LUN error) occurred in the Host Port #01.		
	x : Controller # (0-1)		
	y : Transfer direction		
	R : Read direction		
	W : Write direction		
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .	

W100xy	LA error [errcode:LBA] (D_PT-00, CTL-x, TRNS-y) An LA error (including a LUN error) occurred in the Drive Port #00. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W120xy	LA error [errcode:LBA] (D_PT-01, CTL-x, TRNS-y) An LA error (including a LUN error) occurred in the Drive Port #01. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W130xy	LA error [errcode:LBA] (H_PT-00, CTL-x, TRNS-y) An LA error (including a LUN error) occurred in the Host Port #00. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W140xy	LA error [errcode:LBA] (H_PT-01, CTL-x, TRNS-y) An LA error (including a LUN error) occurred in the Drive Port #01. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W150xy	LA error [errcode:LUN] (D_PT-02, CTL-x, TRNS-y) A LUN error occurred in the Drive Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W160xy	LA error [errcode:LUN] (D_PT-03, CTL-x, TRNS-y) A LUN error occurred in the Drive Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W170xy	LA error [errcode:LBA] (D_PT-02, CTL-x, TRNS-y) A LBA error occurred in the Drive Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W180xy	LA error [errcode:LBA] (D_PT-03, CTL-x, TRNS-y) A LBA error occurred in the Drive Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W190xy	LA error [errcode:LUN] (H_PT-02, CTL-x, TRNS-y) A LUN error occurred in the Host Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1A0xy	LA error [errcode:LUN] (H_PT-03, CTL-x, TRNS-y) A LUN error occurred in the Host Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1B0xy	LA error [errcode:LBA] (H_PT-02, CTL-x, TRNS-y) A LBA error occurred in the Host Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1C0xy	LA error [errcode:LBA] (H_PT-03, CTL-x, TRNS-y) A LBA error occurred in the Host Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1D0xy	LRC error (D_PT-00, CTL-x, TRNS-y) A LRC error occurred in the Drive Port #00. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1E0xy	LRC error (D_PT-01, CTL-x, TRNS-y) A LRC error occurred in the Drive Port #01. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1F0xy	LRC error (D_PT-02, CTL-x, TRNS-y) A LRC error occurred in the Drive Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1G0xy	LRC error (D_PT-03, CTL-x, TRNS-y) A LRC error occurred in the Drive Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W1H0xy	LRC error (H_PT-02, CTL-x, TRNS-y) A LRC error occurred in the Host Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1J0xy	LRC error (H_PT-03, CTL-x, TRNS-y) A LRC error occurred in the Host Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1K00x	Data transfer check error [SEGPOSERR] (CTL-x) (Data assurance check) An illegal cache writing segment position was detected. x : Controller # (0-1)	Collecting Error Information	STRC
W1L000	EDC LA error [error code : LUN] (H_PT-00, CTL-x, TRANS-y) An EDC_LUN error occurred in the Host Port #00. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1M000	EDC LA error [error code : LUN] (H_PT-01, CTL-x, TRANS-y) An EDC_LUN error occurred in the Host Port #01. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1N000	EDC LA error [error code : LUN] (H_PT-02, CTL-x, TRANS-y) An EDC_LUN error occurred in the Host Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1P000	EDC LA error [error code : LUN] (H_PT-03, CTL-x, TRANS-y) An EDC_LUN error occurred in the Host Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1Q000	EDC LA error [error code : LBA] (H_PT-00, CTL-x, TRANS-y) An EDC_LBA error occurred in the Host Port #00. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W1R000	EDC LA error [error code : LBA] (H_PT-01, CTL-x, TRANS-y) An EDC_LBA error occurred in the Host Port #01. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1S000	EDC LA error [error code : LBA] (H_PT-02, CTL-x, TRANS-y) An EDC_LBA error occurred in the Host Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1T000	EDC LA error [error code : LBA] (H_PT-03, CTL-x, TRANS-y) An EDC_LBA error occurred in the Host Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1U000	EDC LA error [error code : CRC] (H_PT-00, CTL-x, TRANS-y) An EDC_CRC error occurred in the Host Port #00. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1V0xy	LRC error (H_PT-00, CTL-x, TRNS-y) A LRC error occurred in the Host Port #00. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1W0xy	LRC error (H_PT-01, CTL-x, TRNS-y) A LRC error occurred in the Host Port #01. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1Y000	EDC LA error [error code : CRC] (H_PT-01, CTL-x, TRANS-y) An EDC_CRC error occurred in the Host Port #01. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W1Z000	EDC LA error [error code : CRC] (H_PT-02, CTL-x, TRANS-y) An EDC_CRC error occurred in the Host Port #02. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W20000	EDC LA error [error code : CRC] (H_PT-03, CTL-x, TRANS-y) An EDC_CRC error occurred in the Host Port #03. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W230xy	LA error [errcode:LUN] (D_PT-05, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LUN error was detected in D-PORT #05 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W240xy	LA error [errcode:LUN] (D_PT-06, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LUN error was detected in D-PORT #06 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W250xy	LA error [errcode:LUN] (D_PT-07, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LUN error was detected in D-PORT #07 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W260xy	LA error [errcode:LBA] (D_PT-04, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LBA error was detected in D-PORT #04 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W270xy	LA error [errcode:LBA] (D_PT-05, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LBA error was detected in D-PORT #05 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W280xy	LA error [errcode:LBA] (D_PT-06, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LBA error was detected in D-PORT #06 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W290xy	LA error [errcode:LBA] (D_PT-07, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LBA error was detected in D-PORT #07 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W2A0xy	LRC error (D_PT-04, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LRC error was detected in D-PORT #04 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2B0xy	LRC error (D_PT-05, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LRC error was detected in D-PORT #05 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2C0xy	LRC error (D_PT-06, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LRC error was detected in D-PORT #06 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2D0xy	LRC error (D_PT-07, CTL-x, TRNS-y) [D-DMA Transfer Failure] An LRC error was detected in D-PORT #07 of D-CTL LSI. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2E0xy	LA error [errcode:LUN] (H_PT-04, CTL-x, TRNS-y) A LUN error occurred in host port #04. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2F0xy	LA error [errcode:LUN] (H_PT-05, CTL-x, TRNS-y) A LUN error occurred in host port #05. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2G0xy	LA error [errcode:LUN] (H_PT-06, CTL-x, TRNS-y) A LUN error occurred in host port #06. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2H0xy	LA error [errcode:LUN] (H_PT-07, CTL-x, TRNS-y) A LUN error occurred in host port #07. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W2J0xy	LA error [errcode:LBA] (H_PT-04, CTL-x, TRNS-y) A LBA error occurred in host port #04. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2K0xy	LA error [errcode:LBA] (H_PT-05, CTL-x, TRNS-y) A LBA error occurred in host port #05. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2L0xy	LA error [errcode:LBA] (H_PT-06, CTL-x, TRNS-y) A LBA error occurred in host port #06. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2M0xy	LA error [errcode:LBA] (H_PT-07, CTL-x, TRNS-y) A LBA error occurred in host port #07. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2N0xy	LRC error (H_PT-04, CTL-x, TRNS-y) A LRC error occurred in host port #04. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2P0xy	LRC error (H_PT-05, CTL-x, TRNS-y) A LRC error occurred in host port #05. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2Q0xy	LRC error (H_PT-06, CTL-x, TRNS-y) A LRC error occurred in host port #06. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2R0xy	LRC error (H_PT-07, CTL-x, TRNS-y) A LRC error occurred in host port #07. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W2S000	EDC LA error [error code:LUN] (H_PT-04, CTL-x, TRANS-y) An EDC_LUN error occurred in host port #04. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2T000	EDC LA error [error code:LUN] (H_PT-05, CTL-x, TRANS-y) An EDC_LUN error occurred in host port #05. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2U000	EDC LA error [error code:LUN] (H_PT-06, CTL-x, TRANS-y) An EDC_LUN error occurred in host port #06. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2V000	EDC LA error [error code:LUN] (H_PT-07, CTL-x, TRANS-y) An EDC_LUN error occurred in host port #07. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2W000	EDC LA error [error code:LBA] (H_PT-04, CTL-x, TRANS-y) An EDC_LBA error occurred in host port #04. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2Y000	EDC LA error [error code:LBA] (H_PT-05, CTL-x, TRANS-y) An EDC_LBA error occurred in host port #05. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W2Z000	EDC LA error [error code:LBA] (H_PT-06, CTL-x, TRANS-y) An EDC_LBA error occurred in host port #06. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W30000	EDC LA error [error code:LBA] (H_PT-07, CTL-x, TRANS-y) An EDC_LBA error occurred in host port #07. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W31000	EDC LA error [error code:CRC] (H_PT-04, CTL-x, TRANS-y) An EDC_CRC error occurred in host port #04. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W32000	EDC LA error [error code:CRC] (H_PT-05, CTL-x, TRANS-y) An EDC_CRC error occurred in host port #05. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W34000	EDC LA error [error code:CRC] (H_PT-06, CTL-x, TRANS-y) An EDC_CRC error occurred in host port #06. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W35000	EDC LA error [error code:CRC] (H_PT-07, CTL-x, TRANS-y) An EDC_CRC error occurred in host port #07. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .	
W36000	PIN write error PIN data were not saved in the Drive since a hardware error occurred.	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.5 The Power cannot be Turned Off : Case 2 (Hardware Failure)" (TRBL 11-0640) .	

W360xy	LA error [errcode:LUN] (D_PT-08, CTL-x, TRNS-y) [D-DMA transfer failure] A LUN error was detected in D-PORT #08 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W361xy	LA error [errcode:LUN] (D_PT-09, CTL-x, TRNS-x) [D-DMA transfer failure] A LUN error was detected in D-PORT #09 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W362xy	LA error [errcode:LUN] (D_PT-10,CTL-x, TRNS-y) [D-DMA transfer failure] A LUN error was detected in D-PORT #10 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W363xy	LA error [errcode:LUN] (D_PT-11,CTL-x, TRNS-y) [D-DMA transfer failure] A LUN error was detected in D-PORT #11 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W364xy	LA error [errcode:LUN] (D_PT-12,CTL-x, TRNS-y) [D-DMA transfer failure] A LUN error was detected in D-PORT #12 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W365xy	LA error [errcode:LUN] (D_PT-13,CTL-x, TRNS-y) [D-DMA transfer failure] A LUN error was detected in D-PORT #13 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W366xy	LA error [errcode:LUN] (D_PT-14,CTL-x, TRNS-y) [D-DMA transfer failure] A LUN error was detected in D-PORT #14 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W367xy	LLA error [errcode:LUN] (D_PT-15, CTL-x, TRNS-y) [D-DMA transfer failure] A LUN error was detected in D-PORT #15 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

W370xy	LA error [errcode:LBA] (D_PT-08, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #08 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W371xy	LA error [errcode:LBA] (D_PT-09, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #09 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W372xy	LA error [errcode:LBA] (D_PT-10, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #10 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W373xy	LA error [errcode:LBA] (D_PT-11, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #11 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W374xy	LA error [errcode:LBA] (D_PT-12, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #12 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W375xy	LA error [errcode:LBA] (D_PT-13, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #13 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W376xy	LA error [errcode:LBA] (D_PT-14, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #14 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
W377xy	LA error [errcode:LBA] (D_PT-15, CTL-x, TRNS-y) [D-DMA transfer failure] A LBA error was detected in D-PORT #15 of D-CTL LSI of the Controller. x : Controller # (0-1) y : Transfer direction R : Read direction W : Write direction	Collecting Error Information	STRC
Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .		

<p>W3800x SNMP invalid (CTL-x) [Config]</p> <p>There is not SNMP information but SNMP information has not been introduced. The SNMP function has not started up.</p> <p>x : Controller # (0-1)</p> <p>Recovery methods ① Install the information for SNMP.</p>	Collecting Error Information
<p>W381xy LRC error (D_PT-08, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #08 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	Collecting Error Information STRC
<p>W382xy LRC error (D_PT-09, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #09 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	Collecting Error Information STRC
<p>W383xy LRC error (D_PT-10, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #10 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	Collecting Error Information STRC
<p>W384xy LRC error (D_PT-11, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #11 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	Collecting Error Information STRC
<p>W385xy LRC error (D_PT-12, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #12 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	Collecting Error Information STRC
<p>W386xy LRC error (D_PT-13, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #13 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	Collecting Error Information STRC
<p>W387xy LRC error (D_PT-14, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #14 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p> <p>Recovery methods ① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800).</p>	Collecting Error Information STRC

<p>W388xy LRC error (D_PT-15, CTL-x, TRNS-y)</p> <p>[D-DMA transfer failure] A LRC error was detected in D-PORT #15 of D-CTL LSI of the Controller.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800).</p>
<p>W390xy A permanent LU warning (CTL-x, ERR-y)</p> <p>The resident off-warning occurred in Cache Residency Manager (the Cache Residency Manager function stopped).</p> <p>x : Default Controller # (0-1)</p> <p>y : Factor code</p> <p>0: Too large volume</p> <p>1: Cache access error</p> <p>2: Regression of Controller</p> <p>3: • A Cache Backup Battery error or a Power Unit error of the Controller Box</p> <p>• A Cache Backup Battery error for one Controller and a Power Unit error of the Controller Box</p> <p>4: Abnormal battery charging circuit</p> <p>5: The number of the PIN data (data which failed to write to the Drive) exceeded the threshold value.</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p>	<p>y=0 ① Since the cache memory is reduced while using Cache Residency Manager, return (add) the cache memory configuration to the original one.</p> <p>When the cache memory is reduced and Cache Residency Manager is used, return the cache memory configuration to the original one, cancel Cache Residency Manager, reduce the cache memory and reset Cache Residency Manager in accordance with the cache memory capacity.</p> <p>y=1 ① 1. Perform the maintenance according to the message text "W0Jzcy CACHE alarm" displayed at the same time.</p> <p>2. After the cache memory failure recovers, turn off the power of the array to restart the Cache Residency Manager function.</p> <p>3. Turn on the power of the array again.</p> <p>y=2 ① Perform the maintenance in accordance with the message of the Controller # displayed as shown below.</p> <ul style="list-style-type: none"> • W01z0x CTL alarm • The message indicating the factor of the Controller blockade • The message indicating the factor of the Controller recovery failure <p>y=3 ① Perform the maintenance according to the message text "W03z0x Battery alarm" or "W08zy0 PS alarm" displayed at the same time.</p> <p>y=4 ① Perform the maintenance according to the message text "W0400x Battery backup circuit alarm" displayed at the same time.</p> <p>y=5 ① Perform the maintenance according to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760).</p>

W3A00x	Online micro-update executing (CTL-x)	Collecting Error Information
	The firmware of a Controller has not been replaced with the power turned on.	
	x : Controller # (0-1)	
	This message is indicated to warn that firmware of a Controller is being replaced with the power turned on.	
	If replacement of the firmware is finished, this warning disappears.	
W3B00x	Online micro-update started (CTL-x)	Collecting Error Information
	The Controller was blocked falsely to replace the firmware with the power turned on, or the Controller of another system was blocked falsely.	
	x : Controller # (0-1)	
	Recovery methods	None
W3C00x	Serial number error [WWN] (CTL-x)	Collecting Error Information
	WWN could not be set since the serial number of the array was set incorrectly.	
	x : Controller # (0-1)	
	Recovery methods	① Check with the Technical Support Center that there is no error in the serial number setting of the device.
W3D000	Forced parity correction LU is detected	Collecting Error Information
	A volume, which required the forced parity correction, was detected.	
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 11-0150) .
W3E000	Uncorrectable forced parity correction LU is detected	Collecting Error Information
	A volume, the forced restoration for which by means of parity could not be continued, was detected.	
	Recovery methods	① Check the volume information using the Hitachi Storage Navigator Modular 2.
		② Have the volume, the forced restoration for which by means of parity cannot be continued, skip the restoration by issuing an instruction to skip the restoration using the Hitachi Storage Navigator Modular 2. ^(*)
		The warning is removed after all the volumes, the forced restoration for which by means of parity cannot be continued, receive an instruction to skip the restoration.
	<p>*1 : When there is a volume which is not executing the forced parity correction, the dynamic sparing is suppressed and the data recovery is always executed by the correction copy. Also, the copy back from the Spare Drive does not operate. In this case, perform the skip instruction for all the volumes that the volume status is "Correction Aborted" after the data recovery to the Spare Drive. The dynamic sparing and the copy back can be executed now by this operation.</p>	
W3F000	Forced parity correction LU is detected by HDU alarm	Collecting Error Information
	Drive detachment occurred in a RAID group whose RAID level was 6 and a volume, which was in the forced parity correction status of "Uncorrected and Drive Detached", was detected.	
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 11-0150) .
		② Select whether to execute the forced parity correction or skip it after any of the following messages was displayed. (Refer to Troubleshooting "11.1.3 < Procedure given in windows >" (TRBL 11-0350) .)
		• I007ab HDU recovered
		• I009ab Spare HDU recovered
W3G000	PIN is over directory threshold [write through] (DIR-x)	Collecting Error Information STRC
	The number of pinned sub-segments in the directory (that is, unit of cache domain management) exceeded the threshold value of performing the write through operation.	
	x : Directory # (0 or 1)	
W3H000	PIN is over directory threshold [write will not run] (DIR-x)	Collecting Error Information STRC
	The number of PIN sub-segments in the directory (unit of the Cache area management) exceeded the threshold for the check condition to respond to the write command.	
	x : Directory # (0 or 1)	
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-760) .

W3J000	PIN is over partition threshold [write through] (DIR-x, PTT-y) The number of pinned sub-segments in the partition exceeded the threshold value of performing the write through operation. x : Directory # (0 or 1) y : Cache Partition # (0-31)	Collecting Error Information	STRC
W3K000	PIN is over partition threshold [write will not run] (DIR-x, PTT-y) The number of PIN sub-segments in the partition exceeded the threshold for the check condition to respond to the write command. x : Directory # (0 or 1) y : Cache Partition # (0-31)	Collecting Error Information	STRC
W3L000	PIN is over RAID group threshold [write through] (DIR-x, RG-y) The number of pinned sub-segments in the RAID group exceeded the threshold value of performing the write through operation. x : Directory # (0 or 1) y : RAID group # (0-199)	Collecting Error Information	STRC
W3M000	PIN is over RAID group threshold [write will not run] (DIR-x, RG-y) The number of PIN sub-segments in the RAID group exceeded the threshold to execute the write command. x : Directory # (0 or 1) y : RAID group # (0-199)	Collecting Error Information	STRC
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760) .	
W3N000	DM-LU write disable (LU-x) Write for the DMLU became impossible. x : LU # (0-4095)	Collecting Error Information	STRC
	Recovery methods	① When "W3P000 ALL DM-LUs are write disable" is displayed, follow the message and perform the maintenance. ② When "W3P000 ALL DM-LUs are write disable" is not displayed, perform the following recovery procedure. <ol style="list-style-type: none"> 1. Refer to the [Replication] – [Setup] – [DMLU] window on the tree view of Hitachi Storage Navigator Modular 2 and check [Status] of the DMLU displayed in the message. Specifically, check if [Status] is "Detached", "(Uncorrected)", "(Correction Aborted)" or "(Uncorrected and Drive Detached)". 2. Refer to "ShadowImage in-system replication User's Guide" when ShadowImage in-system replication is used or refer to "TrueCopy remote replication User's Guide" when TrueCopy remote replication is used, and cancel the DMLU displayed in the message. 3. If [Status] of the DMLU is "Detached" in Step ②-1., perform the maintenance for the original DMLU displayed in the message in accordance with the recovery method of the message code "W0E000 LU alarm (LU-x)". 4. If [Status] of the DMLU is "(Uncorrected)", "(Correction Aborted)" or "(Uncorrected and Drive Detached)" in Step ②-1., refer to Troubleshooting "11.1.13 A Failure Occurred during Operation : Case 3 (Volume Blockade)" (TRBL 11-0820) and perform the maintenance for the original DMLU displayed in the message. 5. Refer to "ShadowImage in-system replication User's Guide" when ShadowImage in-system replication is used or refer to "TrueCopy remote replication User's Guide" when TrueCopy remote replication is used, and reset the DMLU. (Refer to System Parameter "15.2 Setting DMLU" (SYSPR 15-0020).) 	

W3P000 All DM-LU write disabled		Collecting Error Information	STRC
Write for all DMLUs became impossible.			
Recovery methods	①	<p>1. Refer to "ShadowImage in-system replication User's Guide" when ShadowImage in-system replication is used or refer to "TrueCopy remote replication User's Guide" when TrueCopy remote replication is used, and delete all the pairs.</p> <p>All the pairs are recreated at the end of the recovery procedure. Therefore, check with the customer/SE in advance that all the pairs can be recreated.</p> <p>2. The message code "W3N000 DM-LU is write disable (LU-xxxx)" is displayed for all the DMLUs. Refer to the Warning Information Message in the WEB window, check that the message code "W3N000 DM-LU is write disable (LU-xxxx)" is displayed and check the LU number of the message.</p> <p>3. Refer to the [Replication] – [Setup] – [DMLU] window on the tree view of Hitachi Storage Navigator Modular 2 and check [Status] of the DMLU. Specifically, check if [Status] is "Detached", "(Uncorrected)", "(Correction Aborted)" or "(Uncorrected and Drive Detached)".</p> <p>4. Refer to "ShadowImage in-system replication User's Guide" when ShadowImage in-system replication is used or refer to "TrueCopy remote replication User's Guide" when TrueCopy remote replication is used, and cancel the all DMLU.</p> <p>5. If [Status] of the DMLU is "Detached " in Step ①-3., perform the maintenance for the original DMLU in accordance with the recovery method of the message code "W0E000 LU alarm (LU-x)".</p> <p>6. If [Status] of the DMLU is "(Uncorrected)", "(Correction Aborted)" or "(Uncorrected and Drive Detached)" in Step ①-1., refer to Troubleshooting "11.1.13 A Failure Occurred during Operation : Case 3 (Volume Blockade)" (TRBL 11-0820) and perform the maintenance for the original DMLU displayed in the message.</p> <p>7. Refer to "ShadowImage in-system replication User's Guide" when ShadowImage in-system replication is used or refer to "TrueCopy remote replication User's Guide" when TrueCopy remote replication is used, and reset the DMLU. (Refer to System Parameter "15.2 Setting DMLU" (SYSPR 15-0020).)</p> <p>8. Refer to "ShadowImage in-system replication User's Guide" when ShadowImage in-system replication is used and recreate all the pairs of ShadowImage in-system replication or refer to "TrueCopy remote replication User's Guide" when TrueCopy remote replication User's Guide is used and recreate all the pairs of ShadowImage in-system replication.</p>	

<p>W3Q00x SNMP error occurred in the SNMP function (CTL-x)</p> <p>The SNMP function detected an error.</p> <p>x : Controller # (0-1)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p> <p>① Do maintenance work following the message displayed after this message.</p> <ul style="list-style-type: none"> • IB1200 SNMP Task error • IB1300 SNMP configuration • IB1400 SNMP agent detected the error • IB1500 SNMP IP address error • IB1600 SNMP Initialization error • IB1700 SNMP RAM Device allocation error for SNMP 	
<p>W3Rzhx Interface Board alarm (CTL-w, I/F-x)</p> <p>A hardware failure of the Host I/O Board was detected.</p> <p>w : Controller # (0-1)</p> <p>x : Slot of Host I/O Board # (1)</p> <p>h : I/F type (Refer to MSG 06-0000) for the detail)</p> <p>z : Chassis type (Refer to MSG 06-0000) for the detail)</p>	<p>Collecting Error Information</p> <p>CTRC</p>
<p>Recovery methods</p> <p>① Perform the maintenance according to Troubleshooting "11.1.35 Recovery Method at the Time of Host I/O Board Blockade" (TRBL 11-2540).</p>	
<p>W3S0xy LA error [errcode:LUN] (D_PT-04, CTL-x, TRNS-y)</p> <p>[D-DMA Transfer Failure] An LUN error was detected in D-PORT #04 of D-CTL LSI.</p> <p>x : Controller # (0-1)</p> <p>y : Transfer direction</p> <p>R : Read direction</p> <p>W : Write direction</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p> <p>① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800).</p>	
<p>W3V000 PIN is over pool threshold [write through] (DIR-x, Pool-y)</p> <p>The number of PINs of the DP pool exceeded the threshold value of the write through.</p> <p>The write command for the LUs belonging to the DP pool displayed in the message is processed by the write through mode until the number of PINs recovers in less than the threshold value of the array. Therefore, the write performance for these LUs is deteriorated.</p> <p>x : Directory # (0 or 1)</p> <p>y : Pool # (0-63)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>W3W000 PIN is over pool threshold [write will not run] (DIR-x, Pool-y)</p> <p>The number of PINs of the DP pool exceeded the threshold value of the check response to the host.</p> <p>For all the write commands for the LUs belonging to the DP pool displayed in the message, the check condition status is returned to the host computer until the number of PINs recovers in less than the threshold value of the array. Therefore, the write commands for these LUs are not executed.</p> <p>x : Directory # (0 or 1)</p> <p>y : Pool # (0-63)</p>	<p>Collecting Error Information</p> <p>STRC</p>
<p>Recovery methods</p> <p>① Perform the maintenance according to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760).</p>	

W3X000 Please replace cache memory to recover from cache correctable error (CTL-x, CACHE-y)	Collecting Error Information	STRC
The number of detected correctable errors of the Cache memory exceeded the threshold value by the automatic diagnosis of the Cache memory online.		
x : Controller # (0-1)		
y : Cache Memory # (0-3)		
Recovery methods	① When the ALM LED on the Controller displayed in the message lights up, replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .)	
	② When the ALM LED on the Controller displayed in the message goes out and the ALM LED on the other Controller lights up in the dual controller system	
	1. Perform the maintenance of the Controller whose ALM LED lights up referring to the Information Message on WEB. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
	2. Ask the customer/SE to allow the preventive replacement of the Cache Memory because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, tell the customer/SE about stopping the host I/O in advance due to blocking the Controller in which the Cache Memory is installed, and request him/her to consider the replacement date.	
	3. Replace the Cache Memory displayed in the message according to Replacement "2.2.6 Replacing a Cache Memory (1) Procedure for replacement with the power turned on" (REP 02-0940) .	
	③ When the ALM LEDs on both Controllers go out, but the message is only displayed for one Controller in the dual controller system	
	1. Ask the customer/SE to allow the preventive replacement of the Cache Memory because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, tell the customer/SE about stopping the host I/O in advance due to blocking the Controller in which the Cache Memory is installed, and request him/her to consider the replacement date.	
	2. Replace the Cache Memory displayed in the message according to Replacement "2.2.6 Replacing a Cache Memory (1) Procedure for replacement with the power turned on" (REP 02-0940) .	
	④ When the ALM LEDs on both Controllers go out and the message is displayed for both Controller #0 and Controller #1 in the dual controller system	
	1. Ask the customer/SE to allow the preventive replacement of the Cache Memory because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, tell the customer/SE about stopping the host I/O in advance due to blocking the Controller in which the Cache Memory is installed, and request him/her to consider the replacement date.	
	2. Confirm the customer/SE from which Controller of Controller #0 and Controller #1 he/she replaces the Cache Memory.	
	3. Replace the Cache Memory displayed in the message for the Controller confirmed in the procedure ④-2 according to Replacement "2.2.6 Replacing a Cache Memory (1) Procedure for replacement with the power turned on" (REP 02-0940) .	
	4. Replace the Cache Memory displayed in the message for the other Controller according to Replacement "2.2.6 Replacing a Cache Memory (1) Procedure for replacement with the power turned on" (REP 02-0940) .	
	⑤ In case of the single controller system	
	1. Ask the customer/SE to allow the preventive replacement of the Cache Memory because correctable errors of the Cache memory have occurred exceeding the threshold value. Moreover, since the array needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date.	
	2. Replace the Cache Memory displayed in the message for the other Controller according to Replacement "2.2.6 Replacing a Cache Memory (2) Procedure for replacement with the power turned off" (REP 02-1060) .	

W3Y000	Please replace cache memory to recover from cache uncorrectable error (CTL-x, CACHE-y)	Collecting Error Information	STRC
	An uncorrectable error of the Cache memory was detected by the automatic diagnosis of the Cache memory online.		
	x : Controller # (0-1)		
	y : Cache Memory # (0-3)		
Recovery methods	<p>① When the ALM LED on the Controller displayed in the message lights up, replace the Cache Memory displayed in the message. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-920).)</p> <p>② When the ALM LED on the Controller displayed in the message goes out and the ALM LED on the other Controller lights up in the dual controller system</p> <ol style="list-style-type: none"> 1. Perform the maintenance of the Controller whose ALM LED lights up referring to the Information Message on WEB. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).) 2. Ask the customer/SE to allow the preventive replacement of the Cache Memory because uncorrectable errors of the Cache memory have occurred. Moreover, since the array needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date. 3. Replace the Cache Memory displayed in the message according to Replacement "2.2.6 Replacing a Cache Memory (1) Procedure for replacement with the power turned on" (REP 02-0940). <p>③ When the message is displayed for both Controller #0 and Controller #1 in the dual controller system</p> <ol style="list-style-type: none"> 1. Ask the customer/SE to allow the preventive replacement of the Cache Memory because uncorrectable errors of the Cache memory have occurred. Moreover, since the array needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date. 2. Replace the Cache Memory displayed in the message for the other Controller according to Replacement "2.2.6 Replacing a Cache Memory (2) Procedure for replacement with the power turned off" (REP 02-1060). <p>④ In case of the single controller system</p> <ol style="list-style-type: none"> 1. Ask the customer/SE to allow the preventive replacement of the Cache Memory because uncorrectable errors of the Cache memory have occurred. Moreover, since the array needs the planned shutdown, tell the customer/SE about stopping the host I/O in advance, and request him/her to consider the replacement date. 2. Replace the Cache Memory displayed in the message for the other Controller according to Replacement "2.2.6 Replacing a Cache Memory (2) Procedure for replacement with the power turned off" (REP 02-1060). 		
W3Z000	The count of search for failure part in backend route was over the threshold (Path-x)	Collecting Error Information	STRC
	The search count of the failed part in the backend path exceeded the threshold value.		
	x : Path # (0-7)		
Recovery methods	<ol style="list-style-type: none"> ① 1. Collect a simple trace. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).) 2. Contact the Technical Support Center, and send the collected simple trace. 3. The Technical Support Center is required to specify the failed part by analyzing the simple trace. 4. Replace the alleged failed part reported by the Technical Support Center. (Refer to Replacement "Chapter 2. Parts Replacement" (REP 02-0000).) 5. Collect the simple trace at the time 30 minutes passed after replacing the part, and send to the Technical Support Center. (Refer to Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040).) 6. The Technical Support Center needs to check that no failure has occurred and the device is normal by analyzing the simple trace. 		

W40000	Backend route warning has been detected (Path-x, Route-y) The firmware determined that multiple suspected failed parts exist in the Path/Route displayed in the message as the result of searching for and identifying a failed part in the backend route. x : Path # (0-7) y : Route # (0-1) Recovery methods ① Perform the maintenance according to Troubleshooting "11.1.29 Recovery Method when the Multiple Suspected Failed Parts were Detected in the Backend" (TRBL 11-1390) .	Collecting Error Information	STRC
W43000	SNMP invalid [RAM Device MAKE ERR] When SNMP was initialized, making of a RAM device failed.	Collecting Error Information	STRC
W43100	SNMP invalid [RAM Device INIT ERR] When SNMP was initialized, initialization of a RAM device failed.	Collecting Error Information	STRC
W43200	SNMP invalid [RAM Device CREATE ERR] When SNMP was initialized, generation of a RAM device failed.	Collecting Error Information	STRC
W43300	SNMP invalid [RAM Device WRITE ERR] When SNMP was initialized, writing in a RAM device failed.	Collecting Error Information	STRC
W43400	SNMP failure [APL ERR] An application error of SNMP was detected. Recovery methods ① Controller of the No. indicated by "Cx" (x: Controller #) in the log message. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	Collecting Error Information	STRC
W70z00	Recoverable CTL alarm by the maintenance procedures of the blocked component (CTL-x) ^{(*)1} [In case of the CBSS/CBSL/CBXSS/CBXSL] <ul style="list-style-type: none">• Since the Host I/O Board of the option was blocked, the Controller which manages the board was pseudo-blocked^{(*)2}.• When the Host I/O Board of the option is a failed part, if the board is maintained, the Controller reboots automatically and recovers from the pseudo blockade^{(*)2} automatically. [In case of the CBL] <ul style="list-style-type: none">• Because any of the Host I/O Module, Drive I/O Module and management module was blocked.• Among the FANs in three units managed by the Controller, the FANs in two units or more were blocked. Therefore, the Controller which manages them was pseudo-blocked^{(*)2}.• When the blocked part is a failed part, if the part is maintained, the Controller reboots automatically and recovered from the pseudo blockade^{(*)2} automatically. x : Controller # (0-1) z : Chassis type (Refer to MSG 06-0000) for the detail) Recovery methods In case of the CBSS/CBSL/CBXSS/CBXSL ① Perform the maintenance according to the message text "W3Rzhx Interface Board alarm (CTL-w, I/F-x)" displayed at the same time. In case of the CBL ① Perform the maintenance according to the message text displayed at the same time. <ul style="list-style-type: none">• W06z00 FAN alarm (CTL-Unit, FAN-xy)• WA0zj0 Drive I/O module alarm (CTL-x, Slot-y)• WA1zi0 Host I/O module alarm (CTL-x, Slot-y)• WA2zk0 Management module alarm (CTL-x, Slot-y)	Collecting Error Information	STRC
*1 : The message may be displayed twice at the same timing, however, there is no problem. Perform the maintenance according to the message. *2 : The controller concerned becomes inaccessible from the host and the management program because the controller operation stops.			
W71000	The number of PINs exceeded partition threshold [write through] (DIR-x, Management Area) The number of PIN data of the partition used as the management area exceeded the write through threshold value. x : Directory # (0 or 1)	Collecting Error Information	STRC
W72000	Number of PINs exceeded partition threshold [write will not run] (DIR-x, Management Area) The number of PIN data of the partition used as the management area exceeded the check response threshold value. x : Directory # (0 or 1) Recovery methods ① Perform the maintenance according to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760) .	Collecting Error Information	STRC

WA0zj0 Drive I/O module alarm (CTL-w, Slot-l)	Collecting Error Information	STRC
A failure occurred in the Drive I/O module.		
w : Controller # (0-1)		
z : Chassis type (Refer to MSG 06-0000) for the detail)		
l : I/O Module slot code (Refer to MSG 06-0000) for the detail)		
j : Drive I/O type (0 : SAS6G, 6 : SAS6GE, E : The type is unknown, F : Unmount)		
Recovery methods	① When one of the following messages is displayed at the same time, follow the recovery procedure given by the message. <ul style="list-style-type: none"> • IAIWf0 Drive I/O module error info. [Encryption function is not supported] (CTL-x, Slot-l) • IAIxf0 Drive I/O module error info. [Encryption key is not initialized] (CTL-x, Slot-l) ② Perform the maintenance referring to Troubleshooting "11.1.33 Recovery Method at the Time of Drive I/O Module Blockade" (TRBL 11-1680) .	
WA1zi0 Host I/O module alarm (CTL-w, Slot-l)	Collecting Error Information	STRC
A failure occurred in the Host I/O Module.		
w : Controller # (0-1)		
z : Chassis type (Refer to MSG 06-0000) for the detail)		
l : I/O Module slot code (Refer to MSG 06-0000) for the detail)		
i : Host I/O type (Refer to MSG 06-0000) for the detail)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.34 Recovery Method at the Time of Host I/O Module Blockade" (TRBL 11-2180) .	
WA2zk0 Management module alarm (CTL-w, Slot-l)	Collecting Error Information	STRC
A failure occurred in the Management Module.		
w : Controller # (0-1)		
z : Chassis type (Refer to MSG 06-0000) for the detail)		
l : I/O Module slot code (Refer to MSG 06-0000) for the detail)		
k : Management Module type (0 : Management module, F : Unmount)		
Recovery methods	① Perform the maintenance referring to Troubleshooting "11.1.32 Recovery Method at the Time of Management Module Blockade" (TRBL 11-1530) .	
WA3zn0 SideCard alarm (Unit-x, SideCard-p-p)	Collecting Error Information	STRC
A Side Card failure was detected.		
x : Unit ID # (0-79)		
z : Chassis type (Refer to MSG 06-0000) for the detail)		
n : Side Card type (0 : Side Card [A], 1 : Side Card [B])		
p : Side Card code (Refer to MSG 06-0000) for the detail)		
Recovery methods	① 1. Perform the planned shutdown of the array. (Refer to Installation "1.5.2 Array Power Off (Sequential Shutdown)" (INST 01-0260) .) 2. Turn off the breaker (Power Unit) of the box displayed in the message. 3. Check that the Side Card displayed in the message is not removed. <ul style="list-style-type: none"> • When the Side Card is removed, install it in the array correctly. • When the Side Card is not removed, replace the Side Card. (Refer to "2.2.16 Replacing a Side Card" (REP 02-2030).) 4. Restart the array. (Refer to Installation "1.5.1 Array Power On" (INST 01-0230) .) 5. Check that the Side Card displayed in the message is normal.	
WA4000 HDU mounting alarm (Unit-x)	Collecting Error Information	
The Drive mounting location is against the rules.		
x : Unit ID # (0-79)		
Recovery methods	① Perform the maintenance in accordance with the Drive mounting location rules. (Refer to Installation "2.4.7 (1) Installing the Drive (1-4) DBW" (INST 02-0711) .) <ul style="list-style-type: none"> • Install a minimum of 14 Drives in the row A (#0 to #13). • Install Drives in Drive number ascending order not to leave empty slots between Drives. • Install the Drives in the following order of rows : A (#0 to #13) → B (#42 to #55) → C (#14 to #27) → D (#56 to #69) → E (#28 to #41) → F (#70 to #83). • Install the Drive so that the ALM LED is on the near side of you. 	

WA5000 A RAID group exists on an unconnected unit (RG-x)

Collecting Error Information STRC

The RAID group setting remains in the removed Drive Box or the Drive Box in which the RAID group is set is not connecting to the array.

x : RAID group # (0-199)

Recovery
methods

To perform Procedure ① below, Hitachi Storage Navigator Modular 2 Ver.24.00 or more is required.

- ① 1. If this message is displayed after removing the Drive Box, the Drive Box has been removed without deleting the RAID group setting.
Check with the volume list whether volumes are in the RAID group displayed in the message.
Select the RAID group displayed in the message in the [RAID Groups] tab window under [Groups] – [Volumes].
Refer to the [Volumes] tab window under [RG-x] and check whether the volume is displayed in the window.

-1 When volumes are in the RAID group

- 1 Check whether the volume displayed in the message has the [Status] of "Normal" or "Regression".
- 2 • When [Status] of the volume is displayed, check with the customer/SE whether data of the volume is necessary. If necessary, request the customer/SE to back up the data of the volume.
Delete the RAID group displayed in the message after completing the backup. (Refer to [System Parameter "4.2.4 Deleting RAID Group" \(SYSPR 04-0100\)](#).)
- When [Status] of the volume is not displayed, delete the RAID group displayed in the message. (Refer to [System Parameter "4.2.4 Deleting RAID Group" \(SYSPR 04-0100\)](#).)

-2 When volumes are not in the RAID group

- 1 Delete the RAID group displayed in the message. (Refer to [System Parameter "4.2.4 Deleting RAID Group" \(SYSPR 04-0100\)](#).)

- ② 1. When the Drive Box is not removed, the Drive Box in which the RAID group is set is not connecting to the array.

-1 When the array power can be turned off

- 1 Perform the planned shutdown of the array. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).) Consult with the customer/SE to decide the date & time for performing the planned shutdown of the array.
- 2 Find out the correct connection configuration of the Drive Box and check the unconnected Drive Box.
- 3 Connect the SAS (ENC) cables and the power cables correctly again.
- 4 Start the array. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
- 5 Check that the message "WA5000 A RAID group exists on an unconnected unit (RG-x)" is not displayed after starting the array.
If displayed, the unconnected Drive Box still remains. Execute the step ②-1.-1 from the beginning again.

-2 When the array power cannot be turned off

- 1 Delete the RAID group displayed in the message "WA5000 A RAID group exists on an unconnected unit (RG-x)". (Refer to [System Parameter "4.2.4 Deleting RAID Group" \(SYSPR 04-0100\)](#).)
- 2 Find out the correct connection configuration of the Drive Box and check the unconnected Drive Box.
- 3 Connect the SAS (ENC) cables and the power cables correctly and add^(*) the Drive Box online. (Refer to [Addition/Removal/Relocation "1.6 Adding the Drive Box to the Rack Frame" \(ADD 01-0690\)](#).)
- 4 Check with the customer/SE whether it is necessary to set the RAID group with the RG number "(RG-x)" displayed in the message and the volume of the RAID group.
If necessary, set the RAID Groups and the Volumes. (Refer to [System Parameter "Chapter 4. Setting the RAID/Volume/Spare Drive" \(SYSPR 04-0000\)](#).)

*1 : • When the version of Hitachi Storage Navigator Modular 2 is less than 24.00, add the Drive Box using CLI.

• When the version of Hitachi Storage Navigator Modular 2 is 24.00 or more, add the Drive Box using either GUI or CLI.

WA6000 A spare HDU exists on an unconnected unit (Unit-x, HDU-y)

Collecting Error Information STRC

A Spare Drive is in an unconnected box.

x : Unit ID # (0-79)

y : Drive # (0-83)

Recovery
methods

When this message is displayed after removing the Drive Box

① The Spare Drive setting remains in the removed Drive Box. Therefore, delete the setting in the following procedure using Hitachi Storage Navigator Modular 2.

1. In the unit window of [Settings] – [Drive Settings] – [Spare Drive] under the GUI tree view, select the check boxes of [Tray Number (xx)] and [Drive Number (xx)] and click the [Cancel Spare Drive] button.
2. Enter "auspare -unit unit_name -rm -drive xx.xx" in the CLI command line. (Note : Because the Spare Drive setting remains in the removed Drive Box, a tray number and a drive number cannot be determined. Therefore, specify "xx" for the tray number and the drive number.)

When this message is displayed even though the Drive Box is not removed

① When connecting the Drive Box that the array does not recognize after executing the planned shutdown of the array because the off-line planned shutdown of the array is possible

1. If not recovered yet, perform the planned shutdown of the array. (Refer to [Installation "1.5.2 Array Power Off \(Sequential Shutdown\)" \(INST 01-0260\)](#).) For the opportunity of the planned shutdown of the array, decide it by consulting with the customer/SE.
2. Find out the correct connection configuration of the Drive Box.
3. Confirm the validity of the Drive Box connection whether the Drive Box to be connected is connected to the array.
 - 1 If an unconnected Drive Box exists, connect the SAS (ENC) cables correctly. (Refer to [Installation "2.4.11 Connecting the SAS\(ENC\) Cables" \(INST 02-0990\)](#).)
 - 2 Connect the Drive Box to the array.
4. Confirm the validity of the SAS (ENC) cable connection whether the SAS (ENC) cables are connected correctly among the boxes.
 - 1 If incorrectly connected SAS (ENC) cables exist, connect them correctly again. (Refer to [Installation "2.4.11 Connecting the SAS\(ENC\) Cables" \(INST 02-0990\)](#).)
5. Check whether the power cables are connected to box correctly. If incorrectly connected power cables exist, connect them correctly again. (Refer to [Installation "2.4.12 Connecting the Power Cables" \(INST 02-1270\)](#).)
6. Check whether all the Power Units are powered. If power units without the power exist, request the customer/SE to power them.
7. Start the array. (Refer to [Installation "1.5.1 Array Power On" \(INST 01-0230\)](#).)
8. Check that the array becomes Ready.
9. Check that the message "WA6000 A spare HDU exists on an unconnected unit (Unit-x, HDU-y)" is not displayed in Information Message on WEB.

② When connecting the Drive Box that the array does not recognize by adding the Drive Box online due to a planned shutdown failure of the array

1. The Spare Drive setting exists in the Drive Box that the array does not recognize. Therefore, delete it in the following procedure using Hitachi Storage Navigator Modular 2.
 - 1 In the unit window of [Settings] – [Drive Settings] – [Spare Drive] under the GUI tree view, select the check boxes of [Tray Number (xx)] and [Drive Number (xx)] and click the [Cancel Spare Drive] button.
 - 2 Enter "auspare -unit unit_name -rm -drive xx.xx" in the CLI command line. (Note : The Spare Drive setting remains in the Drive Box that the array does not recognize and a tray number and a drive number cannot be determined. Therefore, specify "xx" for the tray number and the drive number.)
2. Find out the correct connection configuration of the Drive Box.
3. Check unconnected Drive Boxes. Confirm the validity of the Drive Box connection whether the Drive Box to be connected is connected to the array.
4. Check whether the power cables are connected to the box correctly.
5. Check whether all the Power Units are powered.
6. Connect the Drive Box that the array does not recognize to the array following the procedure of the online addition of the Drive Boxes.
7. After adding Drive Boxes online, set Spare Drives as needed. (Refer to [System Parameter "4.4 Setting Spare Drive" \(SYSPR 04-0630\)](#).)

Chapter 7. Web Error Messages

In this Chapter, read “microprogram” of the message text as “firmware”.

7.1 Web Error Messages (Uploading Function)

Abnormal End	Collecting Error Information
AT xxxx *****	
Upload System Error	
The “PRGMAG. DAT” file does not exist.	
The “START85*. DAT” file does not exist.	
The “END DAT” file does not exist.	
The file required does not exist.	
Abnormal End	Collecting Error Information
AT xxxx *****	
Upload System Error	
The number of areas is other than either of one and two.	
Abnormal End	Collecting Error Information
A Bad LBA was Detected in the Uploaded Firmware File	
***** xxxx	
LBA is abnormal at the storage destination by the illegal content of “START85*.DAT”.	
Recovery methods	① Check the upload system and reinstall it. (Refer to WEB “3.3.1 Microprogram” (WEB 03-0270).)
Abnormal End	Collecting Error Information
Bad Block ID	
The block ID is illegal.	
Recovery methods	① Make sure of the system to be installed and execute the installation again. (Refer to WEB “3.3.1 Microprogram” (WEB 03-0270).)
Abnormal End	Collecting Error Information
Config Clear Restart Error by LU Access Restriction	
Config clear restart failed due to the LU access restriction.	
Recovery methods	① Config clear restart cannot be done. Select Take Over from Configuration Clear Mode and restart.
Abnormal End	Collecting Error Information
Downgrade Failed [The Installed Microprogram is Incorrect]	
Uploaded Microprogram Revision:XXXX/X	
Installed Microprogram Revision:XXXX/X	
The installation of the firmware for the lower model in the box of the upper model failed.	
Recovery methods	① Install the firmware of the same revision as the firmware revision displayed in the WEB window in the maintenance mode. In that case, specify the lower model for the device model. (Refer to WEB “3.3.1 Microprogram” (WEB 03-0270).)
Abnormal End	Collecting Error Information
Down Grade Check NG	
Although the version down of the firmware was attempted, the update installation terminated abnormally because Down Grade Check was not Disable.	
Recovery methods	① Change the setting of the downgrade check to Disable, and then updating installation of the firmware again. (Refer to WEB “3.3 Setup” (WEB 03-0270).)

Abnormal End	Collecting Error Information
Down Grade Install NG [FLASH Program Revision Mismatch]	
The downgrade installation of the firmware cannot be performed because the FLASH firmware versions are not matched between the Controllers.	
Abnormal End	Collecting Error Information
Down Grade Install NG (Going to Maintenance Mode Procedure is Abnormal.)	
The downgrade installation of the firmware cannot be performed because it is changed to the maintenance mode while the array is starting.	
Recovery methods	<ol style="list-style-type: none"> ① Click [Go to Normal Mode] of the menu frame in the WEB window, and start the array. ② Check that the array becomes Ready, and execute the downgrade installation of the firmware again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
Down Grade Install NG [Modular Volume Migration Feature is Installed]	
The update installation cannot be performed for the firmware of the revision which is not supporting the Modular Volume Migration function because the priced option of the Modular Volume Migration function is unlocked.	
Recovery methods	<ol style="list-style-type: none"> ① 1. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 2. Check that the "I10000 Array is ready [The firmware version *****]" is displayed in the Information Message of the normal mode window on WEB. 3. Lock the priced option of the Modular Volume Migration function referring to Modular Volume Migration User's Guide "3.1.2 Uninstalling Volume Migration". 4. Change it to the maintenance mode. (Refer to WEB "Chapter 3. The Maintenance Mode Operation Procedure" (WEB 03-0000).) 5. Click [Others] in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.6 Other" (WEB 03-0510).) 6. Set [Down Grade Check] of the [Others] window to "Disable". (Refer to WEB "3.6 Other" (WEB 03-0510)) 7. Execute the upgrade installation (version downgrade) of the firmware again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).) 8. Click "To Maintenance Mode Top" of the "Microprogram Setup" window on WEB. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).) 9. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to WEB "3.7 Return Method to the Normal Mode" (WEB 03-0530).) 10. Check that the "I10000 Array is ready [The firmware version *****]" is displayed in the Information Message of the normal mode window on WEB. (Refer to .)

Abnormal End

Collecting Error Information

Down Grade Install NG [Modular Volume Migration has already taken place]

The update installation cannot be performed for the firmware of the revision which is not supporting the Modular Volume Migration function because the LU that the Modular Volume Migration is executed exists in the array with the Modular Volume Migration function.

Recovery
methods

- ① 1. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to [WEB "3.7 Return Method to the Normal Mode" \(WEB 03-0530\)](#).)
2. Check that the "I10000 Array is ready [The firmware version *****]" is displayed in the Information Message of the normal mode window on WEB.
3. When the Modular Volume Migration function of the priced option is locked, unlock the Modular Volume Migration function referring to [Modular Volume Migration User's Guide "3.1.1 Installing Volume Migration"](#). However, when the Modular Volume Migration function of the priced option is expired, unlock it with the Emergency Key, etc.
4. When the Modular Volume Migration function is disabled, enable the Modular Volume Migration function referring to [Modular Volume Migration User's Guide "3.1.3 Enabling or Disabling Volume Migration"](#).
5. Check if the LU whose intermediate LU number and the internal LU number do not match exists by the maintenance mode of the Hitachi Storage Navigator Modular 2.
6. When there is the LU whose intermediate LU number and the internal LU number do not match, perform the Modular Volume Migration so that the intermediate LU number and the internal LU number match referring to the ["Modular Volume Migration User's Guide"](#). In that case, the data of the LUs may have to be backed up as needed.
7. Lock the priced option of the Modular Volume Migration function referring to [Modular Volume Migration User's Guide "3.1.2 Uninstalling Volume Migration"](#).
8. Change it to the maintenance mode. (Refer to [WEB "Chapter 3. The Maintenance Mode Operation Procedure" \(WEB 03-0000\)](#).)
9. Click [Others] in the menu frame of the maintenance mode window on WEB. (Refer to [WEB "3.6 Other" \(WEB 03-0510\)](#).)
10. Set [Down Grade Check] of the [Others] window to "Disable". (Refer to [WEB "3.6 Other" \(WEB 03-0530\)](#).)
11. Execute the upgrade installation (version downgrade) of the firmware again. (Refer to [WEB "3.3.1 Microprogram" \(WEB 03-0270\)](#).)
12. Click "To Maintenance Mode Top" of the "Microprogram Setup" window on WEB. (Refer to [WEB "3.3.1 Microprogram" \(WEB 03-0270\)](#).)
13. Return the array to the normal mode by clicking the [Go to Normal Mode] button in the menu frame of the maintenance mode window on WEB. (Refer to [WEB "3.7 Return Method to the Normal Mode" \(WEB 03-0530\)](#).)
14. Check that the "I10000 Array is ready [The firmware version *****]" is displayed in the Information Message of the normal mode window on WEB.

Abnormal End

Collecting Error Information

Drive Block Size Error

AT CDEV **

The drive block size is other than 520 bytes.

Recovery
methods

- ① Replace a Drive whose unit ID number is 0 and Drive number is **. (Refer to [Replacement "2.2.1 Replacing a Drive" \(REP 02-0050\)](#).)

Abnormal End	Collecting Error Information
Empty System Retry Full Install	
The updating installation cannot be done because the old firmware does not exist in the system Drive	
Recovery methods	<p>① When it is evident that the old firmware does not exist in the system Drive, install the firmware newly. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)</p> <p>② Execute the updating installation again after making sure that the system copy has been completed through the Information Message of the Web.</p> <ul style="list-style-type: none"> • "I14000 System copy started" is not displayed. • "I14000 System copy started" and "I14100 System copy completed" are displayed consecutively. <p>When the system copy is being made, turn off the main switch and then turn it on again later than 20 seconds. In the following case, the system copy is being made.</p> <ul style="list-style-type: none"> • While "I14000 System copy started" or "I14100 System copy completed" is not displayed successively. <p>Execute the updating installation again after making sure that the READY LED (green) comes on and then the system copy is completed.</p> <p>③ 1. In case of the model upgrade, check Upgrade "3.1 Prerequisites" (UP03-0000).</p> <p>Example : • Was the array which does not support the model upgrade tried to be upgraded?</p> <ul style="list-style-type: none"> • Is the array after the hardware upgrade work the model which cannot be upgraded from the array before the hardware upgrade work? <p>2. Perform the maintenance according to Upgrade "6.2 When "RB8300 Empty System retry full install" Occurs" (UP 06-0010).</p>
Abnormal End	Collecting Error Information
File Open Error	
File open error	
Abnormal End	Collecting Error Information
File Read Error	
File read error	
Recovery methods	① Make sure of the system to be installed and execute the installation again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
File Remove Failed	
File elimination error	
Abnormal End	Collecting Error Information
File Size Error	
The file size of the installed file is illegal.	
Abnormal End	Collecting Error Information
Flash Write Error	
Flash Write Error	
Recovery methods	① Check the upload system and reinstall it. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
Install Failed	
All the drives became abnormal after the installation had been completed.	
Recovery methods	① Make sure of the system to be installed and the system drive, and then execute the installation again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
Initial Setup Error by LU Access Restriction	
Initial Setup failed due to the LU access restriction.	
Recovery methods	① Initial Setup cannot be done. Execute update installation for updating the firmware. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)

Abnormal End	Collecting Error Information
Initial Setup of Microprogram Failed	
Although "Install Guard" displayed in http://IP address/instlgrd is set to [Disable], [Initial setup] of the firmware was tried to be executed.	
Recovery methods	① Change "Install Mode" in the Microprogram Setup window to [Update] and perform the update installation of the firmware. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
Microprogram Error [FLS]	
An error other than the Flashing light error and the resource time-out between cores occurred when writing to the Flash memory.	
Recovery methods	① Check the upload system and reinstall it. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
No Drives Available	
No normal drive is available.	
Recovery methods	① Replace the system drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050).)
Abnormal End	Collecting Error Information
PGMS ****	
Too Large	
The program size is larger than the allowable limit.	
Recovery methods	① Make sure of the system to be installed and execute the installation again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
The Model Check Error was Detected in the Upload File	
The model of the BIOS file is illegal.	
Recovery methods	① Make sure of the system to be installed and execute the installation again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End]	Collecting Error Information
Upgrade Failed (The Installed Microprogram is Incorrect)	
Uploaded Microprogram Revision:XXXX/X	
Installed Microprogram Revision:XXXX/X	
The upgrade from the lower model to the upper model failed.	
Recovery methods	① Perform the update installation of the firmware for the upper model of the same revision as the firmware installed in the lower model. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
Abnormal End	Collecting Error Information
Upload File SUM Check Error	
Read file sum check error	
Abnormal End	Collecting Error Information
Upload System Error	
The "PRGMAG. DAT" file does not exist.	
The "START80*. DAT" file does not exist.	
The "END DAT" file does not exist.	
The file required does not exist.	
Recovery methods	① Make sure of the system to be installed and execute the installation again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)

Array is down	Collecting Error Information
When the system drive is not installed or the system drive cannot be spun up, a request other than the FLASH program installation was issued.	
Recovery methods	① Install the system drive.
Cannot Execute Upload.	Collecting Error Information
Java Applet cannot be activated.	
Recovery methods	① Check if the Java Plug-in is installed.
	② Check if it is validated through the setting of Java Plug-in on the operator panel.
	③ (IE) Check if the setting of ActiveX is validated.
	④ Check if the (NN) Java plug-in setting is valid.
Complete	Collecting Error Information
The system parameter setting, the system parameter initialization and the device information setting were completed normally (5 System drives)	
Complete BIOS Install	Collecting Error Information
The BIOS installation was completed normally.	
Complete FM1INS Install	Collecting Error Information
The FM1INS installation was completed normally.	
Complete FM1MAIN Install	Collecting Error Information
The FM1MAIN installation was completed normally.	
Complete FM1SEL Install	Collecting Error Information
The FM1SEL installation was completed normally.	
Complete	Collecting Error Information
MICRO REV.:*****	
The installation was completed normally.	
Drive firmware download start	Collecting Error Information
The drive firmware downloading of the firmware was started.	
ENC firmware download start	Collecting Error Information
A firmware downloading for replacing the firmware was started.	
Recovery methods	None
File open error [file name]	Collecting Error Information
File open error	
File read data err [file name]	Collecting Error Information
File read data error	
File read err [file name]	Collecting Error Information
File read error	
File size mismatch [file name]	Collecting Error Information
File size inconsistency	
File size over [file name]	Collecting Error Information
File size error	
Recovery methods	① Make sure of the system to be installed.
If you execute "Initial Setup", the array erase all user data.	Collecting Error Information
Are you sure you want to execute this operation?	
If you wish to execute this operation, please mark the "OK to execute" checkbox and press OK.	
The confirmation and the agreement demand of all user data being erased when Initial Setup is executed	
Recovery methods	None

If you execute "System Reboot with Configuration Clear", the array erase all user data. Are you sure you want to execute this operation? If you wish to execute this operation, please mark the "OK to execute"		Collecting Error Information
Confirmation dialog message at the time of starting configuration clear		
Install revision		Collecting Error Information
Display of a revision of the installed program		
Initial Setup (Config and System Parameter Clear)		Collecting Error Information
Install Microprogram Rev.***** Make sure that the initial setting up has been done.		
Microprogram download ENC#		Collecting Error Information
Firmware replacement was started. [ENC number]		
Microprogram download of ENC# in update mode		Collecting Error Information
The start of the update mode of the ENC firmware download is checked.		
Recovery	None	
methods		
Microprogram download of ENC# in overwrite mode		Collecting Error Information
This download may cause a downgrade of ENC firmware for any ENCs.		
The start of the overwrite mode of the ECN firmware download is checked.		
Recovery	None	
methods		
Micro Update		Collecting Error Information
Install Microprogram Rev.***** Make sure that the update installation of the firmware has been done.		
Old System Exists		Collecting Error Information
There is an existing system when the LAN is installed.		
Partially Completed		Collecting Error Information
The system parameter setting, the system parameter initialization and the device information setting were completed normally (1-4 System drives)		
Recovery	None	
methods		
Partially Completed		Collecting Error Information
MICRO REV.***** The installation was terminated abnormally.		
Recovery	① Refer to the procedure for finding a cause of a Drive failure to be used when a message, "Install partially complete",	
methods	is output.	
System parameter update failed		Collecting Error Information
All the drives do not accept a read instruction.		
Recovery	① Reset the system parameters. (Refer to System Parameter (SYSPR 00-0000) .)	
methods	② If the trouble recurs, replace the system drive. (Refer to Replacement "2.2.1 Replacing a Drive" (REP 02-0050) .)	
System Restart With Config Clear		Collecting Error Information
Confirmation dialog message at the time of rebooting the utility mode.		
Recovery	None	
methods		
Target HDU not found		Collecting Error Information
The target HDU is not found.		
Recovery	① Make sure of the drive to be rewritten.	
methods		

Utility start	Collecting Error Information
The processing of the utility function was started.	
Recovery methods	None
1004 Array is in Other Boot Up Mode.	Collecting Error Information
Inconsistency of statuses of Applet and the array (Example: The array has started an installation of drive firmware, whereas Applet is loading the utility.)	
Recovery methods	① Reload the page. ② If the correct page is not displayed, perform the operation over again from the software reset.
1005 Booting. Please Retry Again.	Collecting Error Information
The array is being started up.	
Recovery methods	① Operate over again after waiting for a while.
1006 Array is Executing Other Event.	Collecting Error Information
The array is already executing the process.	
Recovery methods	① Make sure of the information message or reload the page.
1007 Array is Executing Main Process.	Collecting Error Information
The utility is being processed.	
The drive firmware is being replaced.	
Recovery methods	① Reload the page.
1008 Array is Down.	Collecting Error Information
The array cannot execute the process (it has gone down).	
Recovery methods	① Perform the operation over again from the software reset.
1009 Please. Retry Again.	Collecting Error Information
The array stands ready to start the firmware installation.	
Recovery methods	① Install the firmware over again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270) .)
1010 Please. Retry Again on Other CTL.	Collecting Error Information
Have the controller in another system re-execute the process.	
Recovery methods	① Have the controller in another system re-execute the process.
1011 Please Confirm Information Message.	Collecting Error Information
Make sure of the information message.	
Recovery methods	① Make sure of the information message.
1012 The download request was rejected. Confirm that other download is not in process. Otherwise, please retry after one minute.	Collecting Error Information
A trace start instruction was issued during the host command trace download.	
Recovery methods	① Check if other user or you are not downloading the trace from other window. ② Execute it again after waiting for one minute or more.
1013 The request was rejected. Please restart again.	Collecting Error Information
The communication other than the trace start instruction was issued while the host command trace is not being downloaded.	
Recovery methods	① Execute it again after checking the status of the array and the connection environment.

1200	The Java Plug-in version in use is not supported. Confirm the Java Plug-in version. Java Applet was activated with Java Plug-in of a version not supported.	Collecting Error Information
Recovery methods	① Activate Java Applet again after making sure of the version of Java Plug-in currently used.	
1202	A path to the Microprogram isn't being input. Specify a path. The path to the firmware to be installed is not specified.	Collecting Error Information
Recovery methods	① Specify the path to the firmware.	
1204	A specified file doesn't exist. Confirm elements of designation. The specified file does not exist.	Collecting Error Information
Recovery methods	① Make sure that the path to the directory of the firmware to be installed is specified correctly.	
1205	A specified directory doesn't exist. Confirm elements of designation. The specified directory does not exist.	Collecting Error Information
Recovery methods	① Check the specified contents and the existence of the directory.	
1206	A specified path is not a normal file. Specify a file. A file other than the normal file was specified when the normal file must be specified.	Collecting Error Information
1207	A specified path is not a directory. Specify a directory. A file other than the directory file was specified when the directory file must be specified.	Collecting Error Information
Recovery methods	① Check if the specification is correct.	
1210	A specified file is not possible to read. Confirm the condition of the file. The specified file cannot be read.	Collecting Error Information
Recovery methods	① Make sure of a status of the specified file.	
1212	Access to the specified file was rejected. Confirm the setup of the security policy. Access to the specified file was rejected according to the security policy.	Collecting Error Information
1213	Access to the specified directory was rejected. Confirm the setup of the security policy. Access to the specified directory was rejected according to the security policy.	Collecting Error Information
Recovery methods	① Set up the service PC again.	
1214	An error occurred during the file I/O. Confirm the status of the specified file. An error occurred during an I/O operation to/from the specified file.	Collecting Error Information
Recovery methods	① Make sure of a status of the specified file.	
1215	A runtime permission wrong matter occurred. Confirm the setup of the security policy. A request for access to the java.lang.RuntimePermission object was rejected.	Collecting Error Information
1216	Access to the property information was rejected. Confirm the setup of the security policy. A request for access to the java.util.OropertyPermission object was rejected.	Collecting Error Information
Recovery methods	① Set up the service PC again.	
1217	A security wrong matter occurred. Confirm the setup of the security policy. A security trouble occurred.	Collecting Error Information
Recovery methods	① Set up the service PC again.	
1218	An invalid response was received from the array. Confirm the array status and the LAN environment, and then try again. The response data from the CGI is in the illegal status.	Collecting Error Information
Recovery methods	① Make sure of the array status and the LAN environment, and then retry.	

1219	An error occurred during the communication with the array. Confirm the array status and the LAN environment.	Collecting Error Information
	An error occurred during I/O to/from the array.	
	Recovery methods	① Make sure of the array status and the LAN environment, press the Software Reset button, and retry.
1220	A path to the Utility Program isn't being input. Specify a path	Collecting Error Information
	The path to the utility program to be installed is not specified.	
	Recovery methods	① Specify the path to the utility program.
1221	A path to the Utility Parameter Files isn't being input. Specify a path.	Collecting Error Information
	The path to the parameter file to be installed is not specified.	
	Recovery methods	① Specify the path to the utility parameter file.
1222	A path to the Drive Firmware Program isn't being input. Specify a path	Collecting Error Information
	The path to the drive firmware program to be installed is not specified.	
	Recovery methods	① Specify the path to the drive firmware program.
1223	A HTTPClient library isn't found. Confirm the execution environment.	Collecting Error Information
	The HTTPClient library is not found.	
	Recovery methods	① Activate the browser again after setting up the service PC, and then re-execute the firmware installation. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)
1224	A path to the ENC firmware isn't being input. Specify a path.	Collecting Error Information
	The path to the ENC firmware to be installed is not specified.	
	Recovery methods	① Specify the path to the ENC firmware.
1225	Invalid value was specified. Confirm the value.	Collecting Error Information
	The input column is empty or an illegal value was entered.	
	Recovery methods	① Check the entered contents, and enter a correct value.
1226	Cannot write the file. Check the download directory and the file.	Collecting Error Information
	It cannot be output in a file.	
	Recovery methods	① Check the output destination directory of the host command trace download and the status of the output file. ② Check if there is enough HDD free space of the service PC.
1227	A path to the Self Heatrun Pattern File isn't being input. Specify a path.	Collecting Error Information
	A file is not specified.	
	Recovery methods	① Specify a file in the file name input field.
1228	The value input to "password" is illegal	Collecting Error Information
	The value of the input password is an illegal value.	
	Recovery methods	① Check if it has six characters or more and 32 characters or less. ② Check if it is configured only with the one-byte alphanumeric characters and the allowed symbols. Allowed characters of password: One-byte alphanumeric characters, 32 types of symbols (! " # \$ % & ' () * + , - . / : ; < = > ? @ [\] ^ _ ` { } ~)
1229	The "Backup File" isn't being input. Specify the file.	Collecting Error Information
	A file is not specified.	
	Recovery methods	① Specify a file in the file name input field.

1230	An illegal character is included in the file name.	Collecting Error Information
	An illegal character is included in the file name.	
Recovery methods	① Check if the file name is configured only with the allowed characters. Allowed characters of the file name : One-byte alphanumeric characters, 21 types of symbols (! # \$ % & ' () + , - = @ [] ^ _ ` { } ~)	
1231	The size of a specified file exceeds the tolerable quantity. Please specify the file of 4KB or less.	Collecting Error Information
	The file size is too large. Be sure to specify the file of 4 k bytes or less.	
Recovery methods	① It exceeds the file size necessary for the master key restoration. Specify the file which was saved for the backup of the master key restoration.	
1232	The file name is too long. Please make it to 63 characters or less.	Collecting Error Information
	The file name is too long.	
Recovery methods	① Make the file name with 63 characters or less.	
1401	An exception occurred in a module.	Collecting Error Information
	An exemption occurred in the module.	
Recovery methods	① Check the specified contents.	
2000	File upload was cancelled.	Collecting Error Information
	The installation of the file was interrupted (artificially).	
Recovery methods	① Re-execute the installation after activating the browser again.	
2001	Microprogram installation was cancelled.	Collecting Error Information
	The installation of the firmware was interrupted (artificially).	
Recovery methods	① Re-execute the firmware installation after activating the browser again.	

7.2 Web Error Messages (Simple Trace)

Executing [Simple Trace]	Collecting Error Information
The simple trace is already being executed.	
Recovery methods	① Perform the maintenance after waiting for a while.
Not Ready	Collecting Error Information
When the result of a check done at the time of the simple trace execution was illegal	
Recovery methods	① Perform it again after waiting for a while.
Simple trace failed	Collecting Error Information
The simple trace could not be executed because the array status was abnormal.	
Recovery methods	① Make sure of the array status.
Simple trace interrupt	Collecting Error Information
The simple trace was interrupted (because the automatic dump operation was done).	
Recovery methods	① Perform the maintenance after waiting for a while.

7.3 Web Error Messages (Web Control Management)

Address is not filled. Please fill in the address.	Collecting Error Information
An illegal address value is not entered.	
Recovery methods ① Reset each parameter.	
Array is down!	Collecting Error Information
The WEB task cannot be executed.	
Executing [Simple Trace]	Collecting Error Information
The simple trace is being executed.	
Recovery methods ① Perform it again after waiting for a while.	
Invalid Address/Data. Address and Data should be filled with [0-9][a-f][A-F].	Collecting Error Information
The input conditions of the value of the address/data are not met.	
Invalid address. Please input the address using [0-9] [a-f] [A-F].	Collecting Error Information
Input of an illegal address value (range of input characters)	
Invalid address. Please input the address with in the range of [0H-3FFFFFFFH].	Collecting Error Information
Input of an illegal address value (range of address)	
Invalid address. Please input the address with in the range of [0H-7FFFFFFFH].	Collecting Error Information
Input of an illegal address value (range of address)	
Invalid data! Reenter.	Collecting Error Information
The result of the input check of ROM/RAM Microprogram Version is illegal.	
Recovery methods ① Reset each parameter.	
Invalid File. Please select again.	Collecting Error Information
Select a file again because it is an invalid file.	
Recovery methods ① Select a file again.	
Invalid length. Please input the length using [0-9] [a-f] [A-F].	Collecting Error Information
Input of an illegal address value (range of length)	
Invalid length. Please input the length with in the range of [4H-4000H].	Collecting Error Information
Input of an illegal address value (range of input characters)	
Recovery methods ① Reset each parameter.	
"Invalid machine status."	Collecting Error Information
Illegal status	
Recovery methods ① Restart the array.	
Length is not filled. Please fill in the length.	Collecting Error Information
An illegal address value is not entered.	
No Address. Please input the Address.	Collecting Error Information
Address is not entered.	
No Data. Please input the Data.	Collecting Error Information
Data is not entered.	
Recovery methods ① Reset each parameter.	

Not Ready	Collecting Error Information
When the drive separating function exclusive check and the trace collection check are abnormal.	
"Other Event" [*****] Executing!	Collecting Error Information
Other event is being executed.	
Recovery methods	① Execute it again after waiting for a while.
Subsystem is down!	Collecting Error Information
Web task cannot be executed.	
Recovery methods	① Restart the array.
Syntax error was detected in test pattern file. Line Number : ' + cgi_dt	Collecting Error Information
An error exists in the definition statement of the test pattern.	
Recovery methods	① Specify the definition statement of the test pattern again.
The error which cannot be continued occurred. Error code : -1	Collecting Error Information
Heat run cannot be executed because an error that cannot be continued occurred (Error Code: -1)	
Recovery methods	① Define the LU again.
The model type is not selected. Please select the lower grade model type.	Collecting Error Information
An error that a model type is not selected.	
The model type is not supported. Please select the lower grade model type.	Collecting Error Information
An error that a model type is not supported.	
Recovery methods	① Select a model type again.
The password is incorrect.	Collecting Error Information
The password is incorrect.	
Recovery methods	① Set a password again.
This menu cannot be executed after "Logging Data"	Collecting Error Information
A dump is being executed.	
"Unknown Event."	Collecting Error Information
An unknown event occurred.	
"Web Task" is executing other request.	Collecting Error Information
The Web task is executing another request.	
Web Task Booting.	Collecting Error Information
The Web task is being booted.	
Recovery methods	① Execute it again after waiting for a while.
1004 System is Other Boot Up Mode.	Collecting Error Information
Inconsistency of statuses of Applet and the array (Example: The array has started an installation of drive firmware, whereas Applet is loading the utility.)	
Recovery methods	① Reload the page. ② If the correct page is not displayed, perform the operation over again from the software reset.
1005 Booting. Please Retry Again.	Collecting Error Information
The array is being started up.	
Recovery methods	① Execute it again after waiting for a while.
1006 System is Executing Other Event.	Collecting Error Information
The array is already executing the process.	
Recovery methods	① Make sure of the information message or reload the page.

1007	System is Executing Main Process. The utility is being processed. The drive firmware is being replaced.	Collecting Error Information
	Recovery methods ① Reload the page.	
1008	System is Down. The array cannot execute the process (it has gone down).	Collecting Error Information
	Recovery methods ① Perform the operation over again from the software reset.	
1009	Please. Retry Again. The array stands ready to start the firmware installation.	Collecting Error Information
	Recovery methods ① Install the firmware over again. (Refer to WEB "3.3.1 Microprogram" (WEB 03-0270).)	
1010	Please. Retry Again on Other CTL. Have the CTL in another system re-execute the process.	Collecting Error Information
	Recovery methods ① Have the controller in another system re-execute the process.	
1011	Please Confirm Information Message. Make sure of the information message.	Collecting Error Information
	Recovery methods ① Make sure of the information message.	
1012	The download request was rejected. Confirm that other download is not in process. Otherwise, please retry after one minute. A trace start instruction was issued during the host command trace download.	Collecting Error Information
	Recovery methods ① Check if other user or you are not downloading the trace from other window. ② Execute it again after waiting for one minute or more.	
1013	The request was rejected. Please restart again. The communication other than the trace start instruction was issued while the host command trace is not being downloaded.	Collecting Error Information
	Recovery methods ① Execute it again after checking the status of the array and the connection environment.	

Chapter 8. Hitachi Storage Navigator Modular 2 Error Messages

Table 8.1 Hitachi Storage Navigator Modular 2 Error Messages

Message code	Error code	Message text/Recovery methods
DMEA000001	0x00010000	Busy status was reported from the subsystem. Please retry after waiting for a while.
DMEA000002	0x00020000	The Queue Full status was reported from the subsystem. Please retry after waiting for a while.
DMEA000003	0x00030000	VOL0 is reserved by another host. Please retry after the reservation is canceled.
DMEA000004	0x00040000	An error was detected in the data received from the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA000005	0x00050000	An error occurred while communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA000006	0x00060000	Failed to connect with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA000007	0x00070000	An invalid response was received from the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA000008	0x00080000	An unexpected error was reported from the subsystem. Please retry after waiting for a while.
DMEA000009	0x00070001	There is no response from the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA00000A	0x00090000	The CHECK CONDITION status was reported from the subsystem, but the details could not be acquired. Please retry after waiting for a while.
DMEA00000B	0x00001002	Failed to transfer data. Confirm the subsystem status and the LAN environment, and then try again.
DMEA00000C	0x00001003	Failed to issue the SCSI command. Confirm the subsystem status and the LAN environment, and then try again.
DMEA00000D	0x0000FFFF	Insufficient memory. Terminate other programs and then try again.
DMEA00000E	0x0000FFFE	An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.
DMEA000010	0x00000010	An error occurred while communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA000011	0x00000011	An error occurred while communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA000012	0x00000012	An error occurred while secure communicating with the subsystem. Confirm the subsystem status and the LAN environment, and then try again.
DMEA000201	0x00000201	The specified user ID or password is incorrect.
DMEA001000	0x00000001	The information file for the subsystem cannot be opened. Confirm the execution environment.
DMEA001001	0x00000002	The information file for the subsystem is invalid. Confirm the execution environment.
DMEA001002	0x00000003	The specified subsystem name is already registered. Specify another name.
DMEA001003	0x00000004	The specified subsystem name is not registered.
DMEA001004	0x00000005	The registered information does not match the status of the subsystem. Correct the information and then try again.
DMEA001005	0x00000006	The number of registered subsystems has reached the maximum. Delete unnecessary information and then try again.
DMEA001006	0x00000102	Invalid parameter.
DMEA001007	0x00000103	The specified controller is incorrect.
DMEA001008	0x00000104	Failed to open the specified file. Confirm the file name and then try again.
DMEA001009	0x00000105	The contents of the file are invalid. Confirm the file and then try again.
DMEA00100A	0x00000106	Failed to connect with the server. Confirm the registered information and the LAN environment, and then try again.
DMEA00100B	0x00000107	The password is not specified.
DMEA00100C	0x00000108	The password is corrupted. Delete the password file and then try again.

Message code	Error code	Message text/Recovery methods
DMEA00100D	0x00000301	The specified volume is not defined. Specify a defined volume.
DMEA00100E	0x00000302	Formatting failed. Confirm the subsystem status and the LAN environment, and then try again.
DMEA00100F	0x00000A01	The file for e-mail setting contains an error.
DMEA001010	0x00000A02	The e-mail information is not set up.
DMEA001011	0x00000A03	The parameter for e-mail setting is invalid.
DMEA001012	0x00000A04	An error was detected while connecting to the mail server. Confirm the mail server and then try again.
DMEA001013	0x00000B01	An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.
DMEA001014	0x00000B02	The connection type is invalid.
DMEA001015	0x00001004	The firmware revision is not supported. Confirm the subsystem status.
DMEA001016	0x00000A05	Failed to start the specified application program. Confirm the path to the specified application and the operational environment.
DMEA001017	0x00000109	An error occurred during the file I/O. Please check the permission and available capacity.
DMEA001018	0x00001005	The specified directory path is invalid. Please specify a right directory path.
DMEA001019	0x00000101	The process cannot be performed because the firmware on the subsystem does not support the function.
DMEA001020	0x00001006	Could not finish replacing the firmware. Please see if there are any alarms or warnings in the subsystem.
DMEA001021	0x00000007	The number of groups reached the maximum. Specify an already registered group or delete an unnecessary group and try again.
DMEA001022	0x0000010A	Hardware error occurred. Confirm the subsystem.
DMEA001023	0x0000010B	The process cannot be performed because the current subsystem does not support the function.
DMEA001024	0x0000010C	Environment variable: STONAVM_HOME is not defined. Specify STONAVM_HOME.
DMEA001025	0x0000010D	The controller in charge of the VOL is not registered. Register the controller and then try again.
DMEA001026	0x00000008	The specified information does not match the configuration of the subsystem. Confirm the configuration information.
DMEA001027	0x0000010E	The JRE (Java Runtime Environment) version in use is not supported. Confirm the JRE version.
DMEA001028	0x00001007	Failed to restart the subsystem.
DMEA001029	0x0000010F	Environment variable: STONAVM_HOME does not match. Confirm STONAVM_HOME.
DMEA00102A	0x0000011E	The JRE (Java Runtime Environment) version in use is not supported. Confirm the JRE version.
DMEA00102B	0x0000011F	The process cannot be performed because the current controller in charge of the specified VOL is different. Retry from the current controller for the VOL.
DMEA001030	0x00000400	The parameter for System Startup Attribute or the item name is invalid.
DMEA001031	0x00000401	The parameter for Spare Disk or the item name is invalid.
DMEA001032	0x00000402	The parameter for Host Connection Mode or the item name is invalid.
DMEA001033	0x00000403	The parameter for Serial Number or the item name is invalid.
DMEA001034	0x00000404	The parameter for Drive Capacity or the item name is invalid.
DMEA001035	0x00000405	The parameter for Option 1 or the item name is invalid.
DMEA001036	0x00000406	The parameter for Option 2 or the item name is invalid.
DMEA001037	0x00000407	The parameter for Data Striping Size or the item name is invalid.
DMEA001038	0x00000408	The parameter for Buzzer or the item name is invalid.
DMEA001039	0x00000409	The parameter for LU Size Report to the Host or the item name is invalid.
DMEA00103A	0x0000040A	The parameter for SCSI Reset/LIP Mode for all Ports or the item name is invalid.
DMEA00103B	0x0000040B	The parameter for Operation if the Processor failures Occurs or the item name is invalid.
DMEA00103C	0x0000040C	The parameter for INQUIRY Information or the item name is invalid.
DMEA00103D	0x0000040D	The parameter for Cache Mode or the item name is invalid.
DMEA00103E	0x0000040E	The parameter for Target ID or the item name is invalid.
DMEA00103F	0x0000040F	The parameter for Port Type or the item name is invalid.
DMEA001040	0x00000410	The parameter for ROM Pseudo-response command processing or the item name is invalid.
DMEA001041	0x00000411	The parameter for Save Data Pointer response or the item name is invalid.
DMEA001042	0x00000412	The parameter for Controller Identifier or the item name is invalid.

Message code	Error code	Message text/Recovery methods
DMEA001044	0x00000414	The parameter for Write & Verify Execution Mode or the item name is invalid.
DMEA001045	0x00000415	The parameter for LAN CONST or the item name is invalid.
DMEA001046	0x00000416	The parameter for SYNC CONTROL or the item name is invalid.
DMEA001047	0x00000417	There is no file header.
DMEA001048	0x00000418	The present drive configuration for the subsystem cannot support the drive configuration information of the specified file.
DMEA001049	0x00000419	The RAID configuration data is invalid.
DMEA00104A	0x0000041A	The VOL configuration data is invalid.
DMEA00104B	0x0000041B	The drive configuration data is invalid.
DMEA00104D	0x00000111	The password length is invalid. Use 12 or fewer characters.
DMEA00104E	0x00000110	The process failed because the function is disabled.
DMEA00104F	0x00000112	Failed to obtain the controller failure dump information. Retry after 10 minutes.
DMEA001050	0x0000041D	The parameter for Web Title or the item name is invalid.
DMEA001051	0x0000041E	The parameter for Delay Planned Shutdown or the item name is invalid.
DMEA001052	0x00000A06	The additional information file cannot be opened. Confirm the execution environment.
DMEA001053	0x00000A07	The additional information file is invalid. Confirm the execution environment.
DMEA001054	0x00000A08	The mail additional information length is invalid.
DMEA001055	0x00000A09	The number of registered mail additional information reached the maximum. Delete unnecessary information and then try again.
DMEA001056	0x00000A0A	An e-mail information cannot be saved. Please check the permission and available capacity of the install directory.
DMEA001070	0x00000113	This program is not installed correctly.
DMEA001071	0x00000018	The function cannot be executed because the VOL has already been reserved.
DMEA001072	0x00001008	The specified path name is over 250 characters.
DMEA001073	0x00000115	Failed to create a log directory. Confirm the execution environment.
DMEA001074	0x00001009	The specified path name is incorrect.
DMEA001075	0x0000100A	The specified path does not exist, or no effective files exist under the specified path.
DMEA001076	0x0000100B	The firmware in the specified path does not exist. Please confirm whether the firmware is stored in the path or the specified path is right.
DMEA001077	0x0000100C	Failed to create a firmware file directory. Confirm the execution environment.
DMEA001078	0x00000116	The specified key was not found. Confirm the file and then try again.
DMEA001079	0x00000117	Cannot use this function for the specified device.
DMEA00107A	0x0000100D	The firmware replacement of the specified controller cannot be performed. Please replace the firmware of the other controller first.
DMEA00107B	0x0000100E	The firmware cannot be read. Please check the permission and available capacity of the install directory.
DMEA00107C	0x0000100F	The firmware is not read.
DMEA001080	0x00000118	Cannot set the LU mapping in case of mapping mode is off.
DMEA001081	0x00000119	Failed to get drive information.
DMEA001082	0x00000429	The parameter for Additional Battery Unit Mode or the item name is invalid.
DMEA001083	0x00000420	The parameter for PortOption or the item name is invalid.
DMEA001084	0x00000421	The parameter for HostGroupInformation or the item name is invalid.
DMEA001085	0x00000422	The parameter for HostGroupOption or the item name is invalid.
DMEA001086	0x00000423	The parameter for LuMapping or the item name is invalid.
DMEA001087	0x00000424	The parameter for FibreSecurityInformation or the item name is invalid.
DMEA001088	0x00000425	The parameter for Common Information or the item name is invalid.
DMEA001089	0x00000426	Failed to set up a Mapping Mode. Confirm the setting file and then try again.
DMEA001090	0x00000427	The CTL Header is invalid.
DMEA001091	0x00000428	The PORT Header is invalid.
DMEA001092	0x0000011A	Illegal option set.
DMEA001093	0x0000011B	The function cannot be used because it is not installed, locked, or disabled.

Message code	Error code	Message text/Recovery methods
DMEA001094	0x00000501	The specified host group is already defined. Confirm the name or number, and specify a new host group.
DMEA001095	0x00000502	The specified host group is not defined. Confirm the name or number, and specify a defined host group.
DMEA001096	0x00000503	The host group security on the specified port is set on disable. Set host group security to enable and then try again.
DMEA001097	0x00000504	The function cannot be executed because host group 0 is specified. Specify other than host group 0 and try again.
DMEA001098	0x00000505	The specified host group name or WWN name is invalid. Confirm the name and try again.
DMEA001099	0x00000506	The specified host group number is invalid. Confirm the number and try again.
DMEA001100	0x00000507	The specified node name is invalid. Confirm the name and try again.
DMEA001101	0x00000508	The specified port name is invalid. Confirm the name and try again.
DMEA001102	0x00000509	The parameter for LUN Manager Information or the item name is invalid.
DMEA001103	0x0000050A	The same host group name exists in a port. Confirm the setting file and then try again.
DMEA001104	0x0000050B	The same WWN name exists in a port. Confirm the setting file and then try again.
DMEA001105	0x0000050C	The same port name exists in a port. Confirm the setting file and then try again.
DMEA001106	0x0000050D	The same host group number exists in a port. Confirm the setting file and then try again.
DMEA001107	0x0000050E	The information of the host group number 0 is not in a setting file. Confirm the information on the host group number 0 for every port and then try again.
DMEA001108	0x00000520	The specified Web Title is invalid. Confirm the Web Title and try again.
DMEA001109	0x00000510	In the installed firmware revision, a setup of the Read Frame Min 128 Byte Mode cannot be performed. Please update to the firmware which can set up the Read Frame Min 128 Byte Mode.
DMEA00110A	0x00000521	The process cannot be performed because the firmware on the subsystem does not support the function.
DMEA00110B	0x00000522	There is no parameter to change the data pool information.
DMEA00110C	0x00000531	The specified RAID groups and volumes cannot be created because the drive type is different.
DMEA00110D	0x00000511	The parameter for Options or the item name is invalid.
DMEA00110E	0x00000512	The process cannot be performed because the specified RAID level is not supported.
DMEA00110F	0x00000513	The system VOL configuration data is invalid.
DMEA001110	0x00000514	The user VOL configuration data is invalid.
DMEA00112A	0x00000530	The hardware configuration of the subsystem differs from the configuration in the input file. Confirm the subsystem status and try again.
DMEA00112B	0x00000130	The specified port is not available because it is physically unequipped. Confirm the port status and try again.
DMEA00112C	0x00000540	In the installed firmware revision, a setup of the HostSystemConfiguration cannot be performed. Please update to the firmware which can set up the HostSystemConfiguration.
DMEA00112D	0x00000541	The parameter for HostSystemConfiguration or the item name is invalid.
DMEA00112E	0x00000542	The process cannot be performed because the attribute is not Read/Write. Please change the attribute to Read/Write and then try again.
DMEA00112F	0x00000543	The specified VOL is not set retention term. Confirm the VOL status.
DMEA001130	0x00000303	The specified RAID group is already defined. Specify a new RAID group.
DMEA001131	0x00000304	The specified RAID group is not defined. Specify a defined RAID group.
DMEA001132	0x0000011C	Failed to create a file. Confirm the execution environment.
DMEA001133	0x0000011D	The file cannot be outputted. Because the performance statistics acquisition failed.
DMEA001134	0x00000544	The retention term cannot be shortened. Specify the retention term is equal to or more than current value and try again.
DMEA001135	0x00001010	The ENC firmware download and replacement cannot be performed in the single-controller system.
DMEA001136	0x00001011	The directory for storing the ENC firmware cannot be created. Please check the permission of the install directory.
DMEA001137	0x00001012	The ENC firmware cannot be read. Please check the permission and available capacity of the install directory.
DMEA001138	0x00001013	The ENC firmware is not read.
DMEA001139	0x00001014	The ENC firmware of the specified subsystem is not read.

Message code	Error code	Message text/Recovery methods
DMEA001140	0x00001015	The ENC firmware in the specified path does not exist. Please confirm whether the ENC firmware is stored in the path or the specified path is right.
DMEA001141	0x00001016	The ENC firmware cannot be read. Please confirm the file and then try again.
DMEA001142	0x00001017	The contents of the ENC firmware are invalid. Please confirm the file and then try again.
DMEA001143	0x00001018	Incorrect character in the group name.
DMEA001144	0x00001019	Incorrect character in the array unit name.
DMEA001145	0x0000101A	The character length of the array unit name or group name is incorrect.
DMEA001146	0x00000551	The specified path name of the directory for storing the management file is over 250 characters, or there is not sufficient memory. Please specify the pass name of 250 or less characters, or terminate other programs and then try again.
DMEA001147	0x00000552	The directory for storing the management file cannot be created. Please check the permission and available capacity of the directory.
DMEA001148	0x00000554	The specified path name for storing the management file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.
DMEA001149	0x00000555	Failed to write the management file. Please check the permission and available capacity of the directory.
DMEA00114A	0x00000556	Failed to open the management file. Confirm the file name and then try again.
DMEA00114B	0x00000557	The contents of the management file are invalid. Confirm the file and then try again.
DMEA00114C	0x00000558	The specified path name for the file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.
DMEA00114D	0x00000559	Failed to write the file. Please check the permission and available capacity of the directory.
DMEA00114E	0x0000055A	Failed to open the file. Confirm the file name and then try again.
DMEA001150	0x0000055C	The specified time of output CSV file is incorrect.
DMEA001151	0x0000055D	The specified path name for storing the CSV file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.
DMEA001152	0x0000055E	Failed to write the CSV file. Please check the permission and available capacity of the directory.
DMEA001153	0x0000055F	Failed to open the CSV file. Confirm the file name and then try again.
DMEA001154	0x00000560	The specified path name of the directory for storing the CSV file is over 250 characters, or there is not sufficient memory. Please specify the pass name of 250 or less characters, or terminate other programs and then try again.
DMEA001155	0x00000561	The specified path name for the management file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.
DMEA001156	0x00000562	The specified path name of the deletion file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.
DMEA001157	0x00000563	The monitoring data cannot be read because the data version is new. Confirm the version of this program and then try again.
DMEA001158	0x00000564	The specified number of output CSV file is incorrect.
DMEA001159	0x00000600	The process cannot be performed because the mapping guard VOL exists.
DMEA00115A	0x00000565	Failed to open the management file. Confirm the file name and then try again.
DMEA00115B	0x00000567	The contents of the management file are invalid. Confirm the file and then try again.
DMEA00115C	0x00000570	Failed to connection. Confirm the connection and then try again.
DMEA00115D	0x00000571	A response without subsystem was received. Confirm the connection and then try again.
DMEA00115E	0x00000305	The process cannot be performed because there is not free area in the specified RAID group.
DMEA001160	0x00000306	The volume cannot be defined in the specified area.
DMEA001161	0x00000307	The process cannot be performed because the volume is already defined in the first area of the specified RAID group.
DMEA001162	0x00000308	The process cannot be performed because there is not free area in the specified area.
DMEA001163	0x00000572	The value received from the subsystem is invalid.
DMEA001164	0x00000580	The specified IP address is incorrect. Please specify a right IP address.
DMEA001165	0x00000581	The specified subnet mask is incorrect. Please specify a right subnet mask.
DMEA001166	0x00000582	The specified default gateway address is incorrect. Please specify a right default gateway address.

Message code	Error code	Message text/Recovery methods
DMEA001167	0x00001020	The information can not be set because the Environment Setting File is over 4096 Bytes. Please confirm the specified file.
DMEA001168	0x00001021	The information can not be set because the Array Unit Name Setting File is over 255 Bytes. Please confirm the specified file.
DMEA001169	0x00001030	The process cannot be performed because the term of the temporary key or emergency key is expired.
DMEA001170	0x0000101B	The character length of the serial number is incorrect.
DMEA001171	0x00001040	The contents of the license key file are invalid. Please confirm the file and then try again.
DMEA001172	0x00001041	The contents of the license key file are invalid. Please confirm the file and then try again.
DMEA001173	0x00001042	The process cannot be performed because the number of license key is over 50. Please confirm the file and then try again.
DMEA001175	0x00001043	Could not finish replacing the firmware. Please see if there are any alarms or warnings in the subsystem.
DMEA001176	0x00001044	The process cannot be performed because NNC is physically unequipped. Confirm the NNC status and try again.
DMEA001177	0x00001045	The specified NNC cannot be performed because it is physically unequipped or unconnectable. Please confirm the NNC status and try again.
DMEA001178	0x00001060	The specified application program does not exist. Please confirm whether the specified application program is stored.
DMEA001179	0x00001061	Failed to start the specified application program. Confirm the path to the specified application and the operational environment.
DMEA00117A	0x0000105A	The contents of the NNC BIOS firmware are invalid. Please confirm the file and then try again.
DMEA00117B	0x00001059	The NNC BIOS firmware is not read.
DMEA00117C	0x00001058	The directory for storing the NNC BIOS firmware cannot be created. Please check the permission of the install directory.
DMEA00117D	0x00001057	The NNC BIOS firmware in the specified path does not exist. Please confirm whether the NNC BIOS firmware is stored in the path or the specified path is right.
DMEA00117E	0x00001056	The NNC BIOS firmware cannot be read. Please check the permission and available capacity of the install directory.
DMEA00117F	0x00001046	The process cannot be performed because Fibre Channel Port is physically unequipped. Confirm the subsystem status and try again.
DMEA001180	0x00001047	The process cannot be performed because the same address is specified as the NTP server 1 and the NTP server 2. Specify the different address and try again.
DMEA001181	0x0000105B	The process cannot be performed because the controller of the NNC is not registered. Register the controller of the NNC and then try again.
DMEA001182	0x0000105C	The process cannot be performed because the connection with controller of the NNC failed. Confirm the subsystem status and the LAN environment, and then try again.
DMEA001183	0x00001065	The function cannot be executed because some port is invalid or unequipped. Please confirm the subsystem.
DMEA001184	0x00001070	The process cannot be performed because the port is not connected to the maintenance port. Please confirm the port of connection and try again.
DMEA001185	0x00001071	The process cannot be performed because the port is not connected to the management LAN. Please confirm the port of connection and try again.
DMEA001186	0x00001075	The process cannot be performed because iSCSI port is physically unequipped. Please confirm the subsystem status and try again.
DMEA001187	0x00001076	The specified target is already defined. Please confirm the name or number and specify a new target.
DMEA001188	0x00001077	The specified target is not defined. Please confirm the name or number and specify a defined target.
DMEA001189	0x00001078	The function cannot be executed because Target 0 is specified. Please specify other than target 0 and try again.
DMEA001190	0x00001079	The specified alias is invalid. Please confirm alias and try again.
DMEA001191	0x00001080	The specified initiator name is invalid. Please confirm initiator name and try again.
DMEA001192	0x00001081	The specified iSCSI name is invalid. Please confirm iSCSI name and try again.
DMEA001193	0x00001082	The specified user name is invalid. Please confirm user name and try again.

Message code	Error code	Message text/Recovery methods
DMEA001194	0x00001083	The specified secret is invalid. Please confirm secret and try again.
DMEA001195	0x00000515	The parameter for Port or the item name is invalid.
DMEA001196	0x00000517	The specified KeepAliveTimer value is invalid. Confirm the value and try again.
DMEA001197	0x00000516	The parameter for iSCSI Port Information or the item name is invalid.
DMEA001198	0x00000518	The parameter for iSNS Information or the item name is invalid.
DMEA001199	0x00000519	The specified Port number is invalid. Confirm the number and try again.
DMEA00119A	0x0000051B	The specified Target number is invalid. Confirm the number and try again.
DMEA00119B	0x0000051A	The parameter for Target Information or the item name is invalid.
DMEA00119C	0x0000051C	The same Target number exists in a port. Confirm the setting file and then try again.
DMEA00119D	0x0000051D	The parameter for Target Security or the item name is invalid.
DMEA00119E	0x0000051E	The parameter for Initiator or the item name is invalid.
DMEA00119F	0x00000440	There is no file version.
DMEA0011A0	0x00000441	There is no start separator.
DMEA0011A1	0x00000442	The user name is invalid.
DMEA0011A2	0x00000443	The secret is invalid.
DMEA0011A3	0x00000444	The alias is invalid.
DMEA0011A4	0x00000445	The number of target is invalid.
DMEA0011A5	0x00000446	There is no end separator.
DMEA0011A6	0x00000447	There is no port separator.
DMEA0011A7	0x0000051F	The information of the target number 0 is not in a setting file. Confirm the information on the target number 0 for every port and then try again.
DMEA0011A8	0x00000532	The same alias exists in a port. Confirm the setting file and then try again.
DMEA0011A9	0x00000533	The same iSCSI Name exists in a port. Confirm the setting file and then try again.
DMEA0011AA	0x00000534	The same Initiator Name exists in a port. Confirm the setting file and then try again.
DMEA0011AB	0x00000535	The specified MTU value is invalid. Confirm the value and try again.
DMEA0011AC	0x00000448	The file version is invalid.
DMEA0011AD	0x00000449	The user name reach the maximum.
DMEA0011AE	0x0000044A	The target is not defined.
DMEA0011AF	0x00000536	The parameter for TargetOption or the item name is invalid.
DMEA0011B0	0x00001072	The process cannot be performed because fibre channel port and iSCSI port are physically unequipped. Please confirm the port type and the subsystem status, and try again.
DMEA0011B1	0x00000590	The specified path name for storing the log file is over 255 characters. Please specify the pass name of 255 or less characters and then try again.
DMEA0011B2	0x00000591	The path name for storing the log file is over 255 characters. Please specify the pass name and then try again.
DMEA0011B3	0x00000593	Failed to write the log file. Please check the permission and available capacity of the directory.
DMEA0011B4	0x00000594	The internal log is empty.
DMEA0011B5	0x00000583	The User LAN Parameter Header is invalid.
DMEA0011B6	0x00000584	The CTL Parameter Header is invalid.
DMEA0011B7	0x00000585	The parameter for User LAN Parameter or the item name is invalid.
DMEA0011B8	0x00000586	The Maintenance LAN Parameter Header is invalid.
DMEA0011B9	0x00000587	The parameter for Maintenance LAN Parameter or the item name is invalid.
DMEA0011BA	0x00000588	The process cannot be performed because NNC is equipped. Please confirm the port type and try again.
DMEA0011BB	0x00000589	The process cannot be performed because the DHCP setting is different between the subsystem and input file. Please confirm the DHCP setting and try again.
DMEA0011BC	0x0000058A	The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.
DMEA0011BD	0x0000058B	The process cannot be performed because the User LAN port of subsystem is being used by other applications. Refer to [netstat.X.Y.inf](X:Serial Number, Y:Date) file in the directory where Navigator is installed, close applications using User LAN port of subsystem, and then try again.

Message code	Error code	Message text/Recovery methods
DMEA0011BE	0x00001084	The process cannot be performed because the owner ID is different. Please split the pair using the application that created the pair.
DMEA002000	0x00002000	Rebooting might have failed, because an error occurred while communicating with the subsystem. Please reboot once again.
DMEA002001	0x00002001	The specified password is invalid. Please confirm the password and try again.
DMEA002002	0x00002002	The process cannot be performed because account is disabled. Please confirm the account status and try again.
DMEA002003	0x00002003	The process cannot be performed because the number of mapping for this port will reach the maximum. Please delete unnecessary mapping and try again.
DMEA002004	0x00002004	The specified group does not exist. Please specify a exist group.
DMEA002005	0x00002005	The specified pair is not defined. Please specify a defined pair.
DMEA002006	0x00002006	The specified pair is not defined in the specified group. Please confirm the pair definition and try again.
DMEA002007	0x00002007	The specified pair is not defined or is not P-VOL in the self subsystem. When a pair is defined, please try again by connected subsystem.
DMEA002008	0x00002008	The invalid character is specified in group name. Please confirm the group name.
DMEA002009	0x00002009	The invalid character is specified in pair name. Please confirm the pair name.
DMEA00200A	0x0000200A	The invalid character is specified in split string. Please confirm the split string.
DMEA00200B	0x0000200B	The specified group does not have the pair. Please specify a exist group.
DMEA00200C	0x0000200C	The requested operation cannot not be finished. Confirm the subsystem status and the LAN environment, and then try again.
DMEA00200D	0x0000200D	The specified pair is not defined or is not S-VOL in the self subsystem. When a pair is defined, please try again by connected subsystem.
DMEA00200E	0x0000200E	Could not finish replacing the firmware. Confirm the subsystem status and the LAN environment, and then try again only the updating. Please try it again at least three times until complete it normally. If you cannot totally complete it normally, power OFF and then power ON the subsystem.
DMEA00200F	0x0000200F	The process cannot be performed because the pair attribute that cannot operate. Please confirm the pair definition and try again.
DMEA002010	0x00002010	The process cannot be performed because the pair attribute that cannot operate. Please confirm the pair definition and try again.
DMEA002011	0x00002011	The process cannot be performed because the certificate file size is invalid. Please confirm the certificate file size and try again.
DMEA002012	0x00002012	The process cannot be performed because the specified battery count is outside the effective range. Please confirm the battery count.
DMEA002013	0x00002013	The initialization of configuration information might have failed, because an error occurred in the communication with the subsystem. Please initialize configuration information once again.
DMEA002014	0x00002014	Failed to initialization of configuration information.
DMEA002015	0x00002015	The subsystem cannot initialize configuration information.
DMEA002016	0x00002016	The process cannot be performed because the connection with controller 0 failed. Confirm the subsystem status and the LAN environment, and then try again.
DMEA002017	0x00002017	The process cannot be performed because the connection with controller 1 failed. Confirm the subsystem status and the LAN environment, and then try again.
DMEA002018	0x00002018	The registered information does not match the status of the subsystem. Correct the information to match the status of the subsystem and then try again.
DMEA002019	0x00002019	The specified IP address is incorrect, or it failed in the name resolution of the host name. Please confirm the connection and then try again.

Message code	Error code	Message text/Recovery methods
DMEA00201A	0x0000201A	The protocol version of IP address or the host name specified for controller 0 and controller 1 do not match. Please confirm the connection and then try again.
DMEA00201B	0x0000201B	The automatic split immediately after the pair creation and the copying from the S-VOL to the P-VOL after the pair creation cannot be specified at a time. Please confirm the operation and try again.
DMEA00201C	0x0000201C	The specified IP address is incorrect. Please specify a right IP address.
DMEA00201D	0x0000201D	The specified default gateway address is incorrect. Please specify a right default gateway address.
DMEA00201E	0x0000201E	The automatic split immediately after the pair creation cannot be specified to the pair which belongs to the group. Please confirm the operation and try again.
DMEA00201F	0x0000201F	Two or more remote array ID cannot be changed. Please confirm the operation and try again.
DMEA002020	0x00002020	The specified remote path name is not defined. Please specify a defined remote path name.
DMEA002021	0x00002021	The invalid character is specified in remote path name. Please confirm the remote path name.
DMEA002022	0x00002022	The specified serial number or array ID does not exist. Please specify a right serial number or array ID.
DMEA002023	0x00002023	There is no remote array ID for change. Please confirm the operation and try again.
DMEA002024	0x00002024	The process cannot be performed because DC power supply is physically unequipped. Please confirm the subsystem status and try again.
DMEA002025	0x00002025	The process cannot be performed because the number of registered subsystems is over the maximum. Please delete unnecessary information and then try again.
DMEA002026	0x00002026	The process cannot be performed because the specified parameter is not supported. Please confirm the operation and try again.
DMEA002027	0x00002027	The specified file name for storing the CSV file is over 50 characters. Please specify the file name of 50 or less characters and then try again.
DMEA002028	0x00002028	The specified RAID group is already defined or used by DP pool. Please specify a new RAID group.
DMEA002029	0x00002029	Built-in account could not be set as an account for error monitoring. Please specify another user ID.
DMEA00202A	0x0000202A	The specified Shared Secret is incorrect. Please confirm the Shared Secret and try again.
DMEA00202B	0x0000202B	The DM-LU cannot be mapped. Confirm the setting file and then try again.
DMEA00202C	0x0000202C	The directory does not exist. Please confirm the directory and then try again.
DMEA00202D	0x0000202D	The shutdown might have failed, because an error occurred while communicating with the subsystem. Please try again.
DMEA00202E	0x0000202E	The specified character is incorrect. Please confirm the character and try again.
DMEA00202F	0x0000202F	The SATA Write & Compare Option Separator is invalid. Please confirm the file and then try again.
DMEA002030	0x00002030	The parameter for SATA Write & Compare or the item name is invalid. Please confirm the file and then try again.
DMEA002031	0x00002031	The DP Pool Header is invalid. Please confirm the file and then try again.
DMEA002032	0x00002032	The DP Pool configuration data is invalid. Please confirm the file and then try again.
DMEA002033	0x00002033	The DP RAID group Header is invalid. Please confirm the file and then try again.
DMEA002034	0x00002034	The DP RAID group configuration data is invalid. Please confirm the file and then try again.
DMEA002035	0x00002035	The DP RAID group configuration data is invalid. Please confirm the file and then try again.
DMEA002036	0x00002036	Secure communication was not ready. Please retry after a while.
DMEA002037	0x00002037	The session information was not able to be acquired. Please confirm the operation and try again.
DMEA002038	0x00002038	The output of the Event Log failed. Please confirm the operation and try again.
DMEA002039	0x00002039	Cannot specify the parameter for this subsystem in the DP Pool configuration data. Please confirm the file and then try again.
DMEA00203A	0x0000203A	The specified path name for backing up a master authentication key file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.
DMEA00203B	0x0000203B	There is no master authentication key refresh number. Please confirm specified value, and try again.
DMEA00203C	0x0000203C	Failed to write the file. Please check the permission and available capacity of the directory.
DMEA00203D	0x0000203D	Failed to open the file. Confirm the file name and then try again.
DMEA00203E	0x0000203E	Failed to write the file, because the directory of the same name as the backing up a master authentication key file exists. Please change the directory name and then try again.
DMEA00203F	0x0000203F	The file cannot be read because there are a lot of ENC firmwares. Please confirm the file and then try again.

Message code	Error code	Message text/Recovery methods
DMEA002040	0x00002040	The specified DM-LU cannot be expanded. Please confirm the attribute, capacity and state of the volume.
DMEA002041	0x00002041	The parameter for Battery Charging Write Command or the item name is invalid.
DMEA002042	0x00002042	The process cannot be performed because the specified drive type or drive capacity is not supported. Please confirm the operation.
DMEA002043	0x00002043	The protocol version of IP address specified for path 0 and path 1 does not match. Please confirm the IP address and then try again.
DMEA002044	0x00002044	The process cannot be performed because the LUN Manager is not installed, locked, or disabled. Please install the LUN Manager and then try again.
DMEA002045	0x00002045	The process cannot be performed because the LUN Manager is installed. Please change LUN Manager to de-installed, locked, or disabled and then try again.
DMEA002046	0x00002046	The DP Pool Tier Header is invalid. Please confirm the file and then try again.
DMEA002047	0x00002047	The DP Pool Tier configuration data is invalid. Please confirm the file and then try again.
DMEA002048	0x00002048	The process cannot be performed because the Dynamic Tiering is not installed, locked, or disabled. Please install the Dynamic Tiering and then try again.
DMEA002049	0x00002049	Failed to write the file. Please check the permission and available capacity of the directory.
DMEA00204A	0x0000204A	Failed to open the file. Please try again.
DMEA00204B	0x0000204B	There is no encryption key number. Please try again.
DMEA00204C	0x0000204C	Failed to write the file, because the directory of the same name as the backing up an encryption key file exists. Please change the directory name and then try again.
DMEA00204D	0x0000204D	The backing up an encryption key file cannot be read. Please try again.
DMEA00204E	0x0000204E	The specified path name for backing up an encryption key file is over 250 characters. Please specify the pass name of 250 or less characters and then try again.
DMEA00204F	0x0000204F	The specified file name for backing up an encryption key file is over 50 characters. Please specify the file name of 50 or less characters and then try again.
DMEA002050	0x00002050	The file cannot be read. Please try again.
DMEA002051	0x00002051	[Protect the Volumes by the Key Management Server] cannot be enabled because the key to boot subsystem is incorrect. Please try again.
DMEA002052	0x00002052	Failed to create the encryption key. Please try again.
DMEA002053	0x00002053	[Protect the Volumes by the Key Management Server] cannot be enabled because failed to create the key to boot subsystem. Please try again.

Message code	Error code	Message text/Recovery methods
DMEC002000	—	Cannot write the directory specified STONAVM_HOME.
DMEC002003	0x0000A004	Essential option/parameter not enough.
DMEC002006	0x0000A010	No entry.
DMEC002015	0x0000A011	No information displayed.
DMEC002016	0x0000A00F	Illegal option set.
DMEC002017	0x0000A012	Cannot execute the command for the array unit of current firmware revision.
DMEC002018	0x0000A01C	Could not execute the function, because the array unit does not support the password protection function.
DMEC002019	0x0000A013	No array units registered for error alert.
DMEC002020	0x0000A014	Cannot add Send to address, because 20 addresses are already defined.
DMEC002021	0x0000A015	The function cannot be executed because option is locked, or disabled.
DMEC002022	0x0000A016	The function cannot be executed because the target mode of connected controller is not M-TID,M-LUN.
DMEC002023	0x0000A017	The additional information was not registered to the specified subsystem.
DMEC002024	0x0000A018	The specified RAID group cannot be deleted because it contains an already defined LU.
DMEC002025	0x0000A019	Cannot delete the logical unit, because no logical units defined.
DMEC002026	0x0000A01A	Failed to open the manual file.
DMEC002027	0x0000A01B	The specified drive is not defined.
DMEC002028	0x0000A01C	This command is not available for the product type specified.
DMEC002029	0x0000A01D	Cannot use this function for the specified device of this configuration.
DMEC002030	0x0000A01E	The function cannot be executed because mapping mode is off.
DMEC002031	0x0000A01F	Insufficient memory. Terminate other programs and then try again.
DMEC002032	0x0000A020	The specified port is not available because its host group security is disabled. Enable the host group security and try again.
DMEC002033	0x0000A021	The specified host group is already defined. Try with another name or number.
DMEC002034	0x0000A022	The specified host group is not defined. Confirm the name or number, and specify a defined host group.
DMEC002035	0x0000A023	The specified WWN name is already defined. Specify a new WWN name.
DMEC002036	0x0000A024	The specified WWN is not defined. Specify a defined WWN.
DMEC002037	0x0000A026	The specified WWN is already assigned to a host group. Specify a WWN that is not assigned to any of the host groups.
DMEC002038	0x0000A027	The specified WWN is not assigned to any of the host groups. Specify a WWN that is already assigned to a host group.
DMEC002039	0x0000A029	The number of registered WWNs reached the maximum. Delete unnecessary information and then try again.
DMEC002040	0x0000A028	The number of registered host group reached the maximum. Delete unnecessary information and then try again.
DMEC002041	0x0000A030	The specified WWN has not been logged in. Specify a WWN that is logged in.
DMEC002042	0x0000A031	The function cannot be executed because host group 0 is specified. Specify except host group 0 and try again.
DMEC002043	0x0000A032	The specified port name is already defined. Specify a new port name.
DMEC002044	0x0000A033	No option entry.
DMEC002045	0x0000A034	The number of defined logical unit reached the maximum. Delete unnecessary logical units and then try again.
DMEC002046	0x0000A035	The specified logical unit capacity is not reallocated.
DMEC002047	0x0000A036	Specified logical unit number is already defined. Specify a different logical unit number
DMEC002048	0x0000A037	The specified logical unit is not defined. Specify a defined logical unit.
DMEC002049	0x0000A038	The function cannot be executed because the password protection function is enabled.
DMEC002050	0x0000A039	The function cannot be executed because the format mode is not queue.
DMEC002051	0x0000A040	The specified logical unit(s) contain sub logical unit. Confirm the logical unit status and try again.
DMEC002052	0x0000A041	The specified logical unit(s) contain invalid logical unit. Confirm the logical unit status and try again.
DMEC002053	0x0000A042	The information on the specified logical unit cannot be displayed.
DMEC002054	0x0000A043	The number of logical units have reached the maximum. Delete unnecessary logical units and then try again.
DMEC002055	0x0000A044	The specified logical unit is not a Snapshot image. Specify a Snapshot image.

Message code	Error code	Message text/Recovery methods
DMEC002056	0x0000A045	The process cannot be performed because the number of logical units in the data pool reached the maximum. Delete unnecessary logical units and then try again.
DMEC002057	0x0000A046	The data pool cannot be used. Please restart the subsystem.
DMEC002058	0x0000A047	The process cannot be performed because no logical units is in the data pool. Add a logical unit to the data pool and try again.
DMEC002059	0x0000A048	When changing the attribute to Read/Write, the retention term cannot be specified.
DMEC002060	0x0000A049	The process cannot be performed because there are some uncorrected logical units. Start or skip parity correction and try again. When specified logical units are uncorrected, start parity correction and try again.
DMEC002061	0x0000A04A	Cannot execute the option for the array unit of current firmware revision.
DMEC002062	0x0000A04B	The specified logical unit number is already defined as a command device. Specify another logical unit number.
DMEC002063	0x0000A04C	The command device is not registered. Register the command device and try again.
DMEC002064	0x0000A04D	The process cannot be performed because the Multiple Stream Mode of system parameter is disabled. Please set the Multiple Stream Mode to enable then try again.
DMEC002065	0x0000A04E	The specified logical unit number is not defined as a command device. Specify a logical unit that is already defined to a command device.
DMEC002066	0x0000A04F	The Cache Residency function cannot be used because it is not installed, locked, or disabled.
DMEC002067	0x0000A050	The specified RAID group is not defined. Specify a defined RAID group.
DMEC002068	0x0000A051	The logical unit cannot be created because there is not free area in the specified RAID group.
DMEC002069	0x0000A052	The logical unit cannot be created because the specified area does not exist. Confirm the free area of the RAID group, and try again.
DMEC002070	0x0000A053	The number of registered subsystems has reached the maximum. Delete unnecessary information and then try again.
DMEC002071	0x0000A054	The number of spare drives reach the maximum. Confirm the specified spare drives, and try again.
DMEC002072	0x0000A055	The number of DM-LU have reached the maximum. Release unnecessary DM-LU and then try again.
DMEC002073	0x0000A056	The specified logical unit number is not defined as a DM-LU. Specify a logical unit that is already defined to a DM-LU.
DMEC002074	0x0000A057	The specified logical unit is not Main logical unit. Specify a Main logical unit.
DMEC002075	0x0000A058	The manual file of specified command is not found.
DMEC002076	0x0000A059	The number of spare drives have reached the maximum. Delete unnecessary spare drives and then try again.
DMEC002077	0x0000A05A	The logical units are undefined. Please confirm logical units definition and try again.
DMEC002078	0x0000A05B	The RAID groups are undefined. Please confirm RAID groups definition and try again.
DMEC002079	0x0000A104	The number of cache partition have reached the maximum. Delete unnecessary cache partition and then try again.
DMEC002080	0x0000A105	The CTL0 cannot be specified because the cache partition to set up is not deleted. When specifying the CTL0, please restart and then try again.
DMEC002081	0x0000A106	The CTL1 cannot be specified because the cache partition to set up is not deleted. When specifying the CTL1, please restart and then try again.
DMEC002082	0x0000A05C	No unlockable option is exists in license key file. Please specify the valid file and try again.
DMEC002083	0x0000A05D	Specify the option is equal to or more than 1.
DMEC002084	0x0000A05E	Cannot execute the command for the array unit of current firmware revision.
DMEC002086	0x0000A060	The process cannot be performed because the time zone does not have daylight saving time. Please confirm the time zone.
DMEC002087	0x0000A061	The process cannot be performed because NNC is unequipped. Please confirm the port status and try again.
DMEC002088	0x0000A062	The process cannot be performed because all ports are used for NAS. Please confirm the port type and try again.
DMEC002089	0x0000A063	The process cannot be performed because fibre channel port is unequipped. Please confirm the port status and try again.

Message code	Error code	Message text/Recovery methods
DMEC002090	0x0000A064	The specified port is NAS port. Please confirm the port type and try again.
DMEC002091	0x0000A065	The specified port is not fibre channel port. Please confirm the port type and try again.
DMEC002092	0x0000A066	The host address cannot be changed. Please specify the same host address as a setting value.
DMEC002093	0x0000A067	The process cannot be performed because the port is not connected the user port. Please confirm the port of connection and try again.
DMEC002094	0x0000A068	The process cannot be performed because the specified H-LUN or LUN is already setted the user LU. Please confirm the setting of user LU and try again.
DMEC002095	0x0000A069	The process cannot be performed because the specified H-LUN or LUN is not setted the user LU or is already setted the another user LU. Please confirm the setting of user LU and try again.
DMEC002096	0x0000A06A	The port is unequipped. Confirm the port status and try again.
DMEC002097	0x0000A06B	Cannot specify the parameter for this array unit.
DMEC002098	0x0000A06C	Cannot execute the option for the array unit of current firmware revision.
DMEC002099	0x0000A06D	The function cannot be executed because some port is invalid or unequipped. Please confirm the subsystem.
DMEC002100	0x0000A100	The specified port is not available because it is physically unequipped. Confirm the port status and try again.
DMEC002101	0x0000A101	The specified LU is not invalid. Specify the invalid LU and try again.
DMEC002102	0x0000A102	The collection of performance statistics information is not started. Please start it.
DMEC002103	0x0000A103	The directory does not exit.
DMEC002104	0x0000A072	The specified target is already defined. Try with another alias or number.
DMEC002105	0x0000A073	The specified iSCSI name is already defined. Specify a new iSCSI name.
DMEC002106	0x0000A074	The specified target is not defined. Confirm the name or numbers, and specify a defined target.
DMEC002107	0x0000A075	The function cannot be executed because target 000 is specified. Specify except target 000 and try again.
DMEC002108	0x0000A076	The specified iSCSI name is not defined. Specify a defined iSCSI name.
DMEC002109	0x0000A077	The specified initiator name is not defined. Specify a defined initiator name.
DMEC002110	0x0000A078	The specified initiator is not defined. Specify a defined initiator.
DMEC002112	0x0000A07A	The specified initiator is not assigned to the target. Please specify already assigned initiator.
DMEC002114	0x0000A07C	The specified initiator name is already defined. Specify a new initiator name.
DMEC002115	0x0000A07D	The number of registered initiators reached the maximum. Delete unnecessary initiator and then try again.
DMEC002116	0x0000A07E	The specified user name is not defined. Specify a defined user name.
DMEC002117	0x0000A07F	The number of registered CHAP users reached the maximum. Delete unnecessary CHAP user and then try again.
DMEC002118	0x0000A080	The specified user name is already defined. Specify a new user name.
DMEC002119	0x0000A081	The specified user name is not defined. Specify a defined user name.
DMEC002120	0x0000A082	The specified target is not assigned to any of the CHAP user. Specify a target that is already assigned to a CHAP user.
DMEC002121	0x0000A083	The process cannot be performed because the specified H-LUN or LUN is not map or is already map to the another H-LUN or LUN. Please confirm the mapping and try again.
DMEC002122	0x0000A084	The process cannot be performed because the specified H-LUN or LUN is already map. Please confirm the mapping and try again.
DMEC002123	0x0000A085	The specified user name is already defined. Specify a new user name.
DMEC002124	0x0000A086	The specified initiator is already assigned. Please specify an initiator that is not assigned.
DMEC002125	0x0000A087	The process cannot be performed because the iSNS server is not used.
DMEC002126	0x0000A088	The process cannot be performed because iSCSI port is unequipped. Please confirm the port type and try again.
DMEC002127	0x0000A089	The specified port is not iSCSI port. Please confirm the port type and try again.
DMEC002128	0x0000A08A	The specified port is not available because its target security is disabled. Enable the target security and try again.
DMEC002129	0x0000A08B	The number of registered target reached the maximum. Delete unnecessary information and then try again.

Message code	Error code	Message text/Recovery methods
DMEC002130	0x0000A08C	The process cannot be performed because the Read Mode is disabled. Please set the Read Mode to enable then try again.
DMEC002131	0x0000A08D	The specified parameter cannot be set because the Read Mode is enabled. Please set the Read Mode to disable then try again.
DMEC002132	0x0000A08E	The process cannot be performed because fibre channel port and iSCSI port are unequipped. Please confirm the port type and try again.
DMEC002133	0x0000A08F	The process cannot be performed because the scope is not the LU.
DMEC002134	0x0000A090	The process cannot be performed because the DHCP is enabled.
DMEC002135	0x0000A091	Failed to open the file. Confirm the file name and then try again.
DMEC002136	0x0000A092	The process cannot be specified because the IP address of syslog server1 is not set. Please set the IP address.
DMEC002137	0x0000A093	The process cannot be specified because the syslog server transfer is disabled. Please set the syslog server transfer to enable.
DMEC002138	0x0000A094	The process cannot be specified because the syslog server2 is disabled. Please set the syslog server2 to enable.
DMEC002139	0x0000A095	The process cannot be specified because the IP address of syslog server2 is not set. Please set the IP address.
DMEC002140	0x0000A096	The process cannot be specified because the syslog server transfer is disabled.
DMEC002141	0x0000A097	The process cannot be specified because the syslog server2 is disabled.
DMEC002142	0x0000A098	The specified logical unit cannot be set as the P-VOL of the Volume Migration Pair. Confirm the logical unit status and try again.
DMEC002147	0x0000A09D	Could not login. Please specify the user ID and password.
DMEC002148	0x0000A09E	The specified user ID is not registered. Please confirm the user ID.
DMEC002149	0x0000A0A0	The user ID is not set.
DMEC002150	0x0000A0A1	Failed to delete the password file.
DMEC002151	0x0000A0A2	The password is too long.
DMEC002152	0x0000A0A3	Failed to get the account information. Please set the account information using auaccountenv command.
DMEC002153	0x0000A0A4	The test cannot be specified because the monitoring account is disabled. Please set the monitoring account to enable.
DMEC002154	0x0000A0A5	The specified unit name is not registered or is not monitoring.
DMEC002155	0x0000A0A6	The user ID is not set or is too long.
DMEC002156	0x0000A0A7	The user ID is not registered. Please specify the user ID.
DMEC002157	0x0000A0A8	You do not have sufficient privileges. Please contact the Account Administrator and confirm your access privileges.
DMEC002158	0x0000A0A9	The user name is too long.
DMEC002159	0x0000A0AA	The iSCSI name is too long.
DMEC002160	0x00002160	The specified NNC configuration is different from the subsystem. Please specify equipped NNC configuration.
DMEC002161	0x00002161	The firmware replacement cannot be performed in the single-controller system. Please retry by dual-controller system.
DMEC002162	0x00002162	The value received from the subsystem is invalid.
DMEC002163	0x00002163	The specified group or pair does not exist.
DMEC002164	0x00002164	The specified group is undefined or pair is not defined in the specified group.
DMEC002165	0x00002165	The specified group number and group name do not match.
DMEC002166	0x0000A0B1	The destination address can not be added because the address reached the maximum. Please remove the unnecessary destination address. And try again.
DMEC002167	0x0000A0B2	The specified destination address is already set.
DMEC002168	0x0000A0B3	The specified destination address is not set.
DMEC002169	0x0000A0B4	The destination address can not be removed because the address reached the minimum.

Message code	Error code	Message text/Recovery methods
DMEC002170	0x0000A0B5	The option is required for the array unit of current firmware revision.
DMEC002171	0x0000A0B6	The specified group does not exist.
DMEC002172	0x0000A0B7	The specified banner is too long.
DMEC002173	0x0000A0B8	Cannot specify the option for this array unit.
DMEC002174	0x0000A0B9	The specified drive is already defined as a spare drive, or is already being used in the RAID group or DP pool.
DMEC002175	0x0000A0BA	The specified pair of S-VOL is not defined or is not S-VOL in the self subsystem. Please confirm the S-VOL.
DMEC002176	0x0000A0BB	The specified array ID does not exist. Please confirm whether the remote path is set.
DMEC002177	0x0000A0BD	The specified logical unit capacity is the same as current capacity. Please confirm the logical unit capacity.
DMEC002178	0x0000A0BE	The process cannot be performed because RAID group is RAID0. Please confirm RAID level and then try again.
DMEC002179	0x0000A0BF	The number of drives is invalid. Please specify in multiples of 2, when RAID level is RAID1 or RAID1+0.
DMEC002180	0x0000A0C0	The number of drives reach the maximum. Please confirm the number of drives.
DMEC002181	0x0000A0C1	Two or more parameters cannot be specified for the array unit of current firmware revision.
DMEC002182	0x0000A0C2	When shrinking the logical unit, this option cannot specify.
DMEC002183	0x0000A0C3	The process cannot be specified because the IPv6 Setting Mode is auto.
DMEC002184	0x0000A0C4	The specified IP address is incorrect. Please specify a right IP address.
DMEC002185	0x0000A0C5	The free area does not exist. Please delete unnecessary logical units and then try again.
DMEC002186	0x0000A0C6	The IPv4 and IPv6 cannot be specified at the same time.
DMEC002187	0x0000A0C7	The address other than 2 figures of low order in host address. Please specify the same address as a setting value.
DMEC002188	0x0000A0C8	The parameter cannot be specified for the array unit of current firmware revision.
DMEC002189	0x0000A0C9	The RAID Group cannot be expanded because the drive configuration of RAID level is maximum.
DMEC002190	0x0000A0CA	The specified remote path name cannot be used. Please confirm the remote path name.
DMEC002191	0x0000A0CB	The version of CLI and API is mismatch. Please install the navigator again.
DMEC002192	0x0000A0CC	The specified DP pool is not defined. Please specify a defined DP pool.
DMEC002193	0x0000A0CD	When growing or shrinking the logical unit in DP pool, this option cannot be specified.
DMEC002194	0x0000A0CE	The process cannot be performed because external authentication server1 is already set.
DMEC002195	0x0000A0CF	The process cannot be performed because external authentication server2 is already set.
DMEC002196	0x0000A0D0	The process cannot be performed because external authentication server1 is not set.
DMEC002197	0x0000A0D1	The process cannot be performed because external authentication server2 is not set.
DMEC002198	0x0000A0D2	The process cannot be performed because external authentication server1 is not set. Please set server1 and try again.
DMEC002199	0x0000A0D3	The process cannot be performed because external authentication server2 is set. Please confirm external authentication server and try again.
DMEC002200	0x0000A0D4	When the user authentication is Internal, this option cannot be specified.
DMEC002201	0x0000A0D5	When the user authentication is RADIUS, this option cannot be specified.
DMEC002202	0x0000A0D6	The DP pools are undefined. Please confirm DP pools definition and try again.
DMEC002203	0x0000A0D7	The logical unit which does not belong to DP pool cannot be specified.
DMEC002204	0x0000A0D8	When growing the logical unit, this option cannot be specified.
DMEC002206	0x0000A0DA	Failed to write the file. Please check the permission and available capacity of the directory.
DMEC002207	0x0000A0DB	An error occurred during the file I/O. Please check the permission and available capacity.
DMEC002208	0x0000A0DC	No information to output.
DMEC002209	0x0000A0DD	The Account Authentication is done lock or disabled.
DMEC002210	0x0000A0DE	The specified subsystem name is not registered.
DMEC002211	0x0000A0DF	The process cannot be performed because the DP Pools exists. Delete the DP Pools and try again.
DMEC002212	0x0000A0E0	The specified environment variable is incorrect. Please confirm the environment variable STONAVM_ACT_SCRIPT.
DMEC002213	0x0000A0E1	You have no permission to modify. Terminate execution.
DMEC002214	0x0000A0E2	The input error occurred.

Message code	Error code	Message text/Recovery methods
DMEC002215	0x0000A0E3	Cannot specify the option for this OS.
DMEC002216	0x0000A0E4	The session information executing the script cannot be used. Please end using -finish option of auaccountscript command.
DMEC002217	0x0000A0E5	You cannot display because Type, Serial Number and H/W Revision are different between an array unit and the Navigator. Remove the specified array unit from the registration information and register it again.
DMEC002218	0x0000A0E6	The password is too short.
DMEC002219	0x0000A0E7	The incorrect character is contained in the password.
DMEC002220	0x0000A0E8	The incorrect character is contained in the backup file name.
DMEC002221	0x0000A0E9	The same file name cannot be specified as a password file and a backup file.
DMEC002222	0x0000A0EA	The character string which cannot be specified as a password file name is contained.
DMEC002223	0x0000A0EB	The specified slot cannot be detached because it is physically unequipped. Please confirm the slot status and try again.
DMEC002224	0x0000A0EC	The process cannot be performed because the specified controller is not registered in the registration information. Please confirm the registration information.
DMEC002225	0x0000A0ED	The specified slot cannot be detached.
DMEC002226	0x0000A0EE	The drive I/O module is already added.
DMEC002228	0x0000A0F0	The process cannot be performed because DM-LU is not defined.
DMEC002227	0x0000A0EF	The process cannot be performed because the status of specified logical unit is illegal. Please confirm the logical unit status and try again.
DMEC002229	0x0000A0F1	This option cannot be specified because logical unit defined as a DM-LU belongs to DP Pool.
DMEC002230	0x0000A0F2	The process cannot be performed because it is necessary to specify VLAN ID when VLAN status is enabled. Please specify the VLAN ID.
DMEC002231	0x0000A0F3	The process cannot be performed because the VLAN ID is specified when VLAN status is disabled. Please confirm the option.
DMEC002232	0x0000A0F4	The process cannot be specified because the VLAN status is disabled. Please set the VLAN status to enable.
DMEC002233	0x0000A0F5	The link local IP address cannot be specified because the link local IP address type is automatic or it is set to automatic at a time.
DMEC002234	0x0000A0F6	The global IP address cannot be specified because the global IP address type is automatic or it is set to automatic at a time.
DMEC002235	0x0000A0F7	This option cannot be specified because the IPv6 status is disabled.
DMEC002236	0x0000A0F8	The specified array ID does not exist. Please specify a right array ID.
DMEC002237	0x0000A0F9	The specified remote path name is not defined. Please specify a defined remote path name.
DMEC002238	0x0000A0FA	No lockable option is exists in license key file. Please specify the valid file and try again.
DMEC002239	0x0000A0FB	Failed to lock the license because specified keyfile contains multiple keycodes. Please specify the keyfile with one keycode and try again.
DMEC002240	0x0000A0FC	The DM-LU is undefined. Please confirm DM-LU definition and try again.
DMEC002241	0x0000A0FD	The license key file has unjust contents. Please specify the valid file and try again.
DMEC002242	0x0000A0FF	Cannot execute the option for interface board.
DMEC002243	0x0000A107	The process cannot be performed because the specified units contain Dense84 units. Please confirm the type of unit and try again.
DMEC002244	0x0000A108	The process cannot be performed because the Dense84 units are connected. Please specify array unit which has not connected Dense84 units and try again.
DMEC002245	0x0000A109	This option cannot be specified because the tier mode of DP pool is disabled.
DMEC002246	0x0000A10A	This option cannot be specified because the auto progress mode of DP pool is disabled.
DMEC002247	0x0000A10B	The drive type, RAID level or combination of the specified DP pool is mixed. Please specify DP pool which is not mixed.
DMEC002248	0x0000A10C	The specified drives contain unequipped drives. Please confirm the drive status and try again.
DMEC002249	0x0000A10D	The drive type is mixed in DP RAID group. Please specify same drive type and try again.

Message code	Error code	Message text/Recovery methods
DMEC002250	0x0000A10E	The DP RAID group created by the type of specified drive does not exist. Please specify drive of type used in created DP RAID groups and try again.
DMEC002251	0x0000A10F	The specified drive type is mixed. Please specify the same drive type and try again.
DMEC002252	0x0000A110	The process cannot be performed in the current firmware revision because the specified units contain Dense84 units.
DMEC002253	0x0000A111	The process cannot be performed in the current firmware revision because the Dense84 units are connected.
DMEC002254	0x0000A112	The process cannot be performed because the RAID group is not defined. Please specify defined RAID group and try again.
DMEC002255	0x0000A113	The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up or delete specification and try again.
DMEC002256	0x0000A114	The process cannot be specified because the DP pool is same drive type composition and the array unit condition where different drive type cannot be specified.
DMEC002257	0x0000A115	The process cannot be performed because the DP pool status was changed during receiving from the subsystem. Please wait for a while and then try again.
DMEC00A200	0x0000A200	Cannot add any more libraries, because the number of libraries reached maximum.
DMEC00A201	0x0000A201	The specified port is not available. Confirm the port status and try again.
DMEC00A202	0x0000A202	The process cannot be performed because the specified tapegroup is not defined. Please confirm the tapegroup status and try again.
DMEC00A203	0x0000A203	Cannot create any more tape groups, because the number of tape groups reached maximum.
DMEC00A204	0x0000A204	The specified file does not exist.
DMEC00A205	0x0000A205	The specified port is not library port. Please confirm the port status and try again.
DMEC00A206	0x0000A206	There is no statistical information. Please add the MT library and then try again.
DMEC00A207	0x0000A207	The performance measurement cannot be got because library port is undefined. Please confirm library port definition.
DMEC00A208	0x0000A208	Cannot display the backup group information, because the specified tape group is already backed up by append write.
DMEC00A209	0x0000A209	Cannot display the backup group information, because the full backup tape group of the specified tape group is already backed up by append write.
DMEC00A300	0x0000A300	The process cannot be performed because the controller 0 is not normal state. Please retry after changing to normal state.
DMEC00A301	0x0000A301	The process cannot be performed because the controller 1 is not normal state. Please retry after changing to normal state.

Message code	Error code	Message text/Recovery methods
DMED010001	0x03010001	The same host group name exists in a port. Confirm the host group name and then try again.
DMED010002	0x03010002	The same WWN name exists in a port. Confirm the WWN name and then try again.
DMED010003	0x03010003	WWN cannot be assigned to an undefined host group. Specify a defined host group and try again.
DMED010004	0x03010004	The function cannot be executed because host group security on some port is set to enabled. Set host group security to disable on all ports and try again.
DMED010005	0x03010005	The process cannot be performed because the target security on some port is set to enabled. Please set the target security to disable on all ports and try again.
DMED010006	0x03010006	The process cannot be performed because the specified name is default name of host group 0. Please confirm the name and try again.
DMED020001	0x03020001	The value of Dirty Data Opportunity is outside the effective range. Specify the value in the effective range and try again.
DMED020002	0x03020002	The value of Dirty Data Stop Opportunity is outside the effective range. Specify the value in the effective range and try again.
DMED020003	0x03020003	The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.
DMED020004	0x03020004	Prefetch Starting Opportunity is outside the effective range. Specify the value of effective range and try again.
DMED020005	0x03020005	VOL number is outside the effective range. Specify the VOL number of effective range and try again.
DMED020006	0x03020006	Reserved Random Simple Buffer Size is outside the effective range. Specify the value of effective range and try again.
DMED020007	0x03020007	The process failed due to an invalid parameter of Random Simple Buffer Size 0% Mode. Confirm the specified parameter.
DMED020008	0x03020008	Prefetch Count is outside the effective range. Specify the value in the effective range and try again.
DMED020009	0x03020009	Prefetch Size is outside the effective range. Specify the value in the effective range and try again.
DMED02000A	0x0302000A	The process failed due to an invalid parameter of Next Prefetch Opportunity Mode. Confirm the specified parameter.
DMED02000B	0x0302000B	The process cannot be performed because the Multiple Stream Mode of system parameter is disabled. Please set the Multiple Stream Mode to enable then try again.
DMED020010	0x03020010	Count of Judgment Sequential is outside the effective range. Specify the value in the effective range and try again.
DMED020011	0x03020011	Prefetch Size of Base is outside the effective range. Specify the value in the effective range and try again.
DMED020012	0x03020012	Prefetch Size of Fixed is outside the effective range. Specify the value in the effective range and try again.
DMED020013	0x03020013	The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.
DMED020014	0x03020014	The process cannot be performed because the specified Load Balancing value is outside the effective range. Please set up an effective value.
DMED020015	0x03020015	The process cannot be performed because the specified Load Balancing Monitoring Time is outside the effective range. Please set up an effective value.
DMED030001	0x03030001	The specified VOL is already invalid. Confirm the VOL status and try again.
DMED030002	0x03030002	The number of VOL reached the maximum. Delete unnecessary VOLs and try again.
DMED030003	0x03030003	The specified VOL is not invalid. Specify the invalid VOL and try again.
DMED030004	0x03030004	The specified VOL capacity is equal to or more than the capacity of original VOL. Confirm the VOL capacity and try again.
DMED030006	0x03030006	The specified VOL is not invalid. Specify the invalid VOL and try again.
DMED030007	0x03030007	The specified VOL is unformatted. Specify a formatted VOL and try again.
DMED030008	0x03030008	The number of VOL reached the maximum. Delete unnecessary VOLs and try again.
DMED030009	0x03030009	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMED03000A	0x0303000A	The specified VOL capacity is equal to or less than the minimum capacity of a VOL. Specify a larger capacity than the minimum capacity and try again.
DMED03000B	0x0303000B	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.

Message code	Error code	Message text/Recovery methods
DMED040001	0x03040001	The specified VOLs contain Sub VOL. Confirm the VOL status and try again.
DMED040003	0x03040003	The specified VOLs contain regressed or detached VOL. Confirm the VOL status and try again.
DMED040004	0x03040004	The specified VOLs contain an un-mounted drive. Confirm the drive status and try again.
DMED040005	0x03040005	The specified VOLs contains an invalid VOL. Confirm the VOL status and try again.
DMED040006	0x03040006	Someone already logged in. Set password protection function to disabled and try again.
DMED040007	0x03040007	There is no VOL entered to format.
DMED040008	0x03040008	Format of the volume cannot be performed under the Drive Detach Mode. Please turn off the Drive Detach Mode of system parameter.
DMED040009	0x03040009	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.
DMED050001	0x03050001	The process cannot be performed, because the specified VOL is having PIN data or is in a PIN exceeded state. Restore PIN data and try again.
DMED050002	0x03050002	The process cannot be performed because cache segment is insufficient. Wait for a while and then try again.
DMED050003	0x03050003	The process cannot be performed because the specified VOL is receiving the Write command continuously from the host or the subsystem is running with high load. Please wait for a while and then try again.
DMED050004	0x03050004	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMED050005	0x03050005	The process cannot be performed because the partition of necessary conditions for VOL changing does not exist. Please confirm the partition definition and try again.
DMED050006	0x03050006	The process cannot be performed because the specified volume is reserved for cache partition modification. Please retry after changing the cache partition.
DMED050007	0x03050007	The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.
DMED050008	0x03050008	The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.
DMED050009	0x03050009	The time out occurred by the VOL changing. Please wait for a while and then try again.
DMED05000A	0x0305000A	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMED05000B	0x0305000b	The process cannot be performed because the controller of volume partition does not match or the partition number of volume is not same. Please specify the volume which uses the same controller's partition, or the same partition. When the partition of a volume is set as 0 or 1, please set a pair partition as auto.
DMED05000C	0x0305000c	An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.
DMED05000D	0x0305000D	The time out occurred by the VOL changing during controller recovery. Please wait for a while and then try again.
DMED05000E	0x0305000E	The process cannot be performed because Remote Replication is in progress. Please retry after replacement completes.
DMED05000F	0x0305000F	The operation to change the controllers that control volume cannot be performed because the status of the ShadowImage pair that the specified volume is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing or Reverse Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.
DMED050010	0x03050010	The operation to change the controllers that controls volume cannot be performed because the specified volume is a part of a Volume Migration pair and its pair status is Synchronizing. Please execute the operation when the pair status is not Synchronizing.
DMED050011	0x03050011	The operation to change the controllers that controls volume cannot be performed because Auto Migration is in progress. Please execute the operation after Auto Migration is completed.
DMED050012	0x03050012	The operation to change the controllers that control volume cannot be performed because the status of the ShadowImage pair that the specified volume is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing, Reverse Synchronizing, Split Pending or Paired Internally Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.

Message code	Error code	Message text/Recovery methods
DMED070001	0x03070001	Cannot set dual ID success because either mounted numbers or types of the host interface boards are different between controllers. Confirm the interface boards status and try again.
DMED070002	0x03070002	The specified IP address is incorrect. Please specify a right IP address.
DMED070003	0x03070003	The specified default gateway address is incorrect. Please specify a right default gateway address.
DMED070004	0x03070004	The High-speed Sequential Write Mode cannot be disabled because process of Write command from the hosts is not completed. Please wait for a while and then try again, or use the system parameter setting with reboot.
DMED070005	0x03070005	The Multiple Stream Mode and the High-speed Sequential Write Mode cannot be specified at the same time.
DMED070006	0x03070006	When the ShadowImage pair of an S-VOL Switch status exists the ShadowImage I/O Switch Mode cannot be disabled. Please retry after solving the error.
DMED070007	0x03070007	The configuration of single or dual controller system cannot be changed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again.
DMED070008	0x03070008	The process cannot be performed because the specified port number is outside the effective range. Please confirm the port number.
DMED070009	0x03070009	The port number of other controller cannot be set up. Please confirm the controller number.
DMED070010	0x03070010	The process cannot be performed because the specified secure port number is outside the effective range. Please confirm the secure port number.
DMED070011	0x03070011	The secure port number of other controller cannot be set up. Please confirm the controller number.
DMED070012	0x03070012	The process cannot be performed because the non-secure port and secure port are same port number. Please set the different port number.
DMED070013	0x03070013	The process cannot be performed because the non-secure port status is changed by the non-secure port. Please retry by the secure port.
DMED070014	0x03070014	The process cannot be performed because the port number and the non-secure port status are changed at the same time. Please confirm the operation and try again.
DMED070015	0x03070015	The process cannot be performed because the non-secure port status of other controller is changed. Please confirm the controller number.
DMED070016	0x03070016	The process cannot be performed because the specified port number is reserved. Please set the unreserved port number.
DMED070100	0x03070100	The process cannot be performed because the option which is unsupported in the single-controller system is installed. Please de-install the option and try again.
DMED080001	0x03080001	The data pool cannot be used. Please restart the subsystem.
DMED080002	0x03080002	The process cannot be performed because the volume under restoration. Wait for a while and try again.
DMED080003	0x03080003	The process cannot be performed because the volume added to the data pool is not specified.
DMED080004	0x03080004	The process cannot be performed because the same volume number has been specified more than twice. Confirm the volume number and try again.
DMED080005	0x03080005	The specified volume number is outside of the effective range. Specify the volume number within the range and try again.
DMED080006	0x03080006	This process cannot be performed. The status of the specified volume must be in either normal or regressed state. Please verify the status of the volume and try again.
DMED080007	0x03080007	The process cannot be performed because the RAID level or HDU combination of the specified volume is not supported. Confirm the RAID level and the HDU combination currently supported and try again.
DMED080008	0x03080008	The process cannot be performed because the number of volumes in the data pool reached the maximum. Delete the volumes in the data pool and then try again.
DMED080009	0x03080009	The process cannot be performed because the specified volume is a unified VOL. Separate the unified VOL and try again.
DMED08000A	0x0308000A	The process cannot be performed because the specified volume is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.
DMED08000B	0x0308000B	The process cannot be performed because the specified volume is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.
DMED08000C	0x0308000C	The process cannot be performed because the specified volume is a command device. Cancel the command device and try again.

Message code	Error code	Message text/Recovery methods
DMED08000D	0x0308000D	The process cannot be performed because the specified volume has been invalidated. Restore the volume and try again.
DMED08000E	0x0308000E	The process cannot be performed because the specified volume is a part of SnapShot pair or a SnapShot volume. Cancel the SnapShot pair or specify another volume and try again.
DMED08000F	0x0308000F	The process cannot be performed because the specified volume is defined as a SnapShot volume. Specify another volume and try again.
DMED080010	0x03080010	The process cannot be performed because the specified volume is added to a data pool. Specify another volume and try again.
DMED080011	0x03080011	The process cannot be performed because the HDU combination of the specified volume differs from the volume in the data pool. Confirm the HDU combination and try again.
DMED080012	0x03080012	The process cannot be performed because the owner controller is different between the specified volume and the data pool. Confirm the volume owner controller and try again.
DMED080013	0x03080013	The process cannot be performed because the specified volume has been receiving the Write command continuously from the hosts. Wait for a while and then try again.
DMED080014	0x03080014	The process cannot be performed because there is other volume changing the Default Controller. Wait for a while and then try again.
DMED080015	0x03080015	The process cannot be performed because the specified volume is in the PIN exceeded state. Restore PIN data and try again.
DMED080016	0x03080016	The process cannot be performed because the specified volume is not enough for sufficient cache blocks. Specify another volume and try again.
DMED080017	0x03080017	The process cannot be performed because no volumes is in data pool.
DMED080018	0x03080018	The process cannot be performed because the Snapshot pair exists in the specified data pool. Cancel the Snapshot pair and try again.
DMED080019	0x03080019	The process cannot be performed because data pool deleted is not specified.
DMED08001A	0x0308001A	The process cannot be performed because the threshold of usage rate in the data pool is not specified.
DMED08001B	0x0308001B	The specified threshold is outside of the effective range. Specify the value of effective range and try again.
DMED08001C	0x0308001C	The process cannot be performed because the specified volume is capacity equal to or less than 2GB. Specify the volume of bigger capacity than 2GB and try again.
DMED08001D	0x0308001D	The process cannot be performed because S-VOL mode of the specified volume is disabled. Set S-VOL mode to enable then try again.
DMED08001E	0x0308001E	The process cannot be performed because quick formatting is now occurring. Retry after quick formatting is completed.
DMED08001F	0x0308001F	The number of specified volumes is over 64. Please specify the volumes in 64 or less.
DMED080020	0x03080020	The process cannot be performed because the drive type of specified volume is different from the data pool. Please confirm the drive type and try again.
DMED080021	0x03080021	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMED080022	0x03080022	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMED080023	0x03080023	The volumes in the data pool cannot be mixed with ones in Unit0 or in the latter units.
DMED080024	0x03080024	The process cannot be performed because DM-LU is not defined. Please define DM-LU and then try again.
DMED080025	0x03080025	The process cannot be performed because the specified volume is reserved for cache partition modification. Please specify another volume and try again.
DMED080026	0x03080026	The process cannot be performed because the number of volumes reached the system maximum. Please delete volumes in the data pool and try again.
DMED080027	0x03080027	The process cannot be performed because the number of volumes will reach the system maximum. Please delete volumes in the data pool and try again.
DMED080028	0x03080028	The volume in DP pool and a RAID group cannot be mixed to the same data pool. Please confirm the volume and then try again.
DMED080029	0x03080029	The process cannot be performed because state of the DP pool which contains the specified volume is Detached. Please recover and then try again.

Message code	Error code	Message text/Recovery methods
DMED08002A	0x0308002A	The process cannot be performed because the status of DP pool consumed capacity is capacity depleted. Please add DP pool capacity and then try again.
DMED08002B	0x0308002B	The process cannot be performed because the DP pool is being deleted. Please retry after the process completes.
DMED08002C	0x0308002C	The process cannot be performed because the DP pool is being created. Please retry after the process completes.
DMED08002D	0x0308002D	The process cannot be performed because the DP pool capacity is being added. Please retry after the process completes.
DMED08002E	0x0308002E	The process cannot be performed because the DP pool is being recovered. Please retry after the process completes.
DMED090001	0x03090001	The volume number of specified P-VOL is outside of the effective range. Specify the volume number of effective range and try again.
DMED090002	0x03090002	The process cannot be performed because the specified P-VOL under restoration. Wait for a while and then try again.
DMED090003	0x03090003	The volume number of specified SnapShot volume is outside of the effective range. Specify the volume number of effective range and try again.
DMED090004	0x03090004	The process cannot be performed because the volume number of the SnapShot volume created or deleted is not specified.
DMED090005	0x03090005	The process cannot be performed because the same volume number has been specified as a SnapShot volume more than twice. Confirm the volume number and try again.
DMED090006	0x03090006	The process cannot be performed because the specified volume of the P-VOL is neither in normal nor in regressed state. Specify the volume of normal or regressed state and try again.
DMED090007	0x03090007	The process cannot be performed because no volume exists in the data pool by the side of the controller of specified P-VOL. Add the volume to the data pool and try again.
DMED090008	0x03090008	The process cannot be performed because the RAID level or HDU combination of the specified volume differs from the volume is not supported. Confirm the RAID level and the HDU combination currently supported and try again.
DMED090009	0x03090009	The process cannot be performed because the number of created SnapShot volume for the specified P-VOL has reached its maximum. Delete unnecessary SnapShot volume and try again.
DMED09000A	0x0309000A	The volume number has already been defined. Specify a new number.
DMED09000B	0x0309000B	The process cannot be performed because the specified P-VOL is a unified VOL. Separate the unified VOL and try again.
DMED09000C	0x0309000C	The process cannot be performed because the specified P-VOL is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.
DMED09000D	0x0309000D	The process cannot be performed because the specified P-VOL is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.
DMED09000E	0x0309000E	The process cannot be performed because the specified P-VOL is a part of Snapshot pair. Cancel the Snapshot pair and try again.
DMED09000F	0x0309000F	The process cannot be performed because the specified P-VOL is a command device. Cancel the command device and try again.
DMED090010	0x03090010	The process cannot be performed because the specified P-VOL is invalid. Restore the VOL and try again.
DMED090011	0x03090011	The process cannot be performed because the specified P-VOL has already been added to a data pool. Specify another VOL number and try again.
DMED090012	0x03090012	The process cannot be performed because the specified P-VOL is not enough for sufficient cache capacity. Check cache capacity and try again.
DMED090013	0x03090013	The process cannot be performed because the HDU combination of the specified P-VOL differs from registered volumes to the data pool. Confirm the HDU combination and try again.
DMED090014	0x03090014	The process cannot be performed because the specified P-VOL has been receiving the Write command continuously from the hosts. Wait for a while and then try again.
DMED090015	0x03090015	The process cannot be performed because there is other volume changing the Default Controller. Wait for a while and then try again.

Message code	Error code	Message text/Recovery methods
DMED090016	0x03090016	The process cannot be performed because the specified P-VOL is in the PIN exceeded state. Restore PIN data and try again.
DMED090017	0x03090017	The process cannot be performed because the specified P-VOL is not defined. Specify a defined volume and try again.
DMED090018	0x03090018	The process cannot be performed because the specified SnapShot volume has been creating the pair. Cancel the SnapShot pair and try again.
DMED090019	0x03090019	The process cannot be performed because P-VOL is under deletion. Wait for a while and then try again.
DMED09001A	0x0309001A	The process cannot be performed because the specified set of P-VOL and SnapShot volume is not a pair. Confirm the pair status and try again.
DMED09001B	0x0309001B	The process cannot be performed because the number of SnapShot pair reached the maximum. Delete unnecessary SnapShot pair(s) and try again.
DMED09001C	0x0309001C	The process cannot be performed because the unified VOL is composed of 17 or more sub volumes. Specify another volume and try again.
DMED09001D	0x0309001D	The process cannot be performed because the unified VOL contains a sub volume whose size is less than 1GB. Specify another volume and try again.
DMED09001E	0x0309001E	The process cannot be performed because a management area of Snapshot is shortage. Delete unnecessary Snapshot pair(s) and try again.
DMED09001F	0x0309001F	The process cannot be performed because the drive type of specified volume is different from the V-VOL. Please confirm the drive type and try again.
DMED090020	0x03090020	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMED090021	0x03090021	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMED090022	0x03090022	The process cannot be performed because the specified SnapShot volume is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.
DMED090023	0x03090023	The process cannot be performed because the specified SnapShot volume is a part of Hi-Copy pair. Cancel the Hi-Copy pair and try again.
DMED090024	0x03090024	The process cannot be performed because the P-VOL of specified SnapShot volume is reserved for cache partition modification. Please retry after cache partition modification is completed.
DMED090025	0x03090025	The process cannot be performed because the specified V-VOL size will exceed the maximum of volume size. Please confirm the specified V-VOL size.
DMED090026	0x03090026	The specified volume is not V-VOL. Please specify the volume number of V-VOL and try again.

Message code	Error code	Message text/Recovery methods
DMED0A0001	0x030A0001	The process cannot be performed because the specified VOL is invalid. Restore the VOL and try again.
DMED0A0002	0x030A0002	The process cannot be performed because the specified VOL is a Sub VOL of the unifying VOLs. Separate the unified VOL and try again.
DMED0A0003	0x030A0003	The process cannot be performed because the specified VOL is S-VOL of ShadowImage. Specify another volume and try again.
DMED0A0004	0x030A0004	The process cannot be performed because the specified VOL is S-VOL of Remote Replication. Specify another volume and try again.
DMED0A0005	0x030A0005	The process cannot be performed because the specified VOL is SnapShot volume. Specify another volume and try again.
DMED0A0006	0x030A0006	The process cannot be performed in the retention term. The retention term expires and try again.
DMED0A0007	0x030A0007	The process cannot be performed because ShadowImage is in progress. Please wait a moment and then try again.
DMED0A0008	0x030A0008	The process cannot be performed because SnapShot is in progress. Please wait a moment and then try again.
DMED0A0009	0x030A0009	The retention term cannot be shortened. Specify the retention term is equal to or more than current value and try again.
DMED0A000A	0x030A000A	The process cannot be performed because expiration lock is enabled. Set expiration lock to disable and try again.
DMED0A000B	0x030A000B	The process cannot be performed because the status of ShadowImage pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.
DMED0A000C	0x030A000C	The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.
DMED0A000D	0x030A000D	The process cannot be performed because the status of SnapShot pair is not Split(PSUS). Please retry after changing the status of pair.
DMED0A000E	0x030A000E	The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.
DMED0B0001	0x030B0001	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED0C0001	0x030C0001	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED0C0002	0x030C0002	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED0C0003	0x030C0003	The unification cannot be performed because the drive type is different. Please confirm the drive type and try again.
DMED0C0004	0x030C0004	The volume in Unit0 cannot be unified with the latter units.
DMED0C0005	0x030C0005	The process cannot be performed because the unified VOL reached the maximum.
DMED0C0006	0x030C0006	The unification cannot be performed because the cache partition is different. Please confirm the cache partition of the specified volume.
DMED0C0007	0x030C0007	The process cannot be performed because the specified volume is reserved for cache partition modification. Please retry after changing the cache partition, or specify another volume.
DMED0C0008	0x030C0008	The total count of Main VOL and Sub VOL is over the maximum. Please specify 128 or fewer VOLs.
DMED0D0001	0x030D0001	The process cannot be performed because the access level is set up to ReadOnly or Protect. Please change the attribute to Read/Write, and try again.
DMED0D0002	0x030D0002	The process cannot be performed because the temporary key cannot be used for the next 180 days after it is locked or expired.
DMED0D0003	0x030D0003	The specified function has already been unlocked.

Message code	Error code	Message text/Recovery methods
DMED0E0001	0x030E0001	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED0E0002	0x030E0002	The process cannot be performed because the unified VOL which belongs to two or more RAID groups exists. Please separate the unified VOL and try again.
DMED0E0003	0x030E0003	The process cannot be performed because the specified volume is a Sub VOL. Please specify a Main VOL and try again.
DMED0E0004	0x030E0004	The process cannot be performed because the volumes number of the specified RAID group reach the maximum. Please confirm the RAID group and try again.
DMED0E0005	0x030E0005	The process cannot be performed because the specified volume is DM-LU. Please specify another volume and try again.
DMED0E0006	0x030E0006	The process cannot be performed because the specified volume is V-VOL of SnapShot. Please specify the P-VOL and try again.
DMED0E0007	0x030E0007	The volume number for free area has already been used. Please specify unused volume number.
DMED0E0008	0x030E0008	The volume cannot be created. Please delete unnecessary volumes or specify automatically for free area and then try again.
DMED0E0009	0x030E0009	The volume of RAID0 cannot be created by multiple free areas. Please confirm the specified area and then try again.
DMED0E000A	0x030E000A	The free area does not exist. Please delete unnecessary volumes and then try again.
DMED0E000B	0x030E000B	The capacity of specified area is insufficient or the volume number to show the position of the free area is invalid. Please confirm the area and try again.
DMED0E000C	0x030E000C	The capacity of specified area is insufficient. Please confirm the capacity and then try again.
DMED0E000D	0x030E000D	The volumes are over maximum. Please confirm the specified capacity or area number or delete unnecessary volumes and then try again.
DMED0E000E	0x030E000E	The volumes of RAID group are over maximum. Please confirm the specified capacity or area number or delete unnecessary volumes and then try again.
DMED0E000F	0x030E000F	The specified area number is outside of the effective range. Please specify the area number within the range and try again.
DMED0E0010	0x030E0010	The specified area does not exist. Please confirm the area number and then try again.
DMED0E0011	0x030E0011	The volume number to show the position of the free area is outside of the effective range. Please specify the volume number within the range and then try again.
DMED0E0012	0x030E0012	The volume number to show the position of the free area is outside of the effective range. Please specify the volume number within the range and then try again.
DMED0E0013	0x030E0013	The volume number to show the position of the free area is not defined. Please specify a defined volume and then try again.
DMED0E0014	0x030E0014	The volume number to show the position of the free area is not defined. Please specify a defined volume and then try again.
DMED0E0015	0x030E0015	The volume number to show the position of the free area is not defined in specified RAID group. Please confirm the volume of specified RAID group and then try again.
DMED0E0016	0x030E0016	The volume number to show the position of the free area is not defined in specified RAID group. Please confirm the volume of specified RAID group and then try again.
DMED0E0017	0x030E0017	The volume number to show the position of the free area is invalid. Please confirm the volume and then try again.
DMED0E0018	0x030E0018	The specified area is overlapped. Please confirm the area and then try again.
DMED0E0019	0x030E0019	The unused area is specified. Please confirm the area and then try again.
DMED0E001A	0x030E001A	The unified VOL reached the maximum. Please confirm the capacity or area number and then try again.
DMED0E001B	0x030E001B	The unified VOL reached the maximum. Please confirm the capacity or area number and then try again.
DMED0E001C	0x030E001C	The RAID group is invalid. Please confirm the RAID group and then try again.
DMED0E001D	0x030E001D	The process cannot be performed because RAID level of specified volume is RAID0. Please specify another volume and then try again.

Message code	Error code	Message text/Recovery methods
DMED0E001E	0x030E001E	The capacity of volume is over maximum. Please confirm the capacity and then try again.
DMED0E001F	0x030E001F	The specified capacity is invalid. Please confirm the capacity and then try again.
DMED0E0020	0x030E0020	The unified VOL reached the maximum. Please confirm the capacity or area number and then try again.
DMED0E0021	0x030E0021	The capacity of specified area is insufficient. Please confirm the capacity and then try again.
DMED0E0022	0x030E0022	The capacity of specified area is insufficient. Please confirm the capacity and then try again.
DMED0E0023	0x030E0023	The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished.
DMED0E0024	0x030E0024	The volume number is not defined. Please specify a defined volume and then try again.
DMED0E0025	0x030E0025	The capacity of specified area is insufficient. Please confirm the capacity and then try again.
DMED0E0026	0x030E0026	The specified capacity is over the volume capacity. Please confirm the capacity and then try again.
DMED0E0027	0x030E0027	The process cannot be performed because the specified volume is not normal state. Please recover the status and then try again.
DMED0E0028	0x030E0028	The process cannot be performed because the specified volume contains an un-mounted drive or a blocked drive. Confirm the drive status and try again.
DMED0E0029	0x030E0029	The process cannot be performed because the over provisioning threshold of the specified DP pool is equal to or more than the limit. Please add DP pool capacity and then try again.
DMED0E002A	0x030E002A	The process cannot be performed because the over provisioning threshold of the DP pool that has the specified volume is equal to or more than the limit. Please add DP pool capacity and then try again.
DMED0E002B	0x030E002B	The process cannot be performed because specified volume is mapped. Please delete mapping and then try again.
DMED0E002C	0x030E002C	The process cannot be performed because the specified capacity will exceed the available maximum capacity of the subsystem. Please specify the capacity within the range of the available maximum capacity of the subsystem and then try again.
DMED0E002D	0x030E002D	This process cannot be performed. The status of DM-LU must be in either normal or regressed state. Please recover the status of DM-LU and try again.
DMED0E002E	0x030E002E	The process cannot be performed because DM-LU is reserved for cache partition modification. Please retry after changing the cache partition.
DMED0E002F	0x030E002F	The capacity of DM-LU is insufficient. Please confirm the capacity and then try again.
DMED0E0030	0x030E0030	The process cannot be performed because the drive of RAID group to which DM-LU belongs contains an un-mounted drive or a blocked drive. Please retry after changing to normal state.
DMED0E0031	0x030E0031	The process cannot be performed because the over provisioning threshold of the DP pool to which the DM-LU is equal to or more than the limit. Please add DP pool capacity and then try again.
DMED0E0032	0x030E0032	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The process cannot be performed because the capacity of DP pool to which the DM-LU belongs is insufficient. Please add DP pool capacity and then try again.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
DMED0E0032	0x030E0032	The process cannot be performed because the capacity of DP pool to which the DM-LU belongs is insufficient. Please grow the capacity of DP pool and try again.
DMED0F0001	0x030F0001	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED0F0002	0x030F0002	The process cannot be performed because the drives of Unit0 and the latter units are contained within the range of the specified RAID group.
DMED0F0003	0x030F0003	The process cannot be performed because the non-supported drive on this subsystem are contained within the range of the specified RAID group.
DMED0F0005	0x030F0005	The process cannot be performed because the number of drive is incorrect. Please confirm the mounted drive and try again.
DMED0F0007	0x030F0007	The number of defined RAID group reached the maximum. Delete unnecessary RAID groups and then try again.

Message code	Error code	Message text/Recovery methods
DMED100001	0x03100001	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED100002	0x03100002	The process cannot be performed because the RAID level of the specified volume is not supported. Confirm the RAID level currently supported and try again.
DMED100003	0x03100003	The process cannot be performed because the specified volume is a unified VOL. Separate the unified VOL and try again, or please execute online/offline formatting.
DMED100004	0x03100004	The process cannot be performed because the specified volume is extended and not formatted. Please execute online/offline formatting.
DMED100005	0x03100005	The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished.
DMED100006	0x03100006	The process cannot be performed because the specified volume contain an un-mounted drive or a blocked drive. Confirm the drive status and try again.
DMED100007	0x03100007	Format of the volume cannot be performed under the Drive Detach Mode. Please turn off the Drive Detach Mode of system parameter.
DMED100008	0x03100008	The process cannot be performed because the specified volume is not formatted and set the access level other than S-VOL mode. Please change the attribute to Read/Write and try again.
DMED100009	0x03100009	The process cannot be performed because the specified volume which belongs to the RAID group is illegal. Please recover the status of RAID group and try again.
DMED10000A	0x0310000A	The process cannot be performed because the specified volume which belongs to the RAID group is illegal. Please recover the status of RAID group and try again.
DMED110001	0x03110001	The mapping mode cannot be changed because the mapping guard VOL exists.
DMED110002	0x03110002	The mapping information cannot be changed because the mapping guard VOL exists.
DMED110003	0x03110003	The specified volume is not defined. Please specify a defined volume.
DMED120001	0x03120001	The specified drive cannot be defined as a spare drive because it is not supported on this subsystem.
DMED130001	0x03130001	The process cannot be performed because the specified remote path is not set up.
DMED130002	0x03130002	The process cannot be performed because the specified port is iSCSI port. Please confirm the port type and try again.
DMED130003	0x03130003	The process cannot be performed because remote ports of path0 and path1 are set to the same controller of the remote subsystem. Please set one of the remote ports to the other controller and try again.
DMED130004	0x03130004	The process cannot be performed because the specified Timeout Period is outside the effective range. Please confirm the Timeout Period and try again.
DMED130005	0x03130005	The process cannot be performed because the specified bandwidth is outside the effective range. Please confirm the bandwidth and try again.
DMED130006	0x03130006	The process cannot be performed because the path status is normal. Please confirm the status of path.
DMED130007	0x03130007	The process cannot be performed because the path does not exist. Please setting the path and try again.
DMED130008	0x03130008	The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.
DMED130009	0x03130009	The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.
DMED13000A	0x0313000A	The process cannot be performed because the specified port number is outside the effective range. Please confirm the port number.
DMED13000B	0x0313000B	The process cannot be performed because the status of IPv6 address setting is illegal. Please confirm the IP address and try again.

Message code	Error code	Message text/Recovery methods
DMED130010	0x03130010	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMED130011	0x03130011	The process cannot be performed because the path does not exist. Please setting the path and try again.
DMED130012	0x03130012	The process cannot be performed because the path does not exist. Please setting the path and try again.
DMED130013	0x03130013	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMED130014	0x03130014	The process cannot be performed because port are physically unequipped. Please confirm the port type and the subsystem status and try again.
DMED130015	0x03130015	The process cannot be performed because the specified path is already defined. Please confirm the status of path and try again.
DMED130016	0x03130016	The process cannot be performed because the Hosts is logging out. Please wait a moment and try again.
DMED130017	0x03130017	The same array ID as a self subsystem is specified. Please specify the array ID of connected subsystem.
DMED130018	0x03130018	The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.
DMED130019	0x03130019	The process cannot be performed because Remote Replication pair of Synchronizing or Paired exists. Please confirm the status of pair and try again.
DMED13001A	0x0313001A	The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.
DMED13001B	0x0313001B	The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.
DMED13001C	0x0313001C	The process cannot be performed because the remote path or remote port CHAP information (Target information) is defined. Please change Distributed Mode to Hub and try again.
DMED13001D	0x0313001D	The specified array ID is already registered. Please specify another array ID and then try again.
DMED13001E	0x0313001E	The process cannot be performed because the remote path or remote port CHAP information (Target information) is specified. Please change Hub array unit and then try again.
DMED13001F	0x0313001F	The number of defined remote path reached the maximum. Please delete unnecessary remote path and try again.
DMED130020	0x03130020	The specified remote path name is already registered. Please specify another remote path name and then try again.
DMED130021	0x03130021	The specified remote array ID cannot be set because Distributed Mode is Hub. Please change Distributed Mode to Edge, or specify array ID of remote subsystem that Distributed mode is Edge and try again.
DMED130022	0x03130022	The specified array ID does not exist. Please specify a right array ID.
DMED130023	0x03130023	The process cannot be performed because Distributed Mode is not supported. Please confirm the subsystem and try again.
DMED130024	0x03130024	The process cannot be performed because the remote path to two or more are defined. Please delete unnecessary remote path and try again.
DMED130025	0x03130025	The process cannot be performed because the remote port CHAP information (Target information) to two or more is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.
DMED130026	0x03130026	The process cannot be performed because the Remote Replication pair exists to two or more subsystems. Please cancel the Remote Replication pair and try again.
DMED130027	0x03130027	The process cannot be performed because the remote path is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote path and try again.
DMED130028	0x03130028	The process cannot be performed because the remote port CHAP information (Target information) is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote port CHAP information (Target information) and try again.
DMED130029	0x03130029	The process cannot be performed because Remote Replication pair exists on the subsystem whose Distributed Mode is not supported. Please cancel unnecessary Remote Replication pair and try again.

Message code	Error code	Message text/Recovery methods
DMED13002A	0x0313002A	The process cannot be performed because the remote path is defined. Please delete remote path and try again.
DMED13002B	0x0313002B	The process cannot be performed because the remote port CHAP information (Target information) is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.
DMED13002C	0x0313002C	The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.
DMED13002D	0x0313002D	The specified serial number is incorrect. Please specify a right serial number.
DMED13002E	0x0313002E	The process cannot be performed because the specified array is not supported the Remote Replication connecting of iSCSI interface. Please specify the Fibre interface or confirm the array and try again.
DMED13002F	0x0313002F	The process cannot be performed because the defined port to the path is unequipped or unsupported. Please confirm the port status.
DMED130030	0x03130030	The process cannot be performed because the specified subsystem by array ID is not supported Remote Replication. Please confirm the array ID and try again.
DMED130031	0x03130031	The process cannot be performed because the specified subsystem by array ID is not supported Remote Replication. Please confirm the array ID and try again.
DMED130032	0x03130032	The process cannot be performed because the specified array is not supported the Remote Replication connecting of Fibre interface. Please specify the iSCSI interface or confirm the array and try again.
DMED140001	0x03140001	The process cannot be performed because the term of the temporary key or emergency key is expired.
DMED140002	0x03140002	The process cannot be performed because the DM-LU has already been set. Please cancel the DM-LU and try again.
DMED140003	0x03140003	The process cannot be performed because the specified operation mode is outside the effective range or two or more operation is specified at the same time. Please confirm the operation mode and try again.
DMED140004	0x03140004	The process cannot be performed because DC power supply is physically unequipped. Please confirm the subsystem status and try again.
DMED140005		Hitachi Storage Navigator Modular 2 is less than Ver.22.00.
		The function cannot be executed for this subsystem. Please confirm the subsystem.
		Hitachi Storage Navigator Modular 2 is Ver.22.00 or more.
DMED140006	0x03140006	The function cannot be executed for this subsystem. Please confirm the version of the subsystem or the navigator.
		The process cannot be performed because cache memory size is insufficient. Please increase a larger cache memory and then try again.
DMED140007	0x03140007	The specified value is outside the effective range. Please specify the value in the effective range and try again.
DMED140008	0x03140008	The process cannot be performed because the volume is in progress. Please wait a moment and then try again.
DMED140009	0x03140009	The process cannot be performed because the specified drive is un-mounted. Please confirm the drive status and try again.
DMED14000A	0x0314000A	The process cannot be performed because the specified volume is DM-LU. Please execute to add the capacity of DM-LU.
DMED14000B	0x0314000B	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED140010	0x03140010	The process cannot be performed because the specified drive is un-mounted. Please confirm the drive status and try again.
DMED140011	0x03140011	The process cannot be performed because the specified unit is un-mounted. Please confirm the unit number and then try again.

Message code	Error code	Message text/Recovery methods
DMED150001	0x03150001	The process cannot be performed because the cache partition is not initial status. Please change the cache partition to initial status and try again.
DMED150004	0x03150004	The process cannot be performed because the cache partition is less than minimum size. Please confirm the cache partition size and try again.
DMED150005	0x03150005	The process cannot be performed because the PIN is exceeded state. Please restore PIN data and try again.
DMED150006	0x03150006	The segment size of cache partition (0 or 1) cannot be changed.
DMED150007	0x03150007	The process cannot be performed because ShadowImage is in use. Please cancel the ShadowImage pair and try again. (*1)
DMED150009	0x03150009	The process cannot be performed because SnapShot is in use. Please cancel the SnapShot pair and try again.
DMED15000B	0x0315000B	The process cannot be performed because process of Write command from the hosts is not completed. Please wait for a while and then try again, or delete the logical unit.
DMED15000C	0x0315000C	The function cannot be executed because a Cache Residency VOL or a reserved one exists. Disable the VOL, and then try again.
DMED15000D	0x0315000D	The specified segment size is incorrect. Please confirm the segment size and try again.
DMED15000E	0x0315000E	The process cannot be performed because the VOL change is in progress. Please wait a moment and try again.
DMED15000F	0x0315000F	The specified cache partition number is incorrect. Please confirm the cache partition number and try again.
DMED150010	0x03150010	The controller of current cache partition cannot be changed. Please delete the cache partition, and set up again.
DMED150011	0x03150011	The process cannot be performed because the total size of cache partition is over the cache capacity. Please confirm the cache partition size and try again.
DMED150012	0x03150012	The cache partition with which the volume is set up, or the cache partition of 0 or 1 cannot be deleted. Please confirm the cache partition number.
DMED150013	0x03150013	The process cannot be performed because the specified cache partition is not defined. Please specify a defined cache partition and try again.
DMED150014	0x03150014	The process cannot be performed because the stripe size of volume is not 64KB. Please delete the volume and try again.
DMED150015	0x03150015	The process cannot be performed because the specified volume is a part of Remote Replication pair. Please cancel the Remote Replication pair and try again.
DMED150016	0x03150016	The process cannot be performed because the total cache partition capacity using the segment size of 4KB or 8KB is over the system limit. Please confirm the cache partition size or the segment size and try again.
DMED160002	0x03160002	The process cannot be performed because the specified volume is a Sub VOL of the unifying VOLs. Please separate the unified VOL and try again.
DMED160011	0x03160011	The volume cannot be allocated the specified cache partition. Please specify another cache partition number and try again.
DMED160012	0x03160012	The process cannot be performed because the Cache Partition Manager is not installed, locked, or disabled.
DMED160013	0x03160013	The process cannot be performed because the specified volume is SnapShot volume. Please specify another volume number and try again.
DMED160014	0x03160014	The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.
DMED160015	0x03160015	The process cannot be performed because Cache Partition Manager is not installed, locked, or disabled. Please install Cache Partition Manager and try again.
DMED160016	0x03160016	The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.
DMED160017	0x03160017	The process cannot be performed because the specified cache partition is set to the different controller. Please confirm the cache partition and try again.

*1 : When this is displayed at the time of the firmware download, the factor of "Since both P-Vol and S-Vol of one ShadowImage pair are P-Vol or S-Vol of TrueCopy, the downgrade cannot be performed" is considered.
In this case, release the target Shadow Image pair or True Copy pair, and execute it again.

Message code	Error code	Message text/Recovery methods
DMED160018	0x03160018	The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition, and try again.
DMED160019	0x03160019	The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.
DMED16001E	0x0316001E	The process cannot be performed because the pair cache partition and the cache partition are set to the same controller. Please confirm the cache partition and try again.
DMED16001F	0x0316001F	The process cannot be performed because the segment size does not match. Please confirm the segment size of cache partition and try again.
DMED160020	0x03160020	The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.
DMED160021	0x03160021	The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.
DMED160022	0x03160022	The process cannot be performed because PIN data exists. Please restore PIN data and try again.
DMED160023	0x03160023	The process cannot be performed because the specified volume is not a DM-LU. Please specify the DM-LU and try again.
DMED160024	0x03160024	The process cannot be performed because the capacity of DM-LU will exceed the maximum. Please confirm the capacity and try again.
DMED160025	0x03160025	The process cannot be performed because the specified capacity is not 1GB unit. Please specify the capacity of 1GB unit and try again.
DMED160026	0x03160026	The process cannot be performed because RAID group of RAID0 is specified. Please specify RAID group which the RAID level is not RAID0 and try again.
DMED160027	0x03160027	The process cannot be performed because the HDU combination of the specified RAID group differs from RAID group to which DM-LU belongs. Please confirm the RAID group and try again.
DMED160028	0x03160028	The process cannot be performed because the drive type of the specified RAID group differs from RAID group to which DM-LU belongs. Please confirm the RAID group and try again.
DMED160029	0x03160029	The process cannot be performed because the continued free area for addition capacity does not exist in the RAID group. Please confirm the free area and try again.
DMED170001	0x03170001	The process cannot be performed because the specified volume is capacity less than 5GB. Specify the volume is equal to or more than 5GB and try again.
DMED170002	0x03170002	The process cannot be performed because the specified volume is RAID level 0. Specify another volume and try again.
DMED170003	0x03170003	This process cannot be performed. The status of the specified volume must be in either normal or regressed state. Please verify the status of the volume and try again.
DMED170004	0x03170004	The process cannot be performed because the specified volume is a unified VOL. Separate the unified VOL and try again.
DMED170005	0x03170005	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMED170006	0x03170006	The process cannot be performed because the specified volume is a command device. Cancel the command device and try again.
DMED170007	0x03170007	The process cannot be performed because the specified volume is capacity less than 10GB. Specify the volume is equal to or more than 10GB and try again.
DMED170008	0x03170008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The process cannot be performed because the free capacity of DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
DMED170009	0x03170009	The process cannot be performed because the capacity of DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.
		The process cannot be set to DM-LU because specified volume is mapped. Please delete mapping and then try again.

Message code	Error code	Message text/Recovery methods
DMED17000A	0x0317000A	The process cannot be performed because the specified volume is neither in normal, regressed nor unformatted state. Please recover the status of volume and try again.
DMED17000B	0x0317000B	The process cannot be performed because the stripe size of specified volume is not 64KB or 256KB. Please confirm the stripe size and try again.
DMED17000C	0x0317000C	The process cannot be performed because the data drive count of HDU combination is more than 17, when the stripe size of specified volume is 256KB and the RAID level which belongs to the RAID group is RAID6. Please specify another volume and try again.
DMED17000D	0x0317000D	The process cannot be performed because the specified capacity is outside the effective range. Please confirm the capacity and try again.
DMED17000E	0x0317000E	The process cannot be performed because the capacity of specified volume is not 1GB unit. Please confirm the capacity of volume and try again.
DMED17000F	0x0317000F	The process cannot be performed because the volume contains a sub volume whose capacity is less than 1GB. Please specify another volume and try again.
DMED180001	0x03180001	The specified volume cannot be set as Cache Residency VOL because its cache partition is not 0 or 1. Please try again after changing a cache partition into 0 or 1, or specify the volume of the cache partition 0 or 1.
DMED190001	0x03190001	The specified IP address is incorrect. Please specify a correct IP address.
DMED190002	0x03190002	The same IP address as the management LAN cannot be set up. Please specify a correct IP address.
DMED190003	0x03190003	The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.
DMED190004	0x03190004	The same IP address as the maintenance LAN cannot be set up. Please specify a correct IP address.
DMED190005	0x03190005	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMED190006	0x03190006	The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.
DMED190007	0x03190007	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED190008	0x03190008	The same IP address as the NNC LAN cannot be set up. Please specify a correct IP address.
DMED190009	0x03190009	The maintenance LAN cannot be changed automatically because the same network address is specified as a maintenance LAN when NNC is connected. Please confirm the specified network address and try again.
DMED19000B	0x0319000B	The specified host address of the maintenance LAN is incorrect. Please specify a correct IP address.
DMED19000C	0x0319000C	The process cannot be performed because the subnet mask of the management LAN is incorrect. Please set up the correct subnet mask and try again.
DMED19000D	0x0319000D	The process cannot be performed because the default gateway of the management LAN is incorrect. Please set up the correct default gateway and try again.
DMED19000E	0x0319000E	The DHCP and the maintenance LAN automatic change cannot be specified at the same time. Please confirm the operation and try again.
DMED19000F	0x0319000F	The specified host address of the management LAN is incorrect. Please specify a correct IP address.
DMED190010	0x03190010	The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.
DMED190011	0x03190011	The process cannot be performed because the maintenance LAN automatic change mode is enabled. Please set this mode to disable and try again.
DMED190012	0x03190012	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED190013	0x03190013	The specified IP address is incorrect. Please specify a correct IP address.

Message code	Error code	Message text/Recovery methods
DMED1A0001	0x031A0001	The process cannot be performed because NNC is not connected. Please connect NNC and try again.
DMED1A0002	0x031A0002	The specified volume is not defined. Please specify a defined volume.
DMED1A0003	0x031A0003	The process cannot be performed because the specified volume is less than minimum size of the system VOL. Please confirm the volume size and try again.
DMED1A0004	0x031A0004	The process cannot be performed because the specified volume is already assigned. Please specify a volume that is not assigned and try again.
DMED1A0005	0x031A0005	The process cannot be performed because the specified volume is S-VOL of ShadowImage. Please specify another volume and try again.
DMED1A0006	0x031A0006	The process cannot be performed because the specified volume is S-VOL of Remote Replication. Please specify another volume and try again.
DMED1A0007	0x031A0007	The process cannot be performed because the specified volume is defined as a SnapShot volume. Please specify another volume and try again.
DMED1A0008	0x031A0008	The process cannot be performed because the specified volume is added to a data pool. Please specify another volume and try again.
DMED1A0009	0x031A0009	The process cannot be performed because the specified volume is a Sub VOL of the unifying VOLs. Please specify another volume and try again.
DMED1A000A	0x031A000A	The process cannot be performed because the specified volume is the mapping guard VOL. Please specify another volume and try again.
DMED1A000B	0x031A000B	The process cannot be performed because the specified volume is a command device. Please specify another volume and try again.
DMED1A000C	0x031A000C	The specified volume is not defined as a command device. Please specify a volume that is already defined to a command device.
DMED1A000D	0x031A000D	The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.
DMED1A000E	0x031A000E	The process cannot be performed because the specified volume is DM-LU. Please specify another volume and try again.
DMED1A000F	0x031A000F	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED1A0010	0x031A0010	The process cannot be performed because all ports are used for NAS. Please confirm the port type.
DMED1A0020	0x031A0020	The process cannot be performed because the system VOL exists.
DMED1A0021	0x031A0021	The process cannot be performed because the user VOL exists.
DMED1A0022	0x031A0022	The process cannot be performed because the specified volume is the system VOL. Please release the system VOL and try again.
DMED1A0023	0x031A0023	The process cannot be performed because the specified volume is the user VOL. Please specify another volume and try again.
DMED1A0024	0x031A0024	The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.
DMED1A0025	0x031A0025	The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.
DMED1A0026	0x031A0026	The specified port is used for NAS. Please specify another port.
DMED1A0027	0x031A0027	The unification cannot be performed because the stripe size does not match. Please confirm the stripe size of volume and try again.
DMED1A0028	0x031A0028	The process cannot be performed because the specified volume is P-VOL or V-VOL of SnapShot. Please specify another volume and try again.
DMED1A0029	0x031A0029	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED1A002A	0x031A002A	The process cannot be performed because the specified volume is being used as ShadowImage pair with more than 2 S-VOL. Please delete S-VOL and make the pair into one-to-one relation, or cancel the pair, and then try again.

Message code	Error code	Message text/Recovery methods
DMED1A0030	0x031A0030	The Command Device(secondary) cannot set to the NNType1.
DMED1A0031	0x031A0031	The Working Area for Dump cannot set to this NNType2.
DMED1A0032	0x031A0032	The process cannot be performed because the Command Device is not set by system VOL. Please set the Command Device and try again.
DMED1A0033	0x031A0033	The process cannot be performed because the Command Device(secondary) is set by system VOL. Please release the Command Device(secondary) and try again.
DMED1A0034	0x031A0034	The process cannot be performed because the equipped NNC is unknown or mixture.
DMED1A0070	0x031A0070	The process cannot be performed because the equipped NNC is NNType2.
DMED1A0071	0x031A0071	The process cannot be performed because the NAS OS is not installed. Please install the NAS OS and try again.
DMED1A0072	0x031A0072	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMED1A0073	0x031A0073	The process cannot be performed because the NNC is not stopped. Please stop the NNC and try again.
DMED1A0074	0x031A0074	The process cannot be performed because the equipped NNC is NNType1.
DMED1A0075	0x031A0075	The process cannot be performed because the system VOL is not backed up.
DMED1A0076	0x031A0076	The process cannot be performed because the NNC is not stopped or detached.
DMED1A0077	0x031A0077	The process cannot be performed because the system VOL is not backed up.
DMED1B0001	0x031B0001	The specified IP address is incorrect. Please specify a correct IP address.
DMED1B0002	0x031B0002	It is impossible to change to specified IP address. Please specify a correct IP address.
DMED1B0003	0x031B0003	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED1B0004	0x031B0004	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMED1B0005	0x031B0005	The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.
DMED1B0006	0x031B0006	The process cannot be performed during the maintenance LAN setting. Please wait a moment and then try again.
DMED1B0008	0x031B0008	The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.
DMED1B0009	0x031B0009	The process cannot be performed because NNC is equipped. Please confirm the port type and try again.
DMED1B000A	0x031B000A	The process cannot be performed because the same address is specified as the maintenance LAN and the management LAN. Please specify the different address and try again.
DMED1C0001	0x031C0001	The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.
DMED1C0002	0x031C0002	The process cannot be performed because the authentication method is not specified. Please confirm the authentication method and try again.
DMED1C0003	0x031C0003	The process cannot be performed because the specified alias format is invalid. Please confirm the alias and try again.
DMED1C0004	0x031C0004	The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.
DMED1C0005	0x031C0005	The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.
DMED1C0006	0x031C0006	The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.
DMED1C0007	0x031C0007	The process cannot be performed because the specified target is not defined. Please confirm the target and try again.
DMED1C0008	0x031C0008	The process cannot be performed because the specified name format is invalid. Please confirm the name and try again.
DMED1C0009	0x031C0009	The process cannot be performed because the same name exists in a port. Please confirm the name and try again.

Message code	Error code	Message text/Recovery methods
DMED1C000A	0x031C000A	The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.
DMED1C000B	0x031C000B	The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.
DMED1C000C	0x031C000C	The process cannot be performed because the term of the temporary key or emergency key is expired.
DMED1C000D	0x031C000D	The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.
DMED1C000E	0x031C000E	The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.
DMED1C000F	0x031C000F	The process cannot be performed because the character length of user name is outside the effective range. Please confirm the user name and try again.
DMED1C0010	0x031C0010	The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again.
DMED1C0011	0x031C0011	The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.
DMED1C0012	0x031C0012	The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.
DMED1C0013	0x031C0013	The process cannot be performed because Keep Alive Timer is outside the effective range. Please specify Keep Alive Timer of 30 to 64800 and try again.
DMED1C0014	0x031C0014	The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.
DMED1C0015	0x031C0015	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED1C0017	0x031C0017	The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.
DMED1C0018	0x031C0018	The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.
DMED1C0019	0x031C0019	The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.
DMED1C001A	0x031C001A	The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.
DMED1C001B	0x031C001B	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMED1C001C	0x031C001C	The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.
DMED1C001D	0x031C001D	The process cannot be performed because the ping is executing. Please try again after the ping is completed.
DMED1C001E	0x031C001E	The process cannot be performed because the specified CHAP algorithm is incorrect. Please specify a correct CHAP algorithm and try again.
DMED1C001F	0x031C001F	The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again.
DMED1C0020	0x031C0020	The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.
DMED1C0021	0x031C0021	The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.
DMED1C0022	0x031C0022	The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.
DMED1C0023	0x031C0023	The process cannot be performed because the LUN Manager is not installed, locked, or disabled. Please install the LUN Manager and then try again.
DMED1C0024	0x031C0024	The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.

Message code	Error code	Message text/Recovery methods
DMED1C0025	0x031C0025	The process cannot be performed because the character length of alias is outside the effective range. Please confirm the alias and try again.
DMED1C0026	0x031C0026	The process cannot be performed because the invalid character is specified. Please confirm the alias and try again.
DMED1C0027	0x031C0027	The process cannot be performed because the character length of name is outside the effective range. Please confirm the name and try again.
DMED1C0028	0x031C0028	The process cannot be performed because the invalid character is specified. Please confirm the name and try again.
DMED1C0029	0x031C0029	The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.
DMED1C002A	0x031C002A	The process cannot be performed because the specified target is not defined. Please confirm the target and try again.
DMED1C002B	0x031C002B	The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.
DMED1C003A	0x031C003A	The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.
DMED1C003B	0x031C003B	The process cannot be performed because the specified alias is default name of Target 0. Please confirm the alias and try again.
DMED1C003C	0x031C003C	The process cannot be performed because the specified iSCSI Name is default name of Target 0. Please confirm iSCSI Name and try again.
DMED1C003D	0x031C003D	The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.
DMED1C003E	0x031C003E	The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.
DMED1C003F	0x031C003F	The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.
DMED1C0040	0x031C0040	The process cannot be performed because the specified host group or target is outside the effective range. Please confirm the host group or target and try again.
DMED1C0041	0x031C0041	The information cannot be obtained because iSCSI port is physically unequipped. Please confirm the port status and try again.
DMED1C0042	0x031C0042	The specified MTU is incorrect. Please specify a correct MTU.
DMED1C0043	0x031C0043	The process cannot be performed because the specified MTU value is not set to equipped interface board. Please confirm the MTU value.
DMED1C0044	0x031C0044	The process cannot be performed during the remote path set of IPv6. Please delete the remote path and try again.
DMED1C0045	0x031C0045	The process cannot be performed during the iSNS information set of IPv6. Please set the iSNS server unused and try again.
DMED1C0046	0x031C0046	The process cannot be performed because the IPv6 status is disabled. Please set the IPv6 status to enable and try again.
DMED1C0047	0x031C0047	The process cannot be performed because the IPv6 status is disabled. Please set the IPv6 status to enable and try again.
DMED1C0048	0x031C0048	The process cannot be performed because either the address of link local IP address or global IP address or default gateway are same in same port. Please specify the different address.
DMED1C0049	0x031C0049	The process cannot be performed because the link local IP address which cannot be set up is specified. Please confirm the operation and try again.
DMED1C0050	0x031C0050	The process cannot be performed because the Digest is not set to equipped interface board. Please confirm the interface board type.
DMED1D0001	0x031D0001	The process cannot be performed during the SNMP setting. Please wait a moment and then try again.

Message code	Error code	Message text/Recovery methods
DMED1E0001	0x031E0001	The process cannot be performed because the cycle time is out of range. Please specify the cycle time of 30 to 3600 and try again.
DMED1E0002	0x031E0002	The process cannot be set because the specified cycle time is less than the minimum value. Please confirm the cycle time and try again.
DMED1E0003	0x031E0003	The process cannot be performed because the specified Queuing Inhibition Time is outside the effective range. Please confirm the Queuing Inhibition Time and try again.
DMED1E0004	0x031E0004	The process cannot be performed because the specified function is not supported on this subsystem. Please confirm the subsystem and try again.
DMED1E0010	0x031E0010	The process cannot be performed because the Remote Replication pair exists. Please cancel the Remote Replication pair and try again.
DMED1E0011	0x031E0011	The process cannot be performed during the Remote Replication pair deleting. Please wait a moment and then try again.
DMED1E0012	0x031E0012	The process cannot be performed because the specified volume is a part of Remote Replication pair. Please specify another volume and try again.
DMED1E0013	0x031E0013	The process cannot be performed because the deallocation of cache blocks for SnapShot is in progress. Please wait a moment and then try again.
DMED1E0014	0x031E0014	The process cannot be performed because the subsystem is not restarted after Remote Replication is installed. Please restart the subsystem and then try again.
DMED1E0015	0x031E0015	The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is installed. Please restart the subsystem and then try again.
DMED1E0016	0x031E0016	The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is de-installed. Please restart the subsystem and then try again.
DMED1E0017	0x031E0017	The process cannot be performed because the status of Remote Replication pair is improper. Please confirm the status of pair and try again.
DMED1E0018	0x031E0018	Remote Replication or SnapShot is installed or enabled.
DMED1F0001	0x031F0001	The Spare Drive Operation Mode is fixed and the Applying No Copy Back Mode on All the Units is enabled. This combination is not possible to specify. Please confirm the operation and try again.
DMED1F0010	0x031F0010	The process failed due to an invalid parameter. Please confirm the specified value.
DMED1F0011	0x031F0011	The process cannot be performed because the specified IP address is incorrect. Please confirm the IP address and try again.
DMED1F0012	0x031F0012	The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.
DMED1F0013	0x031F0013	The process failed due to an invalid parameter. Please confirm the specified value.
DMED1F0014	0x031F0014	The process cannot be performed because the internal log is disabled. Please set the internal log to enable and try again.
DMED1F0015	0x031F0015	The process cannot be performed because the internal log is being exported. Please wait a moment and then try again.
DMED1F0017	0x031F0017	The process cannot be performed because the log export failed. Please wait a moment and then try again.
DMED1F0018	0x031F0018	The process failed due to an invalid parameter. Please confirm the specified value.
DMED1F0019	0x031F0019	The process cannot be performed because the internal log is using. Please confirm the internal log status and try again.
DMED1F001A	0x031F001A	The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.
DMED1F001B	0x031F001B	The process cannot be performed because the IPv6 address is specified to Syslog Server. Please confirm the version of the navigator.
DMED1F0020	0x031F0020	The user ID is too short. Please confirm the user ID.
DMED1F0021	0x031F0021	The invalid character is specified in user ID. Please confirm the user ID.
DMED1F0022	0x031F0022	The current login session is expired, Please login again.
DMED1F0023	0x031F0023	You have no permission. Please contact the Account Administrator and confirm your permission.
DMED1F0024	0x031F0024	The specified user ID has already been registered. Please specify another user ID.
DMED1F0025	0x031F0025	The specified user ID is not registered. Please confirm the user ID.

Message code	Error code	Message text/Recovery methods
DMED1F0026	0x031F0026	The role is not assigned. Please assign one or more roles.
DMED1F0027	0x031F0027	The process cannot be performed for logged in user.
DMED1F0028	0x031F0028	The process cannot be performed for Built-in account.
DMED1F0029	0x031F0029	You have no permission to modify. Please contact the Account Administrator and confirm your permission.
DMED1F002A	0x031F002A	The logged in user reached the maximum. Please wait a moment and then try again.
DMED1F002B	0x031F002B	The specified password does not match. Please specify password again.
DMED1F002C	0x031F002C	You cannot login because account status is disabled. Please contact Account Administrator, and confirm the account status.
DMED1F002D	0x031F002D	The specified password does not match. Please confirm the password.
DMED1F002E	0x031F002E	The account reached the maximum. Please delete unnecessary account and try again.
DMED1F002F	0x031F002F	The specified password length is less than minimum. Please confirm the password length.
DMED1F0030	0x031F0030	Password Protection and Account Authentication cannot be used together.
DMED1F0031	0x031F0031	Account Authentication cannot be installed or be enabled, because NNC is equipped. Please change the subsystem into Fibre or iSCSI configuration, and try again.
DMED1F0032	0x031F0032	The process cannot be performed because the specified session timeout value is outside the effective range. Please confirm the session timeout value.
DMED1F0033	0x031F0033	The process cannot be performed because TrueCopy Modular Distributed is installed. Please de-install the option and try again.
DMED1F0034	0x031F0034	The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the TrueCopy function.
DMED1F0035	0x031F0035	The process cannot be performed because the specified other than permanent key. Please specify the permanent key and try again.
DMED1F0036	0x031F0036	The process cannot be performed because the remote path is defined of Fibre interface. Please delete the remote path and try again.
DMED1F0037	0x031F0037	The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the TrueCopy Extended Distance function.
DMED1F0038	0x031F0038	The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling Remote Replication.
DMED1F0040	0x031F0040	The process cannot be performed because the term of the temporary key or emergency key is expired.
DMED1F0041	0x031F0041	The process cannot be performed because the ShadowImage pair is contained.
DMED1F0042	0x031F0042	The process cannot be performed because the Remote Replication pair is contained.
DMED1F0043	0x031F0043	The process cannot be performed because the Remote Replication pair is contained.
DMED1F0044	0x031F0044	The process cannot be performed because the SnapShot pair is contained.
DMED1F0045	0x031F0045	The process cannot be performed because the Volume Migration pair is contained.
DMED1F0048	0x031F0048	The process cannot be performed because formatting is now occurring. Please try again, after it is completed.
DMED1F0049	0x031F0049	The process cannot be performed because parity correction is not completed. Please try again, after it is completed.
DMED1F004A	0x031F004A	The process cannot be performed because the data pool is contained. Please delete the data pool and try again.
DMED1F004B	0x031F004B	The process cannot be performed because the DM-LU is contained. Please cancel the DM-LU and try again.
DMED1F004C	0x031F004C	The process cannot be performed because the command device is contained. Please cancel the command device and try again.
DMED1F004D	0x031F004D	The process cannot be performed because the system VOL is contained. Please cancel the system VOL and try again.
DMED1F004E	0x031F004E	The process cannot be performed because the VOL change is in progress. Please try again, after it is completed.
DMED1F0051	0x031F0051	The process cannot be performed because the system drives is contained.
DMED1F0052	0x031F0052	The process cannot be performed because the write uncompleted VOL is contained. Please recover and then try again.
DMED1F0053	0x031F0053	The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.

Message code	Error code	Message text/Recovery methods
DMED1F0054	0x031F0054	The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.
DMED1F0055	0x031F0055	The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.
DMED1F0056	0x031F0056	The process cannot be performed because the RAID groups in state of Power Saving are existing. Please wait for a while and try again.
DMED1F0057	0x031F0057	The specified RAID group is not defined. Please specify a defined RAID group.
DMED1F0058	0x031F0058	The process cannot be performed because the drive recovery is in progress. Please try again after it is completed.
DMED1F0059	0x031F0059	The process cannot be performed because the health checking is in progress. Please try again after it is completed.
DMED1F005A	0x031F005A	The process cannot be performed because the user VOL is contained. Please cancel the user VOL and try again.
DMED1F005B	0x031F005B	The process cannot be performed because the SES drives is contained.
DMED1F005C	0x031F005C	The process cannot be performed because state of Power Saving is in progress. Please retry after progress is completed.
DMED1F005D	0x031F005D	The process cannot be performed because the specified RAID group consists of SSD. Please confirm the RAID group and then try again.
DMED1F005E	0x031F005E	The process cannot be performed because the RAID groups which used system drives are in state of Power Saving. Please spin up the RAID groups and try again.
DMED1F005F	0x031F005F	The process cannot be performed because the specified RAID group consists of FMD. Please confirm the RAID group and then try again.
DMED1F006A	0x031F006A	The process cannot be performed because all the configured drives in the specified RAID group are not mounted in Dense84 units. Please confirm the RAID group and try again.
DMED1F006B	0x031F006B	The process cannot be performed because Power Saving Plus is not installed. Please install the option and try again.
DMED1F006C	0x031F006C	The process cannot be performed because the function of Power Saving Plus is in progress. Please spin up and then try again.
DMED1F006D	0x031F006D	The process cannot be performed because the I/O monitoring time of spin down is equal to or more than the I/O monitoring time of drive power off. Please confirm the values and try again.
DMED1F006E	0x031F006E	The process cannot be performed because the unified VOL exists. Please separate the unified VOL and try again.
DMED1F006F	0x031F006F	The process cannot be performed because the power saving operation different from current power saving operation is specified. Please spin up and then try again.
DMED1F0070	0x031F0070	The process cannot be performed because the I/O link are both enable and disable. Please confirm the I/O link and try again.
DMED1F0071	0x031F0071	The process cannot be performed because the specified RAID group consists of drive of unit which is unsupported drive power off. Please confirm the RAID group and try again.
DMED1F0072	0x031F0072	The process cannot be performed because Tray Power Saving is installed. Please de-install the option and try again.
DMED1F0073	0x031F0073	The process cannot be performed because the units to which Unit Power Off is enabled exist. Please change the Unit Power Off to disable and try again.
DMED1F0074	0x031F0074	The process cannot be performed because Power Saving Plus is not installed. Please install the option and try again.
DMED1F0075	0x031F0075	The process cannot be performed because other than Dense84 units are connected. Please confirm the unit and try again.
DMED1F0076	0x031F0076	The process cannot be performed because the number of connected units is over 5. Please confirm the number of units and try again.
DMED1F0077	0x031F0077	The process cannot be performed because Tray Power Saving is enabled, and the specified drives are mounted in unit from No.1 to No.3, and the drives to which Unit Power Off is enabled. Please change the Unit Power Off to disable and try again.

Message code	Error code	Message text/Recovery methods
DMED1F0078	0x031F0078	The new unit cannot be added because the number of units reached the maximum. Please confirm the system configuration.
DMED1F0079	0x031F0079	The process cannot be performed because the drive of specified unit configures the DP RAID groups. Please confirm the unit and try again.
DMED1F007A	0x031F007A	The process cannot be performed because the mounted drives which belong to RAID groups exist in specified unit. Please retry after removing drives.
DMED1F007B	0x031F007B	The process cannot be performed because the drive of specified unit is defined as a spare drive. Please remove drive after releasing spare drive and try again.
DMED1F007C	0x031F007C	The process cannot be performed because the power of unit is off. Please change the Unit Power Off to disable and try again.
DMED1F007D	0x031F007D	The process cannot be performed because the specified unit is executing the power off. Please change the Unit Power Off to disable and try again.
DMED1F007E	0x031F007E	The process cannot be performed because the Unit Power Off of the unit which mounted drive which configured the specified RAID group is enabled. Please change the Unit Power Off to disable and try again.
DMED1F007F	0x031F007F	The process cannot be performed because the PS of subsystem is not normal state. Please confirm the status and then try again.
DMED1F0080	0x031F0080	The process cannot be performed because the external authentication server 1 is not defined. Please confirm the external authentication server 1 and try again.
DMED1F0082	0x031F0082	The process cannot be performed because the external authentication server 1 is not defined and the user whose user authentication is RADIUS exists. Please change the user authentication to Internal and try again.
DMED1F0083	0x031F0083	The specified IP address is incorrect. Please specify a correct IP address.
DMED1F0084	0x031F0084	The authentication classification cannot be RADIUS because the user authentication server 1 is not defined. Please setting the external authentication server 1 as RADIUS and try again.
DMED1F0085	0x031F0085	The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the external authentication server 1 setting and the LAN environment, and try again.
DMED1F0086	0x031F0086	The process cannot be performed because the character length of password is outside the effective range. Please confirm password and try again.
DMED1F0087	0x031F0087	The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the user ID and password, and try again.
DMED1F0088	0x031F0088	The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the external authentication server 2 setting and the LAN environment, and try again.
DMED1F0089	0x031F0089	The password cannot be changed because the user authentication is RADIUS. Please change the password of RADIUS server.
DMED1F008A	0x031F008A	Cannot login because the user authentication with an external authentication server was time-out. Please confirm the external authentication server setting and the LAN environment, and try again.
DMED1F008B	0x031F008B	Cannot login because the user authentication with an external authentication server was time-out. Or the process cannot be performed because the authentication test failed. Please confirm the external authentication server setting and the LAN environment, and try again.
DMED1F008C	0x031F008C	Cannot login because the user authentication with an external authentication server was failed. Please confirm the user ID and password, and try again.
DMED1F008D	0x031F008D	The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the user ID and password, and try again.
DMED1F008E	0x031F008E	The process cannot be performed because the character length of user ID is outside the effective range. Please confirm user ID and try again.
DMED1F008F	0x031F008F	The process cannot be performed because the password is not set. Please specify the password, and try again.
DMED1F00A0	0x031F00A0	The process cannot be performed because the user is not Built-in account. Please login by Built-in account and try again.

Message code	Error code	Message text/Recovery methods
DMED1F0101	0x031F0101	The process cannot be performed because the connection test is executing. Please retry after the connection test is completed.
DMED1F0102	0x031F0102	The process cannot be performed because the health check is executing. Please retry after the health check is completed.
DMED1F0103	0x031F0103	The process cannot be performed because the unit power saving status is tray power off. Please retry after changing the unit into a power on state.
DMED1F0104	0x031F0104	The process cannot be performed because the Unit Power Off of the unit which mounted drive which configured the specified RAID group is enabled and specified drive is system drive. Please confirm the specified drive and try again.
DMED200001	0x03200001	The process cannot be performed because cache memory size 1GB or less. Please increase the cache memory and try again.
DMED200002	0x03200002	This function is unsupported in the single-controller system.
DMED200003	0x03200003	SnapShot cannot be installed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again.
DMED200004	0x03020004	Cache Partition Manager cannot be installed because the subsystem is not restarted after SnapShot is installed. Please restart the subsystem, and then try again.
DMED200005	0x03200005	The option cannot be installed or enabled because cache memory size is 512MB or less. Please increase the cache memory and then try again.
DMED200006	0x03200006	The option cannot be installed or enabled because cache memory size is 2GB or less. Please increase the cache memory and then try again.
DMED200011	0x03200011	The process cannot be performed because the specified volume is not the reserve VOL. Please specify the reserve VOL and try again.
DMED200012	0x03200012	The process cannot be performed because the specified volume is the reserve VOL. Please delete the reserve VOL or specify another volume and try again.
DMED200013	0x03200013	The process cannot be performed because the capacity is different between the specified P-VOL and S-VOL. Please specify the volume of the same capacity and try again.
DMED200014	0x03200014	The process cannot be performed because the owner controller is different between the specified P-VOL and S-VOL. Please specify the volume of the same owner controller and try again.
DMED200015	0x03200015	The process cannot be performed the specified P-VOL and S-VOL have same volume number. Please specify the different volume number.
DMED200016	0x03200016	The process cannot be performed because the Volume Migration pair reached the maximum. Please cancel or split the unnecessary Volume Migration pair and try again.
DMED200017	0x03200017	The process cannot be performed because the specified P-VOL and S-VOL belong to the same RAID group. Please specify the volumes of different RAID group.
DMED200018	0x03200018	The specified pair cannot be canceled because the pair status is not waiting or copying.
DMED200019	0x03200019	The specified pair cannot be split because the pair status is not completed or error.
DMED20001A	0x0320001A	The process cannot be performed because the specified P-VOL and S-VOL are not in pairs. Please specify the P-VOL and S-VOL in pairs and try again.
DMED20001B	0x0320001B	The process cannot be performed because the reserve VOL reached the maximum. Please delete the unnecessary reserve VOL and try again.
DMED20001C	0x0320001C	The process cannot be performed because the specified volume is the S-VOL of the Volume Migration pair. Please specify another volume and try again.
DMED20001D	0x0320001D	The process cannot be performed because the specified volume is not the reserve VOL. Please specify the reserve VOL and try again.
DMED20001E	0x0320001E	The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair is contained. Please split the pair and try again.
DMED20001F	0x0320001F	The process cannot be performed because the reserve VOL is contained. Please delete the reserve VOL and try again.
DMED200020	0x03200020	The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair or the reserve VOL is contained. Please split the pair or delete the reserve VOL and try again.

Message code	Error code	Message text/Recovery methods
DMED200021	0x03200021	The process cannot be performed because the owner ID is different. Please cancel the pair using the application that created the pair.
DMED200022	0x03200022	The process cannot be performed because the owner ID is different. Please split the pair using the application that created the pair.
DMED200023	0x03200023	The process cannot be performed because the specified owner ID is not supported.
DMED200024	0x03200024	The process cannot be performed because the reserve VOL exists. Please delete the reserve VOL and try again.
DMED200025	0x03200025	The process cannot be performed because the Volume Migration pair exists. Please cancel or split the pair and try again.
DMED200026	0x03200026	The process cannot be performed because the specified volume is reserved for cache partition modification. Please restart the subsystem and then try again.
DMED200027	0x03200027	The process cannot be performed because a management area is shortage. Please delete the unnecessary pair(s) and try again.
DMED200028	0x03200028	The process cannot be performed because the specified volume is not the Volume Migration pair. Please specify another volume and try again.
DMED200029	0x03200029	The process cannot be performed because the specified volume is Volume Migration pair and is copying. Please retry after copy is completed.
DMED20002A	0x0320002A	The copy pace of specified pair cannot be changed because the pair status is not waiting or copying.
DMED20002B	0x0320002B	The process cannot be performed because the specified owner ID is not supported.
DMED20002C	0x0320002C	The process cannot be performed because the specified volume is not the P-VOL or S-VOL of the Volume Migration pair. Please specify the P-VOL or S-VOL of the Volume Migration pair and try again.
DMED20002D	0x0320002D	The specified P-VOL and S-VOL belong to same DP pool. Please specify a different DP pool and then try again.
DMED20002E	0x0320002E	The capacity of DP pool to which the specified S-VOL belongs is insufficient. Please add DP pool capacity and then try again.
DMED20002F	0x0320002F	The process cannot be performed because the capacity of DM-LU is insufficient. Please grow the capacity of DM-LU and try again.
DMED200030	0x03200030	The number of iSCSI connecting hosts exceeds the maximum value that can be unlocked or enabled fee-basis option. Please delete unnecessary hosts and try again.
DMED200031	0x03200031	The process cannot be performed because specified S-VOL is in progress. Please wait for a while and then try again.
DMED200032	0x03200032	The process cannot be performed because the status of DM-LU is illegal. Please recover the status and try again.
DMED200033	0x03200033	The process cannot be performed because state of the DP pool which contains the DM-LU is detached. Please recover and then try again.
DMED200034	0x03200034	The process cannot be performed because the capacity of DM-LU is insufficient. Please grow the capacity of DP pool and try again.
DMED210001	0x03210001	The process cannot be performed because the mapping information is overlapped within the same host group. Please confirm the mapping information.
DMED210010	0x03210010	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED210011	0x03210011	The process cannot be performed because E-mail Error Report is enabled. Please set E-mail Error Report to disable and try again.
DMED220001	0x03220001	The process cannot be performed because the specified battery count is outside the effective range. Please confirm the battery count.
DMED220002	0x03220002	The valid battery count cannot be increased. Please specify the count equal to or less than the current valid battery count.
DMED220003	0x03220003	The process cannot be performed in the single-controller system. Please confirm the system configuration.
DMED220004	0x03220004	The new unit cannot be added because the number of units reached the maximum. Please confirm the system configuration.

Message code	Error code	Message text/Recovery methods
DMED220005	0x03220005	The process cannot be performed because the controller or ENC is detached. Please recover the status and then try again.
DMED220006	0x03220006	The process cannot be performed because the ENC firmware is being replaced. Please retry after the replacement completes.
DMED220007	0x03220007	The process cannot be performed because the subsystem is under diagnosis process. Please retry after a while.
DMED220008	0x03220008	The process cannot be performed because the unit is being added. Please retry after the addition of unit completes.
DMED220009	0x03220009	The specified battery count cannot be set. Please specify a right battery count.
DMED230001	0x03230001	The process cannot be performed because the migration guard is set up. Please clear the migration guard and try again.
DMED230002	0x03230002	The process cannot be performed because the Migration Status is Checking. Please confirm the Migration Status and try again.
DMED230003	0x03230003	The process cannot be performed because the Migration Status is Preparing to Create Copy. Please confirm the Migration Status and try again.
DMED230004	0x03230004	The process cannot be performed because the Migration Status is Creating Copy. Please confirm the Migration Status and try again.
DMED230005	0x03230005	The process cannot be performed because the Migration Status is Auto Migration Failed. Please confirm the Migration Status and try again.
DMED230006	0x03230006	The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.
DMED230007	0x03230007	The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.
DMED230008	0x03230008	The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.
DMED230009	0x03230009	The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.
DMED230010	0x03230010	The process cannot be performed because the Migration Status is Copy Created. Please confirm the Migration Status and try again.
DMED230011	0x03230011	The process cannot be performed because the Migration Status is Switching Array. Please confirm the Migration Status and try again.
DMED230012	0x03230012	The process cannot be performed because the Migration Status is Auto Migration Completed. Please confirm the Migration Status and try again.
DMED230013	0x03230013	The process cannot be performed because the Migration Status is Switching Array Failed. Please confirm the Migration Status and try again.
DMED230014	0x03230014	The process cannot be performed because the Migration Status is In Progress. Please confirm the Migration Status and try again.
DMED230015	0x03230015	The process cannot be performed because the Migration Status is Completed. Please confirm the Migration Status and try again.
DMED230016	0x03230016	The process cannot be performed because the Migration Status is Failed. Please confirm the Migration Status and try again.
DMED230017	0x03230017	The process cannot be performed because the Migration Status is Not Started. Please confirm the Migration Status and try again.
DMED230018	0x03230018	The process cannot be performed because the Migration Status is Creating Copy Failed to Start. Please confirm the Migration Status and try again.
DMED230019	0x03230019	The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.
DMED230020	0x03230020	The process cannot be performed because the Migration Status is Preparing. Please confirm the Migration Status and try again.
DMED230021	0x03230021	The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again when the pair status is not Split Pending.

Message code	Error code	Message text/Recovery methods
DMED231000	0x03231000	Hitachi Storage Navigator Modular 2 is less than Ver.24.50
		The process cannot be performed because the subsystem is executing the Auto Migration. Please confirm the Migration Status and try again.
		Hitachi Storage Navigator Modular 2 is Ver.24.50 or more.
		The process cannot be performed because the subsystem is executing the Migration. Please confirm the Migration Status and try again.
DMED231001	0x03231001	The process cannot be performed because the subsystem is executing the Auto Migration or the addition of unit. Please confirm the Migration Status while executing Auto Migration and try again.
DMED231002	0x03231002	The specified array ID is incorrect. Please specify a right array ID.
DMED231003	0x03231003	The process cannot be performed because formatting is now occurring. Please retry after formatting completes.
DMED231004	0x03231004	The process cannot be performed because the specified interface board type is not equipped. Please confirm the interface board type.
DMED231005	0x03231005	The process cannot be performed because the PIN exceeded state. Please restore PIN data and try again.
DMED231006	0x03231006	The process cannot be performed because the write uncompleted VOL exists. Please recover and then try again.
DMED231007	0x03231007	The process cannot be performed because the DM-LU is not defined. Please define DM-LU and try again.
DMED231008	0x03231008	The process cannot be performed because the Auto Migration is executing or is failed. Please confirm the Migration Status and try again.
DMED240001	0x03240001	The certificate and the secret key cannot be checked. Please restart the subsystem and then try again.
DMED240002	0x03240002	The process cannot be performed because the certificate is invalid. Please confirm the certificate and try again.
DMED240003	0x03240003	The process cannot be performed because the secret key is invalid. Please confirm the certificate and try again.
DMED241001	0x03241001	The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed. And, the specified operation may not be performed even if the RAID group expansion is completed. When the RAID group expansion is completed, please retry after waiting 2 minutes or more.
DMED241002	0x03241002	The 'cancel' operation cannot be performed because the RAID group does not execute the expansion. Please confirm the RAID group and then try again.
DMED241003	0x03241003	The 'cancel' operation cannot be performed because the RAID group is executing expansion or has been executed the expansion and waiting. Please confirm the RAID group status and try again.
DMED241004	0x03241004	The 'forcibly cancel' operation cannot be performed because the RAID group does not execute the expansion and waiting. Please specify a 'cancel' operation.
DMED241005	0x03241005	The process cannot be performed because RAID group is RAID0. Please confirm RAID level and then try again.
DMED241006	0x03241006	The process cannot be performed because the number of parity groups is not 1. Please confirm the RAID group and try again.
DMED241007	0x03241007	The process cannot be performed because the specified drives contain an un-mounted drive or a blocked drive. Please confirm the drive status and try again.
DMED241008	0x03241008	The specified drive is already defined as a spare drive, or is already being used in the RAID group. Please confirm the drive status and try again.
DMED241009	0x03241009	The process cannot be performed because the number of drive is incorrect. Please specify it by an even number, when RAID level is RAID1 or RAID1+0.
DMED24100A	0x0324100A	The process cannot be performed because the number of drive is incorrect. Please specify the number of drives within the range of the combination at the RAID level.
DMED24100B	0x0324100B	The process cannot be performed because the drive type of the RAID group is different. Please confirm the drive type and try again.
DMED24100C	0x0324100C	The process cannot be performed because the capacity of specified drive is less than the minimum capacity of the RAID group drives. Please confirm the drive capacity and try again.
DMED24100D	0x0324100D	The process cannot be performed because ShadowImage pair or Remote Replication pair is not Simplex or Split, or SnapShot pair is not Simplex or Paired. Please retry after copy is completed.

Message code	Error code	Message text/Recovery methods
DMED24100E	0x0324100E	The process cannot be performed because SnapShot pair is not Paired or Remote Replication pair is not Split. Please retry after copy is completed.
DMED24100F	0x0324100F	The process cannot be performed because some volume are under quick formatting. Please retry after quick formatting is completed.
DMED241010	0x03241010	The process cannot be performed because some volume is under parity correction. Please retry after parity correction is completed.
DMED241011	0x03241011	The process cannot be performed because the write uncompleted VOL is contained. Please recover and then try again.
DMED241012	0x03241012	The process cannot be performed because the Volume Migration pair is contained. Please split the pair and try again.
DMED241013	0x03241013	The process cannot be performed because the reserve VOL of the Volume Migration is contained. Please delete the reserve VOL and try again.
DMED241014	0x03241014	The process cannot be performed because the Cache Residency VOL or a reserved one exists. Please delete the Cache Residency VOL and then try again.
DMED241016	0x03241016	The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.
DMED241017	0x03241017	The process cannot be performed because the size of VOL is over 120TB or the unified VOL exists. Please shrink the VOL capacity and try again.
DMED241019	0x03241019	The process cannot be performed because the subsystem is not restarted, when Cache Partition Manager and SnapShot or Remote Replication is enabled. Or the process cannot be performed because cache partition modification is reserved. Please restart the subsystem and try again.
DMED24101A	0x0324101A	The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again after status is changed to Split.
DMED24101B	0x0324101B	The process cannot be performed because the volume in regressed state is contained. Please change the state to normal and try again.
DMED241050	0x03241050	The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed.
DMED241051	0x03241051	The process cannot be performed because the VOL changing occurred by the RAID group expansion. Please retry after expansion is completed.
DMED250001	0x03250001	The specified IP address is incorrect. Please specify a correct IP address.
DMED250002	0x03250002	The specified default gateway address is incorrect. Please specify a right default gateway address.
DMED250003	0x03250003	The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.
DMED250004	0x03250004	The process cannot be performed because the specified management LAN is same address as the linklocal management LAN. Please specify the different address and try again.
DMED250005	0x03250005	The process cannot be performed because the specified management LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.
DMED250006	0x03250006	The process cannot be performed because the specified management LAN is same address as the maintenance LAN. Please specify the different address and try again.
DMED250007	0x03250007	The process cannot be performed because the specified maintenance LAN is same address as the management LAN. Please specify the different address and try again.
DMED250008	0x03250008	The process cannot be performed because the specified maintenance LAN is same address as the linklocal management LAN. Please specify the different address and try again.
DMED250009	0x03250009	The process cannot be performed because the specified maintenance LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.
DMED25000A	0x0325000A	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED25000B	0x0325000B	The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.
DMED25000C	0x0325000C	The specified IP address is incorrect. Please specify a correct IP address.
DMED25000D	0x0325000D	The specified IP address is incorrect. Please specify a correct IP address.

Message code	Error code	Message text/Recovery methods
DMED25000E	0x0325000E	The protocol version (IPv4/IPv6) is different between IP address of subsystem and the specified IP address of mail server. Please confirm the protocol version of the subsystem and try again.
DMED25000F	0x0325000F	The protocol version (IPv4/IPv6) is different between IP address of subsystem and the set IP address of mail server. Please confirm the protocol version of the subsystem and try again.
DMED260001	0x03260001	The specified drive is already defined as a spare drive, or is already being used in the RAID group or DP pool. Please confirm the drive status and try again.
DMED260002	0x03260002	The process cannot be performed because the DP pool exists. Please delete the DP pool and try again.
DMED260003	0x03260003	The process cannot be performed because the specified volume is a volume in the DP pool. Please specify another volume and try again.
DMED260004	0x03260004	The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed. Please restart the subsystem and then try again.
DMED260005	0x03260005	The number of defined volume reached the maximum. Please delete unnecessary volume and try again.
DMED260006	0x03260006	The process cannot be performed because the specified RAID group is a RAID group in the DP pool. Please confirm the RAID group and try again.
DMED260007	0x03260007	The process cannot be performed because the volume which belongs to the DP pool is not normal state. Please recover the status and then try again.
DMED260008	0x03260008	The specified DP pool number has already been defined. Please specify a new number.
DMED260009	0x03260009	The process cannot be performed because the specified RAID level is not supported. Please specify the RAID level currently supported and try again.
DMED26000A	0x0326000A	The specified RAID group is already defined or used by DP pool. Please specify a new RAID group.
DMED26000B	0x0326000B	The process cannot be performed because the specified DP pool is neither in normal nor in regressed state. Please recover the status and then try again.
DMED26000C	0x0326000C	The process cannot be performed because the non-supported drive is mounted. Please replace the drive and then try again.
DMED26000D	0x0326000D	The process cannot be performed because the capacity of specified drive is not supported. Please replace the drive currently supported and try again.
DMED26000E	0x0326000E	The specified DP pool cannot be deleted. Please specify another DP pool.
DMED26000F	0x0326000F	The number of defined RAID group reached the maximum. Please delete unnecessary RAID group and try again.
DMED260010	0x03260010	The process cannot be performed because the subsystem is not restarted after Dynamic Provisioning is installed. Please restart the subsystem and then try again.
DMED260011	0x03260011	The process cannot be performed because combination of the RAID level and the number of drive does not match. Please confirm combination of the RAID level or the number of drive and try again.
DMED260012	0x03260012	The specified DP pool is not defined. Please specify a defined DP pool and then try again.
DMED260013	0x03260013	The process cannot be performed because the specified DP pool is neither in normal state. Please recover the status and then try again.
DMED260014	0x03260014	The number of drives reach the maximum. Please confirm the number of drives.
DMED260015	0x03260015	The process cannot be performed because the volume exists in the DP pool. Please delete the volume in the DP pool and then try again.
DMED260016	0x03260016	The process cannot be performed because the drive recovery is in progress. Please retry after drive recovery completes.
DMED260017	0x03260017	The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.
DMED260018	0x03260018	The early alert of DP pool consumed capacity alert is equal to or more than the depletion alert. Please confirm the values and try again.
DMED260019	0x03260019	The warning of over provisioning threshold is equal to or more than the limit. Please confirm the values and try again.

Message code	Error code	Message text/Recovery methods
DMED26001A	0x0326001A	The process cannot be performed because the combination of drive type and drive capacity does not match. Please confirm the drive type or the drive capacity, and try again.
DMED26001B	0x0326001B	There is no drive which can be used. Please confirm the number of drives and try again.
DMED26001C	0x0326001C	The process cannot be performed because specified volume is not a volume in the DP pool. Please specify a volume in the DP pool and then try again.
DMED26001D	0x0326001D	The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.
DMED26001E	0x0326001E	The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.
DMED26001F	0x0326001F	The process cannot be performed because the status of DP pool consumed capacity is depletion alert over or capacity depleted. Please confirm the DP pool consumed capacity and then try again.
DMED260020	0x03260020	The process cannot be performed because the DP pool consumed capacity is not normal state. Please confirm the DP pool consumed capacity and then try again.
DMED260021	0x03260021	The process cannot be performed because the combination of RAID level and number of drives does not match. Please confirm the number of drives and then try again.
DMED260022	0x03260022	The process cannot be performed because different drives are specified. Please confirm the drive type and then try again.
DMED260023	0x03260023	The process cannot be performed because there are some volumes that are not normal or skip state of the parity correction. Please retry after changing to normal state.
DMED260024	0x03260024	The process cannot be performed because the drive type of the DP pool is different. Please confirm the drive type and then try again.
DMED260025	0x03260025	The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition and then try again.
DMED260026	0x03260026	The process cannot be performed because the combination of the number of drives and the combination does not match. Please confirm the number of drives and the combination and then try again.",
DMED260027	0x03260027	The process cannot be performed because the capacity of DP pool will exceed the maximum. Please delete unnecessary DP pools and then try again.
DMED260028	0x03260028	The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.
DMED260029	0x03260029	The process cannot be performed because the DP optimization state of the specified volume in DP pool or the volumes in DP pool that has specified volume is neither in Normal state nor in Failed state. Please wait for completion of DP optimization or cancel DP optimization and then try again.
DMED26002A	0x0326002A	The process cannot be performed because the DP optimization state of volume in DP pool is not Normal. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.
DMED26002B	0x0326002B	The process cannot be performed because the capacity of DP pool for performing DP optimization is insufficient. Please add capacity of DP pool for performing DP optimization and then try again.
DMED26002C	0x0326002C	The process cannot be performed because specified volume in DP pool or the volumes in DP pool that has specified volume contains the write uncompleted volume. Please recover and then try again.
DMED26002D	0x0326002D	It is not necessary to cancel because DP optimization state of the volume in specified DP pool or the volume in DP pool containing specified volume is already optimizing or canceling.
DMED26002E	0x0326002E	The process cannot be performed because DP optimization state of the volume in DP pool is not normal. Please confirm DP optimization state of the volume in DP pool and then try again.
DMED26002F	0x0326002F	The process cannot be performed because specified volume in DP pool contains the write uncompleted volume. Please recover and then try again.

Message code	Error code	Message text/Recovery methods
DMED260030	0x03260030	The process cannot be performed because status of the volume in specified DP pool or the volume in DP pool containing specified volume is neither in Normal state nor in Regression state. Please recover the volume and then try again.
DMED260031	0x03260031	The process cannot be performed because ShadowImage pair of Simplex state exists in specified DP pool. Please release the pair and then try again.
DMED260032	0x03260032	The process cannot be performed because specified volume in DP pool or the volumes in DP pool that has specified volume is in the PIN exceeded state. Please recover and then try again.
DMED260033	0x03260033	The process cannot be performed because state of the DP pool which contains the specified volume is Detached. Please recover and then try again.
DMED260034	0x03260034	The process cannot be performed because status the volume in the specified DP pool is in Normal state nor in Regression state. Please recover the volume and then try again.
DMED260035	0x03260035	The process cannot be performed because specified volume in DP pool is in the PIN exceeded state. Please recover and then try again.
DMED260036	0x03260036	The process cannot be performed because the updating of DP management information is in progress. Please wait a moment and then try again.
DMED260037	0x03260037	The capacity of DP pool to which the specified P-VOL belongs is insufficient. Please add DP pool capacity and then try again.
DMED260038	0x03260038	The process cannot be performed because the subsystem is not restarted after DP capacity mode is changed. Please restart the subsystem and then try again.
DMED260039	0x03260039	The process cannot be performed because the capacity of DP pool will exceed the maximum. Please restart the subsystem and then try again.
DMED26003A	0x0326003A	The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed, or DP capacity mode is changed. Please restart the subsystem and then try again.
DMED26003B	0x0326003B	The process cannot be performed because Remote Replication pair of Simplex state exists in specified DP pool. Please cancel the pair and then try again.
DMED26003C	0x0326003C	The process cannot be performed because Remote Replication pair of Simplex state exists in specified DP pool. Please cancel the pair and then try again.
DMED26003D	0x0326003D	The process cannot be performed because SnapShot pair of Simplex state exists in specified DP pool. Please cancel the pair and then try again.
DMED26003E	0x0326003E	The process cannot be performed because the data pool exists in specified DP pool. Please delete the data pool and try again.
DMED26003F	0x0326003F	The process cannot be performed because the depletion alert of replication threshold is equal to or more than the replication data released. Please confirm the values and try again.
DMED260040	0x03260040	The process cannot be performed because the SnapShot pair which used replication data DP pool exists. Please release the pair and then try again.
DMED260041	0x03260041	The process cannot be performed because the SnapShot pair which used management area DP pool exists. Please release the pair and then try again.
DMED260042	0x03260042	The process cannot be performed because the deallocation of replication data for specified DP pool is in progress. Please wait a moment and then try again.
DMED260043	0x03260043	The process cannot be performed because the deallocation of management area for specified DP pool is in progress. Please wait a moment and then try again.
DMED260044	0x03260044	The process cannot be performed because the deallocation of replication data is in progress. Please wait a moment and then try again.
DMED260045	0x03260045	The process cannot be performed because the deallocation of management area is in progress. Please wait a moment and then try again.
DMED260046	0x03260046	The process cannot be performed because the Remote Replication pair which used replication data DP pool exists. Please release the pair and then try again.
DMED260047	0x03260047	The process cannot be performed because the Remote Replication pair which used management area DP pool exists. Please release the pair and then try again.

Message code	Error code	Message text/Recovery methods
DMED260048	0x03260048	The process cannot be performed because the difference of the replication data released threshold and the depletion alert of replication threshold is 5% of less. Please confirm the values and try again.
DMED260049	0x03260049	The process cannot be performed because Dynamic Tiering is installed. Please de-install the option and try again.
DMED26004A	0x0326004A	The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the Dynamic Provisioning.
DMED26004B	0x0326004B	The process cannot be performed because the tier mode of DP pool is enabled. Please change the tier mode to disable or delete the DP pool and try again.
DMED26004C	0x0326004C	The process cannot be performed because the number of defined DP RAID group is not specified. Please specify the number of defined DP RAID group and try again.
DMED26004D	0x0326004D	The number of defined RAID group reached the maximum. Please delete unnecessary RAID group or DP pool and try again.
DMED26004E	0x0326004E	The process cannot be performed because the DP RAID number is overlapped. Please confirm the DP RAID number and try again.
DMED26004F	0x0326004F	The process cannot be performed because the drive number is overlapped. Please confirm the drive number and try again.
DMED260050	0x03260050	The process cannot be performed because the monitored I/O is not specified. Please specify the monitored I/O and try again.
DMED260051	0x03260051	The process cannot be performed because tier mode of the DP pool which contains the specified volume is disabled. Please confirm the volume and try again.
DMED260052	0x03260052	The process cannot be performed because the tier mode of the specified DP pool is disabled. Please change the tier mode to enable and try again.
DMED260053	0x03260053	The process cannot be performed because the drive type, RAID level or HDU combination of the specified DP pool is mixed. Please delete DP pool and create again.
DMED260054	0x03260054	The process cannot be performed because two or more tiers exist in specified DP pool. Please delete DP pool and create again.
DMED260055	0x03260055	The process cannot be performed because the chunk size of DP RAID group in specified DP pool is not 1GB. Please delete DP pool and create again.
DMED260056	0x03260056	The process cannot be performed because the monitoring state of specified DP pool is the state of deleting monitored data. Please retry after the process completes.
DMED260057	0x03260057	The process cannot be performed because the drive type, RAID level or HDU combination is mixed. Please confirm the operation and then try again.
DMED260058	0x03260058	The process cannot be performed because the number of tiers reached the maximum. Please confirm the specified drive type and try again.
DMED260059	0x03260059	The process cannot be performed because RAID level is mixed. Please confirm the operation and try again.
DMED26005A	0x0326005A	The process cannot be performed because HDU combination is mixed. Please confirm the operation and try again.
DMED26005B	0x0326005B	The process cannot be performed because the monitoring state is not state of monitoring or stop (data valid). Please confirm the monitoring state and try again.
DMED26005C	0x0326005C	The process cannot be performed because the auto progress mode is disabled. Please change the auto progress mode to enable and try again.
DMED26005D	0x0326005D	The process cannot be performed because the auto progress mode is enabled. Please change the auto progress mode to disable and try again.
DMED26005E	0x0326005E	The process cannot be performed because the monitoring state is the state of deleting monitored data. Please retry after the process completes.
DMED26005F	0x0326005F	The process cannot be performed because the monitoring state is the state of error recovery. Please retry after the process completes.

Message code	Error code	Message text/Recovery methods
DMED260060	0x03260060	The process cannot be performed because the monitoring state is the state of monitoring. Please retry after the process completes.
DMED260061	0x03260061	The promotion of all volume in DP pools cannot be specified at the same time, when Accelerated Wide Striping Mode and the Full Capacity Mode is specified to enable. Please confirm the operation and then try again.
DMED260062	0x03260062	The process cannot be performed because the updating of Dynamic Tiering management information is in progress. Please wait a moment and then try again.
DMED260063	0x03260063	The process cannot be performed because the specified DP pool consists of SSD. Please delete DP pool and create again.
DMED260064	0x03260064	The process cannot be performed because the capacity of drives other than SSD of the specified volume in DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.
DMED260065	0x03260065	The process cannot be performed because the capacity of drives other than SSD of the specified volume in DP pool is insufficient. Please grow the capacity of DP pool and try again.
DMED260066	0x03260066	The process cannot be performed because only one tier exists in the specified DP pool. Please add two or more tiers and then try again.
DMED260067	0x03260067	The process cannot be performed because the monitoring state is stop(data invalid). Please start monitoring DP pool and try again.
DMED260068	0x03260068	The process cannot be performed because the monitoring state is reset. Please start monitoring DP pool after reset is completed and try again.
DMED260069	0x03260069	The process cannot be performed because Auto DP Optimize of the specified volume is enabled. Please set Auto DP Optimize to disable, and try again.
DMED26006A	0x0326006A	The process cannot be performed because the current value and setting value of the DP capacity mode differ from each other. Please try again after executing the memory reconfiguration or restarting the subsystem.
DMED26006B	0x0326006B	The process cannot be performed because the capacity of DP pool will exceed the maximum. Please try again after executing the memory reconfiguration or restarting the subsystem.
DMED26006C	0x0326006C	The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after DP capacity mode is changed. Please try again after restarting the subsystem or executing the memory reconfiguration.
DMED26006D	0x0326006D	The process cannot be performed because the capacity of DP pool will exceed the maximum. Please delete unnecessary DP pools, shrink the DP pools or change the DP capacity mode to Maximum Capacity and try again.
DMED26006E	0x0326006E	The process cannot be performed because the capacity of tier whose chunk size is 1GB of the specified logical unit in DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.
DMED26006F	0x0326006F	The process cannot be performed because the capacity of tier whose chunk size is 1GB of the specified logical unit in DP pool is insufficient. Please grow the capacity of DP pool and try again.
DMED260070	0x03260070	The process cannot be performed because the specified DP RAID group does not exist in specified DP pool. Please confirm the DP RAID group and try again.
DMED260071	0x03260071	All DP RAID groups in DP pool can not be deleted. Please delete the DP pool.
DMED260072	0x03260072	The shrink of DP pool capacity cannot be canceled. Please wait until the shrink of DP pool capacity is completed.
DMED260073	0x03260073	The process cannot be performed because the DP pool capacity is being shrunk. Please retry after the process completes.
DMED260074	0x03260074	The firmware cannot be downgraded because SnapShot pair or Remote Replication pair exists when current replication utilization percent of specified DP pool is 0. Please cancel the pair and then try again.
DMED260075	0x03260075	The process cannot be performed because the DP pool capacity is being shrunk. Please retry after the process completes.
DMED260076	0x03260076	The process cannot be performed because the specified DP pool consists of SSD. Please delete DP pool and create again or delete RAID group consists of SSD.

Message code	Error code	Message text/Recovery methods
DMED260077	0x03260077	The process cannot be cancelled because shrinking DP pool capacity is not started. Please confirm the DP pool status and try again.
DMED260078	0x03260078	The process cannot be performed because DP pool under shrinking capacity exists. Please retry after the shrinking DP pool capacity is completed.
DMED260079	0x03260079	The process cannot be performed because the DP pool capacity is being shrunk. Please retry after the process completes.
DMED26007A	0x0326007A	The process cannot be performed because the specified DP pool consists of SSD or FMD. Please delete DP pool and create again or delete RAID group consists of SSD or FMD.
DMED260080	0x03260080	The process cannot be performed because the capacity is equal to or more than the replication data released threshold. Please add DP pool capacity, release the pair which used replication data, or change the threshold. And try again.
DMED270000	0x03270000	A memory reconfiguration of fee-basis option is required to confirm a setup.
DMED270001	0x03270001	The process cannot be performed because the memory reconfiguration is in progress. Please try again after the memory reconfiguration is completed.
DMED270002	0x03270002	The process cannot be performed because the memory reconfiguration is failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.
DMED270003	0x03270003	The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after the option using data pool is installed or enabled. Please try again after restarting the subsystem or executing the memory reconfiguration.
DMED270004	0x03270004	The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after the option using data pool or Dynamic Provisioning is installed, de-installed, enabled, or disabled. Please try again after restarting the subsystem or executing the memory reconfiguration.
DMED270005	0x03270005	The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Provisioning is installed or enabled. Please try again after restarting the subsystem or executing the memory reconfiguration.
DMED270006	0x03270006	The process cannot be performed because the memory reconfiguration to use data pool is failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.
DMED270007	0x03270007	The process cannot be performed because the memory reconfiguration to use Dynamic Provisioning failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.
DMED270008	0x03270008	It is not necessary to reconfigure memory because the memory reconfiguration is completed.
DMED270009	0x03270009	The memory reconfiguration is in progress already. Please try again after memory reconfiguration is completed, when required.
DMED27000A	0x0327000A	The process cannot be performed because the status of ShadowImage pair is Synchronizing, Split Pending, or Paired Internally Synchronizing, or Volume Migration pair is copying. Please retry after copy is completed.
DMED27000B	0x0327000B	The process cannot be performed because the status of SnapShot pair is Synchronizing. Please retry after copy is completed.
DMED27000C	0x0327000C	The process cannot be cancel because reconfiguring memory is not started.
DMED27000D	0x0327000D	The reconfigure memory cannot be aborted. Please wait until the reconfigure memory is completed.
DMED27000E	0x0327000E	The process cannot be performed because DP pool under formatting exists. Retry after formatting completes.
DMED27000F	0x0327000F	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. The reconfigure memory cannot be performed because the capacity of Cache Residency VOL is large. Please release a Cache Residency VOL or set a Cache Residency VOL to small capacity VOL and restart the subsystem. Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. The reconfigure memory cannot be performed because the capacity of Cache Residency VOL is large. Please release a Cache Residency VOL or set a Cache Residency VOL to small capacity VOL and restart the subsystem. If the subsystem is restarted without the operation, the Cache Residency VOL is released.

Message code	Error code	Message text/Recovery methods
DMED270010	0x03270010	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. The process cannot be performed because the capacity of DP pool is insufficient. Please grow the capacity of DP pool, and try again.
		Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. The process cannot be performed because the capacity of DP pool is insufficient or over the depletion alert value of DP pool consumed capacity alert. Please grow the capacity of DP pool or change the depletion alert value of DP pool consumed capacity alert, and try again.
DMED270011	0x03270011	The process cannot be performed because Full Capacity Mode of the specified volume is enabled. Please set Full Capacity Mode to disable, and try again.
DMED270012	0x03270012	The process cannot be performed because Full Capacity Mode of the specified volume is in progress. Please retry after the process completes.
DMED270013	0x03270013	The process cannot be performed because the volume to which Full Capacity Mode in specified DP pool is in progress exists. Please retry after the process completes.
DMED270014	0x03270014	The Accelerated Wide Striping Mode and the Full Capacity Mode cannot be specified to enable at the same time. Please set Accelerated Wide Striping Mode or the Full Capacity Mode to disable, and try again.
DMED270015	0x03270015	The process cannot be performed because the Full Capacity Mode is different between the specified P-VOL and S-VOL. Please specify the volume of the same Full Capacity Mode and try again.
DMED270016	0x03270016	The process cannot be performed because the Full Capacity Mode of specified volume is different from the data pool. Please confirm the Full Capacity Mode and try again.
DMED270017	0x03270017	The process cannot be performed because the capacity of specified DP pool is insufficient. Please set the Full Capacity Mode to disable, or please retry after formatting of DP pool is completed.
DMED270018	0x03270018	The Full Capacity Mode cannot be specified to enable because the capacity of DP pool to which the specified volume belongs is insufficient. Please retry after formatting of DP pool is completed.
DMED270019	0x03270019	The process cannot be performed because the over provisioning threshold of the DP pool that has the specified volume will be equal to or more than the limit. Please add DP pool capacity and then try again.
DMED27001A	0x0327001A	The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Provisioning is installed, de-installed, enabled, or disabled. Please try again after restarting the subsystem or executing the memory reconfiguration.
DMED27001B	0x0327001B	The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Tiering is installed, de-installed, enabled, or disabled. Please try again after restarting the subsystem or executing the memory reconfiguration.
DMED27001C	0x0327001C	The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Tiering is installed or enabled. Please try again after restarting the subsystem or executing the memory reconfiguration.
DMED27001D	0x0327001D	The process cannot be performed because the memory reconfiguration to use Dynamic Tiering failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.
DMED27001E	0x0327001E	The process cannot be performed because the subsystem is not restarted after Dynamic Tiering is installed or is enabled. Please restart the subsystem and then try again.

Message code	Error code	Message text/Recovery methods
DMED280000	0x03280000	The backup information of the Master Authentication Key was created.
DMED280001	0x03280001	The process cannot be performed because the refreshing of the authentication key is in progress. The refreshing is completed, then try again.
DMED280004	0x03280004	The SAS(SED) drives are mounted. Please remove the SAS(SED) drives, and try again.
DMED280005	0x03280005	The sum check error of the master key. Please confirm specified value, and try again.
DMED280006	0x03280006	Failed to back up the master authentication key. Please wait for a while and then try again.
DMED280007	0x03280007	The process cannot be performed because the SAS(SED) drives contain a blocked drive. Please recover, and try again.
DMED280009	0x03280009	The process cannot be performed because the RAID group whose drive type is SAS(SED) is defined. Please delete RAID group, and try again.
DMED28000A	0x0328000A	The process cannot be performed because the DP pool whose drive type is SAS(SED) is defined. Please delete DP pool, and try again.
DMED28000B	0x0328000B	The process cannot be performed because the spare drive whose drive type is SAS(SED) is defined. Please release spare drive, and try again.
DMED28000C	0x0328000C	The specified password or restore information is invalid. Please confirm specified value, and try again.
DMED28000D	0x0328000D	The specified restore information is invalid. Please confirm specified value, and try again.
DMED28000E	0x0328000E	Failed to back up the master authentication key. Please wait for a while and then try again.
DMED28000F	0x0328000F	The drive under Authenticating SEDs exists. Please retry after authenticating completes.
DMED280010	0x03280010	The process cannot be performed because the RAID group contains an un-mounted SAS(SED) drive or a blocked SAS(SED) drive. Please recover and then try again.
DMED280011	0x03280011	The process cannot be performed because the DP pool contains an un-mounted SAS(SED) drive or a blocked SAS(SED) drive. Please recover and then try again.
DMED280012	0x03280012	The process cannot be performed because the spare drive contains an un-mounted SAS(SED) drive or a blocked SAS(SED) drive. Please recover and then try again.
DMED280013	0x03280013	The process cannot be performed because the serial number of the specified file is different from the subsystem. Please confirm the file name, and try again.
DMED280014	0x03280014	The process cannot be performed because the restoration information on the specified file is older than that of the subsystem. Please confirm the file name, and try again.
DMED280015	0x03280015	The process cannot be performed because the dummy file is specified. Please confirm the file name, and try again.
DMED280016	0x03280016	The process cannot be performed because the authentication is not executed. Please restore the master authentication key, and try again.
DMED280050	0x03280050	The process cannot be performed because the drives to which encryption is enabled exist in specified drives. Please remove the assigned key or specify the drives to which encryption is disabled and try again.
DMED280051	0x03280051	The process cannot be performed because the specified drive contain the drive of deleting encryption keys. Please specify the drives to which encryption is disabled or wait a moment and try again.
DMED280052	0x03280052	The process cannot be performed because the encryption keys are creating or deleting. Please wait a moment and then try again.
DMED280053	0x03280053	The unification cannot be performed because the encryption status is different. Please confirm the encryption status and try again.
DMED280054	0x03280054	The process cannot be performed because the I/O Module(Drive) does not support Data At Rest Encryption. Please replace the I/O Module(Drive) and then try again.
DMED280055	0x03280055	The backup information of the encryption key was created.
DMED280056	0x03280056	The process cannot be performed because the encryption status of specified drives and RAID group are different. Please confirm the encryption status of drive and try again.
DMED280057	0x03280057	The process cannot be performed because the character length of password is outside the effective range. Please confirm password and try again.
DMED280058	0x03280058	The process cannot be performed because the drive to which encryption is enabled exists. Please remove the assigned key of drives and try again.
DMED280059	0x03280059	The process cannot be performed because the number of encryption keys reached the maximum. Please confirm the number of encryption keys and try again.

Message code	Error code	Message text/Recovery methods
DMED28005A	0x0328005A	The process cannot be performed because the drives to which encryption is enabled exist in specified drives. Please confirm the status of encryption and try again.
DMED28005B	0x0328005B	The specified drives are not blocked drives in the RAID group or DP pool to which encryption is enabled. Please confirm the specified drive and try again.
DMED28005C	0x0328005C	The process cannot be performed because the encryption keys are insufficient. Please create the encryption keys and try again.
DMED28005D	0x0328005D	The process cannot be performed because the subsystem is under diagnosis process. Please wait a moment and then try again.
DMED28005E	0x0328005E	The process cannot be performed because the drives that are not assigned encryption key exist in specified drives. Please confirm the status of encryption and try again.
DMED28005F	0x0328005F	The process cannot be performed because the encryption keys are an unusable status. Please set the encryption environment and then try again.
DMED280060	0x03280060	The process cannot be performed because the encryption keys generated place is set up. Please remove the setting of encryption keys generated place and then try again.
DMED280061	0x03280061	The process cannot be performed because the encryption status of the specified RAID group differs from RAID group to which DM-LU belongs. Please confirm the RAID group and try again.
DMED280062	0x03280062	In the specified information, it is not changed from the current environment. Please confirm the specified information and try again.
DMED280063	0x03280063	The process cannot be performed because the invalid character of password is specified. Please confirm password and try again.
DMED280064	0x03280064	Failed to back up the encryption key. Please try again backing up.
DMED280065	0x03280065	Failed to back up the encryption key. Please try again backing up.
DMED280066	0x03280066	The process cannot be performed because the encryption keys have been changed. Please try again backing up.
DMED280067	0x03280067	Hitachi Storage Navigator Modular 2 is less than Ver.27.00.
		The process cannot be performed because the backup file of an encryption key is invalid. Please confirm the file and then try again.
		Hitachi Storage Navigator Modular 2 is Ver.27.00 or more.
		The process cannot be performed because the size of specified backup file of an encryption key is not the same. Please confirm the file and then try again.
DMED280068	0x03280068	The process cannot be performed because specified backup file of an encryption key is older than that of the subsystem. Please confirm the file and then try again.
DMED280069	0x03280069	The process cannot be performed because specified backup file of an encryption key is the file of different subsystem. Please confirm the file and then try again.
DMED28006A	0x0328006A	The process cannot be performed because specified backup file of an encryption key or specified password is invalid. Please confirm the file or password and then try again.
DMED28006B	0x0328006B	The process cannot be performed because the encryption keys generated place is not set and encryption keys back up to/restore from are File or Key Management Server. Please confirm the encryption keys generated place and encryption keys back up to/restore from and then try again.
DMED28006C	0x0328006C	The process cannot be performed because encryption keys back up to/restore from has been set to File. Please confirm encryption keys back up to/restore from and then try again.
DMED28006D	0x0328006D	The process cannot be performed because the IP address or host name is not specified. Please specify IP address or host name and then try again.
DMED28006E	0x0328006E	Hitachi Storage Navigator Modular 2 is less than Ver.27.00.
		The process cannot be performed because specified backup file of an encryption key is invalid. Please confirm the file and then try again.
		Hitachi Storage Navigator Modular 2 is Ver.27.00 or more.
		The process cannot be performed because specified backup key on key management server is invalid. Please confirm the backup key on key management server and then try again.
DMED28006F	0x0328006F	The process cannot be performed because the size of specified backup key on key management server is not the same. Please confirm the backup key on key management server and then try again.

Message code	Error code	Message text/Recovery methods
DMED280070	0x03280070	The process cannot be performed because specified backup key on key management server is older than that of the subsystem. Please confirm the backup key on key management server and then try again.
DMED280071	0x03280071	The process cannot be performed because specified backup key on key management server is the data of different subsystem. Please confirm the backup key on key management server and then try again.
DMED280072	0x03280072	The process cannot be performed because the Encryption Status is enabling or disabling. Please confirm the Encryption Status is enabled or disabled and then try again.
DMED280073	0x03280073	Setting start directions of encryption environment were successful.
DMED280074	0x03280074	The process cannot be performed because Encryption Keys Back Up to/Restore from has been changed. Please confirm Encryption Keys Back Up to/Restore from and then try again.
DMED280075	0x03280075	Creation start directions of the encryption key were successful.
DMED280076	0x03280076	The process cannot be performed because the encryption keys are creating by Key Management Server. Please wait for a while and then try again.
DMED280077	0x03280077	The process cannot be performed because [Protect the Volumes by the Key Management Server] is enabling or disabling. Please confirm [Protect the Volumes by the Key Management Server] is enabled or disabled and then try again.
DMED280078	0x03280078	The process cannot be performed because Encryption Keys Generated on has been changed. Please confirm Encryption Keys Generated on and then try again.
DMED280079	0x03280079	The process cannot be performed because IP Address/Host Name on Key Management Server has been changed. Please confirm IP Address/Host Name on Key Management Server and then try again.
DMED28007A	0x0328007A	The process cannot be performed because the specified operation was time-out. Please confirm the LAN environment and then try again.
DMED28007B	0x0328007B	The process cannot be performed because the same IP Address/Host Name is specified as the Primary Server and the Secondary Server. Please specify the different IP Address/Host Name.
DMED28007C	0x0328007C	The process cannot be performed because the subsystem is restarted. Please try again.
DMED28007D	0x0328007D	The process cannot be performed because the encryption key is invalid. Please try again.
DMED28007E	0x0328007E	The import key from Key Management Server is unnecessary. Please confirm the subsystem status.
DMED28007F	0x0328007F	The process cannot be performed because status of the Secondary Server is disabled. Please set status of the Secondary Server to enable and try again.
DMED280080	0x03280080	Failed to setting the encryption environment. Please try again.
DMED280081	0x03280081	The process cannot be performed because [Protect the Volumes by the Key Management Server] is enabled. Please set [Protect the Volumes by the Key Management Server] to disable and try again.
DMED280082	0x03280082	The process cannot be performed because [Limited Encryption Keys Generated on to the Key Management Server] is enabled. Please confirm the subsystem status.
DMED280083	0x03280083	It is necessary to acquire a key from a key management server. Please confirm encryption environment and then try again.
DMED280084	0x03280084	The process cannot be performed because Key is not imported from the key management server. Please import key from the key management server and try again.
DMED280085	0x03280085	The process cannot be performed because the subsystem status is Booting with KMS. Please wait for a while and then try again.
DMED280086	0x03280086	It is not necessary to acquire a key from a key management server. Please confirm encryption environment and then try again.
DMED280087	0x03280087	The process cannot be performed because the client certificate or the root certificate is not set up. Please set the client certificate and the root certificate and then try again.
DMED280088	0x03280088	The process cannot be performed because the Encryption Status is disabled or disabling. Please set the encryption environment to enable and then try again.
DMED280089	0x03280089	The process cannot be performed because the Secondary Server Status has been changed. Please confirm the Secondary Server Status and then try again.

Message code	Error code	Message text/Recovery methods
DMED290000	0x03290000	The process cannot be performed because the status of migration is Checking or Switching Array. Please wait a moment and then try again.
DMED290001	0x03290001	The process cannot be performed because the status of migration is not Ready to Switch Array. Please array switch propriety check and then try again.
DMED290002	0x03290002	The process cannot be performed because Migration Mode is Migration. Please execute the operation after the migration is completed.
DMED290003	0x03290003	The process cannot be performed because the remote path is not defined. Please set remote path and try again.
DMED290004	0x03290004	The process cannot be performed because the remote path is set up with unsupported array. Please confirm the array and try again.

Message code	Error code	Message text/Recovery methods
DMED300001	0x03300001	The serial number or equipment ID cannot be changed because the path and pair information does not exist.
DMED300002	0x03300002	The serial number or equipment ID cannot be changed because the path and pair information does not exist.
DMED300005	0x03300005	The specified serial number or equipment ID is incorrect. Please specify it in 0-9.
DMED300006	0x03300006	The specified serial number is incorrect. Please specify a right serial number.
DMED300007	0x03300007	The specified serial number is incorrect. Please specify a right serial number.
DMED300008	0x03300008	0 is specified as 6 figures of low order of the serial number. Please specify a right serial number.
DMED300009	0x03300009	The same serial number as a self subsystem is specified. Please specify the serial number of connected subsystem.
DMED30000A	0x0330000A	The same equipment ID as a self subsystem is specified. Please specify the equipment ID of connected subsystem.
DMED30000B	0x0330000B	The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.
DMED30000C	0x0330000C	A value differs from current value is specified as 1 figures of high order of the serial number or equipment ID. Please specify a right serial number or equipment ID.
DMED30000D	0x0330000D	The process cannot be performed because the specified array ID is not set to Remote Replication pair, remote path or remote port CHAP information (Target information). Please confirm the array ID and try again.
DMED30000E	0x0330000E	The array ID before and behind change is the same. Please specify a right array ID.
DMED3B0011	0x033B0011	The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board.
DMED3B0012	0x033B0012	The firmware cannot be downgraded because the segment size of 64KB or more is set up. Please confirm the cache partition and try again.
DMED3B0013	0x033B0013	The firmware cannot be downgraded because the stripe size other than 64KB is set up. Please confirm the stripe size of volume and try again.
DMED3B0014	0x033B0014	The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.
DMED3B0015	0x033B0015	The firmware cannot be downgraded because the subsystem is not restarted after the option using data pool is unlocked or enabled. Please restart the subsystem and then try again.
DMED3B0016	0x033B0016	The firmware cannot be downgraded because the target(s) or CHAP user(s) is not initialized. Please initialize the target(s) and CHAP user(s) and try again.
DMED3B0018	0x033B0018	The firmware cannot be downgraded because the pair with MU number other than 0 exists in S-VOL of ShadowImage. Please cancel the pair with MU number other than 0 and try again.
DMED3B0019	0x033B0019	The firmware cannot be downgraded because the pair with MU number of 14 or more exists in SnapShot volume. Please cancel the pair with MU number of 14 or more and try again.
DMED3B001A	0x033B001A	The firmware cannot be downgraded because P-VOL with 15 or more SnapShot volume exists. Please delete SnapShot volume to 14 or less, and try again.
DMED3B001B	0x033B001B	The firmware cannot be downgraded because the user VOL is being used as the pair of Remote Replication. Please cancel the pair and try again.
DMED3B001C	0x033B001C	The firmware cannot be downgraded because the migrated volume exists. Please migrate again.
DMED3B001D	0x033B001D	The firmware cannot be downgraded because Volume Migration is installed. Please de-install the option and try again.
DMED3B001E	0x033B001E	The firmware cannot be downgraded because Remote Replication is unlocked. Please lock the option and try again.
DMED3B001F	0x033B001F	The firmware cannot be downgraded because Account Authentication is installed. Please de-install the option and try again.

Message code	Error code	Message text/Recovery methods
DMED3B0020	0x033B0020	The firmware cannot be downgraded because Power Saving is installed. Please de-install the option and try again.
DMED3B0021	0x033B0021	The firmware cannot be downgraded because the NNCtype2 is equipped. Please confirm the configuration.
DMED3B0022	0x033B0022	The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.
DMED3B0023	0x033B0023	The firmware cannot be downgraded because the 8Gbps fibre interface board is equipped. Please retry by using firmware in relation to this interface board.
DMED3B0024	0x033B0024	The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.
DMED3B0025	0x033B0025	The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.
DMED3B0100	0x033B0100	The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.
DMED3B0101	0x033B0101	The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.
DMED3B0102	0x033B0102	The process cannot be performed because the system drive type is unknown. Please replace the system drive with SAS or SATA drive and try again.
DMED3B0103	0x033B0103	The firmware replacement cannot be performed because the controller 1 is specified. Please replace the firmware from the controller 0. Or the subsystem may have been rebooted during the firmware replacement. Please replace the firmware again, if the firmware revision is not matched between both controllers.
DMED3B0104	0x033B0104	The firmware replacement cannot be performed because firmware replacement of another controller is not completed and the access from hosts is not received. Please perform firmware replacement of this controller again after performing firmware replacement of another controller and completing.
DMED3B0106	0x033B0106	The firmware cannot be downgraded because in the I/O Switch ShadowImage pairs that share the P-VOL, the pair of Paired exists. Please change the ShadowImage I/O Switch Mode to disable or change to states other than Paired and try again.
DMED3B0107	0x033B0107	The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board.
DMED3B0108	0x033B0108	The firmware replacement cannot be performed because the erasure of store data is in progress. Please retry after the process completes.
DMED3B0109	0x033B0109	The process cannot be performed because the Side Card is detached. Please recover the Side Card and then try again.
DMED3B010A	0x033B010A	The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board.
DMED3B010B	0x033B010B	The firmware cannot be downgraded in the single-controller system. Please change to dual-controller system and try again.
DMED3B010C	0x033B010C	The process cannot be performed because the PS of Dense84 units is not normal state. Please recover the status and then try again.
DMED3B010D	0x033B010D	The process cannot be performed because the fan of Dense84 units is not normal state. Please recover the status and then try again.
DMED3B010E	0x033B010E	The firmware cannot be downgraded because the non-supported cache memory is equipped on the downgraded version. Please retry by using firmware in relation to this cache memory.
DMED3B010F	0x033B010F	The process cannot be performed because the RAID groups in state of Power Saving with I/O link are existing. Please spin up and try again.
DMED3B0110	0x033B0110	The firmware cannot be downgraded because the volume in state of DP optimization are existing. Please try again, after DP optimization is completed.
DMED3B0111	0x033B0111	The firmware cannot be downgraded because the status is not Not Checked. Please restart the subsystem and then try again.
DMED3B0201	0x033B0201	The process cannot be performed because Data Retention Utility is installed. Please de-install the option and try again.
DMED3B0301	0x033B0301	Failed to download the ENC firmware. Please replace the controller that is detached and try again.

Message code	Error code	Message text/Recovery methods
DMED3C1101	0x033C1101	The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.
DMED3C1164	0x033C1164	The firmware cannot be downgraded because the non-supported controller is equipped on the downgraded version. Please retry by using firmware in relation to this controller.
DMED3C1211	0x033C1211	The firmware cannot be downgraded because the RAID group expansion is now occurring or the RAID group containing unified VOL is executed expansion. Please retry after expansion is completed.
DMED3C1212	0x033C1212	The firmware cannot be downgraded because ShadowImage pair of Split Pending or Paired Internally Synchronizing exists. Please retry after status is changed to Split or Paired.
DMED3C1214	0x033C1214	The firmware cannot be downgraded because the Dense Units are connected. Please retry after removing the Dense units or by using another firmware.
DMED3C1215	0x033C1215	The firmware cannot be downgraded because S-VOL of ShadowImage pair is under formatting. Please retry after formatting is completed.
DMED3C1216	0x033C1216	The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.
DMED3C1217	0x033C1217	The firmware cannot be downgraded because Distributed Mode is Hub. Please change the Distributed Mode to Edge and try again.
DMED3C1218	0x033C1218	The firmware cannot be downgraded because Dynamic Provisioning is installed. Please change Dynamic Provisioning to de-installed and try again.
DMED3C1219	0x033C1219	The firmware cannot be downgraded because the user whose user authentication is RADIUS exists. Please delete the user whose user authentication is RADIUS and try again.
DMED3C121A	0x033C121A	The firmware cannot be downgraded because the number of registered account exceeded the maximum value that can be supported on the downgraded version. Please confirm the number of registered account and try again.
DMED3C121B	0x033C121B	The firmware cannot be downgraded because the command device that uses the volume in the DP pool exists. Please release the command device that uses the volume in the DP pool and try again.
DMED3C121C	0x033C121C	The firmware cannot be downgraded because the DM-LU that uses the volume in the DP pool exists. Please release the DM-LU that uses the volume in the DP pool and try again.
DMED3C121F	0x033C121F	The firmware cannot be downgraded because the number of connected subsystem exceeded the maximum value that can be supported on the downgraded version. Please remove drives or use another firmware and then try again.
DMED3C1220	0x033C1220	The firmware cannot be downgraded because the volume migration pair that uses the volume in the DP pool exists. Please release the pair and try again.
DMED3C1221	0x033C1221	The firmware cannot be downgraded because the state of DP optimization is optimizing. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.
DMED3C1222	0x033C1222	The firmware cannot be downgraded because SSD is mounted. Please remove SSD or use another firmware and then try again.
DMED3C1223	0x033C1223	The firmware cannot be downgraded because the number of connected Dense units exceeded the maximum value that can be supported on the downgraded version. Please remove the Dense units or use another firmware and then try again.
DMED3C1224	0x033C1224	The firmware cannot be downgraded because the updating of DP management information is in progress. Please wait a moment and then try again.
DMED3C1225	0x033C1225	The firmware cannot be downgraded because Advanced Security Mode is enabled. Please change Advanced Security Mode to disabled and try again.
DMED3C1227	0x033C1227	The firmware cannot be downgraded because the SAS drives are mounted in the Dense Units. Please remove the SAS drives or use another firmware and then try again.
DMED3C1228	0x033C1228	The firmware cannot be downgraded because remote paths are set to an array whose H/W revision is 0200. Please delete remote paths and try again.
DMED3C1229	0x033C1229	The firmware cannot be downgraded because the volume in DP pool exists in a data pool. Please delete the data pool and then try again.

Message code	Error code	Message text/Recovery methods
DMED3C122A	0x033C122A	The firmware cannot be downgraded because the volume in the DP pool is SnapShot pair. Please cancel the pair and then try again.
DMED3C122B	0x033C122B	The firmware cannot be downgraded because the volume in the DP pool is Remote Replication pair. Please cancel the pair and then try again.
DMED3C122C	0x033C122C	The firmware cannot be downgraded because the SAS7K drives are mounted. Please remove the SAS7K drives or use another firmware and then try again.
DMED3C122D	0x033C122D	The firmware cannot be downgraded because specified firmware is not supported on this subsystem. Please use the firmware which supported on this subsystem.
DMED3C122E	0x033C122E	The firmware cannot be downgraded because the memory reconfiguration is in progress or is failed. Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.
DMED3C122F	0x033C122F	The firmware cannot be downgraded because DP capacity mode is Maximum Capacity. Please change the DP capacity mode to Regular Capacity and try again.
DMED3C1230	0x033C1230	The firmware cannot be downgraded because in the ShadowImage pairs that share the P-VOL, more than two ShadowImage pairs are Paired, Synchronizing, Paired Internally Synchronizing, or Split Pending. Please split the remaining pairs after specifying one pair which continues a copy and try again.
DMED3C1231	0x033C1231	The firmware cannot be downgraded because in the ShadowImage pairs that share the P-VOL, the pair of Failure(S-VOL Switch) exists. Please cancel the ShadowImage pair of Failure(S-VOL Switch) and try again.
DMED3C1232	0x033C1232	The firmware cannot be downgraded because the RAID group which specified I/O monitoring time of Power Saving exists. When the state of Power Saving is Normal(Command Monitoring), please spin down after specifying 0 to I/O monitoring time and try again. When Power Saving does not need to be performed, please spin up and try again.
DMED3C1233	0x033C1233	The firmware cannot be downgraded because DP pool of the stripe size 64KB exists. Please delete DP pool of the stripe size 64KB and try again.
DMED3C1234	0x033C1234	The firmware cannot be downgraded because specified firmware is not supported on this subsystem. Please use the firmware which supported on this subsystem.
DMED3C1235	0x033C1235	The firmware cannot be downgraded because the volume to which Full Capacity Mode is enabled exists. Please disable Full Capacity Mode, and try again.
DMED3C1236	0x033C1236	The firmware cannot be downgraded because SAS(SER) drives are mounted. Please remove SAS(SER) drives or use another firmware and then try again.
DMED3C1237	0x033C1237	The firmware cannot be downgraded because the Standard(SFF) Units are connected. Please retry after removing the Standard(SFF) units or by using another firmware.
DMED3C1238	0x033C1238	The firmware cannot be downgraded because the DP pool is in progress. Please wait a moment and then try again.
DMED3C1239	0x033C1239	The firmware cannot be downgraded because P-VOL of ShadowImage and P-VOL of SnapShot is same volume or S-VOL of ShadowImage and P-VOL of SnapShot is the same volume. Please cancel the ShadowImage pair or SnapShot pair and try again.
DMED3C123B	0x033C123B	The firmware cannot be downgraded because Data At Rest Encryption is installed. Please change Data At Rest Encryption to de-installed and try again.
DMED3C123C	0x033C123C	The firmware cannot be downgraded because the ShadowImage pair whose MU number is 8 or more, or the SnapShot pair whose MU number is 32 or more exists. Please cancel the pair and try again.
DMED3C123D	0x033C123D	The firmware cannot be downgraded because over 2TB SATA drives are mounted. Please remove over 2TB SATA drives after deleting RAID groups or DP pools containing over 2TB SATA drives or use another firmware and then try again.
DMED3C123E	0x033C123E	The firmware cannot be downgraded because over 2TB SATA drives are mounted. Please remove over 2TB SATA drives after deleting RAID groups or DP pools containing over 2TB SATA drives or use another firmware and then try again.
DMED3C123F	0x033C123F	The firmware cannot be downgraded because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.
DMED3C12FE	0x033C12FE	The firmware cannot be downgraded because tape group backed up by append write exists. Please delete or discard tape groups, and try again.

Message code	Error code	Message text/Recovery methods
DMED3C12FF	0x033C12FF	The firmware cannot be downgraded because tape group targeted differential backup or backed up differential exists. Please delete tape groups, and try again.
DMED3C1240	0x033C1240	The firmware cannot be downgraded because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.
DMED3D0001	0x033D0001	The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.
DMED3E0001	0x033E0001	The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.
DMED3E0002	0x033E0002	The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.
DMED3E0003	0x033E0003	The firmware cannot be downgraded because Modify Permission Coexistence Mode is enabled. Please change Modify Permission Coexistence Mode to disabled and try again.
DMED3E0004	0x033E0004	The firmware cannot be downgraded because the number of groups using Remote Replication pair exceeded the maximum value that can be supported on the downgraded version. Please reduce number of groups and try again.
DMED3E0005	0x033E0005	The firmware cannot be downgraded because the iSCSI connecting of TrueCopy Modular Distributed function is non-supported on the downgraded version. Please delete the remote path and unnecessary remote port CHAP information (Target information) and try again.
DMED3E0006	0x033E0006	The firmware cannot be downgraded because Dynamic Tiering is installed. Please change Dynamic Tiering to de-installed and try again.
DMED3E0007	0x033E0007	The firmware cannot be downgraded because Dynamic Tiering is not de-installed, or the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Tiering is de-installed. Please restart the subsystem or execute the memory reconfiguration after Dynamic Tiering is de-installed and try again. When the memory reconfiguration is in progress or is failed, please try again after the memory reconfiguration is completed or remove the cause of the error.
DMED3E0008	0x033E0008	The firmware cannot be downgraded because the memory reconfiguration is in progress or is failed. Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.
DMED3E0009	0x033E0009	The firmware cannot be downgraded because the number of connected Dense84 units exceeded the maximum value that can be supported on the downgraded version. Please remove the Dense84 units or use another firmware and then try again.
DMED3E000A	0x033E000A	The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.
DMED3E000B	0x033E000B	The firmware cannot be downgraded because the cascades of the SnapShot pair and the Remote Replication pair are 2 or more. Please change the cascade to 1 or less, and try again.
DMED3E000C	0x033E000C	The firmware cannot be downgraded because the DP pool that over provisioning limit enforcement is enabled exists. Please change over provisioning limit enforcement to disable or delete the DP pool, and try again.
DMED3E000D	0x033E000D	The firmware cannot be downgraded because the Dense84 units are connected. Please retry after removing the Dense84 units.
DMED3E000E	0x033E000E	The firmware cannot be downgraded because the drives in non-supported slot position are equipped on the downgraded version. Please retry after removing drives in non-supported slot position.
DMED3E000F	0x033E000F	The firmware cannot be downgraded because the units in non-supported position are connected on the downgraded version. Please retry after removing units.
DMED3E0010	0x033E0010	The firmware cannot be downgraded because Power Saving Plus is installed. Please change Power Saving Plus to de-installed and try again.
DMED3E0011	0x033E0011	The firmware cannot be downgraded because the DP pool to which Auto DP Optimize is enabled exists. Please disable Auto DP Optimize, and try again.
DMED3E0012	0x033E0012	The firmware cannot be downgraded because Command Queue Expansion Mode is enabled. Please change Command Queue Expansion Mode to disabled and try again.

Message code	Error code	Message text/Recovery methods
DMED3E0013	0x033E0013	The firmware cannot be downgraded because over 400GB SSD is mounted. Please remove over 400GB SSD after deleting RAID groups or DP pools containing over 400GB SSD or use another firmware and then try again.
DMED3E0014	0x033E0014	The firmware cannot be downgraded because the volumes reserved by Persistent Reservation Type-7h/8h exist. Please stop the cluster software which will release the reserve of volumes and try again.
DMED3E0015	0x033E0015	The firmware cannot be downgraded because the volume to which disabling tier relocation is enabled exists. Please change disabling tier relocation to disable and try again.
DMED3E0016	0x033E0016	The firmware cannot be downgraded because Power Saving Plus is installed. Please change Power Saving Plus to de-installed and try again.
DMED3E0017	0x033E0017	The firmware cannot be downgraded because the packet filtering is enabled. Please change the packet filtering to disable and try again.
DMED3E0018	0x033E0018	The firmware cannot be downgraded because DP pool under shrinking capacity exists. Please cancel the shrink of DP pool capacity or wait for completion of the shrink of DP pool capacity and then try again.
DMED3E0019	0x033E0019	The firmware cannot be downgraded because there exists a DP pool with tier mode disabled and the drive type, RAID level or HDU combination are mixed, or there exists a DP pool with tier mode enabled and RAID level or HDU combination of the tier is mixed. When there is tier mode disabled DP pool, please delete DP pool or shrink the DP RAID group whose the drive type, RAID level or HDU combination does not match. When there is tier mode enabled DP pool, please delete DP pool or shrink the DP RAID group whose RAID level or HDU combination of the tier does not match. Please try again.
DMED3E001A	0x033E001A	The firmware cannot be downgraded because the DC power supply is equipped. Please retry by using firmware in relation to the DC power supply.
DMED3E001B	0x033E001B	The firmware cannot be downgraded because the Dense84 units and other than Dense84 units are connected. Please retry with same unit type.
DMED3E001C	0x033E001C	The firmware cannot be downgraded because Array Migration is installed. Please change Array Migration to de-installed and try again.
DMED3E001D	0x033E001D	The firmware cannot be downgraded because the I/O Module(Drive(Encryption)) is mounted. Please replace the I/O Module(Drive) or use another firmware and then try again.
DMED3E001E	0x033E001E	The firmware cannot be downgraded because over 3TB SAS7K drives are mounted. Please remove over 3TB SAS7K drives after deleting RAID groups or DP pools containing over 3TB SAS7K drives or use another firmware and then try again.
DMED3E001F	0x033E001F	The firmware cannot be downgraded because the memory reconfiguration is in progress or is failed. Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.
DMED3E0020	0x033E0020	The firmware cannot be downgraded because DP capacity mode is Maximum Capacity or the subsystem is not restarted or the memory reconfiguration is not executed after DP capacity mode is changed. Please change the DP capacity mode to Regular Capacity and then try again.
DMED3E0021	0x033E0021	The firmware cannot be downgraded because Tray Power Saving is installed. Please change Tray Power Saving to de-installed and try again.
DMED3E0022	0x033E0022	The firmware cannot be downgraded because the StandardF units are connected. Please retry after removing the StandardF units.
DMED3E0023	0x033E0023	The firmware cannot be downgraded because over 1.2TB SAS drives are mounted. Please remove over 1.2TB SAS drives and then try again.
DMED3E0024	0x033E0024	The firmware cannot be downgraded because the capacity of DP pool to which DM-LU belongs is being shrunk. Please retry after the process completes.
DMED3E0025	0x033E0025	The firmware cannot be downgraded because Data At Rest Encryption is installed. Please change Data At Rest Encryption to de-installed and try again.
DMED3E0026	0x033E0026	The firmware cannot be downgraded because the Encryption Keys Generated on is Key Management Server. Please set the Encryption Keys Generated on to Array and then try again.

Message code	Error code	Message text/Recovery methods
DMED400001	0x03400001	The process cannot be performed because the specified volumes contain an unformatted VOL. Confirm the volume status and try again.
DMED400002	0x03400002	The process cannot be performed because the specified volumes contain V-VOL of SnapShot. Confirm the volume status and try again.
DMED400003	0x03400003	The process cannot be performed because some volumes are under quick formatting. Confirm the volume status and try again.
DMED400004	0x03400004	The process cannot be performed because the specified volumes contain a Sub VOL of the unifying VOLs. Confirm the volume status and try again.
DMED400005	0x03400005	The process cannot be performed because the specified volumes contain an invalid VOL. Confirm the volume status and try again.
DMED400006	0x03400006	The specified VOLs contain regressed VOL. Confirm the VOL status and try again.
DMED400007	0x03400007	The process cannot be performed because ShadowImage, Remote Replication, or SnapShot is in progress. Please wait a moment and then try again.
DMED400008	0x03400008	The operation of 'start' or 'skip', and 'cancel' is specified at the same time. Confirm the operation and try again.
DMED400009	0x03400009	The process cannot be performed because the specified volumes contain an undefined VOL. Confirm the volume status and try again.
DMED400011	0x03400011	The process cannot be performed because parity correction is not completed. Please try again, after it is completed.
DMED400012	0x03400012	The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.
DMED400013	0x03400013	The process cannot be performed because parity correction is not completed. Please try again, after it is completed.
DMED400014	0x03400014	The process cannot be performed because parity correction is not completed. Please try again, after it is completed.
DMED400015	0x03400015	The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.
DMED400021	0x03400021	The 'cancel' operation cannot be specified to the uncorrected volumes. Confirm the parity correction status and try again.
DMED400022	0x03400022	The 'start' operation cannot be specified to the aborted volumes. Confirm the parity correction status and try again.
DMED400023	0x03400023	The 'cancel' operation cannot be specified to the aborted volumes. Confirm the parity correction status and try again.
DMED400024	0x03400024	The 'start' operation cannot be specified to the correcting volumes. Confirm the parity correction status and try again.
DMED400025	0x03400025	The 'skip' operation cannot be specified to the correcting volumes. Confirm the parity correction status and try again.
DMED400026	0x03400026	The 'start' operation cannot be specified to the waiting volumes. Confirm the parity correction status and try again.
DMED400027	0x03400027	The 'skip' operation cannot be specified to the waiting volumes. Confirm the parity correction status and try again.
DMED400028	0x03400028	The 'cancel' operation cannot be specified to the skipped volumes. Confirm the parity correction status and try again.
DMED400029	0x03400029	The 'cancel' operation cannot be specified to the corrected volumes. Confirm the parity correction status and try again.
DMED40002A	0x0340002A	The volumes are under quick formatting. Please the parity correction status and try again.

Message code	Error code	Message text/Recovery methods
DMED410000	0x03410000	The slot number is outside the effective range. Please specify the slot number of effective range and try again.
DMED410001	0x03410001	The process cannot be performed because the specified controller and the execution controller are same. Please confirm the controller and try again.
DMED410002	0x03410002	The process cannot be performed because the status of the specified I/F module is not normal. Please confirm the I/F module and try again.
DMED410003	0x03410003	The process cannot be performed. Please confirm the version of the navigator.
DMED410004	0x03410004	The process cannot be performed because the slot both the controller 0 and controller 1 are not unequipped. Please confirm the status of slot and try again.
DMED410005	0x03410005	The process cannot be performed because the I/F module both the controller 0 and controller 1 are not normal. Please recover the status of I/F module and try again.
DMED410006	0x03410006	The process cannot be performed because removal is in progress. Please try again, after the removal is completed.
DMED410007	0x03410007	The process cannot be performed because additional is in progress. Please confirm the status of I/F module or interface board and try again.
DMED410008	0x03410008	The process cannot be performed because the preparation of adding is not started. Please start the preparation of adding and try again.
DMED410009	0x03410009	The process cannot be performed because the I/F module or interface board is unequipped. Please confirm the status of the I/F module or interface board and try again.
DMED410010	0x03410010	The process cannot be performed because the remote path is set up. Please delete the remote path and try again.
DMED410011	0x03410011	The process cannot be performed because the one or both of the slot of controller 0 and controller 1 are unequipped. Please confirm the status of slot and try again.
DMED410012	0x03410012	The process cannot be performed because Fibre Channel Option is de-installed. Please install the option and try again.
DMED410013	0x03410013	The process cannot be performed because addition is in progress. Please retry after the process completes.
DMED410014	0x03410014	The process cannot be performed because the one or both of the slot of controller 0 and controller 1 are unequipped. Please confirm the status of slot and try again.
DMED420000	0x03420000	The packet filtering cannot be disabled because the block port 80 is enabled. Please change block port 80 to disable and try again.
DMED500001	0x03500001	The command device is not registered. Please register the command device and try again.
DMED600001	0x03600001	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.

Message code	Error code	Message text/Recovery methods
DMED700001	0x03700001	The specified volume is not defined. Specify a defined volume.
DMED700002	0x03700002	The process cannot be performed because the status of pair is Simplex(SMPL). Confirm the VOL status and try again.
DMED800002	0x03800002	A parameter error occurred. Please confirm the specified parameter.
DMED800004	0x03800004	The specified NNC number is not NAS port. Please confirm the port type.
DMED800005	0x03800005	The process cannot be performed because BIOS is being updated. The updating is completed, then try again.
DMED800006	0x03800006	The process cannot be performed because NAS OS is not ready or booting, or it is not in shutdown process. Please confirm NAS OS status and then try again.
DMED800007	0x03800007	The process cannot be performed because BIOS is being updated. The updating is completed, then try again.
DMED800008	0x03800008	The process cannot be performed because the install of the NAS OS is not completed. Please try again after install is completed.
DMED800009	0x03800009	The process cannot be performed because the alternative NNC is not active. Please confirm NNC status and try again.
DMED800011	0x03800011	The process cannot be performed because NAS OS is loading. Please stop NAS OS, then try again.
DMED800013	0x03800013	The process cannot be performed because NAS OS is in shutdown process. Shutdown process is completed, then try again.
DMED800014	0x03800014	The process cannot be performed because NAS dump is being collected. The collection is completed, then try again.
DMED800015	0x03800015	The process cannot be performed because the system VOL is not defined. Please define the system VOL and then try again.
DMED800016	0x03800016	The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.
DMED800017	0x03800017	The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.
DMED800019	0x03800019	The process cannot be performed because NAS OS is not in stopped state. Please stop NAS OS, then try again.
DMED80001A	0x0380001A	The process cannot be performed because BIOS is being updated. The updating is completed, then try again.
DMED80001B	0x0380001B	The process cannot be performed because NAS OS is detached. Please recover NAS OS status and then try again.
DMED800020	0x03800020	The specified IP address is incorrect. Please specify a correct IP address.
DMED800021	0x03800021	The specified number is incorrect. Please specify a correct number.
DMED800022	0x03800022	The specified MTU is incorrect. Please specify a correct MTU.
DMED800023	0x03800023	The specified negotiation is incorrect. Please specify a correct negotiation.
DMED800024	0x03800024	The process cannot be performed because NAS OS is not ready. Please confirm NAS OS status and then try again.
DMED800025	0x03800025	The process cannot be performed during NNC LAN setting. Please confirm NAS OS status and then try again.
DMED800026	0x03800026	The same IP address as the management LAN of the subsystem cannot be set up. Please specify a correct IP address.
DMED800027	0x03800027	The specified time zone does not have daylight saving time. Please confirm the time zone.
DMED800029	0x03800029	The process cannot be performed because the MTU value of NNC does not match. Please set up the same MTU value.
DMED800030	0x03800030	The process cannot be performed because specified IP address is same as the current IP address of alternative NNC. Please specify another IP address and try again.
DMED900006	0x03900006	The process cannot be performed because the data set does not exist. Please confirm the data set.
DMED901100	0x03901100	The process cannot be performed because the copy or restoration of volume is in progress. Please try again, after it is completed.
DMED901101	0x03901101	The process cannot be performed because the copy or restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.
DMED901102	0x03901102	The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group.

Message code	Error code	Message text/Recovery methods
DMED908002	0x03908002	The process cannot be performed because Tape Replication is installed. Please change Tape Replication to de-installed and then try again.
DMED908003	0x03908003	The process cannot be performed because the restoration is in progress. Please try again, after it is completed. Or, please cancel it and then try again.
DMED909113	0x03909113	The process cannot be performed because the version is unmatched between the micro program and the Storage Navigator Modular. Please match the version.
DMED909134	0x03909134	The tape group detail information is invalid.
DMED909135	0x03909135	The tape group detail information is invalid.
DMED909136	0x03909136	The tape group detail information is invalid.
DMED909137	0x03909137	The tape group detail information is invalid.
DMED909138	0x03909138	The tape group detail information is invalid.
DMED909139	0x03909139	The tape group detail information is invalid.
DMED909140	0x03909140	The tape group detail information is invalid.
DMED909141	0x03909141	The tape group detail information is invalid.
DMED909142	0x03909142	The tape group detail information is invalid.
DMED909143	0x03909143	The tape group detail information is invalid.
DMED909144	0x03909144	The tape information is invalid.
DMED909145	0x03909145	The tape information is invalid.
DMED909146	0x03909146	The tape information is invalid.
DMED9091FF	0x039091FF	An internal program error occurred in the Tape Replication function. Contact the service personnel.
DMED909201	0x03909201	The data set detail information is invalid.
DMED909202	0x03909202	The data set detail information is invalid.
DMED909203	0x03909203	The data set detail information is invalid.
DMED909204	0x03909204	The data set detail information is invalid.
DMED909205	0x03909205	The data set detail information is invalid.
DMED909206	0x03909206	The data set detail information is invalid.
DMED909207	0x03909207	The data set detail information is invalid.
DMED909208	0x03909208	The data set detail information is invalid.
DMED909209	0x03909209	The data set detail information is invalid.
DMED90920A	0x0390920A	The data set detail information is invalid.
DMED90920B	0x0390920B	The data set detail information is invalid.
DMED90920C	0x0390920C	The data set detail information is invalid.
DMED90920D	0x0390920D	The data set detail information is invalid.
DMED90920E	0x0390920E	The data set detail information is invalid.
DMED90920F	0x0390920F	The data set detail information is invalid.
DMED909210	0x03909210	The data set detail information is invalid.
DMED909211	0x03909211	The data set detail information is invalid.
DMED909212	0x03909212	The data set detail information is invalid.
DMED909213	0x03909213	The process failed due to an invalid parameter. Confirm the specified value.
DMED909214	0x03909214	The data set detail information is invalid.
DMED909221	0x03909221	The process cannot be performed because the TR constitution file version is incorrect. Please specify a correct file.
DMED909222	0x03909222	The data set number is doubled.
DMED909223	0x03909223	The process cannot be performed because other users changed the TR constitution information. Please wait for a while and then try again.
DMED909224	0x03909224	The process cannot be performed because other users changed the TR constitution information. Please wait for a while and then try again.
DMED909225	0x03909225	The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape groups.

Message code	Error code	Message text/Recovery methods
DMED909226	0x03909226	The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape groups.
DMED90B018	0x0390B018	The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.
DMED90B066	0x0390B066	The process cannot be performed because the TR constitution restoration is in progress. Please try again, after it is completed.
DMED90B06E	0x0390B06E	An internal program error occurred in the Tape Replication function. Contact the service personnel.
DMED90B0C8	0x0390B0C8	The process failed due to an invalid parameter. Confirm the specified value.
DMED90B0C9	0x0390B0C9	The process cannot be performed because the volume is not targeted differential backup. Please confirm the volume.
DMED90B0CB	0x0390B0CB	The process cannot be performed because the specified tape group has set to not backup by append write. Please specify another tape group and then try again.
DMED90B0CC	0x0390B0CC	The process cannot be performed because the volume is not used by this differential backup. Please confirm the volume.
DMED90B0CD	0x0390B0CD	The process cannot be performed because the copy is in progress in the tape group. Please try again, after it is completed.
DMED90B0CE	0x0390B0CE	The process cannot be performed because the number of volumes in the tape group reached the maximum. Please discard unnecessary data sets or specify another tape group and try again.
DMED90B0D0	0x0390B0D0	The process cannot be performed because the number of data sets in the system reached the maximum. Please discard unnecessary tape groups or data sets.
DMED90B0D2	0x0390B0D2	The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape group.
DMED90B0D3	0x0390B0D3	The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.
DMED90B0D4	0x0390B0D4	The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.
DMED90B0D5	0x0390B0D5	The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.
DMED90B0D6	0x0390B0D6	The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.
DMED90B0D7	0x0390B0D7	The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.
DMED90B0D8	0x0390B0D8	The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.
DMED90B0D9	0x0390B0D9	The process cannot be performed because the number of differential backup to the specified volume reached the maximum. Please confirm the backup group.
DMED90B0DA	0x0390B0DA	The process failed due to an invalid parameter. Confirm the specified value.
DMED90B0DB	0x0390B0DB	The process cannot be performed because the volume is not used by this differential backup. Please confirm the volume.
DMED90B0DD	0x0390B0DD	The process cannot be performed because the status of the tape group is illegal. Please confirm the status of the tape group.
DMED90B0DE	0x0390B0DE	The process cannot be performed because the number of data sets in the specified tape group reached the maximum. Please discard unnecessary data sets or specify another tape group and try again.
DMED90B0DF	0x0390B0DF	The process cannot be performed because the number of tape cartridges in the tape group reached the maximum. Please discard unnecessary data sets or specify another tape group and try again.
DMED90B0E0	0x0390B0E0	The process cannot be performed because the specified tape group is already backed up by append write. Please specify the data set and then try again.
DMED90B0E1	0x0390B0E1	The process failed due to an invalid parameter. Confirm the specified value.
DMED90B0E2	0x0390B0E2	The process cannot be performed because the data set does not exist. Please confirm the data set.
DMED90B0E3	0x0390B0E3	The process cannot be performed because the full backup tape group or data set does not exist. Please confirm the tape group or the data set.

Message code	Error code	Message text/Recovery methods
DMED90B0E4	0x0390B0E4	The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.
DMED90B0E5	0x0390B0E5	The process cannot be performed because the status of the full backup tape group or data set is illegal. Please confirm the status of the tape group or the data set.
DMED90B0E6	0x0390B0E6	The process cannot be performed because the restoration is in progress in the tape group. Please try again, after it is completed.
DMED90B0E7	0x0390B0E7	The process cannot be performed because the restoration of the full backup tape group or data set is in progress. Please try again, after it is completed.
DMED90B0E8	0x0390B0E8	The process cannot be performed because the copy is in progress. Please try again, after it is completed.
DMED90B0E9	0x0390B0E9	The process cannot be performed because the restoration is in progress. Please try again, after it is completed.
DMED90B0EA	0x0390B0EA	The process cannot be performed because the copy is in progress. Please try again, after it is completed.
DMED90B0EB	0x0390B0EB	The process cannot be performed because the restoration is in progress. Please try again, after it is completed.
DMED90B0EC	0x0390B0EC	The process failed due to an invalid parameter. Confirm the specified value.
DMED90B0ED	0x0390B0ED	The process cannot be performed because the cache memory size is insufficient. Please try again, after other restoration is completed.
DMED90B0EE	0x0390B0EE	The process cannot be performed because the volume at restoring destination is not a part of ShadowImage pair. Please confirm the pair status of the volume.
DMED90B0EF	0x0390B0EF	The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.
DMED90B0F0	0x0390B0F0	The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.
DMED90B0F1	0x0390B0F1	The process cannot be performed because the restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.
DMED90B0F2	0x0390B0F2	The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.
DMED90B0F3	0x0390B0F3	The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.
DMED90B0F4	0x0390B0F4	The process cannot be performed because the copy is in progress in the backup group. Please confirm the status of the tape group in the backup group.
DMED90B0F5	0x0390B0F5	The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group.
DMED90B0F6	0x0390B0F6	The process cannot be performed because the access level is set to the volume. Please confirm the volume.
DMED90B0FB	0x0390B0FB	The process cannot be performed because the status of the tape group is illegal. Please confirm the status of the data set.
DMED90B0FC	0x0390B0FC	The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.
DMED90B0FD	0x0390B0FD	The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.
DMED90B0FE	0x0390B0FE	The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.
DMED90B101	0x0390B101	The process cannot be performed because the copy is in progress. Please try again, after it is completed.
DMED90B102	0x0390B102	The process cannot be performed because the restoration is in progress. Please try again, after it is completed.
DMED90B103	0x0390B103	The process cannot be performed because the memory reconfiguration is in progress. Please try again after the memory reconfiguration is completed.
DMED910072	0x03910072	The process cannot be performed because the specified tape group is impossible to import. Please confirm the tape group.
DMED91100C	0x0391100C	The process cannot be performed because differential bit map is insufficient. Please delete unnecessary pairs or increase the cache memory.

Message code	Error code	Message text/Recovery methods
DMEDC00001	0x03C00001	The process cannot be performed because the specified group number is outside the effective range. Please confirm the group number.
DMEDC00002	0x03C00002	The process cannot be performed because the specified volume number is outside the effective range. Please confirm the volume number.
DMEDC00003	0x03C00003	The specified group is not used. Please confirm the group number.
DMEDC00004	0x03C00004	The specified volume is not pair. Please confirm the volume number.
DMEDC00005	0x03C00005	The specified volume is V-VOL. Please specify another volume and try again.
DMEDC00006	0x03C00006	The specified volume is not V-VOL. Please specify the volume number of V-VOL and try again.
DMEDC00007	0x03C00007	The process cannot be performed because the number of pairs reached the maximum. Please confirm the settings of pairs.
DMEDC00008	0x03C00008	The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.
DMEDC00009	0x03C00009	The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.
DMEDC0000A	0x03C0000A	The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.
DMEDC0000B	0x03C0000B	The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.
DMEDC0000C	0x03C0000C	The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again.
DMEDC0000D	0x03C0000D	The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again.
DMEDC0000E	0x03C0000E	The specified volume is Volume Migration pair. Please specify another volume and try again.
DMEDC0000F	0x03C0000F	The process cannot be performed because the SnapShot pair of specified name does not exist. Please specify SnapShot pair and try again.
DMEDC00010	0x03C00010	The process cannot be performed because the VOL number is already assigned in specified pair. Please release the VOL number in S-VOL and try again.
DMEDC00011	0x03C00011	The process cannot be performed because the VOL number of specified pair is not assigned. Please confirm the VOL number and try again.
DMEDC00012	0x03C00012	The process cannot be performed because S-VOL is mapped. Please delete mapping and then try again.
DMEDC00013	0x03C00013	The process cannot be performed because specified pair does not exist. Please confirm pair name and try again.
DMEDC00014	0x03C00014	The specified value of copy speed is outside the effective range. Please specify the value in the effective range and try again.
DMEDC00015	0x03C00015	The process cannot be performed because P-VOL of specified pair is reserved for cache partition modification. Please restart the subsystem and then try again.
DMEDC00016	0x03C00016	The process cannot be performed because the pool number is not specified. Please specify the pool number and try again.

Message code	Error code	Message text/Recovery methods
DMEG000000	—	The array is being rebooted or switched by another user. Please wait.
DMEG000001	—	Array is currently being refreshed by another user. Please wait and try again.
DMEG000003	—	Currently processing an other users request. Please wait a moment and try again.
DMEG000004	—	The install path of Navigator cannot be found.
DMEG000005	—	The array could not be found.
DMEG000006	—	Error monitoring is currently stopped. Please restart.
DMEG000007	—	The array information may have been updated. Please refresh.
DMEG000008	—	The array configuration may have been updated. Please refresh.
DMEG000009	—	The size of the specified file is over the maximum. Please confirm the file size.
DMEG000010	—	Currently processing an other users request. Please wait a moment and try again.
DMEG000011	—	The file or directory cannot be deleted.
DMEG000012	—	The firmware cannot be updated because the array is in progress.
DMEG000013	—	The specified file is not ZIP file. Please confirm the file type.
DMEG000014	—	Failed to transfer the specified file.
DMEG000015	—	Currently testing error monitoring for another user. Please wait a moment and then try again.
DMEG000016	—	The array information may have been updated. Please refresh.
DMEG000017	—	The array could not be added because error monitoring is in progress. Please confirm that error monitoring has stopped and try again.
DMEG000018	—	The array could not be edited because error monitoring is in progress. Please confirm that error monitoring has stopped and try again.
DMEG000019	—	The array could not be removed because error monitoring is in progress. Please confirm that error monitoring has stopped and try again.
DMEG00001A	—	The specified file could not be extracted.
DMEG00001B	—	Context parameter 'supportedLocales' is not specified in web.xml.
DMEG00001C	—	Currently processing another user's request. Please try again.
DMEG00001D	—	Currently processing another user's request. Please try again.
DMEG00001E	—	Hitachi Storage Navigator Modular 2 is less than Ver.27.70 An error was detected in the data received from the subsystem. Hitachi Storage Navigator Modular 2 is Ver.27.70 or more. An error was detected in the data received from the subsystem. Confirm the array status.
DMEG00001F	—	The file cannot be compressed.
DMEG000101	—	The IP address of syslog server XXX is not specified. Please specify the IP address.
DMEG000102	—	The IP address of the syslog server XXX is too long. Please specify the valid IP address.
DMEG000103	—	The multi-byte character is contained in the IP address of syslog server XXX. Please specify the IP address using the ASCII-character code.
DMEG000201	—	Please specify the user ID.
DMEG000203	—	The user ID is too long. Please specify the valid user ID.
DMEG000204	—	The password is too long. Please specify the valid password.
DMEG000205	—	You cannot login. Please specify the user ID and password.
DMEG000206	—	The units for testing are not selected. Please select the units.
DMEG000207	—	The old password is too long. Please specify the valid old password.
DMEG000208	—	The new password is too long. Please specify the valid new password.
DMEG000209	—	The new password does not match the confirmed password.
DMEG000210	—	The role is not assigned. Please assign the role.
DMEG000211	—	You have no permission. Please confirm your permission.
DMEG000212	—	The current login session is expired. If you are displaying the subsystem dialog window, please close the window and login again. Please select the subsystem in the Arrays screen again.

Message code	Error code	Message text/Recovery methods
DMEG000220	—	Cannot display because JRE is not installed or it is disabled. Please install the JRE or enable it and try again.
DMEG000221	—	Cannot display because JRE corresponding to a browser in use is not installed or JRE of the 64-bit version is installed or JRE of the outside for support is installed or the Java Applet Runtime Settings or the Manage Add-ons of browser is invalid. Please install the supported JRE after 1.6.0_10 corresponding to a browser in use or confirm the Java Applet Runtime Settings or the Manage Add-ons of browser.
DMEG000222	—	Cannot display because JRE corresponding to a browser in use is not installed or JRE of the 32-bit version is installed or JRE of the outside for support is installed or the Java Applet Runtime Settings or the Manage Add-ons of browser is invalid. Please install the supported JRE after 1.6.0_10 corresponding to a browser in use or confirm the Java Applet Runtime Settings or the Manage Add-ons of browser.
DMEG000223	—	Cannot display because JRE corresponding to a browser in use is not installed or JRE of the outside for support is installed or the Java Applet Runtime Settings or the Manage Add-ons of browser is invalid. Please install the supported JRE after 1.6.0_10 corresponding to a browser in use or confirm the Java Applet Runtime Settings or the Manage Add-ons of browser.
DMEG000224	—	Cannot display because JRE corresponding to a browser in use is not installed or JRE of the outside for support is installed or the Java Applet Runtime Settings or the Settings of browser is invalid. Please install the supported JRE after 1.6.0_10 corresponding to a browser in use or confirm the Java Applet Runtime Settings or the Settings of browser.
DMEG0002F0	—	Cannot open the advanced settings window because there is not enough memory to open. Configure the settings of Java Plug-in installed the client computer to increase available memory.
DMEG000300	—	The Array ID before and behind change is the same. Please specify a right Array ID.
DMEG100001	—	Do you want to reboot the array?
DMEG100002	—	The array is not selected.
DMEG100003	—	Only one array can be selected to reboot. Please try again.
DMEG100004	—	Currently rebooting the array.
DMEG100005	—	Completed the rebooting of the array.
DMEG100006	—	Please enter user ID.
DMEG100007	—	The array is not selected.
DMEG100008	—	You do not have sufficient privileges.
DMEG100009	—	Maintenance personnel are now connected.
DMEG100010	—	Failed to log in. XXX is now logged in by someone.
DMEG100011	—	Do you want to connect forcibly?
DMEG100012	—	Could not login. Invalid user ID and password.
DMEG100013	—	<p>Current session has timed out. Please login again.^(*)</p> <p>*1 : When executing the dual login by the built-in account (logging in the same array subsystem from other management PC by the built-in account while logging in the array subsystem by the built-in account), the first login session is discarded and this message is displayed. Be careful that the dual login by the built-in account cannot be executed.</p> <p>The same is true for the case when the regular failure monitoring by Hitachi Storage Navigator Modular 2 is performed by the built-in account. In this case, create a general account that gives Role of Storage Administrator (View Only) for the failure monitoring, and perform the failure monitoring.</p>
DMEG100014	—	Invalid data. Please re-enter.
DMEG100015	—	Invalid character specified. Please re-enter.
DMEG100016	—	Please wait for a moment. Time required
DMEG100017	—	<p>Host will be unable to access the array while restarting. Host applications that use the array will terminate abnormally.</p> <p>Please stop the host accesses before you restart the array.</p> <p>When using TrueCopy, restarting the remote array will cause both TrueCopy paths to fail. TrueCopy pair status will be changed to "PSUE" when pair status is "PAIR" or "COPY". Please change TrueCopy pair status to "PSUS" before restarting.</p>

Message code	Error code	Message text/Recovery methods
DMEG100018	—	Specified IP Address or Array Name is invalid.
DMEG100019	—	The array name will be registered as XXX, but this name is already registered. Specify another name.
DMEG100020	—	The array(s) has/have been added to the navigator. After closing this wizard, you can refer and configure the array(s) from Arrays screen.
DMEG100021	—	Currently searching array(s) from XXX to YYY.
DMEG100022	—	Failed to add the array XXX.
DMEG100023	—	Only the objects that complete the operation are displayed as follows.
DMEG100024	—	Click Finish to close the wizard.
DMEG100025	—	A failure has occurred. Please read the error information below. Click Finish to close the wizard.
DMEG100026	—	Specified IP Address is invalid.
DMEG100027	—	The array could not be added because error monitoring is in progress. Please confirm that error monitoring has stopped and try again.
DMEG100028	—	Please select the array to test.
DMEG100029	—	Specified user ID is invalid. Please try again.
DMEG10002A	—	Cannot add array because the specified array is not supported.
DMEG10002B	—	Specified Array Name is invalid. Please re-enter.
DMEG10002C	—	Neither IPv4 nor IPv6 is specified. Please specify IPv4 or IPv6 or both.
DMEG100030	—	Specified interval time is invalid. Please specify a correct value.
DMEG100031	—	Specified password is invalid. Please re-enter.
DMEG100032	—	Completed the editing of error monitoring options.
DMEG100033	—	Failed to change interval time.
DMEG100034	—	(Not execute to set account)
DMEG100035	—	Failed to set account. (Executed to change interval time)
DMEG100036	—	Cannot set error monitoring options because error monitoring is in progress. Please confirm error monitoring has stopped and try again.
DMEG100037	—	The Built-in account cannot be used for error monitoring. Please specify another user ID.
DMEG100040	—	Specified Array Name is invalid.
DMEG100041	—	Specified Group Name is invalid.
DMEG100044	—	Show and configure of the selected array is not supported.
DMEG100045	—	The function cannot be performed because the array is not supported.
DMEG100046	—	Specified IP Address or Array Name is invalid.
DMEG100047	—	You cannot log in to array because Model, Serial Number and H/W Revision are different between array and navigator. Remove this array in the array list window and click Add Array to register it again.
DMEG200001	—	The process cannot be performed in the single-controller system.
DMEG200002	—	The tray cannot be installed because the number of trays has reached the maximum.
DMEG200003	—	The process cannot be performed because a failure has occurred in the controller or ENC. Please fix the error and try again.
DMEG200004	—	The process cannot be performed because the subsystem is performing an internal operation. Please try again after 5 minutes.
DMEG200005	—	The process cannot be performed because the tray is being installed. Please try again after the installation of tray is completed.
DMEG200006	—	The process cannot be performed because the firmware program is being replaced. Please try again after the firmware is replaced.
DMEG200007	—	The process cannot be performed because the tray is not supported in the system.
DMEG200008	—	Failed to install tray. Please detach connected ENC cables and power cables and try again.
DMEG200009	—	Failed to install tray. Confirm the array status.
DMEG210001	—	The specified number of batteries is invalid.

Message code	Error code	Message text/Recovery methods
DMEG310001	—	A new RAID group cannot be created because the number of RAID groups have reached the maximum.
DMEG310002	—	Cannot create RAID group because drives are not available. Please confirm the drives and try again.
DMEG310003	—	Specified RAID Group is invalid. Please specify correct value.
DMEG310004	—	Specified Parity Group is invalid. Please specify correct value.
DMEG310005	—	Completed the creation of the RAID group.
DMEG310006	—	Completed the deletion of the RAID group(s).
DMEG310007	—	Failed to delete RAID group XXX
DMEG310009	—	Please select the RAID group.
DMEG310016	—	Number of selected drives is invalid. Please select the correct number of drives.
DMEG310017	—	Confirm the creation of the RAID group. When drive failure occurs, it is impossible to recover user data from RAID group whose RAID level is 0.
DMEG310018	—	Only the objects that complete the operation are displayed as follows.
DMEG310019	—	A new volume cannot be created because the number of volumes have reached the maximum.
DMEG31001A	—	Specified drive types do not match. Please specify the same drive type.
DMEG31001B	—	A new volume cannot be created because the number of volumes have reached the maximum in RAID Group.
DMEG31001C	—	Cannot create volume because free space does not exist in the selected RAID group. Please select the RAID group with free space and try again.
DMEG31001D	—	There are no available drives to create the RAID group. Please confirm the RAID group configuration.
DMEG310020	—	Specified VOL is invalid. Please specify correct value.
DMEG310021	—	Specified space is invalid. Please specify correct value.
DMEG310022	—	Specified capacity is invalid. Please specify correct value.
DMEG310023	—	Completed the creation of the logical unit.
DMEG310024	—	Completed the edit instruction of the cache partition. In order to enable the setting, it is necessary to reboot the array. If you want to enable the setting and reboot the array now, click Reboot Array. Or if you want to reboot later, click Close.
DMEG310025	—	Please select the volumes.
DMEG310026	—	Start the format of logical unit(s).
DMEG310027	—	Please select the volumes.
DMEG310028	—	Failed to delete logical unit XXX
DMEG310029	—	Only the objects that complete the operation are displayed as follows.
DMEG31002A	—	Failed to refresh. Please display the Arrays screen, and confirm the array status.
DMEG31002B	—	Volumes deleted successfully. Failed to refresh. Please display the Arrays screen and confirm the array status.
DMEG31002C	—	RAID groups deleted successfully. Failed to refresh. Please display the Arrays screen and confirm the array status.
DMEG31002D	—	Completed the edit instruction of the pair cache partition.
DMEG310030	—	Completed the deletion of the logical unit(s).
DMEG310031	—	Confirm to edit the cache partition. If you edit the cache partition, the status of pair cache partition may be changed into Auto. So please confirm the status of pair cache partition after reboot.
DMEG310032	—	Specified volume number is already defined. Specify a different volume number.
DMEG310034	—	Specified used VOL to create volume is invalid. Please try again.
DMEG310035	—	Specified used free space to create volume is invalid. If you select ALL in capacity, please specify an only free space.
DMEG310036	—	Specified free space is invalid. Select Set Automatically if you select RG ALL under Capacity.

Message code	Error code	Message text/Recovery methods
DMEG310040	—	Cannot change the volume capacity because the RAID group of the selected volume is RAID0. Please select another volume.
DMEG310041	—	Cannot change the volume capacity because the selected volume is not unified and there are no available volumes to add.
DMEG310042	—	Cannot expand the volume because there is no available free space in the RAID group.
DMEG310043	—	Cannot expand the volume because the number of volumes have reached the maximum.
DMEG310044	—	No volumes have been specified to add.
DMEG310045	—	Cannot change capacity of the volume because selected volume is a V-VOL (virtual volume).
DMEG310046	—	Volume capacity changed successfully. Failed to refresh. Confirm the array status from the Arrays window.
DMEG310047	—	The capacity of specified volume cannot be changed. Please select another volume.
DMEG311001	—	Cannot expand RAID groups with a RAID0.
DMEG311002	—	Cannot expand the RAID group because assignable drives do not exist.
DMEG311003	—	Number of selected drives is invalid. Please select drives of correct number.
DMEG311004	—	Cannot expand the RAID group because the drive configuration of the RAID level has reached the maximum.
DMEG311005	—	The process cannot be performed because the number of parity groups is not 1. Please confirm the RAID group and try again.
DMEG320001	—	The deletion cannot be executed because host group 000 is specified. Please execute initialization for host group 000.
DMEG320002	—	Host group is not selected. Please specify host group and try again.
DMEG320003	—	There is no port to which host group can be added.
DMEG320004	—	Specified host group number is invalid. Please specify correct value.
DMEG320005	—	Specified host group name is invalid. Please specify correct value.
DMEG320006	—	A port for adding the host group is not selected. Please select the port.
DMEG320007	—	The function cannot be executed because LUN Manager is disabled. Please install and enable LUN Manager and try again.
DMEG320008	—	Two or more host groups are selected. Please select only one host group and try again.
DMEG320009	—	Specified host group does not exist. Please specify another host group.
DMEG32000A	—	Specified WWN is unusable. Please specify correct value.
DMEG32000B	—	The function cannot be executed because host group security is disabled. Please enable host group security and try again.
DMEG32000C	—	Port is not selected. Please specify port and try again.
DMEG32000D	—	WWN is not selected. Please specify WWN and try again.
DMEG32000E	—	The function cannot be executed because the WWN is already assigned to host groups and cannot be deleted.
DMEG32000F	—	Two or more WWNs are selected. Please select only one WWN and try again.
DMEG320010	—	Specified nickname is invalid. Please try again.
DMEG320011	—	Specified WWN does not exist. Please specify another WWN.
DMEG320012	—	Specified WWN already exists. Please specify another WWN.
DMEG320013	—	The initialization cannot be executed because host group other than host group 000 is specified. Please delete host group other than host group 000.
DMEG320014	—	A host group already exists for the selected ports. Please make Available Ports to the default settings or enable " Forced set to all selected ports " and try again.
DMEG330001	—	The deletion cannot be executed because iSCSI target 000 is specified. Please initialize iSCSI target 000.
DMEG330002	—	iSCSI target is not selected. Please specify iSCSI target and try again.
DMEG330003	—	There is no port available to create the iSCSI target.
DMEG330004	—	Specified iSCSI target number is invalid. Please specify correct value.
DMEG330005	—	Specified iSCSI name is invalid. Please specify correct value.
DMEG330006	—	A port for creating the iSCSI target is not selected. Please select a port.

Message code	Error code	Message text/Recovery methods
DMEG330007	—	The function cannot be executed because LUN Manager is disabled. Please install and enable LUN Manager and try again.
DMEG330008	—	Two or more iSCSI targets are selected. Please select only one iSCSI target and try again.
DMEG330009	—	Specified iSCSI target does not exist. Please specify another iSCSI target.
DMEG33000A	—	Specified host iSCSI name is invalid. Please specify correct value.
DMEG33000B	—	The function cannot be executed because iSCSI target security is disabled. Please make enable iSCSI target security and try again.
DMEG33000C	—	Port is not selected. Please specify port and try again.
DMEG33000D	—	Host is not selected. Please specify host and try again.
DMEG33000E	—	The function cannot be executed because assigned host is specified.
DMEG33000F	—	Two or more hosts are selected. Please select only one host and try again.
DMEG330010	—	Specified nickname is invalid. Please specify correct value.
DMEG330011	—	Specified host does not exist. Please specify other host.
DMEG330012	—	Specified iSCSI name already exists. Please specify another iSCSI name.
DMEG330013	—	Failed to initialize because iSCSI target other than iSCSI target 000 is specified. Please delete iSCSI target other than iSCSI target 000.
DMEG330014	—	Specified iSCSI target alias is invalid. Please specify correct value.
DMEG330015	—	iSCSI name for host should start with "eui." or "iqn.". Please specify correct value.
DMEG330016	—	Specified user name is invalid. Please specify correct value.
DMEG330017	—	Specified secret is invalid. Please specify correct value.
DMEG330018	—	The retyped secret does not match secret. Please retype again.
DMEG330019	—	Failed to change Nickname of the selected host. You cannot change Nickname of an iSCSI host until the host is associated to an iSCSI Target.
DMEG33001A	—	Maximum number of hosts is already assigned. Please remove hosts that are not used.
DMEG330020	—	Specified host does not exist. Please specify another host.
DMEG330021	—	iSCSI name should start with "eui." or "iqn.". Please specify correct value.
DMEG330022	—	A iSCSI Target already exists for the selected ports. Please make Available Ports to the default settings or enable " Forced set to all selected ports " and try again.
DMEG330023	—	The process cannot be performed because the same iSCSI Name exists in a iSCSI target. Please confirm iSCSI Name and try again.
DMEG331001	—	User Name is invalid. Please specify correct value.
DMEG331002	—	Secret is invalid. Please specify correct value.
DMEG331003	—	Secret and retyped secret do not match.
DMEG331004	—	Select at least one port to be assigned.
DMEG331005	—	The maximum number of CHAP user has already been set.
DMEG340100	—	A new DP pool cannot be created because the number of DP pools has reached the maximum.
DMEG340101	—	You cannot create a DP pool because drives are not available. Please confirm the drives and try again.
DMEG340102	—	Specified DP Pool is invalid. Please specify correct value.
DMEG340103	—	Number of selected drives is invalid. Please select the correct number of drives.
DMEG340104	—	Specified drive types do not match. Please specify the same drive type.
DMEG340105	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Early Alert is invalid. Please specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Early Alert Threshold is invalid. Please specify correct value.
DMEG340106	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Depletion Alert is invalid. Please specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Depletion Alert Threshold is invalid. Please specify correct value.
DMEG340107	—	Specified DP pool number is already defined. Specify a different DP pool number.
DMEG340108	—	Specified Number of drives is invalid. Please specify correct value.

Message code	Error code	Message text/Recovery methods
DMEG34010B	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 The early alert of DP pool consumed capacity alert is equal to or more than the depletion alert. Please confirm the values and try again. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. The Early Alert Threshold of DP Pool Consumed Capacity is equal to or more than the Depletion Alert Threshold. Please confirm the values and try again.
DMEG34010C	—	Specified Warning Threshold is invalid. Please specify correct value.
DMEG34010D	—	Specified Limit Threshold is invalid. Please specify correct value.
DMEG34010E	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 The Warning Threshold value for the over provisioning threshold is equal to or more than the Limit Threshold value. Please confirm the values and try again. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. The Warning Threshold for the Over Provisioning is equal to or more than the Limit Threshold. Please confirm the values and try again.
DMEG34010F	—	The number of defined RAID groups has reached the maximum. Please delete unnecessary RAID groups and try again.
DMEG340110	—	Specified DP RAID group number is invalid. Please specify correct value.
DMEG340111	—	Specified DP RAID group number is already defined. Specify a different DP RAID group number.
DMEG340112	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Early Alert value of DP Pool Consumed Capacity Alert is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Early Alert Threshold of DP Pool Consumed Capacity is invalid. Specify correct value.
DMEG340113	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Depletion Alert value of DP Pool Consumed Capacity Alert is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Depletion Alert Threshold of DP Pool Consumed Capacity is invalid. Specify correct value.
DMEG340114	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Warning value of Over Provisioning Threshold is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Warning Threshold of Over Provisioning is invalid. Specify correct value.
DMEG340115	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Limit value of Over Provisioning Threshold is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Limit Threshold of Over Provisioning is invalid. Specify correct value.
DMEG340116	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Depletion Alert value of Replication Threshold is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Replication Depletion Alert Threshold of Replication is invalid. Specify correct value.
DMEG340117	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Replication Data Released value of Replication Threshold is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Replication Data Released Threshold of Replication is invalid. Specify correct value.
DMEG340118	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 The Depletion Alert value of Replication Threshold is equal to or more than the Replication Data Released. Confirm the values and try again. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. The Replication Depletion Alert Threshold of Replication is equal to or more than the Replication Data Released Threshold. Confirm the values and try again.
DMEG340122	—	DP pool deleted successfully. Failed to refresh. Please display the Arrays screen and confirm the array status.

Message code	Error code	Message text/Recovery methods
DMEG340130	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Early Alert is invalid. Please specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Early Alert Threshold is invalid. Please specify correct value.
DMEG340131	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Depletion Alert is invalid. Please specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Depletion Alert Threshold is invalid. Please specify correct value.
DMEG340133	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 The Warning Threshold value for the over provisioning threshold is equal to or more than the Limit Threshold value. Please confirm the values and try again. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. The Warning Threshold for Over Provisioning is equal to or more than the Limit Threshold. Please confirm the values and try again.
DMEG340134	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 The value of the Early Alert for the DP pool consumed capacity alert is equal to or more than the Depletion Alert value. Please confirm the values and try again. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. The Early Alert Threshold for DP Pool Consumed Capacity is equal to or more than the Depletion Alert Threshold. Please confirm the values and try again.
DMEG340135	—	Specified Warning Threshold is invalid. Please specify correct value.
DMEG340136	—	Specified Limit Threshold is invalid. Please specify correct value.
DMEG340137	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Early Alert value of DP Pool Consumed Capacity Alert is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Early Alert Threshold of DP Pool Consumed Capacity is invalid. Specify correct value.
DMEG340138	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Depletion Alert value of DP Pool Consumed Capacity Alert is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Depletion Alert Threshold of DP Pool Consumed Capacity is invalid. Specify correct value.
DMEG340139	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Warning value of Over Provisioning Threshold is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Warning Threshold of Over Provisioning is invalid. Specify correct value.
DMEG34013A	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Limit value of Over Provisioning Threshold is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Limit Threshold of Over Provisioning is invalid. Specify correct value.
DMEG34013B	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Depletion Alert value of Replication Threshold is invalid. Specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Replication Depletion Alert Threshold of Replication is invalid. Specify correct value.
DMEG34013C	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 Specified Replication Data Released of Replication Threshold is invalid. Please specify correct value. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. Specified Replication Data Released Threshold of Replication is invalid. Please specify correct value.

Message code	Error code	Message text/Recovery methods
DMEG34013D	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00 The depletion alert of Replication Threshold is equal to or more than the Replication Data Released. Please confirm the values and try again. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. The Replication Depletion Alert Threshold of Replication is equal to or more than the Replication Data Released Threshold. Please confirm the values and try again.
DMEG340140	—	Cannot add DP pool capacity because drives are not available. Please confirm the drives and try again.
DMEG340141	—	Specified Number of drives is invalid. Please specify correct value.
DMEG340142	—	Number of selected drives is invalid. Please select the correct number of drives.
DMEG340143	—	Specified DP RAID group number is invalid. Please specify correct value.
DMEG340144	—	Specified DP RAID group number is already defined. Specify a different DP RAID group number.
DMEG340145	—	The number of defined RAID groups reached the maximum. Please delete unnecessary RAID groups and try again.
DMEG340160	—	Drive shortage for adding the DP RAID Group. Confirm the RAID level and combination.
DMEG340161	—	Specified period is invalid. Please set the stop time to later than start time.
DMEG340162	—	There are not DP Pools to add. Please add at least one DP RAID Group.
DMEG340163	—	Specified 1st tier buffer space for new page assignment is invalid. Please specify correct value.
DMEG340164	—	Specified 1st tier buffer space for tier relocation is invalid. Please specify correct value.
DMEG340165	—	Specified 2nd tier buffer space for new page assignment is invalid. Please specify correct value.
DMEG340166	—	Specified 2nd tier buffer space for tier relocation is invalid. Please specify correct value.
DMEG340167	—	Specified 3rd tier buffer space for new page assignment is invalid. Please specify correct value.
DMEG340168	—	Specified 3rd tier buffer space for tier relocation is invalid. Please specify correct value.
DMEG340169	—	Cannot set the Relocation Periods. Please set one or more Relocation Periods to ON.
DMEG34016A	—	Cannot set the Monitoring Periods. Please set one or more Monitoring Periods to ON.
DMEG34016B	—	Selected drives cannot be added because it is reserved by automatic specification. Please confirm the number of drives by DP RAID Group list and try again.
DMEG340170	—	Tier Mode is not selected. Please select the Tier Mode you want to set.

Message code	Error code	Message text/Recovery methods
DMEG400000	—	Specified interval is invalid. Please specify correct value.
DMEG400001	—	The specified file is invalid. Confirm the file format.
DMEG400002	—	Uploaded firmware file cannot be extracted. Confirm the file and try again.
DMEG410001	—	Cannot set over the maximum number of spare drives. Please try again.
DMEG410004	—	Failed to remove the spare drive(s).
DMEG410006	—	Drives that set as spare drives are not selected. Select drives to set.
DMEG410007	—	Drive to be removed is not selected. Please try again.
DMEG410008	—	Cannot add spare drives because available drives do not exist. Allocate available drives and try again.
DMEG410009	—	A new spare drive cannot be added. The maximum number of spare drives has been reached.
DMEG41000A	—	Failed to add spare drives.
DMEG411000	—	A power interlock mode is not selected. Select the power interlock mode.
DMEG420000	—	Select the license to change the status.
DMEG420001	—	Select the license to de-install.
DMEG420003	—	An error occurred in the check box selection of the licenses.
DMEG420004	—	Failed to change status of license.
DMEG420009	—	Failed to de-install the license.
DMEG42000D	—	Keyfile is invalid or installation requirements aren't satisfied. Confirm keyfile or array configuration and try again.
DMEG420010	—	Failed to install the license.
DMEG420012	—	The keyfile is not specified.
DMEG420013	—	The keycode is empty.
DMEG420014	—	Specified keycode is invalid. Please specify correct value.
DMEG420015	—	Failed to de-install the license because specified keyfile contains multiple keycodes. Please specify the keyfile with one keycode and try again.
DMEG420016	—	No unlockable option is exists in the keyfile. Please specify the valid file and try again.
DMEG420017	—	No lockable option is exists in the keyfile. Please specify the valid file and try again.
DMEG420018	—	The keyfile has unjust contents. Please specify the valid file and try again.
DMEG430003	—	Failed to remove command device(s).
DMEG430004	—	Select the command device(s) to change.
DMEG430005	—	A new command device cannot be added. The maximum number of command devices have already been configured.
DMEG430006	—	Select the volume(s) to add as command device.
DMEG430007	—	You have selected more command devices than the maximum number allowed. Please re-confirm and select again.
DMEG430008	—	Select the command device(s) to remove.
DMEG430009	—	No volumes are selected for command device(s). Select them again.
DMEG43000A	—	No volumes that are available to be set to command devices exist. Create volumes to be used as command devices.
DMEG43000C	—	An error occurred in the selection of the check boxes of the RAID manager protection.
DMEG43000D	—	An error occurred during the Add or Remove.
DMEG43000F	—	The setting of command devices may have been updated. Please refresh.
DMEG430010	—	Failed to add command device.
DMEG430011	—	Failed to change RAID manager protection status.
DMEG440000	—	Specified IP Address is invalid. Please specify correct value.
DMEG440001	—	Specified Subnet Mask is invalid. Please specify correct value.
DMEG440002	—	Specified Default Gateway is invalid. Please specify correct value.
DMEG440003	—	Specified TCP Port Number is invalid. Please specify correct value.
DMEG440004	—	Specified Keep Alive Timer is invalid. Please specify correct value.
DMEG440005	—	Specified VLAN ID is invalid. Please specify correct value.
DMEG440006	—	Specified Default Gateway IPv4 Address is invalid. Please specify correct value.

Message code	Error code	Message text/Recovery methods
DMEG440007	—	Specified Link Local IP Address is invalid. Please specify correct value.
DMEG440008	—	Specified IP Address 1 of Global IP Address is invalid. Please specify correct value.
DMEG440009	—	Specified IP Address 2 of Global IP Address is invalid. Please specify correct value.
DMEG44000A	—	Specified Default Gateway IPv6 Address is invalid. Please specify correct value.
DMEG440010	—	The editing iSNS Settings is completed successfully.
DMEG440011	—	Specified IP Address is invalid. Please specify correct value.
DMEG440012	—	Specified TCP Port Number is invalid. Please specify correct value.
DMEG441000	—	Specified Address of Port is invalid. Please specify correct value.
DMEG442000	—	Specified Destination IP Address is invalid. Please specify correct value.
DMEG442001	—	Port is not selected. Please specify one or more ports.
DMEG450000	—	Completed sending test mails to all the addresses registered as Send To Address. Confirm that the test mail was sent to the specified address(es).
DMEG450010	—	Specified Domain Name is invalid. Please specify correct value.
DMEG450011	—	Specified Mail Server Address is invalid. Please specify correct value.
DMEG450012	—	Specified From Address is invalid. Please specify correct value.
DMEG450013	—	Specified Send To Address (1) is invalid. Please specify correct value.
DMEG450014	—	Specified Send To Address (2) is invalid. Please specify correct value.
DMEG450015	—	Specified Send To Address (3) is invalid. Please specify correct value.
DMEG450016	—	Specified Send To Address (4) is invalid. Please specify correct value.
DMEG450017	—	Specified Reply To Address is invalid. Please specify correct value.
DMEG450018	—	Specified Mail Additional Information is invalid. Please specify correct value.
DMEG450019	—	Completed editing E-mail settings.
DMEG450020	—	Confirm to initialize the parameters of E-mail settings.
DMEG450021	—	Completed initializing the parameters of E-mail settings.
DMEG450022	—	The Send To Address is duplicated. Please confirm the Send To Address.
DMEG460010	—	Specified Date is invalid. Please specify correct value.
DMEG460011	—	Specified Time is invalid. Please specify correct value.
DMEG460020	—	Specified IP address of NTP Server is invalid. Please specify correct value.
DMEG471000	—	Specified Array ID is invalid. Please try again.
DMEG471001	—	Specified IP Address is invalid. Please try again.
DMEG471002	—	Specified TCP Port Number is invalid. Please try again.
DMEG472001	—	Operation has failed. Confirm the array status.
DMEG473000	—	Switch array cannot be executed. Please check the migration status.
DMEG473001	—	Specified IP Address is invalid. Please specify correct value.
DMEG473002	—	Specified Subnet Mask is invalid. Please specify correct value.
DMEG473003	—	Specified Default Gateway is invalid. Please specify correct value.
DMEG473004	—	Specified IPv4 Address is invalid. Please try again.
DMEG473005	—	Specified IPv4 Subnet Mask is invalid. Please try again.
DMEG473006	—	Specified IPv4 Default Gateway is invalid. Please try again.
DMEG473007	—	Specified IPv6 Address is invalid. Please try again.
DMEG473008	—	Specified Subnet Prefix Length is invalid. Please try again.
DMEG473009	—	Specified IPv6 Default Gateway is invalid. Please try again.
DMEG474000	—	Shred Data cannot be executed. Please check the migration status.
DMEG480000	—	The function cannot be executed because Password Protection is disabled. Please install and enable Password Protection, and try again.
DMEG480001	—	Specified user ID is invalid. Please specify correct value.
DMEG480002	—	Specified password is invalid. Please specify correct value.
DMEG480003	—	Specified retype password does not match password. Please retype again.
DMEG480004	—	Specified old user ID is invalid. Please specify correct value.

Message code	Error code	Message text/Recovery methods
DMEG480005	—	Specified new user ID is invalid. Please specify correct value.
DMEG480006	—	Specified old password is invalid. Please specify correct value.
DMEG480007	—	Specified new password is invalid. Please specify correct value.
DMEG480008	—	Specified retype new password does not match new password. Please retype again.
DMEG480009	—	The function is not available, because there is no user id.
DMEG490000	—	Specified Environment Settings is invalid. Please specify correct value.
DMEG490001	—	Please specify Environment Settings file.
DMEG490002	—	Specified Array Name is invalid. Please specify correct value.
DMEG490003	—	Please specify an Array Name file.
DMEG491000	—	Please specify the configuration file path.
DMEG491001	—	The option was not selected. Please select at least one option.
DMEG491002	—	The process cannot be performed because the DP pool exists. Please delete the DP pool and try again.

Message code	Error code	Message text/Recovery methods
DMEG500000	—	Setup Array Wizard cannot start because E-mail Alert is enabled. Please disable E-mail Alert function on E-mail Alert window and start this wizard again.
DMEG500001	—	Specified value is invalid.
DMEG500002	—	The Send To Address is duplicated. Please confirm the Send To Address.
DMEG500003	—	Cannot set over the maximum spare drives. Select them again.
DMEG500004	—	Setting of the E-mail Alert could not be finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG500005	—	Failed to enable E-mail Alert, though setting of the E-mail Alert was finished successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG500006	—	Specified Reply To Address is invalid. Please specify correct value.
DMEG500007	—	Specified Port Address is invalid. Please specify correct value.
DMEG500008	—	Specified IPv4 Address is invalid. Please try again.
DMEG500009	—	Specified Ipv4 Subnet Mask is invalid. Please try again.
DMEG500010	—	Specified Ipv4 Default Gateway is invalid. Please try again.
DMEG500011	—	Cannot set over the maximum number of spare drives. Please try again.
DMEG500012	—	Specified Date is invalid. Please specify correct value.
DMEG500013	—	Specified Time is invalid. Please specify correct value.
DMEG500014	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations from the E-mail Alert window in Settings tree.
DMEG500015	—	Failed to enable E-mail Alert. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG500016	—	Specified Subnet Prefix Length is invalid. Please try again.
DMEG500017	—	Specified Ipv6 Address is invalid. Please try again.
DMEG500018	—	Specified Ipv6 Default Gateway is invalid. Please try again.
DMEG510000	—	Specified Domain Name is invalid. Please re-enter.
DMEG510001	—	Specified Mail Server Address is invalid. Please re-enter.
DMEG510002	—	Specified From Address is invalid. Please re-enter.
DMEG510003	—	Specified Send To Address is invalid. Please re-enter.
DMEG510004	—	Enter at least one Send To Address.
DMEG510005	—	Specified Reply To Address is invalid. Please re-enter.
DMEG510006	—	IP address of controller 0 is invalid.
DMEG510007	—	Subnet mask of controller 0 is invalid.
DMEG510008	—	Default gateway of controller 0 is invalid.
DMEG510009	—	IP address of controller 1 is invalid.
DMEG510010	—	Subnet mask of controller 1 is invalid.
DMEG510011	—	Default gateway of controller 1 is invalid.
DMEG510012	—	IP address of port 0A is invalid.
DMEG510013	—	IP address of port 0B is invalid.
DMEG510014	—	IP address of port 1A is invalid.
DMEG510015	—	IP address of port 1B is invalid.
DMEG510016	—	Subnet mask of port 0A is invalid.
DMEG510017	—	Subnet mask of port 0B is invalid.
DMEG510018	—	Subnet mask of port 1A is invalid.
DMEG510019	—	Subnet mask of port 1B is invalid.
DMEG510020	—	Default gateway of port 0A is invalid.
DMEG510021	—	Default gateway of port 0B is invalid.
DMEG510022	—	Default gateway of port 1A is invalid.
DMEG510023	—	Default gateway of port 1B is invalid.
DMEG510024	—	Initial Setup Wizard cannot start because E-mail Alert is enabled. Please disable E-mail Alert function on E-mail Alert window and start this wizard again.

Message code	Error code	Message text/Recovery methods
DMEG510025	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations from the E-mail Alert window in Settings tree.
DMEG510026	—	Failed to enable E-mail Alert. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG510027	—	The Send To Address is duplicated. Please confirm the Send To Address.
DMEG510028	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG510029	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG510030	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG510031	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG510032	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG510033	—	The E-mail Alert setting could not be completed successfully. Please confirm the current configurations on E-mail Alert window in Settings tree.
DMEG510034	—	Specified Date is invalid. Please re-enter.
DMEG510035	—	Specified Time is invalid. Please re-enter.
DMEG530000	—	Cannot execute the wizard. Please confirm the configuration of array.
DMEG530001	—	The Simple DR cannot be executed, because iSCSI port is unequipped.
DMEG530002	—	The Simple DR cannot be executed, because the remote path is not iSCSI interface.
DMEG530005	—	Specified Remote array ID is invalid. Please specify correct value.
DMEG530006	—	Specified Remote IP address 0 is invalid. Please specify correct value.
DMEG530007	—	Specified Remote IP address 1 is invalid. Please specify correct value.
DMEG530008	—	No volume to be selected.
DMEG530009	—	Please select the volume.
DMEG53000A	—	The configuration of array has been modified. There are files unselected.
DMEG53000F	—	The initial setup of the Simple DR is completed successfully. Failed to refresh. Please display the Arrays screen, and confirm the array status.
DMEG530011	—	The selected number of volumes exceeded the maximum value.
DMEG530012	—	The wizard cannot be executed because the number of pairs has reached the maximum.
DMEG530013	—	The wizard cannot be executed, because the remote path is not set. Please set the remote path.
DMEG530015	—	The initial setup of the TrueCopy Extended Distance is completed successfully. Failed to refresh. Please display the Arrays screen, and confirm the array status.
DMEG540000	—	The Create & Map Volume Wizard cannot be executed. Please confirm the configuration of array.
DMEG540001	—	The Create & Map Volume Wizard cannot be executed, because iSCSI port is unequipped.
DMEG540002	—	The Create & Map Volume Wizard cannot be executed, because the mapping mode is disabled.
DMEG540003	—	The Create & Map Volume Wizard cannot be executed, because there are no RAID groups.
DMEG541000	—	Specified capacity is invalid. Please specify correct value.
DMEG541001	—	Specified number of volumes is invalid. Please specify correct value.
DMEG541002	—	Please select the volume
DMEG541003	—	There is not enough free space in RAID group.
DMEG541004	—	There are not enough Volume Numbers.
DMEG541005	—	DP RAID Group Information is not specified. Specify DP RAID Group Information.
DMEG541006	—	The total number of drives configured by adding the DP Pool does not meet the minimum drive number requirement. Confirm the RAID level and combination.
DMEG542000	—	Specified iSCSI target No. is invalid. Please specify correct value.
DMEG542001	—	The specified iSCSI target No. is already defined. Please specify an unused number.
DMEG542002	—	Specified alias is invalid. Please re-enter.
DMEG542003	—	The specified alias has already been defined. Specify undefined alias.

Message code	Error code	Message text/Recovery methods
DMEG550000	—	The Create & Map Volume Wizard cannot be executed. Please confirm the array configuration.
DMEG550001	—	The Create & Map Volume Wizard cannot be executed because fibre channel port or iSCSI port is unequipped.
DMEG550002	—	The Create & Map Volume Wizard cannot be executed because the mapping mode is disabled.
DMEG552000	—	Volume not specified.
DMEG552001	—	Specified capacity is invalid. Please specify a correct value.
DMEG552002	—	Specified number of volumes is invalid. Please specify a correct value.
DMEG552003	—	There is not enough free space in RAID group.
DMEG552004	—	There are not enough Volume Numbers.
DMEG553000	—	Specified host group No. is invalid. Please re-enter.
DMEG553001	—	The specified host group No. is already defined. Please confirm the number and specify an unused number.
DMEG553002	—	Specified host group name is invalid. Please re-enter.
DMEG553003	—	The specified host group name has already been defined. Specify an undefined host group name.
DMEG553004	—	There are not enough H-LUNs.
DMEG553005	—	Port is not selected. Please select the port you want to set.
DMEG553006	—	The port which is using different H-LUN to VOL selected into the selected port is included. Choose a different VOL or different port.
DMEG553007	—	The port which has already used H-LUN currently used to select VOL in the selected port is included. Choose a different VOL or different port.
DMEG553008	—	There are not H-LUNs common to all the selected ports.
DMEG600001	—	A new account cannot be created because the number of accounts has reached the maximum.
DMEG600002	—	Specified user ID is invalid. Please re-enter.
DMEG600003	—	Specified password is invalid. Please re-enter.
DMEG600004	—	Specified passwords do not match. Please re-enter.
DMEG600005	—	The role is not assigned. Please verify with your system administrator your role assignments.
DMEG600013	—	The selected account cannot be changed. Make sure it is not the built-in account or that the user is not currently logged in.
DMEG600022	—	The selected account cannot be deleted. Make sure it is not the built-in account or that the user is not currently logged in.
DMEG600027	—	The account is deleted successfully. Failed to refresh. Please display the Arrays screen, and confirm the array status.
DMEG600032	—	The selected account cannot be deleted. Make sure it is not the built-in account or that the user is not currently logged in.
DMEG600037	—	The account is forced logout successfully. Failed to refresh. Please display the Arrays screen, and confirm the array status.
DMEG600051	—	Specified old password is invalid. Please re-enter.
DMEG600052	—	Specified new password is invalid. Please re-enter.
DMEG600053	—	Specified passwords do not match. Please re-enter.
DMEG600060	—	The function cannot be executed because Account Authentication is disabled. Please install and enable Account Authentication and try again.
DMEG600090	—	The Advanced Security Mode has already been enabled. Check the specified of Advanced Security Mode.
DMEG600091	—	The Advanced Security Mode has already been disabled. Check the specified of Advanced Security Mode.
DMEG600092	—	The Security Mode is not changed. Check the specified of Security Mode.
DMEG620000	—	The function cannot be executed because Audit Logging is disabled. Please install and enable Audit Logging and try again.
DMEG620001	—	Failed to read the Internal Log.
DMEG620002	—	Specified Server is invalid. Please re-enter.

Message code	Error code	Message text/Recovery methods
DMEG630000	—	No controller is specified. Please specify a controller.
DMEG630001	—	The specified non-secure port number of controller 0 is invalid. Please specify correct value.
DMEG630002	—	The specified secure port number of controller 0 is invalid. Please specify correct value.
DMEG630003	—	The specified non-secure port number of controller 1 is invalid. Please specify correct value.
DMEG630004	—	The specified secure port number of controller 1 is invalid. Please specify correct value.
DMEG630005	—	The non-secure port and secure port are same port number. Please specify different number.
DMEG630006	—	Please specify same number for non-secure port number of controller 0 and controller 1.
DMEG630007	—	Please specify same number for secure port number of controller 0 and controller 1.
DMEG63000F	—	Specified IPv4 Address is invalid. Please try again.
DMEG630010	—	Specified IPv4 Subnet Mask is invalid. Please try again.
DMEG630011	—	Specified IPv4 Default Gateway is invalid. Please try again.
DMEG630012	—	Specified IPv6 Address is invalid. Please try again.
DMEG630013	—	Specified Subnet Prefix Length is invalid. Please try again.
DMEG630014	—	Specified IPv6 Default Gateway is invalid. Please try again.
DMEG641000	—	Specified fixed prefetch size is invalid. Please try again.
DMEG641001	—	Specified base prefetch size is invalid. Please try again.
DMEG641002	—	Specified count of judgment sequential is invalid. Please try again.
DMEG642000	—	Specified dirty data opportunity is invalid. Please try again.
DMEG642001	—	Specified dirty data stop opportunity is invalid. Please try again.
DMEG642002	—	Specified iSCSI timeout reset time is invalid. Please try again.
DMEG643000	—	Specified volume does not exist. Please refresh information.
DMEG650000	—	Specified I/O Monitoring Time is invalid. Please specify correct value.
DMEG650001	—	No power saving instruction items were selected. Select check boxes for the appropriate Power Saving instructions.
DMEG650002	—	Specified I/O Monitoring Time value of Spin Down is invalid. Please specify correct value.
DMEG650003	—	Specified I/O Monitoring Time value of Power Off is invalid. Please specify correct value.
DMEG650004	—	The I/O Monitoring Time value of Spin Down is equal to or more than the I/O Monitoring Time value of Power Off. Please confirm the values and try again.
DMEG661013	—	The file cannot be compressed.
DMEG661014	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. The file access error occurred. Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. The file access error occurred. Try again.
DMEG661015	—	All performance measurement items are disabled. Enable at least one measurement item.
DMEG661016	—	Performance data cannot be obtained because RAID groups and volumes are undefined. Please confirm the RAID groups and the volumes definitions.
DMEG661017	—	No measurement items were selected. Please select a measurement item.
DMEG661018	—	Specified interval is invalid. Please try again.
DMEG661019	—	Invalid number of repetitions specified. Please try again.
DMEG661020	—	Performance data cannot be obtained because RAID groups, DP pools and volumes are not defined. Please confirm their definitions.
DMEG661021	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. There are no obtainable items. Please confirm status of performance measurement items or definition status of target. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. No obtainable items are available. Please confirm status of performance measurement items or the definition status of the target.

Message code	Error code	Message text/Recovery methods
DMEG663000	—	All performance measurement items are disabled. Enable at least one measurement item.
DMEG663001	—	Graph data cannot be obtained because RAID groups, DP pools and volumes are not defined. Please confirm their definitions.
DMEG663002	—	Graph data cannot be obtained because RAID groups and volumes are undefined. Please confirm the RAID groups and the volumes definitions.
DMEG663003	—	Graph data cannot be obtained because library port is not set. Please confirm the library port setting.
DMEG663005	—	No detailed graph items were selected. Please select a detailed graph item.
DMEG663006	—	More than 8 detailed graph items cannot be selected. Please select the graph items again.
DMEG663007	—	Graph data of Total queue usage cannot be retrieved for Cache other than Total. Please select Total only.
DMEG663008	—	Specified interval time is invalid. Please specify correct value.
DMEG663009	—	Specified output time is invalid. Please specify correct value.
DMEG663010	—	No measurement items were selected. Please select a measurement item.
DMEG663011	—	CSV Output can not be obtained because currently the graph is running. Please stop the graph and try again.
DMEG663012	—	The file access error occurred.
DMEG663013	—	Currently processing the stop request of graph data retrieval. Please confirm that graph data retrieval has stopped and try again.
DMEG663014	—	Hitachi Storage Navigator Modular 2 is less than Ver.23.70. Specified output time is invalid. Please specify correct value. When you cannot get the CSV file, even if it inputs the time again, please re-collect the graph data. Hitachi Storage Navigator Modular 2 is Ver.23.70 or more. Specified output time is invalid. Please specify correct value. When you cannot get the CSV file, even if it inputs the time again, you need to re-collect the graph data.
DMEG664000	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. The file access error occurred. Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. The file access error occurred. Try again.
DMEG664001	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. The file access error occurred. Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. The file access error occurred. Try again.
DMEG664002	—	Relocation Speed is not selected. Please select the Relocation Speed you want to set.
DMEG664003	—	Specified period is invalid. Please set the stop time to later than start time.
DMEG664004	—	Can not set the Relocation Periods. Please set one or more Relocation Periods to ON.
DMEG664005	—	Specified period is invalid. Please set the stop time to later than start time.
DMEG664006	—	Can not set the Monitoring Periods. Please set one or more Monitoring Periods to ON.
DMEG664007	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. The file access error occurred. Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. The file access error occurred. Try again.
DMEG664008	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. The file access error occurred. Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. The file access error occurred. Try again.
DMEG665001	—	Hitachi Storage Navigator Modular 2 is less than Ver.24.00. Specified Auto DP Optimize Threshold is invalid. Please specify correct value. Hitachi Storage Navigator Modular 2 is Ver.24.00 or more. Specified Auto DP Optimize Threshold value is invalid. Please specify correct value.

Message code	Error code	Message text/Recovery methods
DMEG66E000	—	The performance measurement cannot be retrieved because the library port is undefined. Please confirm library port definition.
DMEG671000	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00.
		The file access error occurred.
		Hitachi Storage Navigator Modular 2 is Ver.25.00 or more.
		The file access error occurred. Try again.
DMEG671001	—	No DP trends are available.
DMEG671002	—	Specified prefix is invalid. Please specify correct value.
DMEG682000	—	You cannot modify the retention attribute of the current volume. Make sure the attribute setting is valid.
DMEG682001	—	Specified Retention Term is invalid. Please specify correct value.
DMEG683000	—	The function cannot be executed because Cache Residency is disabled. Please install and enable Cache Residency and try again.
DMEG683001	—	The process cannot be performed in the single-controller system.
DMEG683002	—	A volume is not selected by controller 0. Please select only one volume and try again.
DMEG683003	—	Two or more volumes are selected by controller 0. Select only one volume and try again.
DMEG683004	—	A volume is not selected by controller 1. Please select only one volume and try again.
DMEG683005	—	Two or more volumes are selected by controller 1. Select only one volume and try again.
DMEG683006	—	The same volume is selected by controller 0 and controller 1. Select different volumes for each controller.
DMEG684000	—	Specified password is invalid. Please retype.
DMEG684001	—	Specified passwords do not match. Please retype.
DMEG684002	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00.
		The file access error occurred.
		Hitachi Storage Navigator Modular 2 is Ver.25.00 or more.
		The file access error occurred. Try again.
DMEG684003	—	Please specify the file.
DMEG684004	—	Specified file is invalid. Confirm the file format.
DMEG684005	—	Specified password is invalid. Please retype.
DMEG685000	—	Specified password is invalid. Please retype.
DMEG685001	—	Specified passwords do not match. Please retype.
DMEG685002	—	Please specify the file.
DMEG685003	—	Specified file is invalid. Confirm the file format.
DMEG685004	—	Specified number of key to create is invalid. Please specify correct value.
DMEG685005	—	A new encryption key cannot be created because the number of encryption keys surpassed the maximum amount allowed.
DMEG685006	—	The file access error occurred. Try again.
DMEG685007	—	The drive of including "xx" for a Tray and HDU is selected. To assign key, select only the drive of not including "xx" for a Tray and HDU.
DMEG685100	—	The encryption keys back up to/restore from is not selected. Select the encryption keys back up to/restore from you want to set.
DMEG685101	—	The encryption keys generated on is not selected. Select the encryption keys generated on you want to set.
DMEG685102	—	The function cannot be performed because [Limited Encryption Keys Generated on to the Key Management Server] is enabled. Please refresh and confirm the Encryption Environment settings.
DMEG685200	—	Specified IP address/host name is invalid. Please specify correct value.
DMEG685201	—	Specified port number is invalid. Please specify correct value.
DMEG685202	—	Specified timeout is invalid. Please specify correct value.
DMEG685203	—	Specified retry interval is invalid. Please specify correct value.
DMEG685204	—	Specified number of retries is invalid. Please specify correct value.
DMEG685205	—	The client certificate file is not specified. Please specify the client certificate file.
DMEG685206	—	Specified client certificate file is invalid. Confirm the file format.
DMEG685207	—	Specified password of client certificate file is invalid. Please specify correct value.

Message code	Error code	Message text/Recovery methods
DMEG685208	—	Specified passwords of client certificate file do not match. Please retype.
DMEG685209	—	The root certificate file is not specified. Please specify the root certificate File.
DMEG68520A	—	Specified root certificate file is invalid. Confirm the file format.
DMEG68520B	—	Specified IP Address/Host Name of primary server and secondary server do match. Please retype.
DMEG686100	—	Specified description is invalid. Please retype.
DMEG686101	—	Hitachi Storage Navigator Modular 2 is less than Ver.27.00. The number of backup keys on key management server exceeded the maximum value. Please delete the unnecessary backup keys. Hitachi Storage Navigator Modular 2 is Ver.27.00 or more. The number of backup keys on key management server reached the maximum. Please delete the unnecessary backup keys on key management server and try again.
DMEG686200	—	Cannot restore the keys because there are no backup keys on key management server.
DMEG686201	—	The restore keys request has been issued. Failed to refresh. Please display the Arrays screen and confirm the array status.
DMEG686202	—	Hitachi Storage Navigator Modular 2 is less than Ver.27.00. Backup keys on server to restore are not selected. Please select the backup keys on server to restore you want to set. Hitachi Storage Navigator Modular 2 is Ver.27.00 or more. Backup keys on key management server to restore are not selected. Please select the backup keys on key management server to restore you want to set.
DMEG686300	—	Cannot delete the keys because there are no backup keys on key management server.
DMEG686301	—	Backup keys on key management server to delete are not selected. Please select the backup keys on key management server to delete you want to set.
DMEG687001	—	Specified Delay Planned Shutdown is unusable, please specify correct value.
DMEG687002	—	Specified Vendor ID is unusable, please specify correct value.
DMEG687003	—	Specified Product ID is unusable, please specify correct value.
DMEG687004	—	Specified ROM Microprogram Version is unusable, please specify correct value.
DMEG687005	—	Specified RAM Microprogram Version is unusable, please specify correct value.
DMEG690000	—	Specified web title name is invalid. Please specify correct value.
DMEG691000	—	Specified interval time is invalid. Please specify correct value.
DMEG691001	—	Specified processing unit size is invalid. Please specify correct value.
DMEG694000	—	There are no volumes that require execution of parity correction. To execute the parity correction, select the volume and try again.
DMEG694001	—	Parity correction cannot be executed. Please add all volumes to the Registered Volumes list.
DMEG694002	—	There are no volumes that require execution of parity correction. To execute the parity correction, select the volume and try again.
DMEG695000	—	The new cache partition cannot be added because the number of cache partitions reached the maximum.
DMEG695001	—	Specified partition size is unusable. Please specify correct size.
DMEG695002	—	The deletion cannot be executed because cache partitions 00, 01, and the partition that it is already reserved deletion, are selected. Partitions 00 and 01 are Master partitions which cannot be deleted. The partition that it is already reserved deletion cannot be received. Please confirm the selected cache partitions.
DMEG695003	—	Selected cache partition cannot be edited because it is reserved for deletion. Please confirm the reservation of the cache partition.
DMEG700000	—	The specified file is invalid. Confirm the file format.
DMEG700001	—	Uploaded firmware file cannot be extracted. Confirm the file and try again.
DMEG700002	—	Specified interval time is invalid. Please specify correct value.
DMEG700003	—	The firmware update cannot be performed in the single-controller system. To complete the update, shut down and then restart array.
DMEG701000	—	The specified file is invalid. Confirm the file format.
DMEG701001	—	Uploaded ENC firmware file cannot be extracted. Confirm the file and try again.

Message code	Error code	Message text/Recovery methods
DMEG701002	—	Specified interval time is invalid. Please specify correct value.
DMEG701003	—	Cannot transfer the ENC firmware, because the imported ENC firmware does not support this array.
DMEG701004	—	The ENC firmware update cannot be performed in the single-controller system.
DMEG701005	—	The ENC firmware transfer cannot be performed because the automatic update is enabled. Disable the automatic update and try again.
DMEG701006	—	The ENC firmware transfer cannot be performed in the single-controller system.
DMEG706000	—	Specified Threshold value is invalid. Please specify correct value.
DMEG707000	—	Specified Correction Copy Magnification is invalid. Please specify correct value.
DMEG708000	—	Specified Reassign Threshold is invalid. Please specify correct value.
DMEG709000	—	Specified volume does not exist. Please refresh information.
DMEG710001	—	An error occurred when selecting the tab.
DMEG710002	—	Alert information was deleted because the array status has changed. Close the dialog and click Refresh Information. Confirm the alert information again.
DMEG720000	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. Specified Alert Level Threshold is invalid. Please specify correct value. Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. Specified Alert Level Threshold(SSD) is invalid. Please specify correct value.
DMEG720001	—	Specified Alert Level Threshold(FMD) is invalid. Please specify correct value.
DMEG730000	—	Specified Alert Level Threshold is invalid. Please specify correct value.
DMEG800000	—	Are you sure you want to refresh?
DMEG800001	—	Refreshed successfully.
DMEG800002	—	Currently refreshing of information.
DMEG800003	—	The error occurred in connecting RMI server. XXX Please reboot the server.
DMEG800004	—	The error occurred in registering temporary user of RMI launch. XXX Please reboot the server.
DMEG800005	—	Your login is invalid. Close all browsers and then login again.
DMEG800006	—	Please specify the file
DMEG800007	—	The process is taking additional time. Please refresh and confirm the array status.
DMEG800008	—	The information may have been deleted. Please refresh and confirm the array status.
DMEG800009	—	The array configuration may have been updated. Please refresh.
DMEG80000A	—	Your session is invalid. Logout, and then login again.
DMEG80000B	—	The user ID or the password at the time of login is specified with invalid character or the number of characters that cannot be used for the user ID or the password of Password Protection. Specify the available value of the user ID or the password at the time of login from the user ID or the password of Password Protection.
DMEG80000C	—	Cannot display the information because information was not able to be acquired. Close all browsers and then log in again.
DMEG80000D	—	Cannot display the information because information was not able to be acquired. Please try again after logout.
DMEG800010	—	Please close the subsystem dialog window and try again.
DMEG800011	—	Cannot launch the Java applet because the port of the RMI server is not set as a normal (SSL) port. Please set as a normal (SSL) port and try again.
DMEG800012	—	Cannot launch Java applet because the port of the RMI server is not set as a secure (SSL) port. Please set as a secure (SSL) port and try again.
DMEG8F0001	—	Enter your user ID.
DMEG8F0002	—	Enter your password.
DMEG8F0003	—	The user ID or password is not correct.

Message code	Error code	Message text/Recovery methods
DMEG900000	—	The maximum number of differential management volumes has already been set.
DMEG900001	—	The configuration of array may have been updated. Please refresh.
DMEG900002	—	Pairs with different copy types are selected. To manipulate multiple pairs, select pairs of the same copy type.
DMEG900003	—	Pair name contains disallowed characters.
DMEG900004	—	A primary volume is not selected.
DMEG900005	—	Sizes of both primary and secondary volumes do not match.
DMEG900006	—	Group name is empty or contains disallowed characters.
DMEG900008	—	The same volume is selected as primary and secondary volume. Select different volumes.
DMEG900009	—	Split Description contains disallowed characters.
DMEG900010	—	The necessary licenses are not installed or enabled. Please install and enable necessary licenses and retry this operation.
DMEG900011	—	A secondary volume is not selected.
DMEG900012	—	A pool is not selected.
DMEG900013	—	The specified Group Number is not exit.
DMEG900014	—	You cannot set more than 2 volumes as differential management volume.
DMEG900015	—	Group Number is not specified.
DMEG900016	—	Concerned DMLU cannot add capacity. Please confirm the drive type, capacity, and the state of DMLU and try again.
DMEG900017	—	There are no RAID Groups to add DMLU Capacity.
DMEG900018	—	There are no volumes that can be added to DMLU.
DMEG900019	—	Specified VOL is invalid. Specify correct value.
DMEG900020	—	Specified volume is not able to be assigned. Specify the undefined volume or the volume unused by the pair.
DMEG900021	—	Specified volume number is not able to assign. Please specify the undefined volumes or the volumes unused to the pair or assigned to the same primary volume.
DMEG900022	—	The pair cannot be created because the DP pool does not exist.
DMEG900023	—	The pair name is a blank. Please try again.
DMEG900024	—	This MU Number is incorrect.
DMEG910001	—	A new Data Pool cannot be created because the number of Data Pools has reached the maximum.
DMEG910002	—	This Data Pool Number is incorrect.
DMEG910003	—	This threshold value is incorrect.
DMEG910005	—	Failed to create Data Pool.
DMEG910006	—	There are no volumes to add Data Pool.
DMEG910007	—	There are no volumes to be added to the data pool.
DMEG910009	—	Failed to delete Data Pool.
DMEG910010	—	A failure has occurred when editing Data Pool
DMEG910011	—	Unable to edit the specified Pool Number.
DMEG910013	—	The number of added volume is reached the maximum.
DMEG912001	—	The necessary licenses are not installed. Please install the necessary license and retry this operation.
DMEG912002	—	A primary volume is not specified.
DMEG912003	—	Please input the secondary volume.
DMEG912004	—	The secondary volume is not correct.
DMEG912007	—	Pair name is empty or Pair Name has disallowed characters.
DMEG912008	—	A pool isn't chosen.
DMEG912009	—	DMLU is not set. Set the DMLU and reexecute the wizard.
DMEG912010	—	A data pool is not set. Set the data pool and reexecute the wizard.
DMEG912011	—	There are no available volumes that can be assigned as a Primary volume. Create a volume and reexecute the wizard.
DMEG912012	—	The maximum volume is made already. The associate volume cannot be made. Reexecute the wizard after deleting an existing volume.

Message code	Error code	Message text/Recovery methods
DMEG912016	—	The VOL has already been registered.
DMEG912017	—	Please input a Pair Name within {0} character.
DMEG912106	—	Specified VOL is invalid. Please specify correct value.
DMEG912107	—	Drive Type and Stripe Size of sub volumes must be same as those of unified volume.
DMEG912108	—	Sub volume is not selected.
DMEG912110	—	The VOLs of unified volume and sub volume are the same. Select volumes which have different VOL Numbers.
DMEG912113	—	Cache Partitions of the unified volume and the sub volume must be either 00 or 01 and with an identical cache partition.
DMEG912114	—	Sub volume does not exist.
DMEG912903	—	Cannot create volume because there are no DP pool or RAID groups that have free space. Please create new DP pool or RAID group and try again.
DMEG912904	—	The capacity field is empty. Please enter the capacity.
DMEG912905	—	An illegal character was used for the capacity.
DMEG912906	—	Specified number of volumes is invalid. Please specify correct value.
DMEG912907	—	There are not enough volume from the specified VOL. Please confirm the specified VOL or Number of Volumes.
DMEG912908	—	Specified free space is invalid. Select Set Automatically if you specify two or more volumes in Number of Volumes.
DMEG912909	—	Volumes cannot be created because the number of volumes in the RAID Group exceeds the maximum allowed by the current threshold. Please confirm the RAID Group/DP Pool Number value or the Number of Volumes value.
DMEG912910	—	There are not enough volume numbers to accommodate the number of volumes that you want to create.
DMEG914003	—	Failed to delete volumes for SnapShot.
DMEG914004	—	Specified VOL is invalid. Please re-enter.
DMEG914005	—	Specified capacity is invalid. Please specify a correct value.
DMEG914006	—	The new volume cannot be added because the number of volumes reached the maximum.
DMEG914008	—	This VOL has already been registered.
DMEG916001	—	The pair name is a blank. Please re-enter.
DMEG916002	—	An illegal character was used for the pair name.
DMEG916003	—	It doesn't belong to CTG.
DMEG916004	—	The speed of the copy exceeds the range.
DMEG916005	—	The copy type is illegal.
DMEG916006	—	Pair information is illegal.
DMEG916007	—	The license is not open lock. Please execute a necessary license again after of an open lock.
DMEG916008	—	Two VOLs or more have been selected.
DMEG916009	—	The pair does not exist. Please confirm that a pair exists.
DMEG916010	—	A primary volume is not specified. Please specify a primary volume.
DMEG916011	—	The VOL of PVOL is illegal.
DMEG916012	—	CTG information is illegal.
DMEG916013	—	The group number is a blank. Please enter a group number.
DMEG916014	—	The group number range has been exceeded. Please enter a correct range.
DMEG916015	—	An illegal character was used for the group number.
DMEG916016	—	The group name is a blank. Please enter an existing group name.
DMEG916017	—	An illegal character has been used for the group name.
DMEG916018	—	The secondary volume is a blank. Please enter the secondary volume.
DMEG916019	—	The Pool Number of Local Array has not been selected. Please select the Pool Number of Local Array.

Message code	Error code	Message text/Recovery methods
DMEG916020	—	The pool number is illegal.
DMEG916021	—	The copy speed is illegal.
DMEG916024	—	The pool number of the Remote Array is a blank. Please enter the pool number of Remote Array.
DMEG916025	—	Either the PVOL or the SVOL is illegal.
DMEG916026	—	The fence level is illegal.
DMEG916027	—	An illegal character was used for the secondary volume.
DMEG916028	—	An illegal character was used for the pool number of Remote Array.
DMEG916029	—	Please input a Pair Name within {0} character.
DMEG916030	—	Please input a Group Name within {0} character.
DMEG916031	—	Because a remote path is not set the pair cannot be generated.
DMEG916032	—	The pair could not be created because there are no available volumes for the Primary volume.
DMEG916033	—	Because the data pool does not exist the pair cannot be generated.
DMEG916034	—	Remote Pair does not exist.
DMEG916035	—	Pairs with different copy types are selected. To manipulate multiple pairs, select pairs of the same copy type.
DMEG916036	—	The data pool was not able to be acquired.
DMEG916037	—	It is necessary to input secondary volume by {0} characters.
DMEG916038	—	It is necessary to input Pool Number of Remote Array by {0} characters.
DMEG916039	—	Pairs with different attributes are selected. To manipulate multiple pairs, select pairs of the same attribute.
DMEG916040	—	An illegal character was used for the Replication Data of Remote Array.
DMEG916041	—	The Replication Data of the Remote Array is a blank. Please enter a Replication Data DP Pool number of Remote Array.
DMEG916042	—	Please input the Replication Data of Remote Array within {0} character.
DMEG916043	—	An illegal character was used for the Management Area of Remote Array.
DMEG916044	—	The Management Area of the Remote Array is a blank. Please enter a Management Area DP Pool number of Remote Array.
DMEG916045	—	Please input a Management Area of Remote Array within {0} character.
DMEG918002	—	This Remote Array ID is incorrect.
DMEG918003	—	This Bandwidth is incorrect.
DMEG918004	—	This Remote Path Name is incorrect.
DMEG918005	—	Failed to add Remote Path.
DMEG918006	—	A failure has occurred while editing Remote Path.
DMEG918007	—	Failed to delete Remote Path.
DMEG918008	—	Available local port does not exist.
DMEG918009	—	The IP Address is incorrect.(Remote Path 0)
DMEG918010	—	The TCP Port is incorrect.(Remote Path 0)
DMEG918011	—	The CHAP Secret is incorrect.(Remote Path 0)
DMEG918012	—	Failed to match the CHAP Secret.(Remote Path 0)
DMEG918013	—	A Remote Path already exists.
DMEG918014	—	The IP Address is incorrect.(Remote Path 1)
DMEG918015	—	The TCP Port is incorrect.(Remote Path 1)
DMEG918016	—	The CHAP Secret is incorrect.(Remote Path 1)
DMEG918017	—	Failed to match the CHAP Secret.(Remote Path 1)
DMEG918018	—	Remote Path does not exist.
DMEG918102	—	The cycle time is incorrect.
DMEG918106	—	A failure has occurred while editing Options.
DMEG918201	—	Local Array ID is blank. Please input Local Array ID.
DMEG918202	—	Input Local Array ID has already been made.
DMEG918210	—	You must enter the Local Array ID using 8 characters.
DMEG918212	—	The secret is not correct. Please input a correct value.(Remote Path 0)

Message code	Error code	Message text/Recovery methods
DMEG918213	—	Specified Secret does not match.(Remote Path 0)
DMEG918214	—	The secret is not correct. Please input a correct value.(Remote Path 1)
DMEG918215	—	Specified Secret does not match.(Remote Path 1)
DMEG918216	—	An illegal character was input to the Local Array ID.
DMEG918217	—	The CHAP of a remote port has already been set.
DMEG918218	—	The bandwidth is blank. Please input the bandwidth.
DMEG918219	—	An illegal character was used for the bandwidth.
DMEG918220	—	The cycle time was not specified. Please input the cycle time.
DMEG918221	—	An illegal character was used for the cycle time.
DMEG920000	—	The function cannot be executed because Modular Volume Migration is disabled. Please install and enable Modular Volume Migration and try again.
DMEGFF0000	—	The parameter is invalid.
DMEGFF0001	—	The function is not supported.
DMEGFF0002	—	You have no permission. Please contact the Account Administrator and confirm your permission.

Message code	Error code	Message text/Recovery methods
DMEH105001	—	<p>Hitachi Storage Navigator Modular 2 is less than Ver.27.00.</p> <p>The number of backup keys on key management server exceeded the maximum value. Please delete the unnecessary backup keys.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.27.00 or more.</p> <p>The number of backup keys on key management server reached the maximum. Please delete the unnecessary backup keys on key management server and try again.</p>
DMEH105002	—	The client certificate file or the password of client certificate file is invalid. Please verify if the client certificate file and its password are correct or not.
DMEH105003	—	The root certificate file is invalid. Please verify if the root certificate file is correct or not.
DMEH105004	—	<p>A message is returned from the key management server. The following message is returned from the key management server.</p> <p>Result Status : {0}</p> <p>Result Reason : {1}</p> <p>Result Message : {2}</p> <p>For the details of this message, contact the administrator of key management server, or see the key management server manuals.</p>
DMEH105005	—	<p>Hitachi Storage Navigator Modular 2 is less than Ver.27.70.</p> <p>Failed to communicate with the key management server. Please verify the following.</p> <ul style="list-style-type: none"> - If the key management server is started. - If the IP address/host name and the port number of the key management server is correct. - If the client certificate file and the password of the client certificate file are correct. - If the root certificate file is correct. <p>Hitachi Storage Navigator Modular 2 is Ver.27.70 or more.</p> <p>Failed to communicate with the key management server. Please verify the following.</p> <ul style="list-style-type: none"> - If the key management server is started. - If the IP address/host name and the port number of the key management server is correct. - If the client certificate file and the password of the client certificate file are correct. - If the root certificate file is correct. <p>When the checked contents are correct, specify the timeout is more than current value and try again.</p>
DMEH105006	—	<p>Hitachi Storage Navigator Modular 2 is less than Ver.27.70.</p> <p>Failed to communicate with the key management server. Please verify the following.</p> <ul style="list-style-type: none"> - If the key management server is started. - If the IP address/host name and the port number of the key management server is correct. - If the client certificate file and the password of the client certificate file are correct. - If the root certificate file is correct. <p>Hitachi Storage Navigator Modular 2 is Ver.27.70 or more.</p> <p>Failed to communicate with the key management server. Please verify the following.</p> <ul style="list-style-type: none"> - If the key management server is started. - If the IP address/host name and the port number of the key management server is correct. - If the client certificate file and the password of the client certificate file are correct. - If the root certificate file is correct. <p>When the checked contents are correct, specify the timeout is more than current value and try again.</p>
DMEH105007	—	<p>Hitachi Storage Navigator Modular 2 is less than Ver.27.00.</p> <p>The specified backup key is damaged. The specified backup key cannot be used. Please specify another backup key.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.27.00 or more.</p> <p>The specified backup key on key management server is damaged. The specified backup key on key management server cannot be used. Please specify another backup key on key management server.</p>

Message code	Error code	Message text/Recovery methods
DMEH105008	—	<p>Hitachi Storage Navigator Modular 2 is less than Ver.27.00.</p> <p>The key wrapping key information of the specified backup key is damaged. The specified backup key cannot be used. Please specify another backup key.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.27.00 or more.</p> <p>The key wrapping key information of the specified backup key on key management server is damaged. The specified backup key on key management server cannot be used. Please specify another backup key on key management server.</p>
DMEH105009	—	The specified backup key on key management server was not found in the key management server. Verify the backup key on key management server and then try again.
DMEH105010	—	<p>Failed to delete the specified backup key on key management server from the key management server. The following message is returned from the key management server.</p> <p>Result Status : {0}</p> <p>Result Reason : {1}</p> <p>Result Message : {2}</p> <p>For the details of the message contact the administrator of key management server or see the key management server manuals.</p>
DMEH105011	—	<p>Failed to delete the key wrapping key of the specified backup key on key management server from the key management server. The following message is returned from the key management server.</p> <p>Result Status : {0}</p> <p>Result Reason : {1}</p> <p>Result Message : {2}</p> <p>For the details of the message contact the administrator of key management server or see the key management server manuals.</p>
DMEH105012	—	<p>Failed to delete the specified backup key on key management server from the key management server. The following message is returned from the key management server.</p> <p>Result Status : {0}</p> <p>Result Reason : {1}</p> <p>Result Message : {2}</p> <p>For the details of the message contact the administrator of key management server or see the key management server manuals.</p>
DMEH105013	—	<p>Hitachi Storage Navigator Modular 2 is less than Ver.27.00.</p> <p>Failed to delete the key wrapping key of the specified backup key from the key management server. The following message is returned from the key management server.</p> <p>Result Status : {0}</p> <p>Result Reason : {1}</p> <p>Result Message : {2}</p> <p>For the details of this message.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.27.00 or more.</p> <p>Failed to delete the key wrapping key of the specified backup key on key management server from the key management server. The following message is returned from the key management server.</p> <p>Result Status : {0}</p> <p>Result Reason : {1}</p> <p>Result Message : {2}</p> <p>For the details of this message.</p>
DMEH105014	—	Deleting the specified backup key on key management server has been executed but the processing result could not be obtained. Verify the list of backup keys on key management server that are backed up in the key management server.
DMEH105015	—	Deleting the key wrapping key of the specified backup key on key management server has been executed but the processing result could not be obtained. Verify the list of backup keys on key management server that are backed up in the key management server.
DMEH105016	—	The setup key management server is not configured. Please configure the setup key management server.
DMEH105017	—	The setup key management server is not configured. Please configure the setup key management server.

Message code	Error code	Message text/Recovery methods
DMEH105018	—	The setup key management server is not configured. Please configure the setup key management server.
DMEH105019	—	The setup key management server is not configured. Please configure the setup key management server.
DMEH105020	—	The key management server is disabled. Please enable the key management server.
DMEH107001	—	The processing cannot continue due to an internal logic contradiction. Please close the dialog window and try again.
DMEH107002	—	The processing cannot continue due to an internal logic contradiction. Please close the dialog window and try again.
DMEH107003	—	The processing cannot continue due to an internal logic contradiction. Please close the dialog window and try again.
DMEH107004	—	The processing cannot continue due to an internal logic contradiction. Please close the dialog window and try again.
DMEH900001	—	The processing cannot continue due to an error. Please close the dialog window and try again.

Message code	Error code	Message text/Recovery methods
DMEI000016	—	Unauthorized user. The user with administrators authority is allowed to execute the operation.
DMEI000021	—	Unable to detect the directory where Hitachi Storage Command Suite Common Component are installed.
DMEI000022	—	Unable to detect the "hcmdssrv" command.
DMEI000101	—	Unable to continue installation, as some of Hitachi Storage Command Suite Common Component Services are not stopped. Please refer to manuals of applications using Hitachi Storage Command Suite Common Component to stop all of the service of common components.
DMEI000102	—	Unable to get the status of Hitachi Storage Command Suite Common Component Service. Some applications using Hitachi Storage Command Suite Common Component are using those services. Please stop those services according to the manual of those applications.
DMEI000199	—	An undefined error occurred.
DMEI000202	—	Unable to continue installation since there are Hitachi Storage Command Suite Common Component configured as active clustering. Please refer to manuals of applications using Hitachi Storage Command Suite Common Component to configure all of common components as non clustering. If no other applications are used, please release clustering configuration by "hcmdsdclustersetup /removecluster" command.
DMEI000203	—	Unable to continue installation since there are Hitachi Storage Command Suite Common Component configured as passive clustering. Please refer to manuals of applications using Hitachi Storage Command Suite Common Component to configure all of common components as non clustering. If no other applications are used, please release clustering configuration by "hcmdsdclustersetup /removecluster" command.
DMEI000298	—	Failed to get the status of the Database. Stop all applications and services (such as security, process monitoring) and retry to install.
DMEI000299	—	An undefined error occurred.
DMEI000397	—	An attempt to stop the SNM2Server services has failed. Please wait a few minutes, and then try again.
DMEI000398	—	An attempt to stop the services of Hitachi Storage Command Suite Common Component has failed. Please wait a few minutes, and then try again.
DMEI000399	—	An undefined error occurred.
DMEI000401	—	An attempt to stop the services of Hitachi Storage Command Suite Common Component has been time out. Please wait a few minutes, and then try again.
DMEI000402	—	An internal error occurred. Reboot the computer, then restart the installer.
DMEI000498	—	Unable to get the status of Hitachi Storage Command Suite Common Component service.
DMEI000499	—	An undefined error occurred.
DMEI000501	—	HiRDBEmbeddedEdition_HD0 service has not started. Checking HiRDBEmbeddedEdition_HD0 service has started, then restart the installer.
DMEI000502	—	HiRDBClusterService_HD0 service has not stopped. Checking HiRDBClusterService_HD0 service has stopped, then restart the installer.
DMEI001098	—	Unable to start Hitachi Storage Command Suite Common Component.
DMEI010101	—	Failed to start internal process of the installer. The reason were possibly the lack of memory or system resources. Stop other applications and services, then retry installation.
DMEI010102	—	"X:\hcmdsrtn.inst" can not be deleted. Make sure the file is not used by other applications and that is not read-only.
DMEI010103	—	"X:\hcmdsrtn.inst" could not be read. Make sure the file is not used by other applications.
DMEI010104	—	An internal error occurred. Force uninstall and re-install.
DMEI010105	—	The files in the "suite" directory cannot be read. Please install again after confirming that the files which are listed in the "suite_file_config" file in the provided DVD have existed.
DMEI010111	—	As there was not enough disk space, files could not be written in the directory "<HBaseDirectory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then retry installation.
DMEI010112	—	An internal error occurred.
DMEI010121	—	Unable to delete entries of registry. Make sure not to be changed the permission to edit registry, and retry installation.
DMEI010122	—	Unable to read entries of registry. Make sure not to be changed the permission to edit registry, and retry installation.
DMEI010124	—	An internal error occurred.

Message code	Error code	Message text/Recovery methods
DMEI010198	—	An internal error occurred.
DMEI010199	—	An undefined error occurred.
DMEI010398	—	An internal error occurred.
DMEI010399	—	An undefined error occurred.
DMEI010401	—	An internal error occurred.
DMEI010498	—	An internal error occurred.
DMEI010499	—	An undefined error occurred.
DMEI010501	—	There was not enough disk space and files could not be written in the directory "<SNM2Directory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then restart the installer.
DMEI010502	—	There was not enough disk space and file could not be written in the directory "<HBaseDirectory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then restart the installer.
DMEI010503	—	There was not enough disk space and files could not be written in the directory "<HBaseDirectory>" or its subdirectories. Please delete unnecessary files or change the directory for installation, then restart the installer.
DMEI010598	—	An internal error occurred.
DMEI010599	—	An undefined error occurred.
DMEI010801	—	An internal error occurred.
DMEI010802	—	An internal error occurred.
DMEI010811	—	Unable to create the repository backup file "<SNM2Directory>\install\snmrepsetup-old.xml". Make sure the file is not used by other applications and that is not read-only.
DMEI010898	—	An internal error occurred.
DMEI010899	—	An undefined error occurred.
DMEI011201	—	An internal error occurred.
DMEI011298	—	An internal error occurred.
DMEI011299	—	An undefined error occurred.
DMEI011398	—	An internal error occurred.
DMEI011399	—	An undefined error occurred.
DMEI011498	—	An internal error occurred.
DMEI011499	—	An undefined error occurred.
DMEI011598	—	An internal error occurred.
DMEI011599	—	An undefined error occurred.
DMEI012101	—	Unable to copy files.
DMEI012198	—	Unable to write files in the directory "<HBaseDirectory>" or its subdirectories. Make sure the files and the directories are not used by other applications and they are not read-only.
DMEI012298	—	An error occurred when deleting installation temporary files. Make sure the files and the directory are not used by other applications and they are not read-only.
DMEI012398	—	Unable to write files in the directory "<HBaseDirectory>" or its subdirectories. Make sure the files and the directories are not used by other applications and they are not read-only.
DMEI013101	—	Unable to start the applet server.
DMEI013198	—	Failed to register SNM2Server as a service to the operating system.
DMEI014001	—	The path is invalid. Please specify path to directory on local disk.
DMEI014002	—	Invalid IP address.
DMEI014003	—	Invalid port number.
DMEI014004	—	Invalid port number.
DMEI014005	—	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. Out of disk space. 1.5GB free space is required for installation. Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. Out of disk space. 2.0GB free space is required for installation.

Message code	Error code	Message text/Recovery methods
DMEI014006	—	The path name contains invalid character's. Valid characters for the path name are only a-z, 0-9, "_", "(", ")" and " "(space).
DMEI014007	—	Cannot install in the root folder of a drive. Please specify the subfolder.
DMEI030801	—	An internal error occurred.
DMEI030802	—	An internal error occurred.
DMEI030898	—	An internal error occurred.
DMEI030899	—	An undefined error occurred.
DMEI034101	—	An error occurred when deleting some files in "<SNM2Directory>\server\jre1.6.0" or its subdirectories. Make sure the files and directories are not used by other applications and they are not read-only.
DMEI034102	—	An error occurred when deleting some files in "<SNM2Directory>\server\jre1.6.0_instbk" or its subdirectories. Make sure the files and directories are not used by other applications and they are not read-only.
DMEI040101	—	Unable to start process in the uninstaller. The reason were possibly the lack of memory or system resources. Stop all other applications and services, then retry uninstallation.
DMEI040102	—	"X:\hcmdsrtm.uit" could not be deleted. Make sure the file is not used by other applications and that is not read-only.
DMEI040103	—	"X:\hcmdsrtm.uit" could not be read. Make sure the file is not used by other applications and the read-permission of the file.
DMEI040104	—	An internal error occurred.
DMEI040106	—	An internal error occurred.
DMEI040107	—	An internal error occurred.
DMEI040121	—	Unable to delete entries of registry. Make sure not to be changed the permission to edit registry, and retry uninstallation.
DMEI040198	—	An internal error occurred.
DMEI040199	—	An undefined error occurred.
DMEI040398	—	An internal error occurred.
DMEI040399	—	An undefined error occurred.
DMEI040401	—	An internal error occurred.
DMEI040498	—	An internal error occurred.
DMEI040499	—	An undefined error occurred.
DMEI040801	—	An internal error occurred.
DMEI040802	—	An internal error occurred.
DMEI040811	—	Unable to delete the repository configuration file "<SNM2Directory>\install\snmrepsetup-old.xml". Make sure the file is not used by other applications and that is not read-only.
DMEI040898	—	An internal error occurred.
DMEI040899	—	An undefined error occurred.
DMEI040901	—	An internal error occurred.
DMEI040902	—	Failed to access the database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.
DMEI040998	—	An internal error occurred.
DMEI040999	—	An undefined error occurred.
DMEI041201	—	An internal error occurred.
DMEI041298	—	An internal error occurred.
DMEI041299	—	An undefined error occurred.
DMEI041398	—	An internal error occurred.
DMEI041399	—	An undefined error occurred.
DMEI041498	—	An internal error occurred.
DMEI041499	—	An undefined error occurred.
DMEI041598	—	An internal error occurred.
DMEI041599	—	An undefined error occurred.

Message code	Error code	Message text/Recovery methods
DMEI042198	—	An error occurred when deleting some files in "<HBaseDirectory>" or its subdirectories. Make sure the files and the directories are not used by other applications and they are not read-only.
DMEI043198	—	Failed to release SNM2Server as a service from the operating system.
DMEI044198	—	An internal error occurred.
DMEI044199	—	An undefined error occurred.
DMEI044201	—	An internal error occurred.
DMEI044211	—	Time out occurred at the starting of the database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.
DMEI044212	—	Time out occurred at the starting of the database. Stop all applications, services of security monitoring and process monitoring, then restart the installer.
DMEI044297	—	Failed to get status of Database. Stop all applications, services of security monitoring and process monitoring, then restart the installer.
DMEI044298	—	Failed to get status of Database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.
DMEI044299	—	An undefined error occurred.
DMEI044301	—	An internal error occurred.
DMEI044398	—	An internal error occurred.
DMEI044399	—	An undefined error occurred.
DMEI044401	—	An internal error occurred.
DMEI044411	—	Time out occurred at the internal process. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.
DMEI044412	—	Time out occurred at the internal process. Stop all applications, services of security monitoring and process monitoring, then restart the installer.
DMEI044497	—	Failed to get status of Database. Stop all applications, services of security monitoring and process monitoring, then restart the installer.
DMEI044498	—	Failed to get status of Database. Stop all applications, services of security monitoring and process monitoring, then retry uninstallation.
DMEI044499	—	An undefined error occurred.
DMEI050101	—	Unable to continue force uninstallation, as some of other Hitachi Storage Command Suite products are installed.
DMEI050102	—	An attempt to stop the services of Hitachi Storage Command Suite Common Component has failed.
DMEI050103	—	The error occurred in force uninstallation of the Hitachi Storage Command Suite Common Component.
DMEI050104	—	An error occurred when deleting some files in "<HBaseDirectory>" or its subdirectories. Make sure the files and the directories are not used by other applications and they are not read-only.
DMEI060001	—	Parameter file "param.xml" is invalid. Please modify parameter file, and then try again.

Message code	Error code	Message text/Recovery methods
DMER010001	0x05010001	The target VOL is undergoing the change of an ownership of VOL. Retry after waiting for a while.
DMER010002	0x05010002	The change of a controller that controls the VOL cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.
DMER010003	0x05010003	An instruction to change the controller that controls the VOL was issued. Retry after waiting for a while.
DMER010004	0x05010004	The owner controller of the VOLs to be paired is detached. Retry.
DMER010005	0x05010005	The owner controller of the VOLs to be paired is detached. Retry.
DMER010006	0x05010006	The owner controller of the VOLs to be paired is detached. Retry.
DMER010007	0x05010007	The owner controller of the VOLs to be paired is detached. Retry.
DMER010009	0x05010009	The owner controller of the VOLs to be paired is detached. Retry after waiting for a while.
DMER01000A	0x0501000A	The owner controller of the VOLs to be paired is detached. Retry after waiting for a while.
DMER01000B	0x0501000B	The owner controller of the VOLs to be paired is detached. Retry after waiting for a while.
DMER010019	0x05010019	The pair operation command is a time-out. Retry after waiting for a while.
DMER010065	0x05010065	Since the specified P-VOL requires a change of an ownership of VOL, it is undergoing the execution of the ownership of VOL change. Retry after waiting for a while.
DMER010066	0x05010066	Though the specified P-VOL requires a change of an ownership of VOL, the controller to be changed is blocked. Retry after waiting for a while.
DMER010067	0x05010067	Since the specified P-VOL requires a change of an ownership of VOL, the execution of the ownership of VOL change has been started. Retry after waiting for a while.
DMER011001	0x05011001	The target VOL is undergoing the change of an ownership of VOL. Retry after waiting for a while.
DMER011002	0x05011002	The change of a controller that controls the VOL cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.
DMER011003	0x05011003	An instruction to change the controller that controls the VOL was issued. Retry after waiting for a while.
DMER012001	0x05012001	The target VOL is undergoing the change of an ownership of VOL. Retry after waiting for a while.
DMER012002	0x05012002	The change of a controller that controls the VOL cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.
DMER012003	0x05012003	An instruction to change the controller that controls the VOL was issued. Retry after waiting for a while.
DMER020000	0x05020000	The pair status of the P-VOL is other than Simplex. Check the pair status of the VOL.
DMER020001	0x05020001	The status of the P-VOL is other than normal and regressive. Check the status of the VOL.
DMER020002	0x05020002	The P-VOL is a Cache Residency VOL. Check the status of the VOL.
DMER020003	0x05020003	The P-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.
DMER020004	0x05020004	The P-VOL is a command device. Check the status of the VOL.
DMER020005	0x05020005	The primary sequence number is different from the own Array ID. Check the Array ID.
DMER020006	0x05020006	Both of the two paths are abnormal. Check the status of the path.
DMER020007	0x05020007	The P-VOL has been defined as a SubVOL of a unified VOL. Check the status of the VOL.
DMER020009	0x05020009	There exist maximum number of pairs already. Delete the unnecessary pairs.
DMER02000D	0x0502000D	The P-VOL is in a status other than Split and Failure. Check the pair status of the VOL.
DMER02000E	0x0502000E	The status of the P-VOL is other than normal and regressive. Check the pair attribute of the VOL.
DMER02000F	0x0502000F	The number of the VOL to be paired is different. Check the specified VOL.
DMER020010	0x05020010	The primary sequence number is different from the own Array ID. Check the Array ID.
DMER020011	0x05020011	Hitachi Storage Navigator Modular 2 is less than Ver.21.60.
		Both of the two paths are abnormal. Check the status of the path.
		Hitachi Storage Navigator Modular 2 is Ver.21.60 or more.
		Both of the two paths are abnormal. Check the status of the path. Also, check the S-VOL status. When it is Takeover, the S-VOL is available for I/O.
DMER020012	0x05020012	The specified P-VOL is in a status other than Synchronizing and Paired. Check the pair status of the VOL.
DMER020014	0x05020014	The current Array ID differs from the number that was set initially. Check the Array ID.
DMER020016	0x05020016	The number of the VOL to be paired is different. Check the specified VOL.
DMER020017	0x05020017	The primary sequence number is different from the own Array ID. Check the Array ID.
DMER020018	0x05020018	The S-VOL pair cancellation instructions to a P-VOL or the pair cancellation instructions to an S-VOL was received. Check the pair status of the VOL.

Message code	Error code	Message text/Recovery methods
DMER020020	0x05020020	The Asynchronous mode is turned on. The Asynchronous mode is not supported.
DMER020021	0x05020021	The fence level is STATUS. Make sure of the specified fence level.
DMER020023	0x05020023	The P-VOL is a volume of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Check the pair status of the VOL.
DMER020024	0x05020024	The P-VOL is undergoing the restoration of ShadowImage pair. Check the pair status of the VOL.
DMER020025	0x05020025	The P-VOL received an instruction to swap pair. Check the pair attribute of the VOL.
DMER020026	0x05020026	The pair status is not Takeover. Check the pair status.
DMER020027	0x05020027	The S-VOL received an instruction to resynchronize pair. Check the pair attribute of the VOL.
DMER020028	0x05020028	The volume is a P-VOL of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Place the P-VOL concerned in the Simplex status and create the pair again.
DMER020029	0x05020029	The volume is a P-VOL of ShadowImage and undergoing a reverse copy. Check the pair status of the VOL.
DMER02002A	0x0502002A	The P-VOL received an instruction to be taken over. Check the pair status of the VOL.
DMER02002B	0x0502002B	It is in the Simplex or Synchronizing status. Check the pair status of the VOL.
DMER02002C	0x0502002C	The secondary sequence number is different from the Array ID. Check the Array ID.
DMER02002D	0x0502002D	The S-VOL received an instruction to be taken over. Check the pair status of the VOL.
DMER02002E	0x0502002E	The pair status of the P-VOL is Simplex or Synchronizing. Check the pair status of the VOL.
DMER02002F	0x0502002F	The primary sequence number is different from the Array ID. Check the Array ID.
DMER020030	0x05020030	The S-VOL received the suspension. Check the pair status of the VOL.
DMER020031	0x05020031	The capacity is beyond the limits of support. Split the unnecessary pairs.
DMER020032	0x05020032	The P-VOL is configured as RAID 0. Check the RAID level of the specified VOL.
DMER020033	0x05020033	The specified VOL is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the VOL.
DMER020035	0x05020035	The volume is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the VOL.
DMER020036	0x05020036	The volume is a P-VOL of SnapShot and being restored. Check the pair status of the VOL.
DMER020037	0x05020037	The volume is a P-VOL of SnapShot It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.
DMER020038	0x05020038	The volume is a P-VOL of SnapShot and the mate to it has already been paired by Remote Replication. Check the pair status of the VOL.
DMER020039	0x05020039	The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the VOL.
DMER02003A	0x0502003A	The volume is a V-VOL of SnapShot. The related P-VOL of SnapShot is being restored or has been placed in the Failure status during a restoration. Check the pair status of the VOL.
DMER02003B	0x0502003B	The specified VOL is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the VOL.
DMER02003C	0x0502003C	The specified VOL is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the VOL.
DMER02003D	0x0502003D	The volume is a P-VOL of SnapShot and being restored. Check the pair status of the VOL.
DMER02003E	0x0502003E	The volume is a P-VOL of SnapShot. It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL related to Simplex and create the pair again.
DMER02003F	0x0502003F	The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the VOL.
DMER020040	0x05020040	The volume is a P-VOL of SnapShot. It is being restored or in the Failure status and cannot accept Read/Write instructions. Check the pair status of the VOL.
DMER020042	0x05020042	The RAID level differs between the MainVOL and SubVOL. Check that the RAID level of the specified VOL is the same as that expected.
DMER020043	0x05020043	The number of data disks differs between the MainVOL and SubVOL. Check that the number of data disks of the specified VOL is the same as that expected.
DMER020045	0x05020045	The specified VOL is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified VOL, whose MainVOL and SubVOL are different in RAID level. Check that the RAID level of the SnapShot P-VOL corresponding to the specified VOL is the same as that expected.

Message code	Error code	Message text/Recovery methods
DMER020046	0x05020046	The specified VOL is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified VOL, whose MainVOL and SubVOL are different in number of data disks. Check that the number of data disks of the SnapShot P-VOL corresponding to the specified VOL is the same as that expected.
DMER020047	0x05020047	Data of the Remote Replication P-VOL is partially destroyed. Issue the SnapShot instruction (to change the status from Paired to Split) to the SnapShot pair again, and then create the pair again.
DMER020048	0x05020048	Data of the Remote Replication P-VOL is partially destroyed. Format the specified VOL after getting backup data of it. Then restore the backup data.
DMER02004B	0x0502004B	The specified P-VOL is in the Failure (S-VOL Switch) status of ShadowImage. Request service personnel to replace drives that compose the P-VOL. Format them after the replacement then resynchronize the pair.
DMER02004D	0x0502004D	The DM-LU is not set. Retry after setting the DM-LU.
DMER02004E	0x0502004E	The DM-LU cannot be specified as P-VOL. Check the status of the VOL.
DMER02004F	0x0502004F	Validity of the license expired. Purchase the license.
DMER020052	0x05020052	The remote SnapShot split request was accepted in the Remote Replication environment. The remote SnapShot split request is not supported in the Remote Replication environment.
DMER020053	0x05020053	The specified P-VOL is the reserved VOL. Check the status of the VOL.
DMER020054	0x05020054	The specified P-VOL is undergoing the migration. Check the pair status of the VOL.
DMER020055	0x05020055	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER020056	0x05020056	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER020057	0x05020057	The specified function is not supported in a remote array. Check the remote array.
DMER020058	0x05020058	When creating pairs with group is specified, the specified group ID is beyond the limits of supported. Check the specified group ID.
DMER020059	0x05020059	The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL on both local and remote arrays.
DMER02005A	0x0502005A	The command was received in unit of group at the time of resynchronization. Check the specified value.
DMER02005B	0x0502005B	When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the VOL.
DMER02005C	0x0502005C	When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.
DMER02005D	0x0502005D	When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of VOL in the group.
DMER02005E	0x0502005E	When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the VOL.
DMER02005F	0x0502005F	When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.
DMER020060	0x05020060	When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of VOL in the group.
DMER020061	0x05020061	When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the VOL.
DMER020062	0x05020062	When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.
DMER020063	0x05020063	When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the same group. Check the pair status of VOL in the group.
DMER020064	0x05020064	The pair cancellation instructions was executed for the range that was not supported. Check the specified value.
DMER020065	0x05020065	When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the VOL.
DMER020066	0x05020066	When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.
DMER020067	0x05020067	When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the VOL.
DMER020068	0x05020068	When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.
DMER020069	0x05020069	The remote path connected to the specified remote array does not exist. Retry after creating the remote path from the local array to the remote array of the specified remote Array ID.

Message code	Error code	Message text/Recovery methods
DMER02006A	0x0502006A	The command cannot execute because the Auto Migration is undergoing. Check the Migration status.
DMER02006B	0x0502006B	The command cannot execute because the Auto Migration is undergoing. Check the Migration status.
DMER02006C	0x0502006C	The command cannot execute because the Auto Migration is undergoing. Check the Migration status.
DMER02006D	0x0502006D	There are other pairs in the group, whose fence level is not the same as the one specified. Confirm the fence level of the pair you are creating.
DMER02006E	0x0502006E	There are other pairs in the group, whose P-VOL and S-VOL are swapped. Confirm the array on which you are executing the command.
DMER02006F	0x0502006F	The specified VOL is the P-VOL or S-VOL of a ShadowImage pair that the status is Split Pending or Paired Internally Synchronizing. Check the status of the ShadowImage pair.
DMER020070	0x05020070	Migration status indicates a status other than Not Started. Check the Migration status.
DMER020071	0x05020071	Migration mode indicates Migration. Check the migration mode.
DMER020072	0x05020072	The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER020073	0x05020073	A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal.
DMER020074	0x05020074	The specified CTG number has been used into other remote replication pair with the remote array. Retry after specifying the number other than specified CTG number.
DMER020075	0x05020075	The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.
DMER020076	0x05020076	The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.
DMER020077	0x05020077	The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.
DMER020078	0x05020078	The VOL that was specified as P-VOL does not exist. Check the specified VOL.
DMER020079	0x05020079	The specified P-VOL is a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.
DMER02007A	0x0502007A	The specified P-VOL is a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.
DMER02007B	0x0502007B	The specified P-VOL is an S-VOL of ShadowImage pair those P-VOL is part of another ShadowImage pair that S-VOL is the VOL created in DP pool. Confirm all the S-VOL of ShadowImage pair that shares the P-VOL with the ShadowImage pair that specified P-VOL is part of.
DMER02007C	0x0502007C	Management information of Dynamic Provisioning is being updated. Retry after waiting for a while.
DMER02007D	0x0502007D	The operation can not be performed due to insufficient capacity of the DP Pool for the specified P-VOL. Check the capacity of the DP Pool.
DMER02007E	0x0502007E	The operation can not be performed due to insufficient capacity of the DP Pool for the specified S-VOL. Check the capacity of the DP Pool.
DMER02007F	0x0502007F	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER020080	0x05020080	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER020081	0x05020081	The pair status of the specified S-VOL is Simplex, Synchronizing, or Paired. Check the pair status of the VOL.
DMER020082	0x05020082	There are no pairs in the specified group whose status is Takeover. Check the pair status.
DMER020083	0x05020083	The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.
DMER020084	0x05020084	The internal transaction of the specified VOL is working now. Retry after waiting for a while.
DMER020085	0x05020085	The DM-LU status is invalid. Check the DM-LU status.
DMER020086	0x05020086	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER020087	0x05020087	Pinned data exists in the DM-LU. Retry after eliminating pinned data.

Message code	Error code	Message text/Recovery methods
DMER020088	0x05020088	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER020089	0x05020089	The copy operation can not be performed because the DM-LU has unwritten data. Delete the specified pair.
DMER02008A	0x0502008A	The copy operation can not be performed because the DM-LU has unwritten data. Retry the operation per pair.
DMER02008B	0x0502008B	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the P-VOL of the specified pair.
DMER02008C	0x0502008C	The specified P-VOL is the P-VOL of a Remote Replication pair. Check the pair status.
DMER02008D	0x0502008D	The specified VOL is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the VOL.
DMER02008E	0x0502008E	The SnapShot pair of the specified V-VOL has already had its V-VOL being cascaded with the max number of remote replication pairs. Check the configuration of the pairs.
DMER02008F	0x0502008F	Migration status indicates a status of Checking or Switching array. Check the Migration status.
DMER02303D	0x0502303D	Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.
DMER02403D	0x0502403D	Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.
DMER030000	0x05030000	The controller that controls the VOL cannot be changed because pinned data exists. Retry after eliminating pinned data.
DMER030001	0x05030001	The controller that controls the VOL cannot be changed temporarily. Retry after waiting for a while.
DMER030002	0x05030002	The operation to change VOL is in progress. Retry after waiting for a while.
DMER030003	0x05030003	There is no partition to which the current partition is to be changed. Retry after waiting for a while.
DMER030004	0x05030004	The directory configuration is being changed. Reboot the subsystem.
DMER030005	0x05030005	The change of a controller that controls the VOL resulted in a time-out. Retry after waiting for a while.
DMER030006	0x05030006	The pair status of the P-VOL is other than Simplex, or a V-VOL does not exist. Check the pair status of the VOL.
DMER030007	0x05030007	The pair status is other than Simplex. Check the pair status of the VOL.
DMER030008	0x05030008	The specified P-VOL is a V-VOL. Check the pair status of the VOL.
DMER030009	0x05030009	The specified V-VOL is a P-VOL. Check the pair status of the VOL.
DMER03000B	0x0503000B	The group ID is out of appropriate range. Make sure of the specified group ID number.
DMER03000D	0x0503000D	The same MU number was specified within the same P-VOL. Make sure of the specified MU number.
DMER03000E	0x0503000E	The process is in progress. Retry after waiting for a while.
DMER030010	0x05030010	The pair status is other than Split. Check the pair status of the VOL.
DMER030011	0x05030011	The object VOL is not the same as the expected one. Check the specified VOL.
DMER030012	0x05030012	The instruction of forced suspension was received. Make sure of the command.
DMER030014	0x05030014	The P-VOL is in a status other than normal and regressive. Check the status of the VOL.
DMER030015	0x05030015	The data pool VOL being used is in a status other than normal and regressive. Check the status of the pool VOL.
DMER030017	0x05030017	The pair attribute of the P-VOL is V-VOL. Check the status of the VOL.
DMER030018	0x05030018	The pair attribute of the V-VOL is P-VOL. Check the status of the VOL.
DMER03001A	0x0503001A	The same MU number was specified within the same P-VOL. Make sure of the specified MU number.
DMER03001B	0x0503001B	The process is in progress. Retry after waiting for a while.
DMER03001D	0x0503001D	The object VOL is not the same as the expected one. Check the specified VOL.
DMER03001E	0x0503001E	The specified V-VOL is not specified to be grouped(Group ID suspension). Check the pair attribute of the VOL.
DMER03001F	0x0503001F	The V-VOL, which is an object of the batch suspension, is in a status other than Paired(Group ID suspension). Check the pair status of the VOL.
DMER030020	0x05030020	The process is in progress. Retry after waiting for a while.
DMER030021	0x05030021	The process is in progress. Retry after waiting for a while.
DMER030022	0x05030022	The pair status of the V-VOL is illegal. Check the pair status of the VOL.
DMER030023	0x05030023	The object VOL is not the same as the expected one. Check the specified VOL.
DMER030028	0x05030028	The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.
DMER030029	0x05030029	The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.
DMER03002A	0x0503002A	The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.

Message code	Error code	Message text/Recovery methods
DMER03002B	0x0503002B	The pair status was changed to Failure because the process terminated abnormally. Place the pair concerned in the Simplex status once, and then create the pair again.
DMER03002C	0x0503002C	The specified P-VOL has excess pinned data (at the time of a restoration only). Retry after eliminating pinned data.
DMER03002E	0x0503002E	Navigator was received by the control information on 8-byte form. Check the environment of Navigator.
DMER03002F	0x0503002F	There are 64 or more VOLs being restored. Retry after the restoration is completed.
DMER030030	0x05030030	The P-VOL is being restored. Retry after the restoration is completed.
DMER030031	0x05030031	Data of the V-VOL is partially destroyed. Make a backup from the S-VOL to a tape device, etc. and then restore the data to the P-VOL.
DMER030032	0x05030032	The process is in progress. Retry after waiting for a while.
DMER030033	0x05030033	Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.
DMER030034	0x05030034	Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.
DMER030035	0x05030035	The MU number is other than 0 to 2. Make sure of the specified MU number.
DMER030036	0x05030036	The MU number is other than 0 to 2. Make sure of the specified MU number.
DMER030037	0x05030037	The MU number is other than 0. Make sure of the specified MU number.
DMER030038	0x05030038	The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.
DMER030039	0x05030039	The P-VOL of SnapShot is a P-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.
DMER03003A	0x0503003A	The P-VOL of SnapShot is an S-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.
DMER03003B	0x0503003B	The P-VOL of SnapShot is a volume of Remote Replication and it is in a status other than Simplex and Split. Check the status of the Remote Replication pair.
DMER03003C	0x0503003C	Among the other V-VOLs of SnapShot, there are VOLs of Remote Replication in a status other than Split and Failure. Check the status of the Remote Replication pair.
DMER03003D	0x0503003D	The V-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.
DMER03003E	0x0503003E	The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.
DMER030044	0x05030044	The DM-LU is not set. Retry after setting the DM-LU.
DMER030045	0x05030045	The DM-LU was specified as P-VOL. Check the status of the VOL.
DMER030046	0x05030046	The DM-LU was specified as V-VOL. Check the status of the VOL.
DMER030047	0x05030047	The DM-LU is not set. Retry after setting the DM-LU.
DMER030048	0x05030048	The DM-LU was specified as P-VOL. Check the status of the VOL.
DMER030049	0x05030049	The DM-LU was specified as V-VOL. Check the status of the VOL.
DMER03004A	0x0503004A	Validity of the license expired. Purchase the license.
DMER03004B	0x0503004B	Validity of the license expired. Purchase the license.
DMER030052	0x05030052	The specified P-VOL is a P-VOL of Remote Replication and the status of the Remote Replication pair is other than Split (at the time of restoration). Check the status of the VOL.
DMER030053	0x05030053	The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and writing to the S-VOL is prohibited (at the time of restoration). Check the status of the VOL.
DMER030054	0x05030054	Hitachi Storage Navigator Modular 2 is less than Ver.21.60.
		The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Busy (at the time of restoration). Check the status of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.21.60 or more.
		The specified P-VOL is an S-VOL of Remote Replication and the determined data at the end of the previous cycle is being restored to the S-VOL. Retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMER030056	0x05030056	The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited (at the time of restoration). Check the status of the VOL.
DMER030057	0x05030057	The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is other than Simplex or Split (at the time of restoration). Check the status of the VOL.
DMER030058	0x05030058	The P-VOL of this SnapShot is the S-VOL of the Remote Replication pair. It cannot be executed because the status of this Remote Replication pair is Synchronizing or Paired. Check the status of the VOL.
DMER030059	0x05030059	The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the VOL.
DMER03005A	0x0503005A	The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Synchronizing or Paired. Check the status of the VOL.
DMER03005B	0x0503005B	The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the VOL.
DMER03005C	0x0503005C	The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Pool Full (at the time of restoration). Check the status of the VOL.
DMER03005D	0x0503005D	The specified P-VOL is the reserved VOL. Check the status of the VOL.
DMER03005E	0x0503005E	The specified P-VOL is the reserved VOL. Check the status of the VOL.
DMER03005F	0x0503005F	Though the specified P-VOL requires a change of an ownership of VOL, it has the pinned data. Contact the service personnel.
DMER030060	0x05030060	The controller that controls the VOL that will be P-VOL cannot be changed. Check the status of the VOL.
DMER030061	0x05030061	The operation to change VOL is in progress. Retry after waiting for a while.
DMER030062	0x05030062	There is no partition to which the current partition to be changed. Retry after waiting for a while.
DMER030063	0x05030063	Though the specified P-VOL requires a change of an ownership of VOL, the directory structure is being changed. Check the status of the VOL.
DMER030064	0x05030064	Though the specified P-VOL requires a change of an ownership of VOL, a time-out occurred in the ownership of VOL changed. Check the status of the VOL.
DMER030065	0x05030065	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down (at the time of restoration). Check the status of the RAID group.
DMER030066	0x05030066	The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.
DMER030067	0x05030067	There is no POOL VOL at the specified POOL ID. Check the specified POOL ID.
DMER030068	0x05030068	The specified P-VOL is already paired with one or more V-VOLs, and the specified POOL ID is different from the POOL ID, which is already assigned. Check the specified POOL ID.
DMER030069	0x05030069	The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified VOL.
DMER03006A	0x0503006A	The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.
DMER03006B	0x0503006B	The specified P-VOL is a SubVOL of a unified VOL. Check the status of the VOL.
DMER03006C	0x0503006C	The specified P-VOL is a Volume Migration pair. Check the status of the VOL.
DMER03006D	0x0503006D	The specified P-VOL is a ShadowImage pair. Check the attribute of the VOL.
DMER03006E	0x0503006E	The specified P-VOL has been defined to the command device. Check the attribute of the VOL.
DMER03006F	0x0503006F	The capacity of SnapShot pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.
DMER030070	0x05030070	The process is in progress. Retry after waiting for a while.
DMER030071	0x05030071	It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.
DMER030072	0x05030072	The specified P-VOL is a MainVOL of a unified VOL, which includes a VOL with a capacity smaller than 1 GB. Check the status of the VOL.
DMER030073	0x05030073	The specified P-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.
DMER030074	0x05030074	The specified P-VOL has been set to the reserved Cache Residency VOL. Check the status of the VOL.
DMER030075	0x05030075	The specified P-VOL is the VOL, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the VOL.
DMER030076	0x05030076	Differential bit map is insufficient. Delete the unnecessary pairs.

Message code	Error code	Message text/Recovery methods
DMER030077	0x05030077	When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID.
DMER030078	0x05030078	VOL capacities of the P-VOL and V-VOL are different. Check the capacity of the VOL.
DMER030079	0x05030079	The specified V-VOL is an S-VOL of a Remote Replication pair.
DMER03007A	0x0503007A	Among the other V-VOLs of SnapShot, there are S-VOLs of Remote Replication. Check the status of the Remote Replication pair.
DMER03007B	0x0503007B	An unsupported command option was received. Check the specified value.
DMER03007C	0x0503007C	The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.
DMER03007D	0x0503007D	There is no POOL VOL at the specified POOL ID. Check the specified POOL ID.
DMER03007E	0x0503007E	An instruction to create a pair was issued to a P-VOL, which has one or more pairs, specifying a POOL ID different from that has been assigned. Check the specified POOL ID.
DMER03007F	0x0503007F	The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified VOL.
DMER030080	0x05030080	The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.
DMER030081	0x05030081	The specified P-VOL is a SubVOL of a unified VOL. Check the status of the VOL.
DMER030082	0x05030082	The specified P-VOL is a Volume Migration pair. Check the RAID level of the specified VOL.
DMER030083	0x05030083	The specified P-VOL is a ShadowImage pair. Check the attribute of the VOL.
DMER030084	0x05030084	The specified P-VOL has been defined to the command device. Check the attribute of the VOL.
DMER030085	0x05030085	The capacity of SnapShot pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.
DMER030086	0x05030086	The process is in progress. Retry after waiting for a while.
DMER030087	0x05030087	It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.
DMER030088	0x05030088	The specified P-VOL is a MainVOL of a unified VOL, which includes a VOL with a capacity smaller than 1 GB. Check the status of the VOL.
DMER030089	0x05030089	The specified P-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.
DMER03008A	0x0503008A	The specified P-VOL has been set to the reserved Cache Residency VOL. Check the status of the VOL.
DMER03008B	0x0503008B	The specified P-VOL is the VOL, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the VOL.
DMER03008C	0x0503008C	Differential bit map is insufficient. Delete the unnecessary pairs.
DMER03008D	0x0503008D	When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID.
DMER03008E	0x0503008E	VOL capacities of the P-VOL and V-VOL are different. Check the capacity of the VOL.
DMER03008F	0x0503008F	When creating a pair specifying a group ID, the specified group ID is already used for a ShadowImage pair. Check the specified group ID.
DMER030090	0x05030090	The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.
DMER030091	0x05030091	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER030092	0x05030092	The P-VOL is in a status other than normal or regressive. Check the status of the VOL.
DMER030093	0x05030093	The used data POOL VOL is in the status other than normal or regressive. Check the status of the VOL.
DMER030094	0x05030094	The Migration status is other than unexecuted. Check the Migration status.
DMER030095	0x05030095	The Migration status is other than unexecuted. Check the Migration status.
DMER030096	0x05030096	The Migration status is other than unexecuted. Check the Migration status.
DMER030097	0x05030097	The Migration status is other than unexecuted. Check the Migration status.
DMER030098	0x05030098	The Migration status is other than unexecuted. Check the Migration status.
DMER030099	0x05030099	There exist maximum number of pairs already. Delete the unnecessary pairs.

Message code	Error code	Message text/Recovery methods
DMER03009A	0x0503009A	There exist maximum number of pairs already. Delete the unnecessary pairs.
DMER03009B	0x0503009B	The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.
DMER03009C	0x0503009C	The RAID group to which the target VOL of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER03009D	0x0503009D	The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.
DMER03009E	0x0503009E	A P-VOL that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.
DMER03009F	0x0503009F	A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal.
DMER0300A0	0x050300A0	The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER0300A1	0x050300A1	A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal.
DMER0300A2	0x050300A2	The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.
DMER0300A3	0x050300A3	The VOL that was specified as P-VOL does not exist. Check the specified VOL.
DMER0300A4	0x050300A4	The VOL that was specified as P-VOL does not exist. Check the specified VOL.
DMER0300A5	0x050300A5	A VOL whose DP optimization status is not Normal is included in the pair and its cascade pairs. Check the DP optimization status of the VOLs which are included in the pairs.
DMER0300A6	0x050300A6	The operation can not be performed due to insufficient capacity of the DP Pool for the specified P-VOL. Check the capacity of the DP Pool.
DMER0300A7	0x050300A7	The operation can not be performed due to insufficient capacity of the DP Pool for the VOLs which belong to data Pool. Check the capacity of the DP Pool.
DMER0300A8	0x050300A8	Management information of Dynamic Provisioning is being updated. Retry after waiting for a while.
DMER0300A9	0x050300A9	The operation can not be performed due to insufficient capacity of the DP Pool for the P-VOL of a pair in the same group. Check the capacity of the DP Pool.
DMER0300AA	0x050300AA	The operation can not be performed due to insufficient capacity of the DP Pool for the VOL specified for data pool of a pair in the same group. Check the capacity of the DP Pool.
DMER0300AB	0x050300AB	The V-VOL of the specified pair is the P-VOL of a remote replication pair. Retry after deleting the remote replication pair.
DMER0300AC	0x050300AC	Access attribute has been set to the V-VOL of the specified SnapShot pair. Change the attribute to Read/Write and reset S-VOL Disable. If mode is set, reset it using Command Control Interface. Then, delete the pair.
DMER0300AD	0x050300AD	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER0300AE	0x050300AE	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER0300AF	0x050300AF	The Full Capacity Mode differs between the P-VOL and data pools. Set the same value for both the Full Capacity Mode of P-VOL and data pools.
DMER0300B0	0x050300B0	The Full Capacity Mode differs between the P-VOL and data pools. Set the same value for both the Full Capacity Mode of P-VOL and data pools.
DMER0300B1	0x050300B1	The status of the ShadowImage pair cascading with the specified SnapShot pair is illegal. Check the status of the ShadowImage pair.
DMER0300B2	0x050300B2	The status of a ShadowImage pair cascading with the specified SnapShot pair is Failure where the ShadowImage pair can not accept Read/Write instructions. Check the pair status.
DMER0300B3	0x050300B3	The VOL ownership of the specified P-VOL is different than the one of the specified data pool. Specify another data pool or check the VOL ownership.
DMER0300B4	0x050300B4	There is a ShadowImage pair in the specified group cascading with another pair. Check the status of the ShadowImage pair.
DMER0300B5	0x050300B5	The specified MU# is illegal. Check the MU#.
DMER0300B6	0x050300B6	The Point-in-Time of the specified group is disabled. Check the group number.

Message code	Error code	Message text/Recovery methods
DMER0300B7	0x050300B7	There are the maximum number of pairs in the specified group. Check the number of pairs in the specified group.
DMER0300B8	0x050300B8	There are the maximum number of pairs that do not belong to any group. Check the number of pairs that do not belong to any group.
DMER0300B9	0x050300B9	The Point-in-Time of the specified group is disabled. Check the group number.
DMER0300BA	0x050300BA	The status of the specified Replication Data DP Pool or Management Area DP Pool is other than Normal/Regression. Or Replication Data Released Threshold for the DP pool is exceeded. Or the DP pool is depleted. Check the status of the DP pool.
DMER0300BB	0x050300BB	SnapShot pairs are being deleted. Retry after waiting for a while.
DMER0300BC	0x050300BC	The specified P-VOL is paired with the maximum number of pairs. Check the number of pairs with the specified P-VOL.
DMER0300BD	0x050300BD	The P-VOL has not undergone forced parity correction. Retry after executing forced parity correction.
DMER0300BE	0x050300BE	The specified Replication Data DP Pool number or Management Area DP Pool number is beyond the limit. Check the DP pool number.
DMER0300BF	0x050300BF	The specified Replication Data DP Pool or Management Area DP Pool does not exist. Check the status of the DP pool.
DMER0300C0	0x050300C0	The specified Replication Data DP Pool or Management Area DP Pool is different from the one that the P-VOL is currently using. Check the specified DP pool number.
DMER0300C1	0x050300C1	Restore is running in the background. Retry after waiting for a while.
DMER0300C2	0x050300C2	There is a P-VOL of SnapShot that is cascaded with an S-VOL of Remote Replication whose pair status is Synchronizing or Paired. Check the pair status of Remote Replication.
DMER0300C3	0x050300C3	There is a P-VOL of SnapShot that is cascaded with an S-VOL of Remote Replication whose pair status is split and whose S-VOL cannot accept read/write instructions. Check the pair status of Remote Replication.
DMER0300C4	0x050300C4	Hitachi Storage Navigator Modular 2 is less than Ver.25.50.
		Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.
		Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.
DMER0300C5	0x050300C5	SnapShot Pair Split has been reserved for the specified group and cycle copy is underway on the Remote Replication pair that is cascaded with the group. Retry after the pair split completes.
DMER0300C6	0x050300C6	The Remote Replication pair status is inappropriate that is cascaded with the P-VOL in the specified group. Confirm the pair status in the Remote Replication group.
DMER0300C7	0x050300C7	The Remote Replication configuration is inappropriate that is cascaded with the P-VOL in the specified group. Confirm the Remote Replication configuration.
DMER0300C8	0x050300C8	There is another pair that shares the P-VOL of a pair in the specified group. Confirm the pair configuration in the group.
DMER0300C9	0x050300C9	The local array of the Remote Replication pair that is cascaded with the P-VOL in the specified group is an unsupported array model for the operation. Confirm the local array model.
DMER0300CA	0x050300CA	There is another group for which SnapShot Pair Split has been reserved that shares the P-VOL with the specified group. Retry after the pair split for another group completes.
DMER0300EF	0x050300EF	The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.
DMER0300F0	0x050300F0	The micro program internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER0300FA	0x050300FA	The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.
DMER0300FB	0x050300FB	RAID group to which the target VOL of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.

Message code	Error code	Message text/Recovery methods
DMER031000	0x05031000	The controller that controls the VOL cannot be changed because pinned data exists. Retry after eliminating pinned data.
DMER031001	0x05031001	The controller that controls the VOL cannot be changed temporarily. Retry after waiting for a while.
DMER031002	0x05031002	The operation to change VOL is in progress. Retry after waiting for a while.
DMER031003	0x05031003	There is no partition to which the current partition is to be changed. Retry after waiting for a while.
DMER031004	0x05031004	The directory configuration is being changed. Reboot the subsystem.
DMER031005	0x05031005	The change of a controller that controls the VOL resulted in a time-out. Retry after waiting for a while.
DMER031090	0x05031090	The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.
DMER031091	0x05031091	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER03109B	0x0503109B	The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.
DMER03109C	0x0503109C	The RAID group to which the target VOL of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER032000	0x05032000	The controller that controls the VOL cannot be changed because pinned data exists. Retry after eliminating pinned data.
DMER032001	0x05032001	The controller that controls the VOL cannot be changed temporarily. Retry after waiting for a while.
DMER032002	0x05032002	The operation to change VOL is in progress. Retry after waiting for a while.
DMER032003	0x05032003	There is no partition to which the current partition is to be changed. Retry after waiting for a while.
DMER032004	0x05032004	The directory configuration is being changed. Reboot the subsystem.
DMER032005	0x05032005	The change of a controller that controls the VOL resulted in a time-out. Retry after waiting for a while.
DMER032090	0x05032090	The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.
DMER032091	0x05032091	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER03209B	0x0503209B	The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.

Message code	Error code	Message text/Recovery methods
DMER050001	0x05050001	The P-VOL is being quick formatted. Retry after the quick formatting is completed.
DMER050002	0x05050002	The P-VOL or S-VOL (including the unified LU(s)) is being quick formatted. Retry after the quick formatting is completed.
DMER050003	0x05050003	The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.
DMER050004	0x05050004	The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.
DMER050005	0x05050005	The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.
DMER060001	0x05060001	The S-VOL is in the S-VOL Disable mode. Cancel the access attribute.
DMER060002	0x05060002	The P-VOL is in the S-VOL Disable mode (at the time of restoration). Check the attribute of the VOL.
DMER060003	0x05060003	The S-VOL Disable is specified for the P-VOL (at the time of a restoration only). Cancel the access attribute.
DMER060004	0x05060004	The S-VOL Disable is specified for the S-VOL. Cancel the access attribute.
DMER060005	0x05060005	Resynchronization is directed to the ShadowImage pair whose S-VOL is specified as S-VOL Disable. Check the pair attribute of the VOL.
DMER060006	0x05060006	The S-VOL Disable is specified for the S-VOL (at the time of a restoration only). Check the pair attribute of the VOL.
DMER070001	0x05070001	The P-VOL or S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.
DMER070002	0x05070002	The P-VOL is undergoing the forced restoration by means of parity (at the time of restoration). Retry after the restoration by means of parity is completed.
DMER070003	0x05070003	The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.
DMER070011	0x05070011	The P-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.
DMER070012	0x05070012	The P-VOL is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.
DMER070021	0x05070021	The P-VOL or data pool VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.
DMER070022	0x05070022	The P-VOL is undergoing the forced restoration by means of parity (at the time of a restoration). Retry after parity correction is completed.
DMER070023	0x05070023	The data pool VOL is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.
DMER080001	0x05080001	More VOLs than supportable ones were specified for VOLs of the P-VOL. Make sure of the number of the specified paired VOL.
DMER080002	0x05080002	More VOLs than supportable ones were specified for VOLs of the S-VOL. Make sure of the number of the specified paired VOL.
DMER080003	0x05080003	The P-VOL is in the status other than normal and regressive. Check the status of the VOL.
DMER080004	0x05080004	The S-VOL is in the status other than normal and regressive. Check the status of the VOL.
DMER080005	0x05080005	The primary sequence number is different from the own Array ID. Check the Array ID.
DMER080006	0x05080006	The secondary sequence number is different from the own Array ID. Check the Array ID.
DMER080007	0x05080007	The primary port number is not supported. Check the specified port number.
DMER080008	0x05080008	The secondary port number is not supported. Check the specified port number.
DMER080009	0x05080009	The P-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the VOL.
DMER08000A	0x0508000A	The S-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the VOL.
DMER08000B	0x0508000B	The P-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.
DMER08000C	0x0508000C	The S-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.
DMER08000E	0x0508000E	The P-VOL is a Cache Residency VOL. Check the status of the VOL.
DMER08000F	0x0508000F	The S-VOL is a Cache Residency VOL. Check the status of the VOL.

Message code	Error code	Message text/Recovery methods
DMER080010	0x05080010	The P-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.
DMER080011	0x05080011	The S-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.
DMER080012	0x05080012	The P-VOL is a command device. Check the status of the VOL.
DMER080013	0x05080013	The S-VOL is a command device. Check the status of the VOL.
DMER080014	0x05080014	The VOLs of the P-VOL and S-VOL are the same. Check the specified VOL.
DMER080016	0x05080016	The specified pair is in a status other than Split, Split Pending and Failure. Check the pair status.
DMER080017	0x05080017	The VOL to be paired with the P-VOL is not an S-VOL. Check the specified VOL.
DMER080018	0x05080018	The VOL of the P-VOL is higher than 512 (1,023). Make sure of the number of the specified paired VOL.
DMER080019	0x05080019	The VOL of the S-VOL is higher than 512 (1,023). Make sure of the number of the specified paired VOL.
DMER08001A	0x0508001A	The primary sequence number is different from the own Array ID. Check the Array ID.
DMER08001B	0x0508001B	The secondary sequence number is different from the own Array ID. Check the Array ID.
DMER08001C	0x0508001C	The primary port number is not supported. Check the specified port number.
DMER08001D	0x0508001D	The secondary port number is not supported. Check the specified port number.
DMER08001F	0x0508001F	The S-VOL is a volume of ShadowImage and in the pair status of Simplex or Failure. Check the pair status of the VOL.
DMER080020	0x05080020	The VOL to be paired with the P-VOL is not an S-VOL. Check the specified VOL.
DMER080021	0x05080021	The status of the P-VOL is other than normal and regressive. Check the status of the VOL.
DMER080022	0x05080022	The status of the S-VOL is other than normal and regressive. Check the status of the VOL.
DMER080023	0x05080023	The P-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.
DMER080024	0x05080024	The S-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.
DMER080026	0x05080026	The P-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.
DMER080027	0x05080027	The S-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.
DMER080028	0x05080028	The P-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.
DMER080029	0x05080029	The S-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.
DMER08002A	0x0508002A	The P-VOL is defined as a command device. Check the status of the VOL.
DMER08002B	0x0508002B	The S-VOL is defined as a command device. Check the status of the VOL.
DMER08002C	0x0508002C	The VOLs of the P-VOL and S-VOL are the same. Check the specified VOL.
DMER08002D	0x0508002D	The number of the VOL to be paired is different. Check the specified VOL.
DMER08002E	0x0508002E	The number of the VOL to be paired is different. Check the specified VOL.
DMER08002F	0x0508002F	The pair status of the P-VOL/S-VOL is other than Simplex, Paired, Paired Internally Synchronizing and Synchronizing. Check the pair status of the VOL.
DMER080030	0x05080030	The VOL of the P-VOL is beyond the limits of support. Check the specified VOL.
DMER080031	0x05080031	The VOL of the S-VOL is beyond the limits of support. Check the specified VOL.
DMER080032	0x05080032	The pair attribute of the VOL specified for a P-VOL is not a P-VOL. Check the specified VOL.
DMER080033	0x05080033	The number of the VOL to be paired is different. Check the specified VOL.
DMER080034	0x05080034	The primary sequence number is different from the Array ID. Check the specified primary sequence number.
DMER080035	0x05080035	The secondary sequence number is different from the Array ID. Check the specified secondary sequence number.
DMER080036	0x05080036	The primary port number is beyond the limits of support. Check the specified primary port number.
DMER080037	0x05080037	The secondary port number is beyond the limits of support. Check the specified secondary port number.
DMER080038	0x05080038	A pair in the Failure (S-VOL Switch) status received an instruction to restore. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.
DMER080039	0x05080039	The specified pair is in the Failure (S-VOL Switch) status. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement and then resynchronize them.
DMER08003A	0x0508003A	The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.
DMER08003B	0x0508003B	The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.
DMER08003C	0x0508003C	The group ID is out of appropriate range. Make sure of the specified group ID number.
DMER08003D	0x0508003D	The number of pairs having the same group ID exceeded 32. Make sure of the specified group ID number.

Message code	Error code	Message text/Recovery methods
DMER08003E	0x0508003E	The specified P-VOL/S-VOL is not specified to be grouped(Group ID suspension). Check the pair status of the VOL.
DMER08003F	0x0508003F	A pair that is in a status other than Paired or Paired Internally Synchronizing is included in the specified group. Check the pair status of VOL in the group.
DMER080046	0x05080046	The DM-LU is not set. Retry after setting the DM-LU.
DMER080047	0x05080047	The DM-LU was specified as P-VOL. Check the status of the VOL.
DMER080048	0x05080048	The DM-LU was specified as S-VOL. Check the status of the VOL.
DMER08004B	0x0508004B	The DM-LU is not set. Retry after setting the DM-LU.
DMER08004C	0x0508004C	The DM-LU was specified as P-VOL. Check the status of the VOL.
DMER08004D	0x0508004D	The DM-LU was specified as S-VOL. Check the status of the VOL.
DMER08004E	0x0508004E	Validity of the license expired. Purchase the license.
DMER08004F	0x0508004F	Validity of the license expired. Purchase the license.
DMER080050	0x05080050	A VOL, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the VOL.
DMER080051	0x05080051	A VOL, for which a change of the cache partition(s) had been reserved, was specified as an S-VOL. Check the status of the VOL.
DMER080052	0x05080052	A VOL, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the VOL.
DMER080053	0x05080053	A VOL, for which a change of the cache partition(s) had been reserved, was specified as an S-VOL. Check the status of the VOL.
DMER08005E	0x0508005E	The specified P-VOL is a Remote Replication pair. Check the status of the VOL.
DMER08005F	0x0508005F	The specified S-VOL is a Remote Replication pair. Check the status of the VOL.
DMER080060	0x05080060	The specified P-VOL is a Remote Replication pair. Check the status of the VOL.
DMER080061	0x05080061	The specified S-VOL is a Remote Replication pair. Check the status of the VOL.
DMER080064	0x05080064	The specified MU# is used within the specified P-VOL. Check the specified MU number.
DMER080065	0x05080065	One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER080066	0x05080066	One or more volumes of Failure(S-VOL Switch) are under the specified P-VOL. Check the pair status of the VOL.
DMER080067	0x05080067	One or more Failure pairs that are not readable/writable (Failure transition due to a Failure during restoration) under the specified P-VOL. Check the pair status of the VOL.
DMER080068	0x05080068	The group ID overlaps within the specified P-VOL at the time of creating the pair of which the group is specified. Make sure of the specified group ID number.
DMER080069	0x05080069	The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not an S-VOL. Check the pair attribute of the VOL.
DMER08006A	0x0508006A	The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.
DMER08006B	0x0508006B	One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER08006C	0x0508006C	One or more Failure pairs that are not readable/writable (Failure transition due to a Failure during the restoration) under the specified P-VOL. Check the pair status of the VOL.
DMER08006D	0x0508006D	The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not an S-VOL. Check the pair attribute of the VOL.
DMER08006E	0x0508006E	The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.
DMER08006F	0x0508006F	The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.
DMER080070	0x05080070	The specified MU# is used within the specified P-VOL. Check the specified MU number.
DMER080071	0x05080071	One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER080072	0x05080072	One or more volumes of Failure(S-VOL Switch) are under the specified P-VOL. Check the pair status of the VOL.
DMER080073	0x05080073	One or more Failure pairs that are not readable/writable (Failure transition due to a Failure during the restoration) under the specified P-VOL. Check the pair status of the VOL.

Message code	Error code	Message text/Recovery methods
DMER080074	0x05080074	The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.
DMER080075	0x05080075	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER080077	0x05080077	The specified P-VOL is the reserved VOL. Check the status of the VOL.
DMER080078	0x05080078	The specified S-VOL is the reserved VOL. Check the status of the VOL.
DMER080079	0x05080079	The specified S-VOL is undergoing the migration and its status is Split or Failure. Check the pair status of the VOL.
DMER080080	0x05080080	The specified S-VOL is undergoing the migration and its status is Synchronizing or Split. Check the pair status of the VOL.
DMER080081	0x05080081	The specified P-VOL is the reserved VOL. Check the pair status of the VOL.
DMER080082	0x05080082	The specified S-VOL is the reserved VOL. Check the pair status of the VOL.
DMER080083	0x05080083	The specified S-VOL is undergoing the migration and its status is Synchronizing. Check the pair status of the VOL.
DMER080084	0x05080084	The specified volume is undergoing the migration. Check the pair status of the VOL.
DMER080085	0x05080085	The specified P-VOL is undergoing the migration. Check the pair status of the VOL.
DMER080086	0x05080086	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER080087	0x05080087	The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.
DMER080088	0x05080088	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER080089	0x05080089	The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.
DMER08008A	0x0508008A	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER08008B	0x0508008B	The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.
DMER08008C	0x0508008C	When creating a pair specifying a group ID, the specified group ID is already used for a SnapShot pair. Check the specified group ID.
DMER08008D	0x0508008D	The S-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.
DMER08008E	0x0508008E	The S-VOL is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.
DMER08008F	0x0508008F	An unsupported command option was received. Check the specified value.
DMER080090	0x05080090	The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the VOL.
DMER080091	0x05080091	The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the VOL.
DMER080092	0x05080092	The Migration status is other than unexecuted. Check the Migration status.
DMER080093	0x05080093	The Migration status is other than unexecuted. Check the Migration status.
DMER080094	0x05080094	The Migration status is other than unexecuted. Check the Migration status.
DMER080095	0x05080095	The Migration status is other than unexecuted. Check the Migration status.
DMER080096	0x05080096	The Migration status is other than unexecuted. Check the Migration status.
DMER080097	0x05080097	The Migration status is other than unexecuted. Check the Migration status.
DMER080098	0x05080098	An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the model of the remote array.
DMER080099	0x05080099	An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the model of the remote array.
DMER08009A	0x0508009A	The Migration status is other than unexecuted. Check the Migration status.
DMER08009B	0x0508009B	One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER08009C	0x0508009C	The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.

Message code	Error code	Message text/Recovery methods
DMER08009D	0x0508009D	One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER08009E	0x0508009E	The specified pair is in the Split Pending status. Retry after the status becomes Split.
DMER08009F	0x0508009F	A pair in the Failure (S-VOL Switch) status received an instruction to resynchronize with Quick mode. Request that service personnel to replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.
DMER0800A0	0x050800A0	One or more Failure pairs that are not readable/writable under the specified P-VOL. Check the pair status of the VOL.
DMER0800A1	0x050800A1	The capacity is beyond the limits of support. Split the unnecessary pairs.
DMER0800A2	0x050800A2	The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.
DMER0800A3	0x050800A3	The P-VOL or the S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.
DMER0800A4	0x050800A4	The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.
DMER0800A5	0x050800A5	The disk drives that configure a RAID group to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER0800A6	0x050800A6	The disk drives that configure a RAID group to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.
DMER0800A7	0x050800A7	A pair that is in a status other than Paired, Paired Internally Synchronizing or Synchronizing is included in the specified group. Check the pair status of VOL in the group.
DMER0800A8	0x050800A8	A pair that shares the P-VOL with another pair that is in Failure status that are not readable/writable is included in the specified group. Check the pair status of VOL in the group.
DMER0800A9	0x050800A9	The capacity is beyond the limits of support. Split the unnecessary pairs.
DMER0800AA	0x050800AA	A pair that the S-VOL has been cascaded with a Remote Replication pair is included in the specified group. Check the status of the Remote Replication pair.
DMER0800AB	0x050800AB	A pair that the P-VOL or the S-VOL has not undergone the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.
DMER0800AC	0x050800AC	A pair that the S-VOL is undergoing the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.
DMER0800AD	0x050800AD	A pair that the P-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.
DMER0800AE	0x050800AE	A pair that the S-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.
DMER0800AF	0x050800AF	One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER0800B0	0x050800B0	The P-VOL or the S-VOL of the specified pair is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.
DMER0800B1	0x050800B1	The specified pair is in the Split Pending status. Check the pair status of the VOL.
DMER0800B2	0x050800B2	The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER0800B3	0x050800B3	A VOL that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.
DMER0800B4	0x050800B4	The specified pair is in a status other than Split and Failure. Check the pair status.
DMER0800B5	0x050800B5	The VOL that was specified as P-VOL does not exist. Check the specified VOL.
DMER0800B6	0x050800B6	The VOL that was specified as P-VOL does not exist. Check the specified VOL.
DMER0800B7	0x050800B7	The VOL that was specified as S-VOL does not exist. Check the specified VOL.
DMER0800B8	0x050800B8	The VOL that was specified as S-VOL does not exist. Check the specified VOL.
DMER0800B9	0x050800B9	DP pool is insufficient. Confirm the capacity of DP pool.

Message code	Error code	Message text/Recovery methods
DMER0800BA	0x050800BA	DP pool is insufficient. Confirm the capacity of DP pool.
DMER0800BB	0x050800BB	DP pool is insufficient. Confirm the capacity of DP pool.
DMER0800BC	0x050800BC	DP pool is insufficient. Confirm the capacity of DP pool.
DMER0800BD	0x050800BD	The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is a VOL created in DP pool. Specify a VOL other than the VOL created in DP pool to S-VOL.
DMER0800BE	0x050800BE	The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is a VOL created in DP pool. Specify a VOL other than the VOL created in DP pool to S-VOL.
DMER0800BF	0x050800BF	The specified S-VOL is a VOL created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair.
DMER0800C0	0x050800C0	The specified S-VOL is a VOL created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair.
DMER0800C1	0x050800C1	The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.
DMER0800C2	0x050800C2	The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.
DMER0800C3	0x050800C3	The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.
DMER0800C4	0x050800C4	The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.
DMER0800C5	0x050800C5	Management information regarding DP is being updated. Retry after waiting for a while.
DMER0800C6	0x050800C6	Management information regarding DP is being updated. Retry after waiting for a while.
DMER0800C7	0x050800C7	Management information regarding DP is being updated. Retry after waiting for a while.
DMER0800C8	0x050800C8	Management information regarding DP is being updated. Retry after waiting for a while.
DMER0800C9	0x050800C9	The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.
DMER0800CA	0x050800CA	The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.
DMER0800CB	0x050800CB	The specified S-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.
DMER0800CC	0x050800CC	The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.
DMER0800CD	0x050800CD	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER0800CE	0x050800CE	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER0800CF	0x050800CF	One or more volumes of Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER0800D0	0x050800D0	Three or more volumes of Paired/Synchronizing/Paired Internally Synchronizing/Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.
DMER0800D1	0x050800D1	One or more volumes of Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.
DMER0800D2	0x050800D2	Three or more volumes of Paired/Synchronizing/Paired Internally Synchronizing/Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.
DMER0800D3	0x050800D3	Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.
DMER0800D4	0x050800D4	Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.
DMER0800D5	0x050800D5	Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.
DMER0800D6	0x050800D6	Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.

Message code	Error code	Message text/Recovery methods
DMER0800D7	0x050800D7	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL.
DMER0800D8	0x050800D8	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL.
DMER0800D9	0x050800D9	The status of the SnapShot pair cascading with the specified ShadowImage pair is illegal. Check the status of the SnapShot pair.
DMER0800DA	0x050800DA	The status of a SnapShot pair cascading with the specified ShadowImage pair is Failure where the SnapShot pair can not accept Read/Write instructions. Check the pair status.
DMER0800DB	0x050800DB	The specified VOL is a V-VOL. Check the VOL.
DMER0800DC	0x050800DC	The specified S-VOL is the P-VOL of a SnapShot pair. Check the pair status.
DMER0800DD	0x050800DD	The specified P-VOL already has the maximum number of S-VOLs. Check the number of S-VOL paired with the P-VOL.
DMER0800DE	0x050800DE	Any pair operations can not be performed due to the status of the Remote Replication pair cascading with the S-VOL of the SnapShot pair that shared the P-VOL of the specified ShadowImage pair. Check the status of the Remote Replication pair.
DMER0800DF	0x050800DF	The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.
DMER0800E0	0x050800E0	The internal transaction of the specified VOL is working now. Retry after waiting for a while.
DMER0800E1	0x050800E1	The DM-LU status is invalid. Check the DM-LU status.
DMER0800E2	0x050800E2	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER0800E3	0x050800E3	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER0800E4	0x050800E4	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER0800E5	0x050800E5	The copy operation can not be performed because the DM-LU has unwritten data. Delete the specified pair.
DMER0800E6	0x050800E6	The copy operation can not be performed because the DM-LU has unwritten data. Retry the operation per pair.
DMER0800E7	0x050800E7	The copy operation can not be performed because the DM-LU has unwritten data. Delete the Remote Replication pair that is cascaded with the S-VOL of the specified pair.

Message code	Error code	Message text/Recovery methods
DMER090001	0x05090001	The specified P-VOL is normal or other than regressed. Check the status of the VOL.
DMER090002	0x05090002	The specified P-VOL has been set to the current Cache Residency VOL. Check the attribute of the VOL.
DMER090003	0x05090003	The specified P-VOL has been set to the reserved Cache Residency VOL. Check the attribute of the VOL.
DMER090004	0x05090004	The specified P-VOL has been defined to the command device. Check the attribute of the VOL.
DMER090005	0x05090005	The accepted sequence number is different from the serial number. Check the serial number.
DMER090006	0x05090006	Both of the two paths are abnormal. Check the status of the path.
DMER090007	0x05090007	The specified P-VOL is a Sub VOL of a unified VOL. Check the attribute of the VOL.
DMER090009	0x05090009	The status of the Remote Replication pair of the specified P-VOL is other than Simplex. Check the pair status of the VOL.
DMER09000A	0x0509000A	The specified P-VOL is a ShadowImage pair. Check the attribute of the VOL.
DMER09000B	0x0509000B	The specified P-VOL is a SnapShot V-VOL. Check the attribute of the VOL.
DMER09000C	0x0509000C	The group ID is beyond the limits (more than 16) of support. Check the group ID.
DMER09000D	0x0509000D	The pair status of the specified P-VOL is other than Split or Failure. Check the pair status of the VOL.
DMER09000E	0x0509000E	The specified P-VOL status is normal or other than regressed. Check the status of the VOL.
DMER09000F	0x0509000F	The specified S-VOL is not a pair target VOL. Check the VOL of the S-VOL.
DMER090010	0x05090010	The accepted sequence number is different from the serial number. Check the serial number.
DMER090011	0x05090011	Both of the two paths are abnormal. Check the status of the path.
DMER090012	0x05090012	When the unit of pair is specified, the pair status of the specified P-VOL is other than Synchronizing and Paired. Check the pair status of the VOL.
DMER090013	0x05090013	The capacity of Remote Replication pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.
DMER090014	0x05090014	The accepted sequence number is different from the serial number. Check the serial number.
DMER090015	0x05090015	The process is in progress. Retry after waiting for a while.
DMER090016	0x05090016	When the unit of pair is specified, the specified S-VOL is not a pair target VOL. Check the VOL of the specified S-VOL.
DMER090017	0x05090017	The accepted sequence number is different from the serial number. Check the serial number.
DMER090018	0x05090018	The S-VOL pair cancellation instructions was issued to the P-VOL or pair cancellation instructions was issued to the S-VOL. Check the pair attribute of the VOL.
DMER090019	0x05090019	This operation cannot be executed due to lack of resources. Retry after waiting for a while.
DMER090020	0x05090020	The pool VOL is not defined. Define the pool VOL and retry.
DMER090021	0x05090021	The specified fence level is STATUS. Make sure of the specified fence level.
DMER090022	0x05090022	The capacity of Remote Replication pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.
DMER090023	0x05090023	The internal pair status of the specified P-VOL is [under pair deletion]. Check the pair status of the VOL.
DMER090025	0x05090025	The forced blockade of a P-VOL was accepted. The forced blockade of a P-VOL is not supported.
DMER090026	0x05090026	The type of the side file release is other than ordinary splitting. Check the specified value.
DMER090027	0x05090027	The S-VOL received an instruction. Check the pair attribute of the VOL.
DMER090029	0x05090029	The S-VOL received an instruction. Check the pair attribute of the VOL.
DMER09002A	0x0509002A	The P-VOL received an instruction. Check the pair attribute of the VOL.
DMER09002B	0x0509002B	When the unit of pair is specified, the pair status of the specified S-VOL is Simplex or Synchronizing. Check the pair status of the VOL.
DMER09002C	0x0509002C	The accepted sequence number is different from the serial number. Check the serial number.
DMER09002D	0x0509002D	The specified MU number is beyond the limits (0 to 13) of support. Check the specified MU number.
DMER090030	0x05090030	The S-VOL received an instruction. Check the pair attribute of the VOL.
DMER090032	0x05090032	The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified VOL.
DMER090036	0x05090036	The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.
DMER090037	0x05090037	The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.

Message code	Error code	Message text/Recovery methods
DMER090038	0x05090038	There is no vacancy in the generation bits. Retry after waiting for a while.
DMER090039	0x05090039	There is one or more pair(s) in the status of [under execution of remote SnapShot split] in the target group. Check the pair status of each VOL in the target group. It is required to wait until the process is completed.
DMER09003A	0x0509003A	There is one or more pair(s) in the status of [under pair splitting] in the target group. Check the pair status of each VOL in the target group. It is required to wait until the process is completed.
DMER09003C	0x0509003C	There is one or more pair(s) in the status of [under pair deletion] in the target group. Check the pair status of each VOL in the target group. It is required to wait until the process is completed.
DMER09003D	0x0509003D	The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.
DMER09003E	0x0509003E	The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.
DMER09003F	0x0509003F	There is no pair, which is in the Paired status, in the target group. Check the pair status of each VOL in the target group.
DMER090042	0x05090042	When the unit of pair is specified, the pair status of the specified pair is Split (no reading/writing allowed). Check the pair status.
DMER090044	0x05090044	When the unit of group is specified, there is one or more pair(s) placed in the Split status (no reading/writing allowed) in the group. Check the pair status of each VOL in the target group.
DMER090045	0x05090045	When the unit of group is specified, there is no pair that is in the Paired, Split, or Failure status in the group. Check the pair status of each VOL in the target group.
DMER090046	0x05090046	When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the VOL. It is required to wait until the process is completed.
DMER090047	0x05090047	The specified P-VOL has the incomplete DDCB. Check the status of the VOL.
DMER090048	0x05090048	The specified P-VOL has unwritten data. Contact the service personnel.
DMER090049	0x05090049	When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair deletion]. Check the pair status of the VOL. It is required to wait until the process is completed.
DMER09004B	0x0509004B	When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the VOL. It is required to wait until the process is completed.
DMER09004C	0x0509004C	When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each VOL in the target group.
DMER09004D	0x0509004D	The DM-LU is not defined. Define the DM-LU.
DMER09004E	0x0509004E	The specified P-VOL has been set to the DM-LU. Check the attribute of the VOL.
DMER09004F	0x0509004F	Validity of the license expired. Purchase the license.
DMER090050	0x05090050	When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair deletion] in the group. Check the pair status of each VOL in the target group.
DMER090052	0x05090052	When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each VOL in the target group.
DMER090053	0x05090053	When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the target group. Check the pair status of each VOL in the target group.
DMER090054	0x05090054	The pair cancellation instructions was executed for the range that was not supported. Check the specified value.
DMER090055	0x05090055	When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the VOL. It is required to wait until the process is completed.
DMER090057	0x05090057	When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the VOL. It is required to wait until the process is completed.
DMER090059	0x05090059	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. When the unit of pair is specified, the internal status of the pair of the specified S-VOL is Busy. Check the pair status of the VOL. Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. The determined data at the end of the previous cycle is being restored to the S-VOL. Retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMER09005A	0x0509005A	When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each VOL in the target group.
DMER09005C	0x0509005C	When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each VOL in the target group.
DMER09005E	0x0509005E	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. When the unit of group is specified, there is one or more pair(s) placed in the Busy status in the group. Check the pair status of each VOL in the target group. Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00. When the unit of group is specified, an S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each LU in the target group. Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. When the unit of group is specified, an S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each VOL in the target group.
DMER090068	0x05090068	There is the S-VOL pair whose direction is not correct in the indicated group. Check the group ID.
DMER090069	0x05090069	The partition to which the VOL belongs is being changed to the other directory. Retry after waiting for a while.
DMER09006B	0x0509006B	There is no pair, which is in the Paired status, in the target group. Check the pair status of each VOL in the target group.
DMER09006C	0x0509006C	The subsystem has not been rebooted after the Remote Replication option was unlocked. Reboot the subsystem.
DMER09006D	0x0509006D	The specified P-VOL is a unified VOL including a VOL with a capacity less than 1 GB. Check the attribute of the VOL.
DMER09006E	0x0509006E	The specified P-VOL is the pool VOL. Check the attribute of the VOL.
DMER09006F	0x0509006F	The pool VOL status is normal or other than regressed. Check the status of the pool VOL.
DMER090070	0x05090070	The pool VOL is undergoing the forced parity correction. Check the status of the pool VOL.
DMER090071	0x05090071	It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete unnecessary pairs.
DMER090072	0x05090072	The remote SnapShot split request was accepted. Check the firmware version.
DMER090073	0x05090073	The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL on both local and remote arrays.
DMER090074	0x05090074	The suspension command was accepted with a specification of the unit of pair. The specification of the unit of pair is not supported.
DMER090075	0x05090075	The specified P-VOL is a unified VOL whose component VOLs include a VOL for which the format operation is being performed. Check the attribute of the VOL.
DMER090076	0x05090076	The specified P-VOL is being formatted. Check the attribute of the VOL.
DMER090077	0x05090077	The state of the forced parity correction for the specified P-VOL is Uncorrected or Uncorrected 2. Check the status of the VOL.
DMER090078	0x05090078	The specified P-VOL has not undergone the forced parity correction. Retry it after executing the forced parity correction.
DMER09007B	0x0509007B	There is one or more pair(s) in the status of Split or Failure of [under pair deletion] in the target group. Check the pair status of the VOL. It is required to wait until the process is completed.
DMER09007C	0x0509007C	The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.
DMER09007D	0x0509007D	The pool VOL status is normal or other than regressed. Check the status of the pool VOL.
DMER09007E	0x0509007E	The pool VOL is undergoing the forced parity correction. Retry after waiting for a while.
DMER09007F	0x0509007F	There is one or more P-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each VOL in the target group.
DMER090080	0x05090080	There is one or more P-VOL(s), status is normal or other than regressed, in the target group. Check the status of each VOL in the target group.
DMER090081	0x05090081	There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each VOL in the target group.

Message code	Error code	Message text/Recovery methods
DMER090082	0x05090082	There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each VOL in the target group.
DMER090083	0x05090083	There is no pair, which is in the Split or Failure status, in the target group. Check the pair status of each VOL in the target group.
DMER090084	0x05090084	When a pair is created in the new group, the cycle time that has been set is less than [30 x number of groups] seconds. Check the cycle time that has been set.
DMER090085	0x05090085	When the unit of pair is specified, the S-VOL of the target pair has not completed the resynchronization after it accepted the resynchronization command. Check the Remote Replication pair status of the remote array.
DMER090086	0x05090086	When the unit of group is specified, there is one or more S-VOL(s), which has not completed the resynchronization after it accepted the resynchronization command, in the target group. Check the Remote Replication pair status of the remote array.
DMER090087	0x05090087	There are one or more pairs in the status of [under pair splitting] or [under pair competing] in the group. Retry after waiting for a while.
DMER090088	0x05090088	The specified P-VOL is the reserved VOL. Check the status of the VOL.
DMER090089	0x05090089	The specified P-VOL is undergoing the migration. Check the pair status of the VOL.
DMER09008A	0x0509008A	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER09008B	0x0509008B	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER09008C	0x0509008C	There are one or more Remote Replication P-VOLs corresponding to a RAID group that belongs to the group concerned and the disk drives that configure the RAID group have been spun down. Check the status of the RAID group.
DMER09008D	0x0509008D	The primary pool ID is beyond the limits of supported. Check the pool ID.
DMER09008E	0x0509008E	The secondary pool ID is beyond the limits of supported. Check the pool ID.
DMER09008F	0x0509008F	The specified pool ID differs from the pool ID in use. Check the pool ID.
DMER090090	0x05090090	Swap pair has been issued to the Remote Replication pair with AMS500 or AMS1000. The swap command is not supported in this configuration.
DMER090091	0x05090091	The Swap operation was received in the P-VOL. Check the pair attribute of the VOL.
DMER090092	0x05090092	The Swap operation was received by specifying the pair unit. Please confirm the operation and try again.
DMER090093	0x05090093	The VOL whose pair status is not Takeover exists in the target group. Check the pair status of each VOL in the target group.
DMER090094	0x05090094	Hitachi Storage Navigator Modular 2 is less than Ver.21.60.
		The VOL whose pair status is Busy exists in the target group. Check the pair status of each VOL in the target group.
		Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00.
		An S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each LU in the target group.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		An S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each VOL in the target group.
DMER090095	0x05090095	The VOL whose pair status is Takeover and Delete exists in the target group. Check the pair status of each VOL in the target group.
DMER090096	0x05090096	The number of the unused bit numbers is insufficient. Retry after waiting for a while.
DMER090097	0x05090097	The pool VOL status is normal or other than regressed. Check the status of the pool VOL.
DMER090098	0x05090098	The pool VOL is undergoing the forced parity correction. Check the status of the pool VOL.
DMER090099	0x05090099	There is one or more S-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each VOL in the target group.

Message code	Error code	Message text/Recovery methods
DMER09009A	0x0509009A	There is one or more S-VOL(s), status is normal or other than regressed, in the target group. Check the status of each VOL in the target group.
DMER09009B	0x0509009B	There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each VOL in the target group.
DMER09009C	0x0509009C	There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each VOL in the target group.
DMER09009D	0x0509009D	There exists an S-VOL of a Remote Replication pair, the RAID group which belongs to is in Power Saving mode. Check the status of VOLs in the group.
DMER09009E	0x0509009E	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER09009F	0x0509009F	The specified secondary sequence number does not match with the remote side subsystem serial number. Check the specified command device number.
DMER0900A0	0x050900A0	The command cannot execute because the Auto Migration is undergoing. Check the Migration status.
DMER0900A1	0x050900A1	The command cannot execute because the Auto Migration is undergoing. Check the Migration status.
DMER0900A2	0x050900A2	The command cannot execute because the Auto Migration is undergoing. Check the Migration status.
DMER0900A3	0x050900A3	The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER0900A4	0x050900A4	A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal.
DMER0900A5	0x050900A5	A VOL that belongs to the RAID group that indicates a status other than Normal is included in the group to which the specified pair belongs. Retry after the RAID group status becomes Normal.
DMER0900A6	0x050900A6	A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs that belong to the same group as the specified pair. Retry after the RAID group status becomes Normal.
DMER0900A7	0x050900A7	The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.
DMER0900A8	0x050900A8	The VOL that was specified as P-VOL does not exist. Check the specified VOL.
DMER0900A9	0x050900A9	Management information of Dynamic Provisioning is being updated. Retry after waiting for a while.
DMER0900AA	0x050900AA	The operation can not be performed due to insufficient capacity of the DP Pool for the specified P-VOL. Check the capacity of the DP Pool.
DMER0900AB	0x050900AB	The operation can not be performed due to insufficient capacity of the DP Pool for the P-VOL of a pair in the same group. Check the capacity of the DP Pool.
DMER0900AC	0x050900AC	The operation can not be performed due to insufficient capacity of the DP Pool for the S-VOL of a pair in the same group. Check the capacity of the DP Pool.
DMER0900AD	0x050900AD	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER0900AE	0x050900AE	The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.
DMER0900AF	0x050900AF	The Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.
DMER0900B0	0x050900B0	The specified Replication Data DP pool number or Management Area DP pool number for the local array is beyond the limit. Check the DP pool number.
DMER0900B1	0x050900B1	The specified Replication Data DP pool number or Management Area DP pool number for the remote array is beyond the limit. Check the DP pool number.
DMER0900B2	0x050900B2	There are the maximum number of groups for Remote Replication. Check the number of groups for Remote Replication.
DMER0900B3	0x050900B3	The specified Replication Data DP pool or Management Area DP pool does not exist. Check the status of the DP pool.

Message code	Error code	Message text/Recovery methods
DMER0900B4	0x050900B4	The status of the specified Replication Data DP pool or Management Area DP pool is other than Normal/Regression. Or Replication Data Released Threshold for the DP pool is exceeded. Or the DP pool is depleted. Check the status of the DP pool.
DMER0900B5	0x050900B5	The specified Replication Data DP pool or Management Area DP pool is different from the one that the P-VOL is currently using. Check the specified DP pool number.
DMER0900B6	0x050900B6	Remote Replication pairs are being deleted. Retry after waiting for a while.
DMER0900B7	0x050900B7	There are the maximum number of Remote Replication pairs. Check the number of pairs.
DMER0900B8	0x050900B8	The pair status of the specified S-VOL is invalid. Check the pair status.
DMER0900B9	0x050900B9	Any pair in the specified group is not in the pair status where the operation can be performed. Check the pair status.
DMER0900BA	0x050900BA	There is a pair in the specified group whose pair status is Busy. Retry after waiting for a while.
DMER0900BB	0x050900BB	The local array has created a remote replication pair with another array. Confirm the pair status.
DMER0900BC	0x050900BC	The local array can not execute pair creation with the specified remote array because the maximum number of connected arrays is beyond the limits. Retry after deleting all the remote replication pairs with any of the arrays connected with the local array.
DMER0900BD	0x050900BD	The specified group is used for remote replication pairs with another array. Try again with a group number that has not been assigned to the other pairs.
DMER0900BE	0x050900BE	The remote path connecting to the specified remote array does not exist. Retry after creating the remote path from the local array to the remote array with the specified remote Array ID.
DMER0900BF	0x050900BF	Hitachi Storage Navigator Modular 2 is less than Ver.25.50.
		Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.
		Hitachi Storage Navigator Modular 2 is Ver.25.50 or more.
DMER0900BF	0x050900BF	Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.
DMER0A0001	0x050A0001	The Volume Migration optional feature is invalid. Install the Volume Migration optional feature.
DMER0A0002	0x050A0002	The temporary key of the Volume Migration was expired. Purchase the license.
DMER0A0003	0x050A0003	The status of the specified P-VOL is other than normal and regressive. Check the status of the VOL.
DMER0A0004	0x050A0004	The status of the specified S-VOL is other than normal and regressive. Check the status of the VOL.
DMER0A0005	0x050A0005	The status of the parity correction of the specified P-VOL is Uncorrected or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.
DMER0A0006	0x050A0006	The status of the parity correction of the specified S-VOL is correcting, waiting correction, Uncorrected, or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.
DMER0A0007	0x050A0007	The specified P-VOL has created a Volume Migration pair. Check the pair status of the VOL.
DMER0A0008	0x050A0008	The specified S-VOL has created a Volume Migration pair. Check the pair status of the VOL.
DMER0A0009	0x050A0009	The specified P-VOL has created a ShadowImage pair. Check the pair status of the VOL.
DMER0A000A	0x050A000A	The specified S-VOL has created a ShadowImage pair. Check the pair status of the VOL.
DMER0A000B	0x050A000B	The specified P-VOL is a command device. Check the status of the VOL.
DMER0A000C	0x050A000C	The specified S-VOL is a command device. Check the status of the VOL.
DMER0A000D	0x050A000D	The specified P-VOL has created a Remote Replication pair. Check the pair status of the VOL.
DMER0A000E	0x050A000E	The specified S-VOL has created a Remote Replication pair. Check the pair status of the VOL.
DMER0A000F	0x050A000F	The specified P-VOL has created a Remote Replication pair. Check the pair status of the VOL.
DMER0A0010	0x050A0010	The specified S-VOL has created a Remote Replication pair. Check the pair status of the VOL.
DMER0A0011	0x050A0011	The P-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.

Message code	Error code	Message text/Recovery methods
DMER0A0012	0x050A0012	The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.
DMER0A0013	0x050A0013	The specified P-VOL has created a SnapShot pair. Check the pair status of the VOL.
DMER0A0014	0x050A0014	The specified S-VOL has created a SnapShot pair. Check the pair status of the VOL.
DMER0A0015	0x050A0015	The specified P-VOL is the pool VOL. Check the pair status of the VOL.
DMER0A0016	0x050A0016	The specified S-VOL is the pool VOL. Check the pair status of the VOL.
DMER0A0017	0x050A0017	The specified P-VOL is being quick formatted. Retry after the quick formatting is completed.
DMER0A0018	0x050A0018	The specified S-VOL is being quick formatted. Retry after the quick formatting is completed.
DMER0A0019	0x050A0019	The specified P-VOL is the DM-LU. Check the status of the VOL.
DMER0A001A	0x050A001A	The specified S-VOL is the DM-LU. Check the status of the VOL.
DMER0A001B	0x050A001B	The DM-LU is not set. Retry after setting the DM-LU.
DMER0A001C	0x050A001C	The specified P-VOL has unwritten data. Check the status of the VOL.
DMER0A001D	0x050A001D	The pair cannot be allocated the differential bit map. Split the unnecessary pairs.
DMER0A001E	0x050A001E	The specified P-VOL is a SubVOL of a unified VOL. Check the status of the VOL.
DMER0A001F	0x050A001F	The specified S-VOL is a SubVOL of a unified VOL. Check the status of the VOL.
DMER0A0020	0x050A0020	The size of the specified P-VOL and the S-VOL are not the same. Specify a VOL that the same size.
DMER0A0021	0x050A0021	The DIRs in charge of the specified P-VOL and the S-VOL are not the same. Specify a VOL that belongs to the same DIR.
DMER0A0022	0x050A0022	The VOLs of the specified P-VOL and S-VOL are the same. Check the specified VOL.
DMER0A0023	0x050A0023	There exist maximum number of pairs already (included ShadowImage pairs). Split the unnecessary pairs.
DMER0A0024	0x050A0024	The specified P-VOL is the VOL, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.
DMER0A0025	0x050A0025	The specified S-VOL is the VOL, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.
DMER0A0026	0x050A0026	The RAID group of the specified P-VOL and S-VOL are the same. Specify a different RAID group.
DMER0A0027	0x050A0027	The specified P-VOL is the reserved VOL. Check the status of the VOL.
DMER0A0028	0x050A0028	The specified S-VOL is the reserved VOL. Check the status of the VOL.
DMER0A0029	0x050A0029	The access level of the specified S-VOL is other than the ordinary one. Check the access level of the VOL.
DMER0A002C	0x050A002C	The specified MU number is 8 or higher. Make sure of the specified MU number.
DMER0A002D	0x050A002D	The specified primary port number is beyond the limits of support. Check the specified primary port number.
DMER0A002E	0x050A002E	The specified secondary port number is beyond the limits of support. Check the specified secondary port number.
DMER0A002F	0x050A002F	The specified primary sequence number is different from the own serial number. Check the specified primary sequence number.
DMER0A0030	0x050A0030	The specified secondary sequence number is different from the own serial number. Check the specified secondary sequence number.
DMER0A0031	0x050A0031	The pair concerned is the one that the instruction to start the migration was issued by Navigator etc. Check the owner ID of the specified pair.
DMER0A0032	0x050A0032	The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.
DMER0A0033	0x050A0033	The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.
DMER0A0034	0x050A0034	The Migration status is [data is being copied], [data copy fails], or [data copy is completed]. Check the Migration status.
DMER0A0035	0x050A0035	The Migration status is [access path is being switched] or [access path switching fails]. Check the Migration status.
DMER0A0036	0x050A0036	The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.

Message code	Error code	Message text/Recovery methods
DMER810001	0x05810001	Both of the two paths of the remote array were detached. Check the status of the path.
DMER810002	0x05810002	The process is in progress. Retry after waiting for a while.
DMER810003	0x05810003	The process is in progress. Retry after waiting for a while.
DMER810004	0x05810004	The process is in progress. Retry after waiting for a while.
DMER81000A	0x0581000A	The remote array is receiving a command. Retry after waiting for a while.
DMER81000F	0x0581000F	The path of the remote array was detached. Check the status of the path.
DMER81002C	0x0581002C	The process is in progress. Retry after waiting for a while.
DMER81002D	0x0581002D	The S-VOL of the remote array is being formatted. Retry after waiting for a while.
DMER81002E	0x0581002E	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81002F	0x0581002F	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER810030	0x05810030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER810031	0x05810031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the equipment WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The specified S-VOL is already paired by a different array. Check the pair information.
DMER810033	0x05810033	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER810034	0x05810034	A command error occurred. Retry after waiting for a while.
DMER810035	0x05810035	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER810036	0x05810036	The process is in progress. Retry after waiting for a while. In case that the RAID group to which the VOL that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.
DMER810037	0x05810037	The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry. Or the status of the object VOL is other than normal and regression. Make the status of the object VOL normal or regression. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER810038	0x05810038	Both of the two paths of the remote array were detached. Check the status of the path.
DMER810039	0x05810039	The process is in progress. Retry after waiting for a while.
DMER81003A	0x0581003A	The remote array is busy. Retry after waiting for a while.
DMER81003E	0x0581003E	The S-VOL command is receiving a command. Retry after waiting.
DMER810042	0x05810042	The capacity is beyond the limits of support. Eliminate unnecessary pairs of the remote array.
DMER810058	0x05810058	The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.
DMER810060	0x05810060	The path of the local subsystem is abnormal. Check the status of the path.
DMER810061	0x05810061	The path of the local subsystem is abnormal. Check the status of the path.
DMER810062	0x05810062	The path of the local subsystem is abnormal. Check the status of the path.
DMER810063	0x05810063	The path of the local subsystem is abnormal. Check the status of the path.
DMER8100D4	0x058100D4	The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.
DMER8100D9	0x058100D9	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target VOL belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.

Message code	Error code	Message text/Recovery methods
DMER8100E0	0x058100E0	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8100E5	0x058100E5	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8100E8	0x058100E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.
DMER8100EF	0x058100EF	The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.
DMER8100F3	0x058100F3	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER810103	0x05810103	The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.
DMER810106	0x05810106	The internal transaction of the specified VOL is working now. Retry after waiting for a while.
DMER810109	0x05810109	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER81010C	0x0581010C	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81010F	0x0581010F	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER810112	0x05810112	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER810115	0x05810115	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.
DMER811001	0x05811001	Both of the two paths of the remote array were detached. Check the status of the path.
DMER811002	0x05811002	The process is in progress. Retry after waiting for a while.
DMER811003	0x05811003	The process is in progress. Retry after waiting for a while.
DMER811004	0x05811004	The process is in progress. Retry after waiting for a while.
DMER81100A	0x0581100A	The remote array is receiving a command. Retry after waiting for a while.
DMER81100F	0x0581100F	The path of the remote array was detached. Check the status of the path.
DMER81102C	0x0581102C	The process is in progress. Retry after waiting for a while.
DMER81102D	0x0581102D	The S-VOL of the remote array is being formatted. Retry after waiting for a while.
DMER81102E	0x0581102E	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81102F	0x0581102F	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER811030	0x05811030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER811031	0x05811031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the remote array WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The specified S-VOL is already paired by a different array. Check the pair information.
DMER811033	0x05811033	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER811034	0x05811034	A command error occurred. Retry after waiting for a while.
DMER811035	0x05811035	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER811036	0x05811036	The process is in progress. Retry after waiting for a while. In case that the RAID group to which the VOL that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.
DMER811037	0x05811037	The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number. Or the status of the object VOL is other than normal and regression. Make the status of the object VOL normal or regression. Or the Full Capacity Mode is not supported. Check the firmware version of array.

Message code	Error code	Message text/Recovery methods
DMER811038	0x05811038	Both of the two paths of the remote array were detached. Check the status of the path.
DMER811039	0x05811039	The process is in progress. Retry after waiting for a while.
DMER81103A	0x0581103A	The remote array is busy. Retry after waiting for a while.
DMER81103E	0x0581103E	The S-VOL command is receiving a command. Retry after waiting for a while.
DMER811042	0x05811042	The capacity is beyond the limits of support. Delete unnecessary pairs of the remote array.
DMER811058	0x05811058	The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.
DMER8110D4	0x058110D4	The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.
DMER8110E0	0x058110E0	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8110E5	0x058110E5	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8110E8	0x058110E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.
DMER8110F3	0x058110F3	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER811103	0x05811103	The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.
DMER811106	0x05811106	The internal transaction of the specified VOL is working now. Retry after waiting for a while.
DMER811109	0x05811109	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER81110C	0x0581110C	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81110F	0x0581110F	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER811112	0x05811112	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER811115	0x05811115	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.

Message code	Error code	Message text/Recovery methods
DMER812001	0x05812001	Both of the two paths of the remote array were detached. Check the status of the path.
DMER812002	0x05812002	The process is in progress. Retry after waiting for a while.
DMER812003	0x05812003	The process is in progress. Retry after waiting for a while.
DMER812004	0x05812004	The process is in progress. Retry after waiting for a while.
DMER81200A	0x0581200A	The remote array is receiving a command. Retry after waiting for a while.
DMER81200F	0x0581200F	The path of the remote array was detached. Check the status of the path.
DMER81202C	0x0581202C	The process is in progress. Retry after waiting for a while.
DMER81202D	0x0581202D	The S-VOL of the remote array is being formatted. Retry after waiting for a while.
DMER81202E	0x0581202E	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81202F	0x0581202F	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER812030	0x05812030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER812031	0x05812031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the remote array WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER812033	0x05812033	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER812034	0x05812034	A command error occurred. Retry after waiting for a while.
DMER812035	0x05812035	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER812036	0x05812036	The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.
DMER812037	0x05812037	The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.
DMER812038	0x05812038	Both of the two paths of the remote array were detached. Check the status of the path.
DMER812039	0x05812039	The process is in progress. Retry after waiting for a while.
DMER81203A	0x0581203A	The remote array is busy. Retry after waiting for a while.
DMER81203E	0x0581203E	The S-VOL command is receiving a command. Retry after waiting for a while.
DMER8120D4	0x058120D4	The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.
DMER8120E0	0x058120E0	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8120E5	0x058120E5	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8120E8	0x058120E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.
DMER8120EF	0x058120EF	The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.
DMER8120F3	0x058120F3	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER812109	0x05812109	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER81210C	0x0581210C	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81210F	0x0581210F	Pinned data exists in the DM-LU. Retry after eliminating pinned data.

Message code	Error code	Message text/Recovery methods
DMER812112	0x05812112	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER812115	0x05812115	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.
DMER813001	0x05813001	Both of the two paths of the remote array were detached. Check the status of the path.
DMER813002	0x05813002	The process is in progress. Retry after waiting for a while.
DMER813003	0x05813003	The process is in progress. Retry after waiting for a while.
DMER813004	0x05813004	The process is in progress. Retry after waiting for a while.
DMER81300A	0x0581300A	The remote array is receiving a command. Retry after waiting for a while.
DMER81300F	0x0581300F	The path of the remote array was detached. Check the status of the path.
DMER81301E	0x0581301E	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.
DMER81302C	0x0581302C	The process is in progress. Retry after waiting for a while.
DMER81302D	0x0581302D	The S-VOL of the remote array is being formatted. Retry after waiting for a while.
DMER81302E	0x0581302E	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81302F	0x0581302F	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER813030	0x05813030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER813031	0x05813031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the remote array WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER813033	0x05813033	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER813034	0x05813034	A command error occurred. Retry after waiting for a while.
DMER813035	0x05813035	The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or, the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER813036	0x05813036	The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.
DMER813037	0x05813037	The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number.
DMER813038	0x05813038	Both of the two paths of the remote array were detached. Check the status of the path.
DMER813039	0x05813039	The process is in progress. Retry after waiting for a while.
DMER81303A	0x0581303A	The remote array is busy. Retry after waiting for a while.
DMER81303E	0x0581303E	The S-VOL command is receiving a command. Retry after waiting for a while.
DMER8130D4	0x058130D4	The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.

Message code	Error code	Message text/Recovery methods
DMER8130D9	0x058130D9	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the Array ID, pair status of Local and Remote Replication, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.
DMER8130DE	0x058130DE	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8130E0	0x058130E0	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8130E2	0x058130E2	The remote array is executing Auto Migration. Retry after the Auto Migration is completed.
DMER8130E3	0x058130E3	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8130E5	0x058130E5	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8130E8	0x058130E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.
DMER8130F2	0x058130F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER8130F3	0x058130F3	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER813107	0x05813107	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER813109	0x05813109	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER81310A	0x0581310A	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81310C	0x0581310C	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81310D	0x0581310D	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER81310F	0x0581310F	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER813110	0x05813110	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER813112	0x05813112	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.

Message code	Error code	Message text/Recovery methods
DMER814001	0x05814001	Both of the two paths of the remote array were detached. Check the status of the path.
DMER814002	0x05814002	The process is in progress. Retry after waiting for a while.
DMER814003	0x05814003	The process is in progress. Retry after waiting for a while.
DMER814004	0x05814004	The process is in progress. Retry after waiting for a while.
DMER81400A	0x0581400A	The remote array is receiving a command. Retry after waiting for a while.
DMER81400F	0x0581400F	The path of the remote array was detached. Check the status of the path.
DMER81401E	0x0581401E	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, the RAID group status, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.
DMER81402C	0x0581402C	The process is in progress. Retry after waiting for a while.
DMER81402D	0x0581402D	The S-VOL of the remote array is being formatted. Retry after waiting for a while.
DMER81402E	0x0581402E	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81402F	0x0581402F	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER814030	0x05814030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER814031	0x05814031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the remote array WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER814033	0x05814033	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER814034	0x05814034	A command error occurred. Retry after waiting for a while.
DMER814035	0x05814035	The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or, the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER814036	0x05814036	The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.
DMER814037	0x05814037	The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number.
DMER814038	0x05814038	Both of the two paths of the remote array were detached. Check the status of the path.
DMER814039	0x05814039	The process is in progress. Retry after waiting for a while.
DMER81403A	0x0581403A	The remote array is busy. Retry after waiting for a while.
DMER81403E	0x0581403E	The S-VOL command is receiving a command. Retry after waiting for a while.
DMER8140D4	0x058140D4	The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.
DMER8140D9	0x058140D9	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the Array ID, pair status of Local and Remote Replication, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.
DMER8140DE	0x058140DE	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.

Message code	Error code	Message text/Recovery methods
DMER8140E0	0x058140E0	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8140E2	0x058140E2	The remote array is executing Auto Migration. Retry after the Auto Migration is completed.
DMER8140E3	0x058140E3	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8140E5	0x058140E5	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8140E8	0x058140E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.
DMER8140F2	0x058140F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER8140F3	0x058140F3	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER814107	0x05814107	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER814109	0x05814109	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER81410A	0x0581410A	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81410C	0x0581410C	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81410D	0x0581410D	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER81410F	0x0581410F	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER814110	0x05814110	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER814112	0x05814112	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.

Message code	Error code	Message text/Recovery methods
DMER815001	0x05815001	Both of the two paths of the remote array were detached. Check the status of the path.
DMER815002	0x05815002	The process is in progress. Retry after waiting for a while.
DMER815003	0x05815003	The process is in progress. Retry after waiting for a while.
DMER815004	0x05815004	The process is in progress. Retry after waiting for a while.
DMER81500A	0x0581500A	The remote array is receiving a command. Retry after waiting for a while.
DMER81500F	0x0581500F	The path of the remote array was detached. Check the status of the path.
DMER81502C	0x0581502C	The process is in progress. Retry after waiting for a while.
DMER81502D	0x0581502D	The S-VOL of the remote array is being formatted. Retry after waiting for a while.
DMER81502E	0x0581502E	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81502F	0x0581502F	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER815030	0x05815030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER815031	0x05815031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the remote array WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER815033	0x05815033	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER815034	0x05815034	A command error occurred. Retry after waiting for a while.
DMER815035	0x05815035	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER815036	0x05815036	The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.
DMER815037	0x05815037	The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.
DMER815038	0x05815038	Both of the two paths of the remote array were detached. Check the status of the path.
DMER815039	0x05815039	The process is in progress. Retry after waiting for a while.
DMER81503A	0x0581503A	The remote array is busy. Retry after waiting for a while.
DMER81503E	0x0581503E	The S-VOL command is receiving a command. Retry after waiting for a while.
DMER8150D4	0x058150D4	The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.
DMER8150E0	0x058150E0	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8150E5	0x058150E5	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8150E8	0x058150E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.
DMER8150EF	0x058150EF	The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.
DMER8150F3	0x058150F3	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER815109	0x05815109	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER81510C	0x0581510C	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER81510F	0x0581510F	Pinned data exists in the DM-LU. Retry after eliminating pinned data.

Message code	Error code	Message text/Recovery methods
DMER815112	0x05815112	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER815115	0x05815115	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.
DMER816022	0x05816022	The process is in progress. Retry after waiting for a while.
DMER816023	0x05816023	The process is in progress. Retry after waiting for a while.
DMER816024	0x05816024	The process is in progress. Retry after waiting for a while.
DMER816025	0x05816025	The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.
DMER816026	0x05816026	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER816027	0x05816027	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER816028	0x05816028	The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.
DMER816029	0x05816029	A command error occurred. Retry after waiting for a while.
DMER81602A	0x0581602A	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.
DMER81602B	0x0581602B	Both of the two paths of the remote subsystem were detached. Check the status of the path.
DMER81602C	0x0581602C	The process is in progress. Retry after waiting for a while.
DMER81602D	0x0581602D	The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.
DMER81602E	0x0581602E	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81602F	0x0581602F	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER816030	0x05816030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER816031	0x05816031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The specified S-VOL is already paired by a different array. Check the pair information.
DMER816032	0x05816032	The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.
DMER816033	0x05816033	The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER816035	0x05816035	The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER816038	0x05816038	Both of the two paths of the remote subsystem were detached. Check the status of the path.
DMER816041	0x05816041	The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.
DMER816086	0x05816086	The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.
DMER816087	0x05816087	The S-VOL of the remote subsystem is executing format. Create the pair again after the quick formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER816088	0x05816088	The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.
DMER816089	0x05816089	The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.
DMER81608D	0x0581608D	The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the VOL in the remote array.
DMER81608E	0x0581608E	The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.

Message code	Error code	Message text/Recovery methods
DMER816091	0x05816091	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem. Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. The Array ID of the remote array is wrong, or the maximum number of connected arrays is beyond the limits. Check the Array ID of the remote array, the number of connected arrays and the group number.
DMER816094	0x05816094	The RAID level of the S-VOL in the remote array is RAID 0. Set the RAID level other than RAID 0 in the remote array.
DMER816095	0x05816095	The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.
DMER816096	0x05816096	The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the VOL status of the remote subsystem.
DMER816097	0x05816097	The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.
DMER81609A	0x0581609A	The status of the VOL that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the VOL is belongs indicates a status other than Normal or the VOL is created in DP pool. Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify a VOL other than a VOL created in DP pool to S-VOL.
DMER81609B	0x0581609B	The S-VOL in the remote subsystem is a unified VOL consists of 17 or more VOLs. Make the number of the unified VOLs that constitute the unified VOL of the remote subsystem 16 or less.
DMER81609C	0x0581609C	The VOL capacity of the S-VOL in the remote array is not the same as the P-VOL capacity. Make the VOL capacity of the remote array the same as that of the P-VOL. Or the Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER81609D	0x0581609D	The S-VOL in the remote array is set to a Cache Residency VOL. Specify a VOL other than a Cache Residency VOL of the remote array.
DMER81609E	0x0581609E	A VOL with a capacity less than 1 GB is included in the VOLs in which the S-VOL is unified in the remote subsystem. Check the status of the unified VOL of the remote subsystem.
DMER81609F	0x0581609F	This operation cannot be executed due to lack of resources within the remote array. Retry after waiting for a while.
DMER8160A0	0x058160A0	The remote subsystem has no pool VOL. Make a pool VOL for the remote subsystem.
DMER8160A1	0x058160A1	The VOL specified as the S-VOL in the remote subsystem is a pool VOL. The pool VOL cannot be set to an S-VOL. Check the pool VOL status of the remote subsystem.
DMER8160A2	0x058160A2	The VOL status of the pool VOL in the remote subsystem is normal or other than regressed. Check the pool VOL status of the remote subsystem.
DMER8160A3	0x058160A3	The pool VOL in the remote array is undergoing the forced parity correction. Check the pool VOL status of the remote array and retry after waiting for a while. Or the Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.
DMER8160A4	0x058160A4	The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.
DMER8160A5	0x058160A5	The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.
DMER8160A6	0x058160A6	The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.
DMER8160A7	0x058160A7	The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.

Message code	Error code	Message text/Recovery methods
DMER8160A8	0x058160A8	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem. Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. The Remote Replication pair status of the S-VOL in the remote array is Takeover or the determined data at the end of the previous cycle is being restored to the S-VOL. Check the Remote Replication pair status of the remote array.
DMER8160A9	0x058160A9	The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.
DMER8160AA	0x058160AA	The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.
DMER8160AB	0x058160AB	The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.
DMER8160B4	0x058160B4	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160B5	0x058160B5	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL change for it has been started. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160B6	0x058160B6	The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160B7	0x058160B7	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160B8	0x058160B8	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160B9	0x058160B9	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER8160BA	0x058160BA	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it has pinned data. Contact the service personnel.
DMER8160BB	0x058160BB	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER8160BC	0x058160BC	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER8160BD	0x058160BD	The S-VOL in the remote subsystem cannot change an ownership of VOL and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160BE	0x058160BE	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, the group# is illegal. Check the status of the remote subsystem.
DMER8160C0	0x058160C0	The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.
DMER8160C1	0x058160C1	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160C2	0x058160C2	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.
DMER8160C5	0x058160C5	The cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.
DMER8160D2	0x058160D2	The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.
DMER8160DD	0x058160DD	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.

Message code	Error code	Message text/Recovery methods
DMER8160E0	0x058160E0	Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.
DMER8160E5	0x058160E5	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8160E8	0x058160E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with the array.
DMER8160EA	0x058160EA	The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.
DMER8160ED	0x058160ED	Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER8160EF	0x058160EF	The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.
DMER8160F3	0x058160F3	Hitachi Storage Navigator Modular 2 is less than Ver.22.50. The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Hitachi Storage Navigator Modular 2 is Ver.22.50 or more. The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.
DMER8160F6	0x058160F6	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER8160F8	0x058160F8	The Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.
DMER816123	0x05816123	The specified Replication Data DP pool for the remote array does not exist. Check the status of the Replication Data DP pool for the remote array.
DMER816126	0x05816126	The specified Management Area DP pool for the remote array does not exist. Check the status of the Management Area DP pool for the remote array.
DMER816129	0x05816129	The status of the specified Replication Data DP pool for the remote array is other than Normal/Regression. Check the status of the Replication Data DP pool for the remote array
DMER81612C	0x0581612C	The status of the specified Management Area DP pool for the remote array is other than Normal/Regression. Check the status of the Management Area DP pool for the remote array.
DMER81612F	0x0581612F	The specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Replication Data DP pool number for the remote array.
DMER816133	0x05816133	The specified Management Area DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Management Area DP pool number for the remote array
DMER816136	0x05816136	The Remote Replication pair deletion process is running on the Replication Data DP pool of the remote array. Retry after waiting for a while.
DMER816139	0x05816139	The Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Retry after waiting for a while.
DMER81613C	0x0581613C	There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.
DMER81613F	0x0581613F	The cycle time that has been set for the local array is less than the minimum interval. Check the cycle time that has been set for the local array.
DMER816143	0x05816143	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again. Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.

Message code	Error code	Message text/Recovery methods
DMER816146	0x05816146	Cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.
DMER817022	0x05817022	The process is in progress. Retry after waiting for a while.
DMER817023	0x05817023	The process is in progress. Retry after waiting for a while.
DMER817024	0x05817024	The process is in progress. Retry after waiting for a while.
DMER817025	0x05817025	The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.
DMER817026	0x05817026	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER817027	0x05817027	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER817028	0x05817028	The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.
DMER817029	0x05817029	A command error occurred. Retry after waiting for a while.
DMER81702A	0x0581702A	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.
DMER81702B	0x0581702B	Both of the two paths of the remote subsystem were detached. Check the status of the path.
DMER81702C	0x0581702C	The process is in progress. Retry after waiting for a while.
DMER81702D	0x0581702D	The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.
DMER81702E	0x0581702E	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER81702F	0x0581702F	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER817030	0x05817030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the attribute of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER817031	0x05817031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The specified S-VOL is already paired by a different array. Check the pair information.
DMER817032	0x05817032	The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.
DMER817033	0x05817033	The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER817035	0x05817035	The optional feature of Remote Replication of the remote array is invalid. Unlock and enable the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER817038	0x05817038	Both of the two paths of the remote subsystem were detached. Check the status of the path.
DMER817041	0x05817041	The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.
DMER817042	0x05817042	The capacity of Remote Replication pair is beyond the limits within the remote array. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.
DMER817086	0x05817086	The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.
DMER817087	0x05817087	The S-VOL of the remote subsystem is executing format. Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER817088	0x05817088	The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.
DMER817089	0x05817089	The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.

Message code	Error code	Message text/Recovery methods
DMER81708A	0x0581708A	The S-VOL in the remote subsystem cannot be allocated the differential bit of Remote Replication. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.
DMER81708B	0x0581708B	The capacity of Remote Replication pair is beyond the limits within the remote array. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.
DMER81708C	0x0581708C	The process is in progress. Retry after waiting for a while.
DMER81708D	0x0581708D	The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the VOL in the remote array.
DMER81708E	0x0581708E	The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.
DMER817091	0x05817091	Hitachi Storage Navigator Modular 2 is less than Ver.21.70.
		The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem.
		Hitachi Storage Navigator Modular 2 is Ver.21.70 or more.
		The Array ID of the remote array is wrong, or the maximum number of connected arrays is beyond the limits. Check the Array ID of the remote array, the number of connected arrays and the group number.
DMER817094	0x05817094	The RAID level of the S-VOL in the remote array is RAID 0. Make the RAID level of the remote array other than RAID 0.
DMER817095	0x05817095	The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.
DMER817096	0x05817096	The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the VOL status of the remote subsystem.
DMER817097	0x05817097	The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.
DMER817098	0x05817098	The S-VOL in the remote array is changing the cache partition. Check the status of the remote array and retry after waiting for a while.
DMER81709A	0x0581709A	The status of the VOL that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the VOL is belongs indicates a status other than Normal or the VOL is created in DP pool. Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify a VOL other than a VOL created in DP pool to S-VOL.
DMER81709B	0x0581709B	The S-VOL in the remote subsystem is a unified VOL consists of 17 or more VOLs. Make the number of the unified VOLs that constitute the unified VOL of the remote subsystem 16 or less.
DMER81709C	0x0581709C	The VOL capacity of the S-VOL in the remote array is not the same as the P-VOL capacity. Make the VOL capacity of the remote array the same as that of the P-VOL. Or the Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER81709D	0x0581709D	The S-VOL in the remote array is set to a Cache Residency VOL. Specify a VOL other than a Cache Residency VOL of the remote array.
DMER81709E	0x0581709E	A VOL with a capacity less than 1 GB is included in the VOLs in which the S-VOL is unified in the remote subsystem. Check the status of the unified VOL of the remote subsystem.
DMER81709F	0x0581709F	The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.
DMER8170A0	0x058170A0	The remote subsystem has no pool VOL. Make a pool VOL for the remote subsystem.
DMER8170A1	0x058170A1	The VOL specified as the S-VOL in the remote subsystem is a pool VOL. The pool VOL cannot be set to an S-VOL. Check the pool VOL status of the remote subsystem.
DMER8170A2	0x058170A2	The VOL status of the pool VOL in the remote subsystem is normal or other than regressed. Check the pool VOL status of the remote subsystem.
DMER8170A3	0x058170A3	The pool VOL in the remote array is undergoing the forced parity correction. Check the pool VOL status of the remote array and retry after waiting for a while. Or the Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.

Message code	Error code	Message text/Recovery methods
DMER8170A4	0x058170A4	The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.
DMER8170A5	0x058170A5	The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.
DMER8170A6	0x058170A6	The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.
DMER8170A7	0x058170A7	The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.
DMER8170A8	0x058170A8	Hitachi Storage Navigator Modular 2 is less than Ver.21.60.
		The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.
		Hitachi Storage Navigator Modular 2 is Ver.21.60 or more.
		The Remote Replication pair status of the S-VOL in the remote array is Takeover or the determined data at the end of the previous cycle is being restored to the S-VOL. Check the Remote Replication pair status for the remote array.
DMER8170A9	0x058170A9	The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.
DMER8170AA	0x058170AA	The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.
DMER8170AB	0x058170AB	The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.
DMER8170B4	0x058170B4	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.
DMER8170B5	0x058170B5	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL change for it has been started. Check the status of the remote subsystem and retry after waiting for a while.
DMER8170B6	0x058170B6	The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote subsystem and retry after waiting for a while.
DMER8170B7	0x058170B7	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.
DMER8170B8	0x058170B8	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.
DMER8170B9	0x058170B9	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER8170BA	0x058170BA	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it has pinned data. Contact the service personnel.
DMER8170BB	0x058170BB	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER8170BC	0x058170BC	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER8170BD	0x058170BD	The S-VOL in the remote subsystem cannot change an ownership of VOL and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.
DMER8170BE	0x058170BE	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, the group# is illegal. Check the status of the remote subsystem.
DMER8170C0	0x058170C0	The S-VOL in the remote array does not exist on the default owner controller and, at the same time, its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.
DMER8170C1	0x058170C1	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMER8170C2	0x058170C2	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.
DMER8170D2	0x058170D2	The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.
DMER8170DD	0x058170DD	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER8170E0	0x058170E0	Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.
DMER8170E5	0x058170E5	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8170E8	0x058170E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with the array.
DMER8170EA	0x058170EA	The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.
DMER8170ED	0x058170ED	Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER8170F3	0x058170F3	Hitachi Storage Navigator Modular 2 is less than Ver.22.50. The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Hitachi Storage Navigator Modular 2 is Ver.22.50 or more. The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.
DMER8170F6	0x058170F6	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER8170F8	0x058170F8	The Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.
DMER817123	0x05817123	The specified Replication Data DP pool for the remote array does not exist. Check the status of the Replication Data DP pool for the remote array.
DMER817126	0x05817126	The specified Management Area DP pool for the remote array does not exist. Check the status of the Management Area DP pool of the remote array.
DMER817129	0x05817129	The status of the specified Replication Data DP pool for the remote array is other than Normal/Regression. Check the status of the Replication Data DP pool for the remote array.
DMER81712C	0x0581712C	The status of the specified Management Area DP pool for the remote array is other than Normal/Regression. Check the status of the Management Area DP pool for the remote array.
DMER81712F	0x0581712F	The specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Replication Data DP pool number for the remote array.
DMER817133	0x05817133	The specified Management Area DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Management Area DP pool number for the remote array.
DMER817136	0x05817136	The Remote Replication pair deletion process is running on the Replication Data DP pool for the remote array. Retry after waiting for a while.
DMER817139	0x05817139	The Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Retry after waiting for a while.
DMER81713C	0x0581713C	There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.
DMER81713F	0x0581713F	The cycle time that has been set for the local array is less than the minimum interval. Check the cycle time that has been set for the local array.

Message code	Error code	Message text/Recovery methods
DMER817143	0x05817143	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again. Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.
DMER817146	0x05817146	Cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot pair that is cascaded with the Remote Replication group. Retry after the pair split completes.
DMER819022	0x05819022	The process is in progress. Retry after waiting for a while.
DMER819023	0x05819023	The process is in progress. Retry after waiting for a while.
DMER819024	0x05819024	The process is in progress. Retry after waiting for a while.
DMER819025	0x05819025	The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.
DMER819026	0x05819026	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER819027	0x05819027	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER819028	0x05819028	The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.
DMER819029	0x05819029	A command error occurred. Retry after waiting for a while.
DMER81902A	0x0581902A	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.
DMER81902B	0x0581902B	Both of the two paths of the remote subsystem were detached. Check the status of the path.
DMER8190DE	0x058190DE	Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.

Message code	Error code	Message text/Recovery methods
DMER81A022	0x0581A022	Now executing. Wait a while and execute again.
DMER81A023	0x0581A023	Now executing. Wait a while and execute again.
DMER81A024	0x0581A024	Now executing. Wait a while and execute again.
DMER81A025	0x0581A025	The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.
DMER81A026	0x0581A026	The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.
DMER81A027	0x0581A027	The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.
DMER81A028	0x0581A028	The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.
DMER81A029	0x0581A029	Command error was occurred. Wait a while and execute again.
DMER81A02A	0x0581A02A	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.
DMER81A02B	0x0581A02B	Both of the two paths of the remote subsystem were detached. Check the status of the path.
DMER81A02C	0x0581A02C	Now executing. Wait a while and execute again.
DMER81A02D	0x0581A02D	The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.
DMER81A02E	0x0581A02E	The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.
DMER81A02F	0x0581A02F	The remote subsystem is undergoing the pseudo deliberate shutdown. Wait a while and execute again.
DMER81A030	0x0581A030	The S-VOL is undefined. Check the attribute of the VOL.
DMER81A032	0x0581A032	The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.
DMER81A033	0x0581A033	The remote subsystem is undergoing hot replacement of the firmware. Wait a while and execute again.
DMER81A035	0x0581A035	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.
DMER81A038	0x0581A038	Both of the two paths of the remote subsystem were detached. Check the status of the path.
DMER81A041	0x0581A041	Now executing. Wait a while and execute again.
DMER81A089	0x0581A089	The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.
DMER81A08B	0x0581A08B	The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool VOL status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.
DMER81A08C	0x0581A08C	The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool VOL status of the remote subsystem and retry after waiting for a while.
DMER81A08D	0x0581A08D	The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the VOL status of the remote subsystem and satisfying the conditions stated in the User's Guide.
DMER81A090	0x0581A090	Now executing. Wait a while and execute again.
DMER81A091	0x0581A091	The indicated Array ID is not same as the actual one for remote subsystem. Confirm the Array ID for the remote subsystem.
DMER81A095	0x0581A095	The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A097	0x0581A097	The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.
DMER81A099	0x0581A099	The array can not execute the operation because the target P-VOL of the specified VOL does not exist. Delete the pair regarding the P-VOL in the remote array and create a remote replication pair.
DMER81A09A	0x0581A09A	The VOL status of the S-VOL in the remote array is normal or other than regressed or the RAID group to which the VOL is belongs indicates a status other than Normal. Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.
DMER81A09F	0x0581A09F	The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMER81A0A0	0x0581A0A0	The remote subsystem has no pool VOL. Make a pool VOL for the remote subsystem.
DMER81A0A1	0x0581A0A1	The VOL specified as the S-VOL in the remote subsystem is a pool VOL. The pool VOL cannot be set to an S-VOL. Check the pool VOL status of the remote subsystem.
DMER81A0A2	0x0581A0A2	The VOL status of the S-VOL in the remote subsystem is normal or other than regressed. Check the pool VOL status of the remote subsystem.
DMER81A0A3	0x0581A0A3	The pool VOL in the remote subsystem is undergoing the forced parity correction. Check the pool VOL status of the remote subsystem and retry after waiting for a while.
DMER81A0A4	0x0581A0A4	The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.
DMER81A0A5	0x0581A0A5	The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.
DMER81A0A6	0x0581A0A6	The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.
DMER81A0A7	0x0581A0A7	The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.
DMER81A0A8	0x0581A0A8	The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.
DMER81A0A9	0x0581A0A9	The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.
DMER81A0AA	0x0581A0AA	The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.
DMER81A0AB	0x0581A0AB	The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.
DMER81A0B4	0x0581A0B4	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0B5	0x0581A0B5	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL change for it has been started. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0B6	0x0581A0B6	The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0B7	0x0581A0B7	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0B8	0x0581A0B8	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0B9	0x0581A0B9	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER81A0BA	0x0581A0BA	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it has pinned data. Contact the service personnel.
DMER81A0BB	0x0581A0BB	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER81A0BC	0x0581A0BC	The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER81A0BD	0x0581A0BD	The S-VOL in the remote subsystem cannot change an ownership of VOL and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0BE	0x0581A0BE	The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, the group# is illegal. Check the status of the remote subsystem.

Message code	Error code	Message text/Recovery methods
DMER81A0C1	0x0581A0C1	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0C2	0x0581A0C2	The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.
DMER81A0D2	0x0581A0D2	The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.
DMER81A0D3	0x0581A0D3	The license validity of the remote subsystem is expired. Purchase the license.
DMER81A0DD	0x0581A0DD	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER81A0E0	0x0581A0E0	Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.
DMER81A0E5	0x0581A0E5	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER81A0E8	0x0581A0E8	The remote array is executing a pair operation with another array. Retry after the pair operation is completed with the array.
DMER81A0F3	0x0581A0F3	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER81A123	0x0581A123	The specified Replication Data DP pool for the remote array does not exist. Check the status of the Replication Data DP pool for the remote array.
DMER81A126	0x0581A126	The specified Management Area DP pool for the remote array does not exist. Check the status of the Management Area DP pool for the remote array.
DMER81A129	0x0581A129	The status of the specified Replication Data DP pool for the remote array is other than Normal/Regression. Check the status of the Replication Data DP pool for the remote array.
DMER81A12C	0x0581A12C	The status of the specified Management Area DP pool for the remote array is other than Normal/Regression. Check the status of the Management Area DP pool for the remote array.
DMER81A12F	0x0581A12F	The specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Replication Data DP pool number for the remote array.
DMER81A133	0x0581A133	The specified Management Area DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Management Area DP pool number for the remote array.
DMER81A136	0x0581A136	The Remote Replication pair deletion process is running on the Replication Data DP pool of the remote array. Retry after waiting for a while.
DMER81A139	0x0581A139	The Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Retry after waiting for a while.
DMER81A143	0x0581A143	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again. Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.

Message code	Error code	Message text/Recovery methods
DMER820005	0x05820005	The VOL of the remote array is being formatted. Retry after waiting for a while.
DMER820006	0x05820006	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER820007	0x05820007	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER820008	0x05820008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the status of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER820009	0x05820009	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the equipment WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The specified S-VOL is already paired by a different array. Check the pair information.
DMER82000B	0x0582000B	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER82000C	0x0582000C	A command error occurred. Retry after waiting for a while.
DMER82000D	0x0582000D	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.
DMER82000E	0x0582000E	The status of the S-VOL cannot be changed. Retry after waiting for a while.
DMER820011	0x05820011	The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the VOL and Array ID or number of the connected arrays.
DMER820012	0x05820012	The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.
DMER820015	0x05820015	The status of the object P-VOL or S-VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Make the status of the P-VOL or S-VOL normal or regression and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.
DMER820017	0x05820017	The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.
DMER820019	0x05820019	The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.
DMER82001A	0x0582001A	The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.
DMER82001C	0x0582001C	The object VOL is a command device. Specify a VOL other than a command device.
DMER82001D	0x0582001D	The change of the default owner controller is reserved for the object VOL. Cancel the reservation for changing the default owner controller or specify the VOL for which the change of the default owner controller is not reserved.
DMER82001E	0x0582001E	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, the capacity of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.
DMER820021	0x05820021	The object VOL has already been cascaded with a ShadowImage pair. Check the pair status of the VOL and check that its pair attribute is P-VOL.
DMER820032	0x05820032	The remote array is receiving a command. Retry after waiting.
DMER82003D	0x0582003D	Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.
DMER82003F	0x0582003F	The VOL assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the VOL.
DMER820040	0x05820040	The S-VOL of the specified pair cannot accept Read/Write instructions or is a part of ShadowImage whose status is Reverse Synchronizing. Check the status of the S-VOL or the pair status of the ShadowImage pair.
DMER820041	0x05820041	The process is in progress. Retrying after waiting.

Message code	Error code	Message text/Recovery methods
DMER820045	0x05820045	The stripe size of the object VOL of the remote array is other than 64KB. Make the stripe size of the VOL of the remote array 64KB.
DMER820046	0x05820046	The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.
DMER820048	0x05820048	The specified VOL is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises a VOL of the remote array.
DMER820049	0x05820049	The object VOL of the remote array is being formatted. Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER82004A	0x0582004A	The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote array.
DMER820050	0x05820050	The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the VOL of the remote array to Restored or Skip.
DMER820053	0x05820053	The number of unified VOLs of the remote array is 17 or more. Make the number of unified VOLs of the remote array 16 or less.
DMER820054	0x05820054	The V-VOL which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is a VOL of the remote array.
DMER820055	0x05820055	The object VOL of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote array to a volume other than a V-VOL of SnapShot.
DMER820058	0x05820058	The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.
DMER820059	0x05820059	The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER82005A	0x0582005A	The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.
DMER82005B	0x0582005B	The specified S-VOL is the pool VOL. Check the status of the VOL.
DMER82005C	0x0582005C	The specified S-VOL is the NAS VOL. Check the status of the VOL.
DMER8200C6	0x058200C6	The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.
DMER8200C7	0x058200C7	The specified S-VOL is the reserved VOL. Re-execute the migration specifying a VOL other than the reserved VOL for the S-VOL.
DMER8200CF	0x058200CF	The disk drives that configure a RAID group to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.
DMER8200D4	0x058200D4	The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.
DMER8200D9	0x058200D9	The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.
DMED8200DE	0x058200DE	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8200E2	0x058200E2	The remote array is executing Auto Migration. Retry after the Auto Migration is completed.
DMER8200E3	0x058200E3	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8200E9	0x058200E9	The specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.
DMER8200F1	0x058200F1	Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER8200F2	0x058200F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.

Message code	Error code	Message text/Recovery methods
DMER8200F5	0x058200F5	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER820101	0x05820101	The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.
DMER820104	0x05820104	The internal transaction of the specified VOL is working now. Retry after waiting for a while.
DMER820107	0x05820107	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER82010A	0x0582010A	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER82010D	0x0582010D	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER820110	0x05820110	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER820113	0x05820113	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.
DMER821005	0x05821005	The VOL of the remote array is being formatted. Retry after waiting for a while.
DMER821006	0x05821006	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER821007	0x05821007	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER821008	0x05821008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the status of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER821009	0x05821009	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the equipment WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The specified S-VOL is already paired by a different array. Check the pair information.
DMER82100B	0x0582100B	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER82100C	0x0582100C	A command error occurred. Retry after waiting for a while.
DMER82100D	0x0582100D	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.
DMER82100E	0x0582100E	The status of the S-VOL cannot be changed. Retry after waiting for a while.
DMER821011	0x05821011	The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the VOL and Array ID or number of the connected Array.
DMER821012	0x05821012	The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.
DMER821015	0x05821015	The status of the object P-VOL or S-VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Make the status of the P-VOL or S-VOL normal or regression and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.
DMER821017	0x05821017	The S-VOL is configured as RAID 0. Check the RAID level of the specified VOL.
DMER821019	0x05821019	The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.
DMER82101A	0x0582101A	The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.
DMER82101C	0x0582101C	The object VOL is a command device. Specify a VOL other than a command device.
DMER82101D	0x0582101D	The change of the default owner controller is reserved for the object VOL. Cancel the reservation for changing the default owner controller or specify the VOL for which the change of the default owner controller is not reserved.

Message code	Error code	Message text/Recovery methods
DMER82101E	0x0582101E	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, the capacity of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.
DMER82102I	0x0582102I	The object VOL has already been cascaded with a ShadowImage pair. Check the pair status of the VOL and check that its pair attribute is P-VOL.
DMER821032	0x05821032	The remote array is receiving a command. Retry after waiting for a while.
DMER82103F	0x0582103F	The VOL assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the VOL.
DMER821040	0x05821040	The object VOL of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the VOL.
DMER82104I	0x0582104I	The process is in progress. Retry after waiting for a while.
DMER821045	0x05821045	The stripe size of the object VOL of the remote array is other than 64KB. Make the stripe size of the VOL of the remote array 64KB.
DMER821046	0x05821046	The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote array in the Simplex status once and then operate the pair.
DMER821048	0x05821048	The specified VOL is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises a VOL of the remote array.
DMER821049	0x05821049	The object VOL of the remote array is being quick formatted. Create the pair again after the quick formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER82104A	0x0582104A	The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote array.
DMER821050	0x05821050	The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote array to Restored or Skip.
DMER821053	0x05821053	The number of unified VOLs of the remote array is 17 or more. Make the number of unified VOLs of the remote array 16 or less.
DMER821054	0x05821054	The V-VOL, which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is a VOL of the remote array.
DMER821055	0x05821055	The object VOL of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote array to a volume other than a V-VOL of SnapShot.
DMER821058	0x05821058	The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.
DMER821059	0x05821059	The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER82105A	0x0582105A	The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.
DMER82105B	0x0582105B	The specified S-VOL is the pool VOL. Check the status of the VOL.
DMER82105C	0x0582105C	The specified S-VOL is the NAS VOL. Check the status of the VOL.
DMER8210C6	0x058210C6	The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.
DMER8210C7	0x058210C7	The specified S-VOL is the reserved VOL. Re-execute the migration specifying a VOL other than the reserved VOL for the S-VOL.
DMER8210CF	0x058210CF	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.

Message code	Error code	Message text/Recovery methods
DMER8210D4	0x058210D4	The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.
DMER8210DE	0x058210DE	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8210E2	0x058210E2	The remote array is executing Auto Migration. Retry after the Auto Migration is completed.
DMER8210E3	0x058210E3	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8210E9	0x058210E9	The specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.
DMER8210F1	0x058210F1	Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER8210F2	0x058210F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER8210F5	0x058210F5	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER821101	0x05821101	The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.
DMER821104	0x05821104	The internal transaction of the specified VOL is working now. Retry after waiting for a while.
DMER821107	0x05821107	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER82110A	0x0582110A	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER82110D	0x0582110D	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER821110	0x05821110	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER821113	0x05821113	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.
DMER822005	0x05822005	The VOL of the remote array is being formatted. Retry after waiting for a while.
DMER822006	0x05822006	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER822007	0x05822007	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER822008	0x05822008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the status of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER822009	0x05822009	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the equipment WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER82200B	0x0582200B	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER82200C	0x0582200C	A command error occurred. Retry after waiting for a while.
DMER82200D	0x0582200D	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.
DMER82200E	0x0582200E	The status of the S-VOL cannot be changed. Retry after waiting for a while.
DMER822011	0x05822011	The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.
DMER822014	0x05822014	The current Array ID differs from the number that was set initially. Check the Array ID.
DMER822015	0x05822015	The status of the object VOL is other than normal and regressive. Make the status of the VOL normal or regressive.

Message code	Error code	Message text/Recovery methods
DMER82201E	0x0582201E	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.
DMER822020	0x05822020	The object VOL of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the VOL.
DMER822032	0x05822032	The remote array is receiving a command. Retry after waiting for a while.
DMER82203D	0x0582203D	Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.
DMER822041	0x05822041	The process is in progress. Retry after waiting for a while.
DMER822046	0x05822046	The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote array, in the Simplex status once and then operate the pair.
DMER82204A	0x0582204A	The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote array.
DMER822050	0x05822050	The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote array to Restored or Skip.
DMER822059	0x05822059	The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER8220CF	0x058220CF	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.
DMER8220D4	0x058220D4	The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.
DMER8220D7	0x058220D7	The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.
DMER8220D8	0x058220D8	The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.
DMER8220DE	0x058220DE	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8220E2	0x058220E2	The remote array is executing Auto Migration. Retry after the Auto Migration is completed.
DMER8220E3	0x058220E3	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8220F2	0x058220F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER822107	0x05822107	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER82210A	0x0582210A	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER82210D	0x0582210D	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER822110	0x05822110	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER822113	0x05822113	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.

Message code	Error code	Message text/Recovery methods
DMER823005	0x05823005	The VOL of the remote array is being formatted. Retry after waiting for a while.
DMER823006	0x05823006	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER823007	0x05823007	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER823008	0x05823008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the status of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER823009	0x05823009	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the equipment WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER82300B	0x0582300B	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER82300C	0x0582300C	A command error occurred. Retry after waiting for a while.
DMER82300D	0x0582300D	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.
DMER82300E	0x0582300E	The status of the S-VOL cannot be changed. Retry after waiting for a while.
DMER823011	0x05823011	The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.
DMER82301E	0x0582301E	The object VOL has been organized into a Remote Replication pair. Check the pair status of the VOL.
DMER823032	0x05823032	The remote array is receiving a command. Retry after waiting for a while.
DMER823041	0x05823041	The process is in progress. Retry after waiting for a while.
DMER823046	0x05823046	The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote array, in the Simplex status once and then operate the pair.
DMER8230D4	0x058230D4	The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.
DMER8230D7	0x058230D7	The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.
DMER8230D8	0x058230D8	The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.
DMER8230D9	0x058230D9	The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.
DMER824005	0x05824005	The VOL of the remote array is being formatted. Retry after waiting for a while.
DMER824006	0x05824006	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER824007	0x05824007	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER824008	0x05824008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the status of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER824009	0x05824009	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the equipment WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER82400B	0x0582400B	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER82400C	0x0582400C	A command error occurred. Retry after waiting for a while.
DMER82400D	0x0582400D	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.
DMER82400E	0x0582400E	The status of the S-VOL cannot be changed. Retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMER824011	0x05824011	The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.
DMER82401E	0x0582401E	The object VOL has been organized into a Remote Replication pair. Check the pair status of the VOL.
DMER824032	0x05824032	The remote array is receiving a command. Retry after waiting for a while.
DMER824041	0x05824041	The process is in progress. Retry after waiting for a while.
DMER824046	0x05824046	The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.
DMER8240D4	0x058240D4	The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.
DMER8240D7	0x058240D7	The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.
DMER8240D8	0x058240D8	The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.
DMER8240D9	0x058240D9	The status the remote array is in an inappropriate condition to create the Remote Replication pair. Confirm the Array ID, pair status of Remote Replication and status of SnapShot and ShadowImage. See the User's Guide for their detail information.
DMER825005	0x05825005	The VOL of the remote array is being formatted. Retry after waiting for a while.
DMER825006	0x05825006	The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER825007	0x05825007	The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER825008	0x05825008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.
		The S-VOL is undefined. Check the status of the VOL.
		Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.
		The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.
DMER825009	0x05825009	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.
		The WWN of the remote array is illegal. Check the equipment WWN.
		Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.
		The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER82500B	0x0582500B	The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.
DMER82500C	0x0582500C	A command error occurred. Retry after waiting for a while.
DMER82500D	0x0582500D	The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.
DMER82500E	0x0582500E	The status of the S-VOL cannot be changed. Retry after waiting for a while.
DMER825011	0x05825011	The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.
DMER825014	0x05825014	The current Array ID differs from the number that was set initially. Check the Array ID.
DMER825015	0x05825015	The status of the object VOL is other than normal and regressive. Make the status of the VOL normal or regressive.
DMER82501E	0x0582501E	The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.
DMER825020	0x05825020	The object VOL of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the VOL.
DMER825032	0x05825032	The remote array is receiving a command. Retry after waiting for a while.
DMER82503D	0x0582503D	Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.

Message code	Error code	Message text/Recovery methods
DMER825041	0x05825041	The process is in progress. Retry after waiting for a while.
DMER825046	0x05825046	The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.
DMER825047	0x05825047	The specified VOL is an S-VOL of ShadowImage. Specify a VOL other than a ShadowImage S-VOL that comprises the VOL of the remote array.
DMER82504B	0x0582504B	Check the pair status of the VOL. Cancel the S-VOL Disable specified for the VOL of the remote array (at the time of a swap).
DMER825050	0x05825050	The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the VOL of the remote array to Restored or Skip.
DMER825056	0x05825056	The target VOL of the remote array is a V-VOL of SnapShot (at the time of swap). Specify the VOL of the remote array other than a V-VOL of SnapShot.
DMER825059	0x05825059	The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER8250CF	0x058250CF	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.
DMER8250D4	0x058250D4	The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.
DMER8250D7	0x058250D7	The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status Split or Simplex.
DMER8250D8	0x058250D8	The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status Split or Simplex.
DMER8250DE	0x058250DE	Auto Migration is being executed in the remote array. Execute again after the Migration is completed.
DMER8250E2	0x058250E2	The remote array is executing Auto Migration. Retry after the Auto Migration is completed.
DMER8250E3	0x058250E3	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8250F2	0x058250F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER825107	0x05825107	The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.
DMER82510A	0x0582510A	The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.
DMER82510D	0x0582510D	Pinned data exists in the DM-LU. Retry after eliminating pinned data.
DMER825110	0x05825110	The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.
DMER825113	0x05825113	The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.

Message code	Error code	Message text/Recovery methods
DMER826011	0x05826011	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the VOL and Array ID. Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. The specified VOL has a remote replication pair with another array. Or the maximum number of connected arrays is beyond the limits. Confirm the pair status, the Array ID or the number of connected arrays.
DMER826012	0x05826012	The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.
DMER826015	0x05826015	The status of the object VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool. Make the status of the VOL normal or regression and specify a VOL other than a VOL created in DP pool to S-VOL.
DMER826017	0x05826017	The S-VOL resides in the RAID group of RAID 0. Choose a RAID group of RAID level other than RAID 0.
DMER826019	0x05826019	The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.
DMER82601A	0x0582601A	The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.
DMER82601C	0x0582601C	The object VOL is a command device. Specify a VOL other than a command device.
DMER82601E	0x0582601E	The object VOL has been organized into a Remote Replication pair or the RAID group to which the object VOL belongs indicates a status other than Normal. Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.
DMER826026	0x05826026	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER826027	0x05826027	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER82602A	0x0582602A	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.
DMER826040	0x05826040	The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.
DMER826045	0x05826045	The stripe size of the object VOL of the remote subsystem is other than 64KB. Make the stripe size of the VOL of the remote subsystem 64KB.
DMER826046	0x05826046	The object VOL of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote subsystem, in the Simplex status once and then operate the pair.
DMER826049	0x05826049	The object VOL of the remote subsystem is being formatted. Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER82604A	0x0582604A	The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote subsystem.
DMER826050	0x05826050	The object VOL of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote subsystem to Restored or Skip.
DMER826053	0x05826053	The number of unified VOLs of the remote subsystem is 17 or more. Make the number of unified VOLs of the remote subsystem 16 or less.
DMER826055	0x05826055	The object VOL of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote subsystem to a volume other than a V-VOL of SnapShot.
DMER826059	0x05826059	The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER82605A	0x0582605A	The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.
DMER82605B	0x0582605B	The specified S-VOL is the pool VOL. Check the status of the VOL.

Message code	Error code	Message text/Recovery methods
DMER8260B3	0x058260B3	The specified S-VOL is a unified VOL including a SubVOL with a capacity less than 1 GB. Check whether the VOL with a capacity less than 1 GB is included in each VOL of the specified unified VOL.
DMER8260C4	0x058260C4	When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.
DMER8260C6	0x058260C6	The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.
DMER8260C7	0x058260C7	The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.
DMER8260CA	0x058260CA	The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.
DMER8260CB	0x058260CB	The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.
DMER8260CF	0x058260CF	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.
DMER8260D1	0x058260D1	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.
DMER8260D2	0x058260D2	<p>Hitachi Storage Navigator Modular 2 is less than Ver.21.60. The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00. The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.23.00 or more, less than Ver.25.50. The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.</p>
DMER8260DB	0x058260DB	The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.
DMER8260DD	0x058260DD	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER8260DE	0x058260DE	Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.

Message code	Error code	Message text/Recovery methods
DMER8260E1	0x058260E1	The operation to change VOL has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.
DMER8260E3	0x058260E3	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8260E9	0x058260E9	The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.
DMER8260F1	0x058260F1	Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER8260F2	0x058260F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER8260F5	0x058260F5	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER82613A	0x0582613A	There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.
DMER827011	0x05827011	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the VOL and Array ID. Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. The specified VOL has a remote replication pair with another array. Or the maximum number of connected arrays is beyond the limits. Confirm the pair status, the Array ID or the number of connected arrays.
DMER827012	0x05827012	The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.
DMER827015	0x05827015	The status of the object VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool. Make the status of the VOL normal or regression and specify a VOL other than a VOL created in DP pool to S-VOL.
DMER827017	0x05827017	The S-VOL is configured as RAID 0. Check the RAID level of the specified VOL.
DMER827019	0x05827019	The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.
DMER82701A	0x0582701A	The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.
DMER82701C	0x0582701C	The object VOL is a command device. Specify a VOL other than a command device.
DMER82701E	0x0582701E	The object VOL has been organized into a Remote Replication pair or the RAID group to which the object VOL belongs indicates a status other than Normal. Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.
DMER827026	0x05827026	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER827027	0x05827027	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER82702A	0x0582702A	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.
DMER827040	0x05827040	The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.
DMER827045	0x05827045	The stripe size of the object VOL of the remote subsystem is other than 64KB. Make the stripe size of the VOL of the remote subsystem 64KB.
DMER827046	0x05827046	The object VOL of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote subsystem, in the Simplex status once and then operate the pair.
DMER827049	0x05827049	The object VOL of the remote subsystem is being formatted. Create the pair again after the formatting is completed Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.

Message code	Error code	Message text/Recovery methods
DMER82704A	0x0582704A	The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote subsystem.
DMER827050	0x05827050	The object VOL of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote subsystem to Restored or Skip.
DMER827053	0x05827053	The number of unified VOLs of the remote subsystem is 17 or more. Make the number of unified VOLs of the remote subsystem 16 or less.
DMER827055	0x05827055	The object VOL of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote subsystem to a volume other than a V-VOL of SnapShot.
DMER827059	0x05827059	The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER82705A	0x0582705A	The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.
DMER82705B	0x0582705B	The specified S-VOL is the pool VOL. Check the status of the VOL.
DMER8270B3	0x058270B3	The specified S-VOL is a unified VOL including a SubVOL with a capacity less than 1 GB. Check whether the VOL with a capacity less than 1 GB is included in each VOL of the specified unified VOL.
DMER8270C4	0x058270C4	When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.
DMER8270C6	0x058270C6	The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.
DMER8270C7	0x058270C7	The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.
DMER8270CA	0x058270CA	The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.
DMER8270CB	0x058270CB	The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.
DMER8270CF	0x058270CF	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.

Message code	Error code	Message text/Recovery methods
DMER8270D1	0x058270D1	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.
DMER8270D2	0x058270D2	<p>Hitachi Storage Navigator Modular 2 is less than Ver.21.60.</p> <p>The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00.</p> <p>The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.23.00 or more, less than Ver.25.50.</p> <p>The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.25.50 or more.</p> <p>The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.</p>
DMER8270DB	0x058270DB	The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.
DMER8270DD	0x058270DD	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER8270DE	0x058270DE	Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.
DMER8270E1	0x058270E1	The operation to change VOL has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.
DMER8270E3	0x058270E3	The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER8270E9	0x058270E9	The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.
DMER8270F1	0x058270F1	Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.
DMER8270F2	0x058270F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER8270F5	0x058270F5	The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.
DMER82713A	0x0582713A	There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.

Message code	Error code	Message text/Recovery methods
DMER82901E	0x0582901E	The object VOL has been organized into a Remote Replication pair. Check the pair status of the VOL.
DMER829026	0x05829026	The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.
DMER829027	0x05829027	The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.
DMER82902A	0x0582902A	The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.
DMER82903D	0x0582903D	Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.
DMER82905E	0x0582905E	There is a SnapShot pair, which has an MU number specified for a SnapShot P-VOL, has not been placed in the Paired or Split status, and whose S-VOL is one of the S-VOLs with the specified group numbers. Check the pair status of the SnapShot. Or, the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER82905F	0x0582905F	There is no pair, which is in the Paired status, in the target group. Check the pair status of each VOL in the target group.
DMER8290DE	0x058290DE	Auto Migration is being executed in the remote array just now. Execute again after the Migration is completed.
DMER8290F2	0x058290F2	Hitachi Storage Navigator Modular 2 is less than Ver.22.50. The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Hitachi Storage Navigator Modular 2 is Ver.22.50 or more. The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.
DMER829145	0x05829145	Cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.
DMER82A011	0x0582A011	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. The indicated VOL is in the Remote Replication pair for another subsystem. Confirm the pair status for the VOL and also the Array ID. Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. The specified VOL has a remote replication pair with another array. Or the maximum number of connected arrays is beyond the limits. Confirm the pair status, the Array ID or the number of connected arrays.
DMER82A015	0x0582A015	The status of the object VOL is other than normal and regressive. Make the VOL status be normal or regressive.
DMER82A01E	0x0582A01E	The object VOL has been organized into a Remote Replication pair or the RAID group to which the object VOL belongs indicates a status other than Normal. Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.
DMER82A026	0x0582A026	The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.
DMER82A027	0x0582A027	The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.
DMER82A02A	0x0582A02A	The optional feature of Remote Replication of the remote array is disabled. Unlock and enable the optional feature.
DMER82A02B	0x0582A02B	Both of the two remote paths of the local array were detached. Check the status of the path.
DMER82A030	0x0582A030	The S-VOL is undefined. Check the attribute of the VOL.
DMER82A031	0x0582A031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. The WWN of the remote array is illegal. Check the equipment WWN. Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. The target VOL of the remote array is already paired by a different array. Check the pair information.
DMER82A035	0x0582A035	The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER82A038	0x0582A038	Both of the two paths of the remote array were detached. Check the status of the path.

Message code	Error code	Message text/Recovery methods
DMER82A046	0x0582A046	The indicated VOL in the remote subsystem is being restored for SnapShot or can not be executed the Read and Write command for the SnapShot pair. Execute again after having the SnapShot pair status in the remote subsystem be Simplex.
DMER82A04A	0x0582A04A	The S-VOL is 'S-VOL Disable' status. Release the indication for the 'S-VOL Disable' in the remote subsystem.
DMER82A050	0x0582A050	The indicated VOL in the remote subsystem is in the forced parity correction, or has not executed the forced parity correction yet. Make the VOL status for the forced parity correction in remote subsystem be Restored or Skip.
DMER82A059	0x0582A059	The license of the remote array expires. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.
DMER82A05D	0x0582A05D	Now executing. Wait a while and execute again.
DMER82A089	0x0582A089	The S-VOL of the remote array is in the status of S-VOL Disable. Check the status of the remote array and cancel the access attribute.
DMER82A08B	0x0582A08B	This operation cannot be executed due to lack of resources within the remote array. Try the operation again after deleting unnecessary pairs.
DMER82A08C	0x0582A08C	This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.
DMER82A08D	0x0582A08D	The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the VOL in the remote array.
DMER82A090	0x0582A090	The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the VOL in the remote array.
DMER82A091	0x0582A091	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. The indicated Array ID is not same as the actual one for remote array. Confirm the Array ID for the remote array. Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. The Array ID of the remote array is wrong, or the maximum number of the connected arrays is beyond the limits. Check the Array ID of the remote array, the number of connected arrays or the group number.
DMER82A095	0x0582A095	The S-VOL in the remote array is undergoing the forced parity correction. Check the status of the remote array and retry after waiting for a while.
DMER82A097	0x0582A097	The S-VOL in the remote array received an illegal command. Check the status of the remote array.
DMER82A09A	0x0582A09A	The VOL status of the S-VOL in the remote array is normal or other than regressed. Check the VOL status of the remote array.
DMER82A09F	0x0582A09F	Splitting or deleting SnapShot pair is in progress. Retry after waiting for a while.
DMER82A0A0	0x0582A0A0	The remote array has no data pool. Create a data pool in the remote array.
DMER82A0A1	0x0582A0A1	The VOL specified as the S-VOL in the remote array is a data pool VOL. The data pool VOL cannot be set to an S-VOL. Check the data pool VOL status of the remote array.
DMER82A0A2	0x0582A0A2	The VOL status of the S-VOL in the remote array is normal or other than regressed. Check the pool VOL status of the remote array.
DMER82A0A3	0x0582A0A3	The data pool VOL in the remote array is undergoing the forced parity correction. Check the pool VOL status of the remote array and retry after waiting for a while.
DMER82A0A4	0x0582A0A4	The S-VOL in the remote array exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote array. In addition, delete unnecessary pairs of the remote array.
DMER82A0A5	0x0582A0A5	The Remote Replication pair status of the S-VOL in the remote array is Failure. Check the Remote Replication pair status of the remote array.
DMER82A0A6	0x0582A0A6	The Remote Replication pair status of the S-VOL in the remote array is Pool Full. Check the Remote Replication pair status of the remote array.
DMER82A0A7	0x0582A0A7	The Remote Replication pair status of the S-VOL in the remote array is Split (no read/write allowed). Check the Remote Replication pair status of the remote array.

Message code	Error code	Message text/Recovery methods
DMER82A0A8	0x0582A0A8	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. The Remote Replication pair status of the S-VOL in the remote array is Takeover (including Busy). Check the Remote Replication pair status of the remote array. Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. The Remote Replication pair status of the S-VOL in the remote array is Takeover or the determined data at the end of the previous cycle is being restored to the S-VOL. Check the Remote Replication pair status of the remote array.
DMER82A0A9	0x0582A0A9	The Remote Replication pair status of the S-VOL in the remote array is Simplex. Check the Remote Replication pair status of the remote array.
DMER82A0AA	0x0582A0AA	The Remote Replication pair status of the S-VOL in the remote array is Split. Check the Remote Replication pair status of the remote array.
DMER82A0AB	0x0582A0AB	The Remote Replication pair status of the S-VOL in the remote array is not Simplex. Check the Remote Replication pair status of the remote array.
DMER82A0B4	0x0582A0B4	The S-VOL in the remote array does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote array and retry after waiting for a while.
DMER82A0B5	0x0582A0B5	The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of VOL change for it has been started. Check the status of the remote array and retry after waiting for a while.
DMER82A0B6	0x0582A0B6	The S-VOL in the remote array does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote array and retry after waiting for a while.
DMER82A0B7	0x0582A0B7	The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of VOL to be changed is blocked. Check the status of the remote array and retry after waiting for a while.
DMER82A0B8	0x0582A0B8	The S-VOL in the remote array cannot change an ownership of VOL and at the same time it is using the sequential buffer. Check the status of the remote array and retry after waiting for a while.
DMER82A0B9	0x0582A0B9	The S-VOL in the remote array cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER82A0BA	0x0582A0BA	The S-VOL in the remote array cannot change an ownership of VOL and at the same time it has pinned data. Contact the service personnel.
DMER82A0BB	0x0582A0BB	The S-VOL in the remote array cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER82A0BC	0x0582A0BC	The S-VOL in the remote array cannot change an ownership of VOL temporarily. Retry after waiting for a while.
DMER82A0BD	0x0582A0BD	The S-VOL in the remote array cannot change an ownership of VOL and a time-out occurred. Check the status of the remote array and retry after waiting for a while.
DMER82A0BE	0x0582A0BE	The S-VOL in the remote array cannot change an ownership of VOL, and the group number is illegal. Check the status of the remote array.
DMER82A0C0	0x0582A0C0	The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.
DMER82A0C1	0x0582A0C1	The S-VOL in the remote array does not exist on the default owner controller, and the array is performing the system copy. Check the status of the remote array and retry after waiting for a while.
DMER82A0C2	0x0582A0C2	The S-VOL in the remote array does not exist on the default owner controller, and the array is writing the configuration information. Check the status of the remote array and retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMER82A0D1	0x0582A0D1	The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.
DMER82A0D2	0x0582A0D2	<p>Hitachi Storage Navigator Modular 2 is less than Ver.21.60.</p> <p>The S-VOL pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00.</p> <p>The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.23.00 or more, less than Ver.25.50.</p> <p>The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.</p> <p>Hitachi Storage Navigator Modular 2 is Ver.25.50 or more.</p> <p>The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.</p>
DMER82A0D3	0x0582A0D3	The license has expired. Purchase the license.
DMER82A0DB	0x0582A0DB	The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.
DMER82A0DD	0x0582A0DD	The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.
DMER82A0DE	0x0582A0DE	Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.
DMER82A0E1	0x0582A0E1	The operation to change VOL has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.
DMER82A0E3	0x0582A0E3	The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.
DMER82A0F2	0x0582A0F2	The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.

Message code	Error code	Message text/Recovery methods
DMES000000	0x01000000	Please retry.
DMES010200	0x01010200	Please retry.
DMES010600	0x01010600	Please retry.
DMES010802	0x01010802	Please retry.
DMES010900	0x01010900	Please retry.
DMES011300	0x01011300	Please retry.
DMES011401	0x01011401	Please retry.
DMES011501	0x01011501	Please retry.
DMES011502	0x01011502	Please retry.
DMES011700	0x01011700	Please retry.
DMES011701	0x01011701	Please retry.
DMES011702	0x01011702	Please retry.
DMES011703	0x01011703	Please retry.
DMES011800	0x01011800	Please retry.
DMES011801	0x01011801	Please retry.
DMES011802	0x01011802	Please retry.
DMES011902	0x01011902	Please retry.
DMES011903	0x01011903	Please retry.
DMES013200	0x01013200	Please retry.
DMES013201	0x01013201	Please retry.
DMES015B00	0x01015B00	Please retry.
DMES015B02	0x01015B02	Please retry.
DMES015B03	0x01015B03	Please retry.
DMES018A03	0x01018A03	Please retry.
DMES018A04	0x01018A04	Please retry.
DMES018B01	0x01018B01	Please retry.
DMES019621	0x01019621	A reboot is required to confirm a setup.
DMES019625	0x01019625	The Account Authentication is enabled successfully.
DMES019626	0x01019626	The Account Authentication is disabled successfully.
DMES019627	0x01019627	The Account Authentication is installed successfully.
DMES019628	0x01019628	The Account Authentication is de-installed successfully.
DMES0196F7	0x010196F7	The backup by append write is requested.
DMES01EA05	0x0101EA05	The firmware has been downloaded to the system drives, but some system drives could not be used. The subsystem can be used.
DMES020400	0x01020400	The process cannot be performed because formatting is now occurring, or VOL is unformatted. Please confirm the VOL status and try again.
DMES020401	0x01020401	Please retry.
DMES020402	0x01020402	Please retry.
DMES020403	0x01020403	The requested operation cannot be executed because the target drives are in spin-down status by Power Saving function. Please retry the operation after spinning-up the drives by Power Saving function.
DMES020404	0x01020404	The process cannot be performed because formatting is now occurring. Retry after formatting completes.
DMES020484	0x01020484	The subsystem is under shutdown process. Retry when the subsystem is in Ready status.
DMES020500	0x01020500	Please retry.
DMES023E00	0x01023E00	Please retry.

Message code	Error code	Message text/Recovery methods
DMES029500	0x01029500	The process cannot be performed because the subsystem is under shutdown process. Please wait a moment and restart the subsystem, then try again.
DMES029501	0x01029501	The process cannot be performed because the subsystem is in a shutdown state. Please restart the subsystem and then try again.
DMES02959A	0x0102959A	Please retry.
DMES02959B	0x0102959B	Please retry.
DMES02959C	0x0102959C	The process cannot be performed because the subsystem is executing the Auto Migration. Please confirm the Migration Status and try again.
DMES030C02	0x01030C02	Please retry.
DMES031000	0x01031000	Please retry.
DMES031102	0x01031102	Please retry.
DMES031104	0x01031104	Please retry.
DMES031200	0x01031200	Please retry.
DMES031300	0x01031300	Please retry.
DMES031401	0x01031401	Please retry.
DMES031501	0x01031501	Please retry.
DMES031502	0x01031502	Please retry.
DMES031902	0x01031902	Please retry.
DMES031903	0x01031903	Please retry.
DMES031C01	0x01031C01	Please retry.
DMES031C02	0x01031C02	Please retry.
DMES031D00	0x01031D00	Please retry.
DMES033100	0x01033100	Please retry.
DMES033101	0x01033101	Formatting ended abnormally. Please retry after waiting for a while.
DMES033180	0x01033180	The specified VOL is unformatted. Specify a formatted VOL and try again.
DMES033181	0x01033181	Please retry.
DMES033201	0x01033201	Please retry.
DMES038E01	0x01038E01	Please retry.
DMES039300	0x01039300	Please retry.
DMES03F000	0x0103F000	Please retry.
DMES03F100	0x0103F100	Please retry.
DMES03F200	0x0104F200	Please retry.
DMES03F300	0x0104F300	Please retry.
DMES040100	0x01040100	Please retry.
DMES040200	0x01040200	Please retry.
DMES040300	0x01040300	Please retry.
DMES040600	0x01040600	Please retry.
DMES040700	0x01040700	Please retry.
DMES040800	0x01040800	Please retry.
DMES040801	0x01040801	Please retry.
DMES040802	0x01040802	Please retry.
DMES040900	0x01040900	Please retry.
DMES041B00	0x01041B00	Please retry.
DMES043200	0x01043200	Please retry.
DMES044400	0x01044400	Please retry.
DMES0444A0	0x010444A0	Please retry.
DMES044C00	0x01044C00	Please retry.

Message code	Error code	Message text/Recovery methods
DMES048A01	0x01048A01	Please retry.
DMES048A02	0x01048A02	Please retry.
DMES049000	0x01049000	Please retry.
DMES049001	0x01049001	Please retry.
DMES049100	0x01049100	Please retry.
DMES049101	0x01049101	Please retry.
DMES049502	0x01049502	The requested operation cannot be performed. Please confirm there are any alarms or warnings in the subsystem.
DMES049504	0x01049504	The process cannot be performed because Switch Array failed. Please confirm the subsystem status and then try again.
DMES049599	0x01049599	Please retry.
DMES049900	0x01049900	Please retry.
DMES049903	0x01049903	The elimination of PIN data is not completed. Please wait for a while and then try again.
DMES04A000	0x0104A000	Please retry.
DMES04E400	0x0104E400	Please retry.
DMES04EA01	0x0104EA01	Please retry.
DMES04EA02	0x0104EA02	Please retry.
DMES04EA10	0x0104EA10	An error was detected in firmware downgrade check. Please retry by using another firmware.
DMES04EA11	0x0104EA11	The specified firmware could not be installed on to the array because the firmware version is old.
DMES04EB00	0x0104EB00	The information could not be set because the backup floppy disk is not inserted.
DMES04EB01	0x0104EB01	The backup information could not be written on to the FD because the FDD is in use or an error occurred in the FDD on the subsystem.
DMES04EB02	0x0104EB02	An error occurred while writing on to the floppy disk.
DMES04EB03	0x0104EB03	The SCSI ID could not be set online due to other controller blockage.
DMES04F400	0x0104F400	Please retry.
DMES04F610	0x0104F610	Please retry.
DMES04F611	0x0104F611	Please retry.
DMES04F620	0x0104F620	Please retry.
DMES04F621	0x0104F621	Please retry.
DMES04F630	0x0104F630	Please retry.
DMES04F631	0x0104F631	Please retry.
DMES04F640	0x0104F640	Please retry.
DMES04F641	0x0104F641	Please retry.
DMES04F650	0x0104F650	Please retry.
DMES04F651	0x0104F651	Please retry.
DMES04F660	0x0104F660	Please retry.
DMES04F661	0x0104F661	Please retry.
DMES04F670	0x0104F670	Please retry.
DMES04F671	0x0104F671	Please retry.
DMES04F800	0x0104F800	Please retry.
DMES04F801	0x0104F801	Please retry.
DMES04F802	0x0104F802	Please retry.
DMES04F803	0x0104F803	Please retry.
DMES04F804	0x0104F804	Please retry.
DMES04F805	0x0104F805	Please retry.
DMES04F807	0x0104F807	Please retry.
DMES04F808	0x0104F808	Please retry.
DMES04F809	0x0104F809	Please retry.
DMES04F8F0	0x0104F8F0	Please retry.

Message code	Error code	Message text/Recovery methods
DMES04F900	0x0104F900	Please retry.
DMES04F901	0x0104F901	Please retry.
DMES04F902	0x0104F902	Please retry.
DMES04F903	0x0104F903	Please retry.
DMES04F904	0x0104F904	Please retry.
DMES04F905	0x0104F905	Please retry.
DMES04F906	0x0104F906	Please retry.
DMES04F907	0x0104F907	Please retry.
DMES04F908	0x0104F908	Please retry.
DMES04F909	0x0104F909	Please retry.
DMES04F9F0	0x0104F9F0	Please retry.
DMES050000	0x01050000	Please retry.
DMES051A00	0x01051A00	Please retry.
DMES052000	0x01052000	Please retry.
DMES052100	0x01052100	Please retry.
DMES052400	0x01052400	Please retry.
DMES052500	0x01052500	The process cannot be performed because the VOL is undefined or cannot be recognized from a host.
DMES052580	0x01052580	Failed to allocate VOL. Confirm the specified value.
DMES052581	0x01052581	The RAID group is not defined. Please specify an existing RAID group.
DMES052583	0x01052583	The Cache Residency function cannot be enabled.
DMES052584	0x01052584	The last LBA in the RAID group defined at RAID1+0 full mapping does not match the current value.
DMES052590	0x01052590	The VOL non-owner controller received a VOL replacement command (for TRESPASS mode only).
DMES0525A0	0x010525A0	Please retry.
DMES052600	0x01052600	The process failed due to an invalid parameter. Confirm the specified value.
DMES052601	0x01052601	The process failed due to an unsupported parameter. Confirm the specified value.
DMES052602	0x01052602	The process failed due to an invalid parameter. Confirm the specified value.
DMES052604	0x01052604	It failed in release of Persistent Reservation because the type of the Persistent Reserve command was different.
DMES055504	0x01055504	It is impossible to register over 32 VOL Reservation Keys.
DMES058C01	0x01058C01	Please retry.
DMES059401	0x01059401	Please retry.
DMES059503	0x01059503	The process cannot be performed because Switch Array failed. Please confirm the subsystem status and then try again.
DMES059505	0x01059505	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMES059510	0x01059510	The process cannot be performed because the firmware is being replaced.
DMES059511	0x01059511	The process cannot be performed because the SVP is being replaced.
DMES059520	0x01059520	The specified function cannot be performed because the subsystem is in an incorrect status for execution. Please confirm there are no alarms/warnings in the subsystem, or the configuration is changed.
DMES059521	0x01059521	Change in HotStandbyMode from DualActiveMode and change in DualActiveMode from HotStandbyMode cannot be performed because the PIN exceeded state. Restore PIN data and try again.
DMES059530	0x01059530	The specified User ID is not registered.
DMES059531	0x01059531	Could not execute the function, because another user is already logged in.
DMES059532	0x01059532	The specified User ID is already registered.
DMES059533	0x01059533	Failed in registration, because 20 users have already been registered.
DMES059534	0x01059534	Specified password is not confirmed.
DMES059535	0x01059535	Another user already logged in.
DMES059536	0x01059536	The function cannot be used because it is not installed, locked, or disabled.
DMES059537	0x01059537	The function cannot be executed because you haven't logged in.

Message code	Error code	Message text/Recovery methods
DMES059540	0x01059540	A spare disk is defined within the range of the specified RAID group. Please specify the range which does not contain a spare disk.
DMES059541	0x01059541	The drive capacity of RAID group is invalid, or the RAID group capacity is too large.
DMES059542	0x01059542	The specified drive cannot be used as a spare drive.
DMES059543	0x01059543	The number of spare drives has reached the maximum.
DMES059544	0x01059544	The specified drive is already defined as a spare drive, or is already being used in the RAID group.
DMES059545	0x01059545	The specified drive capacity is smaller than that of the RAID group.
DMES059546	0x01059546	The specified drive is not defined as a spare drive.
DMES059547	0x01059547	The specified spare drive cannot be released because it is in use.
DMES059548	0x01059548	The specified function has already been unlocked.
DMES059549	0x01059549	The specified function has already been locked.
DMES05954A	0x0105954A	Invalid key code.
DMES05954B	0x0105954B	The RAID group cannot be defined because the drive is not mounted, or a blocked drive exists.
DMES05954C	0x0105954C	The specified drive cannot be defined as a spare drive because it is not mounted or is in blocked status.
DMES05954D	0x0105954D	The process cannot be performed because the target mode is not M-TID, M-LUN.
DMES05954E	0x0105954E	The process cannot be performed because the addition of target information required but changed or deleted information exist.
DMES059550	0x01059550	The function cannot be executed because of write prohibition.
DMES059551	0x01059551	The function cannot be executed because concealment mode is enabled.
DMES059552	0x01059552	The function cannot be executed because the coupling VOL or command device exists.
DMES059554	0x01059554	The function cannot be executed because the command device is not registered.
DMES059555	0x01059555	The function cannot be executed because the stripe size is not 64KB.
DMES059557	0x01059557	VOL capacities of the P-VOL and S-VOL are not the same. Check the capacity of the VOL.
DMES059558	0x01059558	The process cannot be performed because the specified VOL is a unified VOL, or unified VOLs exist.
DMES059559	0x01059559	The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.
DMES05955A	0x0105955A	The unification cannot be performed because the controllers in charge of the VOLs do not match.
DMES05955B	0x0105955B	The unification cannot be performed because the controller in charge of VOL is reserved to be changed. Cancel the reservation and then try again.
DMES05955C	0x0105955C	The VOL of RAID0 cannot be unified. Specify a VOL which the RAID level is not RAID0.
DMES05955D	0x0105955D	The unification cannot be performed because the size of the unified VOL will exceed the maximum.
DMES05955E	0x0105955E	The separation cannot be performed because the specified VOL is not a unified VOL. Specify a unified VOL and then try again.
DMES059560	0x01059560	The process cannot be performed because the target mode is not M-TID, M-LUN.
DMES059561	0x01059561	The process cannot be performed because the target mode is M-TID, M-LUN, but target information have already been set.
DMES059562	0x01059562	The unification cannot be performed because the specified Sub VOL is a unified VOL. Specify a non-unified VOL for Sub VOL and then try again.
DMES059563	0x01059563	The unification or separation cannot be performed because the specified VOL is a Sub VOL. Specify a Main VOL (unified VOL) and then try again.
DMES059564	0x01059564	VOL0 cannot be specified as a Sub VOL. Specify a VOL other than VOL0 for Sub VOL and then try again.
DMES059565	0x01059565	The unification (VOL concatenation) cannot be performed because the status of the VOL is not normal (a disk might have failed). Specify a VOL where the status is normal, and then try again.
DMES059566	0x01059566	The process cannot be performed because the VOL number is over max VOL number. Specify a number under max VOL number and then try again.
DMES059568	0x01059568	The specified RAID group cannot be deleted because it contains VOL0, and VOLs exists in other RAID groups.
DMES059569	0x01059569	The specified VOL cannot be deleted because it is not the last defined VOL.
DMES05956A	0x0105956A	Cannot define the specified VOL because VOL0 is not yet defined. Define VOL0 first, and then try again.

Message code	Error code	Message text/Recovery methods
DMES05956B	0x0105956B	The capacity is beyond the limits of supported. Split the unnecessary pairs.
DMES059571	0x01059571	Failed to set the path. Please confirm the conditions required for a path setup are met.
DMES059572	0x01059572	Failed to delete the path. Please confirm the conditions required for path deletion are met.
DMES059573	0x01059573	The option which cannot be specified at the same time is unlocked.
DMES059574	0x01059574	The process cannot be performed because Remote Replication is in progress.
DMES059575	0x01059575	The option cannot be locked or disabled because the path has already been set.
DMES059577	0x01059577	The process cannot be performed because the pair creation is in progress.
DMES05957A	0x0105957A	The process cannot be performed because the status of pair is suspend. Please retry after solving the error.
DMES05957B	0x0105957B	The process cannot be performed under 'pair' status. Please retry after splitting the pair.
DMES05957C	0x0105957C	The process cannot be performed because the pair has been created in other subsystem.
DMES05957D	0x0105957D	The process cannot be performed because the subsystem is over the inflow threshold.
DMES05957E	0x0105957E	The process cannot be performed because the status of ShadowImage pair is incorrect.
DMES05957F	0x0105957F	The option cannot be unlocked because it is in use in the fibre channel subsystem.
DMES059580	0x01059580	The process cannot be performed because the RAID Manager is doing a conflicting process. Please wait a moment and then try again.
DMES059590	0x01059590	The process cannot be performed because the subsystem is for the exclusive use of 128 VOLs.
DMES059591	0x01059591	The process cannot be performed because the number of ShadowImage pairs reached the maximum.
DMES059596	0x01059596	Please retry.
DMES059600	0x01059600	The process cannot be performed. Wait for a while and then try again.
DMES059601	0x01059601	The specified host group number is invalid.
DMES059602	0x01059602	The process cannot be performed because the specified option is a fee-basis option.
DMES059603	0x01059603	The process cannot be performed because the specified size of VOL is over max VOL size.
DMES059606	0x01059606	The specified VOL is invalid. Specify a valid VOL and try again.
DMES059607	0x01059607	The function cannot be executed because the pair VOL or SnapShot volume already exists.
DMES05960A	0x0105960A	The function cannot be executed because there already exists volumes added to the data pool.
DMES059612	0x01059612	The process cannot be performed because quick formatting is now occurring. Retry after quick formatting is completed.
DMES059615	0x01059615	The process cannot be performed because the specified volume is a part of SnapShot pair. Cancel the SnapShot pair and try again.
DMES059617	0x01059617	The process cannot be performed because the specified RAID level is not supported. Specify the RAID level currently supported and try again.
DMES05961A	0x0105961A	The process cannot be performed because parity correction is not completed. Please try again, after it is completed.
DMES05961D	0x0105961D	The RAID group cannot be created because the different drives are specified within the range of a RAID group. Please confirm the drive type and try again.
DMES05961E	0x0105961E	One internal VOL cannot be mapped to two or more host VOL in a port. Please confirm the mapping information and try again.
DMES05961F	0x0105961F	The function cannot be executed because the Hi-Copy pair VOL already exists. Cancel the Hi-Copy pair and try again.
DMES05EA03	0x0105EA03	Failed to download the firmware. Please confirm the combination of the specified firmware and the subsystem.
DMES05EA04	0x0105EA04	Failed to replace the firmware. Confirm the subsystem.
DMES05EA05	0x0105EA05	Failed to download the firmware. Please confirm the combination of the specified firmware and the subsystem, and then try again from read of the firmware.
DMES05EA06	0x0105EA06	Failed to replace the firmware. Please confirm the subsystem, and then try again from read of the firmware.
DMES05EA10	0x0105EA10	An error was detected in firmware downgrade check. Please retry by using another firmware.
DMES05EA12	0x0105EA12	It is impossible to change from the 128VOL version firmware to the 64VOL version firmware.
DMES05EA14	0x0105EA14	The firmware cannot be downgraded because the High-speed Sequential Write Mode is enabled. Please set the High-speed Sequential Write Mode to disable then try again.
DMES05EA15	0x0105EA15	The firmware cannot be downgraded because the Random Simple Buffer Size 0% Mode is enabled. Please set the Random Simple Buffer Size 0% Mode to disable then try again.

Message code	Error code	Message text/Recovery methods
DMES05EA16	0x0105EA16	The firmware cannot be downgraded on this current spare drive configuration. Please release all spare drives then try again.
DMES05EA17	0x0105EA17	The firmware cannot be downgraded because the units are intermixed. Please remove the AT units then try again.
DMES05EA18	0x0105EA18	The firmware cannot be downgraded because the ShadowImage I/O Switch Mode is enabled. Please set the ShadowImage I/O Switch Mode to disable then try again.
DMES05EA19	0x0105EA19	The firmware cannot be downgraded because SnapShot and Cache Residency are unlocked together or not restarted the subsystem after locked. Please lock either option and restart the subsystem, and then try again.
DMES05EA1A	0x0105EA1A	Cannot download, because the firmware does not match to this subsystem. Please retry by using another firmware.
DMES05EA1B	0x0105EA1B	The firmware cannot be downgraded because the RAID group of RAID6 exists. Please retry after deleting it or by using another firmware.
DMES05EA1C	0x0105EA1C	The firmware cannot be downgraded because the non-supported units are connected. Please retry after removing the units or by using another firmware.
DMES05EA1D	0x0105EA1D	The firmware cannot be downgraded because the non-supported cache is connected. Please retry after removing the cache or by using another firmware.
DMES05EA1E	0x0105EA1E	The process cannot be performed because the NNC connected to the specified controller is not shutdown status. Please shutdown the NNC and try again.
DMES05EA1F	0x0105EA1F	The process cannot be performed because the NNC is not shutdown status. Please shutdown the NNC and try again.
DMES05EA20	0x0105EA20	The subsystem cannot be restarted.
DMES05EA30	0x0105EA30	The ENC firmware download and replacement cannot be performed because there is an error in the loop. Please retry after solving the error.
DMES05EA31	0x0105EA31	The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.
DMES05EA32	0x0105EA32	Failed to download the ENC firmware. Please confirm the combination of the specified ENC firmware and the subsystem.
DMES05EA33	0x0105EA33	The ENC firmware of this revision cannot be downloaded. Please retry by using another ENC firmware.
DMES05EA34	0x0105EA34	The sum check error of the ENC firmware occurred. Please retry by using another ENC firmware.
DMES05EA35	0x0105EA35	The ENC firmware is not downloaded. Please try again after downloading.
DMES05EA36	0x0105EA36	Failed to replace the ENC firmware. Please confirm the subsystem.
DMES05EA37	0x0105EA37	Failed to download the ENC firmware. Please confirm the combination of the specified ENC firmware and the subsystem, and then try again from read of the ENC firmware.
DMES05EA40	0x0105EA40	The process cannot be performed because the Automatic Download is enabled. Please set the Automatic Download to disable then try again.
DMES05EA41	0x0105EA41	The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.
DMES05EA42	0x0105EA42	The process cannot be performed because the subsystem is under diagnosis process. Please retry after a while.
DMES05EA43	0x0105EA43	The process cannot be performed because the controller is detached. Please recover the controller status and then try again.
DMES05EA44	0x0105EA44	The process cannot be performed because the ENC is detached. Please recover the ENC status and then try again.
DMES05EA45	0x0105EA45	The process cannot be performed in the single-controller system. Please confirm the system configuration.
DMES05EA46	0x0105EA46	The ENC firmware of this revision cannot be replaced. Please retry by using another ENC firmware.
DMES05EA49	0x0105EA49	The firmware replacement cannot be performed because the CPU is heavily-loaded. Please wait a moment and then try again.
DMES05EB04	0x0105EB04	The FDD on the subsystem could not be diagnosed because the FDD is in use.

Message code	Error code	Message text/Recovery methods
DMES062900	0x01062900	Please retry.
DMES062A00	0x01062A00	Please retry.
DMES062A03	0x01062A03	About VOL, all Reservation Keys and Persistent Reservations were cleared by the Clear service action of the Persistent Reserve command.
DMES062A04	0x01062A04	By register of the Persistent Reserve command or Register & Ignore Key service action, the Reservation Key was cleared, and Persistent Reservation was released.
DMES062A05	0x01062A05	Reservation Key was cleared by Preempt of the Persistent Reserve command, or the Preempt & Abort service action.
DMES062F00	0x01062F00	Please retry.
DMES063F01	0x01063F01	The firmware is downloaded.
DMES068200	0x01068200	Please retry.
DMES068201	0x01068201	Please retry.
DMES068202	0x01068202	Please retry.
DMES068210	0x01068210	Please retry.
DMES068211	0x01068211	Please retry.
DMES068212	0x01068212	Please retry.
DMES068213	0x01068213	Please retry.
DMES068214	0x01068214	Please retry.
DMES068215	0x01068215	Please retry.
DMES068216	0x01068216	Please retry.
DMES068217	0x01068217	Please retry.
DMES068218	0x01068218	Please retry.
DMES068219	0x01068219	Please retry.
DMES06821A	0x0106821A	Please retry.
DMES068300	0x01068300	Please retry.
DMES068400	0x01068400	Please retry.
DMES079578	0x01079578	The process cannot be performed because the data is being copied.
DMES079595	0x01079595	Please retry.
DMES079597	0x01079597	Please retry.
DMES079598	0x01079598	Please retry.
DMES0B3D00	0x010B3D00	Please retry.
DMES0B4300	0x010B4300	Please retry.
DMES0B4500	0x010B4500	Please retry.
DMES0B4700	0x010B4700	Please retry.
DMES0B4800	0x010B4800	Please retry.
DMES0B4900	0x010B4900	Please retry.
DMES0B4A00	0x010B4A00	Please retry.
DMES0B4B00	0x010B4B00	Please retry.
DMES0B4E00	0x010B4E00	Please retry.
DMES0B9531	0x010B9531	Could not execute the function, because another user is already logged in.
DMES0BC000	0x010BC000	Please retry.
DMES0BC001	0x010BC001	Please retry.
DMES0BC002	0x010BC002	Please retry.
DMES0BC100	0x010BC100	Please retry.
DMES0BC200	0x010BC200	Please retry.
DMES0BDA00	0x010BDA00	The process cannot be performed because the drive recovery is in progress. Please retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMES0BFD00	0x010BFD00	The process cannot be performed due to VOL replacement. Connect to the controller with owner permission and try again.
DMES0BFD01	0x010BFD01	The process for VOL replacement is suspended. Please retry after waiting for a while.

Message code	Error code	Message text/Recovery methods
DMET001010	—	Port number is invalid. Please specify 1-65535 number.
DMET001011	—	Cannot set same number of normal port to secure port. Please specify different number.
DMET001012	—	Cannot set same number of normal port to secure port. Please specify different number.
DMET001013	—	Password is invalid. Please specify 6 or more alphanumeric characters.
DMET001014	—	Failed to create keystore. Please re-install the program and try again.
DMET001015	—	Failed to sign to keystore. Please re-install the program and try again.
DMET001016	—	Failed to create certification file. Please re-install the program and try again.
DMET001017	—	Failed to update keystore. Confirm the execution environment and try again.
DMET001018	—	Failed to update certification file. Confirm the execution environment and try again.
DMET001019	—	Failed to update configuration file. Confirm the execution environment and try again.
DMET001099	—	Internal error occurred. Please re-install the program and try again.
DMET101010	—	No option entry.
DMET101011	—	Specified JRE folder is invalid. Confirm the parameter and try again.
DMET101012	—	HSNM2 JRE backup environment is invalid. Confirm the execution environment and try again.
DMET101013	—	HSNM2 JRE environment is invalid. Confirm the execution environment and try again.
DMET101014	—	Failed to delete JRE folder. Confirm the execution environment and try again.
DMET101015	—	Failed to make JRE backup folder. Confirm the execution environment and try again.
DMET101016	—	Failed to copy JRE files. Confirm the execution environment and try again.
DMET101017	—	Failed to copy snm2srv.exe. Confirm the execution environment and try again.
DMET101099	—	Internal error occurred. Please re-install the program and try again.

Message	Recovery methods
Internal Server Error	Close the browser, stop the service of the Hitachi Storage Command Suite common component and start it again. Login and operate it again. If the phenomenon does not recover, acquire a log.

Chapter 9. Failure Analysis by Sense Data

In case of Fibre Channel, when an error occurs Sense Data is stored in Payload of FCP_RSP and transferred to Host Computer.

9.1 Details of Sense Code

The details of Sense Code are shown below.

Sense key	Sense code	Description	Recovery methods	Reference page	
0/5	00 00	There is no valid additional sense information.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting “5.3 Collecting Simple Trace” (TRBL 05-0040)	
4	01 00	The INDEX signal cannot be detected. The SECTOR signal cannot be detected.			
1/4	02 00	Seek operation in the Drive cannot be executed correctly.			
4	03 00	A Write Fault was detected in the Drive.			
2	04 00	The LU connected cannot execute a command because LUs are being formatted.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.		
2	04 01	The Drive will soon become ready although it is currently not ready.			
2	04 02	The Drive is currently not ready; it has not been spun-up.			
2	04 03	The host I/O cannot be executed because the Drive is spin-down with the Power Saving function.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.		
		The volume which received the command from the front-end port whose special response mode of the port option is set to enabled is the RAID group where the Power Saving Plus function is enabled and I/O interlock enabled is spun down (or the power of the drive is turned OFF). Therefore, the host I/O cannot be executed.	The Host I/O spun from the power saving status can be executed approximately 20 to 300 seconds after receiving the command. If error codes occur frequently even after the time passes, collect the simple trace and request the Technical Support Center for the analysis.		
2	04 04	The logical unit is currently not ready. (It is executing the formatting command.)	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.		
2	04 14	The Write system command of the host to the sub block to which the page was not assigned was not executed because DP Pool was being formatted. (When the DP Depletion Detail Reply Mode is ON)	After the DP Pool formatting is completed, retry a host command.		—
2	04 84	A sequential shutdown is in progress.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.		Troubleshooting “5.3 Collecting Simple Trace” (TRBL 05-0040)
2	05 00	An error occurred in the drive interface in the logical unit.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.		
1/4	06 00	The positioning to Track 0 failed.			
4	07 00	Two or more Drives were selected at the same time.			

Sense key	Sense code	Description	Recovery methods	Reference page
4	08 00	An error occurred in the drive interface in the logical unit.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting “5.3 Collecting Simple Trace” (TRBL 05-0040)
4	08 01	A time-out error occurred in the drive interface in the logical unit.		
1/4	08 02	A parity error occurred in the drive interface in the logical unit.		
1/4	09 00	A track positioning failed.		
3	0C 02	An automatic allocation was executed against the write error but failed.		
3	0C FF	Write processing time exceeded Recovery Time Limit, write processing was terminated.		
A	0D 02	The XCOPY command which made a subsystem other than this array subsystem a copy target was issued.	Change the subsystem serial number of the copy target registered in the parameter list of the XCOPY command to the subsystem serial number of this array subsystem, and issue the XCOPY command again.	—
		The firmware failed to execute the received XCOPY command because it could not access the specified LUN.	Collect Simple trace.	Troubleshooting “5.3 Collecting Simple Trace” (TRBL 05-0040)
			① The command error may have been caused by volume blockage that occurred before the command was executed. (If the source or destination volume handled by the XCOPY command has been blocked, the XCOPY command can not be executed.) If volume blockage has occurred, service it according to the recovery procedure for “W0E000 LU alarm (LU-x)”. After the recovery is complete, ask the customer/SE to retry the command. If the command error persists even after retrying the command, collect the VMware log and contact VMware, Inc.	—
			② The command error may have been caused by volume deletion that occurred before the command was executed. (The volume number of the source or destination volume handled by the XCOPY command has not been registered in the array.) After performing volume recognition, ask the customer/SE to retry the command. If the command error persists even after retrying the command, collect the VMware log and contact VMware, Inc.	—
To be continued to the next page.				

Sense key	Sense code	Description	Recovery methods	Reference page
			<p>③ The command error may have been caused by the volume that was set as a DM-LU before the command was executed. (A DM-LU can not receive host access. For this reason, the XCOPY command can not be executed if the source or destination volume handled by the XCOPY command is a DM-LU.) After performing volume recognition, ask the customer/SE to retry the command. If the command error persists even after retrying the command, collect the VMware log and contact VMware, Inc.</p>	—
			<p>④ The command error may have been caused by the volume that was set as a reserve volume of Modular Volume Migration before the command was executed. (Reserve volumes can not receive host access. For this reason, the XCOPY command can not be executed if the source or destination volume handled by the XCOPY command is a reserve volume.) After performing volume recognition, ask the customer/SE to retry the command. If the command error persists even after retrying the command, collect the VMware log and contact VMware, Inc.</p>	—
			<p>⑤ The command error may have been caused by the volume that was set as a resident volume of Cache Residency Manager before the command was executed. (A resident volume can not receive host access. For this reason, the XCOPY command can not be executed if the source or destination volume handled by the XCOPY command is a resident volume. After performing volume recognition, ask the customer/SE to retry the command. If the command error persists even after retrying the command, collect the VMware log and contact VMware, Inc.</p>	—
To be continued to the next page.				







Sense key	Sense code	Description	Recovery methods	Reference page
			<p>⑥ The command error may have been caused by a unified volume that was created by changing the volume size before the command was executed. (The sub volume of a unified volume can not receive host access. For this reason, the XCOPY command can not be executed if the source or destination volume handled by the XCOPY is a sub volume. After performing volume recognition, ask the customer/SE to retry the command.</p> <p>If the command error persists even after retrying the command, collect the VMware log and contact VMware, Inc.</p>	—
			<p>⑦ The XCOPY command may be experiencing the following issues. Collect the VMware log and contact VMware, Inc.</p> <ul style="list-style-type: none"> • Some data areas in source and destination data areas handled by the XCOPY command are the same. • A value other than 0 is specified as SOURCE TARGET DESCRIPTOR INDEX in the parameter list. (The array only supports the value "0".) • A value other than 1 is specified as DESTINATION TARGET DESCRIPTOR INDEX in the parameter list. (The array only supports the value "1".) • The volume number of the source or destination volume handled by the XCOPY command has exceeded the maximum number of volumes in the array. (Up to 2047 in CBXSL/CBXSS; up to 4095 in CBSL/CBSS or CBL.) • All the volume numbers are different for a volume specified to issue the XCOPY command, and for source and destination volumes. (The array only supports the XCOPY command where two or more volume numbers are the same among the above three volume numbers.) 	—

Sense key	Sense code	Description	Recovery methods	Reference page
3	10 00	A CRC error occurred in the ID field.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
3	11 00	An error occurred in the data field.		
3	11 01	Reading of the data field was retried but the error was not recovered. (An error correction was not applied.)		
3	11 02	The read error in the data field could not be corrected by means of the ECC.		
3	11 04	An automatic reallocation was executed against the recoverable error but failed		
3	11 FF	Read or Verify processing time exceeded Recovery Time Limit, read or verify processing was terminated.		
3	12 00	The address mark of the ID field could not be detected.		
1/3	13 00	The address mark of the data field could not be detected.		
1/3	14 01	The block with the identical ID field could not be detected.		
1/4	15 01	A seek error occurred.		
1/4	15 02	The seek operation terminated normally but the head was positioned at an address not intended.		
1	17 00	The error was recovered by a retry.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	
1	17 01	The error was recovered by a retry (without a head offset).		
1	17 02	The error was recovered by a retry with a head offset in the positive direction.		
1	17 03	The error was recovered by a retry with a head offset in the negative direction.		
1	18 00	The error was recovered by the ECC (without a retry).		
1	18 01	The error was recovered by the ECC applied in a retry.		
1	18 02	Data was recovered by an automatic reallocation.		
1/3	19 02	An error occurred during an access to the Primary (P) list.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
1/3	19 03	An error occurred during an access to the Grown (G) list.		
5	1A 00	The parameter list length is illegal.		
4	1B 00	A synchronous data transfer error occurred in a data transfer.		
3	1C 01	The positioning to the Primary (P) list failed.		
3	1C 02	The positioning to the Primary (P) list failed.		
E	1D 00	A data compare error occurred during WRITE BUFFER or READ BUFFER verifies processing. Or a data compare error occurred during COMPARE AND WRITE command.		

Sense key	Sense code	Description	Recovery methods	Reference page
5	20 00	The operation code is invalid.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	21 00	An attempt was made to access beyond the logical block address reported with Read Capacity (PMI bit=0).	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	22 00	<ul style="list-style-type: none"> The Read command could not be executed because the access level had been set with Data Retention Utility. The read command from the host was unable to be executed because there was no usable capacity for the DP Pool. 	—	—
5	24 00	There is an invalid field in the CDB. Ex.: RESERVED Bit/VALUE ≠ ZERO	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	25 00	The LUN shown by the CDB or Identify message is not supported.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	25 80	The logical unit allocation failed.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	
5	25 81	The RAID group (RG) is not defined.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	25 83	P The Turbo LU specification was rejected by the specification condition check.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	
5	25 84	The current value of the Row Last LBA in the RAID group is different from that when RAID 1+0 full mapping was defined.	Collect the VMware log and contact VMware, Inc.	
5	25 90	The controller with no LU owner right received a command to switch the LU (in the case of the Trespass mode).	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	25 A0	The divisional transfer failed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	26 00	There is an invalid field in the parameter list.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	26 01	An unsupported parameter was received.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	26 02	The parameter value is invalid.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	26 04	The release from the Persistent Reservation failed because the type of the Persistent Reserve command was different.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	26 06	The firmware failed to execute the received XCOPY command because Target Descriptor Length in the parameter list was incorrect (other than 0x40 (64 bytes)).	Collect the VMware log and contact VMware, Inc.	—

Sense key	Sense code	Description	Recovery methods	Reference page
5	26 07	The firmware failed to execute the received XCOPY command because Target Descriptor TYPE CODE in the parameter list was not supported (supported value: 0xE4).	Collect the VMware log and contact VMware, Inc.	—
5	26 08	The firmware failed to execute the received XCOPY command because Segment Descriptor Length in the parameter list was incorrect (other than 0x1C (28 bytes)).		
5	26 09	The firmware failed to execute the received XCOPY command because Segment Descriptor TYPE CODE in the parameter list was not supported (supported value: 0x02).		
7	27 00	<ul style="list-style-type: none"> The write command could not be executed because the access level had been set with Data Retention Utility. Since there was no capacity which can be used for the DP Pool, the firmware was unable to execute the Write system command from the host. 	—	—
7	27 07	Firmware could not perform the Write system command from the host because of a lack of available capacity in the DP pool. (When the DP Depletion Detail Reply Mode is ON)	Add the DP Pool capacity using Hitachi Storage Navigator Modular 2 according to "Dynamic Provisioning User's Guide".	"Dynamic Provisioning User's Guide"
6	29 00	<ul style="list-style-type: none"> A Power On Reset occurred. An internal reset occurred owing to a serious hardware error. 	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
6	2A 00	<ul style="list-style-type: none"> The Mode Select parameter was changed. Another system received the SCSI Reset in the dual configuration. Ex.: A parameter was changed by the Mode Select command. 		
6	2A 01	Since the capacity was changed for the virtual LU, the UA (Unit Attention) response was returned to the host. (Second time for HP-UX/True64/OpenVMS)	Retry the host command.	—
6	2A 03	The Reservation Key and Persistent Reservation of the LU concerned were all cleared by the Clear service action of the Persistent Reserve command.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
6	2A 04	The Reservation Key was deleted and the Persistent Reservation was cancelled by the Register or Resister & Ignore Key service action of the Persistent Reserve command.		
6	2A 05	The Reservation Key was deleted by the Preempt or Preempt & Abort service action of the Persistent Reserve command.		
6	2A 06	At the time of switching the LU owner right, the UA (Unit Attention) response was returned to the host.	Retry the host command.	—
6	2A 09	Since the capacity was changed for the virtual LU, the UA (Unit Attention) response was returned to the host. (First time for HP-UX/True64/OpenVMS)	Retry the host command (however, "06/2a01 <Unit Attention response (MODE PARAMETERS CHANGED)>" is responded to the retry command, and the command retry occurs one more time).	—

Sense key	Sense code	Description	Recovery methods	Reference page
6	2F 00	The command was cleared according to the Clear Queue message from another initiator or owing to an occurrence of the CA status in the initiator.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
3	31 00	The medium is not formatted correctly; it must be reformatted by the Format Unit command	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
3	31 01	The Format command terminated abnormally; it must be reformatted by the Format Unit command.		
3	31 80	The data format for the disk array is not established.		
3	31 81	<ul style="list-style-type: none"> The format command cannot be executed because the Drive configuration is incomplete (i.e., the data or parity drive is detached). An attempt was made to execute the format command beyond the actual disk capacity. 		
1/4	32 00	The reallocation cannot be done because the alternative area is insufficient.		
1/3	32 01	The update of the Grown (G) list failed.	—	—
5	35 01	An ENC time-out (FC) or an illegal frame was sent.		
1	37 00	The processing was executed with the parameter value rounded because it could not be executed with the original value.		
6	38 07	UA (Unit Attention) reply was returned to the host because the DP Pool capacity whose the DP volume tried to execute a host command is depleted when the DP Depletion Detail Reply Mode of the Host Group Option is enabled.	Add the DP Pool capacity referring to the "Dynamic Provisioning User's Guide" .	"Dynamic Provisioning User's Guide"
B	3D 00	An invalid bit was detected in the Identify message.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
2	3E 00	The self-configuration of the Drive is not established yet.		
6	3F 01	The firmware was downloaded.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
6	3F 0A	Since the capacity was changed for the virtual LU, the UA (Unit Attention) response was returned to the host. (Windows Server 2008)	Retry the host command.	
B	43 00	The operation cannot be continued because the message was rejected or an error occurred in the Message phase.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)

Sense key	Sense code	Description	Recovery methods	Reference page
4	44 00	A hardware or firmware error was detected in the Controller during the command execution.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting “5.3 Collecting Simple Trace” (TRBL 05-0040)
		A abnormal end of the Formatting job generated by the read command was detected.		
		A abnormal end of the Formatting job generated by the write command was detected.		
		The improper connection of the SAS (ENC) cable was detected.	Perform the maintenance in accordance with the message “I5L600 ENC error was detected [Cable error] (Unit-x, ENC-y)”.	—
		The command which the firmware issued for the I/O Module (ENC) or I/O Card (ENC) to check the cable connection validity terminated abnormally.	Perform the maintenance in accordance with the message “I5L700 ENC error was detected [Configuration error] (Unit-x, ENC-y)”.	
		The Drive Box addition failed because a Drive Box which cannot install Drives for use was added for the array whose number of drive slots per back-end path reached the upper limit.	Perform the maintenance in accordance with the message “I85R00 Added unit failed [The number of HDU exceeded the limit for one backend path] (Unit-x)”.	
		The DBW addition failed because the number of Drive Boxes per back-end path exceeded the upper limit of connection.	Perform the maintenance in accordance with the message “I85S00 Added unit failed [The number of Unit exceeded the limit for one backend path] (Unit-x)”.	
		The DBW addition failed because the DBW was added exceeding the upper limit of the number of DBW connections.	Perform the maintenance in accordance with the message “I85T00 Added unit failed [The number of DBW exceeded the limit for the array] (Unit-x)”.	
		By adding the DBW, the number of drive slots exceeded the upper limit usable per back-end path (CBL: 240 slots, CBSS/CBSL: 240 slots) or exceeded the upper limit usable for the array system (CBL: 960 slots, CBSS/CBSL: 360 slots). As a result, the DBW addition failed because the DBW could not install 84 drives fully.	Perform the maintenance in accordance with the message “I85U00 Added unit failed [The number of HDU slot in DBW exceeded the limit] (Unit-x)”.	
(HDMA transfer failure) The Bridge failure interrupt was detected in the DMA transfer LSI (D-CTL) when checking the completion of the dual writing to the Cache Memory.				
4	44 A0	No sector to be reassigned cannot be detected.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting “5.3 Collecting Simple Trace” (TRBL 05-0040)
 45 00	A Select/ Reselect time-over was detected. An invalid selection was detected.			
 47 00	A Fibre Channel bus on CRC error occurred.			
 48 00	The Initiator Detected Error message was received from the initiator.			
 49 00	• An invalid message was detected.			
	• The communication via a LAN was not done normally because of a LAN failure.			

Sense key	Sense code	Description	Recovery methods	Reference page
B	4A 00	An error occurred during accepting of the command.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
		(HDMA transfer failure) Since the transfer range includes the LA/LRC error block, the firmware deterred the start of the DMA transfer (Cache Memory → Host).		
B	4B 00	An error occurred during data transfer.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	4C 00	A loading of a firmware or parameter failed when starting up the controller.		
B	4E 00	<ul style="list-style-type: none"> Two commands with no tag was issued to the same I-T-L. Commands with and without tags were issued to the same I-T-L. (When this code is reported, all the commands queuing for the I-T-L concerned are cleared.) 		
5	55 04	A registration of 32 or more Reservation Keys in an LU was attempted.		
1	5B 00	An exceptional log in the Drive was detected.		
1	5B 02	The log counter in the Drive reached its maximum value.		
1	5B 03	All log list codes in the Drive were used up.		
1/6	5C 02	A synchronous lead-in failure or synchronous loss after synchronization was detected.	—	—
A	80 00	The copy source LU changed to unreadable status while XCOPY command was executed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
A	80 01	The copy destination LU changed to unwritable status while XCOPY command was executed.		
A	80 02	XCOPY command was issued from the host for the pair configuration where XCOPY command cannot be executed.		
A	80 03	Since securing of the segment for the differential bitmap of ShadowImage, SnapShot, TrueCopy and TrueCopy Extended failed, the XCOPY command was unable to be executed.	① 1. Since the volume pair of which the XCOPY command was issued is changed to the PSUE status, perform the maintenance according to "User's Guide" of the priced option. 2. Retry the host command.	—
A	80 04	The copy processing (general-purpose copy JOB) of the XCOPY command terminated abnormally.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)

Sense key	Sense code	Description	Recovery methods	Reference page
6	82 00	The disk recovery by means of a drive recovery completed normally ^(*1) .	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
6	82 01	Unrecoverable data was generated although the disk recovery by means of a drive recovery completed normally.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
6	82 02	The Drive recovery by means of a Drive recovery completed normally. But the configuration status was not changed to that in which the recovery had completed because a unrecoverable error occurred ^(*1) .		
6	82 10	The Drive recovery was forcibly terminated by an operator instruction ^(*1) .	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
6	82 11	The Drive recovery was forcibly terminated because a media error was detected in the Drive recovery source disk during the drive recovery ^(*1) .	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
6	82 12	The Drive recovery was forcibly terminated because a media error was detected in the Drive recovery destination disk during the drive recovery ^(*1) .		
6	82 13	The Drive recovery was forcibly terminated because a hardware error was detected in the Drive recovery source disk during the drive recovery ^(*1) .		
6	82 14	The Drive recovery was forcibly terminated because a hardware error was detected in the Drive recovery destination Drive during the drive recovery ^(*1) .		
6	82 15	The Drive recovery was forcibly terminated because the Drive recovery source disk was blocked during the Drive recovery ^(*1) .		
6	82 16	The Drive recovery was forcibly terminated because the Drive recovery destination Drive was blocked during the drive recovery ^(*1) .		
6	82 17	The Drive recovery was forcibly terminated because a hardware error was detected in an inter-cache control during the Drive recovery. ^(*1) .		
6	82 18	The Drive recovery was forcibly terminated because the status of the configuration information changed ^(*1) .		
6	82 19	The Drive could not be started because data for write-after remains in the recovery destination Spare Disk ^(*1) .		
6	82 1A	The Drive recovery was forcibly terminated because an time-out occurred in an internal process ^(*1) .		
B	83 00	The dump information was changed because another controller was blocked during a collection of the Send Diag drive dump.		

*1 : The sense code is not reported to the host. (It is reported as the Sense Information on Mode Sense page 34_H.)

Sense key	Sense code	Description	Recovery methods	Reference page
4	8A 01	A parity error was detected during a medium parity consistency check.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	8A 02	A parity error was detected during a medium LA consistency check.		
1	8A 03	Intermediate pinned data and dirty data were found during a parity consistency check.		
1	8A 04	Remaining intermediate or physical dirty data and pinned data were found during an LA consistency check of a medium.		
1	8B 01	An inoperable command was issued to the blocked logical unit.		
5	8C 01	Parity check was required in the Regression mode.		
3	8E 01	An instruction to read or verify was given to the block on which a writing has not completed.		
3	8E 02	Reading on the V-Vol was attempted it could not be done because of the incomplete DDCB.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	
3	8E 03	Writing on the V-Vol was attempted it could not be done because of the incomplete DDCB.		
1	8E 04	Write through was operated due to failures of the Power Unit, UPS and Controller.		
3	8E 05	A copy or restore by a general purpose ASYNC job was not completed in execution of Copy-on-write SnapShot. Copy or Restore of SnapShot executed synchronously with the Host I/O timed out.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
3	8E 06	The copy to ShadowImage S-VOL that operated by the Write command extension to match the primary/secondary data was not completed due to the time-out.		
3	8E 07	The completion of the job related to the general-purpose copy job timed out.	Retry the host command.	—
3/4	90 00	An unrecoverable data error occurred during a data recovery with parity disk data.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
3/4	90 01	An unrecoverable data error occurred during operation in the Regression mode.		
4	91 00	Data could not be reconstructed because an unrecoverable error was detected during an automatic allocation		
4	91 01	The alternative block could not be reallocated in an automatic reallocation.		
3	93 00	A parity adjustment error occurred in the Cache memory.		
5	94 01	The Controller with no LU owner right received a command to switch the LU (in the case of the Alternate Paths 1 and 2).	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)

Sense key	Sense code	Description	Recovery methods	Reference page
2	95 00	The pseudo sequential shutdown is in progress.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
2	95 01	The pseudo sequential shutdown terminated normally.		
4	95 02	The pseudo sequential shutdown terminated abnormally.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	95 03	The synchronize cache command, which requires pseudo planned shutdown for switching the access path, was not executed. The reason is shown in each detail code.		
		Detail code: 1 Because the subsystem is under pseudo planned shutdown.	1. Restart the subsystem.	—
			2. Execute the access path switching.	—
		Detail code 2: Because the synchronize cache command, which requires the pseudo planned shutdown by access path switching, was received from the host computer of iSCSI I/F.	The synchronize cache command, which requires the pseudo planned shutdown by access path switching, was issued from the host computer of iSCSI I/F. Execute the pseudo planned shutdown by access path switching from Hitachi Storage Navigator Modular 2.	—
		Detail code: 3 Because the auto migration is not completed.	The command was not executed because the auto migration was not completed. Execute the access path switching after completing the auto migration.	—
		Detail code: 4 Because the pseudo planned shutdown by access path switching is already completed.	The pseudo planned shutdown by access path switching is already completed. Therefore, the command, which requires the pseudo planned shutdown by access path switching, cannot be executed or it is not needed.	—
		Detail code: 5 Because the synchronize cache command, which requires the pseudo planned shutdown by access path switching, was received although the subsystem was not array.	The command exclusive for array was received. Connect it to the subsystem which was going to execute the command from Hitachi Storage Navigator Modular 2, and then execute the command.	—

Sense key	Sense code	Description	Recovery methods	Reference page
4	95 04	The pseudo planned shutdown by access path switching was not executed. When this error occurs, the pseudo planned shutdown is not executed and the subsystem is still Ready. Errors occur in the following cases.		
		① The access path switching failed because CHK1Reset and Controller blockade occurred.	Execute the access path switching from Hitachi Storage Navigator Modular 2 again.	—
		② The access path switching failed because the Power Unit of the subsystem was turned off.	1. Turn on the Power Unit of Original Array.	—
			2. Execute the access path switching from Hitachi Storage Navigator Modular 2.	—
		③ The data migration failed because a Drive failure occurred in Original Array with no empty slot in repair slots and the pair status of the ShadowImage pair of the auto migration changed to PSUE.	When a Drive failure occurs in Original Array, check if there are empty slots in spare slots. When there is no empty slot in repair slots of Original Array, the auto migration cannot be executed. If Original Array can access from the host computer, set the same setting contents in a New Array as the various settings of Original Array, and then request the customer to copy the user data of Original Array to the New Array via host computer. If Original Array cannot access from the host computer, set the same setting contents in New Array as the various settings of Original Array, and then request the customer to restore his/her backup data in New Array.	—
		④ The data migration failed because a Drive failure occurred in the Original Array subsystem with empty slots in repair slots and the pair status of the ShadowImage pair of the auto migration changed to PSUE.	—	—
		⑤ The data migration failed because a Drive failure occurred in the New Array and the pair status of the ShadowImage pair of the data migration changed to PSUE.	—	—
		⑥ The pseudo planned shutdown failed because a failure of which the number of PIN exceeds the threshold value occurred in Original Array with no empty slot in repair slots.	When a failure of which the number of PINs exceeds the threshold value occurs in Original Array, check if there are empty slots in repair slots of Original Array. When there is no empty slot in repair slots of Original Array, the auto migration cannot be executed. If Original Array can access from the host computer, set the same setting contents in New Array as the various settings of Original Array, and then request the customer to copy the user data of Original Array to New Array via host computer. If Original Array cannot access from the host computer, set the same setting contents in New Array as the various settings of Original Array, and then request the customer to restore his/her backup data in New Array.	—
To be continued to the next page.				

Sense key	Sense code	Description	Recovery methods	Reference page
		⑦ The pseudo planned shutdown failed because a failure of which the number of PIN exceeds the threshold value occurred in Original Array with empty slots in repair slots.	When a failure of which the number of PINs exceeds the threshold value occurs in Original Array, check if there are empty slots in repair slots of Original Array. When there are empty slots in repair slots of Original Array, contact for inquiries.	—
		⑧ The pseudo planned shutdown failed because PIN over occurred in New Array.	—	—
5	95 05	The subsystem cannot execute the command because the array is being switched.	Wait until the array switching is completed. Check the operation procedure.	—
5	95 10	The command cannot be executed because the firmware is being replaced.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	95 20	The Mode Select/Mode Sense 3E _H (extended code 03 _H /04 _H /05 _H /06 _H) was received in the state in which no command could be executed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	
5	95 36	The priced option function is in the unsupported status.	This is not failure. If this error code frequently appears, collect Simple trace and request the	
5	95 37	The command cannot be executed because you haven't logged in.	Technical Support Center to analyze the failure.	
5	95 40	A Spare Disk has been defined within a range of the designated RG (at the time of the RG setting).	Collect Simple trace and request the Technical Support Center to analyze the failure and take	
5	95 41	The Drive capacity is illegal (when the RG is set). The cause may be one the following. 1. The capacity of the data disk exceeds that of the Spare Disk. 2. When the RG was expanded, the Drive capacity of the added portion was smaller than that of the Drive that had already been defined.	a measure.	
5	95 42	The designated Drive is that which cannot be defined as a Spare Disk (at the time of the Spare Disk designation).	.	

Sense key	Sense code	Description	Recovery methods	Reference page
5	95 43	The number of the specified Spare Disks exceeds maximum definable value (at the time of the Spare Disk designation).	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	95 44	The designated drive has already been defined as a Spare Disk or an RG (at the time of the Spare Disk specification).		
5	95 45	The value of the designated Last LBA is less than the maximum Last LBA of the RG (at the time of the Spare Disk designation). (The cases where the drive is blocked or uninstalled are excluded.)		
5	95 46	An instruction to release a drive of a Spare Disk was issued to the Drive which was not designated as a Spare Drive (at the time of the Spare Disk release).		
5	95 47	The Spare Disk is being used though it was specified to be released of the Spare Disk.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	
5	95 48	An unlocking instruction was given to the drive which was not locked.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	95 49	A locking instruction was given to the drive which was already locked.		
5	95 4A	The pricing key code is invalid.		
5	95 4B	The RAID group cannot be set because the uninstalled or blocked Drive is included in the specified Drive.	Select the installed Drive, and set the RAID group. Or, set the RAID group again after replacing the blocked Drive.	System Parameter "Chapter 4. Setting the RAID/Volume/ Spare Drive" (SYSPR 04-0000) Replacement "2.2.1 Replacing a Drive" (REP 02-0050)
5	95 4D	The process cannot be performed because the target mode is mode is not M-TID, M-LUN. (Mapping mode)	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	95 4E	The process cannot be performed because the target information are changed or deleted.		
5/7	95 50	Command not execute for write prohibition.		
5	95 51	Command not execute for concealment mode.		
5	95 52	Command not execute for coupling LU or Command Device exist.		
5	95 53	Ap distinction number is full.		
5	95 54	Command response can not be done because command device is not set.		
5	95 56	The command cannot be executed because a failure occurred during the reverse resynchronization or the I/O switch operation.		

Sense key	Sense code	Description	Recovery methods	Reference page
5	95 57	<ul style="list-style-type: none"> • (Volume Size Non-Rounding mode is off) A pair cannot be formed because the primary and secondary volume sizes (host volume size = rounded volume size) are not the same. • (Volume Size Non-Rounding mode is on) A pair cannot be formed because the primary and secondary volume sizes (either or both of the host volume sizes and rounded volume sizes) are not the same. 	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	95 58	The command cannot be issued because volume unification is in progress.		
5	95 59	Volume unification, a dissolution of volume unification, or a separation of a final volume could not be done because an internal volume to have been used for the operation above was a Turbo volume or a reserved Turbo volume.		
5	95 5A	The volume unification could not be done because Controllers that control volumes to be unified were not the same.		
5	95 5B	The volume unification could not be done because a Controller that controls the volumes to be unified was being changed.		
5	95 5C	The volume unification could not be done because a RAID level of the volumes to be unified was RAID 0.		
5	95 5D	The volume unification could not be done because a volume size after the unification would be larger than 2 Tbytes.		
5	95 5E	A dissolution of volume unification or a separation of a final volume could not be done because the volume concerned was not a unified volume.		
5	95 62	The volume unification could not be done because a unified volume was selected as a Sub volume to be unified.		
5	95 63	Volume unification, a dissolution of a unified volume or a separation of a final volume could not be done because a Sub volume had been selected.		
5	95 64	The volume unification could not be done because the LU #0 was selected as the Sub volume.		
7	95 65	The volume unification could not be done because a volume status was other than normal or regression.		
5	95 66	The volume unification could not be done because the number of the internal volume that configures the unified volume exceeded 2047.		
5	95 67	Volume unification, a dissolution of a volume unification, or a expansion of a final volume could not be done because the volume unifying function (enhancing function) was not validated.		
5	95 69	The final volume could not be deleted because it was not specified.		
5	95 6B	Because the differential bit could not be assigned, the pair forming command of the MRCF-Lite could not be executed.		

Sense key	Sense code	Description	Recovery methods	Reference page
5	95 70	A failure was detected by the command of the remote copy function.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	95 71	The path could not be set.		
5	95 72	The path could not be deleted.		
5	95 73	Since a function that cannot coexist with the function was being used in the system, the key for the extra-cost option could not be open.		
5	95 74	The command could not be executed because the remote copy function was being used.		
5	95 75	The command could not be executed because the path was already defined.		
5	95 76	The pair operation command from RAID Manager could not be executed.	Check the pair information.	—
		The specified S-VOL is already paired by a different array.		
		The target VOL of the remote array is already paired by a different array.	The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP Pool or Management Area DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the TCE pair deletion process is running on the Management Area DP pool for the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	—
		<ul style="list-style-type: none"> The S-VOL of the remote array differs such as the VU command is NG and the specified POOL # is being used. The old data save pool or management pool used in the remote array does not exist. The status of the old data save pool or management pool of the remote array is other than normal/degenerated. The POOL ID of the old data save pool or management pool of the remote box differs from the POOL ID used in the specified S-VOL. The old data save pool or management pool of the remote array is being processed in the background. The DP pool used as a replication pool or management pool of the remote array is a DP pool that the expansion mode is ON and configured by Flash Drives (SSDs) only. 		
5	95 77	The command (host or Hitachi Storage Navigator Modular 2) could not be executed because the pair was being generated.		
7	95 78	The host command could not be executed because data copy was on progress.		
5	95 79	The host command could not be executed because the primary volume was write-protected.		

Sense key	Sense code	Description	Recovery methods	Reference page
5	95 7A	The host command could not be executed because the pair status is PSUE (suspended due to failure).	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	95 7B	The command could not be executed between the devices because the pair status was invalid.		
5	95 7C	The command could not be executed between the devices because the remote device was already paired with another device.		
5	95 7D	The command issued by a DF to another DF cannot be executed because the limit of the inflow has been exceeded.		
5	95 7E	The command issued by a DF to another DF cannot be executed because a status of the pair formed by the ShadowImage in-system replication is invalid.		
5	95 80	The command cannot be executed because the command from RAID Manager is being received.		
B	95 81	Any further processing cannot be executed because the SEL command is received consecutively.	Execute it again after waiting for a while.	—
5	95 91	The setting of or reference to the pairs, number of which exceeds the allowable maximum value, was attempted.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
7	95 95	The write command could not be executed because the fence level was data.		
5	95 96	The read command could not be executed because the concealment mode was turned on for the remote copy function.		
7	95 97	The write command could not be executed because the secondary volume was in the paired status in the remote copy function.		
7	95 98	The write command could not be executed due to the restriction on the secondary volume access in the remote copy function.		
4	95 99	The pair status transited to PSUE because the write command failed duplicate write.		
2	95 9A	The vendor unique command cannot be executed in order to avoid a deadlock owing to a duplex writing.		
2	95 9B	The read/write command cannot be executed because the read access mode is "Enable" when the fence level is "data".		
2	95 9C	Since Array Migration is executing, the firmware cannot execute the command.	After completing Array Migration, retry the command.	—
7	95 9D	The command cannot be executed because the HUB mode is ON.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
2	95 9E	The command was unable to be executed because TrueCopy remote replication was under execution in the subsystem of the command issue destination,	The operation is not required because it retries inside the DF.	—
2	95 9F	The command was unable to be executed because two or more commands from RAID Manager were in process.		

Sense key	Sense code	Description	Recovery methods	Reference page
4	96 00	The ShadowImage pair status changed to PSUE during the Write system command operation.	① 1. Recover the ShadowImage pair from PSUE. 2. Return the ShadowImage pair status to the customer service status.	—
5	96 00	Since securing of the segment for the differential bitmap of ShadowImage, SnapShot, TrueCopy and TrueCopy Extended failed, the read/write system command was unable to be executed.	① 1. Since the volume pair of which the read/write system command was issued is changed to the PSUE status, perform the maintenance according to "User's Guide" of the priced option. 2. Retry the host command.	—
5	96 01	The setting was made for a host group other than 0.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	96 02	The command could not be executed because locking or unlocking operation for the feature other than purchasable optional features was attempted.		
5	96 03	The command could not be executed because locking or unlocking operation for the feature other than purchasable optional features was attempted.		
5	96 04	Writing of the system parameters on five Drives failed.		
5	96 05	Although the Controllers in charge of the copy source LU/copy destination LU/command reception LU differ, the XCOPY command cannot be executed because the LU switching is impossible.		
5	96 07	The execution could not be done because the pair was a Copy-on-write SnapShot pair.		
5	96 08	The pair operation command issued by RAID Manager could not be executed. A pair cannot be created because the DP pool used as a replication pool or management pool is a DP pool that the expansion mode is ON and configured by Flash Drives (SSDs) only.	Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	—
2	96 09	The pair operation command cannot be executed from RAID Manager. (Waiting for a command to be retried from RAID Manager.)	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
		The specified S-VOL is already paired by a different array.		
		The target VOL of the remote array is already paired by a different array.		
		The DP pool used as a replication pool or management pool of the remote box is a DP pool that the expansion mode is ON and configured by Flash Drives (SSDs).	The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	—

Sense key	Sense code	Description	Recovery methods	Reference page
5	96 0A	The command could not be executed because the LU was that in the pool filed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	96 0B	The pool management filed is invalid.		
5	96 0C	The command could not be executed because a reading was prohibited.		
5	96 0D	A reading in an S-VOL was attempted when the pair status was special PSUE, however, it failed.		
5	96 11	The access level could not be changed.		
5	96 12	The execution was impossible because the Format was in progress.		
5	96 13	The execution was impossible because the access level had been specified.		
7	96 14	The write command could not be executed because the LU forming the Copy-on-write SnapShot pair was in the status in which writing to it was prohibited.		
7	96 15	The LU could not be formatted because it formed a Copy-on-write SnapShot pair.		
5	96 16	No pair formation enabled because more than 33 pairs existed in the same group ID with the specified group ID.		
5	96 17	The RG (RAID group) could not be defined because a RAID level specified for the RG was RAID 0.	Specify a RAID level other than RAID 0.	—
5	96 18	The execution was impossible because the status of the LU concerning the parity correction was "Uncorrected" or "Correction Aborted".	Retry after issuing an instruction to make or skip the parity correction using the Hitachi Storage Navigator Modular 2.	—
5	96 19	The command of the Juke Box function could not be executed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	96 1A	The execution was impossible because the restoration for the LU by means of parity was "Uncorrected", "Correction Aborted", "Parity Correction", or "Waiting Parity Correction".	Issue an instruction to make or skip the parity correction using the Hitachi Storage Navigator Modular 2 and retry after the restoration for the LU by means of parity is "Restored" or "Correction Skipped".	Troubleshooting "11.1.3 < Procedure given in windows >" (TRBL 11-0350)
7	96 1B	A command was issued to an inaccessible area while the forced parity correction, which was made with the subsystem power turned on, was in progress.	Execute the forced parity correction or "Correction Skipped".	
5	96 1C	The ShadowImage in-system replication pair operation could not be executed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	96 1D	The RG (RAID group) could not be defined because the specified RG included both of the FC drives.	Make sure of the operation and try again.	—
B	96 1E	A response with a notification that the status had been changed to special PSUE was made during execution of the R/W command.	Retry the execution of the command.	—
5	96 1F	It cannot be executed due to the Hi-Copy pair.	Execute it again after releasing the Hi-Copy pair.	—

Sense key	Sense code	Description	Recovery methods	Reference page
2	96 20	It responded the check condition requesting retry of the vendor unique command of TrueCopy Asynchronous to the local array.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	96 20	The Hi-Copy operation cannot be executed.	Check the status of the subsystem on the other side.	—
5	96 21	It responded the check condition indicating that the vendor unique command of TrueCopy Asynchronous terminates abnormally and retry is impossible to the local array.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	96 22	The RAID Manager command for setting TrueCopy Asynchronous was unable to be executed.		
		A pair cannot be created because the DP pool used as a replication pool or management pool is a DP pool that the expansion mode is ON and configured by Flash Drives (SSDs) only.	Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	—
5	96 23	The RAID Manager command was unable to be executed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	96 24	The command is unable to be executed because the pair status of TrueCopy Asynchronous does not meet the command execution conditions.		
1	96 25	The priced option of "Modular Volume Migration" became enabled from disabled.	—	—
1	96 26	The priced option of "Modular Volume Migration" became disabled from enabled.	—	—
1	96 27	The locked priced-option of "Modular Volume Migration" was unlocked.	—	—
1	96 28	The priced option of "Modular Volume Migration", which was unlocked and enabled, was locked.	—	—
1	96 29	A copy of the Modular Volume Migration started from the RAID Manager but it could not be executed.	—	—
5	96 30	The host group option for the command is not enabled during the XCOPY command operation.	Set the special Extended Copy mode of the host group option.	System Parameter "5.1 Setting Host Group/Target Options" (SYSPR 05-0010)
5	96 31	The command cannot be executed because the target LUs create a pair.	Cancel the pair of the copy system function (ShadowImage, SnapShot, TrueCopy remote replication, TrueCopy Extended Distance) for the logical unit where the command was issued.	—
5	96 32	The host group option for the command is not enabled during the Write Same command operation.	Set the Unique Write Same mode of the host group option.	System Parameter "5.1 Setting of Host Group/Target Options" (SYSPR 05-0010)
5	96 33	Although the Compare and Write command was received, the Unique Compare Write Mode of the host group option was not enabled and the command could not be executed.	Set the Unique Compare Write Mode of the host group option.	
5	96 34	The firmware failed to execute the received WriteSame command because the specified format data was other than "0x00".	Collect the VMware log and contact VMware, Inc.	—

Sense key	Sense code	Description	Recovery methods	Reference page
4	97 00	A copy job of Copy-on-write SnapShot terminated abnormally.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	97 01	A restoration job of Copy-on-write SnapShot terminated abnormally.		
4	97 02	The status of the Copy-on-write SnapShot pair was changed to PSUE.		
4	97 03	The status of the Copy-on-write SnapShot pair was changed to PSUE because the restoration failed.		
4	98 01	The general-purpose copy job terminated abnormally.		
4	99 00	Data in the cache cannot be written on the drive in a synchronized cache.		
5	99 01	The command (R.M command) was issued to the remote subsystem by the command of the RAID Manager, but the time-out of the retry of the command occurred.	Execute it again after waiting for a while.	—
5	99 04	When the SyncCache command is started in the PIN elimination mode, the CHECK response is done.	<p>① 1. When the PIN data recovery command executed from Hitachi Storage Navigator Modular 2 becomes an error, perform the version upgrade of the firmware of the subsystem to the revision supporting the recovery function of the PIN data because the firmware of the array does not support the recovery function of the PIN data.</p> <p>2. Execute the command again.</p> <p>② The Synchronize Cache command to make the dirty data executed from the host computer destage becomes an error, set the Vendor Unique bit of CDB of the Synchronize Cache command to "0", and issue the command.</p>	—

Sense key	Sense code	Description	Recovery methods	Reference page
4	9A 01	The DMA (DRR) hardware error was detected during a diagnosis of Drives.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	9F FE	Representative sense key and sense code of the pair operation system command Check response from Hitachi Storage Navigator Modular 2. This indicates that when the pair related command was executed from Hitachi Storage Navigator Modular 2, the command terminated abnormally.	Take a recovery action referring to "9.2 List of Detail Codes of Sense Code (5/9FFE)".	"9.2 List of Detail Codes of Sense Code (5/9FFE)" (MSG 09-0250)
5	9F FF	A sense key and sense code to be used exclusively for responding to Hitachi Storage Navigator Modular 2 and RAID Manager.	Take a recovery action referring to "9.3 List of Detail Codes of Sense Code (5/9FFF)".	"9.3 List of Detail Codes of Sense Code (5/9FFF)" (MSG 09-1210)
4	A0 00	A failure occurred in the cache circuit.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
B	A1 00	An invalid boundary error occurred during DMA transfer.	Retry the host command.	—
B	C0 00	Although 1.5 seconds have passed after the front-end port in which the special command response mode was set as enabled received the command, since the command processing was not started, the command timed out.		
		XCOPY JOB was waiting for sleep because the LU owner right switching processing was operating. However, since the LU owner right switching processing is not completed even after 30 seconds passed, the time-out occurred in the waiting processing of sleep of XCOPY JOB.		
		Since the page of Dynamic Provisioning to be released by the WriteSame command JOB was processed by the other JOB, the page was not released within the specified time, and the release of the page timed out.		
		A time-out occurred during an internal processing or data transfer.		
		Since securing of the segment for the differential bitmap of ShadowImage, SnapShot, TrueCopy, TrueCopy Extended timed out, the host command was unable to be executed.		
B	C0 01	A time-out occurred during a data transfer between a host computer.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
B	C0 02	The command cannot be executed continuously due to the Controller blockade on the cross call operation side.		
B	C0 03	A time-out occurred during a data transfer between a host computer.		
B	C0 04	A time-out of the Formatting job generated by the read command or write command were detected.		

Sense key	Sense code	Description	Recovery methods	Reference page
B	C0 05	The read command and write command of the host were unable to be executed because there is no usable capacity of the DP pool or the DP pool is in preparation (format) in the subsystem.	Check the DP pool total capacity and consumed capacity using Hitachi Storage navigator Modular 2 and, if the DP Pool free capacity is depleted, add the DP Pool capacity according to the "Dynamic Provisioning User's Guide" . If free capacity is available, after formatting of the DP pool is completed, retry the host command.	—
		Since securing of the segment for the differential bitmap of ShadowImage, SnapShot, TrueCopy, TrueCopy Extended timed out, the host command was unable to be executed.	Retry the host command.	—
		Since the DP pool is being formatted, the read system command and the write system command of the host to the sub-block in which the pages for the differential reference of SnapShot or TrueCopyExtended are not assigned were not executed. (When the DP Depletion Detail Reply Mode is OFF)	After the DP Pool formatting is completed, retry a host command.	—
		The write system command of the host was issued in the page where the Hitachi Dynamic Tiering function was being relocated. However, since the relocation has not completed in a certain period of time, the command was not executed (the write system command is not execute during the page relocation and the execution is waited until the relocation is completed).	Retry the host command.	—
B	C0 06	A segment securing waiting time-out occurred.	—	—
B	C0 07	The completion of the general-purpose job timed out.	Retry the host command.	—
B	C0 0A	A CRC error occurred during a data transfer between a host computer.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
	C0 0B	The copy or restoration of True Copy Extended Distance/Copy-on-write SnapShot executed synchronously with the host I/O timed out.	Retry the host command.	—
	C0 0C	Since the TrueCopy remote replication (TC) copy by the write command failed, the write command JOB changed the TC pair status to PSUE.		
	C0 0D	The copy to the ShadowImage secondary volume operated by the write system command to match the data of the ShadowImage primary and secondary volumes could not be completed due to a time-out. Therefore, the write system command terminated abnormally.		
	C0 0F	The copy processing by the XCOPY command timed out.		

Sense key	Sense code	Description	Recovery methods	Reference page
B	C1 00	The cache necessary for the formatting cannot be assigned.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
B	C2 00	The system current drive was changed		
		Since the system area of the Drive was blocked, the access to the system area failed.	—	—
B	DA 00	The new data recovery request cannot be accepted because another Drive is being recovered	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
6	E0 00	The Cache battery voltage decreased.	—	—
6	E2 00	FAN STOP		
4	E4 00	The system area overflowed ^(*1) . (Pinned data management area)	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
6	E5 00	Abnormality of the power supply section occurred.	—	—
6	E5 01	The DC voltage decreased.		
6	EA 00	There was a Drive on which the take-over information could not be written.		
4	EA 01	The program size which the write buffer received was larger than that of the program area.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	EA 02	The take-over information size which the write buffer received was larger than that of the take-over information of the system.		
5	EA 03	A firmware download error was detected.		
5	EA 04	An error was detected when the hot replacement of the firmware was directed.		

*1 : In the case where WAR = 1 in the Mode Select command when reporting the sense code to a host, Sense key: 4/ Code: "F8 04_H" are also reported.

Sense key	Sense code	Description	Recovery methods	Reference page
1	EA 05	A firmware installation is in the state in which it has been partially completed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	EA 05	<p>The firmware download failed due to any of the following factors.</p> <ul style="list-style-type: none"> The firmware update installation should be performed in accordance with the procedure of "When updating each Controller by stopping I/O", but the firmware update installation was tried in accordance with the procedure of "When updating both Controllers by taking over I/O" (the off-line firmware update is required). The downloaded firmware file is damaged due to a media failure, PC failure or a network failure between Hitachi Storage Navigator Modular 2 and the array. Downloading the firmware of the version (less than 0920/A) not supporting the CBL+DBW configuration to the array in the CBL+DBW configuration was tried. Downloading the firmware of the version (less than 0950/A) not supporting the double connection configuration to the array connecting with the DBW and the Drive Box other than DBW was tried. Downloading to the firmware of the inappropriate version to the array not connecting with the DBW was tried. 	<p>① 1. In case of the array in the CBL+DBW configuration, check that the version of the firmware to be downloaded is 0920/A or more.</p> <p>2. When the version is less than 0920/A, execute the update installation using the firmware of the version 0920/A or more. In case the version is 0920A or more, proceed to Step ②.</p> <p>② 1. Check that the DBW and the Drive Box other than DBW are connected.</p> <p>2. When the DBW and the Drive Box other than DBW are connected, check that the version of the firmware to be downloaded is 0950/A or more.</p> <p>3. In case the version is less than 0950/A, execute the update installation using the firmware of the version 0950/A or more.</p> <ul style="list-style-type: none"> In case the version is 0950A or more, proceed to Step ③. Neither DBW nor Drive Box other than DBW is connected, proceed to Step ③. <p>③ 1. Check if the version of the firmware to be downloaded is correct.</p> <p>2. When the version is incorrect, execute the update installation again using the firmware of the correct version. When the version is correct, proceed to Step ④.</p> <p>④ 1. Check if the off-line update is required for the firmware to be installed.</p> <p>2. If the off-line update is required, execute the firmware update off-line in accordance with the procedure of Firmware "(3) Updating I/O stop for each Controller (Dual controller configuration) in Ver.22.00 or more of Hitachi Storage Navigator Modular 2". When the online update is possible, proceed to Step ⑤.</p>	<p>—</p> <p>Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</p> <p>—</p> <p>Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</p> <p>—</p> <p>Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</p> <p>—</p> <p>Firmware "1.4.2 (3) Updating I/O stop for each Controller (Dual controller configuration) in Ver.22.00 or more of Hitachi Storage Navigator Modular 2" (FIRM 01-0790)"</p>

To be continued to the next page.

Sense key	Sense code	Description	Recovery methods	Reference page
			<p>⑤ 1. • The firmware file may be damaged. Acquire the firmware from the media one more time, and then execute the firmware update again.</p> <p>• Acquire the media itself one more time, and then execute the firmware update again.</p> <p>2. Even if the phenomenon occurs again, proceed to Step ⑥.</p>	Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)
			⑥ The firmware file may be damaged due to a network failure between Hitachi Storage Navigator Modular 2 and the array. Remove the network failure, and then execute the firmware update again.	—
5	EA 06	<p>The firmware replacement failed due to either of the following factors.</p> <ul style="list-style-type: none"> • The firmware should be replaced in accordance with the procedure of "When updating each Controller by stopping I/O", but the firmware was tried to be replaced in accordance with the procedure of "When updating both Controllers by taking over I/O" (the off-line firmware update is required). • The downloaded firmware file is damaged due to a media failure, PC failure or a network failure between Hitachi Storage Navigator Modular 2 and the array. 	<p>① 1. Check if the version of the firmware to be replaced is correct.</p> <p>2. If the version is incorrect, use the firmware of the correct version and execute the update installation again. When the version is correct, proceed to Step ②.</p> <p>② 1. Check if the off-line update is required for the firmware to be replaced.</p> <p>2. If the off-line update is required, execute the firmware update off-line from the beginning in accordance with the procedure of Firmware "(3) Updating I/O stop for each Controller (Dual controller configuration) in Ver.22.00 or more of Hitachi Storage Navigator Modular 2". When the online update is possible, proceed to Step ③.</p> <p>③ 1. • The firmware file may be damaged. Acquire the firmware from the media one more time, and then execute the firmware update from the beginning again.</p> <p>• Acquire the media itself one more time, and then execute the firmware update from the beginning again.</p> <p>2. Even if the phenomenon occurs again, proceed to Step ④.</p> <p>④ The firmware file may be damaged due to a network failure between Hitachi Storage Navigator Modular 2 and the array. Remove the network failure, and then execute the firmware update from the beginning again.</p>	<p>—</p> <p>Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)</p> <p>—</p> <p>Firmware "1.4.2 (3) Updating I/O stop for each Controller (Dual controller configuration) in Ver.22.00 or more of Hitachi Storage Navigator Modular 2" (FIRM 01-0790)"</p> <p>—</p> <p>—</p> <p>—</p>

Sense key	Sense code	Description	Recovery methods	Reference page
4	EA 10	An error in the firmware downgrade check.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	EA 13	An error in the firmware upgrade check.		
5	EA 15	A downgrade was made though a specification for the random simple buffer size as 0% was validated.		
5	EA 16	Downgrade of the firmware was performed when 16 or more Spare Drives were used.	Reduce the number of the spare Drives to 15 or less.	—
5	EA 1A	A system version check error occurred in the firmware download.	Use the firmware corresponding to the array and do the update installation of the firmware again.	Firmware "Chapter 1. Installation of Firmware" (FIRM 01-0000)
5	EA 1E	Because the NAS OS is operating, the microprogram cannot be replaced by the update installation.	Replace the firmware after stopping the NAS OS.	—
5	EA 1F	Because the NAS OS is operating, the command with the reboot of the Controller cannot be executed.	Execute the operation again after stopping all NAS OS.	—
5	EA 30	The online ENC firmware downloading or online ENC firmware replacement cannot be executed because of the loop trouble or the Single mode.	Execute the online ENC firmware downloading or online ENC firmware replacement after the loop trouble is solved.	—
5	EA 31	The command cannot be executed because the online ENC firmware replacement is in progress.	Execute the command after the online ENC firmware replacement is completed.	—
5	EA 32	The online ENC firmware downloading cannot be done.	Execute the online ENC firmware downloading again.	—
5	EA 33	A revision check error of the online ENC firmware downloading occurred.	Check the revision of the ENC firmware again and re-execute the online ENC firmware downloading.	—
5	EA 34	A sum check error of the online ENC firmware downloading occurred.	Check the ENC firmware again and re-execute the online ENC firmware downloading.	—
5	EA 35	The online ENC firmware replacement cannot be made because the online ENC firmware downloading has not been done yet.	Make the online firmware replacement after executing the online ENC firmware downloading.	—
5	EA 36	The parameter of the online ENC firmware replacement is incorrect.	Make the online ENC firmware replacement again.	—
5	EA 37	The ENC firmware download failed because the downloaded ENC firmware file is damaged due to a media failure, a PC failure or a network failure between Hitachi Storage Navigator Modular 2 and the array.	① 1. • The ENC firmware file may be damaged. Acquire the ENC firmware from the media one more time, and then execute the ENC firmware download again. • Acquire the media itself one more time, and then execute the ENC firmware download again.	Troubleshooting "Chapter 12. Procedure for Online ENC Firmware Download" (TRBL 12-0000)
			2. Even if the phenomenon occurs again, proceed to Step ②.	—
			② The ENC firmware file may be damaged due to a network failure between Hitachi Storage Navigator Modular 2 and the array. Remove the network failure, and then execute the ENC firmware download again.	Troubleshooting "Chapter 12. Procedure for Online ENC Firmware Download" (TRBL 12-0000)

Sense key	Sense code	Description	Recovery methods	Reference page
5	EA 40	Since the automatic ENC firmware download function is enabled, the command cannot be executed.	Disable the option and execute the command again.	—
5	EA 41	Since the automatic ENC firmware download is executing, the command cannot be executed.	Execute the command at the time of the automatic download.	—
5	EA 42	The command cannot be executed because the status of the backend path has an abnormal part in the path or the diagnosis is being executed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
5	EA 43	It cannot be executed because the CTL is being blocked.		
5	EA 44	It cannot be executed because the ENC is being blocked.		
5	EA 45	It cannot be executed because it is in the single mode.		
5	EA 46	The ENC firmware revision check is NG.		
5	EA 47	The cross call firmware replacement cannot be executed because the firmware is not allowed for the cross call firmware replacement.		
5	EA 48	The cross call firmware replacement cannot be executed because a backend path failure occurs.		
5	EA 49	When replacing the firmware with the subsystem power turned on, the firmware cannot be replaced because the load of CPU (host I/O) is high.	Execute the firmware replacement again in the status where the load of host I/O is low.	—
5	EB 10	The information on the traceability cannot be set.	—	—

Sense key	Sense code	Description	Recovery methods	Reference page
4	F4 00	The cache module was blocked because a Cache memory error occurred.	Replace the Cache Memory.	Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920)
4	F6 10	A Drive emerged in which the number of recovered mechanical errors exceeded the threshold value ^(*1) .	Replace the Drive.	Replacement "2.2.1 Replacing a Drive" (REP 02-0050)
4	F6 11	A Drive emerged in which the number of unrecovered mechanical errors exceeded the threshold value ^(*1) .		
4	F6 20	A Drive emerged in which the number of recovered medium errors exceeded the threshold value ^(*1) .		
4	F6 21	A Drive emerged in which the number of unrecovered medium errors exceeded the threshold value ^(*1) .		
4	F6 30	A Drive emerged in which the number of recovered R/W errors exceeded the threshold value ^(*1) .		
4	F6 31	A Drive emerged in which the number of unrecovered R/W errors exceeded the threshold value ^(*1) .		
4	F6 40	A Drive emerged in which the number of recovered interface errors exceeded the threshold value ^(*1) .		
4	F6 41	A Drive emerged in which the number of unrecovered interface errors exceeded the threshold value ^(*1) .		
4	F6 50	A Drive emerged in which the number of recovered hardware errors exceeded the threshold value ^(*1) .		
4	F6 51	A Drive emerged in which the number of unrecovered hardware errors exceeded the threshold value ^(*1) .		
4	F6 70	A Drive emerged in which the number of correctable errors in the online verify exceeded the threshold value ^(*1) .		
4	F6 71	A Drive emerged in which the number of uncorrectable errors in the online verify exceeded the threshold value ^(*1) .		
4	F8 00	Battery failure ^(*1)	Specify a part to be replaced by checking the log message of the array and replace the Cache Backup Battery.	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430)
4	F8 01	Fan failure ^(*1)	Specify a part to be replaced by checking the log message of the array and replace the Fan Module.	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.3 Replacing a Fan Module" (REP 02-0520)

*1 : In the case where WAR = 1 in the Mode Select command when reporting the sense code to a host, Sense key: 4/
Code: "F8 04_H" are also reported.

Sense key	Sense code	Description	Recovery methods	Reference page
4	F8 02	DC failure(*1)	Specify a part to be replaced by checking the log message of the array and replace the Power Unit.	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560)
4	F8 03	Drive failure (regression)(*1)	Specify a part to be replaced by checking the log message of the array and replace the Drive.	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.1 Replacing a Drive" (REP 02-0050)
4	F8 04	Pin data over(*1)	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	F8 05	Module blockade(*1)	Specify a part to be replaced by checking the log message of the array and replace the Cache Memory.	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920)
4	F8 07	AC LINE/INBOX failure	Specify a part to be replaced by checking the log message of the array and replace the Power Unit.	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.4 Replacing a Power Unit" (REP 02-0560)
4	F8 08	UPS failure	Specify a part to be replaced by checking the log message of the array. When the UPS is connected, take a recovery action referring the UPS manual. (If a sense code, "FB F2", is displayed at the same time, take an action following the recovery procedure corresponding to it first.)	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.1 Locations of Replacement Components" (REP 02-0000)
4	F8 09	Battery backup circuit failure	Specify a part to be replaced by checking the log message of the array and replace the Cache Backup Battery.	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.2 Replacing a Cache Backup Battery" (REP 02-0430)

*1 : In the case where WAR = 1 in the Mode Select command when reporting the sense code to a host, Sense key: 4/
Code: "F8 04_H" are also reported.

Sense key	Sense code	Description	Recovery methods	Reference page
4	F8 0A	I/O Module(ENC) or I/O Card(ENC) blockade	Specify a part to be replaced by checking the log message of the array and replace the I/O Module(ENC) or I/O Card(ENC).	Troubleshooting "4.3 Confirm Log Messages" (TRBL 04-0120) Replacement "2.2.11 Replacing an I/O Module(ENC) or I/O Card(ENC)" (REP 02-1500)
4	F8 0B	Loop failure	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	F8 0C	A path detachment occurred.	Replace the LOOP.	
4	F8 F0	The controller of another system was blocked(*1).	Get the CTL alarm trace of the detached Controller and replace the Controller.	Troubleshooting "5.4 Collecting CTL Alarm Trace" (TRBL 05-0130) Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700)
4	F8 F1	Host connector failure	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	F9 00	Battery failure recovery(*1)	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	F9 01	Fan failure recovery(*1)		
4	F9 02	DC failure recovery(*1)		
4	F9 03	Drive failure (regression) recovery(*1)		
4	F9 04	Pin data over recovery(*1)		
4	F9 05	Module blockade release(*1)		
4	F9 06	Own Controller recovery(*1)		
4	F9 07	AC LINE/INBOX recovery		
4	F9 08	UPS failure recovery		
4	F9 09	Battery backup circuit failure recovery		
4	F9 0A	ENC failure recovery		
4	F9 0B	Loop failure recovery		

*1 : The sense code is reported to the host only when WAR = 1 in the Mode Select command (page35_H).

Sense key	Sense code	Description	Recovery methods	Reference page
4	F9 0C	The path recovered from the detachment.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
4	F9 F0	Another system Controller failure recovery ^(*1)		
4	F9 F1	Host connector failure recovery		
4	F9 F2	A logical error in the firmware was detected while the Receive Copy Results command was being executed.	Collect Simple trace and request the Technical Support Center to analyze the failure and take a measure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
B	FD 00	Command execution was disabled because the LU was switched.	This is not failure. If this error code frequently appears, collect Simple trace and request the Technical Support Center to analyze the failure.	Troubleshooting "5.3 Collecting Simple Trace" (TRBL 05-0040)
B	FD 01	The command execution was interrupted owing to an LU switching.		
*1 : The sense code is reported to the host only when WAR = 1 in the Mode Select command (page35 _H).				

9.2 List of Detail Codes of Sense Code (5/9FFE)

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
010001	DMER010001: The target VOL is undergoing the change of an ownership of VOL. Retry after waiting for a while.	Retry after waiting for a while.	—
010002	DMER010002: The change of a controller that controls the VOL cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.	Retry after waiting for a while.	—
010003	DMER010003: An instruction to change the controller that controls the VOL was issued. Retry after waiting for a while.	Retry after waiting for a while.	—
010004	DMER010004: The owner controller of the VOLs to be paired is detached. Retry.	Retry.	—
010005	DMER010005: The owner controller of the VOLs to be paired is detached. Retry.	Retry.	—
010006	DMER010006: The owner controller of the VOLs to be paired is detached. Retry.	Retry.	—
010007	DMER010007: The owner controller of the VOLs to be paired is detached. Retry.	Retry.	—
010009	DMER010009: The owner controller of the VOLs to be paired is detached. Retry after waiting for a while.	Retry after waiting for a while.	—
01000A	DMER01000A: The owner controller of the VOLs to be paired is detached. Retry after waiting for a while.	Retry after waiting for a while.	—
01000B	DMER01000B: The owner controller of the VOLs to be paired is detached. Retry after waiting for a while.	Retry after waiting for a while.	—
010019	DMER010019: The pair operation command is a time-out. Retry after waiting for a while.	Retry after waiting for a while.	—
010065	DMER010065: Since the specified P-VOL requires a change of an ownership of VOL, it is undergoing the execution of the ownership of VOL change. Retry after waiting for a while.	Retry after waiting for a while.	—
010066	DMER010066: Though the specified P-VOL requires a change of an ownership of VOL, the controller to be changed is blocked. Retry after waiting for a while.	Retry after waiting for a while.	—
010067	DMER010067: Since the specified P-VOL requires a change of an ownership of VOL, the execution of the ownership of VOL change has been started. Retry after waiting for a while.	Retry after waiting for a while.	—
011001	DMER011001: The target VOL is undergoing the change of an ownership of VOL. Retry after waiting for a while.	Retry after waiting for a while.	—
011002	DMER011002: The change of a controller that controls the VOL cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.	Retry after waiting for a while.	—
011003	DMER011003: An instruction to change the controller that controls the VOL was issued. Retry after waiting for a while.	Retry after waiting for a while.	—
012001	DMER012001: The target VOL is undergoing the change of an ownership of VOL. Retry after waiting for a while.	Retry after waiting for a while.	—
012002	DMER012002: The change of a controller that controls the VOL cannot be checked because the directory was blocked in the other controller. Retry after waiting for a while.	Retry after waiting for a while.	—
012003	DMER012003: An instruction to change the controller that controls the VOL was issued. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
020000	DMER020000: The pair status of the P-VOL is other than Simplex. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020001	DMER020001: The status of the P-VOL is other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
020002	DMER020002: The P-VOL is a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
020003	DMER020003: The P-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
020004	DMER020004: The P-VOL is a command device. Check the status of the VOL.	Check the status of the VOL.	—
020005	DMER020005: The primary sequence number is different from the own Array ID. Check the Array ID.	Check the Array ID.	—
020006	DMER020006: Both of the two paths are abnormal. Check the status of the path.	Check the status of the path.	—
020007	DMER020007: The P-VOL has been defined as a SubVOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
020009	DMER020009: There exist maximum number of pairs already. Delete the unnecessary pairs.	Delete the unnecessary pairs.	—
02000D	DMER02000D: The P-VOL is in a status other than Split and Failure. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02000E	DMER02000E: The status of the P-VOL is other than normal and regressive. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
02000F	DMER02000F: The number of the VOL to be paired is different. Check the specified VOL.	Check the specified VOL.	—
020010	DMER020010: The primary sequence number is different from the own Array ID. Check the Array ID.	Check the Array ID.	—
020011	Hitachi Storage Navigator Modular 2 is less than Ver.21.60.		
	DMER020011: Both of the two paths are abnormal. Check the status of the path.	Check the status of the path.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more.		
	DMER020011: Both of the two paths are abnormal. Check the status of the path. Also, check the S-VOL status. When it is Takeover, the S-VOL is available for I/O.	Check the status of the path. Also, check the S-VOL status. When it is Takeover, the S-VOL is available for I/O.	—
020012	DMER020012: The specified P-VOL is in a status other than Synchronizing and Paired. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020014	DMER020014: The current Array ID differs from the number that was set initially. Check the Array ID.	Check the Array ID.	—
020016	DMER020016: The number of the VOL to be paired is different. Check the specified VOL.	Check the specified VOL.	—
020017	DMER020017: The primary sequence number is different from the own Array ID. Check the Array ID.	Check the Array ID.	—
020018	DMER020018: The S-VOL pair cancellation instructions to a P-VOL or the pair cancellation instructions to an S-VOL was received. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020020	DMER020020: The Asynchronous mode is turned on. The Asynchronous mode is not supported.	The Asynchronous mode is not supported.	—
020021	DMER020021: The fence level is STATUS. Make sure of the specified fence level.	Make sure of the specified fence level.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
020023	DMER020023: The P-VOL is a volume of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020024	DMER020024: The P-VOL is undergoing the restoration of ShadowImage pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020025	DMER020025: The P-VOL received an instruction to swap pair. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
020026	DMER020026: The pair status is not Takeover. Check the pair status.	Check the pair status.	—
020027	DMER020027: The S-VOL received an instruction to resynchronize pair. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
020028	DMER020028: The volume is a P-VOL of ShadowImage. It is in the Failure status and cannot accept Read/Write instructions. Place the P-VOL concerned in the Simplex status and create the pair again.	Place the P-VOL concerned in the Simplex status and create the pair again.	—
020029	DMER020029: The volume is a P-VOL of ShadowImage and undergoing a reverse copy. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02002A	DMER02002A: The P-VOL received an instruction to be taken over. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02002B	DMER02002B: It is in the Simplex or Synchronizing status. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02002C	DMER02002C: The secondary sequence number is different from the Array ID. Check the Array ID.	Check the Array ID.	—
02002D	DMER02002D: The S-VOL received an instruction to be taken over. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02002E	DMER02002E: The pair status of the P-VOL is Simplex or Synchronizing. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02002F	DMER02002F: The primary sequence number is different from the Array ID. Check the Array ID.	Check the Array ID.	—
020030	DMER020030: The S-VOL received the suspension. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020031	DMER020031: The capacity is beyond the limits of support. Split the unnecessary pairs.	Split the unnecessary pairs.	—
020032	DMER020032: The P-VOL is configured as RAID 0. Check the RAID level of the specified VOL.	Check the RAID level of the specified VOL.	—
020033	DMER020033: The specified VOL is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020035	DMER020035: The volume is an S-VOL of ShadowImage and it is in a pair status other than Split. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020036	DMER020036: The volume is a P-VOL of SnapShot and being restored. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020037	DMER020037: The volume is a P-VOL of SnapShot It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.	Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.	—
020038	DMER020038: The volume is a P-VOL of SnapShot and the mate to it has already been paired by Remote Replication. Check the pair status of the VOL.	Check the pair status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
020039	DMER020039: The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02003A	DMER02003A: The volume is a V-VOL of SnapShot. The related P-VOL of SnapShot is being restored or has been placed in the Failure status during a restoration. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02003B	DMER02003B: The specified VOL is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02003C	DMER02003C: The specified VOL is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02003D	DMER02003D: The volume is a P-VOL of SnapShot and being restored. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02003E	DMER02003E: The volume is a P-VOL of SnapShot. It is in the Failure status and cannot accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL related to Simplex and create the pair again.	Change the statuses of all V-VOLs of the P-VOL related to Simplex and create the pair again.	—
02003F	DMER02003F: The volume is a V-VOL of SnapShot and it is in a status other than Split of SnapShot. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020040	DMER020040: The volume is a P-VOL of SnapShot. It is being restored or in the Failure status and cannot accept Read/Write instructions. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020042	DMER020042: The RAID level differs between the MainVOL and SubVOL. Check that the RAID level of the specified VOL is the same as that expected.	Check that the RAID level of the specified VOL is the same as that expected.	—
020043	DMER020043: The number of data disks differs between the MainVOL and SubVOL. Check that the number of data disks of the specified VOL is the same as that expected.	Check that the number of data disks of the specified VOL is the same as that expected.	—
020045	DMER020045: The specified VOL is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified VOL, whose MainVOL and SubVOL are different in RAID level. Check that the RAID level of the SnapShot P-VOL corresponding to the specified VOL is the same as that expected.	Check that the RAID level of the SnapShot P-VOL corresponding to the specified VOL is the same as that expected.	—
020046	DMER020046: The specified VOL is a V-VOL of SnapShot. The P-VOL of the related SnapShot pair is a unified VOL, whose MainVOL and SubVOL are different in number of data disks. Check that the number of data disks of the SnapShot P-VOL corresponding to the specified VOL is the same as that expected.	Check that the number of data disks of the SnapShot P-VOL corresponding to the specified VOL is the same as that expected.	—
020047	DMER020047: Data of the Remote Replication P-VOL is partially destroyed. Issue the SnapShot instruction (to change the status from Paired to Split) to the SnapShot pair again, and then create the pair again.	Issue the SnapShot instruction (to change the status from Paired to Split) to the SnapShot pair again, and then create the pair again.	—
020048	DMER020048: Data of the Remote Replication P-VOL is partially destroyed. Format the specified VOL after getting backup data of it. Then restore the backup data.	Format the specified VOL after getting backup data of it. Then restore the backup data.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
02004B	DMER02004B: The specified P-VOL is in the Failure (S-VOL Switch) status of ShadowImage. Request service personnel to replace drives that compose the P-VOL. Format them after the replacement then resynchronize the pair.	Request service personnel to replace drives that compose the P-VOL. Format them after the replacement then resynchronize the pair.	—
02004D	DMER02004D: The DM-LU is not set. Retry after setting the DM-LU.	Retry after setting the DMLU.	—
02004E	DMER02004E: The DM-LU cannot be specified as P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
02004F	DMER02004F: Validity of the license expired. Purchase the license.	Purchase the license.	—
020052	DMER020052: The remote SnapShot split request was accepted in the Remote Replication environment. The remote SnapShot split request is not supported in the Remote Replication environment.	The remote SnapShot split request is not supported in the Remote Replication environment.	—
020053	DMER020053: The specified P-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
020054	DMER020054: The specified P-VOL is undergoing the migration. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020055	DMER020055: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
020056	DMER020056: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
020057	DMER020057: The specified function is not supported in a remote array. Check the remote array.	Check the remote array.	—
020058	DMER020058: When creating pairs with group is specified, the specified group ID is beyond the limits of supported. Check the specified group ID.	Check the specified group ID.	—
020059	DMER020059: The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL. on both local and remote arrays.	Check the pair status of the specified S-VOL. on both local and remote arrays.	—
02005A	DMER02005A: The command was received in unit of group at the time of resynchronization. Check the specified value.	Check the specified value.	—
02005B	DMER02005B: When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the VOL.	Check the status of the VOL.	—
02005C	DMER02005C: When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.	Check the group ID.	—
02005D	DMER02005D: When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of VOL in the group.	Check the pair status of VOL in the group.	—
02005E	DMER02005E: When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the VOL.	Check the status of the VOL.	—
02005F	DMER02005F: When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.	Check the group ID.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
020060	DMER020060: When the unit of group is specified, there is no pair, which is in the Paired, Split, or Failure status, in the same group. Check the pair status of VOL in the group.	Check the pair status of VOL in the group.	—
020061	DMER020061: When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the VOL.	Check the status of the VOL.	—
020062	DMER020062: When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.	Check the group ID.	—
020063	DMER020063: When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the same group. Check the pair status of VOL in the group.	Check the pair status of VOL in the group.	—
020064	DMER020064: The pair cancellation instructions was executed for the range that was not supported. Check the specified value.	Check the specified value.	—
020065	DMER020065: When the unit of group is specified, the specified P-VOL is not created pair with group. Check the status of the VOL.	Check the status of the VOL.	—
020066	DMER020066: When the unit of group is specified, there is an S-VOL in the same group. Check the group ID.	Check the group ID.	—
020067	DMER020067: When the unit of group is specified, the specified S-VOL is not created pair with group. Check the status of the VOL.	Check the status of the VOL.	—
020068	DMER020068: When the unit of group is specified, there is a P-VOL in the same group. Check the group ID.	Check the group ID.	—
020069	DMER020069: The remote path connected to the specified remote array does not exist. Retry after creating the remote path from the local array to the remote array of the specified remote Array ID.	Retry after creating the remote path from the local array to the remote array of the specified remote Array ID.	—
02006A	DMER02006A: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.	Check the Migration status.	—
02006B	DMER02006B: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.	Check the Migration status.	—
02006C	DMER02006C: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.	Check the Migration status.	—
02006D	DMER02006D: There are other pairs in the group, whose fence level is not the same as the one specified. Confirm the fence level of the pair you are creating.	Confirm the fence level of the pair you are creating.	—
02006E	DMER02006E: There are other pairs in the group, whose P-VOL and S-VOL are swapped. Confirm the array on which you are executing the command.	Confirm the array on which you are executing the command.	—
02006F	DMER02006F: The specified VOL is the P-VOL or S-VOL of a ShadowImage pair that the status is Split Pending or Paired Internally Synchronizing. Check the status of the ShadowImage pair.	Check the status of the ShadowImage pair.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
020070	DMER020070: Migration status indicates a status other than Not Started. Check the Migration status.	Check the Migration status.	—
020071	DMER020071: Migration mode indicates Migration. Check the migration mode.	Check the migration mode.	—
020072	DMER020072: The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
020073	DMER020073: A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—
020074	DMER020074: The specified CTG number has been used into other remote replication pair with the remote array. Retry after specifying the number other than specified CTG number.	Retry after specifying the number other than specified CTG number.	—
020075	DMER020075: The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.	Retry after deleting the all remote replication pair with the another remote array.	—
020076	DMER020076: The local array can not execute create pair with the specified remote array because the maximum number of the connected arrays is beyond the limits. Retry after deleting the all remote replication pair with the another remote array.	Retry after deleting the all remote replication pair with the another remote array.	—
020077	DMER020077: The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
020078	DMER020078: The VOL that was specified as P-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—
020079	DMER020079: The specified P-VOL is a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.	Confirm the ShadowImage pair that the specified P-VOL is part of.	—
02007A	DMER02007A: The specified P-VOL is a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the ShadowImage pair that the specified P-VOL is part of.	Confirm the ShadowImage pair that the specified P-VOL is part of.	—
02007B	DMER02007B: The specified P-VOL is an S-VOL of ShadowImage pair those P-VOL is part of another ShadowImage pair that S-VOL is the VOL created in DP pool. Confirm all the S-VOL of ShadowImage pair that shares the P-VOL with the ShadowImage pair that specified P-VOL is part of.	Confirm all the S-VOL of ShadowImage pair that shares the P-VOL with the ShadowImage pair that specified P-VOL is part of.	—
02007C	DMER02007C: Management information of Dynamic Provisioning is being updated. Retry after waiting for a while.	Retry after waiting for a while.	—
02007D	DMER02007D: The operation can not be performed due to insufficient capacity of the DP Pool for the specified P-VOL. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
02007E	DMER02007E: The operation can not be performed due to insufficient capacity of the DP Pool for the specified S-VOL. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
02007F	DMER02007F: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
020080	DMER020080: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
020081	DMER020081: The pair status of the specified S-VOL is Simplex, Synchronizing, or Paired. Check the pair status of the VOL.	Check the pair status of the VOL.	—
020082	DMER020082: There are no pairs in the specified group whose status is Takeover. Check the pair status.	Check the pair status.	—
020083	DMER020083: The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.	Grow the capacity of DMLU.	—
020084	DMER020084: The internal transaction of the specified VOL is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
020085	DMER020085: The DM-LU status is invalid. Check the DM-LU status.	Check the DMLU status.	—
020086	DMER020086: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
020087	DMER020087: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
020088	DMER020088: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
020089	DMER020089: The copy operation can not be performed because the DM-LU has unwritten data. Delete the specified pair.	Delete the specified pair.	—
02008A	DMER02008A: The copy operation can not be performed because the DM-LU has unwritten data. Retry the operation per pair.	Retry the operation per pair.	—
02008B	DMER02008B: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the P-VOL of the specified pair.	Delete the ShadowImage pair that is cascaded with the P-VOL of the specified pair.	—
02008C	DMER02008C: The specified P-VOL is the P-VOL of a Remote Replication pair. Check the pair status.	Check the pair status.	—
02008D	DMER02008D: The specified VOL is comprised in a SnapShot pair and it has already been cascaded with a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
02008E	DMER02008E: The SnapShot pair of the specified V-VOL has already had its V-VOL being cascaded with the max number of remote replication pairs. Check the configuration of the pairs.	Check the configuration of the pairs.	—
02008F	DMER02008F: Migration status indicates a status of Checking or Switching array. Check the Migration status.	Check the Migration status.	—
02303D	DMER02303D: Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.	Confirm the pair status of VOL and the other side's VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
02403D	DMER02403D: Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.	Confirm the pair status of VOL and the other side's VOL.	—
030000	DMER030000: The controller that controls the VOL cannot be changed because pinned data exists. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
030001	DMER030001: The controller that controls the VOL cannot be changed temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
030002	DMER030002: The operation to change VOL is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030003	DMER030003: There is no partition to which the current partition is to be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
030004	DMER030004: The directory configuration is being changed. Reboot the subsystem.	Reboot the subsystem.	—
030005	DMER030005: The change of a controller that controls the VOL resulted in a time-out. Retry after waiting for a while.	Retry after waiting for a while.	—
030006	DMER030006: The pair status of the P-VOL is other than Simplex, or a V-VOL does not exist. Check the pair status of the VOL.	Check the pair status of the VOL.	—
030007	DMER030007: The pair status is other than Simplex. Check the pair status of the VOL.	Check the pair status of the VOL.	—
030008	DMER030008: The specified P-VOL is a V-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
030009	DMER030009: The specified V-VOL is a P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
03000B	DMER03000B: The group ID is out of appropriate range. Make sure of the specified group ID number.	Make sure of the specified group ID number.	—
03000D	DMER03000D: The same MU number was specified within the same P-VOL. Make sure of the specified MU number.	Make sure of the specified MU number.	—
03000E	DMER03000E: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030010	DMER030010: The pair status is other than Split. Check the pair status of the VOL.	Check the pair status of the VOL.	—
030011	DMER030011: The object VOL is not the same as the expected one. Check the specified VOL.	Check the specified VOL.	—
030012	DMER030012: The instruction of forced suspension was received. Make sure of the command.	Make sure of the command.	—
030014	DMER030014: The P-VOL is in a status other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
030015	DMER030015: The data pool VOL being used is in a status other than normal and regressive. Check the status of the pool VOL.	Check the status of the pool VOL.	—
030017	DMER030017: The pair attribute of the P-VOL is V-VOL. Check the status of the VOL.	Check the status of the VOL.	—
030018	DMER030018: The pair attribute of the V-VOL is P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
03001A	DMER03001A: The same MU number was specified within the same P-VOL. Make sure of the specified MU number.	Make sure of the specified MU number.	—
03001B	DMER03001B: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
03001D	DMER03001D: The object VOL is not the same as the expected one. Check the specified VOL.	Check the specified VOL.	—
03001E	DMER03001E: The specified V-VOL is not specified to be grouped(Group ID suspension). Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
03001F	DMER03001F: The V-VOL, which is an object of the batch suspension, is in a status other than Paired(Group ID suspension). Check the pair status of the VOL.	Check the pair status of the VOL.	—
030020	DMER030020: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030021	DMER030021: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030022	DMER030022: The pair status of the V-VOL is illegal. Check the pair status of the VOL.	Check the pair status of the VOL.	—
030023	DMER030023: The object VOL is not the same as the expected one. Check the specified VOL.	Check the specified VOL.	—
030028	DMER030028: The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.	Make sure of the specified MU number.	—
030029	DMER030029: The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.	Make sure of the specified MU number.	—
03002A	DMER03002A: The specified MU number is different from that of the specified V-VOL. Make sure of the specified MU number.	Make sure of the specified MU number.	—
03002B	DMER03002B: The pair status was changed to Failure because the process terminated abnormally. Place the pair concerned in the Simplex status once, and then create the pair again.	Place the pair concerned in the Simplex status once, and then create the pair again.	—
03002C	DMER03002C: The specified P-VOL has excess pinned data (at the time of a restoration only). Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
03002E	DMER03002E: Navigator was received by the control information on 8-byte form. Check the environment of Navigator.	Check the environment of Navigator.	—
03002F	DMER03002F: There are 64 or more VOLs being restored. Retry after the restoration is completed.	Retry after the restoration is completed.	—
030030	DMER030030: The P-VOL is being restored. Retry after the restoration is completed.	Retry after the restoration is completed.	—
030031	DMER030031: Data of the V-VOL is partially destroyed. Make a backup from the S-VOL to a tape device, etc. and then restore the data to the P-VOL.	Make a backup from the S-VOL to a tape device, etc. and then restore the data to the P-VOL.	—
030032	DMER030032: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030033	DMER030033: Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.	Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.	—
030034	DMER030034: Because the process terminated abnormally, the pair status was changed to Failure and the P-VOL became unable to accept Read/Write instructions. Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.	Change the statuses of all V-VOLs of the P-VOL concerned to Simplex, and create the pair again.	—
030035	DMER030035: The MU number is other than 0 to 2. Make sure of the specified MU number.	Make sure of the specified MU number.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
030036	DMER030036: The MU number is other than 0 to 2. Make sure of the specified MU number.	Make sure of the specified MU number.	—
030037	DMER030037: The MU number is other than 0. Make sure of the specified MU number.	Make sure of the specified MU number.	—
030038	DMER030038: The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
030039	DMER030039: The P-VOL of SnapShot is a P-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.	Check the pair status and pair attribute.	—
03003A	DMER03003A: The P-VOL of SnapShot is an S-VOL of Remote Replication. It is in the Split status and prohibited from accepting Write instructions. Check the pair status and pair attribute.	Check the pair status and pair attribute.	—
03003B	DMER03003B: The P-VOL of SnapShot is a volume of Remote Replication and it is in a status other than Simplex and Split. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
03003C	DMER03003C: Among the other V-VOLs of SnapShot, there are VOLs of Remote Replication in a status other than Split and Failure. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
03003D	DMER03003D: The V-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
03003E	DMER03003E: The V-VOL is a volume of Remote Replication and in a status other than Simplex. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
030044	DMER030044: The DM-LU is not set. Retry after setting the DM-LU.	Retry after setting the DMLU.	—
030045	DMER030045: The DM-LU was specified as P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
030046	DMER030046: The DM-LU was specified as V-VOL. Check the status of the VOL.	Check the status of the VOL.	—
030047	DMER030047: The DM-LU is not set. Retry after setting the DM-LU.	Retry after setting the DMLU.	—
030048	DMER030048: The DM-LU was specified as P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
030049	DMER030049: The DM-LU was specified as V-VOL. Check the status of the VOL.	Check the status of the VOL.	—
03004A	DMER03004A: Validity of the license expired. Purchase the license.	Purchase the license.	—
03004B	DMER03004B: Validity of the license expired. Purchase the license.	Purchase the license.	—
030052	DMER030052: The specified P-VOL is a P-VOL of Remote Replication and the status of the Remote Replication pair is other than Split (at the time of restoration). Check the status of the VOL.	Check the status of the VOL.	—
030053	DMER030053: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and writing to the S-VOL is prohibited (at the time of restoration). Check the status of the VOL.	Check the status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
030054	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER030054: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Busy (at the time of restoration). Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. DMER030054: The specified P-VOL is an S-VOL of Remote Replication and the determined data at the end of the previous cycle is being restored to the S-VOL. Retry after waiting for a while.	Retry after waiting for a while.	—
030056	DMER030056: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited (at the time of restoration). Check the status of the VOL.	Check the status of the VOL.	—
030057	DMER030057: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is other than Simplex or Split (at the time of restoration). Check the status of the VOL.	Check the status of the VOL.	—
030058	DMER030058: The P-VOL of this SnapShot is the S-VOL of the Remote Replication pair. It cannot be executed because the status of this Remote Replication pair is Synchronizing or Paired. Check the status of the VOL.	Check the status of the VOL.	—
030059	DMER030059: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the VOL.	Check the status of the VOL.	—
03005A	DMER03005A: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Synchronizing or Paired. Check the status of the VOL.	Check the status of the VOL.	—
03005B	DMER03005B: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Split and reading/writing from/to the S-VOL is prohibited. Check the status of the VOL.	Check the status of the VOL.	—
03005C	DMER03005C: The specified P-VOL is an S-VOL of Remote Replication and the status of the Remote Replication pair is Pool Full (at the time of restoration). Check the status of the VOL.	Check the status of the VOL.	—
03005D	DMER03005D: The specified P-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
03005E	DMER03005E: The specified P-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
03005F	DMER03005F: Though the specified P-VOL requires a change of an ownership of VOL, it has the pinned data. Contact the service personnel.	Contact the service personnel.	—
030060	DMER030060: The controller that controls the VOL that will be P-VOL cannot be changed. Check the status of the VOL.	Check the status of the VOL.	—
030061	DMER030061: The operation to change VOL is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030062	DMER030062: There is no partition to which the current partition to be changed. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
030063	DMER030063: Though the specified P-VOL requires a change of an ownership of VOL, the directory structure is being changed. Check the status of the VOL.	Check the status of the VOL.	—
030064	DMER030064: Though the specified P-VOL requires a change of an ownership of VOL, a time-out occurred in the ownership of VOL changed. Check the status of the VOL.	Check the status of the VOL.	—
030065	DMER030065: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down (at the time of restoration). Check the status of the RAID group.	Check the status of the RAID group.	—
030066	DMER030066: The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.	Check the specified POOL ID.	—
030067	DMER030067: There is no POOL VOL at the specified POOL ID. Check the specified POOL ID.	Check the specified POOL ID.	—
030068	DMER030068: The specified P-VOL is already paired with one or more V-VOLs, and the specified POOL ID is different from the POOL ID, which is already assigned. Check the specified POOL ID.	Check the specified POOL ID.	—
030069	DMER030069: The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified VOL.	Check the RAID level of the specified VOL.	—
03006A	DMER03006A: The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.	Check the number of V-VOLs which have paired with the P-VOL.	—
03006B	DMER03006B: The specified P-VOL is a SubVOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
03006C	DMER03006C: The specified P-VOL is a Volume Migration pair. Check the status of the VOL.	Check the status of the VOL.	—
03006D	DMER03006D: The specified P-VOL is a ShadowImage pair. Check the attribute of the VOL.	Check the attribute of the VOL.	—
03006E	DMER03006E: The specified P-VOL has been defined to the command device. Check the attribute of the VOL.	Check the attribute of the VOL.	—
03006F	DMER03006F: The capacity of SnapShot pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	—
030070	DMER030070: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030071	DMER030071: It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.	Delete the unnecessary pairs.	—
030072	DMER030072: The specified P-VOL is a MainVOL of a unified VOL, which includes a VOL with a capacity smaller than 1 GB. Check the status of the VOL.	Check the status of the VOL.	—
030073	DMER030073: The specified P-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
030074	DMER030074: The specified P-VOL has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
030075	DMER030075: The specified P-VOL is the VOL, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the VOL.	Check the status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
030076	DMER030076: Differential bit map is insufficient. Delete the unnecessary pairs.	Delete the unnecessary pairs.	—
030077	DMER030077: When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID.	Check the specified pool ID.	—
030078	DMER030078: VOL capacities of the P-VOL and V-VOL are different. Check the capacity of the VOL.	Check the capacity of the VOL.	—
030079	DMER030079: The specified V-VOL is an S-VOL of a Remote Replication pair.	—	—
03007A	DMER03007A: Among the other V-VOLs of SnapShot, there are S-VOLs of Remote Replication. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
03007B	DMER03007B: An unsupported command option was received. Check the specified value.	Check the specified value.	—
03007C	DMER03007C: The specified POOL ID is beyond the limits of supported. Check the specified POOL ID.	Check the specified POOL ID.	—
03007D	DMER03007D: There is no POOL VOL at the specified POOL ID. Check the specified POOL ID.	Check the specified POOL ID.	—
03007E	DMER03007E: An instruction to create a pair was issued to a P-VOL, which has one or more pairs, specifying a POOL ID different from that has been assigned. Check the specified POOL ID.	Check the specified POOL ID.	—
03007F	DMER03007F: The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified VOL.	Check the RAID level of the specified VOL.	—
030080	DMER030080: The V-VOL has already created the maximum number of pairs for the specified P-VOL. Check the number of V-VOLs which have paired with the P-VOL.	Check the number of V-VOLs which have paired with the P-VOL.	—
030081	DMER030081: The specified P-VOL is a SubVOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
030082	DMER030082: The specified P-VOL is a Volume Migration pair. Check the RAID level of the specified VOL.	Check the RAID level of the specified VOL.	—
030083	DMER030083: The specified P-VOL is a ShadowImage pair. Check the attribute of the VOL.	Check the attribute of the VOL.	—
030084	DMER030084: The specified P-VOL has been defined to the command device. Check the attribute of the VOL.	Check the attribute of the VOL.	—
030085	DMER030085: The capacity of SnapShot pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	—
030086	DMER030086: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
030087	DMER030087: It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete the unnecessary pairs.	Delete the unnecessary pairs.	—
030088	DMER030088: The specified P-VOL is a MainVOL of a unified VOL, which includes a VOL with a capacity smaller than 1 GB. Check the status of the VOL.	Check the status of the VOL.	—
030089	DMER030089: The specified P-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
03008A	DMER03008A: The specified P-VOL has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
03008B	DMER03008B: The specified P-VOL is the VOL, for which a change of the cache partition(s) had been reserved to other directory. Check the status of the VOL.	Check the status of the VOL.	—
03008C	DMER03008C: Differential bit map is insufficient. Delete the unnecessary pairs.	Delete the unnecessary pairs.	—
03008D	DMER03008D: When the specified P-VOL is a Remote Replication pair, the specified pool ID and the used pool ID are not the same. Check the specified pool ID.	Check the specified pool ID.	—
03008E	DMER03008E: VOL capacities of the P-VOL and V-VOL are different. Check the capacity of the VOL.	Check the capacity of the VOL.	—
03008F	DMER03008F: When creating a pair specifying a group ID, the specified group ID is already used for a ShadowImage pair. Check the specified group ID.	Check the specified group ID.	—
030090	DMER030090: The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.	Check the partition number.	—
030091	DMER030091: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
030092	DMER030092: The P-VOL is in a status other than normal or regressive. Check the status of the VOL.	Check the status of the VOL.	—
030093	DMER030093: The used data POOL VOL is in the status other than normal or regressive. Check the status of the VOL.	Check the status of the VOL.	—
030094	DMER030094: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
030095	DMER030095: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
030096	DMER030096: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
030097	DMER030097: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
030098	DMER030098: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
030099	DMER030099: There exist maximum number of pairs already. Delete the unnecessary pairs.	Delete the unnecessary pairs.	—
03009A	DMER03009A: There exist maximum number of pairs already. Delete the unnecessary pairs.	Delete the unnecessary pairs.	—
03009B	DMER03009B: The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.	Retry the operation after the controller is recovered.	—
03009C	DMER03009C: The RAID group to which the target VOL of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
03009D	DMER03009D: The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
03009E	DMER03009E: A P-VOL that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
03009F	DMER03009F: A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs in the specified group. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—
0300A0	DMER0300A0: The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
0300A1	DMER0300A1: A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—
0300A2	DMER0300A2: The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
0300A3	DMER0300A3: The VOL that was specified as P-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—
0300A4	DMER0300A4: The VOL that was specified as P-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—
0300A5	DMER0300A5: A VOL whose DP optimization status is not Normal is included in the pair and its cascade pairs. Check the DP optimization status of the VOLs which are included in the pairs.	Check the DP optimization status of the VOLs which are included in the pairs.	—
0300A6	DMER0300A6: The operation can not be performed due to insufficient capacity of the DP Pool for the specified P-VOL. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
0300A7	DMER0300A7: The operation can not be performed due to insufficient capacity of the DP Pool for the VOLs which belong to data Pool. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
0300A8	DMER0300A8: Management information of Dynamic Provisioning is being updated. Retry after waiting for a while.	Retry after waiting for a while.	—
0300A9	DMER0300A9: The operation can not be performed due to insufficient capacity of the DP Pool for the P-VOL of a pair in the same group. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
0300AA	DMER0300AA: The operation can not be performed due to insufficient capacity of the DP Pool for the VOL specified for data pool of a pair in the same group. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
0300AB	DMER0300AB: The V-VOL of the specified pair is the P-VOL of a remote replication pair. Retry after deleting the remote replication pair.	Retry after deleting the remote replication pair.	—
0300AC	DMER0300AC: Access attribute has been set to the V-VOL of the specified SnapShot pair. Change the attribute to Read/Write and reset S-VOL Disable. If mode is set, reset it using Command Control Interface. Then, delete the pair.	Change the attribute to Read/Write and reset S-VOL Disable. If mode is set, reset it using Command Control Interface. Then, delete the pair.	—
0300AD	DMER0300AD: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
0300AE	DMER0300AE: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0300AF	DMER0300AF: The Full Capacity Mode differs between the P-VOL and data pools. Set the same value for both the Full Capacity Mode of P-VOL and data pools.	Set the same value for both the Full Capacity Mode of P-VOL and data pools.	—
0300B0	DMER0300B0: The Full Capacity Mode differs between the P-VOL and data pools. Set the same value for both the Full Capacity Mode of P-VOL and data pools.	Set the same value for both the Full Capacity Mode of P-VOL and data pools.	—
0300B1	DMER0300B1: The status of the ShadowImage pair cascading with the specified SnapShot pair is illegal. Check the status of the ShadowImage pair.	Check the status of the ShadowImage pair.	—
0300B2	DMER0300B2: The status of a ShadowImage pair cascading with the specified SnapShot pair is Failure where the ShadowImage pair can not accept Read/Write instructions. Check the pair status.	Check the pair status.	—
0300B3	DMER0300B3: The VOL ownership of the specified P-VOL is different than the one of the specified data pool. Specify another data pool or check the VOL ownership.	Specify another data pool or check the VOL ownership.	—
0300B4	DMER0300B4: There is a ShadowImage pair in the specified group cascading with another pair. Check the status of the ShadowImage pair.	Check the status of the ShadowImage pair.	—
0300B5	DMER0300B5: The specified MU# is illegal. Check the MU#.	Check the MU#.	—
0300B6	DMER0300B6: The Point-in-Time of the specified group is disabled. Check the group number.	Check the group number.	—
0300B7	DMER0300B7: There are the maximum number of pairs in the specified group. Check the number of pairs in the specified group.	Check the number of pairs in the specified group.	—
0300B8	DMER0300B8: There are the maximum number of pairs that do not belong to any group. Check the number of pairs that do not belong to any group.	Check the number of pairs that do not belong to any group.	—
0300B9	DMER0300B9: The Point-in-Time of the specified group is disabled. Check the group number.	Check the group number.	—
0300BA	DMER0300BA: The status of the specified Replication Data DP Pool or Management Area DP Pool is other than Normal/Regression. Or Replication Data Released Threshold for the DP pool is exceeded. Or the DP pool is depleted. Check the status of the DP pool.	Check the status of the DP pool.	—
0300BB	DMER0300BB: SnapShot pairs are being deleted. Retry after waiting for a while.	Retry after waiting for a while.	—
0300BC	DMER0300BC: The specified P-VOL is paired with the maximum number of pairs. Check the number of pairs with the specified P-VOL.	Check the number of pairs with the specified P-VOL.	—
0300BD	DMER0300BD: The P-VOL has not undergone forced parity correction. Retry after executing forced parity correction.	Retry after executing forced parity correction.	Troubleshooting "11.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 11-0150)
0300BE	DMER0300BE: The specified Replication Data DP Pool number or Management Area DP Pool number is beyond the limit. Check the DP pool number.	Check the DP pool number.	—
0300BF	DMER0300BF: The specified Replication Data DP Pool or Management Area DP Pool does not exist. Check the status of the DP pool.	Check the status of the DP pool.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0300C0	DMER0300C0: The specified Replication Data DP Pool or Management Area DP Pool is different from the one that the P-VOL is currently using. Check the specified DP pool number.	Check the specified DP pool number.	—
0300C1	DMER0300C1: Restore is running in the background. Retry after waiting for a while.	Retry after waiting for a while.	—
0300C2	DMER0300C2: There is a P-VOL of SnapShot that is cascaded with an S-VOL of Remote Replication whose pair status is Synchronizing or Paired. Check the pair status of Remote Replication.	Check the pair status of Remote Replication.	—
0300C3	DMER0300C3: There is a P-VOL of SnapShot that is cascaded with an S-VOL of Remote Replication whose pair status is split and whose S-VOL cannot accept read/write instructions. Check the pair status of Remote Replication.	Check the pair status of Remote Replication.	—
0300C4	Hitachi Storage Navigator Modular 2 is less than Ver.25.50.		
	DMER0300C4: Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more.		
	DMER0300C4: Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
0300C5	DMER0300C5: SnapShot Pair Split has been reserved for the specified group and cycle copy is underway on the Remote Replication pair that is cascaded with the group. Retry after the pair split completes.	Retry after the pair split completes.	—
0300C6	DMER0300C6: The Remote Replication pair status is inappropriate that is cascaded with the P-VOL in the specified group. Confirm the pair status in the Remote Replication group.	Confirm the pair status in the Remote Replication group.	—
0300C7	DMER0300C7: The Remote Replication configuration is inappropriate that is cascaded with the P-VOL in the specified group. Confirm the Remote Replication configuration.	Confirm the Remote Replication configuration.	—
0300C8	DMER0300C8: There is another pair that shares the P-VOL of a pair in the specified group. Confirm the pair configuration in the group.	Confirm the pair configuration in the group.	—
0300C9	DMER0300C9: The local array of the Remote Replication pair that is cascaded with the P-VOL in the specified group is an unsupported array model for the operation. Confirm the local array model.	Confirm the local array model.	—
0300CA	DMER0300CA: There is another group for which SnapShot Pair Split has been reserved that shares the P-VOL with the specified group. Retry after the pair split for another group completes.	Retry after the pair split for another group completes.	—
0300EF	DMER0300EF: The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.	Check the partition number.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0300F0	DMER0300F0: The micro program internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
0300FA	DMER0300FA: The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.	Retry the operation after the controller is recovered.	—
0300FB	DMER0300FB: The RAID group to which the target VOL of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
031000	DMER031000: The controller that controls the VOL cannot be changed because pinned data exists. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
031001	DMER031001: The controller that controls the VOL cannot be changed temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
031002	DMER031002: The operation to change VOL is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
031003	DMER031003: There is no partition to which the current partition is to be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
031004	DMER031004: The directory configuration is being changed. Reboot the subsystem.	Reboot the subsystem.	—
031005	DMER031005: The change of a controller that controls the VOL resulted in a time-out. Retry after waiting for a while.	Retry after waiting for a while.	—
031090	DMER031090: The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.	Check the partition number.	—
031091	DMER031091: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
03109B	DMER03109B: The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.	Retry the operation after the controller is recovered.	—
03109C	DMER03109C: The RAID group to which the target VOL of changing ownership belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
032000	DMER032000: The controller that controls the VOL cannot be changed because pinned data exists. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
032001	DMER032001: The controller that controls the VOL cannot be changed temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
032002	DMER032002: The operation to change VOL is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
032003	DMER032003: There is no partition to which the current partition is to be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
032004	DMER032004: The directory configuration is being changed. Reboot the subsystem.	Reboot the subsystem.	—
032005	DMER032005: The change of a controller that controls the VOL resulted in a time-out. Retry after waiting for a while.	Retry after waiting for a while.	—
032090	DMER032090: The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.	Check the partition number.	—
032091	DMER032091: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
03209B	DMER03209B: The operation to change VOL has become timeout while the controller is recovering. Retry the operation after the controller is recovered.	. Retry the operation after the controller is recovered.	—
050001	DMER050001: The P-VOL is being quick formatted. Retry after the quick formatting is completed.	Retry after the quick formatting is completed.	—
050002	DMER050002: The P-VOL or S-VOL (including the unified LU(s)) is being quick formatted. Retry after the quick formatting is completed.	Retry after the quick formatting is completed.	—
050003	DMER050003: The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.	Retry after the formatting is completed.	—
050004	DMER050004: The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.	Retry after the formatting is completed.	—
050005	DMER050005: The P-VOL or S-VOL is being formatted. Retry after the formatting is completed.	Retry after the formatting is completed.	—
060001	DMER060001: The S-VOL is in the S-VOL Disable mode. Cancel the access attribute.	Cancel the access attribute.	—
060002	DMER060002: The P-VOL is in the S-VOL Disable mode (at the time of restoration). Check the attribute of the VOL.	Check the attribute of the VOL.	—
060003	DMER060003: The S-VOL Disable is specified for the P-VOL (at the time of a restoration only). Cancel the access attribute.	Cancel the access attribute.	—
060004	DMER060004: The S-VOL Disable is specified for the S-VOL. Cancel the access attribute.	Cancel the access attribute.	—
060005	DMER060005: Resynchronization is directed to the ShadowImage pair whose S-VOL is specified as S-VOL Disable. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
060006	DMER060006: The S-VOL Disable is specified for the S-VOL (at the time of a restoration only). Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
070001	DMER070001: The P-VOL or S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
070002	DMER070002: The P-VOL is undergoing the forced restoration by means of parity (at the time of restoration). Retry after the restoration by means of parity is completed.	Retry after the restoration by means of parity is completed.	—
070003	DMER070003: The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
070011	DMER070011: The P-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
070012	DMER070012: The P-VOL is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.	Retry after the restoration by means of parity is completed.	—
070021	DMER070021: The P-VOL or data pool VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
070022	DMER070022: The P-VOL is undergoing the forced restoration by means of parity (at the time of a restoration). Retry after parity correction is completed.	Retry after parity correction is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
070023	DMER070023: The data pool VOL is undergoing the forced restoration by means of parity. Retry after the restoration by means of parity is completed.	Retry after the restoration by means of parity is completed.	—
080001	DMER080001: More VOLs than supportable ones were specified for VOLs of the P-VOL. Make sure of the number of the specified paired VOL.	Make sure of the number of the specified paired VOL.	—
080002	DMER080002: More VOLs than supportable ones were specified for VOLs of the S-VOL. Make sure of the number of the specified paired VOL.	Make sure of the number of the specified paired VOL.	—
080003	DMER080003: The P-VOL is in the status other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
080004	DMER080004: The S-VOL is in the status other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
080005	DMER080005: The primary sequence number is different from the own Array ID. Check the Array ID.	Check the Array ID.	—
080006	DMER080006: The secondary sequence number is different from the own Array ID. Check the Array ID.	Check the Array ID.	—
080007	DMER080007: The primary port number is not supported. Check the specified port number.	Check the specified port number.	—
080008	DMER080008: The secondary port number is not supported. Check the specified port number.	Check the specified port number.	—
080009	DMER080009: The P-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the VOL.	Check the pair status of the VOL.	—
08000A	DMER08000A: The S-VOL is a volume of ShadowImage and in the status other than Simplex. Check the pair status of the VOL.	Check the pair status of the VOL.	—
08000B	DMER08000B: The P-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
08000C	DMER08000C: The S-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
08000E	DMER08000E: The P-VOL is a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
08000F	DMER08000F: The S-VOL is a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
080010	DMER080010: The P-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
080011	DMER080011: The S-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
080012	DMER080012: The P-VOL is a command device. Check the status of the VOL.	Check the status of the VOL.	—
080013	DMER080013: The S-VOL is a command device. Check the status of the VOL.	Check the status of the VOL.	—
080014	DMER080014: The VOLs of the P-VOL and S-VOL are the same. Check the specified VOL.	Check the specified VOL.	—
080016	DMER080016: The specified pair is in a status other than Split, Split Pending and Failure. Check the pair status.	Check the pair status.	—
080017	DMER080017: The VOL to be paired with the P-VOL is not an S-VOL. Check the specified VOL.	Check the specified VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
080018	DMER080018: The VOL of the P-VOL is higher than 512 (1,023). Make sure of the number of the specified paired VOL.	Make sure of the number of the specified paired VOL.	—
080019	DMER080019: The VOL of the S-VOL is higher than 512 (1,023). Make sure of the number of the specified paired VOL.	Make sure of the number of the specified paired VOL.	—
08001A	DMER08001A: The primary sequence number is different from the own Array ID. Check the Array ID.	Check the Array ID.	—
08001B	DMER08001B: The secondary sequence number is different from the own Array ID. Check the Array ID.	Check the Array ID.	—
08001C	DMER08001C: The primary port number is not supported. Check the specified port number.	Check the specified port number.	—
08001D	DMER08001D: The secondary port number is not supported. Check the specified port number.	Check the specified port number.	—
08001F	DMER08001F: The S-VOL is a volume of ShadowImage and in the pair status of Simplex or Failure. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080020	DMER080020: The VOL to be paired with the P-VOL is not an S-VOL. Check the specified VOL.	Check the specified VOL.	—
080021	DMER080021: The status of the P-VOL is other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
080022	DMER080022: The status of the S-VOL is other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
080023	DMER080023: The P-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
080024	DMER080024: The S-VOL is a Sub VOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
080026	DMER080026: The P-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
080027	DMER080027: The S-VOL has been set to the current Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
080028	DMER080028: The P-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
080029	DMER080029: The S-VOL is reserved as a Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
08002A	DMER08002A: The P-VOL is defined as a command device. Check the status of the VOL.	Check the status of the VOL.	—
08002B	DMER08002B: The S-VOL is defined as a command device. Check the status of the VOL.	Check the status of the VOL.	—
08002C	DMER08002C: The VOLs of the P-VOL and S-VOL are the same. Check the specified VOL.	Check the specified VOL.	—
08002D	DMER08002D: The number of the VOL to be paired is different. Check the specified VOL.	Check the specified VOL.	—
08002E	DMER08002E: The number of the VOL to be paired is different. Check the specified VOL.	Check the specified VOL.	—
08002F	DMER08002F: The pair status of the P-VOL/S-VOL is other than Simplex, Paired, Paired Internally Synchronizing and Synchronizing. Check the pair status of the VOL.	Check the pair status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
080030	DMER080030: The VOL of the P-VOL is beyond the limits of support. Check the specified VOL.	Check the specified VOL.	—
080031	DMER080031: The VOL of the S-VOL is beyond the limits of support. Check the specified VOL.	Check the specified VOL.	—
080032	DMER080032: The pair attribute of the VOL specified for a P-VOL is not a P-VOL. Check the specified VOL.	Check the specified VOL.	—
080033	DMER080033: The number of the VOL to be paired is different. Check the specified VOL.	Check the specified VOL.	—
080034	DMER080034: The primary sequence number is different from the Array ID. Check the specified primary sequence number.	Check the specified primary sequence number.	—
080035	DMER080035: The secondary sequence number is different from the Array ID. Check the specified secondary sequence number.	Check the specified secondary sequence number.	—
080036	DMER080036: The primary port number is beyond the limits of support. Check the specified primary port number.	Check the specified primary port number.	—
080037	DMER080037: The secondary port number is beyond the limits of support. Check the specified secondary port number.	Check the specified secondary port number.	—
080038	DMER080038: A pair in the Failure (S-VOL Switch) status received an instruction to restore. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.	Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.	—
080039	DMER080039: The specified pair is in the Failure (S-VOL Switch) status. Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement and then resynchronize them.	Request that service personnel replace the drives that compose the P-VOL. Format them after the replacement and then resynchronize them.	—
08003A	DMER08003A: The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.	Wait until the resynchronization is completed.	—
08003B	DMER08003B: The pair in the Failure (S-VOL Switch) status is undergoing resynchronization. Wait until the resynchronization is completed.	Wait until the resynchronization is completed.	—
08003C	DMER08003C: The group ID is out of appropriate range. Make sure of the specified group ID number.	Make sure of the specified group ID number.	—
08003D	DMER08003D: The number of pairs having the same group ID exceeded 32. Make sure of the specified group ID number.	Make sure of the specified group ID number.	—
08003E	DMER08003E: The specified P-VOL/S-VOL is not specified to be grouped(Group ID suspension). Check the pair status of the VOL.	Check the pair status of the VOL.	—
08003F	DMER08003F: A pair that is in a status other than Paired or Paired Internally Synchronizing is included in the specified group. Check the pair status of VOL in the group.	Check the pair status of VOL in the group.	—
080046	DMER080046: The DM-LU is not set. Retry after setting the DM-LU.	Retry after setting the DMLU.	—
080047	DMER080047: The DM-LU was specified as P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
080048	DMER080048: The DM-LU was specified as S-VOL. Check the status of the VOL.	Check the status of the VOL.	—
08004B	DMER08004B: The DM-LU is not set. Retry after setting the DM-LU.	Retry after setting the DMLU.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
08004C	DMER08004C: The DM-LU was specified as P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
08004D	DMER08004D: The DM-LU was specified as S-VOL. Check the status of the VOL.	Check the status of the VOL.	—
08004E	DMER08004E: Validity of the license expired. Purchase the license.	Purchase the license.	—
08004F	DMER08004F: Validity of the license expired. Purchase the license.	Purchase the license.	—
080050	DMER080050: A VOL, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
080051	DMER080051: A VOL, for which a change of the cache partition(s) had been reserved, was specified as an S-VOL. Check the status of the VOL.	Check the status of the VOL.	—
080052	DMER080052: A VOL, for which a change of the cache partition(s) had been reserved, was specified as a P-VOL. Check the status of the VOL.	Check the status of the VOL.	—
080053	DMER080053: A VOL, for which a change of the cache partition(s) had been reserved, was specified as an S-VOL. Check the status of the VOL.	Check the status of the VOL.	—
08005E	DMER08005E: The specified P-VOL is a Remote Replication pair. Check the status of the VOL.	Check the status of the VOL.	—
08005F	DMER08005F: The specified S-VOL is a Remote Replication pair. Check the status of the VOL.	Check the status of the VOL.	—
080060	DMER080060: The specified P-VOL is a Remote Replication pair. Check the status of the VOL.	Check the status of the VOL.	—
080061	DMER080061: The specified S-VOL is a Remote Replication pair. Check the status of the VOL.	Check the status of the VOL.	—
080064	DMER080064: The specified MU# is used within the specified P-VOL. Check the specified MU number.	Check the specified MU number.	—
080065	DMER080065: One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080066	DMER080066: One or more volumes of Failure(S-VOL Switch) are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080067	DMER080067: One or more Failure pairs that are not readable/writable (Failure transition due to a Failure during restoration) under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080068	DMER080068: The group ID overlaps within the specified P-VOL at the time of creating the pair of which the group is specified. Make sure of the specified group ID number.	Make sure of the specified group ID number.	—
080069	DMER080069: The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not an S-VOL. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
08006A	DMER08006A: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.	Check the specified MU number.	—
08006B	DMER08006B: One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
08006C	DMER08006C: One or more Failure pairs that are not readable/writable (Failure transition due to a Failure during the restoration) under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
08006D	DMER08006D: The pair attribute of the specified P-VOL is not a P-VOL or the pair attribute of the specified S-VOL is not an S-VOL. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
08006E	DMER08006E: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.	Check the specified MU number.	—
08006F	DMER08006F: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.	Check the specified MU number.	—
080070	DMER080070: The specified MU# is used within the specified P-VOL. Check the specified MU number.	Check the specified MU number.	—
080071	DMER080071: One or more volumes of Paired/Synchronizing/Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080072	DMER080072: One or more volumes of Failure(S-VOL Switch) are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080073	DMER080073: One or more Failure pairs that are not readable/writable (Failure transition due to a Failure during the restoration) under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080074	DMER080074: The specified MU# and the MU# of the specified S-VOL are mismatched. Check the specified MU number.	Check the specified MU number.	—
080075	DMER080075: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
080077	DMER080077: The specified P-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
080078	DMER080078: The specified S-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
080079	DMER080079: The specified S-VOL is undergoing the migration and its status is Split or Failure. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080080	DMER080080: The specified S-VOL is undergoing the migration and its status is Synchronizing or Split. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080081	DMER080081: The specified P-VOL is the reserved VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080082	DMER080082: The specified S-VOL is the reserved VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
080083	DMER080083: The specified S-VOL is undergoing the migration and its status is Synchronizing. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080084	DMER080084: The specified volume is undergoing the migration. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080085	DMER080085: The specified P-VOL is undergoing the migration. Check the pair status of the VOL.	Check the pair status of the VOL.	—
080086	DMER080086: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
080087	DMER080087: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
080088	DMER080088: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
080089	DMER080089: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
08008A	DMER08008A: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
08008B	DMER08008B: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
08008C	DMER08008C: When creating a pair specifying a group ID, the specified group ID is already used for a SnapShot pair. Check the specified group ID.	Check the specified group ID.	—
08008D	DMER08008D: The S-VOL is a volume of Remote Replication and in a status other than Split and Failure. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
08008E	DMER08008E: The S-VOL is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
08008F	DMER08008F: An unsupported command option was received. Check the specified value.	Check the specified value.	—
080090	DMER080090: The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the VOL.	Check the status of the VOL.	—
080091	DMER080091: The specified P-VOL has been set to a ShadowImage S-VOL. Check the status of the VOL.	Check the status of the VOL.	—
080092	DMER080092: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
080093	DMER080093: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
080094	DMER080094: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
080095	DMER080095: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
080096	DMER080096: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
080097	DMER080097: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
080098	DMER080098: An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the type of the remote array.	Check the type of the remote array.	—
080099	DMER080099: An invalid array ID is received when INQUIRY serial number conversion mode is on in the host group where a command device is mapped. Check the type of the remote array.	Check the type of the remote array.	—
08009A	DMER08009A: The Migration status is other than unexecuted. Check the Migration status.	Check the Migration status.	—
08009B	DMER08009B: One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
08009C	DMER08009C: The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
08009D	DMER08009D: One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
08009E	DMER08009E: The specified pair is in the Split Pending status. Retry after the status becomes Split.	Retry after the status becomes Split.	—
08009F	DMER08009F: A pair in the Failure (S-VOL Switch) status received an instruction to resynchronize with Quick mode. Request that service personnel to replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.	Request that service personnel to replace the drives that compose the P-VOL. Format them after the replacement then resynchronize them.	—
0800A0	DMER0800A0: One or more Failure pairs that are not readable/writable under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800A1	DMER0800A1: The capacity is beyond the limits of support. Split the unnecessary pairs.	Split the unnecessary pairs.	—
0800A2	DMER0800A2: The S-VOL of the specified pair is a part of another Remote Replication pair. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
0800A3	DMER0800A3: The P-VOL or the S-VOL has not undergone the forced restoration by means of parity. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
0800A4	DMER0800A4: The S-VOL is undergoing the forced restoration by means of parity. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
0800A5	DMER0800A5: The disk drives that configure a RAID group to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
0800A6	DMER0800A6: The disk drives that configure a RAID group to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0800A7	DMER0800A7: A pair that is in a status other than Paired, Paired Internally Synchronizing or Synchronizing is included in the specified group. Check the pair status of VOL in the group.	Check the pair status of VOL in the group.	—
0800A8	DMER0800A8: A pair that shares the P-VOL with another pair that is in Failure status that are not readable/writable is included in the specified group. Check the pair status of VOL in the group.	Check the pair status of VOL in the group.	—
0800A9	DMER0800A9: The capacity is beyond the limits of support. Split the unnecessary pairs.	Split the unnecessary pairs.	—
0800AA	DMER0800AA: A pair that the S-VOL has been cascaded with a Remote Replication pair is included in the specified group. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
0800AB	DMER0800AB: A pair that the P-VOL or the S-VOL has not undergone the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
0800AC	DMER0800AC: A pair that the S-VOL is undergoing the forced restoration by means of parity is included in the specified group. Retry after making the restoration by means of parity.	Retry after making the restoration by means of parity.	—
0800AD	DMER0800AD: A pair that the P-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.	Check the status of the RAID group.	—
0800AE	DMER0800AE: A pair that the S-VOL belongs a RAID group configured by the disk drives that have been spun down is in the specified group. Check the status of the RAID group.	Check the status of the RAID group.	—
0800AF	DMER0800AF: One or more volumes of Split Pending/Paired Internally Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800B0	DMER0800B0: The P-VOL or the S-VOL of the specified pair is a volume of another Remote Replication pair. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
0800B1	DMER0800B1: The specified pair is in the Split Pending status. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800B2	DMER0800B2: The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
0800B3	DMER0800B3: A VOL that belongs to the RAID group that indicates a status other than Normal is included in the specified group. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—
0800B4	DMER0800B4: The specified pair is in a status other than Split and Failure. Check the pair status.	Check the pair status.	—
0800B5	DMER0800B5: The VOL that was specified as P-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—
0800B6	DMER0800B6: The VOL that was specified as P-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—
0800B7	DMER0800B7: The VOL that was specified as S-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—
0800B8	DMER0800B8: The VOL that was specified as S-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0800B9	DMER0800B9: DP pool is insufficient. Confirm the capacity of DP pool.	Confirm the capacity of DP pool.	—
0800BA	DMER0800BA: DP pool is insufficient. Confirm the capacity of DP pool.	Confirm the capacity of DP pool.	—
0800BB	DMER0800BB: DP pool is insufficient. Confirm the capacity of DP pool.	Confirm the capacity of DP pool.	—
0800BC	DMER0800BC: DP pool is insufficient. Confirm the capacity of DP pool.	Confirm the capacity of DP pool.	—
0800BD	DMER0800BD: The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is a VOL created in DP pool. Specify a VOL other than the VOL created in DP pool to S-VOL.	Specify a VOL other than the VOL created in DP pool to S-VOL.	—
0800BE	DMER0800BE: The specified P-VOL is a volume of Remote Replication pair and the specified S-VOL is a VOL created in DP pool. Specify a VOL other than the VOL created in DP pool to S-VOL.	Specify a VOL other than the VOL created in DP pool to S-VOL.	—
0800BF	DMER0800BF: The specified S-VOL is a VOL created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair.	Retry after deleting the remote replication pair.	—
0800C0	DMER0800C0: The specified S-VOL is a VOL created in DP pool and the specified P-VOL already has a pair whose S-VOL is a part of remote replication pair. Retry after deleting the remote replication pair.	Retry after deleting the remote replication pair.	—
0800C1	DMER0800C1: The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.	Check the DP optimization status of the P-VOL.	—
0800C2	DMER0800C2: The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.	Check the DP optimization status of the S-VOL.	—
0800C3	DMER0800C3: The DP optimization status of the specified P-VOL is not Normal. Check the DP optimization status of the P-VOL.	Check the DP optimization status of the P-VOL.	—
0800C4	DMER0800C4: The DP optimization status of the specified S-VOL is not Normal. Check the DP optimization status of the S-VOL.	Check the DP optimization status of the S-VOL.	—
0800C5	DMER0800C5: Management information regarding DP is being updated. Retry after waiting for a while.	Retry after waiting for a while.	—
0800C6	DMER0800C6: Management information regarding DP is being updated. Retry after waiting for a while.	Retry after waiting for a while.	—
0800C7	DMER0800C7: Management information regarding DP is being updated. Retry after waiting for a while.	Retry after waiting for a while.	—
0800C8	DMER0800C8: Management information regarding DP is being updated. Retry after waiting for a while.	Retry after waiting for a while.	—
0800C9	DMER0800C9: The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.	Check the capacity of the DP pool.	—
0800CA	DMER0800CA: The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.	Check the capacity of the DP pool.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0800CB	DMER0800CB: The specified S-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.	Check the capacity of the DP pool.	—
0800CC	DMER0800CC: The specified P-VOL can not be read due to insufficient capacity of its DP pool. Check the capacity of the DP pool.	Check the capacity of the DP pool.	—
0800CD	DMER0800CD: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
0800CE	DMER0800CE: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
0800CF	DMER0800CF: One or more volumes of Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D0	DMER0800D0: Three or more volumes of Paired/Synchronizing/Paired Internally Synchronizing/Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D1	DMER0800D1: One or more volumes of Reverse Synchronizing are under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D2	DMER0800D2: Three or more volumes of Paired/Synchronizing/Paired Internally Synchronizing/Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D3	DMER0800D3: Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D4	DMER0800D4: Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D5	DMER0800D5: Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D6	DMER0800D6: Two or more volumes of Split Pending cannot exist under the specified P-VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0800D7	DMER0800D7: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL.	—
0800D8	DMER0800D8: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL.	—
0800D9	DMER0800D9: The status of the SnapShot pair cascading with the specified ShadowImage pair is illegal. Check the status of the SnapShot pair.	Check the status of the SnapShot pair.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0800DA	DMER0800DA: The status of a SnapShot pair cascading with the specified ShadowImage pair is Failure where the SnapShot pair can not accept Read/Write instructions. Check the pair status.	Check the pair status.	—
0800DB	DMER0800DB: The specified VOL is a V-VOL. Check the VOL.	Check the VOL.	—
0800DC	DMER0800DC: The specified S-VOL is the P-VOL of a SnapShot pair. Check the pair status.	Check the pair status.	—
0800DD	DMER0800DD: The specified P-VOL already has the maximum number of S-VOLs. Check the number of S-VOL paired with the P-VOL.	Check the number of S-VOL paired with the P-VOL.	—
0800DE	DMER0800DE: Any pair operations can not be performed due to the status of the Remote Replication pair cascading with the S-VOL of the SnapShot pair that shared the P-VOL of the specified ShadowImage pair. Check the status of the Remote Replication pair.	Check the status of the Remote Replication pair.	—
0800DF	DMER0800DF: The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.	Grow the capacity of DMLU.	—
0800E0	DMER0800E0: The internal transaction of the specified VOL is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
0800E1	DMER0800E1: The DM-LU status is invalid. Check the DM-LU status.	Check the DMLU status.	—
0800E2	DMER0800E2: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
0800E3	DMER0800E3: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
0800E4	DMER0800E4: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
0800E5	DMER0800E5: The copy operation can not be performed because the DM-LU has unwritten data. Delete the specified pair.	Delete the specified pair.	—
0800E6	DMER0800E6: The copy operation can not be performed because the DM-LU has unwritten data. Retry the operation per pair.	Retry the operation per pair.	—
0800E7	DMER0800E7: The copy operation can not be performed because the DM-LU has unwritten data. Delete the Remote Replication pair that is cascaded with the S-VOL of the specified pair.	Delete the Remote Replication pair that is cascaded with the S-VOL of the specified pair.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090001	DMER090001: The specified P-VOL is normal or other than regressed. Check the status of the VOL.	Check the status of the VOL.	—
090002	DMER090002: The specified P-VOL has been set to the current Cache Residency VOL. Check the attribute of the VOL.	Check the attribute of the VOL.	—
090003	DMER090003: The specified P-VOL has been set to the reserved Cache Residency VOL. Check the attribute of the VOL.	Check the attribute of the VOL.	—
090004	DMER090004: The specified P-VOL has been defined to the command device. Check the attribute of the VOL.	Check the attribute of the VOL.	—
090005	DMER090005: The accepted sequence number is different from the serial number. Check the serial number.	Check the serial number.	—
090006	DMER090006: Both of the two paths are abnormal. Check the status of the path.	Check the status of the path.	—
090007	DMER090007: The specified P-VOL is a Sub VOL of a unified VOL. Check the attribute of the VOL.	Check the attribute of the VOL.	—
090009	DMER090009: The status of the Remote Replication pair of the specified P-VOL is other than Simplex. Check the pair status of the VOL.	Check the pair status of the VOL.	—
09000A	DMER09000A: The specified P-VOL is a ShadowImage pair. Check the attribute of the VOL.	Check the attribute of the VOL.	—
09000B	DMER09000B: The specified P-VOL is a SnapShot V-VOL. Check the attribute of the VOL.	Check the attribute of the VOL.	—
09000C	DMER09000C: The group ID is beyond the limits (more than 16) of support. Check the group ID.	Check the group ID.	—
09000D	DMER09000D: The pair status of the specified P-VOL is other than Split or Failure. Check the pair status of the VOL.	Check the pair status of the VOL.	—
09000E	DMER09000E: The specified P-VOL status is normal or other than regressed. Check the status of the VOL.	Check the status of the VOL.	—
09000F	DMER09000F: The specified S-VOL is not a pair target VOL. Check the VOL of the S-VOL.	Check the VOL of the S-VOL.	—
090010	DMER090010: The accepted sequence number is different from the serial number. Check the serial number.	Check the serial number.	—
090011	DMER090011: Both of the two paths are abnormal. Check the status of the path.	Check the status of the path.	—
090012	DMER090012: When the unit of pair is specified, the pair status of the specified P-VOL is other than Synchronizing and Paired. Check the pair status of the VOL.	Check the pair status of the VOL.	—
090013	DMER090013: The capacity of Remote Replication pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	—
090014	DMER090014: The accepted sequence number is different from the serial number. Check the serial number.	Check the serial number.	—
090015	DMER090015: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
090016	DMER090016: When the unit of pair is specified, the specified S-VOL is not a pair target VOL. Check the VOL of the specified S-VOL.	Check the VOL of the specified S-VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090017	DMER090017: The accepted sequence number is different from the serial number. Check the serial number.	Check the serial number.	—
090018	DMER090018: The S-VOL pair cancellation instructions was issued to the P-VOL or pair cancellation instructions was issued to the S-VOL. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
090019	DMER090019: This operation cannot be executed due to lack of resources. Retry after waiting for a while.	Retry after waiting for a while.	—
090020	DMER090020: The pool VOL is not defined. Define the pool VOL and retry.	Define the pool VOL and retry.	—
090021	DMER090021: The specified fence level is STATUS. Make sure of the specified fence level.	Make sure of the specified fence level.	—
090022	DMER090022: The capacity of Remote Replication pair is beyond the limits. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	—
090023	DMER090023: The internal pair status of the specified P-VOL is [under pair deletion]. Check the pair status of the VOL.	Check the pair status of the VOL.	—
090025	DMER090025: The forced blockade of a P-VOL was accepted. The forced blockade of a P-VOL is not supported.	The forced blockade of a P-VOL is not supported.	—
090026	DMER090026: The type of the side file release is other than ordinary splitting. Check the specified value.	Check the specified value.	—
090027	DMER090027: The S-VOL received an instruction. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
090029	DMER090029: The S-VOL received an instruction. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
09002A	DMER09002A: The P-VOL received an instruction. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
09002B	DMER09002B: When the unit of pair is specified, the pair status of the specified S-VOL is Simplex or Synchronizing. Check the pair status of the VOL.	Check the pair status of the VOL.	—
09002C	DMER09002C: The accepted sequence number is different from the serial number. Check the serial number.	Check the serial number.	—
09002D	DMER09002D: The specified MU number is beyond the limits (0 to13) of support. Check the specified MU number.	Check the specified MU number.	—
090030	DMER090030: The S-VOL received an instruction. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
090032	DMER090032: The RAID group, to which the specified P-VOL belongs, is RAID 0. Check the RAID level of the specified VOL.	Check the RAID level of the specified VOL.	—
090036	DMER090036: The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.	Check the pair status of the SnapShot.	—
090037	DMER090037: The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.	Check the pair status of the SnapShot.	—
090038	DMER090038: There is no vacancy in the generation bits. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090039	DMER090039: There is one or more pair(s) in the status of [under execution of remote SnapShot split] in the target group. Check the pair status of each VOL in the target group. It is required to wait until the process is completed.	Check the pair status of each VOL in the target group. It is required to wait until the process is completed.	—
09003A	DMER09003A: There is one or more pair(s) in the status of [under pair splitting] in the target group. Check the pair status of each VOL in the target group. It is required to wait until the process is completed.	Check the pair status of each VOL in the target group. It is required to wait until the process is completed.	—
09003C	DMER09003C: There is one or more pair(s) in the status of [under pair deletion] in the target group. Check the pair status of each VOL in the target group. It is required to wait until the process is completed.	Check the pair status of each VOL in the target group. It is required to wait until the process is completed.	—
09003D	DMER09003D: The specified P-VOL is a SnapShot P-VOL and it is being restored. Check the pair status of the SnapShot.	Check the pair status of the SnapShot.	—
09003E	DMER09003E: The specified P-VOL is a SnapShot P-VOL and its status was changed to Failure during restoration. Check the pair status of the SnapShot.	Check the pair status of the SnapShot.	—
09003F	DMER09003F: There is no pair, which is in the Paired status, in the target group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090042	DMER090042: When the unit of pair is specified, the pair status of the specified pair is Split (no reading/writing allowed). Check the pair status.	Check the pair status.	—
090044	DMER090044: When the unit of group is specified, there is one or more pair(s) placed in the Split status (no reading/writing allowed) in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090045	DMER090045: When the unit of group is specified, there is no pair that is in the Paired, Split, or Failure status in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090046	DMER090046: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the VOL. It is required to wait until the process is completed.	Check the pair status of the VOL. It is required to wait until the process is completed.	—
090047	DMER090047: The specified P-VOL has the incomplete DDCB. Check the status of the VOL.	Check the status of the VOL.	—
090048	DMER090048: The specified P-VOL has unwritten data. Contact the service personnel.	Contact the service personnel.	—
090049	DMER090049: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair deletion]. Check the pair status of the VOL. It is required to wait until the process is completed.	Check the pair status of the VOL. It is required to wait until the process is completed.	—
09004B	DMER09004B: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the VOL. It is required to wait until the process is completed.	Check the pair status of the VOL. It is required to wait until the process is completed.	—
09004C	DMER09004C: When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
09004D	DMER09004D: The DM-LU is not defined. Define the DM-LU.	Define the DMLU.	—
09004E	DMER09004E: The specified P-VOL has been set to the DM-LU. Check the attribute of the VOL.	Check the attribute of the VOL.	—
09004F	DMER09004F: Validity of the license expired. Purchase the license.	Purchase the license.	—
090050	DMER090050: When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair deletion] in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090052	DMER090052: When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090053	DMER090053: When the unit of group is specified, there is no pair, which is in the Synchronizing or Paired status, in the target group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090054	DMER090054: The pair cancellation instructions was executed for the range that was not supported. Check the specified value.	Check the specified value.	—
090055	DMER090055: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under pair splitting]. Check the pair status of the VOL. It is required to wait until the process is completed.	Check the pair status of the VOL. It is required to wait until the process is completed.	—
090057	DMER090057: When the unit of pair is specified, the internal status of the pair of the specified P-VOL is [under execution of remote SnapShot split]. Check the pair status of the VOL. It is required to wait until the process is completed.	Check the pair status of the VOL. It is required to wait until the process is completed.	—
090059	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER090059: When the unit of pair is specified, the internal status of the pair of the specified S-VOL is Busy. Check the pair status of the VOL.	Check the pair status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. DMER090059: The determined data at the end of the previous cycle is being restored to the S-VOL. Retry after waiting for a while.	Retry after waiting for a while.	—
09005A	DMER09005A: When the unit of group is specified, there is one or more pair(s) that is in the status of [under pair splitting] in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
09005C	DMER09005C: When the unit of group is specified, there is one or more pair(s) that is in the status of [under execution of remote SnapShot split] in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
09005E	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER09005E: When the unit of group is specified, there is one or more pair(s) placed in the Busy status in the group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00. DMER09005E: When the unit of group is specified, an S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each LU in the target group.	Check the pair status of each LU in the target group.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER09005E: When the unit of group is specified, an S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090068	DMER090068: There is the S-VOL pair whose direction is not correct in the indicated group. Check the group ID.	Check the group ID.	—
090069	DMER090069: The partition to which the VOL belongs is being changed to the other directory. Retry after waiting for a while.	Retry after waiting for a while.	—
09006B	DMER09006B: There is no pair, which is in the Paired status, in the target group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
09006C	DMER09006C: The subsystem has not been rebooted after the Remote Replication option was unlocked. Reboot the subsystem.	Reboot the subsystem.	—
09006D	DMER09006D: The specified P-VOL is a unified VOL including a VOL with a capacity less than 1 GB. Check the attribute of the VOL.	Check the attribute of the VOL.	—
09006E	DMER09006E: The specified P-VOL is the pool VOL. Check the attribute of the VOL.	Check the attribute of the VOL.	—
09006F	DMER09006F: The pool VOL status is normal or other than regressed. Check the status of the pool VOL.	Check the status of the pool VOL.	—
090070	DMER090070: The pool VOL is undergoing the forced parity correction. Check the status of the pool VOL.	Check the status of the pool VOL.	—
090071	DMER090071: It is exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Delete unnecessary pairs.	Delete unnecessary pairs.	—
090072	DMER090072: The remote SnapShot split request was accepted. Check the firmware version.	Check the firmware version.	—
090073	DMER090073: The pair status of the specified S-VOL does not allow you to create a pair. Check the pair status of the specified S-VOL on both local and remote arrays.	Check the pair status of the specified S-VOL on both local and remote arrays.	—
090074	DMER090074: The suspension command was accepted with a specification of the unit of pair. The specification of the unit of pair is not supported.	The specification of the unit of pair is not supported.	—
090075	DMER090075: The specified P-VOL is a unified VOL whose component VOLs include a VOL for which the format operation is being performed. Check the attribute of the VOL.	Check the attribute of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090076	DMER090076: The specified P-VOL is being formatted. Check the attribute of the VOL.	Check the attribute of the VOL.	—
090077	DMER090077: The state of the forced parity correction for the specified P-VOL is Uncorrected or Uncorrected 2. Check the status of the VOL.	Check the status of the VOL.	—
090078	DMER090078: The specified P-VOL has not undergone the forced parity correction. Retry it after executing the forced parity correction.	Retry it after executing the forced parity correction.	—
09007B	DMER09007B: There is one or more pair(s) in the status of Split or Failure of [under pair deletion] in the target group. Check the pair status of the VOL. It is required to wait until the process is completed.	Check the pair status of the VOL. It is required to wait until the process is completed.	—
09007C	DMER09007C: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
09007D	DMER09007D: The pool VOL status is normal or other than regressed. Check the status of the pool VOL.	Check the status of the pool VOL.	—
09007E	DMER09007E: The pool VOL is undergoing the forced parity correction. Retry after waiting for a while.	Retry after waiting for a while.	—
09007F	DMER09007F: There is one or more P-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
090080	DMER090080: There is one or more P-VOL(s), status is normal or other than regressed, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
090081	DMER090081: There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
090082	DMER090082: There is one or more Remote Replication P-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
090083	DMER090083: There is no pair, which is in the Split or Failure status, in the target group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090084	DMER090084: When a pair is created in the new group, the cycle time that has been set is less than [30 x number of groups] seconds. Check the cycle time that has been set.	Check the cycle time that has been set.	—
090085	DMER090085: When the unit of pair is specified, the S-VOL of the target pair has not completed the resynchronization after it accepted the resynchronization command. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
090086	DMER090086: When the unit of group is specified, there is one or more S-VOL(s), which has not completed the resynchronization after it accepted the resynchronization command, in the target group. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090087	DMER090087: There are one or more pairs in the status of [under pair splitting] or [under pair competing] in the group. Retry after waiting for a while.	Retry after waiting for a while.	—
090088	DMER090088: The specified P-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
090089	DMER090089: The specified P-VOL is undergoing the migration. Check the pair status of the VOL.	Check the pair status of the VOL.	—
09008A	DMER09008A: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
09008B	DMER09008B: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
09008C	DMER09008C: There are one or more Remote Replication P-VOLs corresponding to a RAID group that belongs to the group concerned and the disk drives that configure the RAID group have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
09008D	DMER09008D: The primary pool ID is beyond the limits of supported. Check the pool ID.	Check the pool ID.	—
09008E	DMER09008E: The secondary pool ID is beyond the limits of supported. Check the pool ID.	Check the pool ID.	—
09008F	DMER09008F: The specified pool ID differs from the pool ID in use. Check the pool ID.	Check the pool ID.	—
090090	DMER090090: Swap pair has been issued to the Remote Replication pair with AMS500 or AMS1000. The swap command is not supported in this configuration.	The swap command is not supported in this configuration.	—
090091	DMER090091: The Swap operation was received in the P-VOL. Check the pair attribute of the VOL.	Check the pair attribute of the VOL.	—
090092	DMER090092: The Swap operation was received by specifying the pair unit. Please confirm the operation and try again.	Please confirm the operation and try again.	—
090093	DMER090093: The VOL whose pair status is not Takeover exists in the target group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
090094	Hitachi Storage Navigator Modular 2 is less than Ver.21.60.		
	DMER090094: The VOL whose pair status is Busy exists in the target group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00.		
	DMER090094: An S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each LU in the target group.	Check the pair status of each LU in the target group.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
	DMER090094: An S-VOL exists in the target group to which the determined data at the end of the previous cycle is being restored. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090095	DMER090095: The LU whose pair status is Takeover and Delete exists in the target group. Check the pair status of each LU in the target group.	Check the pair status of each LU in the target group.	—
090096	DMER090096: The number of the unused bit numbers is insufficient. Retry after waiting for a while.	Retry after waiting for a while.	—
090097	DMER090097: The pool VOL status is normal or other than regressed. Check the status of the pool VOL.	Check the status of the pool VOL.	—
090098	DMER090098: The pool VOL is undergoing the forced parity correction. Check the status of the pool VOL.	Check the status of the pool VOL.	—
090099	DMER090099: There is one or more S-VOL(s), the status of the forced parity correction for which is Uncorrected or Uncorrected 2, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
09009A	DMER09009A: There is one or more S-VOL(s), status is normal or other than regressed, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
09009B	DMER09009B: There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL being restored, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
09009C	DMER09009C: There is one or more Remote Replication S-VOL(s), which is cascaded with a SnapShot P-VOL that was placed in the Failure status during restoration, in the target group. Check the status of each VOL in the target group.	Check the status of each VOL in the target group.	—
09009D	DMER09009D: There exists an S-VOL of a Remote Replication pair, the RAID group which belongs to is in Power Saving mode. Check the status of VOLs in the group.	Check the status of VOLs in the group.	—
09009E	DMER09009E: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
09009F	DMER09009F: The specified secondary sequence number does not match with the remote side subsystem serial number. Check the specified command device number.	Check the specified command device number.	—
0900A0	DMER0900A0: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.	Check the Migration status.	—
0900A1	DMER0900A1: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.	Check the Migration status.	—
0900A2	DMER0900A2: The command cannot execute because the Auto Migration is undergoing. Check the Migration status.	Check the Migration status.	—
0900A3	DMER0900A3: The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
0900A4	DMER0900A4: A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is specified when the pair operation or used by specified pair. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0900A5	DMER0900A5: A VOL that belongs to the RAID group that indicates a status other than Normal is included in the group to which the specified pair belongs. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—
0900A6	DMER0900A6: A VOL that belongs to the RAID group that indicates a status other than Normal is included in the data pool that is used by pairs that belong to the same group as the specified pair. Retry after the RAID group status becomes Normal.	Retry after the RAID group status becomes Normal.	—
0900A7	DMER0900A7: The VOL created in DP pool was specified as P-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
0900A8	DMER0900A8: The VOL that was specified as P-VOL does not exist. Check the specified VOL.	Check the specified VOL.	—
0900A9	DMER0900A9: Management information of Dynamic Provisioning is being updated. Retry after waiting for a while.	Retry after waiting for a while.	—
0900AA	DMER0900AA: The operation can not be performed due to insufficient capacity of the DP Pool for the specified P-VOL. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
0900AB	DMER0900AB: The operation can not be performed due to insufficient capacity of the DP Pool for the P-VOL of a pair in the same group. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
0900AC	DMER0900AC: The operation can not be performed due to insufficient capacity of the DP Pool for the S-VOL of a pair in the same group. Check the capacity of the DP Pool.	Check the capacity of the DP Pool.	—
0900AD	DMER0900AD: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
0900AE	DMER0900AE: The process of reconfigure memory is in progress. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
0900AF	DMER0900AF: The Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.	Set the same value for both the Full Capacity Mode of target VOL and data pools.	—
0900B0	DMER0900B0: The specified Replication Data DP pool number or Management Area DP pool number for the local array is beyond the limit. Check the DP pool number.	Check the DP pool number.	—
0900B1	DMER0900B1: The specified Replication Data DP pool number or Management Area DP pool number for the remote array is beyond the limit. Check the DP pool number.	Check the DP pool number.	—
0900B2	DMER0900B2: There are the maximum number of groups for Remote Replication. Check the number of groups for Remote Replication.	Check the number of groups for Remote Replication.	—
0900B3	DMER0900B3: The specified Replication Data DP pool or Management Area DP pool does not exist. Check the status of the DP pool.	Check the status of the DP pool.	—
0900B4	DMER0900B4: The status of the specified Replication Data DP pool or Management Area DP pool is other than Normal/Regression. Or Replication Data Released Threshold for the DP pool is exceeded. Or the DP pool is depleted. Check the status of the DP pool.	Check the status of the DP pool.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0900B5	DMER0900B5: The specified Replication Data DP pool or Management Area DP pool is different from the one that the P-VOL is currently using. Check the specified DP pool number.	Check the specified DP pool number.	—
0900B6	DMER0900B6: Remote Replication pairs are being deleted. Retry after waiting for a while.	Retry after waiting for a while.	—
0900B7	DMER0900B7: There are the maximum number of Remote Replication pairs. Check the number of pairs.	Check the number of pairs.	—
0900B8	DMER0900B8: The pair status of the specified S-VOL is invalid. Check the pair status.	Check the pair status.	—
0900B9	DMER0900B9: Any pair in the specified group is not in the pair status where the operation can be performed. Check the pair status.	Check the pair status.	—
0900BA	DMER0900BA: There is a pair in the specified group whose pair status is Busy. Retry after waiting for a while.	Retry after waiting for a while.	—
0900BB	DMER0900BB: The local array has created a remote replication pair with another array. Confirm the pair status.	Confirm the pair status.	—
0900BC	DMER0900BC: The local array can not execute pair creation with the specified remote array because the maximum number of connected arrays is beyond the limits. Retry after deleting all the remote replication pairs with any of the arrays connected with the local array.	Retry after deleting all the remote replication pairs with any of the arrays connected with the local array.	—
0900BD	DMER0900BD: The specified group is used for remote replication pairs with another array. Try again with a group number that has not been assigned to the other pairs.	Try again with a group number that has not been assigned to the other pairs.	—
0900BE	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. DMER0900BE: The remote path connecting to the specified remote array does not exist. Retry after creating the remote path from the local array to the remote array with the specified remote Array ID.	Retry after creating the remote path from the local array to the remote array with the specified remote Array ID.	—
	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. DMER0900BF: Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
0900BF	DMER0900BF: Pair creation is not available because the Tier Mode for the specified Replication Data DP pool or Management Area DP pool is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0A0001	DMER0A0001: The Volume Migration optional feature is invalid. Install the Volume Migration optional feature.	Install the Volume Migration optional feature.	—
0A0002	DMER0A0002: The temporary key of the Volume Migration was expired. Purchase the license.	Purchase the license.	—
0A0003	DMER0A0003: The status of the specified P-VOL is other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
0A0004	DMER0A0004: The status of the specified S-VOL is other than normal and regressive. Check the status of the VOL.	Check the status of the VOL.	—
0A0005	DMER0A0005: The status of the parity correction of the specified P-VOL is Uncorrected or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.	Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.	—
0A0006	DMER0A0006: The status of the parity correction of the specified S-VOL is correcting, waiting correction, Uncorrected, or Uncorrected 2. Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.	Skip the parity correction or execute the parity correction, and wait for the completion of the correction. Re-execute it after performing the operation.	—
0A0007	DMER0A0007: The specified P-VOL has created a volume Migration pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A0008	DMER0A0008: The specified S-VOL has created a volume Migration pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A0009	DMER0A0009: The specified P-VOL has created a ShadowImage pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A000A	DMER0A000A: The specified S-VOL has created a ShadowImage pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A000B	DMER0A000B: The specified P-VOL is a command device. Check the status of the VOL.	Check the status of the VOL.	—
0A000C	DMER0A000C: The specified S-VOL is a command device. Check the status of the VOL.	Check the status of the VOL.	—
0A000D	DMER0A000D: The specified P-VOL has created a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A000E	DMER0A000E: The specified S-VOL has created a Remote Replication pair.	Check the pair status of the VOL.	—
0A000F	DMER0A000F: The specified P-VOL has created a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A0010	DMER0A0010: The specified S-VOL has created a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A0011	DMER0A0011: The P-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
0A0012	DMER0A0012: The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
0A0013	DMER0A0013: The specified P-VOL has created a SnapShot pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A0014	DMER0A0014: The specified S-VOL has created a SnapShot pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A0015	DMER0A0015: The specified P-VOL is the pool VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0A0016	DMER0A0016: The specified S-VOL is the pool VOL. Check the pair status of the VOL.	Check the pair status of the VOL.	—
0A0017	DMER0A0017: The specified P-VOL is being quick formatted. Retry after the quick formatting is completed.	Retry after the quick formatting is completed.	—
0A0018	DMER0A0018: The specified S-VOL is being quick formatted. Retry after the quick formatting is completed.	Retry after the quick formatting is completed.	—
0A0019	DMER0A0019: The specified P-VOL is the DM-LU. Check the status of the VOL.	Check the status of the VOL.	—
0A001A	DMER0A001A: The specified S-VOL is the DM-LU. Check the status of the VOL.	Check the status of the VOL.	—
0A001B	DMER0A001B: The DM-LU is not set. Retry after setting the DM-LU.	Retry after setting the DMLU.	—
0A001C	DMER0A001C: The specified P-VOL has unwritten data. Check the status of the VOL.	Check the status of the VOL.	—
0A001D	DMER0A001D: The pair cannot be allocated the differential bit map. Split the unnecessary pairs.	Split the unnecessary pairs.	—
0A001E	DMER0A001E: The specified P-VOL is a SubVOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
0A001F	DMER0A001F: The specified S-VOL is a SubVOL of a unified VOL. Check the status of the VOL.	Check the status of the VOL.	—
0A0020	DMER0A0020: The size of the specified P-VOL and the S-VOL are not the same. Specify a VOL that the same size.	Specify a VOL that the same size.	—
0A0021	DMER0A0021: The DIRs in charge of the specified P-VOL and the S-VOL are not the same. Specify a VOL that belongs to the same DIR.	Specify a VOL that belongs to the same DIR.	—
0A0022	DMER0A0022: The VOLs of the specified P-VOL and S-VOL are the same. Check the specified VOL.	Check the specified VOL.	—
0A0023	DMER0A0023: There exist maximum number of pairs already (included ShadowImage pairs). Split the unnecessary pairs.	Split the unnecessary pairs.	—
0A0024	DMER0A0024: The specified P-VOL is the VOL, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.	Retry after releasing the reserved status.	—
0A0025	DMER0A0025: The specified S-VOL is the VOL, for which a change of the cache partition(s) had been reserved. Retry after releasing the reserved status.	Retry after releasing the reserved status.	—
0A0026	DMER0A0026: The RAID group of the specified P-VOL and S-VOL are the same. Specify a different RAID group.	Specify a different RAID group.	—
0A0027	DMER0A0027: The specified P-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
0A0028	DMER0A0028: The specified S-VOL is the reserved VOL. Check the status of the VOL.	Check the status of the VOL.	—
0A0029	DMER0A0029: The access level of the specified S-VOL is other than the ordinary one. Check the access level of the VOL.	Check the access level of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0A002C	DMER0A002C: The specified MU number is 8 or higher. Make sure of the specified MU number.	Make sure of the specified MU number.	—
0A002D	DMER0A002D: The specified primary port number is beyond the limits of support. Check the specified primary port number.	Check the specified primary port number.	—
0A002E	DMER0A002E: The specified secondary port number is beyond the limits of support. Check the specified secondary port number.	Check the specified secondary port number.	—
0A002F	DMER0A002F: The specified primary sequence number is different from the own serial number. Check the specified primary sequence number.	Check the specified primary sequence number.	—
0A0030	DMER0A0030: The specified secondary sequence number is different from the own serial number. Check the specified secondary sequence number.	Check the specified secondary sequence number.	—
0A0031	DMER0A0031: The pair concerned is the one that the instruction to start the migration was issued by Navigator etc. Check the owner ID of the specified pair.	Check the owner ID of the specified pair.	—
0A0032	DMER0A0032: The disk drives that configure a RAID group, to which the specified P-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
0A0033	DMER0A0033: The disk drives that configure a RAID group, to which the specified S-VOL belongs have been spun down. Check the status of the RAID group.	Check the status of the RAID group.	—
0A0034	DMER0A0034: The Migration status is [data is being copied], [data copy fails], or [data copy is completed]. Check the Migration status.	Check the Migration status.	—
0A0035	DMER0A0035: The Migration status is [access path is being switched] or [access path switching fails]. Check the Migration status.	Check the Migration status.	—
0A0036	DMER0A0036: The RAID group to which the specified VOL belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
810001	DMER810001: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
810002	DMER810002: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
810003	DMER810003: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
810004	DMER810004: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81000A	DMER81000A: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
81000F	DMER81000F: The path of the remote array was detached. Check the status of the path.	Check the status of the path.	—
81002C	DMER81002C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81002D	DMER81002D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
81002E	DMER81002E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81002F	DMER81002F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
810030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMER810030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER810030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
810031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER810031: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER810031: The specified S-VOL is already paired by a different array. Check the pair information.	Check the pair information.	—
810033	DMER810033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
810034	DMER810034: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
810035	DMER810035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
810036	DMER810036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the VOL that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	Retry after waiting for a while. In case that the RAID group to which the VOL that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
810037	DMER810037: The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry. Or the status of the object VOL is other than normal and regression. Make the status of the object VOL normal or regression. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry. Or the status of the object VOL is other than normal and regression. Make the status of the object VOL normal or regression. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
810038	DMER810038: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
810039	DMER810039: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81003A	DMER81003A: The remote array is busy. Retry after waiting for a while.	Retry after waiting for a while.	—
81003E	DMER81003E: The S-VOL command is receiving a command. Retry after waiting.	Retry after waiting.	—
810042	DMER810042: The capacity is beyond the limits of support. Eliminate unnecessary pairs of the remote array.	Eliminate unnecessary pairs of the remote array.	—
810058	DMER810058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.	Contact the service personnel.	—
810060	DMER810060: The path of the local subsystem is abnormal. Check the status of the path.	Check the status of the path.	—
810061	DMER810061: The path of the local subsystem is abnormal. Check the status of the path.	Check the status of the path.	—
810062	DMER810062: The path of the local subsystem is abnormal. Check the status of the path.	Check the status of the path.	—
810063	DMER810063: The path of the local subsystem is abnormal. Check the status of the path.	Check the status of the path.	—
8100D4	DMER8100D4: The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.	Confirm the VOL status in the remote subsystem.	—
8100D9	DMER8100D9: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target VOL belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	Confirm the Array ID, pair status of Local and Remote Replication and the status of the RAID group to which the target VOL belongs. Retry after waiting the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	—
8100E0	DMER8100E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8100E5	DMER8100E5: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8100E8	DMER8100E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.	Retry after the pair operation is completed with another array.	—
8100EF	DMER8100EF: The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	Resolve the insufficient capacity of the DP pool and retry.	—
8100F3	DMER8100F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
810103	DMER810103: The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.	Grow the capacity of DMLU.	—
810106	DMER810106: The internal transaction of the specified VOL is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
810109	DMER810109: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
81010C	DMER81010C: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81010F	DMER81010F: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
810112	DMER810112: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
810115	DMER810115: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—
811001	DMER811001: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
811002	DMER811002: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
811003	DMER811003: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
811004	DMER811004: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81100A	DMER81100A: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
81100F	DMER81100F: The path of the remote array was detached. Check the status of the path.	Check the status of the path.	—
81102C	DMER81102C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81102D	DMER81102D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
81102E	DMER81102E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81102F	DMER81102F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
811030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMER811030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER811030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
811031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER811031: The WWN of the remote array is illegal. Check the remote array WWN.	Check the remote array WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER811031: The specified S-VOL is already paired by a different array. Check the pair information.	Check the pair information.	—
811033	DMER811033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
811034	DMER811034: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
811035	DMER811035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
811036	DMER811036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the VOL that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	Retry after waiting for a while. In case that the RAID group to which the VOL that will be S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	—
811037	DMER811037: The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number. Or the status of the object VOL is other than normal and regression. Make the status of the object VOL normal or regression. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number. Or the status of the object VOL is other than normal and regression. Make the status of the object VOL normal or regression. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
811038	DMER811038: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
811039	DMER811039: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81103A	DMER81103A: The remote array is busy. Retry after waiting for a while.	Retry after waiting for a while.	—
81103E	DMER81103E: The S-VOL command is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
811042	DMER811042: The capacity is beyond the limits of support. Delete unnecessary pairs of the remote array.	Delete unnecessary pairs of the remote array.	—
811058	DMER811058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.	Contact the service personnel.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8110D4	DMER8110D4: The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.	Confirm the VOL status in the remote subsystem.	—
8110E0	DMER8110E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8110E5	DMER8110E5: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8110E8	DMER8110E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.	Retry after the pair operation is completed with another array.	—
8110F3	DMER8110F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
811103	DMER811103: The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.	Grow the capacity of DMLU.	—
811106	DMER811106: The internal transaction of the specified VOL is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
811109	DMER811109: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
81110C	DMER81110C: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81110F	DMER81110F: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
811112	DMER811112: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
811115	DMER811115: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—
812001	DMER812001: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
812002	DMER812002: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
812003	DMER812003: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
812004	DMER812004: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81200A	DMER81200A: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
81200F	DMER81200F: The path of the remote array was detached. Check the status of the path.	Check the status of the path.	—
81202C	DMER81202C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81202D	DMER81202D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81202E	DMER81202E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81202F	DMER81202F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
812030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMER812030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER812030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
812031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER812031: The WWN of the remote array is illegal. Check the remote array WWN.	Check the remote array WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER812031: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
812033	DMER812033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
812034	DMER812034: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
812035	DMER812035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
812036	DMER812036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	—
812037	DMER812037: The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	—
812038	DMER812038: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
812039	DMER812039: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81203A	DMER81203A: The remote array is busy. Retry after waiting for a while.	Retry after waiting for a while.	—
81203E	DMER81203E: The S-VOL command is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8120D4	DMER8120D4: The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.	Confirm the VOL status in the remote subsystem.	—
8120E0	DMER8120E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8120E5	DMER8120E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8120E8	DMER8120E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.	Retry after the pair operation is completed with another array.	—
8120EF	DMER8120EF: The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	Resolve the insufficient capacity of the DP Pool and retry.	—
8120F3	DMER8120F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
812109	DMER812109: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
81210C	DMER81210C: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81210F	DMER81210F: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
812112	DMER812112: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
812115	DMER812115: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
813001	DMER813001: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
813002	DMER813002: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
813003	DMER813003: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
813004	DMER813004: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81300A	DMER81300A: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
81300F	DMER81300F: The path of the remote array was detached. Check the status of the path.	Check the status of the path.	—
81301E	DMER81301E: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	Check the pair status of the VOL, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	—
81302C	DMER81302C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81302D	DMER81302D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
81302E	DMER81302E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81302F	DMER81302F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
813030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMER813030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER813030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
813031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER813031: The WWN of the remote array is illegal. Check the remote array WWN.	Check the remote array WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER813031: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
813033	DMER813033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
813034	DMER813034: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
813035	DMER813035: The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or, the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
813036	DMER813036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	—
813037	DMER813037: The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number.	Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number.	—
813038	DMER813038: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
813039	DMER813039: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81303A	DMER81303A: The remote array is busy. Retry after waiting for a while.	Retry after waiting for a while.	—
81303E	DMER81303E: The S-VOL command is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
8130D4	DMER8130D4: The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.	Confirm the VOL status in the remote subsystem.	—
8130D9	DMER8130D9: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the Array ID, pair status of Local and Remote Replication, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	Check the Array ID, pair status of Local and Remote Replication, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	—
8130DE	DMER8130DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8130E0	DMER8130E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8130E2	DMER8130E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.	Retry after the Auto Migration is completed.	—
8130E3	DMER8130E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8130E5	DMER8130E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8130E8	DMER8130E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.	Retry after the pair operation is completed with another array.	—
8130F2	DMER8130F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
8130F3	DMER8130F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
813107	DMER813107: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
813109	DMER813109: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
81310A	DMER81310A: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81310C	DMER81310C: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81310D	DMER81310D: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
81310F	DMER81310F: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
813110	DMER813110: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
813112	DMER813112: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
814001	DMER814001: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
814002	DMER814002: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
814003	DMER814003: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
814004	DMER814004: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81400A	DMER81400A: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
81400F	DMER81400F: The path of the remote array was detached. Check the status of the path.	Check the status of the path.	—
81401E	DMER81401E: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, the RAID group status, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	Check the pair status of the VOL, the RAID group status, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	—
81402C	DMER81402C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81402D	DMER81402D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
81402E	DMER81402E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81402F	DMER81402F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
814030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER814030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
814031	DMER814030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.		
	DMER814031: The WWN of the remote array is illegal. Check the remote array WWN.	Check the remote array WWN.	—
814033	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.		
	DMER814031: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
814033	DMER814033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
814034	DMER814034: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
814035	DMER814035: The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or, the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
814036	DMER814036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	—
814037	DMER814037: The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number.	Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and CTG number.	—
814038	DMER814038: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
814039	DMER814039: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81403A	DMER81403A: The remote array is busy. Retry after waiting for a while.	Retry after waiting for a while.	—
81403E	DMER81403E: The S-VOL command is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
8140D4	DMER8140D4: The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.	Confirm the VOL status in the remote subsystem.	—
8140D9	DMER8140D9: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the Array ID, pair status of Local and Remote Replication, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	Check the Array ID, pair status of Local and Remote Replication, the status of the RAID group to which the target VOL belongs, and reconfigure memory status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Retry after the process of reconfigure memory is completed if it is in progress. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU.	—
8140DE	DMER8140DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8140E0	DMER8140E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8140E2	DMER8140E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.	Retry after the Auto Migration is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8140E3	DMER8140E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8140E5	DMER8140E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8140E8	DMER8140E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.	Retry after the pair operation is completed with another array.	—
8140F2	DMER8140F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
8140F3	DMER8140F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
814107	DMER814107: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
814109	DMER814109: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
81410A	DMER81410A: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81410C	DMER81410C: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81410D	DMER81410D: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
81410F	DMER81410F: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
814110	DMER814110: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
814112	DMER814112: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
815001	DMER815001: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
815002	DMER815002: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
815003	DMER815003: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
815004	DMER815004: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81500A	DMER81500A: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
81500F	DMER81500F: The path of the remote array was detached. Check the status of the path.	Check the status of the path.	—
81502C	DMER81502C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81502D	DMER81502D: The S-VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
81502E	DMER81502E: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81502F	DMER81502F: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
815030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMER815030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER815030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
815031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER815031: The WWN of the remote array is illegal. Check the remote array WWN.	Check the remote array WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER815031: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
815033	DMER815033: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
815034	DMER815034: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
815035	DMER815035: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
815036	DMER815036: The process is in progress. Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	Retry after waiting for a while. In case that the RAID group to which the S-VOL belongs indicate a status other than Normal, retry after the status becomes Normal.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
815037	DMER815037: The remote array is busy. Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	Retry after checking the pair status of the VOL, Array ID, number of the connected arrays, and group number. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	—
815038	DMER815038: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
815039	DMER815039: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81503A	DMER81503A: The remote array is busy. Retry after waiting for a while.	Retry after waiting for a while.	—
81503E	DMER81503E: The S-VOL command is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
8150D4	DMER8150D4: The VOL which has been indicated as S-VOL in the remote subsystem is P-VOL now. Confirm the VOL status in the remote subsystem.	Confirm the VOL status in the remote subsystem.	—
8150E0	DMER8150E0: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8150E5	DMER8150E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8150E8	DMER8150E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with another array.	Retry after the pair operation is completed with another array.	—
8150EF	DMER8150EF: The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	Resolve the insufficient capacity of the DP Pool and retry.	—
8150F3	DMER8150F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
815109	DMER815109: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
81510C	DMER81510C: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
81510F	DMER81510F: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
815112	DMER815112: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
815115	DMER815115: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
816022	DMER816022: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
816023	DMER816023: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
816024	DMER816024: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
816025	DMER816025: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
816026	DMER816026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
816027	DMER816027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
816028	DMER816028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.	Wait a while and execute again.	—
816029	DMER816029: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
81602A	DMER81602A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
81602B	DMER81602B: Both of the two paths of the remote subsystem were detached. Check the status of the path.	Check the status of the path.	—
81602C	DMER81602C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81602D	DMER81602D: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
81602E	DMER81602E: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81602F	DMER81602F: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
816030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER816030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
816031	DMER816030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.		
	DMER816031: The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.	Check the remote subsystem WWN.	—
816032	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.		
	DMER816031: The specified S-VOL is already paired by a different array. Check the pair information.	Check the pair information.	—
816032	DMER816032: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.	Wait a while and execute again.	—
816033	DMER816033: The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
816035	DMER816035: The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
816038	DMER816038: Both of the two paths of the remote subsystem were detached. Check the status of the path.	Check the status of the path.	—
816041	DMER816041: The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.	Retry after waiting for a while.	—
816042	DMER816042: The capacity of Remote Replication pair is beyond the limits within the remote array. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	—
816086	DMER816086: The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.	Specify a volume other than a command device of the remote subsystem as the S-VOL.	—
816087	DMER816087: The S-VOL of the remote subsystem is executing format. Create the pair again after the quick formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Create the pair again after the quick formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	—
816088	DMER816088: The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.	Specify a volume other than the DMLU of the remote subsystem as the S-VOL.	—
816089	DMER816089: The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.	Check the status of the remote subsystem and cancel the access attribute.	—
81608A	DMER81608A: The S-VOL in the remote array cannot allocate the differential bit of remote replication pair because the capacity is beyond the supported limit. Check the status of the remote array. In addition delete unnecessary pairs of the remote array. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	Check the status of the remote array. In addition delete unnecessary pairs of the remote array. Or the copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	—
81608B	DMER81608B: The capacity of Remote Replication pair is beyond the limits within the remote array. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	—
81608C	DMER81608C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81608D	DMER81608D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the VOL in the remote array.	Check the status of the VOL in the remote array.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81608E	DMER81608E: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.	Check the VOL status of the remote subsystem.	—
816091	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. DMER816091: The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem.	Check the Array ID of the remote subsystem.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. DMER816091: The Array ID of the remote array is wrong, or the maximum number of connected arrays is beyond the limits. Check the Array ID of the remote array, the number of connected arrays and the group number.	Check the Array ID of the remote array, the number of connected arrays and the group number.	—
816094	DMER816094: The RAID level of the S-VOL in the remote array is RAID 0. Set the RAID level other than RAID 0 in the remote array.	Set the RAID level other than RAID 0 in the remote array.	—
816095	DMER816095: The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
816096	DMER816096: The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the VOL status of the remote subsystem.	Check the VOL status of the remote subsystem.	—
816097	DMER816097: The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.	Check the status of the remote subsystem.	—
81609A	DMER81609A: The status of the VOL that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the VOL is belongs indicates a status other than Normal or the VOL is created in DP pool. Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify a VOL other than a VOL created in DP pool to S-VOL.	Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify a VOL other than a VOL created in DP pool to S-VOL.	—
81609B	DMER81609B: The S-VOL in the remote subsystem is a unified VOL consists of 17 or more VOLs. Make the number of the unified VOLs that constitute the unified VOL of the remote subsystem 16 or less.	Make the number of the unified VOLs that constitute the unified VOL of the remote subsystem 16 or less.	—
81609C	DMER81609C: The VOL capacity of the S-VOL in the remote array is not the same as the P-VOL capacity. Make the VOL capacity of the remote array the same as that of the P-VOL. Or the Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Make the VOL capacity of the remote array the same as that of the P-VOL. Or the Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
81609D	DMER81609D: The S-VOL in the remote array is set to a Cache Residency VOL. Specify a VOL other than a Cache Residency VOL of the remote array.	Specify a VOL other than a Cache Residency VOL of the remote array.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81609E	DMER81609E: A VOL with a capacity less than 1 GB is included in the VOLs in which the S-VOL is unified in the remote subsystem. Check the status of the unified VOL of the remote subsystem.	Check the status of the unified VOL of the remote subsystem.	—
81609F	DMER81609F: This operation cannot be executed due to lack of resources within the remote array. Retry after waiting for a while.	Retry after waiting for a while.	—
8160A0	DMER8160A0: The remote subsystem has no pool VOL. Make a pool VOL for the remote subsystem.	Make a pool VOL for the remote subsystem.	—
8160A1	DMER8160A1: The VOL specified as the S-VOL in the remote subsystem is a pool VOL. The pool VOL cannot be set to an S-VOL. Check the pool VOL status of the remote subsystem.	Check the pool VOL status of the remote subsystem.	—
8160A2	DMER8160A2: The VOL status of the pool VOL in the remote subsystem is normal or other than regressed. Check the pool VOL status of the remote subsystem.	Check the pool VOL status of the remote subsystem.	—
8160A3	DMER8160A3: The pool VOL in the remote array is undergoing the forced parity correction. Check the pool VOL status of the remote array and retry after waiting for a while. Or the Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.	Check the pool VOL status of the remote array and retry after waiting for a while. Or the Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.	—
8160A4	DMER8160A4: The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	—
8160A5	DMER8160A5: The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8160A6	DMER8160A6: The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8160A7	DMER8160A7: The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8160A8	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER8160A8: The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. DMER8160A8: The Remote Replication pair status of the S-VOL in the remote array is Takeover or the determined data at the end of the previous cycle is being restored to the S-VOL. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
8160A9	DMER8160A9: The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8160AA	DMER8160AA: The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8160AB	DMER8160AB: The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8160B4	DMER8160B4: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160B5	DMER8160B5: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL change for it has been started. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160B6	DMER8160B6: The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160B7	DMER8160B7: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160B8	DMER8160B8: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160B9	DMER8160B9: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
8160BA	DMER8160BA: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it has pinned data. Contact the service personnel.	Contact the service personnel.	—
8160BB	DMER8160BB: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
8160BC	DMER8160BC: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
8160BD	DMER8160BD: The S-VOL in the remote subsystem cannot change an ownership of VOL and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160BE	DMER8160BE: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, the group# is illegal. Check the status of the remote subsystem.	Check the status of the remote subsystem.	—
8160C0	DMER8160C0: The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8160C1	DMER8160C1: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160C2	DMER8160C2: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8160C5	DMER8160C5: The cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.	Check the cycle time that has been set for the remote subsystem.	—
8160D2	DMER8160D2: The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.	Confirm the indicated pool number in the remote subsystem.	—
8160DD	DMER8160DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
8160E0	DMER8160E0: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8160E5	DMER8160E5: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8160E8	DMER8160E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with the array.	Retry after the pair operation is completed with the array.	—
8160EA	DMER8160EA: The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
8160ED	DMER8160ED: Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Retry after waiting a while.	—
8160EF	DMER8160EF: The copy operation can not be performed because the capacity of the DP pool is depleted or can be depleted by this copy for either the S-VOL or an S-VOL of ShadowImage cascading in the remote array. Resolve the insufficient capacity of the DP pool and retry.	Resolve the insufficient capacity of the DP Pool and retry.	—
8160F3	Hitachi Storage Navigator Modular 2 is less than Ver.22.50.		
	DMER8160F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
	Hitachi Storage Navigator Modular 2 is Ver.22.50 or more.		
	DMER8160F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8160F6	DMER8160F6: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
8160F8	DMER8160F8: The Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.	Set the same value for both the Full Capacity Mode of target VOL and data pools.	—
816123	DMER816123: The specified Replication Data DP pool for the remote array does not exist. Check the status of the Replication Data DP pool for the remote array.	Check the status of the Replication Data DP pool for the remote array.	—
816126	DMER816126: The specified Management Area DP pool for the remote array does not exist. Check the status of the Management Area DP pool for the remote array.	Check the status of the Management Area DP pool for the remote array.	—
816129	DMER816129: The status of the specified Replication Data DP pool for the remote array is other than Normal/Regression. Check the status of the Replication Data DP pool for the remote array.	Check the status of the Replication Data DP pool for the remote array.	—
81612C	DMER81612C: The status of the specified Management Area DP pool for the remote array is other than Normal/Regression. Check the status of the Management Area DP pool for the remote array.	Check the status of the Management Area DP pool for the remote array.	—
81612F	DMER81612F: The specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Replication Data DP pool number for the remote array.	Check the specified Replication Data DP pool number for the remote array.	—
816133	DMER816133: The specified Management Area DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Management Area DP pool number for the remote array.	Check the specified Management Area DP pool number for the remote array.	—
816136	DMER816136: The Remote Replication pair deletion process is running on the Replication Data DP pool of the remote array. Retry after waiting for a while.	Retry after waiting for a while.	—
816139	DMER816139: The Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Retry after waiting for a while.	Retry after waiting for a while.	—
81613C	DMER81613C: There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.	Check the number of groups for Remote Replication.	—
81613F	DMER81613F: The cycle time that has been set for the local array is less than the minimum interval. Check the cycle time that has been set for the local array.	Check the cycle time that has been set for the local array.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
816143	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. DMER816143: The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. DMER816143: The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
816146	DMER816146: Cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	Retry after the pair split completes	—
817022	DMER817022: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
817023	DMER817023: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
817024	DMER817024: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
817025	DMER817025: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
817026	DMER817026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
817027	DMER817027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
817028	DMER817028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.	Wait a while and execute again.	—
817029	DMER817029: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
81702A	DMER81702A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.	Unlock and enable the optional feature.	—
81702B	DMER81702B: Both of the two paths of the remote subsystem were detached. Check the status of the path.	Check the status of the path.	—
81702C	DMER81702C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81702D	DMER81702D: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
81702E	DMER81702E: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
81702F	DMER81702F: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
817030	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMER817030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER817030: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
817031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER817031: The WWN of the remote subsystem is illegal. Check the remote subsystem WWN.	Check the remote subsystem WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER817031: The specified S-VOL is already paired by a different array. Check the pair information.	Check the pair information.	—
817032	DMER817032: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.	Wait a while and execute again.	—
817033	DMER817033: The remote subsystem is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
817035	DMER817035: The optional feature of Remote Replication of the remote array is invalid. Unlock and enable the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is invalid: Unlock and validate the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
817038	DMER817038: Both of the two paths of the remote subsystem were detached. Check the status of the path.	Check the status of the path.	—
817041	DMER817041: The S-VOL of the remote subsystem is doing a duplicate writing. Retry after waiting for a while.	Retry after waiting for a while.	—
817042	DMER817042: The capacity of Remote Replication pair is beyond the limits within the remote array. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory	—
817086	DMER817086: The S-VOL of the remote subsystem is specified as a command device. Specify a volume other than a command device of the remote subsystem as the S-VOL.	Specify a volume other than a command device of the remote subsystem as the S-VOL.	—
817087	DMER817087: The S-VOL of the remote subsystem is executing format. Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	—
817088	DMER817088: The S-VOL of the remote subsystem is specified as the DM-LU. Specify a volume other than the DM-LU of the remote subsystem as the S-VOL.	Specify a volume other than the DMLU of the remote subsystem as the S-VOL.	—
817089	DMER817089: The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.	Check the status of the remote subsystem and cancel the access attribute.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81708A	DMER81708A: The S-VOL in the remote subsystem cannot be allocated the differential bit of Remote Replication. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	—
81708B	DMER81708B: The capacity of Remote Replication pair is beyond the limits within the remote array. Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	Confirm the capacity of all the SnapShot P-VOLs, all the P-VOLs and S-VOLs of Remote Replication pairs, and data pools is less than or equal to the supported capacity for the installed cache memory.	—
81708C	DMER81708C: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
81708D	DMER81708D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Check the status of the VOL in the remote array.	Check the status of the VOL in the remote array.	—
81708E	DMER81708E: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.	Check the VOL status of the remote subsystem.	—
817091	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. DMER817091: The Array ID of the S-VOL in the remote subsystem is wrong. Check the Array ID of the remote subsystem.	Check the Array ID of the remote subsystem.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. DMER817091: The Array ID of the remote array is wrong, or the maximum number of connected arrays is beyond the limits. Check the Array ID of the remote array, the number of connected arrays and the group number.	Check the Array ID of the remote array, the number of connected arrays and the group number.	—
817094	DMER817094: The RAID level of the S-VOL in the remote array is RAID 0. Make the RAID level of the remote array other than RAID 0.	Make the RAID level of the remote array other than RAID 0.	—
817095	DMER817095: The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
817096	DMER817096: The S-VOL in the remote subsystem is a SnapShot V-VOL. The Remote Replication and SnapShot V-VOLs cannot be cascaded with each other. Check the VOL status of the remote subsystem.	Check the VOL status of the remote subsystem.	—
817097	DMER817097: The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.	Check the status of the remote subsystem.	—
817098	DMER817098: The S-VOL in the remote array is changing the cache partition. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81709A	DMER81709A: The status of the VOL that will be S-VOL in the remote array is normal or other than regressed or the RAID group to which the VOL is belongs indicates a status other than Normal or the VOL is created in DP pool. Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify a VOL other than a VOL created in DP pool to S-VOL.	Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal. Specify a VOL other than a VOL created in DP pool to S-VOL.	—
81709B	DMER81709B: The S-VOL in the remote subsystem is a unified VOL consists of 17 or more VOLs. Make the number of the unified VOLs that constitute the unified VOL of the remote subsystem 16 or less.	Make the number of the unified VOLs that constitute the unified VOL of the remote subsystem 16 or less.	—
81709C	DMER81709C: The VOL capacity of the S-VOL in the remote array is not the same as the P-VOL capacity. Make the VOL capacity of the remote array the same as that of the P-VOL. Or the Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Make the VOL capacity of the remote array the same as that of the P-VOL. Or the Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
81709D	DMER81709D: The S-VOL in the remote array is set to a Cache Residency VOL. Specify a VOL other than a Cache Residency VOL of the remote array.	Specify a VOL other than a Cache Residency VOL of the remote array.	—
81709E	DMER81709E: A VOL with a capacity less than 1 GB is included in the VOLs in which the S-VOL is unified in the remote subsystem. Check the status of the unified VOL of the remote subsystem.	Check the status of the unified VOL of the remote subsystem.	—
81709F	DMER81709F: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
8170A0	DMER8170A0: The remote subsystem has no pool VOL. Make a pool VOL for the remote subsystem.	Make a pool VOL for the remote subsystem.	—
8170A1	DMER8170A1: The VOL specified as the S-VOL in the remote subsystem is a pool VOL. The pool VOL cannot be set to an S-VOL. Check the pool VOL status of the remote subsystem.	Check the pool VOL status of the remote subsystem.	—
8170A2	DMER8170A2: The VOL status of the pool VOL in the remote subsystem is normal or other than regressed. Check the pool VOL status of the remote subsystem.	Check the pool VOL status of the remote subsystem.	—
8170A3	DMER8170A3: The pool VOL in the remote array is undergoing the forced parity correction. Check the pool VOL status of the remote array and retry after waiting for a while. Or the Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.	Check the pool VOL status of the remote array and retry after waiting for a while. Or the Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.	—
8170A4	DMER8170A4: The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	—
8170A5	DMER8170A5: The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8170A6	DMER8170A6: The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8170A7	DMER8170A7: The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8170A8	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER8170A8: The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. DMER8170A8: The Remote Replication pair status of the S-VOL in the remote array is Takeover or the determined data at the end of the previous cycle is being restored to the S-VOL. Check the Remote Replication pair status for the remote array.	Check the Remote Replication pair status for the remote array.	—
8170A9	DMER8170A9: The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8170AA	DMER8170AA: The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8170AB	DMER8170AB: The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
8170B4	DMER8170B4: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170B5	DMER8170B5: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL change for it has been started. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170B6	DMER8170B6: The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170B7	DMER8170B7: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170B8	DMER8170B8: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170B9	DMER8170B9: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8170BA	DMER8170BA: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it has pinned data. Contact the service personnel.	Contact the service personnel.	—
8170BB	DMER8170BB: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
8170BC	DMER8170BC: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
8170BD	DMER8170BD: The S-VOL in the remote subsystem cannot change an ownership of VOL and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170BE	DMER8170BE: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, the group# is illegal. Check the status of the remote subsystem.	Check the status of the remote subsystem.	—
8170C0	DMER8170C0: The S-VOL in the remote array does not exist on the default owner controller and, at the same time, its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
8170C1	DMER8170C1: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170C2	DMER8170C2: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
8170C5	DMER8170C5: The cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.	Check the cycle time that has been set for the remote subsystem.	—
8170D2	DMER8170D2: The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.	Confirm the indicated pool number in the remote subsystem.	—
8170DD	DMER8170DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
8170E0	DMER8170E0: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8170E5	DMER8170E5: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8170E8	DMER8170E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with the array.	Retry after the pair operation is completed with the array.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8170EA	DMER8170EA: The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
8170ED	DMER8170ED: Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Retry after waiting a while.	—
8170F3	Hitachi Storage Navigator Modular 2 is less than Ver.22.50. DMER8170F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
	Hitachi Storage Navigator Modular 2 is Ver.22.50 or more. DMER8170F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	—
8170F6	DMER8170F6: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
8170F8	DMER8170F8: The Full Capacity Mode differs between the target VOL and data pools. Set the same value for both the Full Capacity Mode of target VOL and data pools.	Set the same value for both the Full Capacity Mode of target VOL and data pools.	—
817123	DMER817123: The specified Replication Data DP pool for the remote array does not exist. Check the status of the Replication Data DP pool for the remote array.	Check the status of the Replication Data DP pool for the remote array.	—
817126	DMER817126: The specified Management Area DP pool for the remote array does not exist. Check the status of the Management Area DP pool of the remote array.	Check the status of the Management Area DP pool of the remote array.	—
817129	DMER817129: The status of the specified Replication Data DP pool for the remote array is other than Normal/Regression. Check the status of the Replication Data DP pool for the remote array.	Check the status of the Replication Data DP pool for the remote array.	—
81712C	DMER81712C: The status of the specified Management Area DP pool for the remote array is other than Normal/Regression. Check the status of the Management Area DP pool for the remote array.	Check the status of the Management Area DP pool for the remote array.	—
81712F	DMER81712F: The specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Replication Data DP pool number for the remote array.	Check the specified Replication Data DP pool number for the remote array.	—
817133	DMER817133: The specified Management Area DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Management Area DP pool number for the remote array.	Check the specified Management Area DP pool number for the remote array.	—
817136	DMER817136: The Remote Replication pair deletion process is running on the Replication Data DP pool for the remote array. Retry after waiting for a while.	Retry after waiting for a while.	—
817139	DMER817139: The Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81713C	DMER81713C: There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.	Check the number of groups for Remote Replication.	—
81713F	DMER81713F: The cycle time that has been set for the local array is less than the minimum interval. Check the cycle time that has been set for the local array.	Check the cycle time that has been set for the local array.	—
817143	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. DMER817143: The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. DMER817143: The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
817146	DMER817146: Cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot pair that is cascaded with the Remote Replication group. Retry after the pair split completes.	Retry after the pair split completes.	—
819022	DMER819022: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
819023	DMER819023: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
819024	DMER819024: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
819025	DMER819025: The S-VOL of the remote subsystem is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
819026	DMER819026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
819027	DMER819027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
819028	DMER819028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.	Wait a while and execute again.	—
819029	DMER819029: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
81902A	DMER81902A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.	Unlock and enable the optional feature.	—
81902B	DMER81902B: Both of the two paths of the remote subsystem were detached. Check the status of the path.	Check the status of the path.	—
8190DE	DMER8190DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81A022	DMER81A022: Now executing. Wait a while and execute again.	Wait a while and execute again.	—
81A023	DMER81A023: Now executing. Wait a while and execute again.	Wait a while and execute again.	—
81A024	DMER81A024: Now executing. Wait a while and execute again.	Wait a while and execute again.	—
81A025	DMER81A025: The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.	Wait a while and execute again.	—
81A026	DMER81A026: The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.	Execute again after the pseudo deliberate shutdown.	—
81A027	DMER81A027: The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.	Wait a while and execute again.	—
81A028	DMER81A028: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.	Wait a while and execute again.	—
81A029	DMER81A029: Command error was occurred. Wait a while and execute again.	Wait a while and execute again.	—
81A02A	DMER81A02A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
81A02B	DMER81A02B: Both of the two paths of the remote subsystem were detached. Check the status of the path.	Check the status of the path.	—
81A02C	DMER81A02C: Now executing. Wait a while and execute again.	Wait a while and execute again.	—
81A02D	DMER81A02D: The S-VOL in the remote subsystem is being formatted now. Wait a while and execute again.	Wait a while and execute again.	—
81A02E	DMER81A02E: The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.	Execute again after the pseudo deliberate shutdown.	—
81A02F	DMER81A02F: The remote subsystem is undergoing the pseudo deliberate shutdown. Wait a while and execute again.	Wait a while and execute again.	—
81A030	DMER81A030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
81A032	DMER81A032: The pair operation commands are being executed in the remote subsystem. Wait a while and execute again.	Wait a while and execute again.	—
81A033	DMER81A033: The remote subsystem is undergoing hot replacement of the firmware. Wait a while and execute again.	Wait a while and execute again.	—
81A035	DMER81A035: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
81A038	DMER81A038: Both of the two paths of the remote subsystem were detached. Check the status of the path.	Check the status of the path.	—
81A041	DMER81A041: Now executing. Wait a while and execute again.	Wait a while and execute again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81A089	DMER81A089: The S-VOL of the remote subsystem is in the status of S-VOL Disable. Check the status of the remote subsystem and cancel the access attribute.	Check the status of the remote subsystem and cancel the access attribute.	—
81A08B	DMER81A08B: The S-VOL in the remote subsystem has no vacancy of the SnapShot cache block. Check the pool VOL status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	Check the pool VOL status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	—
81A08C	DMER81A08C: The SnapShot cache block for the S-VOL in the remote subsystem is being deleted. Check the pool VOL status of the remote subsystem and retry after waiting for a while.	Check the pool VOL status of the remote subsystem and retry after waiting for a while.	—
81A08D	DMER81A08D: The S-VOL of the remote subsystem does not meet the conditions of cascading with a SnapShot pair. Retry after checking the VOL status of the remote subsystem and satisfying the conditions stated in the User's Guide.	Retry after checking the VOL status of the remote subsystem and satisfying the conditions stated in the User's Guide.	—
81A090	DMER81A090: Now executing. Wait a while and execute again.	Wait a while and execute again.	—
81A091	DMER81A091: The indicated Array ID is not same as the actual one for remote subsystem. Confirm the Array ID for the remote subsystem.	Confirm the Array ID for the remote subsystem.	—
81A095	DMER81A095: The S-VOL in the remote subsystem is undergoing the forced parity correction. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A097	DMER81A097: The S-VOL in the remote subsystem received an illegal command. Check the status of the remote subsystem.	Check the status of the remote subsystem.	—
81A099	DMER81A099: The array can not execute the operation because the target P-VOL of the specified VOL does not exist. Delete the pair regarding the P-VOL in the remote array and create a remote replication pair.	Delete the pair regarding the P-VOL in the remote array and create a remote replication pair.	—
81A09A	DMER81A09A: The VOL status of the S-VOL in the remote array is normal or other than regressed or the RAID group to which the VOL is belongs indicates a status other than Normal. Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.	Check the VOL status of the remote array. Retry after the RAID group status becomes Normal in case that the RAID group indicates a status other than Normal.	—
81A09F	DMER81A09F: The internal transaction which are splitting or deleting for SnapShot is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
81A0A0	DMER81A0A0: The remote subsystem has no pool VOL. Make a pool VOL for the remote subsystem.	Make a pool VOL for the remote subsystem.	—
81A0A1	DMER81A0A1: The VOL specified as the S-VOL in the remote subsystem is a pool VOL. The pool VOL cannot be set to an S-VOL. Check the pool VOL status of the remote subsystem.	Check the pool VOL status of the remote subsystem.	—
81A0A2	DMER81A0A2: The VOL status of the S-VOL in the remote subsystem is normal or other than regressed. Check the pool VOL status of the remote subsystem.	Check the pool VOL status of the remote subsystem.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81A0A3	DMER81A0A3: The pool VOL in the remote subsystem is undergoing the forced parity correction. Check the pool VOL status of the remote subsystem and retry after waiting for a while.	Check the pool VOL status of the remote subsystem and retry after waiting for a while.	—
81A0A4	DMER81A0A4: The S-VOL in the remote subsystem exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	Check the status of the remote subsystem. In addition, delete unnecessary pairs of the remote subsystem.	—
81A0A5	DMER81A0A5: The Remote Replication pair status of the S-VOL in the remote subsystem is Failure. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
81A0A6	DMER81A0A6: The Remote Replication pair status of the S-VOL in the remote subsystem is Threshold Over. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
81A0A7	DMER81A0A7: The Remote Replication pair status of the S-VOL in the remote subsystem is Split (no reading/writing allowed). Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
81A0A8	DMER81A0A8: The Remote Replication pair status of the S-VOL in the remote subsystem is Takeover (including Busy). Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
81A0A9	DMER81A0A9: The Remote Replication pair status of the S-VOL in the remote subsystem is Simplex. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
81A0AA	DMER81A0AA: The Remote Replication pair status of the S-VOL in the remote subsystem is Split. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
81A0AB	DMER81A0AB: The Remote Replication pair status of the S-VOL in the remote subsystem is not Simplex. Check the Remote Replication pair status of the remote subsystem.	Check the Remote Replication pair status of the remote subsystem.	—
81A0B4	DMER81A0B4: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A0B5	DMER81A0B5: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL change for it has been started. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A0B6	DMER81A0B6: The S-VOL in the remote subsystem does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A0B7	DMER81A0B7: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, an ownership of VOL to be changed is blocked. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81A0B8	DMER81A0B8: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it is using the sequential buffer. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A0B9	DMER81A0B9: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
81A0BA	DMER81A0BA: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, it has pinned data. Contact the service personnel.	Contact the service personnel.	—
81A0BB	DMER81A0BB: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
81A0BC	DMER81A0BC: The S-VOL in the remote subsystem cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
81A0BD	DMER81A0BD: The S-VOL in the remote subsystem cannot change an ownership of VOL and a time-out occurred. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A0BE	DMER81A0BE: The S-VOL in the remote subsystem cannot change an ownership of VOL and, at the same time, the group# is illegal. Check the status of the remote subsystem.	Check the status of the remote subsystem.	—
81A0C1	DMER81A0C1: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is making the system copy. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A0C2	DMER81A0C2: The S-VOL in the remote subsystem does not exist on the default owner controller and, at the same time, it is writing the takeover information. Check the status of the remote subsystem and retry after waiting for a while.	Check the status of the remote subsystem and retry after waiting for a while.	—
81A0D2	DMER81A0D2: The S-VOL pool number in the remote subsystem is not same as the one that is being used for SnapShot. Confirm the indicated pool number in the remote subsystem.	Confirm the indicated pool number in the remote subsystem.	—
81A0D3	DMER81A0D3: The license validity of the remote subsystem is expired. Purchase the license.	Purchase the license.	—
81A0DD	DMER81A0DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
81A0E0	DMER81A0E0: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
81A0E5	DMER81A0E5: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
81A0E8	DMER81A0E8: The remote array is executing a pair operation with another array. Retry after the pair operation is completed with the array.	Retry after the pair operation is completed with the array.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
81A0F3	DMER81A0F3: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
81A123	DMER81A123: The specified Replication Data DP pool for the remote array does not exist. Check the status of the Replication Data DP pool for the remote array.	Check the status of the Replication Data DP pool for the remote array.	—
81A126	DMER81A126: The specified Management Area DP pool for the remote array does not exist. Check the status of the Management Area DP pool for the remote array.	Check the status of the Management Area DP pool for the remote array.	—
81A129	DMER81A129: The status of the specified Replication Data DP pool for the remote array is other than Normal/Regression. Check the status of the Replication Data DP pool for the remote array.	Check the status of the Replication Data DP pool for the remote array.	—
81A12C	DMER81A12C: The status of the specified Management Area DP pool for the remote array is other than Normal/Regression. Check the status of the Management Area DP pool for the remote array.	Check the status of the Management Area DP pool for the remote array.	—
81A12F	DMER81A12F: The specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Replication Data DP pool number for the remote array.	Check the specified Replication Data DP pool number for the remote array.	—
81A133	DMER81A133: The specified Management Area DP pool for the remote array is different from the one that the specified S-VOL is currently using. Check the specified Management Area DP pool number for the remote array.	Check the specified Management Area DP pool number for the remote array.	—
81A136	DMER81A136: The Remote Replication pair deletion process is running on the Replication Data DP pool of the remote array. Retry after waiting for a while.	Retry after waiting for a while.	—
81A139	DMER81A139: The Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Retry after waiting for a while.	Retry after waiting for a while.	—
81A143	Hitachi Storage Navigator Modular 2 is less than Ver.25.50. DMER81A143: The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. DMER81A143: The Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Add a Tier to the DP pool or specify another DP pool and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
820005	DMER820005: The VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
820006	DMER820006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
820007	DMER820007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
820008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER820008: The S-VOL is undefined. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
820009	DMER820008: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.		
	DMER820009: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
82000B	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.		
	DMER820009: The specified S-VOL is already paired by a different array. Check the pair information.	Check the pair information.	—
82000B	DMER82000B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
82000C	DMER82000C: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
82000D	DMER82000D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
82000E	DMER82000E: The status of the S-VOL cannot be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
820011	DMER820011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the VOL and Array ID or number of the connected arrays.	Check the pair status of the VOL and Array ID or number of the connected arrays.	—
820012	DMER820012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.	Check the number of Remote Replication pairs.	—
820015	DMER820015: The status of the object P-VOL or S-VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Make the status of the P-VOL or S-VOL normal or regression and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	Make the status of the P-VOL or S-VOL normal or regression and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	—
820017	DMER820017: The S-VOL is configured as RAID 0. Check the RAID level of the specified LU.	Check the RAID level of the specified LU.	—
820019	DMER820019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.	Equalize the capacities of the P-VOL and S-VOL.	—
82001A	DMER82001A: The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82001C	DMER82001C: The object VOL is a command device. Specify a VOL other than a command device.	Specify a VOL other than a command device.	—
82001D	DMER82001D: The change of the default owner controller is reserved for the object VOL. Cancel the reservation for changing the default owner controller or specify the VOL for which the change of the default owner controller is not reserved.	Cancel the reservation for changing the default owner controller or specify the VOL for which the change of the default owner controller is not reserved.	—
82001E	DMER82001E: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, the capacity of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, the capacity of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	—
820021	DMER820021: The object VOL has already been cascaded with a ShadowImage pair. Check the pair status of the VOL and check that its pair attribute is P-VOL.	Check the pair status of the VOL and check that its pair attribute is P-VOL.	—
820032	DMER820032: The remote array is receiving a command. Retry after waiting.	Retry after waiting.	—
82003D	DMER82003D: Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.	Confirm the pair status of VOL and the other side's VOL.	—
82003F	DMER82003F: The VOL assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the VOL.	Check the pair status of the VOL.	—
820040	DMER820040: The S-VOL of the specified pair cannot accept Read/Write instructions or is a part of ShadowImage whose status is Reverse Synchronizing. Check the status of the S-VOL or the pair status of the ShadowImage pair.	Check the status of the S-VOL or the pair status of the ShadowImage pair.	—
820041	DMER820041: The process is in progress. Retrying after waiting.	Retrying after waiting.	—
820045	DMER820045: The stripe size of the object VOL of the remote array is other than 64KB. Make the stripe size of the VOL of the remote array 64KB.	Make the stripe size of the VOL of the remote array 64KB.	—
820046	DMER820046: The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	—
820048	DMER820048: The specified VOL is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises a VOL of the remote array.	Split the ShadowImage pair that comprises a VOL of the remote array.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
820049	DMER820049: The object VOL of the remote array is being formatted. Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	—
82004A	DMER82004A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote array.	Cancel the S-VOL Disable specified for the VOL of the remote array.	—
820050	DMER820050: The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the VOL of the remote array to Restored or Skip.	Make the status which concerns the forced restoration by means of parity of the VOL of the remote array to Restored or Skip.	—
820053	DMER820053: The number of unified VOLs of the remote array is 17 or more. Make the number of unified VOLs of the remote array 16 or less.	Make the number of unified VOLs of the remote array 16 or less.	—
820054	DMER820054: The V-VOL which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is a VOL of the remote array.	Split the Remote Replication pair comprising a SnapShot V-VOL that is a VOL of the remote array.	—
820055	DMER820055: The object VOL of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote array to a volume other than a V-VOL of SnapShot.	Specify the VOL of the remote array to a volume other than a V-VOL of SnapShot.	—
820058	DMER820058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.	Contact the service personnel.	—
820059	DMER820059: The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the license validity is expired: Purchase the license. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
82005A	DMER82005A: The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.	Retry after setting the DM-LU or check the status of the VOL.	—
82005B	DMER82005B: The specified S-VOL is the pool VOL. Check the status of the VOL.	Check the status of the VOL.	—
82005C	DMER82005C: The specified S-VOL is the NAS VOL. Check the status of the VOL.	Check the status of the VOL.	—
8200C6	DMER8200C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.	Perform the migration after deleting the pair.	—
8200C7	DMER8200C7: The specified S-VOL is the reserved VOL. Re-execute the migration specifying a VOL other than the reserved VOL for the S-VOL.	Re-execute the migration specifying a VOL other than the reserved VOL for the S-VOL.	—
8200CF	DMER8200CF: The disk drives that configure a RAID group to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8200D4	DMER8200D4: The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.	Confirm the VOL status in the remote array.	—
8200D9	DMER8200D9: The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.	Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.	"User's Guide"
8200DE	DMED8200DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8200E2	DMER8200E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.	Retry after the Auto Migration is completed.	—
8200E3	DMER8200E3: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8200E9	DMER8200E9: The specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	—
8200F1	DMER8200F1: Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Retry after waiting a while.	—
8200F2	DMER8200F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
8200F5	DMER8200F5: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
820101	DMER820101: The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.	Grow the capacity of DMLU.	—
820104	DMER820104: The internal transaction of the specified VOL is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
820107	DMER820107: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
82010A	DMER82010A: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
82010D	DMER82010D: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
820110	DMER820110: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
820113	DMER820113: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
821005	DMER821005: The VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
821006	DMER821006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
821007	DMER821007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
821008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER821008: The S-VOL is undefined. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
821009	DMER821008: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.		
	DMER821009: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
821009	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.		
	DMER821009: The specified S-VOL is already paired by a different array. Check the pair information.	Check the pair information.	—
82100B	DMER82100B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
82100C	DMER82100C: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
82100D	DMER82100D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
82100E	DMER82100E: The status of the S-VOL cannot be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
821011	DMER821011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays or the maximum number of the connected arrays is beyond the limits. Check the pair status of the VOL and Array ID or number of the connected Array.	Check the pair status of the VOL and Array ID or number of the connected Array.	—
821012	DMER821012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.	Check the number of Remote Replication pairs.	—
821015	DMER821015: The status of the object P-VOL or S-VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Make the status of the P-VOL or S-VOL normal or regression and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	Make the status of the P-VOL or S-VOL normal or regression and confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	—
821017	DMER821017: The S-VOL is configured as RAID 0. Check the RAID level of the specified VOL.	Check the RAID level of the specified VOL.	—
821019	DMER821019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.	Equalize the capacities of the P-VOL and S-VOL.	—
82101A	DMER82101A: The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82101C	DMER82101C: The object VOL is a command device. Specify a VOL other than a command device.	Specify a VOL other than a command device.	—
82101D	DMER82101D: The change of the default owner controller is reserved for the object VOL. Cancel the reservation for changing the default owner controller or specify the VOL for which the change of the default owner controller is not reserved.	Cancel the reservation for changing the default owner controller or specify the VOL for which the change of the default owner controller is not reserved.	—
82101E	DMER82101E: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, the capacity of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, the capacity of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	—
821021	DMER821021: The object VOL has already been cascaded with a ShadowImage pair. Check the pair status of the VOL and check that its pair attribute is P-VOL.	Check the pair status of the VOL and check that its pair attribute is P-VOL.	—
821032	DMER821032: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
82103F	DMER82103F: The VOL assigned to a Remote Replication pair has already been paired by ShadowImage. Check the pair status of the VOL.	Check the pair status of the VOL.	—
821040	DMER821040: The object VOL of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the VOL.	Check the pair status of the VOL.	—
821041	DMER821041: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
821045	DMER821045: The stripe size of the object VOL of the remote array is other than 64KB. Make the stripe size of the VOL of the remote array 64KB.	Make the stripe size of the VOL of the remote array 64KB.	—
821046	DMER821046: The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	Place the SnapShot pair, which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	—
821048	DMER821048: The specified VOL is an S-VOL of ShadowImage. Split the ShadowImage pair that comprises a VOL of the remote array.	Split the ShadowImage pair that comprises a VOL of the remote array.	—
821049	DMER821049: The object VOL of the remote array is being quick formatted. Create the pair again after the quick formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Create the pair again after the quick formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82104A	DMER82104A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote array.	Cancel the S-VOL Disable specified for the VOL of the remote array.	—
821050	DMER821050: The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote array to Restored or Skip.	Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote array to Restored or Skip.	—
821053	DMER821053: The number of unified VOLs of the remote array is 17 or more. Make the number of unified VOLs of the remote array 16 or less.	Make the number of unified VOLs of the remote array 16 or less.	—
821054	DMER821054: The V-VOL, which is paired with a SnapShot P-VOL of the remote array has already been organized into a Remote Replication pair. Split the Remote Replication pair comprising a SnapShot V-VOL that is a VOL of the remote array.	Split the Remote Replication pair comprising a SnapShot V-VOL that is a VOL of the remote array.	—
821055	DMER821055: The object VOL of the remote array is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote array to a volume other than a V-VOL of SnapShot.	Specify the VOL of the remote array to a volume other than a V-VOL of SnapShot.	—
821058	DMER821058: The ShadowImage P-VOL of the remote array is in the Failure (S-VOL Switch) status. Contact the service personnel.	Contact the service personnel.	—
821059	DMER821059: The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the license validity is expired: Purchase the license. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
82105A	DMER82105A: The DM-LU is not set of the remote array or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.	Retry after setting the DM-LU or check the status of the VOL.	—
82105B	DMER82105B: The specified S-VOL is the pool VOL. Check the status of the VOL.	Check the status of the VOL.	—
82105C	DMER82105C: The specified S-VOL is the NAS VOL. Check the status of the VOL.	Check the status of the VOL.	—
8210C6	DMER8210C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.	Perform the migration after deleting the pair.	—
8210C7	DMER8210C7: The specified S-VOL is the reserved VOL. Re-execute the migration specifying a VOL other than the reserved VOL for the S-VOL.	Re-execute the migration specifying a VOL other than the reserved VOL for the S-VOL.	—
8210CF	DMER8210CF: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—
8210D4	DMER8210D4: The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.	Confirm the VOL status in the remote array.	—
8210DE	DMER8210DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8210E2	DMER8210E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.	Retry after the Auto Migration is completed.	—
8210E3	DMER8210E3: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8210E9	DMER8210E9: The specified S-VOL is a VOL created in DP pool or a volume of ShadowImage pair that includes the VOL created in DP pool. Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	Confirm the S-VOL and the ShadowImage pair that the specified S-VOL is part of.	—
8210F1	DMER8210F1: Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Retry after waiting a while.	—
8210F2	DMER8210F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
8210F5	DMER8210F5: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
821101	DMER821101: The copy operation can not be performed because the capacity of the DM-LU is depleted. Grow the capacity of DM-LU.	Grow the capacity of DMLU.	—
821104	DMER821104: The internal transaction of the specified VOL is working now. Retry after waiting for a while.	Retry after waiting for a while.	—
821107	DMER821107: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
82110A	DMER82110A: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
82110D	DMER82110D: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
821110	DMER821110: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
821113	DMER821113: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
822005	DMER822005: The VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
822006	DMER822006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
822007	DMER822007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
822008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER822008: The S-VOL is undefined. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
822009	DMER822008: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.		
	DMER822009: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
822009	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.		
	DMER822009: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
82200B	DMER82200B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
82200C	DMER82200C: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
82200D	DMER82200D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
82200E	DMER82200E: The status of the S-VOL cannot be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
822011	DMER822011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.	Check the pair status of the VOL and Array ID.	—
822014	DMER822014: The current Array ID differs from the number that was set initially. Check the Array ID.	Check the Array ID.	—
822015	DMER822015: The status of the object VOL is other than normal and regressive. Make the status of the VOL normal or regressive.	Make the status of the VOL normal or regressive.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82201E	DMER82201E: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	—
822020	DMER822020: The object VOL of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the VOL.	Check the pair status of the VOL.	—
822032	DMER822032: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
82203D	DMER82203D: Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.	Confirm the pair status of VOL and the other side's VOL.	—
822041	DMER822041: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
822046	DMER822046: The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote array, in the Simplex status once and then operate the pair.	Place the SnapShot pair, which comprises the VOL of the remote array, in the Simplex status once and then operate the pair.	—
82204A	DMER82204A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote array.	Cancel the S-VOL Disable specified for the VOL of the remote array.	—
822050	DMER822050: The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote array to Restored or Skip.	Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote array to Restored or Skip.	—
822059	DMER822059: The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the license validity is expired: Purchase the license. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
8220CF	DMER8220CF: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8220D4	DMER8220D4: The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.	Confirm the VOL status in the remote array.	—
8220D7	DMER8220D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.	Execute again after having the SnapShot pair status in the remote array be Split or Simplex.	—
8220D8	DMER8220D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.	Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.	—
8220DE	DMER8220DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8220E2	DMER8220E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.	Retry after the Auto Migration is completed.	—
8220E3	DMER8220E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8220F2	DMER8220F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
822107	DMER822107: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
82210A	DMER82210A: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
82210D	DMER82210D: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
822110	DMER822110: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
822113	DMER822113: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—
823005	DMER823005: The VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
823006	DMER823006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
823007	DMER823007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
823008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER823008: The S-VOL is undefined. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMER823008: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
823009	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER823009: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER823009: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
82300B	DMER82300B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
82300C	DMER82300C: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
82300D	DMER82300D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
82300E	DMER82300E: The status of the S-VOL cannot be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
823011	DMER823011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.	Check the pair status of the VOL and Array ID.	—
82301E	DMER82301E: The object VOL has been organized into a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
823032	DMER823032: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
823041	DMER823041: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
823046	DMER823046: The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote array, in the Simplex status once and then operate the pair.	Place the SnapShot pair, which comprises the VOL of the remote array, in the Simplex status once and then operate the pair.	—
8230D4	DMER8230D4: The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.	Confirm the VOL status in the remote array.	—
8230D7	DMER8230D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.	Execute again after having the SnapShot pair status in the remote array be Split or Simplex.	—
8230D8	DMER8230D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.	Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.	—
8230D9	DMER8230D9: The status of the remote array is in an inappropriate condition to create or resynchronize the Remote Replication pair. Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.	Confirm the Array ID, pair status of Local and Remote Replication. See the User's Guide for their detail information.	"User's Guide"

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
824005	DMER824005: The VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
824006	DMER824006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
824007	DMER824007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
824008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER824008: The S-VOL is undefined. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
824009	DMER824008: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.		
	DMER824009: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
82400B	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.		
	DMER824009: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
82400B	DMER82400B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
82400C	DMER82400C: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
82400D	DMER82400D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
82400E	DMER82400E: The status of the S-VOL cannot be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
824011	DMER824011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.	Check the pair status of the VOL and Array ID.	—
82401E	DMER82401E: The object VOL has been organized into a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
824032	DMER824032: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
824041	DMER824041: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
824046	DMER824046: The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	—
8240D4	DMER8240D4: The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.	Confirm the VOL status in the remote array.	—
8240D7	DMER8240D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status in the remote array be Split or Simplex.	Execute again after having the SnapShot pair status in the remote array be Split or Simplex.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8240D8	DMER8240D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.	Execute again after having the ShadowImage pair status in the remote array be Split or Simplex.	—
8240D9	DMER8240D9: The status the remote array is in an inappropriate condition to create the Remote Replication pair. Confirm the Array ID, pair status of Remote Replication and status of SnapShot and ShadowImage. See the User's Guide for their detail information.	Confirm the Array ID, pair status of Remote Replication and status of SnapShot and ShadowImage. See the User's Guide for their detail information.	—
825005	DMER825005: The VOL of the remote array is being formatted. Retry after waiting for a while.	Retry after waiting for a while.	—
825006	DMER825006: The remote array is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
825007	DMER825007: The remote array has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
825008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00.		
	DMER825008: The S-VOL is undefined. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more.		
825009	DMER825008: The S-VOL is undefined or specified for reserve VOL or DMLU. Check the status of the VOL.	Check the status of the VOL.	—
	Hitachi Storage Navigator Modular 2 is less than Ver.23.50.		
	DMER825009: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
82500B	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more.		
	DMER825009: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
82500B	DMER82500B: The remote array is undergoing hot replacement of the firmware. Retry after waiting for a while.	Retry after waiting for a while.	—
82500C	DMER82500C: A command error occurred. Retry after waiting for a while.	Retry after waiting for a while.	—
82500D	DMER82500D: The optional feature of Remote Replication of the remote array is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
82500E	DMER82500E: The status of the S-VOL cannot be changed. Retry after waiting for a while.	Retry after waiting for a while.	—
825011	DMER825011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote arrays. Check the pair status of the VOL and Array ID.	Check the pair status of the VOL and Array ID.	—
825014	DMER825014: The current Array ID differs from the number that was set initially. Check the Array ID.	Check the Array ID.	—
825015	DMER825015: The status of the object VOL is other than normal and regressive. Make the status of the VOL normal or regressive.	Make the status of the VOL normal or regressive.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82501E	DMER82501E: The status of the remote array is in an inappropriate condition to operate the Remote Replication pair. Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	Check the pair status of the VOL, and the RAID group status, the status of the DM-LU, and the status of the DP pool to which the DM-LU belongs. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal. Recover the DM-LU status if the DM-LU is detached. Retry after the DP pool status to which the DM-LU belongs becomes Normal in case that the DP pool indicate a status other than Normal. Retry after eliminating pinned data if pinned data exists in the DM-LU. Delete the ShadowImage pair that is cascaded with the specified pair if the DM-LU has unwritten data.	—
825020	DMER825020: The object VOL of the remote array is being restored as a volume of ShadowImage or cannot accept Read/Write instructions. Check the pair status of the VOL.	Check the pair status of the VOL.	—
825032	DMER825032: The remote array is receiving a command. Retry after waiting for a while.	Retry after waiting for a while.	—
82503D	DMER82503D: Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.	Confirm the pair status of VOL and the other side's VOL.	—
825041	DMER825041: The process is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—
825046	DMER825046: The object VOL of the remote array is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	Place the SnapShot pair which comprises the VOL of the remote array in the Simplex status once and then operate the pair.	—
825047	DMER825047: The specified VOL is an S-VOL of ShadowImage. Specify a VOL other than a ShadowImage S-VOL that comprises the VOL of the remote array.	Specify a VOL other than a ShadowImage S-VOL that comprises the VOL of the remote array.	—
82504B	DMER82504B: Check the pair status of the VOL. Cancel the S-VOL Disable specified for the VOL of the remote array (at the time of a swap).	Cancel the S-VOL Disable specified for the VOL of the remote array (at the time of a swap).	—
825050	DMER825050: The object VOL of the remote array has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status which concerns the forced restoration by means of parity of the VOL of the remote array to Restored or Skip.	Make the status which concerns the forced restoration by means of parity of the VOL of the remote array to Restored or Skip.	—
825056	DMER825056: The target VOL of the remote array is a V-VOL of SnapShot (at the time of swap). Specify the VOL of the remote array other than a V-VOL of SnapShot.	Specify the VOL of the remote array other than a V-VOL of SnapShot.	—
825059	DMER825059: The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the license validity is expired: Purchase the license. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8250CF	DMER8250CF: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—
8250D4	DMER8250D4: The VOL which has been indicated as S-VOL in the remote array is P-VOL now. Confirm the VOL status in the remote array.	Confirm the VOL status in the remote array.	—
8250D7	DMER8250D7: The indicated S-VOL is not Split status in the SnapShot pair. Execute again after having the SnapShot pair status Split or Simplex.	Execute again after having the SnapShot pair status Split or Simplex.	—
8250D8	DMER8250D8: The indicated S-VOL is not Split status in the ShadowImage pair. Execute again after having the ShadowImage pair status Split or Simplex.	Execute again after having the ShadowImage pair status Split or Simplex.	—
8250DE	DMER8250DE: Auto Migration is being executed in the remote array. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8250E2	DMER8250E2: The remote array is executing Auto Migration. Retry after the Auto Migration is completed.	Retry after the Auto Migration is completed.	—
8250E3	DMER8250E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8250F2	DMER8250F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
825107	DMER825107: The copy operation can not be performed because the DM-LU is detached. Recover the DM-LU status.	Recover the DMLU status.	—
82510A	DMER82510A: The copy operation can not be performed because the DP pool to which the DM-LU belongs is detached. Recover the DP pool.	Recover the DP pool.	—
82510D	DMER82510D: Pinned data exists in the DM-LU. Retry after eliminating pinned data.	Retry after eliminating pinned data.	—
825110	DMER825110: The operation can not be performed due to insufficient capacity of the DP pool for the DM-LU. Grow the capacity of DP pool.	Grow the capacity of DP pool.	—
825113	DMER825113: The copy operation can not be performed because the DM-LU has unwritten data. Delete the ShadowImage pair that is cascaded with the specified pair.	Delete the ShadowImage pair that is cascaded with the specified pair.	—
826011	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. DMER826011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the VOL and Array ID.	Check the pair status of the VOL and Array ID.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. DMER826011: The specified VOL has a remote replication pair with another array. Or the maximum number of connected arrays is beyond the limits. Confirm the pair status, the Array ID or the number of connected arrays.	Confirm the pair status, the Array ID or the number of connected arrays.	—
826012	DMER826012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.	Check the number of Remote Replication pairs.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
826015	DMER826015: The status of the object VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool. Make the status of the VOL normal or regression and specify a VOL other than a VOL created in DP pool to S-VOL.	Make the status of the VOL normal or regression and specify a VOL other than a VOL created in DP pool to S-VOL.	—
826017	DMER826017: The S-VOL resides in the RAID group of RAID 0. Choose a RAID group of RAID level other than RAID 0.	Choose a RAID group of RAID level other than RAID 0.	—
826019	DMER826019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.	Equalize the capacities of the P-VOL and S-VOL.	—
82601A	DMER82601A: The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
82601C	DMER82601C: The object VOL is a command device. Specify a VOL other than a command device.	Specify a VOL other than a command device.	—
82601E	DMER82601E: The object VOL has been organized into a Remote Replication pair or the RAID group to which the object VOL belongs indicates a status other than Normal. Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	—
826026	DMER826026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
826027	DMER826027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
82602A	DMER82602A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and validate the optional feature.	Unlock and validate the optional feature.	—
826040	DMER826040: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.	Check the VOL status of the remote subsystem.	—
826045	DMER826045: The stripe size of the object VOL of the remote subsystem is other than 64KB. Make the stripe size of the VOL of the remote subsystem 64KB.	Make the stripe size of the VOL of the remote subsystem 64KB.	—
826046	DMER826046: The object VOL of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote subsystem, in the Simplex status once and then operate the pair.	Place the SnapShot pair, which comprises the VOL of the remote subsystem, in the Simplex status once and then operate the pair.	—
826049	DMER826049: The object VOL of the remote subsystem is being formatted. Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Create the pair again after the formatting is completed. Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	—
82604A	DMER82604A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote subsystem.	Cancel the S-VOL Disable specified for the VOL of the remote subsystem.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
826050	DMER826050: The object VOL of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote subsystem to Restored or Skip.	Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote subsystem to Restored or Skip.	—
826053	DMER826053: The number of unified VOLs of the remote subsystem is 17 or more. Make the number of unified VOLs of the remote subsystem 16 or less.	Make the number of unified VOLs of the remote subsystem 16 or less.	—
826055	DMER826055: The object VOL of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote subsystem to a volume other than a V-VOL of SnapShot.	Specify the VOL of the remote subsystem to a volume other than a V-VOL of SnapShot.	—
826059	DMER826059: The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the license validity is expired: Purchase the license. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
82605A	DMER82605A: The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.	Retry after setting the DM-LU or check the status of the VOL.	—
82605B	DMER82605B: The specified S-VOL is the pool VOL. Check the status of the VOL.	Check the status of the VOL.	—
8260B3	DMER8260B3: The specified S-VOL is a unified VOL including a SubVOL with a capacity less than 1 GB. Check whether the VOL with a capacity less than 1 GB is included in each VOL of the specified unified VOL.	Check whether the VOL with a capacity less than 1 GB is included in each VOL of the specified unified VOL.	—
8260C4	DMER8260C4: When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.	Check the cycle time that has been set for the remote subsystem.	—
8260C6	DMER8260C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.	Perform the migration after deleting the pair.	—
8260C7	DMER8260C7: The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	—
8260CA	DMER8260CA: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.	Perform the migration after deleting the pair.	—
8260CB	DMER8260CB: The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	—
8260CF	DMER8260CF: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8260D1	DMER8260D1: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—
8260D2	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER8260D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.	Confirm the indicated data pool number in the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00. DMER8260D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more, less than Ver.25.50. DMER8260D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	—

To be continued to the next page.

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8260D2	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. DMER8260D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool for the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	—
8260DB	DMER8260DB: The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.	Check the partition number.	—
8260DD	DMER8260DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
8260DE	DMER8260DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8260E1	DMER8260E1: The operation to change VOL has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.	Retry the operation after the controller is recovered.	—
8260E3	DMER8260E3: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8260E9	DMER8260E9: The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
8260F1	DMER8260F1: Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Retry after waiting a while.	—
8260F2	DMER8260F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
8260F5	DMER8260F5: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
82613A	DMER82613A: There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.	Check the number of groups for Remote Replication.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
827011	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. DMER827011: The object VOL has already been organized into a Remote Replication pair. Besides, the Array ID differs between the local and remote subsystems. Check the pair status of the VOL and Array ID.	Check the pair status of the VOL and Array ID.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. DMER827011: The specified VOL has a remote replication pair with another array. Or the maximum number of connected arrays is beyond the limits. Confirm the pair status, the Array ID or the number of connected arrays.	Confirm the pair status, the Array ID or the number of connected arrays.	—
827012	DMER827012: The number of Remote Replication pairs exceeded the maximum value that can be supported. Check the number of Remote Replication pairs.	Check the number of Remote Replication pairs.	—
827015	DMER827015: The status of the object VOL is other than normal and regression or the specified S-VOL is a VOL created in DP pool. Make the status of the VOL normal or regression and specify a VOL other than a VOL created in DP pool to S-VOL.	Make the status of the VOL normal or regression and specify a VOL other than a VOL created in DP pool to S-VOL.	—
827017	DMER827017: The S-VOL is configured as RAID 0. Check the RAID level of the specified VOL.	Check the RAID level of the specified VOL.	—
827019	DMER827019: The capacity differs between the P-VOL and S-VOL. Equalize the capacities of the P-VOL and S-VOL.	Equalize the capacities of the P-VOL and S-VOL.	—
82701A	DMER82701A: The S-VOL is a Cache Residency VOL or has been set to the reserved Cache Residency VOL. Check the status of the VOL.	Check the status of the VOL.	—
82701C	DMER82701C: The object VOL is a command device. Specify a VOL other than a command device.	Specify a VOL other than a command device.	—
82701E	DMER82701E: The object VOL has been organized into a Remote Replication pair or the RAID group to which the object VOL belongs indicates a status other than Normal. Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	—
827026	DMER827026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
827027	DMER827027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
82702A	DMER82702A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.	Unlock and enable the optional feature.	—
827040	DMER827040: The S-VOL in the remote subsystem has created a ShadowImage pair. The Remote Replication and ShadowImage volumes cannot be cascaded with each other. Check the VOL status of the remote subsystem.	Check the VOL status of the remote subsystem.	—
827045	DMER827045: The stripe size of the object VOL of the remote subsystem is other than 64KB. Make the stripe size of the VOL of the remote subsystem 64KB.	Make the stripe size of the VOL of the remote subsystem 64KB.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
827046	DMER827046: The object VOL of the remote subsystem is being restored as a volume of SnapShot or cannot accept Read/Write instructions. Place the SnapShot pair, which comprises the VOL of the remote subsystem, in the Simplex status once and then operate the pair.	Place the SnapShot pair, which comprises the VOL of the remote subsystem, in the Simplex status once and then operate the pair.	—
827049	DMER827049: The object VOL of the remote subsystem is being formatted. Create the pair again after the formatting is completed Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Create the pair again after the formatting is completed Or management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	—
82704A	DMER82704A: The S-VOL is in the S-VOL Disable mode. Cancel the S-VOL Disable specified for the VOL of the remote subsystem.	Cancel the S-VOL Disable specified for the VOL of the remote subsystem.	—
827050	DMER827050: The object VOL of the remote subsystem has not undergone the forced restoration by means of parity or it is undergoing the restoration above. Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote subsystem to Restored or Skip.	Make the status, which concerns the forced restoration by means of parity, of the VOL of the remote subsystem to Restored or Skip.	—
827053	DMER827053: The number of unified VOLs of the remote subsystem is 17 or more. Make the number of unified VOLs of the remote subsystem 16 or less.	Make the number of unified VOLs of the remote subsystem 16 or less.	—
827055	DMER827055: The object VOL of the remote subsystem is a V-VOL of SnapShot (at the time of a pair formation). Specify the VOL of the remote subsystem to a volume other than a V-VOL of SnapShot.	Specify the VOL of the remote subsystem to a volume other than a V-VOL of SnapShot.	—
827059	DMER827059: The license validity of the remote array is expired. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the license validity is expired: Purchase the license. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
82705A	DMER82705A: The DM-LU is not set of the remote subsystem or the DM-LU was specified as S-VOL. Retry after setting the DM-LU or check the status of the VOL.	Retry after setting the DM-LU or check the status of the VOL.	—
82705B	DMER82705B: The specified S-VOL is the pool VOL. Check the status of the VOL.	Check the status of the VOL.	—
8270B3	DMER8270B3: The specified S-VOL is a unified VOL including a SubVOL with a capacity less than 1 GB. Check whether the VOL with a capacity less than 1 GB is included in each VOL of the specified unified VOL.	Check whether the VOL with a capacity less than 1 GB is included in each VOL of the specified unified VOL.	—
8270C4	DMER8270C4: When a new pair, which is to be (or is) bi-directional, of a group is created, the cycle time that has been set for the remote subsystem is less than the minimum interval. Check the cycle time that has been set for the remote subsystem.	Check the cycle time that has been set for the remote subsystem.	—
8270C6	DMER8270C6: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.	Perform the migration after deleting the pair.	—
8270C7	DMER8270C7: The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8270CA	DMER8270CA: The specified S-VOL is undergoing the migration. Perform the migration after deleting the pair.	Perform the migration after deleting the pair.	—
8270CB	DMER8270CB: The specified S-VOL is the reserved VOL. Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	Perform the migration specifying a VOL other than the reserved VOL for the S-VOL.	—
8270CF	DMER8270CF: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—
8270D1	DMER8270D1: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—
8270D2	Hitachi Storage Navigator Modular 2 is less than Ver.21.60.		
	DMER8270D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.	Confirm the indicated data pool number in the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00.		
	DMER8270D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more, less than Ver.25.50.		
	DMER8270D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	—

To be continued to the next page.

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
8270D2	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. DMER8270D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	—
8270DB	DMER8270DB: The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.	Check the partition number.	—
8270DD	DMER8270DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
8270DE	DMER8270DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8270E1	DMER8270E1: The operation to change VOL has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.	Retry the operation after the controller is recovered.	—
8270E3	DMER8270E3: The RAID group to which the VOL that will be specified to S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
8270E9	DMER8270E9: The VOL created in DP pool was specified as S-VOL. Specify a VOL other than the VOL created in DP pool.	Specify a VOL other than the VOL created in DP pool.	—
8270F1	DMER8270F1: Management information of Dynamic Provisioning for the VOL specified as S-VOL in the remote array is being updated. Retry after waiting a while.	Retry after waiting a while.	—
8270F2	DMER8270F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
8270F5	DMER8270F5: The Full Capacity Mode differs between the P-VOL and S-VOL. Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	Set the same value for both the Full Capacity Mode of P-VOL and S-VOL. Or the Full Capacity Mode is not supported. Check the firmware version of array.	—
82713A	DMER82713A: There are the maximum number of groups for Remote Replication on the remote array. Check the number of groups for Remote Replication.	Check the number of groups for Remote Replication.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82901E	DMER82901E: The object VOL has been organized into a Remote Replication pair. Check the pair status of the VOL.	Check the pair status of the VOL.	—
829026	DMER829026: The remote subsystem is undergoing the pseudo deliberate shutdown. Retry after the pseudo deliberate shutdown is completed.	Retry after the pseudo deliberate shutdown is completed.	—
829027	DMER829027: The remote subsystem has undergone the pseudo deliberate shutdown. Retry after waiting for a while.	Retry after waiting for a while.	—
82902A	DMER82902A: The optional feature of Remote Replication of the remote subsystem is invalid. Unlock and enable the optional feature.	Unlock and enable the optional feature.	—
82903D	DMER82903D: Pair status of corresponding VOL does not match. Confirm the pair status of VOL and the other side's VOL.	Confirm the pair status of VOL and the other side's VOL.	—
82905E	DMER82905E: There is a SnapShot pair, which has an MU number specified for a SnapShot P-VOL, has not been placed in the Paired or Split status, and whose S-VOL is one of the S-VOLs with the specified group numbers. Check the pair status of the SnapShot. Or, the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Check the pair status of the SnapShot. Or, retry after the process of reconfigure memory is completed.	—
82905F	DMER82905F: There is no pair, which is in the Paired status, in the target group. Check the pair status of each VOL in the target group.	Check the pair status of each VOL in the target group.	—
8290DE	DMER8290DE: Auto Migration is being executed in the remote array just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
8290F2	Hitachi Storage Navigator Modular 2 is less than Ver.22.50.		
	DMER8290F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—
	Hitachi Storage Navigator Modular 2 is Ver.22.50 or more.		
	DMER8290F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	Retry after the process of reconfigure memory is completed. Or cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	—
829145	DMER829145: Cycle copy is underway on the specified group and SnapShot Pair Split has been reserved for the SnapShot group that is cascaded with the Remote Replication group. Retry after the pair split completes.	Retry after the pair split completes.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82A011	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. DMER82A011: The indicated VOL is in the Remote Replication pair for another subsystem. Confirm the pair status for the VOL and also the Array ID.	Confirm the pair status for the VOL and also the Array ID.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. DMER82A011: The specified VOL has a remote replication pair with another array. Or the maximum number of connected arrays is beyond the limits. Confirm the pair status, the Array ID or the number of connected arrays.	Confirm the pair status, the Array ID or the number of connected arrays.	—
82A015	DMER82A015: The status of the object VOL is other than normal and regressive. Make the VOL status be normal or regressive.	Make the VOL status be normal or regressive.	—
82A01E	DMER82A01E: The object VOL has been organized into a Remote Replication pair or the RAID group to which the object VOL belongs indicates a status other than Normal. Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	Check the pair status of the VOL and the RAID group status. Retry after the RAID group status becomes Normal in case that the RAID group indicate a status other than Normal.	—
82A026	DMER82A026: The remote subsystem is undergoing the pseudo deliberate shutdown. Execute again after the pseudo deliberate shutdown.	Execute again after the pseudo deliberate shutdown.	—
82A027	DMER82A027: The remote subsystem is after the pseudo deliberate shutdown. Wait a while and execute again.	Wait a while and execute again.	—
82A02A	DMER82A02A: The optional feature of Remote Replication of the remote array is disabled. Unlock and enable the optional feature.	Unlock and enable the optional feature.	—
82A02B	DMER82A02B: Both of the two remote paths of the local array were detached. Check the status of the path.	Check the status of the path.	—
82A030	DMER82A030: The S-VOL is undefined. Check the attribute of the VOL.	Check the attribute of the VOL.	—
82A031	Hitachi Storage Navigator Modular 2 is less than Ver.23.50. DMER82A031: The WWN of the remote array is illegal. Check the equipment WWN.	Check the equipment WWN.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.50 or more. DMER82A031: The target VOL of the remote array is already paired by a different array. Check the pair information.	Check the pair information.	—
82A035	DMER82A035: The optional feature of Remote Replication of the remote array is locked. Unlock and enable the optional feature. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the optional feature of Remote Replication is locked: Unlock and enable the optional feature. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
82A038	DMER82A038: Both of the two paths of the remote array were detached. Check the status of the path.	Check the status of the path.	—
82A046	DMER82A046: The indicated VOL in the remote subsystem is being restored for SnapShot or can not be executed the Read and Write command for the SnapShot pair. Execute again after having the SnapShot pair status in the remote subsystem be Simplex.	Execute again after having the SnapShot pair status in the remote subsystem be Simplex.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82A04A	DMER82A04A: The S-VOL is 'S-VOL Disable' status. Release the indication for the 'S-VOL Disable' in the remote subsystem.	Release the indication for the 'S-VOL Disable' in the remote subsystem.	—
82A050	DMER82A050: The indicated VOL in the remote subsystem is in the forced parity correction, or has not executed the forced parity correction yet. Make the VOL status for the forced parity correction in remote subsystem be Restored or Skip.	Make the VOL status for the forced parity correction in remote subsystem be Restored or Skip.	—
82A059	DMER82A059: The license of the remote array expires. Purchase the license. Or the process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	<ul style="list-style-type: none"> When the license expires: Purchase the license. When the process of reconfigure memory is in progress: Retry after the process of reconfigure memory is completed. 	—
82A05D	DMER82A05D: Now executing. Wait a while and execute again.	Wait a while and execute again.	—
82A089	DMER82A089: The S-VOL of the remote array is in the status of S-VOL Disable. Check the status of the remote array and cancel the access attribute.	Check the status of the remote array and cancel the access attribute.	—
82A08B	DMER82A08B: This operation cannot be executed due to lack of resources within the remote array. Try the operation again after deleting unnecessary pairs.	Try the operation again after deleting unnecessary pairs.	—
82A08C	DMER82A08C: This operation cannot be executed due to lack of resources within the remote array. Try the operation again after waiting for a while.	Try the operation again after waiting for a while.	—
82A08D	DMER82A08D: The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the VOL in the remote array.	Check the status of the VOL in the remote array.	—
82A090	DMER82A090: The status of S-VOL in the remote array does not satisfy the condition to cascade with SnapShot pair. Check the status of the VOL in the remote array.	Check the status of the VOL in the remote array.	—
82A091	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. DMER82A091: The indicated Array ID is not same as the actual one for remote array. Confirm the Array ID for the remote array.	Confirm the Array ID for the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. DMER82A091: The Array ID of the remote array is wrong, or the maximum number of the connected arrays is beyond the limits. Check the Array ID of the remote array, the number of connected arrays or the group number.	Check the Array ID of the remote array, the number of connected arrays or the group number.	—
82A095	DMER82A095: The S-VOL in the remote array is undergoing the forced parity correction. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A097	DMER82A097: The S-VOL in the remote array received an illegal command. Check the status of the remote array.	Check the status of the remote array.	—
82A09A	DMER82A09A: The VOL status of the S-VOL in the remote array is normal or other than regressed. Check the VOL status of the remote array.	Check the VOL status of the remote array.	—
82A09F	DMER82A09F: Splitting or deleting SnapShot pair is in progress. Retry after waiting for a while.	Retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82A0A0	DMER82A0A0: The remote array has no data pool. Create a data pool in the remote array.	Create a data pool in the remote array.	—
82A0A1	DMER82A0A1: The VOL specified as the S-VOL in the remote array is a data pool VOL. The data pool VOL cannot be set to an S-VOL. Check the data pool VOL status of the remote array.	Check the data pool VOL status of the remote array.	—
82A0A2	DMER82A0A2: The VOL status of the S-VOL in the remote array is normal or other than regressed. Check the pool VOL status of the remote array.	Check the pool VOL status of the remote array.	—
82A0A3	DMER82A0A3: The data pool VOL in the remote array is undergoing the forced parity correction. Check the pool VOL status of the remote array and retry after waiting for a while.	Check the pool VOL status of the remote array and retry after waiting for a while.	—
82A0A4	DMER82A0A4: The S-VOL in the remote array exceeded the total allowable maximum number of Remote Replication and SnapShot pairs. Check the status of the remote array. In addition, delete unnecessary pairs of the remote array.	Check the status of the remote array. In addition, delete unnecessary pairs of the remote array.	—
82A0A5	DMER82A0A5: The Remote Replication pair status of the S-VOL in the remote array is Failure. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
82A0A6	DMER82A0A6: The Remote Replication pair status of the S-VOL in the remote array is Pool Full. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
82A0A7	DMER82A0A7: The Remote Replication pair status of the S-VOL in the remote array is Split (no read/write allowed). Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
82A0A8	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER82A0A8: The Remote Replication pair status of the S-VOL in the remote array is Takeover (including Busy). Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more. DMER82A0A8: The Remote Replication pair status of the S-VOL in the remote array is Takeover or the determined data at the end of the previous cycle is being restored to the S-VOL. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
82A0A9	DMER82A0A9: The Remote Replication pair status of the S-VOL in the remote array is Simplex. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
82A0AA	DMER82A0AA: The Remote Replication pair status of the S-VOL in the remote array is Split. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
82A0AB	DMER82A0AB: The Remote Replication pair status of the S-VOL in the remote array is not Simplex. Check the Remote Replication pair status of the remote array.	Check the Remote Replication pair status of the remote array.	—
82A0B4	DMER82A0B4: The S-VOL in the remote array does not exist on the default owner controller and, at the same time, the special processing cannot be continued. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82A0B5	DMER82A0B5: The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of VOL change for it has been started. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A0B6	DMER82A0B6: The S-VOL in the remote array does not exist on the default owner controller and it has started an ownership of VOL change. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A0B7	DMER82A0B7: The S-VOL in the remote array does not exist on the default owner controller and at the same time an ownership of VOL to be changed is blocked. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A0B8	DMER82A0B8: The S-VOL in the remote array cannot change an ownership of VOL and at the same time it is using the sequential buffer. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A0B9	DMER82A0B9: The S-VOL in the remote array cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
82A0BA	DMER82A0BA: The S-VOL in the remote array cannot change an ownership of VOL and at the same time it has pinned data. Contact the service personnel.	Contact the service personnel.	—
82A0BB	DMER82A0BB: The S-VOL in the remote array cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
82A0BC	DMER82A0BC: The S-VOL in the remote array cannot change an ownership of VOL temporarily. Retry after waiting for a while.	Retry after waiting for a while.	—
82A0BD	DMER82A0BD: The S-VOL in the remote array cannot change an ownership of VOL and a time-out occurred. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A0BE	DMER82A0BE: The S-VOL in the remote array cannot change an ownership of VOL, and the group number is illegal. Check the status of the remote array.	Check the status of the remote array.	—
82A0C0	DMER82A0C0: The S-VOL in the remote array does not exist on the default owner controller, and its disk drives are being spun up. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A0C1	DMER82A0C1: The S-VOL in the remote array does not exist on the default owner controller, and the array is performing the system copy. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—
82A0C2	DMER82A0C2: The S-VOL in the remote array does not exist on the default owner controller, and the array is writing the configuration information. Check the status of the remote array and retry after waiting for a while.	Check the status of the remote array and retry after waiting for a while.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82A0D1	DMER82A0D1: The disk drives that configure a RAID group, to which a target VOL in the remote array belongs have been spun down. Perform the operation again after spinning up the disk drives that configure the RAID group.	Perform the operation again after spinning up the disk drives that configure the RAID group.	—
82A0D2	Hitachi Storage Navigator Modular 2 is less than Ver.21.60. DMER82A0D2: The S-VOL pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array.	Confirm the indicated data pool number in the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.21.60 or more, less than Ver.23.00 or more. DMER82A0D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more, less than Ver.25.50. DMER82A0D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on SSD only. Add a Tier to the DP pool or specify another DP pool and try again.	—

To be continued to the next page.

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
82A0D2	Hitachi Storage Navigator Modular 2 is Ver.25.50 or more. DMER82A0D2: The specified data pool number in the remote array is not same as the one that is being used for SnapShot. Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	Confirm the indicated data pool number in the remote array. Or the specified Replication Data DP pool or the Management Area DP pool for the remote array does not exist. Or the status of the specified Replication Data DP pool or the Management Area DP pool for the remote array is other than Normal/Regression. Or the specified Replication Data DP pool for the remote array is different from the one that the specified S-VOL is currently using. Or the Remote Replication pair deletion process is running on the Management Area DP pool of the remote array. Or the Tier Mode for the specified Replication Data DP pool or Management Area DP pool for the remote array is enabled and configured on an unsupported drive (SSD or FMD) only. Add a Tier to the DP pool or specify another DP pool and try again.	—
82A0D3	DMER82A0D3: The license has expired. Purchase the license.	Purchase the license.	—
82A0DB	DMER82A0DB: The partition or pair partition to which the target VOL belongs is incorrect. Check the partition number.	Check the partition number.	—
82A0DD	DMER82A0DD: The firmware internal error occurred. Retry after waiting for a while. If an error occurred again, contact the service personnel.	Retry after waiting for a while. If an error occurred again, contact the service personnel.	—
82A0DE	DMER82A0DE: Auto Migration is being executed in the remote subsystem just now. Execute again after the Migration is completed.	Execute again after the Migration is completed.	—
82A0E1	DMER82A0E1: The operation to change VOL has become timeout while the controller in the remote array is recovering. Retry the operation after the controller is recovered.	Retry the operation after the controller is recovered.	—
82A0E3	DMER82A0E3: The RAID group to which the S-VOL of the remote array belongs indicates a status other than Normal. Retry after the status becomes Normal.	Retry after the status becomes Normal.	—
82A0F2	DMER82A0F2: The process of reconfigure memory is in progress on the remote array. Retry after the process of reconfigure memory is completed.	Retry after the process of reconfigure memory is completed.	—

9.3 List of Detail Codes of Sense Code (5/9FFF)

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
010001	DMED010001: The same host group name exists in a port. Confirm the host group name and then try again.	Confirm the host group name and then try again.	—
010002	DMED010002: The same WWN name exists in a port. Confirm the WWN name and then try again.	Confirm the WWN name and then try again.	—
010003	DMED010003: WWN cannot be assigned to an undefined host group. Specify a defined host group and try again.	Specify a defined host group and try again.	—
010004	DMED010004: The function cannot be executed because host group security on some port is set to enabled. Set host group security to disable on all ports and try again.	Set host group security to disable on all ports and try again.	—
010005	DMED010005: The process cannot be performed because the target security on some port is set to enabled. Please set the target security to disable on all ports and try again.	Please set the target security to disable on all ports and try again.	—
010006	DMED010006: The process cannot be performed because the specified name is default name of host group 0. Please confirm the name and try again.	Please confirm the name and try again.	—
020001	DMED020001: The value of Dirty Data Opportunity is outside the effective range. Specify the value in the effective range and try again.	Specify the value in the effective range and try again.	—
020002	DMED020002: The value of Dirty Data Stop Opportunity is outside the effective range. Specify the value in the effective range and try again.	Specify the value in the effective range and try again.	—
020003	DMED020003: The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.	Specify the value and try again.	—
020004	DMED020004: Prefetch Starting Opportunity is outside the effective range. Specify the value of effective range and try again.	Specify the value of effective range and try again.	—
020005	DMED020005: VOL number is outside the effective range. Specify the VOL number of effective range and try again.	Specify the VOL number of effective range and try again.	—
020006	DMED020006: Reserved Random Simple Buffer Size is outside the effective range. Specify the value of effective range and try again.	Specify the value of effective range and try again.	—
020007	DMED020007: The process failed due to an invalid parameter of Random Simple Buffer Size 0% Mode. Confirm the specified parameter.	Confirm the specified parameter.	—
020008	DMED020008: Prefetch Count is outside the effective range. Specify the value in the effective range and try again.	Specify the value in the effective range and try again.	—
020009	DMED020009: Prefetch Size is outside the effective range. Specify the value in the effective range and try again.	Specify the value in the effective range and try again.	—
02000A	DMED02000A: The process failed due to an invalid parameter of Next Prefetch Opportunity Mode. Confirm the specified parameter.	Confirm the specified parameter.	—
02000B	DMED02000B: The process cannot be performed because the Multiple Stream Mode of system parameter is disabled. Please set the Multiple Stream Mode to enable then try again.	Please set the Multiple Stream Mode to enable then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
020010	DMED020010: Count of Judgment Sequential is outside the effective range. Specify the value in the effective range and try again.	Specify the value in the effective range and try again.	—
020011	DMED020011: Prefetch Size of Base is outside the effective range. Specify the value in the effective range and try again.	Specify the value in the effective range and try again.	—
020012	DMED020012: Prefetch Size of Fixed is outside the effective range. Specify the value in the effective range and try again.	Specify the value in the effective range and try again.	—
020013	DMED020013: The value of Dirty Data Opportunity is equal to or less than value of Dirty Data Stop Opportunity. Specify the value and try again.	Specify the value and try again.	—
020014	DMED020014: The process cannot be performed because the specified Load Balancing value is outside the effective range. Please set up an effective value.	Set an effective value.	—
020015	DMED020015: The process cannot be performed because the specified Load Balancing Monitoring Time is outside the effective range. Please set up an effective value.	Please set up an effective value.	—
030001	DMED030001: The specified VOL is already invalid. Confirm the VOL status and try again.	Confirm the VOL status and try again.	—
030002	DMED030002: The number of VOL reached the maximum. Delete unnecessary VOLs and try again.	Delete unnecessary VOLs and try again.	—
030003	DMED030003: The specified VOL is not invalid. Specify the invalid VOL and try again.	Specify the invalid VOL and try again.	—
030004	DMED030004: The specified VOL capacity is equal to or more than the capacity of original VOL. Confirm the VOL capacity and try again.	Confirm the VOL capacity and try again.	—
030006	DMED030006: The specified VOL is not invalid. Specify the invalid VOL and try again.	Specify the invalid VOL and try again.	—
030007	DMED030007: The specified VOL is unformatted. Specify a formatted VOL and try again.	Specify a formatted VOL and try again.	—
030008	DMED030008: The number of VOL reached the maximum. Delete unnecessary VOLs and try again.	Delete unnecessary VOLs and try again.	—
030009	DMED030009: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—
03000A	DMED03000A: The specified VOL capacity is equal to or less than the minimum capacity of a VOL. Specify a larger capacity than the minimum capacity and try again.	Specify a larger capacity than the minimum capacity and try again.	—
03000B	DMED03000B: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.	Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.	—
040001	DMED040001: The specified VOLs contain Sub VOL. Confirm the VOL status and try again.	Confirm the VOL status and try again.	—
040003	DMED040003: The specified VOLs contain regressed or detached VOL. Confirm the VOL status and try again.	Confirm the VOL status and try again.	—
040004	DMED040004: The specified VOLs contain an un-mounted drive. Confirm the drive status and try again.	Confirm the drive status and try again.	—
040005	DMED040005: The specified VOLs contains an invalid VOL. Confirm the VOL status and try again.	Confirm the VOL status and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
040006	DMED040006: Someone already logged in. Set password protection function to disabled and try again.	Set password protection function to disabled and try again.	—
040007	DMED040007: There is no VOL entered to format.	—	—
040008	DMED040008: Format of the volume cannot be performed under the Drive Detach Mode. Please turn off the Drive Detach Mode of system parameter.	Please turn off the Drive Detach Mode of system parameter.	System Parameter "8.2 Setting System Parameters" (SYSPR 08-0040)
040009	DMED040009: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.	Please change the attribute to Read/Write and set S-VOL mode to enable, then try again.	—
050001	DMED050001: The process cannot be performed, because the specified VOL is having PIN data or is in a PIN exceeded state. Restore PIN data and try again.	Restore PIN data and try again.	—
050002	DMED050002: The process cannot be performed because cache segment is insufficient. Wait for a while and then try again.	Wait for a while and then try again.	—
050003	DMED050003: The process cannot be performed because the specified VOL is receiving the Write command continuously from the host or the subsystem is running with high load. Please wait for a while and then try again.	Please wait for a while and then try again.	—
050004	DMED050004: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—
050005	DMED050005: The process cannot be performed because the partition of necessary conditions for VOL changing does not exist. Please confirm the partition definition and try again.	Please confirm the partition definition and try again.	Troubleshooting "Chapter 11. Details of Recovery Methods" (TRBL 11-0000)
050006	DMED050006: The process cannot be performed because the specified volume is reserved for cache partition modification. Please retry after changing the cache partition.	Please retry after changing the cache partition.	—
050007	DMED050007: The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.	Please wait for a while and then try again.	—
050008	DMED050008: The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.	Please wait for a while and then try again.	—
050009	DMED050009: The time out occurred by the VOL changing. Please wait for a while and then try again.	Please wait for a while and then try again.	—
05000A	DMED05000A: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.	Please recover the controller status and then try again.	—
05000B	DMED05000B: The process cannot be performed because the controller of volume partition does not match or the partition number of volume is not same. Please specify the volume which uses the same controller's partition, or the same partition. When the partition of a volume is set as 0 or 1, please set a pair partition as auto.	Please specify the volume which uses the same controller's partition, or the same partition. When the partition of a volume is set as 0 or 1, please set a pair partition as auto.	—
05000C	DMED05000C: An internal program error occurred. Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.	Wait for a while and then try again. If the problem cannot be solved, contact the maintenance personnel.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
05000D	DMED05000D: The time out occurred by the VOL changing during controller recovery. Please wait for a while and then try again.	Please wait for a while and then try again.	—
05000E	DMED05000E: The process cannot be performed because Remote Replication is in progress. Please retry after replacement completes.	Please retry after replacement completes.	—
05000F	DMED05000F: The operation to change the controllers that control volume cannot be performed because the status of the ShadowImage pair that the specified volume is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing or Reverse Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.	Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.	—
050010	DMED050010: The operation to change the controllers that controls volume cannot be performed because the specified volume is a part of a Volume Migration pair and its pair status is Synchronizing. Please execute the operation when the pair status is not Synchronizing.	Please execute the operation when the pair status is not Synchronizing.	—
050011	DMED050011: The operation to change the controllers that controls volume cannot be performed because Auto Migration is in progress. Please execute the operation after Auto Migration is completed.	Please execute the operation after Auto Migration is completed.	—
050012	DMED050012: The operation to change the controllers that control volume cannot be performed because the status of the ShadowImage pair that the specified volume is a part of or the ShadowImage pairs that share the same P-VOL is Synchronizing, Reverse Synchronizing, Split Pending or Paired Internally Synchronizing. Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.	Please execute the operation when the status of all the pairs is changed to Split, Paired or Failure.	—
070001	DMED070001: Cannot set dual ID success because either mounted numbers or types of the host interface boards are different between controllers. Confirm the interface boards status and try again.	Confirm the Host I/O Board/Modules status and try again.	—
070002	DMED070002: The specified IP address is incorrect. Please specify a right IP address	Set a correct IP address.	—
070003	DMED070003: The specified default gateway address is incorrect. Please specify a right default gateway address.	Please specify a right default gateway address.	—
070004	DMED070004: The High-speed Sequential Write Mode cannot be disabled because process of Write command from the hosts is not completed. Please wait for a while and then try again, or use the system parameter setting with reboot.	Please wait for a while and then try again, or use the system parameter setting with reboot.	—
070005	DMED070005: The Multiple Stream Mode and the High-speed Sequential Write Mode cannot be specified at the same time.	Sequential Write Mode cannot be specified at the same time.	—
070006	DMED070006: When the ShadowImage pair of an S-VOL Switch status exists the ShadowImage I/O Switch Mode cannot be disabled. Please retry after solving the error.	Please retry after solving the error.	System Parameter "8.2 Setting of System Parameters" (SYSPR 08-0040)
070007	DMED070007: The configuration of single or dual controller system cannot be changed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again.	Please change Cache Partition Manager to de-installed or disabled and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
070008	DMED070008: The process cannot be performed because the specified port number is outside the effective range. Please confirm the port number.	Please confirm the port number.	—
070009	DMED070009: The port number of other controller cannot be set up. Please confirm the controller number.	Please confirm the controller number.	—
070010	DMED070010: The process cannot be performed because the specified secure port number is outside the effective range. Please confirm the secure port number.	Please confirm the secure port number.	System Parameter "7.3 Setting LAN Port Number" (SYSPR 07-0100)
070011	DMED070011: The secure port number of other controller cannot be set up. Please confirm the controller number.	Please confirm the controller number.	—
070012	DMED070012: The process cannot be performed because the non-secure port and secure port are same port number. Please set the different port number.	Please set the different port number.	—
070013	DMED070013: The process cannot be performed because the non-secure port status is changed by the non-secure port. Please retry by the secure port.	Please retry by the secure port.	—
070014	DMED070014: The process cannot be performed because the port number and the non-secure port status are changed at the same time. Please confirm the operation and try again.	Please confirm the operation and try again.	—
070015	DMED070015: The process cannot be performed because the non-secure port status of other controller is changed. Please confirm the controller number.	Please confirm the controller number.	—
070016	DMED070016: The process cannot be performed because the specified port number is reserved. Please set the unreserved port number.	Please set the unreserved port number.	—
070100	DMED070100: The process cannot be performed because the option which is unsupported in the single-controller system is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
080001	DMED080001: The data pool cannot be used. Please restart the subsystem.	Please restart the subsystem.	—
080002	DMED080002: The process cannot be performed because the volume under restoration. Wait for a while and try again.	Wait for a while and try again.	—
080003	DMED080003: The process cannot be performed because the volume added to the data pool is not specified.	—	—
080004	DMED080004: The process cannot be performed because the same volume number has been specified more than twice. Confirm the volume number and try again.	Confirm the volume number and try again.	—
080005	DMED080005: The specified volume number is outside of the effective range. Specify the volume number within the range and try again.	Specify the volume number within the range and try again.	—
080006	DMED080006: This process cannot be performed. The status of the specified volume must be in either normal or regressed state. Please verify the status of the volume and try again.	The status of the specified volume must be in either normal or regressed state. Please verify the status of the volume and try again.	—
080007	DMED080007: The process cannot be performed because the RAID level or HDU combination of the specified volume is not supported. Confirm the RAID level and the HDU combination currently supported and try again.	Confirm the RAID level and the HDU combination currently supported and try again.	—
080008	DMED080008: The process cannot be performed because the number of volumes in the data pool reached the maximum. Delete the volumes in the data pool and then try again.	Delete the volumes in the data pool and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
080009	DMED080009: The process cannot be performed because the specified volume is a unified VOL. Separate the unified VOL and try again.	Separate the unified VOL and try again.	
08000A	DMED08000A: The process cannot be performed because the specified volume is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.	Cancel the ShadowImage pair and try again.	—
08000B	DMED08000B: The process cannot be performed because the specified volume is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.	Cancel the Remote Replication pair and try again.	—
08000C	DMED08000C: The process cannot be performed because the specified volume is a command device. Cancel the command device and try again.	Cancel the command device and try again.	—
08000D	DMED08000D: The process cannot be performed because the specified volume has been invalidated. Restore the volume and try again.	Restore the volume and try again.	—
08000E	DMED08000E: The process cannot be performed because the specified volume is a part of SnapShot pair or a SnapShot volume. Cancel the SnapShot pair or specify another volume and try again.	Cancel the SnapShot pair or specify another volume and try again.	—
08000F	DMED08000F: The process cannot be performed because the specified volume is defined as a SnapShot volume. Specify another volume and try again.	Specify another volume and try again.	—
080010	DMED080010: The process cannot be performed because the specified volume is added to a data pool. Specify another volume and try again.	Specify another volume and try again.	—
080011	DMED080011: The process cannot be performed because the HDU combination of the specified volume differs from the volume in the data pool. Confirm the HDU combination and try again.	Confirm the HDU combination and try again.	—
080012	DMED080012: The process cannot be performed because the owner controller is different between the specified volume and the data pool. Confirm the volume owner controller and try again.	Confirm the volume owner controller and try again.	—
080013	DMED080013: The process cannot be performed because the specified volume has been receiving the Write command continuously from the hosts. Wait for a while and then try again.	Wait for a while and then try again.	—
080014	DMED080014: The process cannot be performed because there is other volume changing the Default Controller. Wait for a while and then try again.	Wait for a while and then try again.	—
080015	DMED080015: The process cannot be performed because the specified volume is in the PIN exceeded state. Restore PIN data and try again.	Restore PIN data and try again.	Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760)
080016	DMED080016: The process cannot be performed because the specified volume is not enough for sufficient cache blocks. Specify another volume and try again.	Specify another volume and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
080017	DMED080017: The process cannot be performed because no volumes is in data pool.	Check if the specified data pool is the one from which you want to eliminate all the Lus. Also check whether all the Lus have already been eliminated from it or not.	—
080018	DMED080018: The process cannot be performed because the Snapshot pair exists in the specified data pool. Cancel the Snapshot pair and try again.	Cancel the Snapshot pair and try again.	—
080019	DMED080019: The process cannot be performed because data pool deleted is not specified.	—	—
08001A	DMED08001A: The process cannot be performed because the threshold of usage rate in the data pool is not specified.	—	—
08001B	DMED08001B: The specified threshold is outside of the effective range. Specify the value of effective range and try again.	Specify the value of effective range and try again.	—
08001C	DMED08001C: The process cannot be performed because the specified volume is capacity equal to or less than 2GB. Specify the volume of bigger capacity than 2GB and try again.	Specify the volume of bigger capacity than 2GB and try again.	—
08001D	DMED08001D: The process cannot be performed because S-VOL mode of the specified volume is disabled. Set S-VOL mode to enable then try again.	Set S-VOL mode to enable then try again.	—
08001E	DMED08001E: The process cannot be performed because quick formatting is now occurring. Retry after quick formatting is completed.	Retry after quick formatting is completed.	—
08001F	DMED08001F: The number of specified volumes is over 64. Please specify the volumes in 64 or less.	Please specify the volumes in 64 or less.	—
080020	DMED080020: The process cannot be performed because the drive type of specified volume is different from the data pool. Please confirm the drive type and try again.	Please confirm the drive type and try again.	—
080021	DMED080021: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—
080022	DMED080022: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—
080023	DMED080023: The volumes in the data pool cannot be mixed with ones in Unit0 or in the latter units.	—	—
080024	DMED080024: The process cannot be performed because DM-LU is not defined. Please define DM-LU and then try again.	Please define DMLU and then try again.	—
080025	DMED080025: The process cannot be performed because the specified volume is reserved for cache partition modification. Please specify another volume and try again.	Please specify another volume and try again.	—
080026	DMED080026: The process cannot be performed because the number of volumes reached the system maximum. Please delete volumes in the data pool and try again.	Please delete volumes in the data pool and try again.	—
080027	DMED080027: The process cannot be performed because the number of volumes will reach the system maximum. Please delete volumes in the data pool and try again.	Please delete volumes in the data pool and try again.	—
080028	DMED080028: The volume in DP pool and a RAID group cannot be mixed to the same data pool. Please confirm the volume and then try again.	Please confirm the volume and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
080029	DMED080029: The process cannot be performed because state of the DP pool which contains the specified volume is Detached. Please recover and then try again.	Please recover and then try again.	—
08002A	DMED08002A: The process cannot be performed because the status of DP pool consumed capacity is capacity depleted. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—
08002B	DMED08002B: The process cannot be performed because the DP pool is being deleted. Please retry after the process completes.	Please retry after the process completes.	—
08002C	DMED08002C: The process cannot be performed because the DP pool is being created. Please retry after the process completes.	Please retry after the process completes.	—
08002D	DMED08002D: The process cannot be performed because the DP pool capacity is being added. Please retry after the process completes.	Please retry after the process completes.	—
08002E	DMED08002E: The process cannot be performed because the DP pool is being recovered. Please retry after the process completes.	Please retry after the process completes.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090001	DMED090001: The volume number of specified P-VOL is outside of the effective range. Specify the volume number of effective range and try again.	Specify the volume number of effective range and try again.	—
090002	DMED090002: The process cannot be performed because the specified P-VOL under restoration. Wait for a while and then try again.	Wait for a while and then try again.	—
090003	DMED090003: The volume number of specified SnapShot volume is outside of the effective range. Specify the volume number of effective range and try again.	Specify the volume number of effective range and try again.	—
090004	DMED090004: The process cannot be performed because the volume number of the SnapShot volume created or deleted is not specified.	—	—
090005	DMED090005: The process cannot be performed because the same volume number has been specified as a SnapShot volume more than twice. Confirm the volume number and try again.	Confirm the volume number and try again.	—
090006	DMED090006: The process cannot be performed because the specified volume of the P-VOL is neither in normal nor in regressed state. Specify the volume of normal or regressed state and try again.	Specify the volume of normal or regressed state and try again.	—
090007	DMED090007: The process cannot be performed because no volume exists in the data pool by the side of the controller of specified P-VOL. Add the volume to the data pool and try again.	Add the volume to the data pool and try again.	—
090008	DMED090008: The process cannot be performed because the RAID level or HDU combination of the specified volume differs from the volume is not supported. Confirm the RAID level and the HDU combination currently supported and try again.	Confirm the RAID level and the HDU combination currently supported and try again.	—
090009	DMED090009: The process cannot be performed because the number of created SnapShot volume for the specified P-VOL has reached its maximum. Delete unnecessary SnapShot volume and try again.	Delete unnecessary SnapShot volume and try again.	—
09000A	DMED09000A: The volume number has already been defined. Specify a new number.	Specify a new number.	—
09000B	DMED09000B: The process cannot be performed because the specified P-VOL is a unified VOL. Separate the unified VOL and try again.	Separate the unified VOL and try again.	—
09000C	DMED09000C: The process cannot be performed because the specified P-VOL is a part of ShadowImage pair. Cancel the ShadowImage pair and try again.	Cancel the ShadowImage pair and try again.	—
09000D	DMED09000D: The process cannot be performed because the specified P-VOL is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.	Cancel the Remote Replication pair and try again.	—
09000E	DMED09000E: The process cannot be performed because the specified P-VOL is a part of Snapshot pair. Cancel the Copy-on-write Snapshot pair and try again.	Cancel the Copy-on-write Snapshot pair and try again.	—
09000F	DMED09000F: The process cannot be performed because the specified P-VOL is a command device. Cancel the command device and try again.	Cancel the command device and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090010	DMED090010: The process cannot be performed because the specified P-VOL is invalid. Restore the VOL and try again.	Restore the VOL and try again.	—
090011	DMED090011: The process cannot be performed because the specified P-VOL has already been added to a data pool. Specify another VOL number and try again.	Specify another VOL number and try again.	—
090012	DMED090012: The process cannot be performed because the specified P-VOL is not enough for sufficient cache capacity. Check cache capacity and try again.	Check cache capacity and try again.	—
090013	DMED090013: The process cannot be performed because the HDU combination of the specified P-VOL differs from registered volumes to the data pool. Confirm the HDU combination and try again.	Confirm the HDU combination and try again.	—
090014	DMED090014: The process cannot be performed because the specified P-VOL has been receiving the Write command continuously from the hosts. Wait for a while and then try again.	Wait for a while and then try again.	—
090015	DMED090015: The process cannot be performed because there is other volume changing the Default Controller. Wait for a while and then try again.	Wait for a while and then try again.	—
090016	DMED090016: The process cannot be performed because the specified P-VOL is in the PIN exceeded state. Restore PIN data and try again.	Restore PIN data and try again.	Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760)
090017	DMED090017: The process cannot be performed because the specified P-VOL is not defined. Specify a defined volume and try again.	Specify a defined volume and try again.	—
090018	DMED090018: The process cannot be performed because the specified SnapShot volume has been creating the pair. Cancel the SnapShot pair and try again.	Cancel the SnapShot pair and try again.	—
090019	DMED090019: The process cannot be performed because P-VOL is under deletion. Wait for a while and then try again.	Wait for a while and then try again.	—
09001A	DMED09001A: The process cannot be performed because the specified set of P-VOL and SnapShot volume is not a pair. Confirm the pair status and try again.	Confirm the pair status and try again.	—
09001B	DMED09001B: The process cannot be performed because the number of SnapShot pair reached the maximum. Delete unnecessary SnapShot pair(s) and try again.	Delete unnecessary SnapShot pair(s) and try again.	—
09001C	DMED09001C: The process cannot be performed because the unified VOL is composed of 17 or more sub volumes. Specify another volume and try again.	Specify another volume and try again.	—
09001D	DMED09001D: The process cannot be performed because the unified VOL contains a sub volume whose size is less than 1GB. Specify another volume and try again.	Specify another volume and try again.	—
09001E	DMED09001E: The process cannot be performed because a management area of Snapshot is shortage. Delete unnecessary Snapshot pair(s) and try again.	Delete unnecessary Snapshot pair(s) and try again.	—
09001F	DMED09001F: The process cannot be performed because the drive type of specified volume is different from the V-VOL. Please confirm the drive type and try again.	Please confirm the drive type and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
090020	DMED090020: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—
090021	DMED090021: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—
090022	DMED090022: The process cannot be performed because the specified SnapShot volume is a part of Remote Replication pair. Cancel the Remote Replication pair and try again.	Cancel the Remote Replication pair and try again.	—
090023	DMED090023: The process cannot be performed because the specified SnapShot volume is a part of Hi-Copy pair. Cancel the Hi-Copy pair and try again.	Cancel the Hi-Copy pair and try again.	—
090024	DMED090024: The process cannot be performed because the P-VOL of specified SnapShot volume is reserved for cache partition modification. Please retry after cache partition modification is completed.	Please retry after cache partition modification is completed.	—
090025	DMED090025: The process cannot be performed because the specified V-VOL size will exceed the maximum of volume size. Please confirm the specified V-VOL size.	Please confirm the specified V-VOL size.	—
090026	DMED090026: The specified volume is not V-VOL. Please specify the volume number of V-VOL and try again.	Please specify the volume number of V-VOL and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0A0001	DMED0A0001: The process cannot be performed because the specified VOL is invalid. Restore the VOL and try again.	Restore the VOL and try again.	—
0A0002	DMED0A0002: The process cannot be performed because the specified VOL is a Sub VOL of the unifying VOLs. Separate the unified VOL and try again.	Separate the unified VOL and try again.	—
0A0003	DMED0A0003: The process cannot be performed because the specified VOL is S-VOL of ShadowImage. Specify another volume and try again.	Specify another volume and try again.	—
0A0004	DMED0A0004: The process cannot be performed because the specified VOL is S-VOL of Remote Replication. Specify another volume and try again.	Specify another volume and try again.	—
0A0005	DMED0A0005: The process cannot be performed because the specified VOL is SnapShot volume. Specify another volume and try again.	Specify another volume and try again.	—
0A0006	DMED0A0006: The process cannot be performed in the retention term. The retention term expires and try again.	The retention term expires and try again.	—
0A0007	DMED0A0007: The process cannot be performed because ShadowImage is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
0A0008	DMED0A0008: The process cannot be performed because Snapshot is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
0A0009	DMED0A0009 : The retention term cannot be shortened. Specify the retention term is equal to or more than current value and try again.	Specify the retention term is equal to or more than current value and try again.	—
0A000A	DMED0A000A : The process cannot be performed because expiration lock is enabled. Set expiration lock to disable and try again.	Set expiration lock to disable and try again.	—
0A000B	DMED0A000B: The process cannot be performed because the status of ShadowImage pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.	Please retry after changing the status of pair.	—
0A000C	DMED0A000C: The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.	Please retry after changing the status of pair.	—
0A000D	DMED0A000D: The process cannot be performed because the status of SnapShot pair is not Split(PSUS). Please retry after changing the status of pair.	Please retry after changing the status of pair.	—
0A000E	DMED0A000E: The process cannot be performed because the status of Remote Replication pair is not Simplex(SMPL) or Split(PSUS). Please retry after changing the status of pair.	Please retry after changing the status of pair.	—
0B0001	DMED0B0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0C0001	DMED0C0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—
0C0002	DMED0C0002: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—
0C0003	DMED0C0003: The unification cannot be performed because the drive type is different. Please confirm the drive type and try again.	Please confirm the drive type and try again.	—
0C0004	DMED0C0004: The volume in Unit0 cannot be unified with the latter units.	—	—
0C0005	DMED0C0005: The process cannot be performed because the unified VOL reached the maximum.	The number of unified VOLs cannot be more than 128.	—
0C0006	DMED0C0006: The unification cannot be performed because the cache partition is different. Please confirm the cache partition of the specified volume.	Please confirm the cache partition of the specified volume.	—
0C0007	DMED0C0007: The process cannot be performed because the specified volume is reserved for cache partition modification. Please retry after changing the cache partition, or specify another volume.	Please retry after changing the cache partition, or specify another volume.	—
0C0008	DMED0C0008: The total count of Main VOL and Sub VOL is over the maximum. Please specify 128 or fewer VOLs.	Please specify 128 or fewer VOLs.	—
0D0001	DMED0D0001: The process cannot be performed because the access level is set up to ReadOnly or Protect. Please change the attribute to Read/Write, and try again.	Please change the attribute to Read/Write, and try again.	—
0D0002	DMED0D0002: The process cannot be performed because the temporary key cannot be used for the next 180 days after it is locked or expired.	Retry 180 days later.	—
0D0003	DMED0D0003: The specified function has already been unlocked.	The unlocking cannot be done with the temporary key.	—
0E0001	DMED0E0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—
0E0002	DMED0E0002: The process cannot be performed because the unified VOL which belongs to two or more RAID groups exists. Please separate the unified VOL and try again.	Please separate the unified VOL and try again.	—
0E0003	DMED0E0003: The process cannot be performed because the specified volume is a Sub VOL. Please specify a Main VOL and try again.	Please specify a Main VOL and try again.	—
0E0004	DMED0E0004: The process cannot be performed because the volumes number of the specified RAID group reach the maximum. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
0E0005	DMED0E0005: The process cannot be performed because the specified volume is DM-LU. Please specify another volume and try again.	Please specify another volume and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0E0006	DMED0E0006: The process cannot be performed because the specified volume is V-VOL of SnapShot. Please specify the P-VOL and try again.	Please specify the P-VOL and try again.	—
0E0007	DMED0E0007: The volume number for free area has already been used. Please specify unused volume number.	Please specify unused volume number.	—
0E0008	DMED0E0008: The volume cannot be created. Please delete unnecessary volumes or specify automatically for free area and then try again.	Please delete unnecessary volumes or specify automatically for free area and then try again.	—
0E0009	DMED0E0009: The volume of RAID0 cannot be created by multiple free areas. Please confirm the specified area and then try again.	Please confirm the specified area and then try again.	—
0E000A	DMED0E000A: The free area does not exist. Please delete unnecessary volumes and then try again.	Please delete unnecessary volumes and then try again.	—
0E000B	DMED0E000B: The capacity of specified area is insufficient or the volume number to show the position of the free area is invalid. Please confirm the area and try again.	Please confirm the area and try again.	—
0E000C	DMED0E000C: The capacity of specified area is insufficient. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E000D	DMED0E000D: The volumes are over maximum. Please confirm the specified capacity or area number or delete unnecessary volumes and then try again.	Please confirm the specified capacity or area number or delete unnecessary volumes and then try again.	—
0E000E	DMED0E000E: The volumes of RAID group are over maximum. Please confirm the specified capacity or area number or delete unnecessary volumes and then try again.	Please confirm the specified capacity or area number or delete unnecessary volumes and then try again.	—
0E000F	DMED0E000F: The specified area number is outside of the effective range. Please specify the area number within the range and try again.	Please specify the area number within the range and try again.	—
0E0010	DMED0E0010: The specified area does not exist. Please confirm the area number and then try again.	Please confirm the area number and then try again.	—
0E0011	DMED0E0011: The volume number to show the position of the free area is outside of the effective range. Please specify the volume number within the range and then try again.	Please specify the volume number within the range and then try again.	—
0E0012	DMED0E0012: The volume number to show the position of the free area is outside of the effective range. Please specify the volume number within the range and then try again.	Please specify the volume number within the range and then try again.	—
0E0013	DMED0E0013: The volume number to show the position of the free area is not defined. Please specify a defined volume and then try again.	Please specify a defined volume and then try again.	—
0E0014	DMED0E0014: The volume number to show the position of the free area is not defined. Please specify a defined volume and then try again.	Please specify a defined volume and then try again.	—
0E0015	DMED0E0015: The volume number to show the position of the free area is not defined in specified RAID group. Please confirm the volume of specified RAID group and then try again.	Please confirm the volume of specified RAID group and then try again.	—
0E0016	DMED0E0016: The volume number to show the position of the free area is not defined in specified RAID group. Please confirm the volume of specified RAID group and then try again.	Please confirm the volume of specified RAID group and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0E0017	DMED0E0017: The volume number to show the position of the free area is invalid. Please confirm the volume and then try again.	Please confirm the volume and then try again.	—
0E0018	DMED0E0018: The specified area is overlapped. Please confirm the area and then try again.	Please confirm the area and then try again.	—
0E0019	DMED0E0019: The unused area is specified. Please confirm the area and then try again.	Please confirm the area and then try again.	—
0E001A	DMED0E001A: The unified VOL reached the maximum. Please confirm the capacity or area number and then try again.	Please confirm the capacity or area number and then try again.	—
0E001B	DMED0E001B: The unified VOL reached the maximum. Please confirm the capacity or area number and then try again.	Please confirm the capacity or area number and then try again.	—
0E001C	DMED0E001C: The RAID group is invalid. Please confirm the RAID group and then try again.	Please confirm the RAID group and then try again.	—
0E001D	DMED0E001D: The process cannot be performed because RAID level of specified volume is RAID0. Please specify another volume and then try again.	Please specify another volume and then try again.	—
0E001E	DMED0E001E: The capacity of volume is over maximum. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E001F	DMED0E001F: The specified capacity is invalid. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E0020	DMED0E0020: The unified VOL reached the maximum. Please confirm the capacity or area number and then try again.	Please confirm the capacity or area number and then try again.	—
0E0021	DMED0E0021: The capacity of specified area is insufficient. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E0022	DMED0E0022: The capacity of specified area is insufficient. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E0023	DMED0E0023: The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished.	Please retry after that specified quick format size is decreased or current executed quick format is finished.	System Parameter "4.3 [Note on Volume setting]" (SYSPR 04-0250)
0E0024	DMED0E0024: The volume number is not defined. Please specify a defined volume and then try again.	Please specify a defined volume and then try again.	—
0E0025	DMED0E0025: The capacity of specified area is insufficient. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E0026	DMED0E0026: The specified capacity is over the volume capacity. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E0027	DMED0E0027: The process cannot be performed because the specified volume is not normal state. Please recover the status and then try again.	Please recover the status and then try again.	—
0E0028	DMED0E0028: The process cannot be performed because the specified volume contains an un-mounted drive or a blocked drive. Confirm the drive status and try again.	Confirm the drive status and try again.	—
0E0029	DMED0E0029: The process cannot be performed because the over provisioning threshold of the specified DP pool is equal to or more than the limit. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0E002A	DMED0E002A: The process cannot be performed because the over provisioning threshold of the DP pool that has the specified volume is equal to or more than the limit. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—
0E002B	DMED0E002B: The process cannot be performed because specified volume is mapped. Please delete mapping and then try again.	Please delete mapping and then try again.	—
0E002C	DMED0E002C: The process cannot be performed because the specified capacity will exceed the available maximum capacity of the subsystem. Please specify the capacity within the range of the available maximum capacity of the subsystem and then try again.	Please specify the capacity within the range of the available maximum capacity of the subsystem and then try again.	—
0E002D	DMED0E002D: This process cannot be performed. The status of DM-LU must be in either normal or regressed state. Please recover the status of DM-LU and try again.	Please recover the status of DMLU and try again.	—
0E002E	DMED0E002E: The process cannot be performed because DM-LU is reserved for cache partition modification. Please retry after changing the cache partition.	Please retry after changing the cache partition.	—
0E002F	DMED0E002F: The capacity of DM-LU is insufficient. Please confirm the capacity and then try again.	Please confirm the capacity and then try again.	—
0E0030	DMED0E0030: The process cannot be performed because the drive of RAID group to which DM-LU belongs contains an un-mounted drive or a blocked drive. Please retry after changing to normal state.	Please retry after changing to normal state.	—
0E0031	DMED0E0031: The process cannot be performed because the over provisioning threshold of the DP pool to which the DM-LU is equal to or more than the limit. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—
0E0032	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMED0E0032: The process cannot be performed because the capacity of DP pool to which the DM-LU belongs is insufficient. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMED0E0032: The process cannot be performed because the capacity of DP pool to which the DM-LU belongs is insufficient. Please grow the capacity of DP pool and try again.	Please grow the capacity of DP pool and try again.	—
0F0001	DMED0F0001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—
0F0002	DMED0F0002: The process cannot be performed because the drives of Unit0 and the latter units are contained within the range of the specified RAID group.	Execute again by specifying the drive of the same type.	—
0F0003	DMED0F0003: The process cannot be performed because the non-supported drive on this subsystem are contained within the range of the specified RAID group.	Specify the drive for the subsystem concerned.	—
0F0005	DMED0F0005: The process cannot be performed because the number of drive is incorrect. Please confirm the mounted drive and try again.	Please confirm the mounted drive and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
0F0007	DMED0F0007: The number of defined RAID group reached the maximum. Delete unnecessary RAID groups and then try again.	Delete unnecessary RAID groups and then try again.	—
100001	DMED100001: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—
100002	DMED100002: The process cannot be performed because the RAID level of the specified volume is not supported. Confirm the RAID level currently supported and try again.	Confirm the RAID level currently supported and try again.	—
100003	DMED100003: The process cannot be performed because the specified volume is a unified VOL. Separate the unified VOL and try again, or please execute online/offline formatting.	Separate the unified VOL and try again, or please execute online/offline formatting.	—
100004	DMED100004: The process cannot be performed because the specified volume is extended and not formatted. Please execute online/offline formatting.	Please execute online/offline formatting.	—
100005	DMED100005: The quick format size is over maximum value. Please retry after that specified quick format size is decreased or current executed quick format is finished.	Please retry after that specified quick format size is decreased or current executed quick format is finished.	System Parameter "4.3 [Note on Volume setting]" (SYSPR 04-0250)
100006	DMED100006: The process cannot be performed because the specified volume contain an un-mounted drive or a blocked drive. Confirm the drive status and try again.	Confirm the drive status and try again.	—
100007	DMED100007: Format of the volume cannot be performed under the Drive Detach Mode. Please turn off the Drive Detach Mode of system parameter.	Please turn off the Drive Detach Mode of system parameter.	—
100008	DMED100008: The process cannot be performed because the specified volume is not formatted and set the access level other than S-VOL mode. Please change the attribute to Read/Write and try again.	Please change the attribute to Read/Write and try again.	—
100009	DMED100009: The process cannot be performed because the specified volume which belongs to the RAID group is illegal. Please recover the status of RAID group and try again.	Please recover the status of RAID group and try again.	—
10000A	DMED10000A: The process cannot be performed because the specified volume which belongs to the RAID group is illegal. Please recover the status of RAID group and try again.	Please recover the status of RAID group and try again.	—
110001	DMED110001: The mapping mode cannot be changed because the mapping guard VOL exists.	When changing the mapping mode to OFF, take all the VOL mapping guards OFF.	System Parameter "5.2.4 Setting Mapping Guard" (SYSPR 05-0270)
110002	DMED110002: The mapping information cannot be changed because the mapping guard VOL exists.	Change the VOL mapping after the LU mapping guard is taken OFF.	
110003	DMED110003: The specified volume is not defined. Please specify a defined volume.	Please specify a defined volume.	—
120001	DMED120001: The specified drive cannot be defined as a spare drive because it is not supported on this subsystem.	Specify the drive for the subsystem concerned.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
130001	DMED130001: The process cannot be performed because the path is not set up.	Set the time-out value after the path is defined.	—
130002	DMED130002: The process cannot be performed because the specified port is iSCSI port. Please confirm the port type and try again.	Please confirm the port type and try again.	—
130003	DMED130003: The process cannot be performed because remote ports of path0 and path1 are set to the same controller of the remote subsystem. Please set one of the remote ports to the other controller and try again.	Please set one of the remote ports to the other controller and try again.	—
130004	DMED130004: The process cannot be performed because the specified Timeout Period is outside the effective range. Please confirm the Timeout Period and try again.	Please confirm the Timeout Period and try again.	—
130005	DMED130005: The process cannot be performed because the specified bandwidth is outside the effective range. Please confirm the bandwidth and try again.	Please confirm the bandwidth and try again.	—
130006	DMED130006: The process cannot be performed because the path status is normal. Please confirm the status of path.	Please confirm the status of path.	—
130007	DMED130007: The process cannot be performed because the path does not exist. Please setting the path and try again.	Please setting the path and try again.	—
130008	DMED130008: The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.	Please confirm the status of path and try again.	—
130009	DMED130009: The process cannot be performed because the path reconstruction is in progress. Please confirm the status of path and try again.	Please confirm the status of path and try again.	—
13000A	DMED13000A: The process cannot be performed because the specified port number is outside the effective range. Please confirm the port number.	Please confirm the port number.	—
13000B	DMED13000B: The process cannot be performed because the status of IPv6 address setting is illegal. Please confirm the IP address and try again.	Please confirm the IP address and try again.	—
130010	DMED130010: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.	Please recover the controller status and then try again.	—
130011	DMED130011: The process cannot be performed because the path does not exist. Please setting the path and try again.	Please setting the path and try again.	—
130012	DMED130012: The process cannot be performed because the path does not exist. Please setting the path and try again.	Please setting the path and try again.	—
130013	DMED130013: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.	Please recover the controller status and then try again.	—
130014	DMED130014: The process cannot be performed because port are physically unequipped. Please confirm the port type and the subsystem status and try again.	Please confirm the port type and the subsystem status and try again.	—
130015	DMED130015: The process cannot be performed because the specified path is already defined. Please confirm the status of path and try again.	Please confirm the status of path and try again.	—
130016	DMED130016: The process cannot be performed because the Hosts is logging out. Please wait a moment and try again.	Please wait a moment and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
130017	DMED130017: The same array ID as a self subsystem is specified. Please specify the array ID of connected subsystem.	Please specify the array ID of connected subsystem.	—
130018	DMED130018: The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.	Please confirm the port type and try again.	—
130019	DMED130019: The process cannot be performed because Remote Replication pair of Synchronizing or Paired exists. Please confirm the status of pair and try again.	Please confirm the status of pair and try again.	—
13001A	DMED13001A: The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.	Please confirm the port type and try again.	—
13001B	DMED13001B: The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.	Please change Distributed Mode to Edge and try again.	—
13001C	DMED13001C: The process cannot be performed because the remote path or remote port CHAP information (Target information) is defined. Please change Distributed Mode to Hub and try again.	Please change Distributed Mode to Hub and try again.	—
13001D	DMED13001D: The specified array ID is already registered. Please specify another array ID and then try again.	Please specify another array ID and then try again.	—
13001E	DMED13001E: The process cannot be performed because the remote path or remote port CHAP information (Target information) is specified. Please change Hub array unit and then try again.	Please change Hub array unit and then try again.	—
13001F	DMED13001F: The number of defined remote path reached the maximum. Please delete unnecessary remote path and try again.	Please delete unnecessary remote path and try again.	—
130020	DMED130020: The specified remote path name is already registered. Please specify another remote path name and then try again.	Please specify another remote path name and then try again.	—
130021	DMED130021: The specified remote array ID cannot be set because Distributed Mode is Hub. Please change Distributed Mode to Edge, or specify array ID of remote subsystem that Distributed mode is Edge and try again.	Please change Distributed Mode to Edge, or specify array ID of remote subsystem that Distributed mode is Edge and try again.	—
130022	DMED130022: The specified array ID does not exist. Please specify a right array ID.	Please specify a right array ID.	—
130023	DMED130023: The process cannot be performed because Distributed Mode is not supported. Please confirm the subsystem and try again.	Please confirm the subsystem and try again.	—
130024	DMED130024: The process cannot be performed because the remote path to two or more are defined. Please delete unnecessary remote path and try again.	Please delete unnecessary remote path and try again.	—
130025	DMED130025: The process cannot be performed because the remote port CHAP information (Target information) to two or more is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.	Please delete unnecessary remote port CHAP information (Target information) and try again.	—
130026	DMED130026: The process cannot be performed because the Remote Replication pair exists to two or more subsystems. Please cancel the Remote Replication pair and try again.	Please cancel the Remote Replication pair and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
130027	DMED130027: The process cannot be performed because the remote path is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote path and try again.	Please delete unnecessary remote path and try again.	—
130028	DMED130028: The process cannot be performed because the remote port CHAP information (Target information) is defined on the subsystem whose Distributed Mode is not supported. Please delete unnecessary remote port CHAP information (Target information) and try again.	Please delete unnecessary remote port CHAP information (Target information) and try again.	—
130029	DMED130029: The process cannot be performed because Remote Replication pair exists on the subsystem whose Distributed Mode is not supported. Please cancel unnecessary Remote Replication pair and try again.	Please cancel unnecessary Remote Replication pair and try again.	—
13002A	DMED13002A: The process cannot be performed because the remote path is defined. Please delete remote path and try again.	Please delete remote path and try again.	—
13002B	DMED13002B: The process cannot be performed because the remote port CHAP information (Target information) is defined. Please delete unnecessary remote port CHAP information (Target information) and try again.	Please delete unnecessary remote port CHAP information (Target information) and try again.	—
13002C	DMED13002C: The process cannot be performed because Distributed Mode is Hub. Please change Distributed Mode to Edge and try again.	Please change Distributed Mode to Edge and try again.	—
13002D	DMED13002D: The specified serial number is incorrect. Please specify a right serial number.	Please specify a right serial number.	—
13002E	DMED13002E: The process cannot be performed because the specified array is not supported the Remote Replication connecting of iSCSI interface. Please specify the Fibre interface or confirm the array and try again.	Please specify the Fibre interface or confirm the array and try again.	—
13002F	DMED13002F: The process cannot be performed because the defined port to the path is unequipped or unsupported. Please confirm the port status.	Please confirm the port status.	—
130030	DMED130030: The process cannot be performed because the specified subsystem by array ID is not supported Remote Replication. Please confirm the array ID and try again.	Please confirm the array ID and try again.	—
130031	DMED130031: The process cannot be performed because the specified subsystem by array ID is not supported Remote Replication. Please confirm the array ID and try again.	Please confirm the array ID and try again.	—
130032	DMED130032: The process cannot be performed because the specified array is not supported the Remote Replication connecting of Fibre interface. Please specify the iSCSI interface or confirm the array and try again.	Please specify the iSCSI interface or confirm the array and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
140001	DMED140001: The process cannot be performed because the term of the temporary key or emergency key is expired.	Unlock with the permanent key.	—
140002	DMED140002: The process cannot be performed because the DM-LU has already been set. Please cancel the DM-LU and try again.	Retry after specifying an LU other than the DMLU.	—
140003	DMED140003: The process cannot be performed because the specified operation mode is outside the effective range or two or more operation is specified at the same time. Please confirm the operation mode and try again.	Please confirm the operation mode and try again.	—
140004	DMED140004: The process cannot be performed because DC power supply is physically unequipped. Please confirm the subsystem status and try again.	Please confirm the subsystem status and try again.	—
140005	Hitachi Storage Navigator Modular 2 is less than Ver.22.00. DMED140005: The function cannot be executed for this subsystem. Please confirm the subsystem.	Please confirm the subsystem.	—
	Hitachi Storage Navigator Modular 2 is Ver.22.00 or more. DMED140005: The function cannot be executed for this subsystem. Please confirm the version of the subsystem or the navigator.	Please confirm the version of the subsystem or the navigator.	—
140006	DMED140006: The process cannot be performed because cache memory size is insufficient. Please increase a larger cache memory and then try again.	Please increase a larger cache memory and then try again.	—
140007	DMED140007: The specified value is outside the effective range. Please specify the value in the effective range and try again.	Please specify the value in the effective range and try again.	—
140008	DMED140008: The process cannot be performed because the volume is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
140009	DMED140009: The process cannot be performed because the specified drive is un-mounted. Please confirm the drive status and try again.	Please confirm the drive status and try again.	—
14000A	DMED14000A: The process cannot be performed because the specified volume is DM-LU. Please execute to add the capacity of DM-LU.	Please execute to add the capacity of DM-LU.	—
14000B	DMED14000B: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
140010	DMED140010: The process cannot be performed because the specified drive is un-mounted. Please confirm the drive status and try again.	Please confirm the drive status and try again.	—
140011	DMED140011: The process cannot be performed because the specified unit is un-mounted. Please confirm the unit number and then try again.	Please confirm the unit number and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
150001	DMED150001: The process cannot be performed because the cache partition is not initial status. Please change the cache partition to initial status and try again.	Retry after returning the partition into the initial status.	—
150004	DMED150004: The process cannot be performed because the cache partition is less than minimum size. Please confirm the cache partition size and try again.	Please confirm the cache partition size and try again.	—
150005	DMED150005: The process cannot be performed because the PIN is exceeded state. Please restore PIN data and try again.	Retry after eliminating a pinned segment of the specified LU referring to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" .	Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760)
150006	DMED150006: The segment size of cache partition (0 or 1) cannot be changed.	A segment size of the master partition cannot be changed.	—
150007	DMED150007: The process cannot be performed because ShadowImage is in use. Please cancel the ShadowImage pair and try again.	Retry after dissolving the pair. (*1)	—
150009	DMED150009: The process cannot be performed because SnapShot is in use. Please cancel the SnapShot pair and try again.	Retry after dissolving the pair.	—
15000B	DMED15000B: The process cannot be performed because process of Write command from the hosts is not completed. Please wait for a while and then try again, or delete the logical unit.	Please wait for a while and then try again, or delete the logical unit.	—
15000C	DMED15000C: The function cannot be executed because a Cache Residency VOL or a reserved one exists. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—
15000D	DMED15000D: The specified segment size is incorrect. Please confirm the segment size and try again.	Please confirm the segment size and try again.	—
15000E	DMED15000E: The process cannot be performed because the VOL change is in progress. Please wait a moment and try again.	Please wait a moment and try again.	—
15000F	DMED15000F: The specified cache partition number is incorrect. Please confirm the cache partition number and try again.	Please confirm the cache partition number and try again.	—
150010	DMED150010: The controller of current cache partition cannot be changed. Please delete the cache partition, and set up again.	Please delete the cache partition, and set up again.	—
150011	DMED150011: The process cannot be performed because the total size of cache partition is over the cache capacity. Please confirm the cache partition size and try again.	Please confirm the cache partition size and try again.	—
150012	DMED150012: The cache partition with which the volume is set up, or the cache partition of 0 or 1 cannot be deleted. Please confirm the cache partition number.	Please confirm the cache partition number.	—
150013	DMED150013: The process cannot be performed because the specified cache partition is not defined. Please specify a defined cache partition and try again.	Please specify a defined cache partition and try again.	—

*1 : When this is displayed at the time of the firmware download, the factor of "Since both P-Vol and S-Vol of one ShadowImage pair are P-Vol or S-Vol of TrueCopy, the downgrade cannot be performed" is considered.
In this case, release the target Shadow Image pair or True Copy pair, and execute it again.

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
150014	DMED150014: The process cannot be performed because the stripe size of volume is not 64KB. Please delete the volume and try again.	Please delete the volume and try again.	—
150015	DMED150015: The process cannot be performed because the specified volume is a part of Remote Replication pair. Please cancel the Remote Replication pair and try again.	Please cancel the Remote Replication pair and try again.	—
150016	DMED150016: The process cannot be performed because the total cache partition capacity using the segment size of 4KB or 8KB is over the system limit. Please confirm the cache partition size or the segment size and try again.	Please confirm the cache partition size or the segment size and try again.	—
160002	DMED160002: The process cannot be performed because the specified volume is a Sub VOL of the unifying VOLs. Please separate the unified VOL and try again.	Please separate the unified VOL and try again.	—
160011	DMED160011: The volume cannot be allocated the specified cache partition. Please specify another cache partition number and try again.	Please specify another cache partition number and try again.	—
160012	DMED160012: The process cannot be performed because the Cache Partition Manager is not installed, locked, or disabled.	Execute it again after unlocking the PP.	—
160013	DMED160013: The process cannot be performed because the specified volume is SnapShot volume. Please specify another volume number and try again.	Please specify another volume number and try again.	—
160014	DMED160014: The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.	Please confirm the cache partition and try again.	—
160015	DMED160015: The process cannot be performed because Cache Partition Manager is not installed, locked, or disabled. Please install Cache Partition Manager and try again.	Please install Cache Partition Manager and try again.	—
160016	DMED160016: The process cannot be performed because the specified cache partition is not defined. Please confirm the cache partition and try again.	Please confirm the cache partition and try again.	—
160017	DMED160017: The process cannot be performed because the specified cache partition is set to the different controller. Please confirm the cache partition and try again.	Please confirm the cache partition and try again.	—
160018	DMED160018: The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition, and try again.	Please confirm the stripe size or the cache partition, and try again	System Parameter "4.3.2 Creating Volume" (SYSPR 04-0310)
160019	DMED160019: The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.	Please confirm the cache partition and try again.	System Parameter "4.3.2 Creating Volume" (SYSPR 04-0310)
16001E	DMED16001E: The process cannot be performed because the pair cache partition and the cache partition are set to the same controller. Please confirm the cache partition and try again.	Please confirm the cache partition and try again.	—
16001F	DMED16001F: The process cannot be performed because the segment size does not match. Please confirm the segment size of cache partition and try again.	Please confirm the segment size of cache partition and try again.	System Parameter "4.3.2 Creating Volume" (SYSPR 04-0310)

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
160020	DMED160020: The process cannot be performed because the specified cache partition size is insufficient. Please confirm the cache partition and try again.	Please confirm the cache partition and try again.	System Parameter "4.3.2 Creating Volume" (SYSPR 04-0310)
160021	DMED160021: The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.	Please wait for a while and then try again.	—
160022	DMED160022: The process cannot be performed because PIN data exists. Please restore PIN data and try again.	Execute it again after deleting the PIN segment of the specified LU referring to "Troubleshooting Chapter 11. Details of Recovery Methods" .	Troubleshooting "Chapter 11. Details of Recovery Methods" (TRBL 11-0000)
160023	DMED160023: The process cannot be performed because the specified volume is not a DM-LU. Please specify the DM-LU and try again.	Please specify the DM-LU and try again.	—
160024	DMED160024: The process cannot be performed because the capacity of DM-LU will exceed the maximum. Please confirm the capacity and try again.	Please confirm the capacity and try again.	—
160025	DMED160025: The process cannot be performed because the specified capacity is not 1GB unit. Please specify the capacity of 1GB unit and try again.	Please specify the capacity of 1GB unit and try again.	—
160026	DMED160026: The process cannot be performed because RAID group of RAID0 is specified. Please specify RAID group which the RAID level is not RAID0 and try again.	Please specify RAID group which the RAID level is not RAID0 and try again.	—
160027	DMED160027: The process cannot be performed because the HDU combination of the specified RAID group differs from RAID group to which DM-LU belongs. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
160028	DMED160028: The process cannot be performed because the drive type of the specified RAID group differs from RAID group to which DM-LU belongs. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
160029	DMED160029: The process cannot be performed because the continued free area for addition capacity does not exist in the RAID group. Please confirm the free area and try again.	Please confirm the free area and try again.	—
170001	DMED170001: The process cannot be performed because the specified volume is capacity less than 5GB. Specify the volume is equal to or more than 5GB and try again.	Specify the volume is equal to or more than 5GB and try again.	—
170002	DMED170002: The process cannot be performed because the specified volume is RAID level 0. Specify another volume and try again.	Specify another volume and try again.	—
170003	DMED170003: This process cannot be performed. The status of the specified volume must be in either normal or regressed state. Please verify the status of the volume and try again.	Please verify the status of the volume and try again.	—
170004	DMED170004: The process cannot be performed because the specified volume is a unified VOL. Separate the unified VOL and try again.	Separate the unified VOL and try again.	—
170005	DMED170005: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
170006	DMED170006: The process cannot be performed because the specified volume is a command device. Cancel the command device and try again.	Cancel the command device and try again.	—
170007	DMED170007: The process cannot be performed because the specified volume is capacity less than 10GB. Specify the volume is equal to or more than 10GB and try again.	Specify the volume is equal to or more than 10GB and try again.	—
170008	Hitachi Storage Navigator Modular 2 is less than Ver.23.00. DMED170008: The process cannot be performed because the free capacity of DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.	If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.	—
	Hitachi Storage Navigator Modular 2 is Ver.23.00 or more. DMED170008: The process cannot be performed because the capacity of DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.	If you cannot set up again, please grow the capacity of DP pool.	—
170009	DMED170009: The process cannot be set to DM-LU because specified volume is mapped. Please delete mapping and then try again.	Please delete mapping and then try again.	System Parameter "5.2 Setting Volume Mapping" (SYSPR 05-0100)
17000A	DMED17000A: The process cannot be performed because the specified volume is neither in normal, regressed nor unformatted state. Please recover the status of volume and try again.	Please recover the status of volume and try again.	—
17000B	DMED17000B: The process cannot be performed because the stripe size of specified volume is not 64KB or 256KB. Please confirm the stripe size and try again.	Please confirm the stripe size and try again.	—
17000C	DMED17000C: The process cannot be performed because the data drive count of HDU combination is more than 17, when the stripe size of specified volume is 256KB and the RAID level which belongs to the RAID group is RAID6. Please specify another volume and try again.	Please specify another volume and try again.	—
17000D	DMED17000D: The process cannot be performed because the specified capacity is outside the effective range. Please confirm the capacity and try again.	Please confirm the capacity and try again.	—
17000E	DMED17000E: The process cannot be performed because the capacity of specified volume is not 1GB unit. Please confirm the capacity of volume and try again.	Please confirm the capacity of volume and try again.	—
17000F	DMED17000F: The process cannot be performed because the volume contains a sub volume whose capacity is less than 1GB. Please specify another volume and try again.	Please specify another volume and try again.	—
180001	DMED180001: The specified volume cannot be set as Cache Residency VOL because its cache partition is not 0 or 1. Please try again after changing a cache partition into 0 or 1, or specify the volume of the cache partition 0 or 1.	Please try again after changing a cache partition into 0 or 1, or specify the volume of the cache partition 0 or 1.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
190001	DMED190001: The specified IP address is incorrect. Please specify a correct IP address.	Specify a correct IP address.	—
190002	DMED190002: The same IP address as the management LAN cannot be set up. Please specify a correct IP address.	Specify a correct IP address.	—
190003	DMED190003: The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.	Make the setting again after waiting for a while.	—
190004	DMED190004: The same IP address as the maintenance LAN cannot be set up. Please specify a correct IP address.	Specify a correct IP address.	—
190005	DMED190005: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.	Please recover the controller status and then try again.	—
190006	DMED190006: The process cannot be performed because NNC or subsystem is in progress. Please wait a moment and then try again.	Make the setting again after waiting for a while.	—
190007	DMED190007: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Make the setting again after waiting for a while.	—
190008	DMED190008: The same IP address as the NNC LAN cannot be set up. Please specify a correct IP address.	Specify a correct IP address.	—
190009	DMED190009: The maintenance LAN cannot be changed automatically because the same network address is specified as a maintenance LAN when NNC is connected. Please confirm the specified network address and try again.	Please confirm the specified network address and try again.	—
19000B	DMED19000B: The specified host address of the maintenance LAN is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
19000C	DMED19000C: The process cannot be performed because the subnet mask of the management LAN is incorrect. Please set up the correct subnet mask and try again.	Please set up the correct subnet mask and try again.	—
19000D	DMED19000D: The process cannot be performed because the default gateway of the management LAN is incorrect. Please set up the correct default gateway and try again.	Please set up the correct default gateway and try again.	—
19000E	DMED19000E: The DHCP and the maintenance LAN automatic change cannot be specified at the same time. Please confirm the operation and try again.	Please confirm the operation and try again.	—
19000F	DMED19000F: The specified host address of the management LAN is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
190010	DMED190010: The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.	Please specify a correct IP address.	—
190011	DMED190011: The process cannot be performed because the maintenance LAN automatic change mode is enabled. Please set this mode to disable and try again.	Please set this mode to disable and try again.	System Parameter "7.2 Setting LAN" (SYPR 07-0040)
190012	DMED190012: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Make the setting again after waiting for a while.	—
190013	DMED190013: The specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1A0001	DMED1A0001: The process cannot be performed because NNC is not connected. Please connect NNC and try again.	Please connect NNC and try again.	—
1A0002	DMED1A0002: The specified volume is not defined. Please specify a defined volume.	Please specify a defined volume.	—
1A0003	DMED1A0003: The process cannot be performed because the specified volume is less than minimum size of the system VOL. Please confirm the volume size and try again.	Please confirm the volume size and try again.	—
1A0004	DMED1A0004: The process cannot be performed because the specified volume is already assigned. Please specify a volume that is not assigned and try again.	Please specify a volume that is not assigned and try again.	System Parameter "5.2 Setting Volume Mapping" (SYSPR 05-0100)
1A0005	DMED1A0005: The process cannot be performed because the specified volume is S-VOL of ShadowImage. Please specify another volume and try again.	Please specify another volume and try again.	—
1A0006	DMED1A0006: The process cannot be performed because the specified volume is S-VOL of Remote Replication. Please specify another volume and try again.	Please specify another volume and try again.	—
1A0007	DMED1A0007: The process cannot be performed because the specified volume is defined as a SnapShot volume. Please specify another volume and try again.	Please specify another volume and try again.	—
1A0008	DMED1A0008: The process cannot be performed because the specified volume is added to a data pool. Please specify another volume and try again.	Please specify another volume and try again.	—
1A0009	DMED1A0009: The process cannot be performed because the specified volume is a Sub VOL of the unifying VOLs. Please specify another volume and try again.	Please specify another volume and try again.	—
1A000A	DMED1A000A: The process cannot be performed because the specified volume is the mapping guard VOL. Please specify another volume and try again.	Please specify another volume and try again.	System Parameter "5.2.4 Setting Mapping Guard" (SYSPR 05-0270)
1A000B	DMED1A000B: The process cannot be performed because the specified volume is a command device. Please specify another volume and try again.	Please specify another volume and try again.	—
1A000C	DMED1A000C: The specified volume is not defined as a command device. Please specify a volume that is already defined to a command device.	Please specify a volume that is already defined to a command device.	—
1A000D	DMED1A000D: The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.	Please confirm NAS OS status and then try again.	—
1A000E	DMED1A000E: The process cannot be performed because the specified volume is DM-LU. Please specify another volume and try again.	Please specify another volume and try again.	—
1A000F	DMED1A000F: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1A0010	DMED1A0010: The process cannot be performed because all ports are used for NAS. Please confirm the port type.	Please confirm the port type.	—
1A0020	DMED1A0020: The process cannot be performed because the system VOL exists.	Specify a VOL other than the system VOL.	—
1A0021	DMED1A0021: The process cannot be performed because the user VOL exists.	Specify a VOL other than the user VOL.	—
1A0022	DMED1A0022: The process cannot be performed because the specified volume is the system VOL. Please release the system VOL and try again.	Please release the system VOL and try again.	—
1A0023	DMED1A0023: The process cannot be performed because the specified volume is the user VOL. Please specify another volume and try again.	Please specify another volume and try again.	—
1A0024	DMED1A0024: The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.	Please confirm NAS OS status and then try again.	—
1A0025	DMED1A0025: The process cannot be performed because NAS OS is in progress. Please confirm NAS OS status and then try again.	Please confirm NAS OS status and then try again.	—
1A0026	DMED1A0026: The specified port is used for NAS. Please specify another port.	Please specify another port.	—
1A0027	DMED1A0027: The unification cannot be performed because the stripe size does not match. Please confirm the stripe size of volume and try again.	Please confirm the stripe size of volume and try again.	System Parameter "4.3.1 Preparing for Volume Setting" (SYSPR 04-0290)
1A0028	DMED1A0028: The process cannot be performed because the specified volume is P-VOL or V-VOL of SnapShot. Please specify another volume and try again.	Please specify another volume and try again.	—
1A0029	DMED1A0029: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write. When the mode is set up, please reset the mode using RAID Manager. And try again.	—
1A002A	DMED1A002A: The process cannot be performed because the specified volume is being used as ShadowImage pair with more than 2 S-VOL. Please delete S-VOL and make the pair into one-to-one relation, or cancel the pair, and then try again.	Please delete S-VOL and make the pair into one-to-one relation, or cancel the pair, and then try again.	—
1A0030	DMED1A0030: The Command Device(secondary) cannot set to the NNctype1.	Check the types of the NAS heads.	—
1A0031	DMED1A0031: The Working Area for Dump cannot set to this NNctype2.	Check the types of the NAS heads.	—
1A0032	DMED1A0032: The process cannot be performed because the Command Device is not set by system VOL. Please set the Command Device and try again.	Please set the Command Device and try again.	—
1A0033	DMED1A0033: The process cannot be performed because the Command Device(secondary) is set by system VOL. Please release the Command Device(secondary) and try again.	Please release the Command Device(secondary) and try again.	—
1A0034	DMED1A0034: The process cannot be performed because the equipped NNC is unknown or mixture.	Check the configuration status of the connection NAS heads.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1A0070	DMED1A0070: The process cannot be performed because the equipped NNC is NNCtype2.	Check the configuration status of the connection NAS heads.	—
1A0071	DMED1A0071: The process cannot be performed because the NAS OS is not installed. Please install the NAS OS and try again.	Please install the NAS OS and try again.	—
1A0072	DMED1A0072: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.	Please recover the controller status and then try again.	—
1A0073	DMED1A0073: The process cannot be performed because the NNC is not stopped. Please stop the NNC and try again.	Please stop the NNC and try again.	—
1A0074	DMED1A0074: The process cannot be performed because the equipped NNC is NNCtype1.	Check the configuration status of the connection NAS heads.	—
1A0075	DMED1A0075: The process cannot be performed because the system VOL is not backed up.	A version downgrade instruction cannot be performed.	—
1A0076	DMED1A0076: The process cannot be performed because the NNC is not stopped or detached.	Put the NNC status of both NNCs (NAS Units) into the stop status (blocked status), and then execute it again.	—
1A0077	DMED1A0077: The process cannot be performed because the system VOL is not backed up.	An instruction to release the version downgrade cannot be performed.	—
1B0001	DMED1B0001: The specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
1B0002	DMED1B0002: It is impossible to change to specified IP address. Please specify a correct IP address.	Please specify a correct IP address.	—
1B0003	DMED1B0003: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1B0004	DMED1B0004: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.	Please recover the controller status and then try again.	—
1B0005	DMED1B0005: The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.	Please set the DHCP to disable and try again.	System Parameter "7.2 Setting LAN" (SYPR 07-0040)
1B0006	DMED1B0006: The process cannot be performed during the maintenance LAN setting. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1B0008	DMED1B0008: The process cannot be performed because the DHCP is enabled. Please set the DHCP to disable and try again.	Please set the DHCP to disable and try again.	System Parameter "7.2 Setting LAN" (SYPR 07-0040)
1B0009	DMED1B0009: The process cannot be performed because NNC is equipped. Please confirm the port type and try again.	Please confirm the port type and try again.	—
1B000A	DMED1B000A: The process cannot be performed because the same address is specified as the maintenance LAN and the management LAN. Please specify the different address and try again.	Please specify the different address and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1C0001	DMED1C0001: The process cannot be performed because iSCSI port is physically unequipped. Please confirm the port type and try again.	Please confirm the port type and try again.	—
1C0002	DMED1C0002: The process cannot be performed because the authentication method is not specified. Please confirm the authentication method and try again.	Please confirm the authentication method and try again.	—
1C0003	DMED1C0003: The process cannot be performed because the specified alias format is invalid. Please confirm the alias and try again.	Please confirm the alias and try again.	—
1C0004	DMED1C0004: The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.	Please confirm the alias and try again.	—
1C0005	DMED1C0005: The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C0006	DMED1C0006: The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C0007	DMED1C0007: The process cannot be performed because the specified target is not defined. Please confirm the target and try again.	Please confirm the target and try again.	—
1C0008	DMED1C0008: The process cannot be performed because the specified name format is invalid. Please confirm the name and try again.	Please confirm the name and try again.	—
1C0009	DMED1C0009: The process cannot be performed because the same name exists in a port. Please confirm the name and try again.	Please confirm the name and try again.	—
1C000A	DMED1C000A: The process cannot be performed because the specified iSCSI Name format is invalid. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C000B	DMED1C000B: The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C000C	DMED1C000C: The process cannot be performed because the term of the temporary key or emergency key is expired.	Unlock it with the permanent key.	—
1C000D	DMED1C000D: The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.	Please confirm the user name and try again.	—
1C000E	DMED1C000E: The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.	Please confirm the secret and try again.	—
1C000F	DMED1C000F: The process cannot be performed because the character length of user name is outside the effective range. Please confirm the user name and try again.	Please confirm the user name and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1C0010	DMED1C0010: The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again.	Please specify the secret of 12 to 32 characters and try again.	—
1C0011	DMED1C0011: The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
1C0012	DMED1C0012: The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.	Please specify a correct port number.	—
1C0013	DMED1C0013: The process cannot be performed because Keep Alive Timer is outside the effective range. Please specify Keep Alive Timer of 30 to 64800 and try again.	Please specify Keep Alive Timer of 30 to 64800 and try again.	—
1C0014	DMED1C0014: The process cannot be performed because the specified port number is incorrect. Please specify a correct port number.	Please specify a correct port number.	—
1C0015	DMED1C0015: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1C0017	DMED1C0017: The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C0018	DMED1C0018: The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C0019	DMED1C0019: The process cannot be performed because the character length of iSCSI Name is outside the effective range. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C001A	DMED1C001A: The process cannot be performed because the invalid character is specified. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C001B	DMED1C001B: The process cannot be performed because the controller is detached. Please recover the controller status and then try again.	Please recover the controller status and then try again.	—
1C001C	DMED1C001C: The process cannot be performed because the specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
1C001D	DMED1C001D: The process cannot be performed because the ping is executing. Please try again after the ping is completed.	Please try again after the ping is completed.	—
1C001E	DMED1C001E: The process cannot be performed because the specified CHAP algorithm is incorrect. Please specify a correct CHAP algorithm and try again.	Please specify a correct CHAP algorithm and try again.	—
1C001F	DMED1C001F: The process cannot be performed because the character length of secret is outside the effective range. Please specify the secret of 12 to 32 characters and try again.	Please specify the secret of 12 to 32 characters and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1C0020	DMED1C0020: The process cannot be performed because the invalid character is specified. Please confirm the secret and try again.	Please confirm the secret and try again.	—
1C0021	DMED1C0021: The process cannot be performed because the invalid character is specified. Please confirm the user name and try again.	Please confirm the user name and try again.	—
1C0022	DMED1C0022: The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.	Please confirm the user name and try again.	—
1C0023	DMED1C0023: The process cannot be performed because the LUN Manager is not installed, locked, or disabled. Please install the LUN Manager and then try again.	Please install the LUN Manager and then try again.	System Parameter "14.3 Setting Enabling or Disabling of the License" (SYSPR 14-0040).)
1C0024	DMED1C0024: The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.	Please set the target security to enable and try again.	—
1C0025	DMED1C0025: The process cannot be performed because the character length of alias is outside the effective range. Please confirm the alias and try again.	Please confirm the alias and try again.	—
1C0026	DMED1C0026: The process cannot be performed because the invalid character is specified. Please confirm the alias and try again.	Please confirm the alias and try again.	—
1C0027	DMED1C0027: The process cannot be performed because the character length of name is outside the effective range. Please confirm the name and try again.	Please confirm the name and try again.	—
1C0028	DMED1C0028: The process cannot be performed because the invalid character is specified. Please confirm the name and try again.	Please confirm the name and try again.	—
1C0029	DMED1C0029: The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.	Please confirm the user name and try again.	—
1C002A	DMED1C002A: The process cannot be performed because the specified target is not defined. Please confirm the target and try again.	Please confirm the target and try again.	—
1C002B	DMED1C002B: The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.	Please set the target security to enable and try again.	—
1C003A	DMED1C003A: The process cannot be performed because the target security is disabled. Please set the target security to enable and try again.	Please set the target security to enable and try again.	—
1C003B	DMED1C003B: The process cannot be performed because the specified alias is default name of Target 0. Please confirm the alias and try again.	Please confirm the alias and try again.	—
1C003C	DMED1C003C: The process cannot be performed because the specified iSCSI Name is default name of Target 0. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C003D	DMED1C003D: The process cannot be performed because the same alias exists in a port. Please confirm the alias and try again.	Please confirm the alias and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1C003E	DMED1C003E: The process cannot be performed because the same iSCSI Name exists in a port. Please confirm iSCSI Name and try again.	Please confirm iSCSI Name and try again.	—
1C003F	DMED1C003F: The process cannot be performed because the same user name exists in a port. Please confirm the user name and try again.	Please confirm the user name and try again.	—
1C0040	DMED1C0040: The process cannot be performed because the specified host group or target is outside the effective range. Please confirm the host group or target and try again.	Please confirm the host group or target and try again.	—
1C0041	DMED1C0041: The information cannot be obtained because iSCSI port is physically unequipped. Please confirm the port status and try again.	Please confirm the port status and try again.	—
1C0042	DMED1C0042: The specified MTU is incorrect. Please specify a correct MTU.	Please specify a correct MTU.	—
1C0043	DMED1C0043: The process cannot be performed because the specified MTU value is not set to equipped interface board. Please confirm the MTU value.	Please confirm the MTU value.	—
1C0044	DMED1C0044: The process cannot be performed during the remote path set of IPv6. Please delete the remote path and try again.	Please delete the remote path and try again.	—
1C0045	DMED1C0045: The process cannot be performed during the iSNS information set of IPv6. Please set the iSNS server unused and try again.	Please set the iSNS server unused and try again.	System Parameter "5.4.4 Setting iSNS" (SYSPR 05-0500)
1C0046	DMED1C0046: The process cannot be performed because the IPv6 status is disabled. Please set the IPv6 status to enable and try again.	Please set the IPv6 status to enable and try again.	—
1C0047	DMED1C0047: The process cannot be performed because the IPv6 status is disabled. Please set the IPv6 status to enable and try again.	Please set the IPv6 status to enable and try again.	—
1C0048	DMED1C0048: The process cannot be performed because either the address of link local IP address or global IP address or default gateway are same in same port. Please specify the different address.	Please specify the different address.	—
1C0049	DMED1C0049: The process cannot be performed because the link local IP address which cannot be set up is specified. Please confirm the operation and try again.	Please confirm the operation and try again.	—
1C0050	DMED1C0050: The process cannot be performed because the Digest is not set to equipped interface board. Please confirm the interface board type.	Please confirm the interface board type.	—
1D0001	DMED1D0001: The process cannot be performed during the SNMP setting. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1E0001	DMED1E0001: The process cannot be performed because the cycle time is out of range. Please specify the cycle time of 30 to 3600 and try again.	Please specify the cycle time of 30 to 3600 and try again.	—
1E0002	DMED1E0002: The process cannot be set because the specified cycle time is less than the minimum value. Please confirm the cycle time and try again.	Please confirm the cycle time and try again.	—
1E0003	DMED1E0003: The process cannot be performed because the specified Queuing Inhibition Time is outside the effective range. Please confirm the Queuing Inhibition Time and try again.	Please confirm the Queuing Inhibition Time and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1E0004	DMED1E0004: The process cannot be performed because the specified function is not supported on this subsystem. Please confirm the subsystem and try again.	Please confirm the subsystem and try again.	—
1E0010	DMED1E0010: The process cannot be performed because the Remote Replication pair exists. Please cancel the Remote Replication pair and try again.	Please cancel the Remote Replication pair and try again.	—
1E0011	DMED1E0011: The process cannot be performed during the Remote Replication pair deleting. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1E0012	DMED1E0012: The process cannot be performed because the specified volume is a part of Remote Replication pair. Please specify another volume and try again.	Please specify another volume and try again.	—
1E0013	DMED1E0013: The process cannot be performed because the deallocation of cache blocks for SnapShot is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1E0014	DMED1E0014: The process cannot be performed because the subsystem is not restarted after Remote Replication is installed. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
1E0015	DMED1E0015: The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is installed. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
1E0016	DMED1E0016: The process cannot be performed because the subsystem is not restarted after Remote Replication or SnapShot is de-installed. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
1E0017	DMED1E0017: The process cannot be performed because the status of Remote Replication pair is improper. Please confirm the status of pair and try again.	Please confirm the status of pair and try again.	—
1E0018	DMED1E0018: Remote Replication or SnapShot is installed or enabled.	—	—
1F0001	DMED1F0001: The Spare Drive Operation Mode is fixed and the Applying No Copy Back Mode on All the Units is enabled. This combination is not possible to specify. Please confirm the operation and try again.	Please confirm the operation and try again.	—
1F0010	DMED1F0010: The process failed due to an invalid parameter. Please confirm the specified value.	Please confirm the specified value.	—
1F0011	DMED1F0011: The process cannot be performed because the specified IP address is incorrect. Please confirm the IP address and try again.	Please confirm the IP address and try again.	—
1F0012	DMED1F0012: The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.	Please confirm the IP address and try again.	—
1F0013	DMED1F0013: The process failed due to an invalid parameter. Please confirm the specified value.	Please confirm the specified value.	—
1F0014	DMED1F0014: The process cannot be performed because the internal log is disabled. Please set the internal log to enable and try again.	Please set the internal log to enable and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1F0015	DMED1F0015: The process cannot be performed because the internal log is being exported. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1F0017	DMED1F0017: The process cannot be performed because the log export failed. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1F0018	DMED1F0018: The process failed due to an invalid parameter. Please confirm the specified value.	Please confirm the specified value.	—
1F0019	DMED1F0019: The process cannot be performed because the internal log is using. Please confirm the internal log status and try again.	Please confirm the internal log status and try again.	—
1F001A	DMED1F001A: The process cannot be performed because the same IP address is specified to Syslog Server 1 and Syslog Server 2. Please confirm the IP address and try again.	Please confirm the IP address and try again.	—
1F001B	DMED1F001B: The process cannot be performed because the IPv6 address is specified to Syslog Server. Please confirm the version of the navigator.	Please confirm the version of the navigator.	—
1F0020	DMED1F0020: The user ID is too short. Please confirm the user ID.	Please confirm the user ID.	—
1F0021	DMED1F0021: The invalid character is specified in user ID. Please confirm the user ID.	Please confirm the user ID.	—
1F0022	DMED1F0022: The current login session is expired, Please login again.	Please login again.	—
1F0023	DMED1F0023: You have no permission. Please contact the Account Administrator and confirm your permission.	Please contact the Account Administrator and confirm your permission.	—
1F0024	DMED1F0024: The specified user ID has already been registered. Please specify another user ID.	Please specify another user ID.	—
1F0025	DMED1F0025: The specified user ID is not registered. Please confirm the user ID.	Please confirm the user ID.	—
1F0026	DMED1F0026: The role is not assigned. Please assign one or more roles.	Please assign one or more roles.	—
1F0027	DMED1F0027: The process cannot be performed for logged in user.	The account cannot be changed.	—
1F0028	DMED1F0028: The process cannot be performed for Built-in account.	The built-in account cannot be changed.	—
1F0029	DMED1F0029: You have no permission to modify. Please contact the Account Administrator and confirm your permission.	Please contact the Account Administrator and confirm your permission.	—
1F002A	DMED1F002A: The logged in user reached the maximum. Please wait a moment and then try again.	Please wait a moment and then try again.	—
1F002B	DMED1F002B: The specified password does not match. Please specify password again.	Please specify password again.	—
1F002C	DMED1F002C: You cannot login because account status is disabled. Please contact Account Administrator, and confirm the account status.	Please contact Account Administrator, and confirm the account status.	—
1F002D	DMED1F002D: The specified password does not match. Please confirm the password.	Please confirm the password.	—
1F002E	DMED1F002E: The account reached the maximum. Please delete unnecessary account and try again.	Please delete unnecessary account and try again.	—
1F002F	DMED1F002F: The specified password length is less than minimum. Please confirm the password length.	Please confirm the password length.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1F0030	DMED1F0030: Password Protection and Account Authentication cannot be used together.	The option which cannot be effective at the same time with the specified option is already effective. Execute it again after locking or invalidating.	—
1F0031	DMED1F0031: Account Authentication cannot be installed or be enabled, because NNC is equipped. Please change the subsystem into Fibre or iSCSI configuration, and try again.	Please change the subsystem into Fibre or iSCSI configuration, and try again.	—
1F0032	DMED1F0032: The process cannot be performed because the specified session timeout value is outside the effective range. Please confirm the session timeout value.	Please confirm the session timeout value.	—
1F0033	DMED1F0033: The process cannot be performed because TrueCopy Modular Distributed is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
1F0034	DMED1F0034: The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the TrueCopy function.	Please retry after installing or enabling the TrueCopy function.	—
1F0035	DMED1F0035: The process cannot be performed because the specified other than permanent key. Please specify the permanent key and try again.	Please specify the permanent key and try again.	—
1F0036	DMED1F0036: The process cannot be performed because the remote path is defined of Fibre interface. Please delete the remote path and try again.	Please delete the remote path and try again.	—
1F0037	DMED1F0037: The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the TrueCopy Extended Distance function.	Please retry after installing or enabling the TrueCopy Extended Distance function.	—
1F0038	DMED1F0038: The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling Remote Replication.	Please retry after installing or enabling Remote Replication.	—
1F0040	DMED1F0040: The process cannot be performed because the term of the temporary key or emergency key is expired.	Check the pair status.	—
1F0041	DMED1F0041: The process cannot be performed because the ShadowImage pair is contained.	Check the pair status.	—
1F0042	DMED1F0042: The process cannot be performed because the Remote Replication pair is contained.	Check the pair status.	—
1F0043	DMED1F0043: The process cannot be performed because the Remote Replication pair is contained.	Check the pair status.	—
1F0044	DMED1F0044: The process cannot be performed because the SnapShot pair is contained.	Check the pair status.	—
1F0045	DMED1F0045: The process cannot be performed because the Volume Migration pair is contained.	Check the pair status.	—
1F0048	DMED1F0048: The process cannot be performed because formatting is now occurring. Please try again after it is completed.	Please try again after it is completed.	—
1F0049	DMED1F0049: The process cannot be performed because parity correction is not completed. Please try again after it is completed.	Please try again after it is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1F004A	DMED1F004A: The process cannot be performed because the data pool is contained. Please delete the data pool and try again.	Please delete the data pool and try again.	—
1F004B	DMED1F004B: The process cannot be performed because the DM-LU is contained. Please cancel the DM-LU and try again.	Release the DMLU and execute it again.	—
1F004C	DMED1F004C: The process cannot be performed because the command device is contained. Please cancel the command device and try again.	Please cancel the command device and try again.	—
1F004D	DMED1F004D: The process cannot be performed because the system VOL is contained. Please cancel the system VOL and try again.	Please cancel the system VOL and try again.	—
1F004E	DMED1F004E: The process cannot be performed because the VOL change is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
1F0051	DMED1F0051: The process cannot be performed because the system drives is contained.	Check the specified RAID Group.	—
1F0052	DMED1F0052: The process cannot be performed because the write uncompleted VOL is contained. Please recover and then try again.	Please recover and then try again.	Troubleshooting "11.1.14 A Failure Occurred during Operation : Case 4 (Incomplete Writing)" (TRBL 11-0840)
1F0053	DMED1F0053: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.	Please spin up the RAID groups and try again.	—
1F0054	DMED1F0054: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.	Please spin up the RAID groups and try again.	—
1F0055	DMED1F0055: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please spin up the RAID groups and try again.	Please spin up the RAID groups and try again.	—
1F0056	DMED1F0056: The process cannot be performed because the RAID groups in state of Power Saving are existing. Please wait for a while and try again.	Please wait for a while and try again.	—
1F0057	DMED1F0057: The specified RAID group is not defined. Please specify a defined RAID group.	Please specify a defined RAID group.	—
1F0058	DMED1F0058: The process cannot be performed because the drive recovery is in progress. Please try again after it is completed.	Please try again after it is completed.	—
1F0059	DMED1F0059: The process cannot be performed because the health checking is in progress. Please try again after it is completed.	Please try again after it is completed.	—
1F005A	DMED1F0052: The process cannot be performed because the write uncompleted VOL is contained. Please recover and then try again.	Please recover and then try again.	—
1F005B	DMED1F005B: The process cannot be performed because the SES drives is contained.	Check the specified RAID Group.	—
1F005C	DMED1F005C: The process cannot be performed because state of Power Saving is in progress. Please retry after progress is completed.	Please retry after progress is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1F005D	DMED1F005D: The process cannot be performed because the specified RAID group consists of SSD. Please confirm the RAID group and then try again.	Please confirm the RAID group and then try again.	—
1F005E	DMED1F005E: The process cannot be performed because the RAID groups which used system drives are in state of Power Saving. Please spin up the RAID groups and try again.	Please spin up the RAID groups and try again.	—
1F005F	DMED1F005F: The process cannot be performed because the specified RAID group consists of FMD. Please confirm the RAID group and then try again.	Please confirm the RAID group and then try again.	—
1F006A	DMED1F006A: The process cannot be performed because all the configured drives in the specified RAID group are not mounted in Dense84 units. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
1F006B	DMED1F006B: The process cannot be performed because Power Saving Plus is not installed. Please install the option and try again.	Please install the option and try again.	—
1F006C	DMED1F006C: The process cannot be performed because the function of Power Saving Plus is in progress. Please spin up and then try again.	Please spin up and then try again.	—
1F006D	DMED1F006D: The process cannot be performed because the I/O monitoring time of spin down is equal to or more than the I/O monitoring time of drive power off. Please confirm the values and try again.	Please confirm the values and try again.	—
1F006E	DMED1F006E: The process cannot be performed because the unified VOL exists. Please separate the unified VOL and try again.	Please separate the unified VOL and try again.	—
1F006F	DMED1F006F: The process cannot be performed because the power saving operation different from current power saving operation is specified. Please spin up and then try again.	Please spin up and then try again.	—
1F0070	DMED1F0070: The process cannot be performed because the I/O link are both enable and disable. Please confirm the I/O link and try again.	Please confirm the I/O link and try again.	—
1F0071	DMED1F0071: The process cannot be performed because the specified RAID group consists of drive of unit which is unsupported drive power off. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
1F0072	DMED1F0072: The process cannot be performed because Tray Power Saving is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
1F0073	DMED1F0073: The process cannot be performed because the units to which Unit Power Off is enabled exist. Please change the Unit Power Off to disable and try again.	Please change the Unit Power Off to disable and try again.	—
1F0074	DMED1F0074: The process cannot be performed because Power Saving Plus is not installed. Please install the option and try again.	Please install the option and try again.	—
1F0075	DMED1F0075: The process cannot be performed because other than Dense84 units are connected. Please confirm the unit and try again.	Please confirm the unit and try again.	—
1F0076	DMED1F0076: The process cannot be performed because the number of connected units is over 5. Please confirm the number of units and try again.	Please confirm the number of units and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1F0077	DMED1F0077: The process cannot be performed because Tray Power Saving is enabled, and the specified drives are mounted in unit from No.1 to No.3, and the drives to which Unit Power Off is enabled. Please change the Unit Power Off to disable and try again.	Please change the Unit Power Off to disable and try again.	—
1F0078	DMED1F0078: The new unit cannot be added because the number of units reached the maximum. Please confirm the system configuration.	Please confirm the system configuration.	—
1F0079	DMED1F0079: The process cannot be performed because the drive of specified unit configures the DP RAID groups. Please confirm the unit and try again.	Please confirm the unit and try again.	—
1F007A	DMED1F007A: The process cannot be performed because the mounted drives which belong to RAID groups exist in specified unit. Please retry after removing drives.	Please retry after removing drives.	—
1F007B	DMED1F007B: The process cannot be performed because the drive of specified unit is defined as a spare drive. Please remove drive after releasing spare drive and try again.	Please remove drive after releasing spare drive and try again.	—
1F007C	DMED1F007C: The process cannot be performed because the power of unit is off. Please change the Unit Power Off to disable and try again.	Please change the Unit Power Off to disable and try again.	—
1F007D	DMED1F007D: The process cannot be performed because the specified unit is executing the power off. Please change the Unit Power Off to disable and try again.	Please change the Unit Power Off to disable and try again.	—
1F007E	DMED1F007E: The process cannot be performed because the Unit Power Off of the unit which mounted drive which configured the specified RAID group is enabled. Please change the Unit Power Off to disable and try again.	Please change the Unit Power Off to disable and try again.	—
1F007F	DMED1F007F: The process cannot be performed because the PS of subsystem is not normal state. Please confirm the status and then try again.	Please confirm the status and then try again.	—
1F0080	DMED1F0080: The process cannot be performed because the external authentication server 1 is not defined. Please confirm the external authentication server 1 and try again.	Please confirm the external authentication server 1 and try again.	—
1F0082	DMED1F0082: The process cannot be performed because the external authentication server 1 is not defined and the user whose user authentication is RADIUS exists. Please change the user authentication to Internal and try again.	Please change the user authentication to Internal and try again.	—
1F0083	DMED1F0083: The specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
1F0084	DMED1F0084: The authentication classification cannot be RADIUS because the user authentication server 1 is not defined. Please setting the external authentication server 1 as RADIUS and try again.	Please setting the external authentication server 1 as RADIUS and try again.	—
1F0085	DMED1F0085: The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the external authentication server 1 setting and the LAN environment, and try again.	Please confirm the external authentication server 1 setting and the LAN environment, and try again.	—
1F0086	DMED1F0086: The process cannot be performed because the character length of password is outside the effective range. Please confirm password and try again.	Please confirm password and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
1F0087	DMED1F0087: The process cannot be performed because the authentication test with the external authentication server 1 failed. Please confirm the user ID and password, and try again.	Please confirm the user ID and password, and try again.	—
1F0088	DMED1F0088: The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the external authentication server 2 setting and the LAN environment, and try again.	Please confirm the external authentication server 2 setting and the LAN environment, and try again.	—
1F0089	DMED1F0089: The password cannot be changed because the user authentication is RADIUS. Please change the password of RADIUS server.	Please change the password of RADIUS server.	—
1F008A	DMED1F008A: Cannot login because the user authentication with an external authentication server was time-out. Please confirm the external authentication server setting and the LAN environment, and try again.	Please confirm the external authentication server setting and the LAN environment, and try again.	—
1F008B	DMED1F008B: Cannot login because the user authentication with an external authentication server was time-out. Or the process cannot be performed because the authentication test failed. Please confirm the external authentication server setting and the LAN environment, and try again.	Please confirm the external authentication server setting and the LAN environment, and try again.	—
1F008C	DMED1F008C: Cannot login because the user authentication with an external authentication server was failed. Please confirm the user ID and password, and try again.	Please confirm the user ID and password, and try again.	—
1F008D	DMED1F008D: The process cannot be performed because the authentication test with the external authentication server 2 failed. Please confirm the user ID and password, and try again.	Please confirm the user ID and password, and try again.	—
1F008E	DMED1F008E: The process cannot be performed because the character length of user ID is outside the effective range. Please confirm user ID and try again.	Please confirm user ID and try again.	—
1F008F	DMED1F008F: The process cannot be performed because the password is not set. Please specify the password, and try again.	Please specify the password, and try again.	—
1F00A0	DMED1F00A0: The process cannot be performed because the user is not Built-in account. Please login by Built-in account and try again.	Please login by Built-in account and try again.	—
1F0101	DMED1F0101: The process cannot be performed because the connection test is executing. Please retry after the connection test is completed.	Please retry after the connection test is completed.	—
1F0102	DMED1F0102: The process cannot be performed because the health check is executing. Please retry after the health check is completed.	Please retry after the health check is completed.	—
1F0103	DMED1F0103: The process cannot be performed because the unit power saving status is tray power off. Please retry after changing the unit into a power on state.	Please retry after changing the unit into a power on state.	—
1F0104	DMED1F0104: The process cannot be performed because the Unit Power Off of the unit which mounted drive which configured the specified RAID group is enabled and specified drive is system drive. Please confirm the specified drive and try again.	Please confirm the specified drive and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
200001	DMED200001: The process cannot be performed because cache memory size 1GB or less. Please increase the cache memory and try again.	Please increase the cache memory and try again.	—
200002	DMED200002: This function is unsupported in the single-controller system	Review the system configuration.	—
200003	DMED200003: SnapShot cannot be installed because Cache Partition Manager is enabled. Please change Cache Partition Manager to de-installed or disabled and try again.	Please change Cache Partition Manager to de-installed or disabled and try again.	Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460)
200004	DMED200004: Cache Partition Manager cannot be installed because the subsystem is not restarted after SnapShot is installed. Please restart the subsystem, and then try again.	Please restart the subsystem, and then try again.	—
200005	DMED200005: The option cannot be installed or enabled because cache memory size is 512MB or less. Please increase the cache memory and then try again.	Please increase the cache memory and then try again.	Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460)
200006	DMED200006: The option cannot be installed or enabled because cache memory size is 2GB or less. Please increase the cache memory and then try again.	Please increase the cache memory and then try again.	—
200011	DMED200011: The process cannot be performed because the specified volume is not the reserve VOL. Please specify the reserve VOL and try again.	Please specify the reserve VOL and try again.	—
200012	DMED200012: The process cannot be performed because the specified volume is the reserve VOL. Please delete the reserve VOL or specify another volume and try again.	Please delete the reserve VOL or specify another volume and try again.	—
200013	DMED200013: The process cannot be performed because the capacity is different between the specified P-VOL and S-VOL. Please specify the volume of the same capacity and try again.	Please specify the volume of the same capacity and try again.	—
200014	DMED200014: The process cannot be performed because the owner controller is different between the specified P-VOL and S-VOL. Please specify the volume of the same owner controller and try again.	Please specify the volume of the same owner controller and try again.	—
200015	DMED200015: The process cannot be performed the specified P-VOL and S-VOL have same volume number. Please specify the different volume number.	Please specify the different volume number.	—
200016	DMED200016: The process cannot be performed because the Volume Migration pair reached the maximum. Please cancel or split the unnecessary Volume Migration pair and try again.	Please cancel or split the unnecessary Volume Migration pair and try again.	—
200017	DMED200017: The process cannot be performed because the specified P-VOL and S-VOL belong to the same RAID group. Please specify the volumes of different RAID group.	Please specify the volumes of different RAID group.	—
200018	DMED200018: The specified pair cannot be canceled because the pair status is not waiting or copying.	Execute the Volume Migration suspension instruction while the pair status is waiting or migrating.	—
200019	DMED200019: The specified pair cannot be split because the pair status is not completed or error.	Execute the Volume Migration pair release instruction while the pair status is completed or failed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
20001A	DMED20001A: The process cannot be performed because the specified P-VOL and S-VOL are not in pairs. Please specify the P-VOL and S-VOL in pairs and try again.	Please specify the P-VOL and S-VOL in pairs and try again.	—
20001B	DMED20001B: The process cannot be performed because the reserve VOL reached the maximum. Please delete the unnecessary reserve VOL and try again.	Please delete the unnecessary reserve VOL and try again.	—
20001C	DMED20001C: The process cannot be performed because the specified volume is the S-VOL of the Volume Migration pair. Please specify another volume and try again.	Please specify another volume and try again.	—
20001D	DMED20001D: The process cannot be performed because the specified volume is not the reserve VOL. Please specify the reserve VOL and try again.	Please specify the reserve VOL and try again.	—
20001E	DMED20001E: The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair is contained. Please split the pair and try again.	Please split the pair and try again.	—
20001F	DMED20001F: The process cannot be performed because the reserve VOL is contained. Please delete the reserve VOL and try again.	Please delete the reserve VOL and try again.	—
200020	DMED200020: The process cannot be performed because the P-VOL or S-VOL of the Volume Migration pair or the reserve VOL is contained. Please split the pair or delete the reserve VOL and try again.	Please split the pair or delete the reserve VOL and try again.	—
200021	DMED200021: The process cannot be performed because the owner ID is different. Please cancel the pair using the application that created the pair.	Please cancel the pair using the application that created the pair.	—
200022	DMED200022: The process cannot be performed because the owner ID is different. Please split the pair using the application that created the pair.	Please split the pair using the application that created the pair.	—
200023	DMED200023: The process cannot be performed because the specified owner ID is not supported.	Execute it again from Hitachi Storage Navigator Modular 2 or HiCommand.	—
200024	DMED200024: The process cannot be performed because the reserve VOL exists. Please delete the reserve VOL and try again.	Please delete the reserve VOL and try again.	—
200025	DMED200025: The process cannot be performed because the Volume Migration pair exists. Please cancel or split the pair and try again.	Please cancel or split the pair and try again.	—
200026	DMED200026: The process cannot be performed because the specified volume is reserved for cache partition modification. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
200027	DMED200027: The process cannot be performed because a management area is shortage. Please delete the unnecessary pair(s) and try again.	Please delete the unnecessary pair(s) and try again.	—
200028	DMED200028: The process cannot be performed because the specified volume is not the Volume Migration pair. Please specify another volume and try again.	Please specify another volume and try again.	—
200029	DMED200029: The process cannot be performed because the specified volume is Volume Migration pair and is copying. Please retry after copy is completed.	Please retry after copy is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
20002A	DMED20002A: The copy pace of specified pair cannot be changed because the pair status is not waiting or copying.	Execute it while the pair status of the Volume Migration pair is waiting or migrating.	—
20002B	DMED20002B: The process cannot be performed because the specified owner ID is not supported.	The copy priority change instruction of the Volume Migration pair is only supported by Hitachi Storage Navigator Modular 2. Execute the change of the copy priority from Hitachi Storage Navigator Modular 2.	—
20002C	DMED20002C: The process cannot be performed because the specified volume is not the P-VOL or S-VOL of the Volume Migration pair. Please specify the P-VOL or S-VOL of the Volume Migration pair and try again.	Please specify the P-VOL or S-VOL of the Volume Migration pair and try again.	—
20002D	DMED20002D: The specified P-VOL and S-VOL belong to same DP pool. Please specify a different DP pool and then try again.	Please specify a different DP pool and then try again.	—
20002E	DMED20002E: The capacity of DP pool to which the specified S-VOL belongs is insufficient. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—
20002F	DMED20002F: The process cannot be performed because the capacity of DM-LU is insufficient. Please grow the capacity of DM-LU and try again.	Please grow the capacity of DMLU and try again.	—
200030	DMED200030: The number of iSCSI connecting hosts exceeds the maximum value that can be unlocked or enabled fee-basis option. Please delete unnecessary hosts and try again.	Please delete unnecessary hosts and try again.	—
200031	DMED200031: The process cannot be performed because specified S-VOL is in progress. Please wait for a while and then try again.	Please wait for a while and then try again.	—
200032	DMED200032: The process cannot be performed because the status of DM-LU is illegal. Please recover the status and try again.	Please recover the status and try again.	—
200033	DMED200033: The process cannot be performed because state of the DP pool which contains the DM-LU is detached. Please recover and then try again.	Please recover and then try again.	—
200034	DMED200034: The process cannot be performed because the capacity of DM-LU is insufficient. Please grow the capacity of DP pool and try again.	Please grow the capacity of DP pool and try again.	—
210001	DMED210001: The process cannot be performed because the mapping information is overlapped within the same host group. Please confirm the mapping information.	Please confirm the mapping information.	—
210010	DMED210010: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
210011	DMED210011: The process cannot be performed because E-mail Error Report is enabled. Please set E-mail Error Report to disable and try again.	Please set E-mail Error Report to disable and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
220001	DMED220001: The process cannot be performed because the specified battery count is outside the effective range. Please confirm the battery count.	Please confirm the battery count.	—
220002	DMED220002: The valid battery count cannot be increased. Please specify the count equal to or less than the current valid battery count.	Please specify the count equal to or less than the current valid battery count.	—
220003	DMED220003: The process cannot be performed in the single-controller system. Please confirm the system configuration.	Please confirm the system configuration.	—
220004	DMED220004: The new unit cannot be added because the number of units reached the maximum. Please confirm the system configuration.	Please confirm the system configuration.	—
220005	DMED220005: The process cannot be performed because the controller or ENC is detached. Please recover the status and then try again.	Please recover the status and then try again.	—
220006	DMED220006: The process cannot be performed because the ENC firmware is being replaced. Please retry after the replacement completes.	Please retry after the replacement completes.	—
220007	DMED220007: The process cannot be performed because the subsystem is under diagnosis process. Please retry after a while.	Please retry after a while.	—
220008	DMED220008: The process cannot be performed because the unit is being added. Please retry after the addition of unit completes.	Please retry after the addition of unit completes.	—
220009	DMED220009: The specified battery count cannot be set. Please specify a right battery count.	Please specify a right battery count.	—
230001	DMED230001: The process cannot be performed because the migration guard is set up. Please clear the migration guard and try again.	Please clear the migration guard and try again.	—
230002	DMED230002: The process cannot be performed because the Migration Status is Checking. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230003	DMED230003: The process cannot be performed because the Migration Status is Preparing to Create Copy. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230004	DMED230004: The process cannot be performed because the Migration Status is Creating Copy. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230005	DMED230005: The process cannot be performed because the Migration Status is Auto Migration Failed. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230006	DMED230006: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230007	DMED230007: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230008	DMED230008: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
230009	DMED230009: The process cannot be performed because the subsystem is executing Auto Migration. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230010	DMED230010: The process cannot be performed because the Migration Status is Copy Created. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230011	DMED230011: The process cannot be performed because the Migration Status is Switching Array. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230012	DMED230012: The process cannot be performed because the Migration Status is Auto Migration Completed. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230013	DMED230013: The process cannot be performed because the Migration Status is Switching Array Failed. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230014	DMED230014: The process cannot be performed because the Migration Status is In Progress. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230015	DMED230015: The process cannot be performed because the Migration Status is Completed. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230016	DMED230016: The process cannot be performed because the Migration Status is Failed. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230017	DMED230017: The process cannot be performed because the Migration Status is Not Started. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230018	DMED230018: The process cannot be performed because the Migration Status is Creating Copy Failed to Start. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230019	DMED230019: The process cannot be performed because the ENC firmware is being replaced. Please retry after replacement completes.	Please retry after replacement completes.	—
230020	DMED230020: The process cannot be performed because the Migration Status is Preparing. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
230021	DMED230021: The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again when the pair status is not Split Pending.	Please try again when the pair status is not Split Pending.	—
231000	Hitachi Storage Navigator Modular 2 is less than Ver.24.50.		
	DMED231000: The process cannot be performed because the subsystem is executing the Auto Migration. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.24.50 or more.		
	DMED231000: The process cannot be performed because the subsystem is executing the Migration. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
231001	DMED231001: The process cannot be performed because the subsystem is executing the Auto Migration or the addition of unit. Please confirm the Migration Status while executing Auto Migration and try again.	Please confirm the Migration Status while executing Auto Migration and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
231002	DMED231002: The specified array ID is incorrect. Please specify a right array ID.	Please specify a right array ID.	—
231003	DMED231003: The process cannot be performed because formatting is now occurring. Please retry after formatting completes.	Please retry after formatting completes.	—
231004	DMED231004: The process cannot be performed because the specified interface board type is not equipped. Please confirm the interface board type.	Please confirm the Host I/O Board/Module type.	—
231005	DMED231005: The process cannot be performed because the PIN exceeded state. Please restore PIN data and try again.	Please restore PIN data and try again.	Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760)
231006	DMED231006: The process cannot be performed because the write uncompleted VOL exists. Please recover and then try again.	Please recover and then try again.	Troubleshooting "11.1.14 A Failure Occurred during Operation : Case 4 (Incomplete Writing)" (TRBL 11-0840)
231007	DMED231007: The process cannot be performed because the DM-LU is not defined. Please define DM-LU and try again.	Please define DMLU and try again.	—
231008	DMED231008: The process cannot be performed because the Auto Migration is executing or is failed. Please confirm the Migration Status and try again.	Please confirm the Migration Status and try again.	—
240001	DMED240001: The certificate and the secret key cannot be checked. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
240002	DMED240002: The process cannot be performed because the certificate is invalid. Please confirm the certificate and try again.	Please confirm the certificate and try again.	—
240003	DMED240003: The process cannot be performed because the secret key is invalid. Please confirm the certificate and try again.	Please confirm the certificate and try again.	—
241001	DMED241001: The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed. And, the specified operation may not be performed even if the RAID group expansion is completed. When the RAID group expansion is completed, please retry after waiting 2 minutes or more.	Please retry after expansion is completed. And, the specified operation may not be performed even if the RAID group expansion is completed. When the RAID group expansion is completed, please retry after waiting 2 minutes or more.	System Parameter "4.2.5 Expanding the RAID Group" (SYSPR 04-0130)
241002	DMED241002: The 'cancel' operation cannot be performed because the RAID group does not execute the expansion. Please confirm the RAID group and then try again.	Please confirm the RAID group and then try again.	
241003	DMED241003: The 'cancel' operation cannot be performed because the RAID group is executing expansion or has been executed the expansion and waiting. Please confirm the RAID group status and try again.	Please confirm the RAID group status and try again.	
241004	DMED241004: The 'forcibly cancel' operation cannot be performed because the RAID group does not execute the expansion and waiting. Please specify a 'cancel' operation.	Please specify a 'cancel' operation.	
241005	DMED241005: The process cannot be performed because RAID group is RAID0. Please confirm RAID level and then try again.	Please confirm RAID level and then try again.	

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
241006	DMED241006: The process cannot be performed because the number of parity groups is not 1. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
241007	DMED241007: The process cannot be performed because the specified drives contain an un-mounted drive or a blocked drive. Please confirm the drive status and try again.	Please confirm the drive status and try again.	—
241008	DMED241008: The specified drive is already defined as a spare drive, or is already being used in the RAID group. Please confirm the drive status and try again.	Please confirm the drive status and try again.	—
241009	DMED241009: The process cannot be performed because the number of drive is incorrect. Please specify it by an even number, when RAID level is RAID1 or RAID1+0.	Please specify it by an even number, when RAID level is RAID1 or RAID1+0.	—
24100A	DMED24100A: The process cannot be performed because the number of drive is incorrect. Please specify the number of drives within the range of the combination at the RAID level.	Please specify the number of drives within the range of the combination at the RAID level.	—
24100B	DMED24100B: The process cannot be performed because the drive type of the RAID group is different. Please confirm the drive type and try again.	Please confirm the drive type and try again.	—
24100C	DMED24100C: The process cannot be performed because the capacity of specified drive is less than the minimum capacity of the RAID group drives. Please confirm the drive capacity and try again.	Please confirm the drive capacity and try again.	—
24100D	DMED24100D: The process cannot be performed because ShadowImage pair or Remote Replication pair is not Simplex or Split, or SnapShot pair is not Simplex or Paired. Please retry after copy is completed.	Please retry after copy is completed.	—
24100E	DMED24100E: The process cannot be performed because SnapShot pair is not Paired or Remote Replication pair is not Split. Please retry after copy is completed.	Please retry after copy is completed.	—
24100F	DMED24100F: The process cannot be performed because some volume are under quick formatting. Please retry after quick formatting is completed.	Please retry after quick formatting is completed.	—
241010	DMED241010: The process cannot be performed because some volume is under parity correction. Please retry after parity correction is completed.	Please retry after parity correction is completed.	—
241011	DMED241011: The process cannot be performed because the write uncompleted VOL is contained. Please recover and then try again.	Please recover and then try again.	Troubleshooting "11.1.14 A Failure Occurred during Operation : Case 4 (Incomplete Writing)" (TRBL 11-0840)
241012	DMED241012: The process cannot be performed because the Volume Migration pair is contained. Please split the pair and try again.	Please split the pair and try again.	—
241013	DMED241013: The process cannot be performed because the reserve VOL of the Volume Migration is contained. Please delete the reserve VOL and try again.	Please delete the reserve VOL and try again.	—
241014	DMED241014: The process cannot be performed because the Cache Residency VOL or a reserved one exists. Please delete the Cache Residency VOL and then try again.	Please delete the Cache Residency VOL and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
241016	DMED241016: The process cannot be performed because the VOL change is in progress. Please wait for a while and then try again.	Please wait for a while and then try again.	—
241017	DMED241017: The process cannot be performed because the size of VOL is over 120TB or the unified VOL exists. Please shrink the VOL capacity and try again.	Please shrink the VOL capacity and try again.	System Parameter "4.3.5 Changing the Capacity of Volumes" (SYSPR 04-0460)
241019	DMED241019: The process cannot be performed because the subsystem is not restarted, when Cache Partition Manager and SnapShot or Remote Replication is enabled. Or the process cannot be performed because cache partition modification is reserved. Please restart the subsystem and try again.	Please restart the subsystem and try again.	—
24101A	DMED24101A: The process cannot be performed because ShadowImage pair of Split Pending exists. Please try again after status is changed to Split.	Please try again after status is changed to Split.	—
24101B	DMED24101B: The process cannot be performed because the volume in regressed state is contained. Please change the state to normal and try again.	Please change the state to normal and try again.	—
241050	DMED241050: The process cannot be performed because the RAID group expansion is now occurring. Please retry after expansion is completed.	Please retry after expansion is completed.	—
241051	DMED241051: The process cannot be performed because the VOL changing occurred by the RAID group expansion. Please retry after expansion is completed.	Please retry after expansion is completed.	—
250001	DMED250001: The specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
250002	DMED250002: The specified default gateway address is incorrect. Please specify a right default gateway address.	Please specify a right default gateway address.	—
250003	DMED250003: The process cannot be performed because the segment is different between the management LAN and default gateway. Please specify a correct IP address.	Please specify a correct IP address.	—
250004	DMED250004: The process cannot be performed because the specified management LAN is same address as the linklocal management LAN. Please specify the different address and try again.	Please specify the different address and try again.	—
250005	DMED250005: The process cannot be performed because the specified management LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.	Please specify the different address and try again.	—
250006	DMED250006: The process cannot be performed because the specified management LAN is same address as the maintenance LAN. Please specify the different address and try again.	Please specify the different address and try again.	—
250007	DMED250007: The process cannot be performed because the specified maintenance LAN is same address as the management LAN. Please specify the different address and try again.	Please specify the different address and try again.	—
250008	DMED250008: The process cannot be performed because the specified maintenance LAN is same address as the linklocal management LAN. Please specify the different address and try again.	Please specify the different address and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
250009	DMED250009: The process cannot be performed because the specified maintenance LAN is same address as the linklocal maintenance LAN. Please specify the different address and try again.	Please specify the different address and try again.	—
25000A	DMED25000A: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
25000B	DMED25000B: The process cannot be performed because subsystem is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
25000C	DMED25000C: The specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
25000D	DMED25000D: The specified IP address is incorrect. Please specify a correct IP address.	Please specify a correct IP address.	—
25000E	DMED25000E: The protocol version (IPv4/IPv6) is different between IP address of subsystem and the specified IP address of mail server. Please confirm the protocol version of the subsystem and try again.	Please confirm the protocol version of the subsystem and try again.	—
25000F	DMED25000F: The protocol version (IPv4/IPv6) is different between IP address of subsystem and the set IP address of mail server. Please confirm the protocol version of the subsystem and try again.	Please confirm the protocol version of the subsystem and try again.	—
260001	DMED260001: The specified drive is already defined as a spare drive, or is already being used in the RAID group or DP pool. Please confirm the drive status and try again.	Please confirm the drive status and try again.	—
260002	DMED260002: The process cannot be performed because the DP pool exists. Please delete the DP pool and try again.	Please delete the DP pool and try again.	—
260003	DMED260003: The process cannot be performed because the specified volume is a volume in the DP pool. Please specify another volume and try again.	Please specify another volume and try again.	—
260004	DMED260004: The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
260005	DMED260005: The number of defined volume reached the maximum. Please delete unnecessary volume and try again.	Please delete unnecessary volume and try again.	—
260006	DMED260006: The process cannot be performed because the specified RAID group is a RAID group in the DP pool. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
260007	DMED260007: The process cannot be performed because the volume which belongs to the DP pool is not normal state. Please recover the status and then try again.	Please recover the status and then try again.	—
260008	DMED260008: The specified DP pool number has already been defined. Please specify a new number.	Please specify a new number.	—
260009	DMED260009: The process cannot be performed because the specified RAID level is not supported. Please specify the RAID level currently supported and try again.	Please specify the RAID level currently supported and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
26000A	DMED26000A: The specified RAID group is already defined or used by DP pool. Please specify a new RAID group.	Please specify a new RAID group.	—
26000B	DMED26000B: The process cannot be performed because the specified DP pool is neither in normal nor in regressed state. Please recover the status and then try again.	Please recover the status and then try again.	—
26000C	DMED26000C: The process cannot be performed because the non-supported drive is mounted. Please replace the drive and then try again.	Please replace the drive and then try again.	Replacement “2.2.1 Replacing a Drive” (REP 02-0050)
26000D	DMED26000D: The process cannot be performed because the capacity of specified drive is not supported. Please replace the drive currently supported and try again.	Please replace the drive currently supported and try again.	
26000E	DMED26000E: The specified DP pool cannot be deleted. Please specify another DP pool.	Please specify another DP pool.	—
26000F	DMED26000F: The number of defined RAID group reached the maximum. Please delete unnecessary RAID group and try again.	Please delete unnecessary RAID group and try again.	—
260010	DMED260010: The process cannot be performed because the subsystem is not restarted after Dynamic Provisioning is installed. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
260011	DMED260011: The process cannot be performed because combination of the RAID level and the number of drive does not match. Please confirm combination of the RAID level or the number of drive and try again.	Please confirm combination of the RAID level or the number of drive and try again.	—
260012	DMED260012: The specified DP pool is not defined. Please specify a defined DP pool and then try again.	Please specify a defined DP pool and then try again.	—
260013	DMED260013: The process cannot be performed because the specified DP pool is neither in normal state. Please recover the status and then try again.	Please recover the status and then try again.	—
260014	DMED260014: The number of drives reach the maximum. Please confirm the number of drives.	Please confirm the number of drives.	—
260015	DMED260015: The process cannot be performed because the volume exists in the DP pool. Please delete the volume in the DP pool and then try again.	Please delete the volume in the DP pool and then try again.	—
260016	DMED260016: The process cannot be performed because the drive recovery is in progress. Please retry after drive recovery completes.	Please retry after drive recovery completes.	—
260017	DMED260017: The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.	Please retry after replacement completes.	—
260018	DMED260018: The early alert of DP pool consumed capacity alert is equal to or more than the depletion alert. Please confirm the values and try again.	Please confirm the values and try again.	—
260019	DMED260019: The warning of over provisioning threshold is equal to or more than the limit. Please confirm the values and try again.	Please confirm the values and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
26001A	DMED26001A: The process cannot be performed because the combination of drive type and drive capacity does not match. Please confirm the drive type or the drive capacity, and try again.	Please confirm the drive type or the drive capacity, and try again.	—
26001B	DMED26001B: There is no drive which can be used. Please confirm the number of drives and try again.	Please confirm the number of drives and try again.	—
26001C	DMED26001C: The process cannot be performed because specified volume is not a volume in the DP pool. Please specify a volume in the DP pool and then try again.	Please specify a volume in the DP pool and then try again.	—
26001D	DMED26001D: The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.	Please increase a larger cache memory than 4GB and then try again.	Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460)
26001E	DMED26001E: The process cannot be performed because cache memory size is 2GB or less. Please increase a larger cache memory than 4GB and then try again.	Please increase a larger cache memory than 4GB and then try again.	
26001F	DMED26001F: The process cannot be performed because the status of DP pool consumed capacity is depletion alert over or capacity depleted. Please confirm the DP pool consumed capacity and then try again.	Please confirm the DP pool consumed capacity and then try again.	—
260020	DMED260020: The process cannot be performed because the DP pool consumed capacity is not normal state. Please confirm the DP pool consumed capacity and then try again.	Please confirm the DP pool consumed capacity and then try again.	—
260021	DMED260021: The process cannot be performed because the combination of RAID level and number of drives does not match. Please confirm the number of drives and then try again.	Please confirm the number of drives and then try again.	—
260022	DMED260022: The process cannot be performed because different drives are specified. Please confirm the drive type and then try again.	Please confirm the drive type and then try again.	—
260023	DMED260023: The process cannot be performed because there are some volumes that are not normal or skip state of the parity correction. Please retry after changing to normal state.	Please retry after changing to normal state.	—
260024	DMED260024: The process cannot be performed because the drive type of the DP pool is different. Please confirm the drive type and then try again.	Please confirm the drive type and then try again.	—
260025	DMED260025: The process cannot be performed because the combination of stripe size and segment size does not match. Please confirm the stripe size or the cache partition and then try again.	Please confirm the stripe size or the cache partition and then try again.	System Parameter "4.3.1 Preparing for Volume Setting" (SYSPR 04-0290)
260026	DMED260026: The process cannot be performed because the combination of the number of drives and the combination does not match. Please confirm the number of drives and the combination and then try again.",	Please confirm the number of drives and the combination and then try again.",	System Parameter "4.2.2 Creating RAID Group" (SYSPR 04-0050)
260027	DMED260027: The process cannot be performed because the capacity of DP pool will exceed the maximum. Please delete unnecessary DP pools and then try again.	Please delete unnecessary DP pools and then try again.	—
260028	DMED260028: The process cannot be performed because the access level is set up. Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	Please change the attribute to Read/Write, and set S-VOL mode to enable. When the mode is set up, please reset the mode using RAID Manager. And try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
260029	DMED260029: The process cannot be performed because the DP optimization state of the specified volume in DP pool or the volumes in DP pool that has specified volume is neither in Normal state nor in Failed state. Please wait for completion of DP optimization or cancel DP optimization and then try again.	Please wait for completion of DP optimization or cancel DP optimization and then try again.	—
26002A	DMED26002A: The process cannot be performed because the DP optimization state of volume in DP pool is not Normal. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.	Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.	—
26002B	DMED26002B: The process cannot be performed because the capacity of DP pool for performing DP optimization is insufficient. Please add capacity of DP pool for performing DP optimization and then try again.	Please add capacity of DP pool for performing DP optimization and then try again.	—
26002C	DMED26002C: The process cannot be performed because specified volume in DP pool or the volumes in DP pool that has specified volume contains the write uncompleted volume. Please recover and then try again.	Please recover and then try again.	—
26002D	DMED26002D: It is not necessary to cancel because DP optimization state of the volume in specified DP pool or the volume in DP pool containing specified volume is already optimizing or canceling.	—	—
26002E	DMED26002E: The process cannot be performed because DP optimization state of the volume in DP pool is not normal. Please confirm DP optimization state of the volume in DP pool and then try again.	Please confirm DP optimization state of the volume in DP pool and then try again.	—
26002F	DMED26002F: The process cannot be performed because specified volume in DP pool contains the write uncompleted volume. Please recover and then try again.	Please recover and then try again.	—
260030	DMED260030: The process cannot be performed because status of the volume in specified DP pool or the volume in DP pool containing specified volume is neither in Normal state nor in Regression state. Please recover the volume and then try again.	Please recover the volume and then try again.	—
260031	DMED260031: The process cannot be performed because ShadowImage pair of Simplex state exists in specified DP pool. Please release the pair and then try again.	Please release the pair and then try again.	—
260032	DMED260032: The process cannot be performed because specified volume in DP pool or the volumes in DP pool that has specified volume is in the PIN exceeded state. Please recover and then try again.	Please recover and then try again.	—
260033	DMED260033: The process cannot be performed because state of the DP pool which contains the specified volume is Detached. Please recover and then try again.	Please recover and then try again.	—
260034	DMED260034: The process cannot be performed because status the volume in the specified DP pool is in Normal state nor in Regression state. Please recover the volume and then try again.	Please recover the volume and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
260035	DMED260035: The process cannot be performed because specified volume in DP pool is in the PIN exceeded state. Please recover and then try again.	Please recover and then try again.	—
260036	DMED260036: The process cannot be performed because the updating of DP management information is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
260037	DMED260037: The capacity of DP pool to which the specified P-VOL belongs is insufficient. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—
260038	DMED260038: The process cannot be performed because the subsystem is not restarted after DP capacity mode is changed. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
260039	DMED260039: The process cannot be performed because the capacity of DP pool will exceed the maximum. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
26003A	DMED26003A: The process cannot be performed because the subsystem is not restarted after Remote Replication, SnapShot or Dynamic Provisioning is installed or is de-installed, or DP capacity mode is changed. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
26003B	DMED26003B: The process cannot be performed because Remote Replication pair of Simplex state exists in specified DP pool. Please cancel the pair and then try again.	Please cancel the pair and then try again.	—
26003C	DMED26003C: The process cannot be performed because Remote Replication pair of Simplex state exists in specified DP pool. Please cancel the pair and then try again.	Please cancel the pair and then try again.	—
26003D	DMED26003D: The process cannot be performed because SnapShot pair of Simplex state exists in specified DP pool. Please cancel the pair and then try again.	Please cancel the pair and then try again.	—
26003E	DMED26003E: The process cannot be performed because the data pool exists in specified DP pool. Please delete the data pool and try again.	Please delete the data pool and try again.	—
26003F	DMED26003F: The process cannot be performed because the depletion alert of replication threshold is equal to or more than the replication data released. Please confirm the values and try again.	Please confirm the values and try again.	—
260040	DMED260040: The process cannot be performed because the SnapShot pair which used replication data DP pool exists. Please release the pair and then try again.	Please release the pair and then try again.	—
260041	DMED260041: The process cannot be performed because the SnapShot pair which used management area DP pool exists. Please release the pair and then try again.	Please release the pair and then try again.	—
260042	DMED260042: The process cannot be performed because the deallocation of replication data for specified DP pool is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
260043	DMED260043: The process cannot be performed because the deallocation of management area for specified DP pool is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
260044	DMED260044: The process cannot be performed because the deallocation of replication data is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
260045	DMED260045: The process cannot be performed because the deallocation of management area is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
260046	DMED260046: The process cannot be performed because the Remote Replication pair which used replication data DP pool exists. Please release the pair and then try again.	Please release the pair and then try again.	—
260047	DMED260047: The process cannot be performed because the Remote Replication pair which used management area DP pool exists. Please release the pair and then try again.	Please release the pair and then try again.	—
260048	DMED260048: The process cannot be performed because the difference of the replication data released threshold and the depletion alert of replication threshold is 5% or less. Please confirm the values and try again.	Please confirm the values and try again.	—
260049	DMED260049: The process cannot be performed because Dynamic Tiering is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
26004A	DMED26004A: The specified function can not be installed because the function does not meet a requirement. Please retry after installing or enabling the Dynamic Provisioning.	Please retry after installing or enabling the Dynamic Provisioning.	—
26004B	DMED26004B: The process cannot be performed because the tier mode of DP pool is enabled. Please change the tier mode to disable or delete the DP pool and try again.	Please change the tier mode to disable or delete the DP pool and try again.	—
26004C	DMED26004C: The process cannot be performed because the number of defined DP RAID group is not specified. Please specify the number of defined DP RAID group and try again.	Please specify the number of defined DP RAID group and try again.	—
26004D	DMED26004D: The number of defined RAID group reached the maximum. Please delete unnecessary RAID group or DP pool and try again.	Please delete unnecessary RAID group or DP pool and try again.	—
26004E	DMED26004E: The process cannot be performed because the DP RAID number is overlapped. Please confirm the DP RAID number and try again.	Please confirm the DP RAID number and try again.	—
26004F	DMED26004F: The process cannot be performed because the drive number is overlapped. Please confirm the drive number and try again.	Please confirm the drive number and try again.	—
260050	DMED260050: The process cannot be performed because the monitored I/O is not specified. Please specify the monitored I/O and try again.	Please specify the monitored I/O and try again.	—
260051	DMED260051: The process cannot be performed because tier mode of the DP pool which contains the specified volume is disabled. Please confirm the volume and try again.	Please confirm the volume and try again.	—
260052	DMED260052: The process cannot be performed because the tier mode of the specified DP pool is disabled. Please change the tier mode to enable and try again.	Please change the tier mode to enable and try again.	—
260053	DMED260053: The process cannot be performed because the drive type, RAID level or HDU combination of the specified DP pool is mixed. Please delete DP pool and create again.	Please delete DP pool and create again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
260054	DMED260054: The process cannot be performed because two or more tiers exist in specified DP pool. Please delete DP pool and create again.	Please delete DP pool and create again.	—
260055	DMED260055: The process cannot be performed because the chunk size of DP RAID group in specified DP pool is not 1GB. Please delete DP pool and create again.	Please delete DP pool and create again.	—
260056	DMED260056: The process cannot be performed because the monitoring state of specified DP pool is the state of deleting monitored data. Please retry after the process completes.	Please retry after the process completes.	—
260057	DMED260057: The process cannot be performed because the drive type, RAID level or HDU combination is mixed. Please confirm the operation and then try again.	Please confirm the operation and then try again.	—
260058	DMED260058: The process cannot be performed because the number of tiers reached the maximum. Please confirm the specified drive type and try again.	Please confirm the specified drive type and try again.	—
260059	DMED260059: The process cannot be performed because RAID level is mixed. Please confirm the operation and try again.	Please confirm the operation and try again.	—
26005A	DMED26005A: The process cannot be performed because HDU combination is mixed. Please confirm the operation and try again.	Please confirm the operation and try again.	—
26005B	DMED26005B: The process cannot be performed because the monitoring state is not state of monitoring or stop (data valid). Please confirm the monitoring state and try again.	Please confirm the monitoring state and try again.	—
26005C	DMED26005C: The process cannot be performed because the auto progress mode is disabled. Please change the auto progress mode to enable and try again.	Please change the auto progress mode to enable and try again.	—
26005D	DMED26005D: The process cannot be performed because the auto progress mode is enabled. Please change the auto progress mode to disable and try again.	Please change the auto progress mode to disable and try again.	—
26005E	DMED26005E: The process cannot be performed because the monitoring state is the state of deleting monitored data. Please retry after the process completes.	Please retry after the process completes.	—
26005F	DMED26005F: The process cannot be performed because the monitoring state is the state of error recovery. Please retry after the process completes.	Please retry after the process completes.	—
260060	DMED260060: The process cannot be performed because the monitoring state is the state of monitoring. Please retry after the process completes.	Please retry after the process completes.	—
260061	DMED260061: The promotion of all volume in DP pools cannot be specified at the same time, when Accelerated Wide Striping Mode and the Full Capacity Mode is specified to enable. Please confirm the operation and then try again.	Please confirm the operation and then try again.	—
260062	DMED260062: The process cannot be performed because the updating of Dynamic Tiering management information is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
260063	DMED260063: The process cannot be performed because the specified DP pool consists of SSD. Please delete DP pool and create again.	Please delete DP pool and create again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
260064	DMED260064: The process cannot be performed because the capacity of drives other than SSD of the specified volume in DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.	If you cannot set up again, please grow the capacity of DP pool.	—
260065	DMED260065: The process cannot be performed because the capacity of drives other than SSD of the specified volume in DP pool is insufficient. Please grow the capacity of DP pool and try again.	Please grow the capacity of DP pool and try again.	—
260066	DMED260066: The process cannot be performed because only one tier exists in the specified DP pool. Please add two or more tiers and then try again.	Please add two or more tiers and then try again.	—
260067	DMED260067: The process cannot be performed because the monitoring state is stop(data invalid). Please start monitoring DP pool and try again.	Please start monitoring DP pool and try again.	—
260068	DMED260068: The process cannot be performed because the monitoring state is reset. Please start monitoring DP pool after reset is completed and try again.	Please start monitoring DP pool after reset is completed and try again.	—
260069	DMED260069: The process cannot be performed because Auto DP Optimize of the specified volume is enabled. Please set Auto DP Optimize to disable, and try again.	Please set Auto DP Optimize to disable, and try again.	—
26006A	DMED26006A: The process cannot be performed because the current value and setting value of the DP capacity mode differ from each other. Please try again after executing the memory reconfiguration or restarting the subsystem.	Please try again after executing the memory reconfiguration or restarting the subsystem.	—
26006B	DMED26006B: The process cannot be performed because the capacity of DP pool will exceed the maximum. Please try again after executing the memory reconfiguration or restarting the subsystem.	Please try again after executing the memory reconfiguration or restarting the subsystem.	—
26006C	DMED26006C: The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after DP capacity mode is changed. Please try again after restarting the subsystem or executing the memory reconfiguration.	Please try again after restarting the subsystem or executing the memory reconfiguration.	—
26006D	DMED26006D: The process cannot be performed because the capacity of DP pool will exceed the maximum. Please delete unnecessary DP pools, shrink the DP pools or change the DP capacity mode to Maximum Capacity and try again.	Please delete unnecessary DP pools, shrink the DP pools or change the DP capacity mode to Maximum Capacity and try again.	—
26006E	DMED26006E: The process cannot be performed because the capacity of tier whose chunk size is 1GB of the specified logical unit in DP pool is insufficient. If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.	If it is temporarily insufficient, please wait a moment and then try again. If you cannot set up again, please grow the capacity of DP pool.	—
26006F	DMED26006F: The process cannot be performed because the capacity of tier whose chunk size is 1GB of the specified logical unit in DP pool is insufficient. Please grow the capacity of DP pool and try again.	Please grow the capacity of DP pool and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
260070	DMED260070: The process cannot be performed because the specified DP RAID group does not exist in specified DP pool. Please confirm the DP RAID group and try again.	Please confirm the DP RAID group and try again.	—
260071	DMED260071: All DP RAID groups in DP pool can not be deleted. Please delete the DP pool.	Please delete the DP pool.	—
260072	DMED260072: The shrink of DP pool capacity cannot be canceled. Please wait until the shrink of DP pool capacity is completed.	Please wait until the shrink of DP pool capacity is completed.	—
260073	DMED260073: The process cannot be performed because the DP pool capacity is being shrunk. Please retry after the process completes.	Please retry after the process completes.	—
260074	DMED260074: The firmware cannot be downgraded because SnapShot pair or Remote Replication pair exists when current replication utilization percent of specified DP pool is 0. Please cancel the pair and then try again.	Please cancel the pair and then try again.	—
260075	DMED260075: The process cannot be performed because the DP pool capacity is being shrunk. Please retry after the process completes.	Please retry after the process completes.	—
260076	DMED260076: The process cannot be performed because the specified DP pool consists of SSD. Please delete DP pool and create again or delete RAID group consists of SSD.	Please delete DP pool and create again or delete RAID group consists of SSD.	—
260077	DMED260077: The process cannot be cancelled because shrinking DP pool capacity is not started. Please confirm the DP pool status and try again.	Please confirm the DP pool status and try again.	—
260078	DMED260078: The process cannot be performed because DP pool under shrinking capacity exists. Please retry after the shrinking DP pool capacity is completed.	Please retry after the shrinking DP pool capacity is completed.	—
260079	DMED260079: The process cannot be performed because the DP pool capacity is being shrunk. Please retry after the process completes.	Please retry after the process completes.	—
26007A	DMED26007A: The process cannot be performed because the specified DP pool consists of SSD or FMD. Please delete DP pool and create again or delete RAID group consists of SSD or FMD.	Please delete DP pool and create again or delete RAID group consists of SSD or FMD.	—
260080	DMED260080: The process cannot be performed because the capacity is equal to or more than the replication data released threshold. Please add DP pool capacity, release the pair which used replication data, or change the threshold. And try again.	Please add DP pool capacity, release the pair which used replication data, or change the threshold. And try again.	—
270000	DMED270000: A memory reconfiguration of fee-basis option is required to confirm a setup.	A memory reconfiguration of fee-basis option is required to confirm a setup.	—
270001	DMED270001: The process cannot be performed because the memory reconfiguration is in progress. Please try again after the memory reconfiguration is completed.	Please try again after the memory reconfiguration is completed.	—
270002	DMED270002: The process cannot be performed because the memory reconfiguration is failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.	Please reconfigure memory after removing the cause of the error, or restart the subsystem.	—
270003	DMED270003: The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after the option using data pool is installed or enabled. Please try again after restarting the subsystem or executing the memory reconfiguration.	Please try again after restarting the subsystem or executing the memory reconfiguration.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
270004	DMED270004: The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after the option using data pool or Dynamic Provisioning is installed, de-installed, enabled, or disabled. Please try again after restarting the subsystem or executing the memory reconfiguration.	Please try again after restarting the subsystem or executing the memory reconfiguration.	—
270005	DMED270005: The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Provisioning is installed or enabled. Please try again after restarting the subsystem or executing the memory reconfiguration.	Please try again after restarting the subsystem or executing the memory reconfiguration.	—
270006	DMED270006: The process cannot be performed because the memory reconfiguration to use data pool is failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.	Please reconfigure memory after removing the cause of the error, or restart the subsystem.	—
270007	DMED270007: The process cannot be performed because the memory reconfiguration to use Dynamic Provisioning failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.	Please reconfigure memory after removing the cause of the error, or restart the subsystem.	—
270008	DMED270008: It is not necessary to reconfigure memory because the memory reconfiguration is completed.	It is not necessary to reconfigure memory because the memory reconfiguration is completed.	—
270009	DMED270009: The memory reconfiguration is in progress already. Please try again after memory reconfiguration is completed, when required.	Please try again after memory reconfiguration is completed, when required.	—
27000A	DMED27000A: The process cannot be performed because the status of ShadowImage pair is Synchronizing, Split Pending, or Paired Internally Synchronizing, or Volume Migration pair is copying. Please retry after copy is completed.	Please retry after copy is completed.	—
27000B	DMED27000B: The process cannot be performed because the status of SnapShot pair is Synchronizing. Please retry after copy is completed.	Please retry after copy is completed.	—
27000C	DMED27000C: The process cannot be cancel because reconfiguring memory is not started.	The process cannot be cancel because reconfiguring memory is not started.	—
27000D	DMED27000D: The reconfigure memory cannot be aborted. Please wait until the reconfigure memory is completed.	Please wait until the reconfigure memory is completed.	—
27000E	DMED27000E: The process cannot be performed because DP pool under formatting exists. Retry after formatting completes.	Retry after formatting completes.	—
27000F	Hitachi Storage Navigator Modular 2 is less than Ver.25.00. DMED27000F: The reconfigure memory cannot be performed because the capacity of Cache Residency VOL is large. Please release a Cache Residency VOL or set a Cache Residency VOL to small capacity VOL and restart the subsystem.	Please release a Cache Residency VOL or set a Cache Residency VOL to small capacity VOL and restart the subsystem.	—
	Hitachi Storage Navigator Modular 2 is Ver.25.00 or more. DMED27000F: The reconfigure memory cannot be performed because the capacity of Cache Residency VOL is large. Please release a Cache Residency VOL or set a Cache Residency VOL to small capacity VOL and restart the subsystem. If the subsystem is restarted without the operation, the Cache Residency VOL is released.	Please release a Cache Residency VOL or set a Cache Residency VOL to small capacity VOL and restart the subsystem. If the subsystem is restarted without the operation, the Cache Residency VOL is released.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
270010	Hitachi Storage Navigator Modular 2 is less than Ver.21.70. DMED270010: The process cannot be performed because the capacity of DP pool is insufficient. Please grow the capacity of DP pool, and try again.	Please grow the capacity of DP pool, and try again.	"Dynamic Provisioning User's Guide"
	Hitachi Storage Navigator Modular 2 is Ver.21.70 or more. DMED270010: The process cannot be performed because the capacity of DP pool is insufficient or over the depletion alert value of DP pool consumed capacity alert. Please grow the capacity of DP pool or change the depletion alert value of DP pool consumed capacity alert, and try again.	Please grow the capacity of DP pool or change the depletion alert value of DP pool consumed capacity alert, and try again.	"Dynamic Provisioning User's Guide"
270011	DMED270011: The process cannot be performed because Full Capacity Mode of the specified volume is enabled. Please set Full Capacity Mode to disable, and try again.	Please set Full Capacity Mode to disable, and try again.	—
270012	DMED270012: The process cannot be performed because Full Capacity Mode of the specified volume is in progress. Please retry after the process completes.	Please retry after the process completes.	—
270013	DMED270013: The process cannot be performed because the volume to which Full Capacity Mode in specified DP pool is in progress exists. Please retry after the process completes.	Please retry after the process completes.	—
270014	DMED270014: The Accelerated Wide Striping Mode and the Full Capacity Mode cannot be specified to enable at the same time. Please set Accelerated Wide Striping Mode or the Full Capacity Mode to disable, and try again.	Please set Accelerated Wide Striping Mode or the Full Capacity Mode to disable, and try again.	"Dynamic Provisioning User's Guide"
270015	DMED270015: The process cannot be performed because the Full Capacity Mode is different between the specified P-VOL and S-VOL. Please specify the volume of the same Full Capacity Mode and try again.	Please specify the volume of the same Full Capacity Mode and try again.	"Dynamic Provisioning User's Guide"
270016	DMED270016: The process cannot be performed because the Full Capacity Mode of specified volume is different from the data pool. Please confirm the Full Capacity Mode and try again.	Please confirm the Full Capacity Mode and try again.	—
270017	DMED270017: The process cannot be performed because the capacity of specified DP pool is insufficient. Please set the Full Capacity Mode to disable, or please retry after formatting of DP pool is completed.	Please set the Full Capacity Mode to disable, or please retry after formatting of DP pool is completed.	—
270018	DMED270018: The Full Capacity Mode cannot be specified to enable because the capacity of DP pool to which the specified volume belongs is insufficient. Please retry after formatting of DP pool is completed.	Please retry after formatting of DP pool is completed.	—
270019	DMED270019: The process cannot be performed because the over provisioning threshold of the DP pool that has the specified volume will be equal to or more than the limit. Please add DP pool capacity and then try again.	Please add DP pool capacity and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
27001A	DMED27001A: The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Provisioning is installed, de-installed, enabled, or disabled. Please try again after restarting the subsystem or executing the memory reconfiguration.	Please try again after restarting the subsystem or executing the memory reconfiguration.	—
27001B	DMED27001B: The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Tiering is installed, de-installed, enabled, or disabled. Please try again after restarting the subsystem or executing the memory reconfiguration.	Please try again after restarting the subsystem or executing the memory reconfiguration.	—
27001C	DMED27001C: The process cannot be performed because the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Tiering is installed or enabled. Please try again after restarting the subsystem or executing the memory reconfiguration.	Please try again after restarting the subsystem or executing the memory reconfiguration.	—
27001D	DMED27001D: The process cannot be performed because the memory reconfiguration to use Dynamic Tiering failed. Please reconfigure memory after removing the cause of the error, or restart the subsystem.	Please reconfigure memory after removing the cause of the error, or restart the subsystem.	—
27001E	DMED27001E: The process cannot be performed because the subsystem is not restarted after Dynamic Tiering is installed or is enabled. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
280000	DMED280000: The backup information of the Master Authentication Key was created.	—	—
280001	DMED280001: The process cannot be performed because the refreshing of the authentication key is in progress. The refreshing is completed, then try again.	The refreshing is completed, then try again.	—
280004	DMED280004: The SAS(SSED) drives are mounted. Please remove the SAS(SSED) drives, and try again.	Please remove the SAS(SSED) drives, and try again.	Replacement "2.2.1 Replacing a Drive" (REP 02-0050)
280005	DMED280005: The sum check error of the master key. Please confirm specified value, and try again.	Please confirm specified value, and try again.	—
280006	DMED280006: Failed to back up the master authentication key. Please wait for a while and then try again.	Please wait for a while and then try again.	—
280007	DMED280007: The process cannot be performed because the SAS(SSED) drives contain a blocked drive. Please recover, and try again.	Please recover, and try again.	—
280009	DMED280009: The process cannot be performed because the RAID group whose drive type is SAS(SSED) is defined. Please delete RAID group, and try again.	Please delete RAID group, and try again.	—
28000A	DMED28000A: The process cannot be performed because the DP pool whose drive type is SAS(SSED) is defined. Please delete DP pool, and try again.	Please delete DP pool, and try again.	—
28000B	DMED28000B: The process cannot be performed because the spare drive whose drive type is SAS(SSED) is defined. Please release spare drive, and try again.	Please release spare drive, and try again.	—
28000C	DMED28000C: The specified password or restore information is invalid. Please confirm specified value, and try again.	Please confirm specified value, and try again.	—
28000D	DMED28000D: The specified restore information is invalid. Please confirm specified value, and try again.	Please confirm specified value, and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
28000E	DMED28000E: Failed to back up the master authentication key. Please wait for a while and then try again.	Please wait for a while and then try again.	—
28000F	DMED28000F: The drive under Authenticating SEDs exists. Please retry after authenticating completes.	Please retry after authenticating completes.	—
280010	DMED280010: The process cannot be performed because the RAID group contains an un-mounted SAS(SED) drive or a blocked SAS(SED) drive. Please recover and then try again.	Please recover and then try again.	—
280011	DMED280011: The process cannot be performed because the DP pool contains an un-mounted SAS(SED) drive or a blocked SAS(SED) drive. Please recover and then try again.	Please recover and then try again.	—
280012	DMED280012: The process cannot be performed because the spare drive contains an un-mounted SAS(SED) drive or a blocked SAS(SED) drive. Please recover and then try again.	Please recover and then try again.	—
280013	DMED280013: The process cannot be performed because the serial number of the specified file is different from the subsystem. Please confirm the file name, and try again.	Please confirm the file name, and try again.	—
280014	DMED280014: The process cannot be performed because the restoration information on the specified file is older than that of the subsystem. Please confirm the file name, and try again.	Please confirm the file name, and try again.	—
280015	DMED280015: The process cannot be performed because the dummy file is specified. Please confirm the file name, and try again.	Please confirm the file name, and try again.	—
280016	DMED280016: The process cannot be performed because the authentication is not executed. Please restore the master authentication key, and try again.	Please restore the master authentication key, and try again.	—
280050	DMED280050: The process cannot be performed because the drives to which encryption is enabled exist in specified drives. Please remove the assigned key or specify the drives to which encryption is disabled and try again.	Please remove the assigned key or specify the drives to which encryption is disabled and try again.	—
280051	DMED280051: The process cannot be performed because the specified drive contain the drive of deleting encryption keys. Please specify the drives to which encryption is disabled or wait a moment and try again.	Please specify the drives to which encryption is disabled or wait a moment and try again.	—
280052	DMED280052: The process cannot be performed because the encryption keys are creating or deleting. Please wait a moment and then try again.	Please wait a moment and then try again.	—
280053	DMED280053: The unification cannot be performed because the encryption status is different. Please confirm the encryption status and try again.	Please confirm the encryption status and try again.	—
280054	DMED280054: The process cannot be performed because the I/O Module(Drive) does not support Data At Rest Encryption. Please replace the I/O Module(Drive) and then try again.	Please replace the I/O Module(Drive) and then try again.	—
280055	DMED280055: The backup information of the encryption key was created.	—	—
280056	DMED280056: The process cannot be performed because the encryption status of specified drives and RAID group are different. Please confirm the encryption status of drive and try again.	Please confirm the encryption status of drive and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
280057	DMED280057: The process cannot be performed because the character length of password is outside the effective range. Please confirm password and try again.	Please confirm password and try again.	—
280058	DMED280058: The process cannot be performed because the drive to which encryption is enabled exists. Please remove the assigned key of drives and try again.	Please remove the assigned key of drives and try again.	—
280059	DMED280059: The process cannot be performed because the number of encryption keys reached the maximum. Please confirm the number of encryption keys and try again.	Please confirm the number of encryption keys and try again.	—
28005A	DMED28005A: The process cannot be performed because the drives to which encryption is enabled exist in specified drives. Please confirm the status of encryption and try again.	Please confirm the status of encryption and try again.	—
28005B	DMED28005B: The specified drives are not blocked drives in the RAID group or DP pool to which encryption is enabled. Please confirm the specified drive and try again.	Please confirm the specified drive and try again.	—
28005C	DMED28005C: The process cannot be performed because the encryption keys are insufficient. Please create the encryption keys and try again.	Please create the encryption keys and try again.	—
28005D	DMED28005D: The process cannot be performed because the subsystem is under diagnosis process. Please wait a moment and then try again.	Please wait a moment and then try again.	—
28005E	DMED28005E: The process cannot be performed because the drives that are not assigned encryption key exist in specified drives. Please confirm the status of encryption and try again.	Please confirm the status of encryption and try again.	—
28005F	DMED28005F: The process cannot be performed because the encryption keys are an unusable status. Please set the encryption environment and then try again.	Please set the encryption environment and then try again.	—
280060	DMED280060: The process cannot be performed because the encryption keys generated place is set up. Please remove the setting of encryption keys generated place and then try again.	Please remove the setting of encryption keys generated place and then try again.	—
280061	DMED280061: The process cannot be performed because the encryption status of the specified RAID group differs from RAID group to which DM-LU belongs. Please confirm the RAID group and try again.	Please confirm the RAID group and try again.	—
280062	DMED280062: In the specified information, it is not changed from the current environment. Please confirm the specified information and try again.	Please confirm the specified information and try again.	—
280063	DMED280063: The process cannot be performed because the invalid character of password is specified. Please confirm password and try again.	Please confirm password and try again.	—
280064	DMED280064: Failed to back up the encryption key. Please try again backing up.	Please try again backing up.	—
280065	DMED280065: Failed to back up the encryption key. Please try again backing up.	Please try again backing up.	—
280066	DMED280066: The process cannot be performed because the encryption keys have been changed. Please try again backing up.	Please try again backing up.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
280067	Hitachi Storage Navigator Modular 2 is less than Ver.27.00. DMED280067: The process cannot be performed because the backup file of an encryption key is invalid. Please confirm the file and then try again.	Please confirm the file and then try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.27.00 or more. DMED280067: The process cannot be performed because the size of specified backup file of an encryption key is not the same. Please confirm the file and then try again.	Please confirm the file and then try again.	—
280068	DMED280068: The process cannot be performed because specified backup file of an encryption key is older than that of the subsystem. Please confirm the file and then try again.	Please confirm the file and then try again.	—
280069	DMED280069: The process cannot be performed because specified backup file of an encryption key is the file of different subsystem. Please confirm the file and then try again.	Please confirm the file and then try again.	—
28006A	DMED28006A: The process cannot be performed because specified backup file of an encryption key or specified password is invalid. Please confirm the file or password and then try again.	Please confirm the file or password and then try again.	—
28006B	DMED28006B: The process cannot be performed because the encryption keys generated place is not set and encryption keys back up to/restore from are File or Key Management Server. Please confirm the encryption keys generated place and encryption keys back up to/restore from and then try again.	Please confirm the encryption keys generated place and encryption keys back up to/restore from and then try again.	—
28006C	DMED28006C: The process cannot be performed because encryption keys back up to/restore from has been set to File. Please confirm encryption keys back up to/restore from and then try again.	Please confirm encryption keys back up to/restore from and then try again.	—
28006D	DMED28006D: The process cannot be performed because the IP address or host name is not specified. Please specify IP address or host name and then try again.	Please specify IP address or host name and then try again.	—
28006E	Hitachi Storage Navigator Modular 2 is less than Ver.27.00. DMED28006E: The process cannot be performed because specified backup file of an encryption key is invalid. Please confirm the file and then try again.	Please confirm the file and then try again.	—
	Hitachi Storage Navigator Modular 2 is Ver.27.00 or more. DMED28006E: The process cannot be performed because specified backup key on key management server is invalid. Please confirm the backup key on key management server and then try again.	Please confirm the backup key on key management server and then try again.	—
28006F	DMED28006F: The process cannot be performed because the size of specified backup key on key management server is not the same. Please confirm the backup key on key management server and then try again.	Please confirm the backup key on key management server and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
280070	DMED280070: The process cannot be performed because specified backup key on key management server is older than that of the subsystem. Please confirm the backup key on key management server and then try again.	Please confirm the backup key on key management server and then try again.	—
280071	DMED280071: The process cannot be performed because specified backup key on key management server is the data of different subsystem. Please confirm the backup key on key management server and then try again.	Please confirm the backup key on key management server and then try again.	—
280072	DMED280072: The process cannot be performed because the Encryption Status is enabling or disabling. Please confirm the Encryption Status is enabled or disabled and then try again.	Please confirm the Encryption Status is enabled or disabled and then try again.	—
280073	DMED280073: Setting start directions of encryption environment were successful.	—	—
280074	DMED280074: The process cannot be performed because Encryption Keys Back Up to/Restore from has been changed. Please confirm Encryption Keys Back Up to/Restore from and then try again.	Please confirm Encryption Keys Back Up to/Restore from and then try again	—
280075	DMED280075: Creation start directions of the encryption key were successful.	—	—
280076	DMED280076: The process cannot be performed because the encryption keys are creating by Key Management Server. Please wait for a while and then try again.	Please wait for a while and then try again.	—
280077	DMED280077: The process cannot be performed because [Protect the Volumes by the Key Management Server] is enabling or disabling. Please confirm [Protect the Volumes by the Key Management Server] is enabled or disabled and then try again.	Please confirm [Protect the Volumes by the Key Management Server] is enabled or disabled and then try again.	—
280078	DMED280078: The process cannot be performed because Encryption Keys Generated on has been changed. Please confirm Encryption Keys Generated on and then try again.	Please confirm Encryption Keys Generated on and then try again.	—
280079	DMED280079: The process cannot be performed because IP Address/Host Name on Key Management Server has been changed. Please confirm IP Address/Host Name on Key Management Server and then try again.	Please confirm IP Address/Host Name on Key Management Server and then try again.	—
28007A	DMED28007A: The process cannot be performed because the specified operation was time-out. Please confirm the LAN environment and then try again.	Please confirm the LAN environment and then try again.	—
28007B	DMED28007B: The process cannot be performed because the same IP Address/Host Name is specified as the Primary Server and the Secondary Server. Please specify the different IP Address/Host Name.	Please specify the different IP Address/Host Name.	—
28007C	DMED28007C: The process cannot be performed because the subsystem is restarted. Please try again.	Please try again.	—
28007D	DMED28007D: The process cannot be performed because the encryption key is invalid. Please try again.	Please try again.	—
28007E	DMED28007E: The import key from Key Management Server is unnecessary. Please confirm the subsystem status.	Please confirm the subsystem status.	—
28007F	DMED28007F: The process cannot be performed because status of the Secondary Server is disabled. Please set status of the Secondary Server to enable and try again.	Please set status of the Secondary Server to enable and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
280080	DMED280080: Failed to setting the encryption environment. Please try again.	Please try again.	—
280081	DMED280081: The process cannot be performed because [Protect the Volumes by the Key Management Server] is enabled. Please set [Protect the Volumes by the Key Management Server] to disable and try again.	Please set [Protect the Volumes by the Key Management Server] to disable and try again.	—
280082	DMED280082: The process cannot be performed because [Limited Encryption Keys Generated on to the Key Management Server] is enabled. Please confirm the subsystem status.	Please confirm the subsystem status.	—
280083	DMED280083: It is necessary to acquire a key from a key management server. Please confirm encryption environment and then try again.	Please confirm encryption environment and then try again.	—
280084	DMED280084: The process cannot be performed because Key is not imported from the key management server. Please import key from the key management server and try again.	Please import key from the key management server and try again.	—
280085	DMED280085: The process cannot be performed because the subsystem status is Booting with KMS. Please wait for a while and then try again.	Please wait for a while and then try again.	—
280086	DMED280086: It is not necessary to acquire a key from a key management server. Please confirm encryption environment and then try again.	Please confirm encryption environment and then try again.	—
280087	DMED280087: The process cannot be performed because the client certificate or the root certificate is not set up. Please set the client certificate and the root certificate and then try again.	Please set the client certificate and the root certificate and then try again.	—
280088	DMED280088: The process cannot be performed because the Encryption Status is disabled or disabling. Please set the encryption environment to enable and then try again.	Please set the encryption environment to enable and then try again.	—
280089	DMED280089: The process cannot be performed because the Secondary Server Status has been changed. Please confirm the Secondary Server Status and then try again.	Please confirm the Secondary Server Status and then try again.	—
290000	DMED290000: The process cannot be performed because the status of migration is Checking or Switching Array. Please wait a moment and then try again.	Please wait a moment and then try again.	—
290001	DMED290001: The process cannot be performed because the status of migration is not Ready to Switch Array. Please array switch propriety check and then try again.	Please array switch propriety check and then try again.	—
290002	DMED290002: The process cannot be performed because Migration Mode is Migration. Please execute the operation after the migration is completed.	Please execute the operation after the migration is completed.	—
290003	DMED290003: The process cannot be performed because the remote path is not defined. Please set remote path and try again.	Please set remote path and try again.	—
290004	DMED290004: The process cannot be performed because the remote path is set up with unsupported array. Please confirm the array and try again.	Please confirm the array and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
300001	DMED300001: The serial number or equipment ID cannot be changed because the path and pair information does not exist.	Serial number or device ID changes are not required.	—
300002	DMED300002: The serial number or equipment ID cannot be changed because the path and pair information does not exist.	Serial number or device ID changes are not required.	—
300005	DMED300005: The specified serial number or equipment ID is incorrect. Please specify it in 0-9.	Please specify it in 0-9.	—
300006	DMED300006: The specified serial number is incorrect. Please specify a right serial number.	Please specify a right serial number.	—
300007	DMED300007: The specified serial number is incorrect. Please specify a right serial number.	Please specify a right serial number.	—
300008	DMED300008: 0 is specified as 6 figures of low order of the serial number. Please specify a right serial number.	Please specify a right serial number.	—
300009	DMED300009: The same serial number as a self subsystem is specified. Please specify the serial number of connected subsystem.	Please specify the serial number of connected subsystem.	—
30000A	DMED30000A: The same equipment ID as a self subsystem is specified. Please specify the equipment ID of connected subsystem.	Specify the equipment ID for the other system.	—
30000B	DMED30000B: The process cannot be performed because the fibre channel port is not equipped. Please confirm the port type and try again.	Please confirm the port type and try again.	—
30000C	DMED30000C: A value differs from current value is specified as 1 figures of high order of the serial number or equipment ID. Please specify a right serial number or equipment ID.	Please specify a right serial number or equipment ID.	—
30000D	DMED30000D: The process cannot be performed because the specified array ID is not set to Remote Replication pair, remote path or remote port CHAP information (Target information). Please confirm the array ID and try again.	Please confirm the array ID and try again.	—
30000E	DMED30000E: The array ID before and behind change is the same. Please specify a right array ID.	Please specify a right array ID.	—
3B0011	DMED3B0011: The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board.	Please retry by using firmware in relation to this Host I/O Board/Module.	—
3B0012	DMED3B0012: The firmware cannot be downgraded because the segment size of 64KB or more is set up. Please confirm the cache partition and try again.	Please confirm the cache partition and try again.	System Parameter "4.3.1 Preparing for Volume Setting" (SYSPR 04-0290)
3B0013	DMED3B0013: The firmware cannot be downgraded because the stripe size other than 64KB is set up. Please confirm the stripe size of volume and try again.	Please confirm the stripe size of volume and try again.	—
3B0014	DMED3B0014: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.	Please change Remote Replication to de-installed and try again.	—
3B0015	DMED3B0015: The firmware cannot be downgraded because the subsystem is not restarted after the option using data pool is unlocked or enabled. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3B0016	DMED3B0016: The firmware cannot be downgraded because the target(s) or CHAP user(s) is not initialized. Please initialize the target(s) and CHAP user(s) and try again.	Please initialize the target(s) and CHAP user(s) and try again.	—
3B0018	DMED3B0018: The firmware cannot be downgraded because the pair with MU number other than 0 exists in S-VOL of ShadowImage. Please cancel the pair with MU number other than 0 and try again.	Please cancel the pair with MU number other than 0 and try again.	—
3B0019	DMED3B0019: The firmware cannot be downgraded because the pair with MU number of 14 or more exists in SnapShot volume. Please cancel the pair with MU number of 14 or more and try again.	Please cancel the pair with MU number of 14 or more and try again.	—
3B001A	DMED3B001A: The firmware cannot be downgraded because P-VOL with 15 or more SnapShot volume exists. Please delete SnapShot volume to 14 or less, and try again.	Please delete SnapShot volume to 14 or less, and try again.	—
3B001B	DMED3B001B: The firmware cannot be downgraded because the user VOL is being used as the pair of Remote Replication. Please cancel the pair and try again.	Please cancel the pair and try again.	—
3B001C	DMED3B001C: The firmware cannot be downgraded because the migrated volume exists. Please migrate again.	Please migrate again.	—
3B001D	DMED3B001D: The firmware cannot be downgraded because Volume Migration is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
3B001E	DMED3B001E: The firmware cannot be downgraded because Remote Replication is unlocked. Please lock the option and try again.	Please lock the option and try again.	—
3B001F	DMED3B001F: The firmware cannot be downgraded because Account Authentication is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
3B0020	DMED3B0020: The firmware cannot be downgraded because Power Saving is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
3B0021	DMED3B0021: The firmware cannot be downgraded because the NNtype2 is equipped. Please confirm the configuration.	Please confirm the configuration.	—
3B0022	DMED3B0022: The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.	Please delete the remote path and try again.	—
3B0023	DMED3B0023: The firmware cannot be downgraded because the 8Gbps fibre interface board is equipped. Please retry by using firmware in relation to this interface board.	Please retry by using firmware in relation to this Host I/O Board/Module.	—
3B0024	DMED3B0024: The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.	Please delete the remote path and try again.	—
3B0025	DMED3B0025: The process cannot be performed because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.	Please delete the remote path and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3B0100	DMED3B0100: The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.	Please wait a moment and then try again.	—
3B0101	DMED3B0101: The process cannot be performed because the firmware is being replaced. Please wait a moment and then try again.	Please wait a moment and then try again.	—
3B0102	DMED3B0102: The process cannot be performed because the system drive type is unknown. Please replace the system drive with SAS or SATA drive and try again.	Please replace the system drive with SAS drive and try again.	Replacement “2.2.1 Replacing a Drive” (REP 02-0050)
3B0103	DMED3B0103: The firmware replacement cannot be performed because the controller 1 is specified. Please replace the firmware from the controller 0. Or the subsystem may have been rebooted during the firmware replacement. Please replace the firmware again, if the firmware revision is not matched between both controllers.	Please replace the firmware from the controller 0. Or the subsystem may have been rebooted during the firmware replacement. Please replace the firmware again, if the firmware revision is not matched between both controllers.	—
3B0104	DMED3B0104: The firmware replacement cannot be performed because firmware replacement of another controller is not completed and the access from hosts is not received. Please perform firmware replacement of this controller again after performing firmware replacement of another controller and completing.	Please perform firmware replacement of this controller again after performing firmware replacement of another controller and completing.	—
3B0106	DMED3B0106: The firmware cannot be downgraded because in the I/O Switch ShadowImage pairs that share the P-VOL, the pair of Paired exists. Please change the ShadowImage I/O Switch Mode to disable or change to states other than Paired and try again.	Please change the ShadowImage I/O Switch Mode to disable or change to states other than Paired and try again.	—
3B0107	DMED3B0107: The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board.	Please retry by using firmware in relation to this Host I/O Board/Module.	—
3B0108	DMED3B0108: The firmware replacement cannot be performed because the erasure of store data is in progress. Please retry after the process completes.	Please retry after the process completes.	—
3B0109	DMED3B0109: The process cannot be performed because the Side Card is detached. Please recover the Side Card and then try again.	Please recover the Side Card and then try again.	—
3B010A	DMED3B010A: The firmware cannot be downgraded because the non-supported interface board is equipped on the downgraded version. Please retry by using firmware in relation to this interface board.	Please retry by using firmware in relation to this interface board.	—
3B010B	DMED3B010B: The firmware cannot be downgraded in the single-controller system. Please change to dual-controller system and try again.	Please change to dual-controller system and try again.	—
3B010C	DMED3B010C: The process cannot be performed because the PS of Dense84 units is not normal state. Please recover the status and then try again.	Please recover the status and then try again.	—
3B010D	DMED3B010D: The process cannot be performed because the fan of Dense84 units is not normal state. Please recover the status and then try again.	Please recover the status and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3B010E	DMED3B010E: The firmware cannot be downgraded because the non-supported cache memory is equipped on the downgraded version. Please retry by using firmware in relation to this cache memory.	Please retry by using firmware in relation to this cache memory.	—
3B010F	DMED3B010F: The process cannot be performed because the RAID groups in state of Power Saving with I/O link are existing. Please spin up and try again.	Please spin up and try again.	—
3B0110	DMED3B0110: The firmware cannot be downgraded because the volume in state of DP optimization are existing. Please try again, after DP optimization is completed.	Please try again, after DP optimization is completed.	—
3B0111	DMED3B0111: The firmware cannot be downgraded because the status is not Not Checked. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
3B0201	DMED3B0201: The process cannot be performed because Data Retention Utility is installed. Please de-install the option and try again.	Please de-install the option and try again.	—
3B0301	DMED3B0301: Failed to download the ENC firmware. Please replace the controller that is detached and try again.	Please replace the controller that is detached and try again.	Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700)

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3C1101	DMED3C1101: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.	Please change Remote Replication to de-installed and try again.	—
3C1164	DMED3C1164: The firmware cannot be downgraded because the non-supported controller is equipped on the downgraded version. Please retry by using firmware in relation to this controller.	Please retry by using firmware in relation to this controller.	—
3C1211	DMED3C1211: The firmware cannot be downgraded because the RAID group expansion is now occurring or the RAID group containing unified VOL is executed expansion. Please retry after expansion is completed.	Please retry after expansion is completed.	—
3C1212	DMED3C1212: The firmware cannot be downgraded because ShadowImage pair of Split Pending or Paired Internally Synchronizing exists. Please retry after status is changed to Split or Paired.	Please retry after status is changed to Split or Paired.	—
3C1214	DMED3C1214: The firmware cannot be downgraded because the Dense Units are connected. Please retry after removing the Dense units or by using another firmware.	Please retry after removing the Dense units or by using another firmware.	—
3C1215	DMED3C1215: The firmware cannot be downgraded because S-VOL of ShadowImage pair is under formatting. Please retry after formatting is completed.	Please retry after formatting is completed.	—
3C1216	DMED3C1216: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.	Please change Remote Replication to de-installed and try again.	—
3C1217	DMED3C1217: The firmware cannot be downgraded because Distributed Mode is Hub. Please change the Distributed Mode to Edge and try again.	Please change the Distributed Mode to Edge and try again.	—
3C1218	DMED3C1218: The firmware cannot be downgraded because Dynamic Provisioning is installed. Please change Dynamic Provisioning to de-installed and try again.	Please change Dynamic Provisioning to de-installed and try again.	—
3C1219	DMED3C1219: The firmware cannot be downgraded because the user whose user authentication is RADIUS exists. Please delete the user whose user authentication is RADIUS and try again.	Please delete the user whose user authentication is RADIUS and try again.	—
3C121A	DMED3C121A: The firmware cannot be downgraded because the number of registered account exceeded the maximum value that can be supported on the downgraded version. Please confirm the number of registered account and try again.	Please confirm the number of registered account and try again.	—
3C121B	DMED3C121B: The firmware cannot be downgraded because the command device that uses the volume in the DP pool exists. Please release the command device that uses the volume in the DP pool and try again.	Please release the command device that uses the volume in the DP pool and try again.	—
3C121C	DMED3C121C: The firmware cannot be downgraded because the DM-LU that uses the volume in the DP pool exists. Please release the DM-LU that uses the volume in the DP pool and try again.	Please release the DM-LU that uses the volume in the DP pool and try again.	—
3C121F	DMED3C121F: The firmware cannot be downgraded because the number of connected subsystem exceeded the maximum value that can be supported on the downgraded version. Please remove drives or use another firmware and then try again.	Please remove drives or use another firmware and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3C1220	DMED3C1220: The firmware cannot be downgraded because the volume migration pair that uses the volume in the DP pool exists. Please release the pair and try again.	Please release the pair and try again.	—
3C1221	DMED3C1221: The firmware cannot be downgraded because the state of DP optimization is optimizing. Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.	Please try again, after DP optimization is completed. When the state of DP optimization is failed, cancel DP optimization and then try again.	—
3C1222	DMED3C1222: The firmware cannot be downgraded because SSD is mounted. Please remove SSD or use another firmware and then try again.	Please remove SSD or use another firmware and then try again.	—
3C1223	DMED3C1223: The firmware cannot be downgraded because the number of connected Dense units exceeded the maximum value that can be supported on the downgraded version. Please remove the Dense units or use another firmware and then try again.	Please remove the Dense units or use another firmware and then try again.	—
3C1224	DMED3C1224: The firmware cannot be downgraded because the updating of DP management information is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
3C1225	DMED3C1225: The firmware cannot be downgraded because Advanced Security Mode is enabled. Please change Advanced Security Mode to disabled and try again.	Please change Advanced Security Mode to disabled and try again.	—
3C1227	DMED3C1227: The firmware cannot be downgraded because the SAS drives are mounted in the Dense Units. Please remove the SAS drives or use another firmware and then try again.	Please remove the SAS drives or use another firmware and then try again.	—
3C1228	DMED3C1228: The firmware cannot be downgraded because remote paths are set to an array whose H/W revision is 0200. Please delete remote paths and try again.	Please delete remote paths and try again.	—
3C1229	DMED3C1229: The firmware cannot be downgraded because the volume in DP pool exists in a data pool. Please delete the data pool and then try again.	Please delete the data pool and then try again.	—
3C122A	DMED3C122A: The firmware cannot be downgraded because the volume in the DP pool is SnapShot pair. Please cancel the pair and then try again.	Please cancel the pair and then try again.	—
3C122B	DMED3C122B: The firmware cannot be downgraded because the volume in the DP pool is Remote Replication pair. Please cancel the pair and then try again.	Please cancel the pair and then try again.	—
3C122C	DMED3C122C: The firmware cannot be downgraded because the SAS7K drives are mounted. Please remove the SAS7K drives or use another firmware and then try again.	Please remove the SAS7K drives or use another firmware and then try again.	—
3C122D	DMED3C122D: The firmware cannot be downgraded because specified firmware is not supported on this subsystem. Please use the firmware which supported on this subsystem.	Please use the firmware which supported on this subsystem.	—
3C122E	DMED3C122E: The firmware cannot be downgraded because the memory reconfiguration is in progress or is failed. Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.	<ul style="list-style-type: none"> When the memory reconfiguration is in progress: Please try again, after the memory reconfiguration is completed When the memory reconfiguration is failed: Please remove the cause of the error. 	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3C122F	DMED3C122F: The firmware cannot be downgraded because DP capacity mode is Maximum Capacity. Please change the DP capacity mode to Regular Capacity and try again.	Please change the DP capacity mode to Regular Capacity and try again.	—
3C1230	DMED3C1230: The firmware cannot be downgraded because in the ShadowImage pairs that share the P-VOL, more than two ShadowImage pairs are Paired, Synchronizing, Paired Internally Synchronizing, or Split Pending. Please split the remaining pairs after specifying one pair which continues a copy and try again.	Please split the remaining pairs after specifying one pair which continues a copy and try again.	—
3C1231	DMED3C1231: The firmware cannot be downgraded because in the ShadowImage pairs that share the P-VOL, the pair of Failure(S-VOL Switch) exists. Please cancel the ShadowImage pair of Failure(S-VOL Switch) and try again.	Please cancel the ShadowImage pair of Failure(S-VOL Switch) and try again.	—
3C1232	DMED3C1232: The firmware cannot be downgraded because the RAID group which specified I/O monitoring time of Power Saving exists. When the state of Power Saving is Normal (Command Monitoring), please spin down after specifying 0 to I/O monitoring time and try again. When Power Saving does not need to be performed, please spin up and try again.	<ul style="list-style-type: none"> When the state of Power Saving is Normal (Command Monitoring), please spin down after specifying 0 to I/O monitoring time and try again. When Power Saving does not need to be performed, please spin up and try again. 	—
3C1233	DMED3C1233: The firmware cannot be downgraded because DP pool of the stripe size 64KB exists. Please delete DP pool of the stripe size 64KB and try again.	Please delete DP pool of the stripe size 64 k bytes and try again.	—
3C1234	DMED3C1234: The firmware cannot be downgraded because specified firmware is not supported on this subsystem. Please use the firmware which supported on this subsystem.	Please use the firmware which supported on this subsystem.	—
3C1235	DMED3C1235: The firmware cannot be downgraded because the volume to which Full Capacity Mode is enabled exists. Please disable Full Capacity Mode, and try again.	Please disable Full Capacity Mode, and try again.	"Dynamic Provisioning User's Guide"
3C1236	DMED3C1236: The firmware cannot be downgraded because SAS(SED) drives are mounted. Please remove SAS(SED) drives or use another firmware and then try again.	Please remove SAS(SED) drives or use another firmware and then try again.	Replacement "2.2.1 Replacing a Drive" (REP 02-0050)
3C1237	DMED3C1237: The firmware cannot be downgraded because the Standard(SFF) Units are connected. Please retry after removing the Standard(SFF) units or by using another firmware.	Please retry after removing the Standard(SFF) units or by using another firmware.	—
3C1238	DMED3C1238: The firmware cannot be downgraded because the DP pool is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—
3C1239	DMED3C1239: The firmware cannot be downgraded because P-VOL of ShadowImage and P-VOL of SnapShot is same volume or S-VOL of ShadowImage and P-VOL of SnapShot is the same volume. Please cancel the ShadowImage pair or SnapShot pair and try again.	Please cancel the ShadowImage pair or SnapShot pair and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3C123B	DMED3C123B: The firmware cannot be downgraded because Data At Rest Encryption is installed. Please change Data At Rest Encryption to de-installed and try again.	Please change Data At Rest Encryption to de-installed and try again.	—
3C123C	DMED3C123C: The firmware cannot be downgraded because the ShadowImage pair whose MU number is 8 or more, or the SnapShot pair whose MU number is 32 or more exists. Please cancel the pair and try again.	Please cancel the pair and try again.	—
3C123D	DMED3C123D: The firmware cannot be downgraded because over 2TB SATA drives are mounted. Please remove over 2TB SATA drives after deleting RAID groups or DP pools containing over 2TB SATA drives or use another firmware and then try again.	Please remove over 2TB drives after deleting RAID groups or DP pools containing over 2TB drives or use another firmware and then try again.	—
3C123E	DMED3C123E: The firmware cannot be downgraded because over 2TB SATA drives are mounted. Please remove over 2TB SATA drives after deleting RAID groups or DP pools containing over 2TB SATA drives or use another firmware and then try again.	Please remove over 2TB drives after deleting RAID groups or DP pools containing over 2TB drives or use another firmware and then try again.	—
3C123F	DMED3C123F: The firmware cannot be downgraded because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.	Please delete the remote path and try again.	—
3C1240	DMED3C1240: The firmware cannot be downgraded because the remote path is set up with the array currently connected at the other end. Please delete the remote path and try again.	Please delete the remote path and try again.	—
3C12FE	DMED3C12FE: The firmware cannot be downgraded because tape group backed up by append write exists. Please delete or discard tape groups, and try again.	Please delete or discard tape groups, and try again.	—
3C12FF	DMED3C12FF: The firmware cannot be downgraded because tape group targeted differential backup or backed up differential exists. Please delete tape groups, and try again.	Please delete tape groups, and try again.	—
3D0001	DMED3D0001: The process cannot be performed because the drive firmware is being replaced. Please retry after replacement completes.	Please retry after replacement completes.	—
3E0001	DMED3E0001: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.	Please change Remote Replication to de-installed and try again.	—
3E0002	DMED3E0002: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.	Please change Remote Replication to de-installed and try again.	—
3E0003	DMED3E0003: The firmware cannot be downgraded because Modify Permission Coexistence Mode is enabled. Please change Modify Permission Coexistence Mode to disabled and try again.	Please change Modify Permission Coexistence Mode to disabled and try again.	—
3E0004	DMED3E0004: The firmware cannot be downgraded because the number of groups using Remote Replication pair exceeded the maximum value that can be supported on the downgraded version. Please reduce number of groups and try again.	Please reduce number of groups and try again.	—
3E0005	DMED3E0005: The firmware cannot be downgraded because the iSCSI connecting of TrueCopy Modular Distributed function is non-supported on the downgraded version. Please delete the remote path and unnecessary remote port CHAP information (Target information) and try again.	Please delete the remote path and unnecessary remote port CHAP information (Target information) and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3E0006	DMED3E0006: The firmware cannot be downgraded because Dynamic Tiering is installed. Please change Dynamic Tiering to de-installed and try again.	Please change Dynamic Tiering to de-installed and try again.	—
3E0007	DMED3E0007: The firmware cannot be downgraded because Dynamic Tiering is not de-installed, or the subsystem is not restarted or the memory reconfiguration is not executed after Dynamic Tiering is de-installed. Please restart the subsystem or execute the memory reconfiguration after Dynamic Tiering is de-installed and try again. When the memory reconfiguration is in progress or is failed, please try again after the memory reconfiguration is completed or remove the cause of the error.	Please restart the subsystem or execute the memory reconfiguration after Dynamic Tiering is de-installed and try again. When the memory reconfiguration is in progress or is failed, please try again after the memory reconfiguration is completed or remove the cause of the error.	—
3E0008	DMED3E0008: The firmware cannot be downgraded because the memory reconfiguration is in progress or is failed. Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.	Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.	—
3E0009	DMED3E0009: The firmware cannot be downgraded because the number of connected Dense84 units exceeded the maximum value that can be supported on the downgraded version. Please remove the Dense84 units or use another firmware and then try again.	Please remove the Dense84 units or use another firmware and then try again.	—
3E000A	DMED3E000A: The firmware cannot be downgraded because Remote Replication is installed. Please change Remote Replication to de-installed and try again.	Please change Remote Replication to de-installed and try again.	—
3E000B	DMED3E000B: The firmware cannot be downgraded because the cascades of the SnapShot pair and the Remote Replication pair are 2 or more. Please change the cascade to 1 or less, and try again.	Please change the cascade to 1 or less, and try again.	—
3E000C	DMED3E000C: The firmware cannot be downgraded because the DP pool that over provisioning limit enforcement is enabled exists. Please change over provisioning limit enforcement to disable or delete the DP pool, and try again.	Please change over provisioning limit enforcement to disable or delete the DP pool, and try again.	—
3E000D	DMED3E000D: The firmware cannot be downgraded because the Dense84 units are connected. Please retry after removing the Dense84 units.	Please retry after removing the Dense84 units.	—
3E000E	DMED3E000E: The firmware cannot be downgraded because the drives in non-supported slot position are equipped on the downgraded version. Please retry after removing drives in non-supported slot position.	Please retry after removing drives in non-supported slot position.	—
3E000F	DMED3E000F: The firmware cannot be downgraded because the units in non-supported position are connected on the downgraded version. Please retry after removing units.	Please retry after removing units.	—
3E0010	DMED3E0010: The firmware cannot be downgraded because Power Saving Plus is installed. Please change Power Saving Plus to de-installed and try again.	Please change Power Saving Plus to de-installed and try again.	—
3E0011	DMED3E0011: The firmware cannot be downgraded because the DP pool to which Auto DP Optimize is enabled exists. Please disable Auto DP Optimize, and try again.	Please disable Auto DP Optimize, and try again.	—
3E0012	DMED3E0012: The firmware cannot be downgraded because Command Queue Expansion Mode is enabled. Please change Command Queue Expansion Mode to disabled and try again.	Please change Command Queue Expansion Mode to disabled and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3E0013	DMED3E0013: The firmware cannot be downgraded because over 400GB SSD is mounted. Please remove over 400GB SSD after deleting RAID groups or DP pools containing over 400GB SSD or use another firmware and then try again.	Please remove over 400GB SSD after deleting RAID groups or DP pools containing over 400GB SSD or use another firmware and then try again.	—
3E0014	DMED3E0014: The firmware cannot be downgraded because the volumes reserved by Persistent Reservation Type-7h/8h exist. Please stop the cluster software which will release the reserve of volumes and try again.	Please stop the cluster software which will release the reserve of volumes and try again.	—
3E0015	DMED3E0015: The firmware cannot be downgraded because the volume to which disabling tier relocation is enabled exists. Please change disabling tier relocation to disable and try again.	Please change disabling tier relocation to disable and try again.	—
3E0016	DMED3E0016: The firmware cannot be downgraded because Power Saving Plus is installed. Please change Power Saving Plus to de-installed and try again.	Please change Power Saving Plus to de-installed and try again.	—
3E0017	DMED3E0017: The firmware cannot be downgraded because the packet filtering is enabled. Please change the packet filtering to disable and try again.	Please change the packet filtering to disable and try again.	—
3E0018	DMED3E0018: The firmware cannot be downgraded because DP pool under shrinking capacity exists. Please cancel the shrink of DP pool capacity or wait for completion of the shrink of DP pool capacity and then try again.	Please cancel the shrink of DP pool capacity or wait for completion of the shrink of DP pool capacity and then try again.	—
3E0019	DMED3E0019: The firmware cannot be downgraded because there exists a DP pool with tier mode disabled and the drive type, RAID level or HDU combination are mixed, or there exists a DP pool with tier mode enabled and RAID level or HDU combination of the tier is mixed. When there is tier mode disabled DP pool, please delete DP pool or shrink the DP RAID group whose the drive type, RAID level or HDU combination does not match. When there is tier mode enabled DP pool, please delete DP pool or shrink the DP RAID group whose RAID level or HDU combination of the tier does not match. Please try again.	When there is tier mode disabled DP pool, please delete DP pool or shrink the DP RAID group whose the drive type, RAID level or HDU combination does not match. When there is tier mode enabled DP pool, please delete DP pool or shrink the DP RAID group whose RAID level or HDU combination of the tier does not match. Please try again.	—
3E001A	DMED3E001A: The firmware cannot be downgraded because the DC power supply is equipped. Please retry by using firmware in relation to the DC power supply.	Please retry by using firmware in relation to the DC power supply.	—
3E001B	DMED3E001B: The firmware cannot be downgraded because the Dense84 units and other than Dense84 units are connected. Please retry with same unit type.	Please retry with same unit type.	—
3E001C	DMED3E001C: The firmware cannot be downgraded because Array Migration is installed. Please change Array Migration to de-installed and try again.	Please change Array Migration to de-installed and try again.	—
3E001D	DMED3E001D: The firmware cannot be downgraded because the I/O Module(Drive(Encryption)) is mounted. Please replace the I/O Module(Drive) or use another firmware and then try again.	Please replace the I/O Module(Drive) or use another firmware and then try again.	—
3E001E	DMED3E001E: The firmware cannot be downgraded because over 3TB SAS7K drives are mounted. Please remove over 3TB SAS7K drives after deleting RAID groups or DP pools containing over 3TB SAS7K drives or use another firmware and then try again.	Please remove over 3TB SAS7K drives after deleting RAID groups or DP pools containing over 3TB SAS7K drives or use another firmware and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
3E001F	DMED3E001F: The firmware cannot be downgraded because the memory reconfiguration is in progress or is failed. Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.	Please try again, after the memory reconfiguration is completed. When the memory reconfiguration is failed, please remove the cause of the error.	—
3E0020	DMED3E0020: The firmware cannot be downgraded because DP capacity mode is Maximum Capacity or the subsystem is not restarted or the memory reconfiguration is not executed after DP capacity mode is changed. Please change the DP capacity mode to Regular Capacity and then try again.	Please change the DP capacity mode to Regular Capacity and then try again.	—
3E0021	DMED3E0021: The firmware cannot be downgraded because Tray Power Saving is installed. Please change Tray Power Saving to de-installed and try again.	Please change Tray Power Saving to de-installed and try again.	—
3E0022	DMED3E0022: The firmware cannot be downgraded because the StandardF units are connected. Please retry after removing the StandardF units.	Please retry after removing the StandardF units.	—
3E0023	DMED3E0023: The firmware cannot be downgraded because over 1.2TB SAS drives are mounted. Please remove over 1.2TB SAS drives and then try again.	Please remove over 1.2TB SAS drives and then try again.	—
3E0024	DMED3E0024: The firmware cannot be downgraded because the capacity of DP pool to which DM-LU belongs is being shrunk. Please retry after the process completes.	Please retry after the process completes.	—
3E0025	DMED3E0025: The firmware cannot be downgraded because Data At Rest Encryption is installed. Please change Data At Rest Encryption to de-installed and try again.	Please change Data At Rest Encryption to de-installed and try again.	System Parameter "14.2 Procedure for Locking the License of Priced Option" (SYSPR 14-0020)
3E0026	DMED3E0026: The firmware cannot be downgraded because the Encryption Keys Generated on is Key Management Server. Please set the Encryption Keys Generated on to Array and then try again.	Please set the Encryption Keys Generated on to Array and then try again.	—
400001	DMED400001: The process cannot be performed because the specified volumes contain an unformatted VOL. Confirm the volume status and try again.	Confirm the volume status and try again.	—
400002	DMED400002: The process cannot be performed because the specified volumes contain V-VOL of SnapShot. Confirm the volume status and try again.	Confirm the volume status and try again.	—
400003	DMED400003: The process cannot be performed because some volumes are under quick formatting. Confirm the volume status and try again.	Confirm the volume status and try again.	—
400004	DMED400004: The process cannot be performed because the specified volumes contain a Sub VOL of the unifying VOLs. Confirm the volume status and try again.	Confirm the volume status and try again.	—
400005	DMED400005: The process cannot be performed because the specified volumes contain an invalid VOL. Confirm the volume status and try again.	Confirm the volume status and try again.	—
400006	DMED400006: The specified VOLs contain regressed VOL. Confirm the VOL status and try again.	Confirm the VOL status and try again.	—
400007	DMED400007: The process cannot be performed because ShadowImage, Remote Replication, or SnapShot is in progress. Please wait a moment and then try again.	Please wait a moment and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
400008	DMED400008: The operation of 'start' or 'skip', and 'cancel' is specified at the same time. Confirm the operation and try again.	Confirm the operation and try again.	—
400009	DMED400009: The process cannot be performed because the specified volumes contain an undefined VOL. Confirm the volume status and try again.	Confirm the volume status and try again.	—
400011	DMED400011: The process cannot be performed because parity correction is not completed. Please try again, after it is completed.	Please try again, after it is completed.	—
400012	DMED400012: The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.	Please try again, after it is completed.	—
400013	DMED400013: The process cannot be performed because parity correction is not completed. Please try again, after it is completed.	Please try again, after it is completed.	—
400014	DMED400014: The process cannot be performed because parity correction is not completed. Please try again, after it is completed.	Please try again, after it is completed.	—
400015	DMED400015: The process cannot be performed because parity correction is not executed or is aborted. Please try again, after it is completed.	Please try again, after it is completed.	—
400021	DMED400021: The 'cancel' operation cannot be specified to the uncorrected volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400022	DMED400022: The 'start' operation cannot be specified to the aborted volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400023	DMED400023: The 'cancel' operation cannot be specified to the aborted volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400024	DMED400024: The 'start' operation cannot be specified to the correcting volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400025	DMED400025: The 'skip' operation cannot be specified to the correcting volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400026	DMED400026: The 'start' operation cannot be specified to the waiting volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400027	DMED400027: The 'skip' operation cannot be specified to the waiting volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400028	DMED400028: The 'cancel' operation cannot be specified to the skipped volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
400029	DMED400029: The 'cancel' operation cannot be specified to the corrected volumes. Confirm the parity correction status and try again.	Confirm the parity correction status and try again.	—
40002A	DMED40002A: The volumes are under quick formatting. Please the parity correction status and try again.	Please the parity correction status and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
410000	DMED410000: The slot number is outside the effective range. Please specify the slot number of effective range and try again.	Please specify the slot number of effective range and try again.	—
410001	DMED410001: The process cannot be performed because the specified controller and the execution controller are same. Please confirm the controller and try again.	Please confirm the controller and try again.	—
410002	DMED410002: The process cannot be performed because the status of the specified I/F module is not normal. Please confirm the I/F module and try again.	Please confirm the I/F module and try again.	—
410003	DMED410003: The process cannot be performed. Please confirm the version of the navigator.	Please confirm the version of the navigator.	—
410004	DMED410004: The process cannot be performed because the slot both the controller 0 and controller 1 are not unequipped. Please confirm the status of slot and try again.	Please confirm the status of slot and try again.	—
410005	DMED410005: The process cannot be performed because the I/F module both the controller 0 and controller 1 are not normal. Please recover the status of I/F module and try again.	Please recover the status of I/F module and try again.	—
410006	DMED410006: The process cannot be performed because removal is in progress. Please try again, after the removal is completed.	Please try again, after the removal is completed.	—
410007	DMED410007: The process cannot be performed because additional is in progress. Please confirm the status of I/F module or interface board and try again.	Please confirm the status of I/F module or interface board and try again.	—
410008	DMED410008: The process cannot be performed because the preparation of adding is not started. Please start the preparation of adding and try again.	Please start the preparation of adding and try again.	—
410009	DMED410009: The process cannot be performed because the I/F module or interface board is unequipped. Please confirm the status of the I/F module or interface board and try again.	Please confirm the status of the I/F module or interface board and try again.	—
410010	DMED410010: The process cannot be performed because the remote path is set up. Please delete the remote path and try again.	Please delete the remote path and try again.	—
410011	DMED410011: The process cannot be performed because the one or both of the slot of controller 0 and controller 1 are unequipped. Please confirm the status of slot and try again.	Please confirm the status of slot and try again.	—
410012	DMED410012: The process cannot be performed because Fibre Channel Option is de-installed. Please install the option and try again.	Please install the option and try again.	—
410013	DMED410013: The process cannot be performed because addition is in progress. Please retry after the process completes.	Please retry after the process completes.	—
410014	DMED410014: The process cannot be performed because the one or both of the slot of controller 0 and controller 1 are unequipped. Please confirm the status of slot and try again.	Please confirm the status of slot and try again.	—
420000	DMED420000: The packet filtering cannot be disabled because the block port 80 is enabled. Please change block port 80 to disable and try again.	Please change block port 80 to disable and try again.	—
500001	DMED500001: The command device is not registered. Please register the command device and try again.	Please register the command device and try again.	—
600001	DMED600001: The process cannot be performed because the specified VOL is a Cache Residency VOL or a reserved one. Disable the VOL, and then try again.	Disable the VOL, and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
700001	DMED700001: The specified volume is not defined. Specify a defined volume.	Specify a defined volume.	—
700002	DMED700002: The process cannot be performed because the status of pair is Simplex(SMPL). Confirm the VOL status and try again.	Confirm the VOL status and try again.	—
800002	DMED800002: A parameter error occurred. Please confirm the specified parameter.	Please confirm the specified parameter.	—
800004	DMED800004: The specified NNC number is not NAS port. Please confirm the port type.	Please confirm the port type.	—
800005	DMED800005: The process cannot be performed because BIOS is being updated. The updating is completed, then try again.	The updating is completed, then try again.	—
800006	DMED800006: The process cannot be performed because NAS OS is not ready or booting, or it is not in shutdown process. Please confirm NAS OS status and then try again.	Please confirm NAS OS status and then try again.	—
800007	DMED800007: The process cannot be performed because BIOS is being updated. The updating is completed, then try again.	The updating is completed, then try again.	—
800008	DMED800008: The process cannot be performed because the install of the NAS OS is not completed. Please try again after install is completed.	Please try again after install is completed.	—
800009	DMED800009: The process cannot be performed because the alternative NNC is not active. Please confirm NNC status and try again.	Please confirm NNC status and try again.	—
800011	DMED800011: The process cannot be performed because NAS OS is loading. Please stop NAS OS, then try again.	Please stop NAS OS, then try again.	—
800013	DMED800013: The process cannot be performed because NAS OS is in shutdown process. Shutdown process is completed, then try again.	Shutdown process is completed, then try again.	—
800014	DMED800014: The process cannot be performed because NAS dump is being collected. The collection is completed, then try again.	The collection is completed, then try again.	—
800015	DMED800015: The process cannot be performed because the system VOL is not defined. Please define the system VOL and then try again.	Please define the system VOL and then try again.	—
800016	DMED800016: The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.	Please turn off NNC breaker and turn on it, then try again.	—
800017	DMED800017: The time out occurred during install. Please turn off NNC breaker and turn on it, then try again.	Please turn off NNC breaker and turn on it, then try again.	—
800019	DMED800019: The process cannot be performed because NAS OS is not in stopped state. Please stop NAS OS, then try again.	Please stop NAS OS, then try again.	—
80001A	DMED80001A: The process cannot be performed because BIOS is being updated. The updating is completed, then try again.	The updating is completed, then try again.	—
80001B	DMED80001B: The process cannot be performed because NAS OS is detached. Please recover NAS OS status and then try again.	NAS OS status and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
800020	DMED800020: The specified IP address is incorrect. Please specify a correct IP address.	Specify a correct IP address.	—
800021	DMED800021: The specified number is incorrect. Please specify a correct number.	Please specify a correct number.	—
800022	DMED800022: The specified MTU is incorrect. Please specify a correct MTU.	Specify the correct MTU.	—
800023	DMED800023: The specified negotiation is incorrect. Please specify a correct negotiation.	Please specify a correct negotiation.	System Parameter "7.2 Setting LAN" (SYSPR 07-0040)
800024	DMED800024: The process cannot be performed because NAS OS is not ready. Please confirm NAS OS status and then try again.	Please confirm NAS OS status and then try again.	—
800025	DMED800025: The process cannot be performed during NNC LAN setting. Please confirm NAS OS status and then try again.	Please confirm NAS OS status and then try again.	—
800026	DMED800026: The same IP address as the management LAN of the subsystem cannot be set up. Please specify a correct IP address.	Specify a correct IP address.	—
800027	DMED800027: The specified time zone does not have daylight saving time. Please confirm the time zone.	Please confirm the time zone.	—
800029	DMED800029: The process cannot be performed because the MTU value of NNC does not match. Please set up the same MTU value.	Please set up the same MTU value.	—
800030	DMED800030: The process cannot be performed because specified IP address is same as the current IP address of alternative NNC. Please specify another IP address and try again.	Please specify another IP address and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
900006	DMED900006: The process cannot be performed because the data set does not exist. Please confirm the data set.	Please confirm the data set.	—
901100	DMED901100: The process cannot be performed because the copy or restoration of volume is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
901101	DMED901101: The process cannot be performed because the copy or restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.	Please confirm the status of the tape group in the backup group.	—
901102	DMED901102: The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group.	Please confirm the status of the tape group in the backup group.	—
908002	DMED908002: The process cannot be performed because Tape Replication is installed. Please change Tape Replication to de-installed and then try again.	Please change Tape Replication to de-installed and then try again.	—
908003	DMED908003: The process cannot be performed because the restoration is in progress. Please try again, after it is completed. Or, please cancel it and then try again.	Please try again, after it is completed. Or, please cancel it and then try again.	—
909113	DMED909113: The process cannot be performed because the version is unmatch between the micro program and the Storage Navigator Modular. Please match the version.	Please match the version.	—
909134	DMED909134: The tape group detail information is invalid.	—	—
909135	DMED909135: The tape group detail information is invalid.	—	—
909136	DMED909136: The tape group detail information is invalid.	—	—
909137	DMED909137: The tape group detail information is invalid.	—	—
909138	DMED909138: The tape group detail information is invalid.	—	—
909139	DMED909139: The tape group detail information is invalid.	—	—
909140	DMED909140: The tape group detail information is invalid.	—	—
909141	DMED909141: The tape group detail information is invalid.	—	—
909142	DMED909142: The tape group detail information is invalid.	—	—
909143	DMED909143: The tape group detail information is invalid.	—	—
909144	DMED909144: The tape information is invalid.	—	—
909145	DMED909145: The tape information is invalid.	—	—
909146	DMED909146: The tape information is invalid.	—	—
9091FF	DMED9091FF: An internal program error occurred in the Tape Replication function. Contact the service personnel.	Contact the service personnel.	—
909201	DMED909201: The data set detail information is invalid.	—	—
909202	DMED909202: The data set detail information is invalid.	—	—
909203	DMED909203: The data set detail information is invalid.	—	—
909204	DMED909204: The data set detail information is invalid.	—	—
909205	DMED909205: The data set detail information is invalid.	—	—
909206	DMED909206: The data set detail information is invalid.	—	—
909207	DMED909207: The data set detail information is invalid.	—	—
909208	DMED909208: The data set detail information is invalid.	—	—
909209	DMED909209: The data set detail information is invalid.	—	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
90920A	DMED90920A: The data set detail information is invalid.	—	—
90920B	DMED90920B: The data set detail information is invalid.	—	—
90920C	DMED90920C: The data set detail information is invalid.	—	—
90920D	DMED90920D: The data set detail information is invalid.	—	—
90920E	DMED90920E: The data set detail information is invalid.	—	—
90920F	DMED90920F: The data set detail information is invalid.	—	—
909210	DMED909210: The data set detail information is invalid.	—	—
909211	DMED909211: The data set detail information is invalid.	—	—
909212	DMED909212: The data set detail information is invalid.	—	—
909213	DMED909213: The process failed due to an invalid parameter. Confirm the specified value.	Confirm the specified value.	—
909214	DMED909214: The data set detail information is invalid.	—	—
909221	DMED909221: The process cannot be performed because the TR constitution file version is incorrect. Please specify a correct file.	Please specify a correct file.	—
909222	DMED909222: The data set number is doubled.	—	—
909223	DMED909223: The process cannot be performed because other users changed the TR constitution information. Please wait for a while and then try again.	Please wait for a while and then try again.	—
909224	DMED909224: The process cannot be performed because other users changed the TR constitution information. Please wait for a while and then try again.	Please wait for a while and then try again.	—
909225	DMED909225: The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape groups.	Please increase the cache memory or delete unnecessary tape groups.	Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460)
909226	DMED909226: The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape groups.	Please increase the cache memory or delete unnecessary tape groups.	
90B018	DMED90B018: The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.	Please confirm the pair status of volume.	—
90B066	DMED90B066: The process cannot be performed because the TR constitution restoration is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B06E	DMED90B06E: An internal program error occurred in the Tape Replication function. Contact the service personnel.	Contact the service personnel.	—
90B0C8	DMED90B0C8: The process failed due to an invalid parameter. Confirm the specified value.	Confirm the specified value.	—
90B0C9	DMED90B0C9: The process cannot be performed because the volume is not targeted differential backup. Please confirm the volume.	Please confirm the volume.	—
90B0CB	DMED90B0CB: The process cannot be performed because the specified tape group has set to not backup by append write. Please specify another tape group and then try again.	Please specify another tape group and then try again.	—
90B0CC	DMED90B0CC: The process cannot be performed because the volume is not used by this differential backup. Please confirm the volume.	Please confirm the volume.	—
90B0CD	DMED90B0CD: The process cannot be performed because the copy is in progress in the tape group. Please try again, after it is completed.	Please try again, after it is completed.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
90B0CE	DMED90B0CE: The process cannot be performed because the number of volumes in the tape group reached the maximum. Please discard unnecessary data sets or specify another tape group and try again.	Please discard unnecessary data sets or specify another tape group and try again.	
90B0D0	DMED90B0D0: The process cannot be performed because the number of data sets in the system reached the maximum. Please discard unnecessary tape groups or data sets.	Please discard unnecessary tape groups or data sets.	—
90B0D2	DMED90B0D2: The process cannot be performed because the cache memory size is insufficient. Please increase the cache memory or delete unnecessary tape group.	Please increase the cache memory or delete unnecessary tape group.	Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460)
90B0D3	DMED90B0D3: The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.	Please confirm the pair status of volume.	—
90B0D4	DMED90B0D4: The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.	Please confirm the pair status of volume.	—
90B0D5	DMED90B0D5: The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.	Please confirm the pair status of volume.	—
90B0D6	DMED90B0D6: The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.	Please confirm the pair status of volume.	—
90B0D7	DMED90B0D7: The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.	Please confirm the pair status of volume.	—
90B0D8	DMED90B0D8: The process cannot be performed because the pair status of volume is illegal. Please confirm the pair status of volume.	Please confirm the pair status of volume.	—
90B0D9	DMED90B0D9: The process cannot be performed because the number of differential backup to the specified volume reached the maximum. Please confirm the backup group.	Please confirm the backup group.	—
90B0DA	DMED90B0DA: The process failed due to an invalid parameter. Confirm the specified value.	Confirm the specified value.	—
90B0DB	DMED90B0DB: The process cannot be performed because the volume is not used by this differential backup. Please confirm the volume.	Please confirm the volume.	—
90B0DD	DMED90B0DD: The process cannot be performed because the status of the tape group is illegal. Please confirm the status of the tape group.	Please confirm the status of the tape group.	—
90B0DE	DMED90B0DE: The process cannot be performed because the number of data sets in the specified tape group reached the maximum. Please discard unnecessary data sets or specify another tape group and try again.	Please discard unnecessary data sets or specify another tape group and try again.	—
90B0DF	DMED90B0DF: The process cannot be performed because the number of tape cartridges in the tape group reached the maximum. Please discard unnecessary data sets or specify another tape group and try again.	Please discard unnecessary data sets or specify another tape group and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
90B0E0	DMED90B0E0: The process cannot be performed because the specified tape group is already backed up by append write. Please specify the data set and then try again.	Please specify the data set and then try again.	—
90B0E1	DMED90B0E1: The process failed due to an invalid parameter. Confirm the specified value.	Confirm the specified value.	—
90B0E2	DMED90B0E2: The process cannot be performed because the data set does not exist. Please confirm the data set.	Please confirm the data set.	—
90B0E3	DMED90B0E3: The process cannot be performed because the full backup tape group or data set does not exist. Please confirm the tape group or the data set.	Please confirm the tape group or the data set.	—
90B0E4	DMED90B0E4: The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.	Please confirm the status of the data set.	—
90B0E5	DMED90B0E5: The process cannot be performed because the status of the full backup tape group or data set is illegal. Please confirm the status of the tape group or the data set.	Please confirm the status of the tape group or the data set.	—
90B0E6	DMED90B0E6: The process cannot be performed because the restoration is in progress in the tape group. Please try again, after it is completed.	Please try again, after it is completed.	—
90B0E7	DMED90B0E7: The process cannot be performed because the restoration of the full backup tape group or data set is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B0E8	DMED90B0E8: The process cannot be performed because the copy is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B0E9	DMED90B0E9: The process cannot be performed because the restoration is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B0EA	DMED90B0EA: The process cannot be performed because the copy is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B0EB	DMED90B0EB: The process cannot be performed because the restoration is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B0EC	DMED90B0EC: The process failed due to an invalid parameter. Confirm the specified value.	Confirm the specified value.	—
90B0ED	DMED90B0ED: The process cannot be performed because the cache memory size is insufficient. Please try again, after other restoration is completed.	Please try again, after other restoration is completed.	—
90B0EE	DMED90B0EE: The process cannot be performed because the volume at restoring destination is not a part of ShadowImage pair. Please confirm the pair status of the volume.	Please confirm the pair status of the volume.	—
90B0EF	DMED90B0EF: The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.	Please specify another tape group and try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
90B0F0	DMED90B0F0: The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.	Please confirm the status of the data set.	—
90B0F1	DMED90B0F1: The process cannot be performed because the restoration is in progress in the backup group. Please confirm the status of the tape group in the backup group.	Please confirm the status of the tape group in the backup group.	—
90B0F2	DMED90B0F2: The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.	Please confirm the status of the data set.	—
90B0F3	DMED90B0F3: The process cannot be performed because the status of the data set is illegal. Please confirm the status of the data set.	Please confirm the status of the data set.	—
90B0F4	DMED90B0F4: The process cannot be performed because the copy is in progress in the backup group. Please confirm the status of the tape group in the backup group.	Please confirm the status of the tape group in the backup group.	—
90B0F5	DMED90B0F5: The process cannot be performed because the status of another tape group in the backup group is illegal. Please confirm the status of the tape group in the backup group.	Please confirm the status of the tape group in the backup group.	—
90B0F6	DMED90B0F6: The process cannot be performed because the access level is set to the volume. Please confirm the volume.	Please confirm the volume.	—
90B0FB	DMED90B0FB: The process cannot be performed because the status of the tape group is illegal. Please confirm the status of the data set.	Please confirm the status of the data set.	—
90B0FC	DMED90B0FC: The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.	Please specify another tape group and try again.	—
90B0FD	DMED90B0FD: The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.	Please specify another tape group and try again.	—
90B0FE	DMED90B0FE: The process cannot be performed because the specified tape group is being used by other application. Please specify another tape group and try again.	Please specify another tape group and try again.	—
90B101	DMED90B101: The process cannot be performed because the copy is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B102	DMED90B102: The process cannot be performed because the restoration is in progress. Please try again, after it is completed.	Please try again, after it is completed.	—
90B103	DMED90B103: The process cannot be performed because the memory reconfiguration is in progress. Please try again after the memory reconfiguration is completed.	Please try again after the memory reconfiguration is completed.	—
910072	DMED910072: The process cannot be performed because the specified tape group is impossible to import. Please confirm the tape group.	Please confirm the tape group.	—
91100C	DMED91100C: The process cannot be performed because differential bit map is insufficient. Please delete unnecessary pairs or increase the cache memory.	Please delete unnecessary pairs or increase the cache memory.	Addition/Removal/Relocation "1.4.3 Adding a Cache Memory" (ADD 01-0460)

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
C00001	DMEDC00001: The process cannot be performed because the specified group number is outside the effective range. Please confirm the group number.	Please confirm the group number.	—
C00002	DMEDC00002: The process cannot be performed because the specified volume number is outside the effective range. Please confirm the volume number.	Please confirm the volume number.	—
C00003	DMEDC00003: The specified group is not used. Please confirm the group number.	Please confirm the group number.	—
C00004	DMEDC00004: The specified volume is not pair. Please confirm the volume number.	Please confirm the volume number.	—
C00005	DMEDC00005: The specified volume is V-VOL. Please specify another volume and try again.	Please specify another volume and try again.	—
C00006	DMEDC00006: The specified volume is not V-VOL. Please specify the volume number of V-VOL and try again.	Please specify the volume number of V-VOL and try again.	—
C00007	DMEDC00007: The process cannot be performed because the number of pairs reached the maximum. Please confirm the settings of pairs.	Please confirm the settings of pairs.	—
C00008	DMEDC00008: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.	Please confirm the Pair Name and try again.	—
C00009	DMEDC00009: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.	Please confirm the Pair Name and try again.	—
C0000A	DMEDC0000A: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.	Please confirm the Pair Name and try again.	—
C0000B	DMEDC0000B: The process cannot be performed because the same Pair Name exists. Please confirm the Pair Name and try again.	Please confirm the Pair Name and try again.	—
C0000C	DMEDC0000C: The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again.	Please confirm the Group Name and try again.	—
C0000D	DMEDC0000D: The process cannot be performed because the same Group Name exists. Please confirm the Group Name and try again.	Please confirm the Group Name and try again.	—
C0000E	DMEDC0000E: The specified volume is Volume Migration pair. Please specify another volume and try again.	Please specify another volume and try again.	—
C0000F	DMEDC0000F: The process cannot be performed because the SnapShot pair of specified name does not exist. Please specify SnapShot pair and try again.	Please specify SnapShot pair and try again.	—
C00010	DMEDC00010: The process cannot be performed because the VOL number is already assigned in specified pair. Please release the VOL number in S-VOL and try again.	Please release the VOL number in S-VOL and try again.	—
C00011	DMEDC00011: The process cannot be performed because the VOL number of specified pair is not assigned. Please confirm the VOL number and try again.	Please confirm the VOL number and try again.	—
C00012	DMEDC00012: The process cannot be performed because S-VOL is mapped. Please delete mapping and then try again.	Please delete mapping and then try again.	—

Detail code	Hitachi Storage Navigator Modular 2 indication	Recovery methods	Reference page
C00013	DMEDC00013: The process cannot be performed because specified pair does not exist. Please confirm pair name and try again.	Please confirm pair name and try again.	—
C00014	DMEDC00014: The specified value of copy speed is outside the effective range. Please specify the value in the effective range and try again.	Please specify the value in the effective range and try again.	—
C00015	DMEDC00015: The process cannot be performed because P-VOL of specified pair is reserved for cache partition modification. Please restart the subsystem and then try again.	Please restart the subsystem and then try again.	—
C00016	DMEDC00016: The process cannot be performed because the pool number is not specified. Please specify the pool number and try again.	Please specify the pool number and try again.	—

Chapter 10. Failure Factor Codes of the Modular Volume Migration

• How to read the table

Failure factor codes		Factors of the abnormal termination	Recovery methods	①	Collecting Error Information
258	A hardware failure of the Controller was detected during the execution of the Modular Volume Migration.		Recovery methods	① Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information
260	The incomplete write was detected in the P-VOL during the execution of the Modular Volume Migration.		Recovery methods	① 1. Check that the message, "W0L000 (or W0M000) Unreadable PIN detected", "I15300 Data recovery partial" or "I63000 Write uncompleted block detected", is displayed. 2. Remove the incomplete write according to the recovery method of the displayed message code.	Collecting Error Information
262	The access to the Drive timed out during the execution of the Modular Volume Migration.				Collecting Error Information
263	The DMA transfer timed out during the execution of the Modular Volume Migration.		Recovery methods	① Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700).)	Collecting Error Information
265	The DMA transfer terminated abnormally in the generation of the parity data during the execution of the Modular Volume Migration.		Recovery methods	① 1. Replace the Cache memory installed in the blocked Controller. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920).) 2. Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing 2Controller" (REP 02-0700).)	Collecting Error Information
268	<ul style="list-style-type: none"> • The volume executing the Modular Volume Migration was blocked. • Or one Drive which configures the volume executing the Modular Volume Migration was blocked in the case other than RAID 6, two were blocked in the case of RAID 6, and another one became a Drive failure among the Drives which configure the same RAID Group, so that R/W to the volume became difficult. 		Recovery methods	① 1. Check if the volume of the P-VOL or the S-VOL is blocked (two Drives which configure the volume are blocked in the case other than RAID 6 and three are blocked in the case of RAID 6). 2. When the volume of the P-VOL or the S-VOL was blocked, recover the volume to "Formatted Logical Unit" referring to Troubleshooting "11.1.13 A Failure Occurred during Operation: Case 3 (Volume Blockade)" (TRBL 11-0820). ② 1. Check that one Drive which configures the volume of the P-VOL or the S-VOL is blocked in the case other than RAID 6, two are blocked in the case of RAID 6, and another one becomes a Drive failure "I30100 HDU error" among the Drives which configure the same RAID Group. 2. Recover the failure of the Drive referring to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally: Case 2 (Drive Failure)" (TRBL 11-0720).	Collecting Error Information

269	Collecting Error Information	The Controller was blocked because the internal processing timed out unjustly during the execution of the Modular Volume Migration.	Recovery methods	① Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700))
270	Collecting Error Information	A data error was detected while executing Modular Volume Migration.	Recovery methods	① The cause of the abnormal termination is because the error of the intermittent data was detected. There is no failed part.
274	Collecting Error Information	Since the free capacity of the DP pool was depleted while executing Modular Volume Migration, R/W for the LU created in the DP pool cannot be performed.	Recovery methods	① Add the DP pool capacity.
275	Collecting Error Information	The planned shutdown of the array occurred while executing Modular Volume Migration.	Recovery methods	① The cause of the abnormal termination of Modular Volume Migration being executed is because the planned shutdown of the array occurred while executing Modular Volume Migration. There is no failed part.
278	Collecting Error Information	While executing the Modular Volume Migration, the internal processing timed out by the DMLU access.	Recovery methods	① 1. The cause of the abnormal termination of the Modular Volume Migration during the execution was that the internal processing timed out because the load of the replication and the quick format was high. Therefore, there is no failed part. 2. If the Modular Volume Migration repeats the abnormal termination due to this cause, execute the Modular Volume Migration when the load of the replication and the quick format is low.
513	Collecting Error Information	The array shut down during the execution of the Modular Volume Migration.	Recovery methods	① The cause that the executing Modular Volume Migration terminated abnormally is because the array shut down during the execution of the Modular Volume Migration. There is no failed part.
514	Collecting Error Information	The Controller was blocked during the execution of the Modular Volume Migration.	Recovery methods	① Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)
515	Collecting Error Information	The internal retry processing occurred in the Controller during the execution of the Modular Volume Migration.	Recovery methods	① The cause that the executing Modular Volume Migration terminated abnormally is because the internal retry processing was executed in the Controller. There is no failed part.
516	Collecting Error Information	A time-out occurred in the DMA transfer during the execution of the Modular Volume Migration.	Recovery methods	① Replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)
517	Collecting Error Information	The DMA transfer terminated abnormally during the execution of the Modular Volume Migration.	Recovery methods	① Replace the Controller where a failure occurred. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)
518	Collecting Error Information	The DMA transfer terminated abnormally in the generation of the parity data during the execution of the Modular Volume Migration.	Recovery methods	① Replace the Cache memory installed in the blocked Controller. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) ② If not recovered yet, replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)

519	Collecting Error Information	The resource was not allocated to the LU created in the DP pool while executing Modular Volume Migration.
Recovery methods	① Check the total capacity and the consumed capacity of the DP pool, and if the free capacity of the DP pool is depleted, add the DP pool capacity.	
	② If there is the free capacity, execute it again after waiting for one minute or more.	
520	Collecting Error Information	The internal timeout occurred in I/O received while executing Modular Volume Migration.
521	Collecting Error Information	I/O received while executing Modular Volume Migration was not able to be processed in time.
Recovery methods	① 1. Check that one Drive which configures the LU of the P-VOL or the S-VOL is blocked in the case other than RAID 6, two are blocked in the case of RAID 6, and another one becomes a Drive failure "I30100 HDU error" among the Drives which configure the same RAID Group. 2. Recover the failure of the Drive referring to Troubleshooting "11.1.9 Data Recovery does Not Terminate Normally: Case 2 (Drive Failure)" (TRBL 11-0720) .	
	② Since the I/O load is high, the resource save took time by competition. Reduce the I/O load to the array array.	
769	Collecting Error Information	The number of sub-segments of PIN exceeded the threshold to execute the write through during the execution of the Modular Volume Migration.
Recovery methods	① 1. Check that the message, "W3G000 (or W3H000) PIN is over directory threshold", "W3J000 (or W3K000) PIN is over partition threshold" or "W49500 (or W3M000) PIN is over RAID group threshold", is displayed. 2. Recover the PIN over referring to Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 (PIN Over)" (TRBL 11-0760) .	
1025	Collecting Error Information	The array shut down during the execution of the Modular Volume Migration, and the data on the Cache memory was lost.
Recovery methods	① Recover the consistency of the parity of the volume or execute the restoration of the user data referring to Troubleshooting "11.1.3 The Failure Occurred Immediately after Being Ready (Forced Parity Correction)" (TRBL 11-0150) .	
1026	Collecting Error Information	<ul style="list-style-type: none"> • The volume executing the Modular Volume Migration was blocked. • Or one Drive which configures the volume executing the Modular Volume Migration was blocked in the case other than RAID 6, two were blocked in the case of RAID 6, and another one became a Drive failure among the Drives which configure the same RAID Group, so that R/W to the volume became difficult.
Recovery methods	① 1. Check if the volume of the P-VOL or the S-VOL is blocked (two Drives which configure the volume are blocked in the case other than RAID 6 and three are blocked in the case of RAID 6). 2. When the volume of the P-VOL or the S-VOL was blocked, recover the volume to "Formatted VOL" referring to Troubleshooting "11.1.13 A Failure Occurred during Operation: Case 3 (Volume Blockade)" (TRBL 11-0820) .	
	② 1. Check that one Drive which configures the volume of the P-VOL or the S-VOL is blocked in the case other than RAID 6 and two are blocked in the case of RAID 6, and another one becomes a Drive failure "I30100 HDU error" among the Drives which configure the same RAID Group. 2. Recover the failure of the Drive referring to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally: Case 2 (Drive Failure)" (TRBL 11-0720) .	
1027	Collecting Error Information	The data of the DMLU could not be read because the Drive was blocked at the time of the array start.
Recovery methods	① 1. Check that "I6EL00 DM-LU read failed" is displayed in the Information Message on WEB. 2. Remove the cause that the reading of the DMLU fails according to the recovery method of the message code "I6EL00 DM-LU read failed". (Refer to "Chapter 4. Progress Messages" (MSG 04-0000) .)	

1028	Collecting Error Information	<p>Because the Drive which configures the volume was blocked after executing the Modular Volume Migration for the volume during the execution of the forced parity correction, the status of the forced parity correction changed to "Uncorrected and Drive Detached" or "Correction Aborted".</p>
Recovery methods	①	<ol style="list-style-type: none"> 1. Check that the status of the volume of the P-VOL or the S-VOL is "Uncorrected and Drive Detached" or "Correction Aborted" from the Hitachi Storage Navigator Modular 2. 2. Recover the consistency of the parity of the volume or execute the restoration of the user data corresponding to the status of the volume checked in ①-1 referring to Troubleshooting "11.1.3 < Forced Parity Collection Maintenance Flow >" (TRBL 11-0190).
1030	Collecting Error Information	<p>• The volume executing the Modular Volume Migration was blocked.</p> <p>• Or one Drive which configures the volume executing the Modular Volume Migration was blocked in the case other than RAID 6, two were blocked in the case of RAID 6, and another one became a Drive failure among the Drives which configure the same RAID Group, so that R/W to the volume became difficult.</p>
Recovery methods	①	<ol style="list-style-type: none"> 1. Check if the volume of the P-VOL or the S-VOL is blocked (two Drives which configure the volume are blocked in the case other than RAID 6 and three are blocked in the case of RAID 6). 2. When the volume of the P-VOL or the S-VOL was blocked, recover the volume to "Formatted VOL" referring to Troubleshooting "11.1.13 A Failure Occurred during Operation: Case 3 (Volume Blockade)" (TRBL 11-0820).
	②	<ol style="list-style-type: none"> 1. Check that one Drive which configures the volume of the P-VOL or the S-VOL is blocked in the case other than RAID 6 and two are blocked in the case of RAID 6, and another one becomes a Drive failure "I30100 HDU error" among the Drives which configure the same RAID Group. 2. Recover the failure of the Drive referring to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally: Case 2 (Drive Failure)" (TRBL 11-0720).
1032	Collecting Error Information	<p>The difference in volume capacity between the P-VOL and S-VOL has been detected at the time of the array start.</p>
Recovery methods	①	<ol style="list-style-type: none"> 1. Delete the pair. 2. Create a Volume Migration pair with a reserve volume (S-VOL) of the same size as the P-VOL.
1793	Collecting Error Information	<p>Because the Drive which configures the LU was blocked after executing the Modular Volume Migration for the LU during the execution of the forced parity correction, the status of the forced parity correction changed to "Uncorrected and Drive Detached" or "Correction Aborted".</p>
Recovery methods	①	<ol style="list-style-type: none"> 1. Check that the status of the LU of the P-VOL or the S-VOL is "Uncorrected and Drive Detached" or "Correction Aborted" from the Hitachi Storage Navigator Modular 2. 2. Recover the consistency of the parity of the LU or execute the restoration of the user data corresponding to the status of the LU checked in ①-1 referring to Troubleshooting "11.1.3 < Forced Parity Collection Maintenance Flow >" (TRBL 11-0190).
1794	Collecting Error Information	<p>Because only the number that PIN in the LU was near the threshold was detected after executing the Modular Volume Migration for the LU during the execution of the forced parity correction, the forced parity correction was cancelled.</p>
Recovery methods	①	<ol style="list-style-type: none"> 1. Check that "I1GH00 (or I1GJ00, I1GK00) Forced parity correction stopped by too many PINs" is displayed in the Information Message on WEB. 2. Recover the PIN over, recover the consistency of the parity of the LU or restore the user data referring to Troubleshooting "11.1.3 < Forced Parity Collection Maintenance Flow >" (TRBL 11-0190) and Troubleshooting "11.1.3 [Recovery method-4] Pin over occurred during the forced parity correction" (TRBL 11-0280).
1795	Collecting Error Information	<p>The incomplete write was detected after executing the Modular Volume Migration for the LU executing the forced parity correction.</p>
Recovery methods	①	<ol style="list-style-type: none"> 1. Check that "I1GE00 Forced parity correction is stopped [Too many Unreadable PINs]" is displayed in the Information Message on WEB. 2. Recover the incomplete write, recover the consistency of the parity of the LU or restore the user data referring to Troubleshooting "11.1.3 < Forced Parity Collection Maintenance Flow >" (TRBL 11-0190) and Troubleshooting "11.1.3 [Recovery method-5] Incomplete write occurred during the forced parity correction" (TRBL 11-0300).

2049	Collecting Error Information	
The internal processing to switch the owner right of the LU between the Controller operated during the execution of the Modular Volume Migration, but the internal processing timed out because the load of I/O to the LU was heavy.		
Recovery methods	① 1. The cause that the executing Modular Volume Migration terminated abnormally is because the internal processing timed out the heavy load of I/O to the LU of the pair. There is no failed part. 2. If the Modular Volume Migration repeatedly terminates abnormally due to this factor, execute the Modular Volume Migration to the LU before releasing the pair when the load of I/O to the LU of the pair becomes light.	
2305	Collecting Error Information	
The internal timeout occurred in I/O received while executing Modular Volume Migration.		
2306	Collecting Error Information	
① The volume executing the Modular Volume Migration was blocked. ② Or one Drive which configures the volume executing the Modular Volume Migration was blocked in the case other than RAID 6, two were blocked in the case of RAID 6, and another one became a Drive failure among the Drives which configure the same RAID Group, so that R/W to the volume became difficult. ③ The DMA transfer terminated abnormally during the execution of the Modular Volume Migration. ④ The DMA transfer terminated abnormally in the generation of the parity data during the execution of the Modular Volume Migration.		
Recovery methods	① 1. Check if the volume of the P-VOL or the S-VOL is blocked (two Drives which configure the volume are blocked in the case other than RAID 6 and three are blocked in the case of RAID 6). 2. When the volume of the P-VOL or the S-VOL was blocked, recover the volume to "Formatted Logical Unit" referring to Troubleshooting "11.1.13 A Failure Occurred during Operation: Case 3 (Volume Blockade)" (TRBL 11-0820) . ② 1. Check that one Drive which configures the volume of the P-VOL or the S-VOL is blocked in the case other than RAID 6, two are blocked in the case of RAID 6, and another one becomes a Drive failure "I30100 HDU error" among the Drives which configure the same RAID Group. 2. Recover the failure of the Drive referring to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally: Case 2 (Drive Failure)" (TRBL 11-0720) . ③ Replace the Controller where a failure occurred. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .) ④ 1. Replace the Cache memory installed in the blocked Controller. (Refer to Replacement "2.2.6 Replacing a Cache Memory" (REP 02-0920) .) 2. If not recovered yet, replace the blocked Controller. (Refer to Replacement "2.2.5 Replacing a Controller" (REP 02-0700) .)	
2307	Collecting Error Information	
The planned shutdown of the array occurred while executing Modular Volume Migration.		
Recovery methods	① The cause of the abnormal termination of Modular Volume Migration being executed is because the planned shutdown of the array occurred while executing Modular Volume Migration. There is no failed part.	
2308	Collecting Error Information	
The internal timeout occurred in I/O received while executing Modular Volume Migration.		
2310	Collecting Error Information	
The internal timeout occurred in I/O received while executing Modular Volume Migration.		
2311	Collecting Error Information	
Since the free capacity of the DP pool was depleted while executing Modular Volume Migration, R/W for the LU created in the DP pool cannot be performed.		
Recovery methods	① Add the DP pool capacity.	
2312	Collecting Error Information	
Since the free capacity of the DP pool was depleted while executing Modular Volume Migration, R/W for the LU created in the DP pool cannot be performed.		
Recovery methods	① Add the DP pool capacity.	

2313

Collecting Error Information

- ① The volume executing the Modular Volume Migration was blocked.
- ② Or one Drive which configures the volume executing the Modular Volume Migration was blocked in the case other than RAID 6, two were blocked in the case of RAID 6, and another one became a Drive failure among the Drives which configure the same RAID Group, so that R/W to the volume became difficult.
- ③ The DMA transfer terminated abnormally during the execution of the Modular Volume Migration.
- ④ The DMA transfer terminated abnormally in the generation of the parity data during the execution of the Modular Volume Migration.

Recovery
methods

- ① 1. Check if the volume of the P-VOL or the S-VOL is blocked (two Drives which configure the volume are blocked in the case other than RAID 6 and three are blocked in the case of RAID 6).
- 2. When the volume of the P-VOL or the S-VOL was blocked, recover the volume to "Formatted Logical Unit" referring to [Troubleshooting "11.1.13 A Failure Occurred during Operation: Case 3 \(Volume Blockade\)" \(TRBL 11-0820\)](#).
- ② 1. Check that one Drive which configures the volume of the P-VOL or the S-VOL is blocked in the case other than RAID 6, two are blocked in the case of RAID 6, and another one becomes a Drive failure "I30100 HDU error" among the Drives which configure the same RAID Group.
- 2. Recover the failure of the Drive referring to [Troubleshooting "11.1.9 Data Recovery does not Terminate Normally: Case 2 \(Drive Failure\)" \(TRBL 11-0720\)](#).
- ③ Replace the Controller where a failure occurred. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)
- ④ 1. Replace the Cache memory installed in the blocked Controller. (Refer to [Replacement "2.2.6 Replacing a Cache Memory" \(REP 02-0920\)](#).)
- 2. If not recovered yet, replace the blocked Controller. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)

2314

Collecting Error Information

While executing the Modular Volume Migration, the internal processing timed out by the DMLU access.

Recovery
methods

- ① 1. The cause of the abnormal termination of the Modular Volume Migration during the execution was that the internal processing timed out because the load of the replication and the quick format was high. Therefore, there is no failed part.
- 2. If the Modular Volume Migration repeats the abnormal termination due to this cause, execute the Modular Volume Migration when the load of the replication and the quick format is low.

2561

Collecting Error Information

While executing the Modular Volume Migration, the time-out or the abnormal termination occurred in the DMA transfer during the DMLU access.

Recovery
methods

- ① Replace the Controller where a failure occurred. (Refer to [Replacement "2.2.5 Replacing a Controller" \(REP 02-0700\)](#).)

2562

Collecting Error Information

During the internal initialization of the DMLU while executing the Modular Volume Migration, the planned shutdown or the power-off occurred.

Recovery
methods

- ① The cause of the abnormal termination of the Modular Volume Migration during the execution was that the array had the planned shutdown or the power-off while executing the Modular Volume Migration. Therefore, there is no failed part.

2563

Collecting Error Information

While executing the Modular Volume Migration, the number of sub-segments of the PIN exceeded the threshold value for executing the write through.

Recovery
methods

- ① 1. Check that any of the messages "W3G000 (or W3H000) PIN is over directory threshold", "W3J000 (or W3K000) PIN is over partition threshold" and "W3L000 (or W3M000) PIN is over RAID group threshold" is displayed in the Information Message on WEB.
- 2. Recover the PIN over referring to [Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 \(PIN Over\)" \(TRBL 11-0760\)](#).

2564		Collecting Error Information
	The internal initialization of the DMLU while executing the Modular Volume Migration terminated abnormally.	
2565		Collecting Error Information
	The DMLU access while executing the Modular Volume Migration terminated abnormally.	
	Recovery methods	① Check that the cause of the abnormal termination was due to the detection of the intermittent error. Check that the failure has not occurred, and then execute it again.
2566		Collecting Error Information
	The incomplete write was detected on the DMLU while executing the Modular Volume Migration.	
	Recovery methods	① 1. Check that any of the messages "W0L000 (or W0M000) Unreadable PIN detected", "I15300 Data recovery partial" and "I63000 Write uncompleted block detected" is displayed in the Information Message on WEB. 2. Execute the Modular Volume Migration again.
2567		Collecting Error Information
	The planned shutdown of the array or the power-off occurred during the DMLU access while executing the Modular Volume Migration.	
	Recovery methods	① The cause of the abnormal termination of the Modular Volume Migration during the execution was that the array had the planned shutdown or the power-off while executing the Modular Volume Migration. Therefore, there is no failed part.
2568		Collecting Error Information
	The DMLU access while executing the Modular Volume Migration terminated abnormally.	
	Recovery methods	① Check that the cause of the abnormal termination was due to the detection of the intermittent error. Check that the failure has not occurred, and then execute it again.
2569		Collecting Error Information
	The Drive restoration was detected on the DMLU access while executing the Modular Volume Migration.	
	Recovery methods	① After completing the Drive restoration, execute it again.
2570		Collecting Error Information
	The incomplete write was detected on the DMLU while executing the Modular Volume Migration.	
	Recovery methods	① 1. Check that any of the messages "W0L000 (or W0M000) Unreadable PIN detected", "I15300 Data recovery partial" and "I63000 Write uncompleted block detected" is displayed in the Information Message on WEB. 2. Execute the Modular Volume Migration again.
2571		Collecting Error Information
	The illegal LA was detected on the DMLU while executing the Modular Volume Migration.	
	Recovery methods	① Perform the maintenance according to Troubleshooting "11.1.12 A Failure Occurred during Operation : Case 2 (LA/LRC Error)" (TRBL 11-0800) .
2572		Collecting Error Information
	<ul style="list-style-type: none"> The DMLU was blocked while executing the Modular Volume Migration. When the Drive configuring the DMLU is other than RAID 6, one Drive was blocked and in case of RAID 6, two Drives were blocked. Since another Drive was in a Drive failure among the Drives configuring the same RAID group, R/W for the DMLU became difficult. 	
	Recovery methods	① 1. Check if the DMLU is blocked (when the Drive configuring the volume is other than RAID 6, two Drives are blocked and in case of RAID6, three Drives are blocked). 2. If the DMLU is blocked, delete all the pairs and cancel the DMLU, and then recover the Drive failure and reset it in the DMLU referring to Troubleshooting "11.1.13 A Failure Occurred during Operation : Case 3 (Volume Blockade)" (TRBL 11-0820) (the volume format is not necessary for resetting the DMLU). ② 1. Check that when the Drive configuring the DMLU is other than RAID 6, one Drive is blocked and in case of RAID 6, two Drives are blocked and another one Drive is in the Drive failure "I30100 HDU error" among the Drives configuring the same RAID group. 2. Recover the failure of the Drive referring to Troubleshooting "11.1.9 Data Recovery does not Terminate Normally: Case 2 (Drive Failure)" (TRBL 11-0720) .

2573

Collecting Error Information

While executing the Modular Volume Migration, the number of sub-segments of the PIN exceeded the threshold value for executing the write through.

Recovery methods

- ① 1. Check that any of the messages "W3G000 (or W3H000) PIN is over directory threshold", "W3J000 (or W3K000) PIN is over partition threshold" and "W3L000 (W3M000) PIN is over RAID group threshold" is displayed in the Information Message on WEB.
2. Recover the PIN over referring to [Troubleshooting "11.1.11 A Failure Occurred during Operation : Case 1 \(PIN Over\)" \(TRBL 11-0760\)](#).

2575

Collecting Error Information

- The DMLU was blocked in the monitoring while executing the Modular Volume Migration.
- When the Drive configuring the DMLU is other than RAID 6, one Drive was blocked and in case of RAID 6, two Drives were blocked. Since another Drive was in a Drive failure among the Drives configuring the same RAID group, R/W for the DMLU became difficult.

Recovery methods

- ① 1. Check if the DMLU is blocked (when the Drive configuring the volume is other than RAID 6, two Drives are blocked and in case of RAID6, three Drives are blocked).
2. If the DMLU is blocked, delete all the pairs and cancel the DMLU, and then recover the Drive failure and reset it in the DMLU referring to [Troubleshooting "11.1.13 A Failure Occurred during Operation : Case 3 \(Volume Blockade\)" \(TRBL 11-0820\)](#) (the volume format is not necessary for resetting the DMLU).
- ② 1. Check that when the Drive configuring the DMLU is other than RAID 6, one Drive is blocked and in case of RAID 6, two Drives are blocked and another one Drive is in the Drive failure "I30100 HDU error" among the Drives configuring the same RAID group.
2. Recover the failure of the Drive referring to [Troubleshooting "11.1.9 Data Recovery does not Terminate Normally: Case 2 \(Drive Failure\)" \(TRBL 11-0720\)](#).