

DIAGNOSIS SECTION

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NOTICE: Unless otherwise stated, "firmware version" in this section indicates DKCMAIN firmware.

1. Types of Diagnosis

This Storage System has the following six diagnostic functions.

Table 1-1 Diagnostics Test Routines

Item No.	Type	Diagnosis	Part	Timing
1	CUDG3	Initial diagnoses	CHB, DKB, CACHE MEMORY, CTL, CFM	When Controller Chassis is powered on, Controller Board, Channel Board or Disk Board or Cache Flash Memory is added or replaced. (automatic)
2	INLINE CUDG	Functional diagnoses executed when the Storage System is online	CACHE MEMORY, CFM	When Cache Memory is added, removed or replaced. (automatic)
3	HDD INLINE	Disk Board - Drive Box functional (connection) check	DKB, ENC, HDD	Executed by direction of service personnel at the time of initial installation
4	PATH INLINE	Same as the above	DKB, ENC	Same as the above
5	LAN Check	Diagnosis of LAN among Maintenance PC - GUM - MP	MPU, MP	When a LAN error occurs or a LAN failure between Controller Chassis and Web Console is detected by a communication time-out error. (as specified by service personnel)
6	DKB	Encryption Disk Board status reference	DKB	When checking whether the encryption function of Disk Board is normal.

2. DIAG Details

2.1 CUDG3 (Control Unit Diagnosis 3)

CUDG3 diagnoses the basic functions of the Storage System for ensuring the normal hardware operation of DKC when the power is turned on.

CUDG3 starts before the main program.

Table 2-1 CUDG3 Test Routines

Item No.	Routine Name	Function
1	CUDG3B	Local memory/Processor diagnosis
2	CUDG3C1	Processor diagnosis
3	CUDG3C6	Cache memory diagnosis by all processors
4	Controller Board Test	Controller Board diagnosis by a delegated processor

2.2 INLINE CUDG (INLINE Control Unit Diagnosis)

INLINE CUDG checks that the Cache Memory online is normal. It is automatically executed when replacing CTL or adding or removing the Cache Memory.

Table 2-2 INLINE CUDG Test Routines

Item No.	Routine Name	Function
1	Cache memory test	Controller Board diagnosis

2.3 HDD INLINE

HDD INLINE checks that the basic functions of HDD operate normally. (Available only with the Maintenance PC.).

Table 2-3 shows the HDD INLINE test routines.

Table 2-3 HDD INLINE Test Routines

Routine ID	Test Name	Function
C1	TEST UNIT READY	Check that the target Drive is READY (READ/WRITE operable status) or the following status. • POWER ON RESET has occurred. • BUS DEVICE RESET has occurred. • SCSI BUS RESET has occurred.
C2	INQUIRY	Read INQUIRY information and check the product source.
C4	DB SELF TEST	Issues the SEND DIAG (Self Test) command and self-diagnose the Drive.

- NOTE:
- All logical devices must be in the “BLOCKED” status when solely executing HDD INLINE. (Refer to “4.4.1 Blocking LDEVs” of MAINTENANCE PC SECTION for how to block all logical devices.)
 - Check that the previous test routines are complete normally.
 - The DKC should have been powered on normally when solely executing HDD INLINE.

2.4 PATH INLINE

PATH INLINE checks that the DKB-DB connection is correct. Table 2-4 shows the PATH INLINE test routines.

At the time of introduction, execute only the test routines indicated by the test procedure.

Table 2-4 PATH INLINE Test Routine

Introduction diagnostic order	Routine ID	Execution availability under ONLINE	Test Name	Function	Maximum execution time (*1)			
					1HDD	24HDD	288HDD	576HDD
1	A0	× (*2)	Path Address TEST1	Checks whether the selected Disk Board and Drive Box are correctly connected.	About 1 min.	About 1 min.	About 1 min.	About 1 min.
—	A2	×	Failed HDD detection TEST	Executes the Read Test on installed HDDs one by one in units of port. (*2)	About 5 sec.	About 2 min.	About 15 min.	About 30 min.
2 (*3)	A3	×	HDD READ TEST	Executes the Read Test of the mounted HDD. (*4)	About 10 sec.	About 3 min.	About 5 min.	About 10 min.

*1 : The maximum execution times here is the time when communication is normal.

At the time of communication time-out, it is three minutes plus the above time.

*2 : Execute it at the direction of the Technical Support Division.

*3 : Do not execute the test when the Storage System is online, HDD is added or when Drive Board is added. Only run this routine during a new DKC installation or introduction of DKC and DB in sets.

*4 : The routine A3 executes Read Test to all the installed HDD. Therefore, do not execute this operation ONLINE.

2.5 LAN Diagnostic Checker

It checks the LAN connection status between the Maintenance PC and the Controller Chassis by the software for all the installed MPs.

Table 2-5 LAN Diagnosis

Test Name	Function	Purpose	Maximum execution time
Software check	Check the LAN connection status for all MPs.	Check whether the communication software is normal.	1 min. (1 MPU)

NOTE : When performing the test in the CE mode, all MPs to be diagnosed result in errors because the communication to the MPs fails.

NOTE : When the Maintenance PC is connected to CTL1, MPs for CTL2 blink to indicate an error. When the Maintenance PC is connected to CTL2, MPs for CTL1 blink to indicate an error.

2.6 Encryption Disk Board Status Reference Check

The service personnel can refer to the Disk Board status (encryption status/error status) via Maintenance PC.

Table 2-6 Encryption Status Reference

Item No.	Test Name	Function	Purpose	Maximum execution time
1	Disk Board status reference	Transmits and executes a status reference command to SPCve. A result is displayed on SSB.	Checks the status of Disk Board (Encryption status/Error status).	About 2 min.

3. DIAG Parts

Figure 3-1 through Figure 3-5 show the parts maintained by the diagnostic program.

Figure 3-1 PATH INLINE Diagnostic Parts

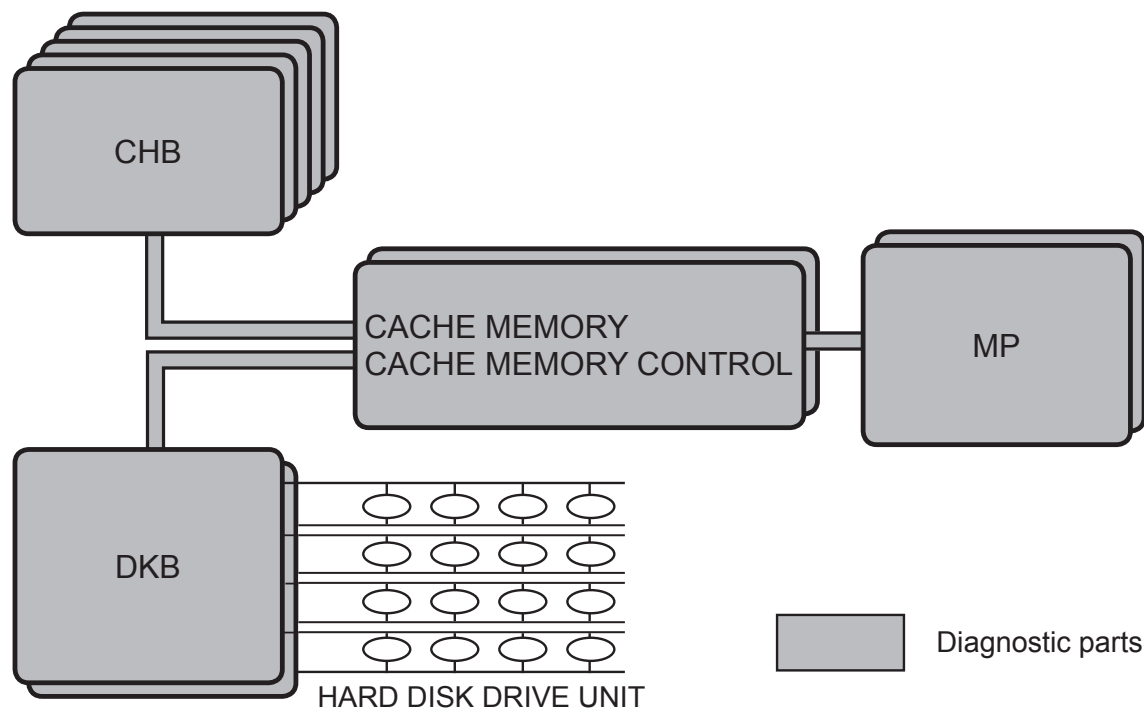


Figure 3-2 INLINE CUDG Diagnostic Parts

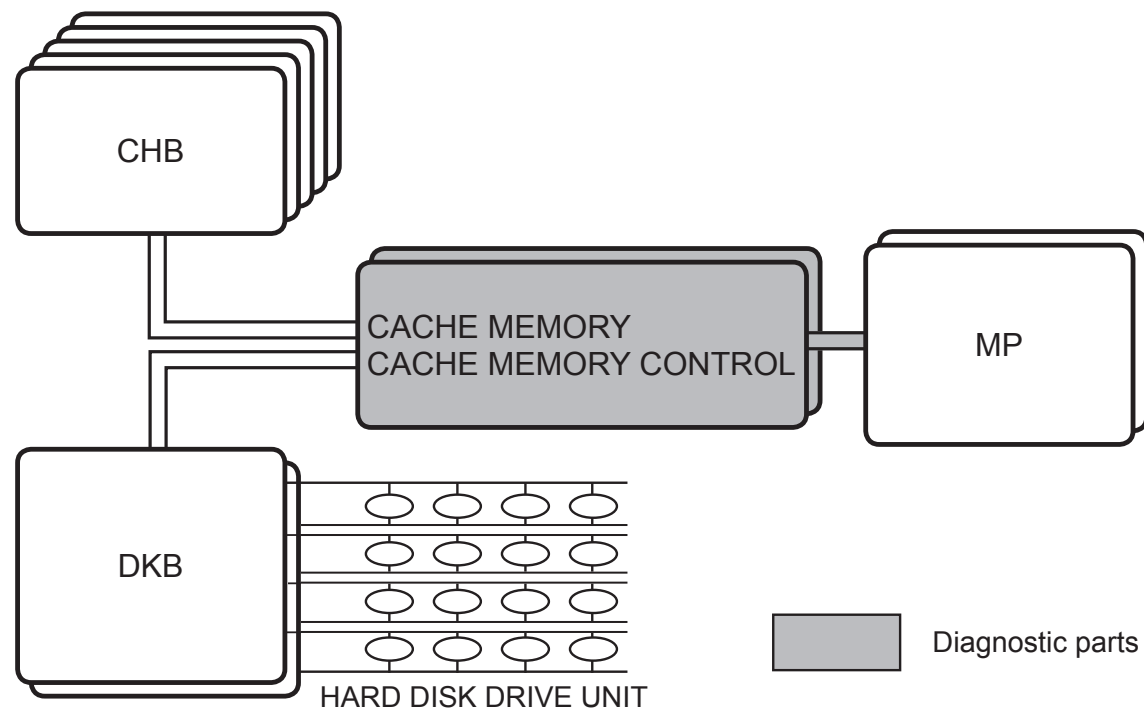


Figure 3-3 HDD INLINE Diagnostic Parts

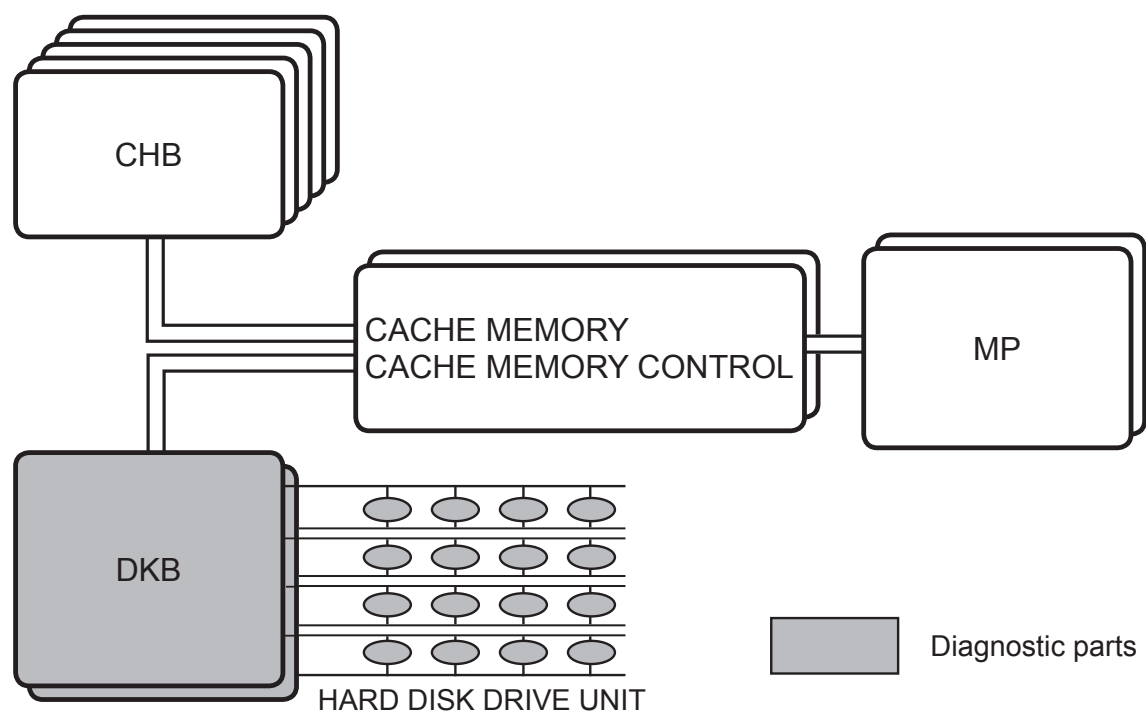


Figure 3-4 PATH INLINE Diagnostic Parts

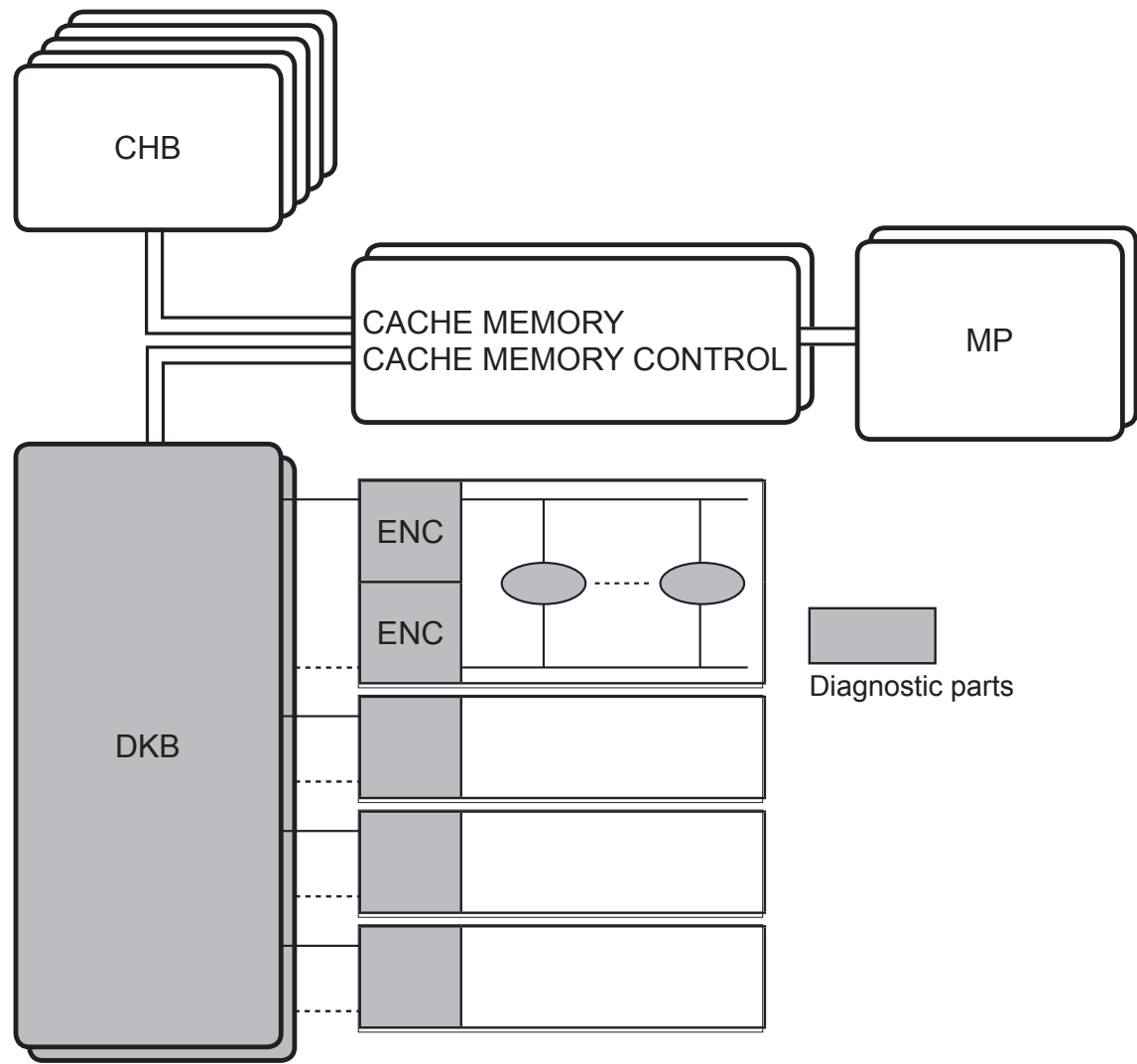
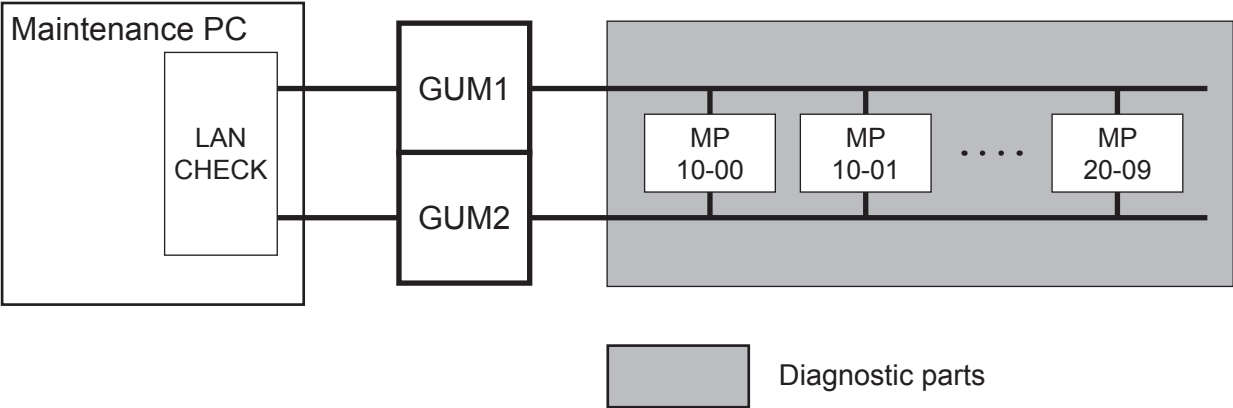


Figure 3-5 LAN Check Diagnostic Parts

An example of VSP G370 and VSP F370 is shown below. The number of installed MPs varies depending on the storage system models.



4. DIAG Test Procedures (Maintenance PC Operations)

4.1 HDD INLINE Test Procedures

1. <Initial window>

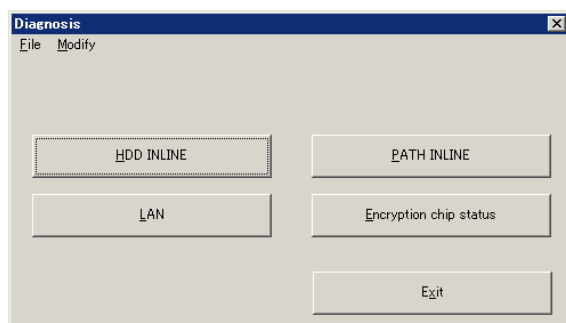
2. <Change Operation Mode>

Change the mode to [Modify Mode].

Click the [Diagnosis] button.

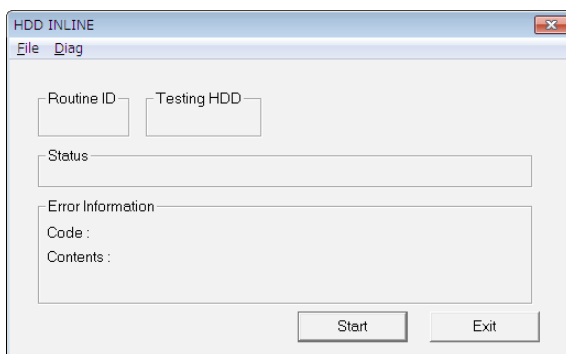
3. <Select HDD INLINE>

Click the [HDD INLINE] button.



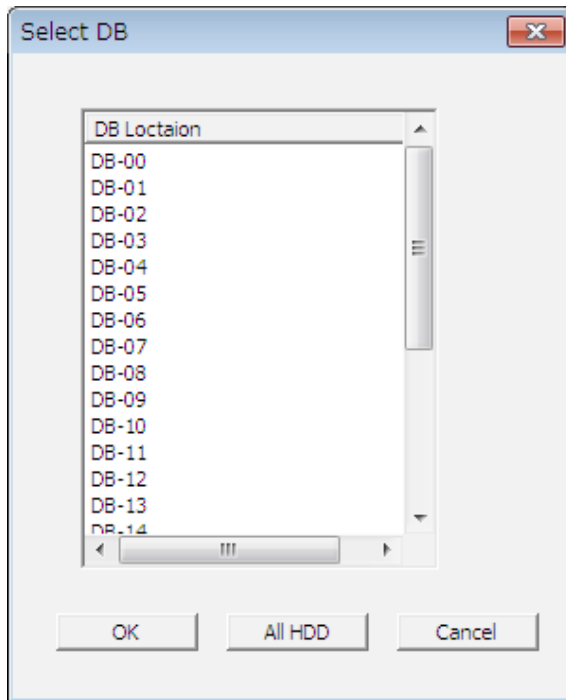
4. <Select Start>

Click the [Start] button.



5. <Select DB to be diagnosed>

Click the Drive Box (DB) for which the test routine is to be diagnosed from "Select DB".

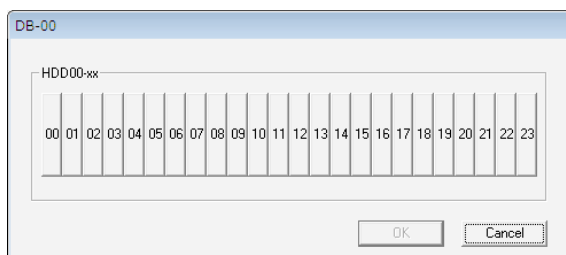


When selecting each DB, go to [Step 6](#).

If the [All HDD] button is clicked, go to [Step 8](#).

6. <Select Disk Drive to be diagnosed>

Click the Disk Drive (HDD) for which the test routine is to be diagnosed from selected Drive Box (DB).

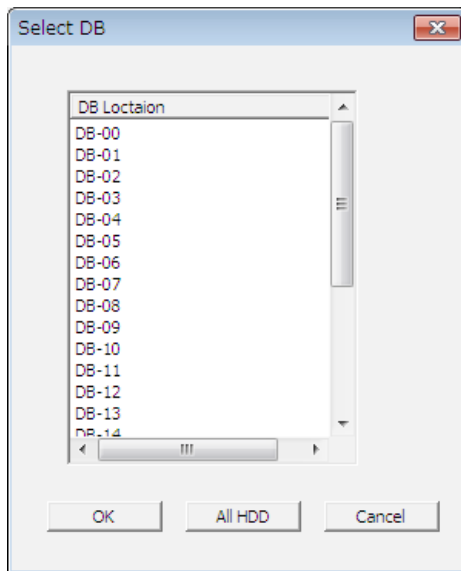


Click the [OK] button.

If the [Cancel] button is clicked, go back to [Step 5](#).

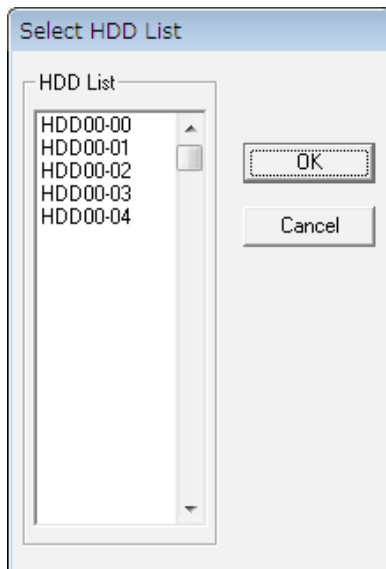
7. <Select [OK]>

Click the [OK] button.



8. <Confirm HDD to be diagnosed>

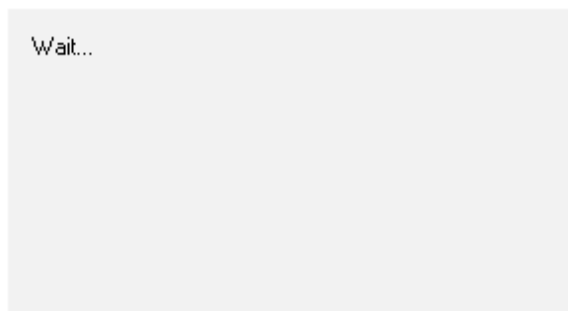
Confirm HDDs to be diagnosed in the "Select HDD List".



Click the [OK] button.

9. <Display Status>

“Wait...” is displayed.

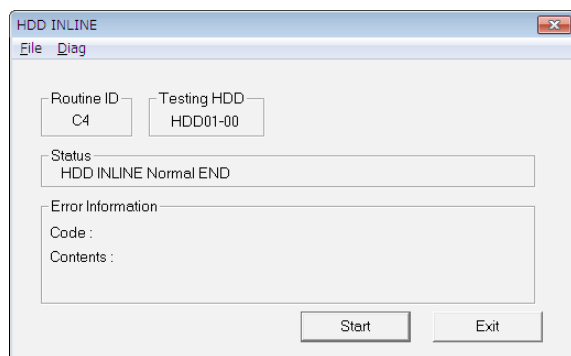


Normal complete : Go to [Step 10](#).

Abnormal complete : Go to [Step 11](#).

10. <Complete HDD INLINE>

“HDD INLINE Normal END” is displayed in the Status field.

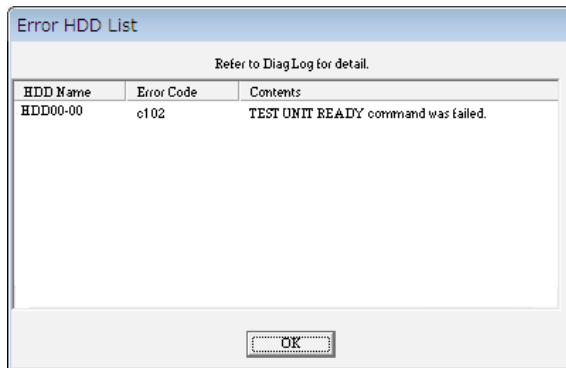


Click the [Exit] button.

Go to [Step 13](#).

11. <Display “Error HDD”>

“Error HDD List” is displayed.

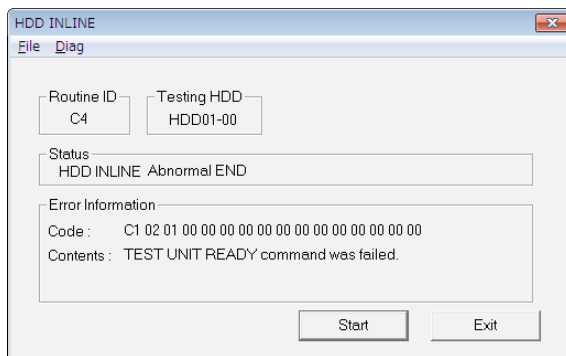


Click the [OK] button.

12. <Complete Error>

“HDD INLINE Abnormal END” is displayed in the Status field.

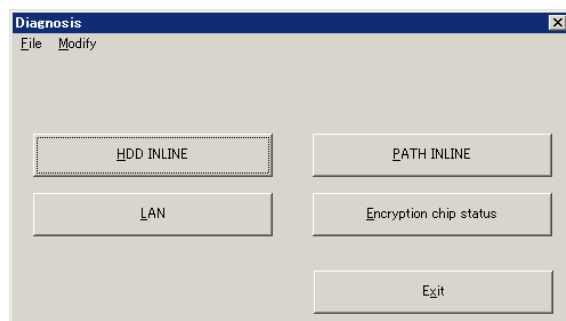
Refer to MAINTENANCE PC SECTION “[5.3.1 Log Indication](#)” for the detailed information.



Click the [Exit] button.

13. <Complete Diagnosis>

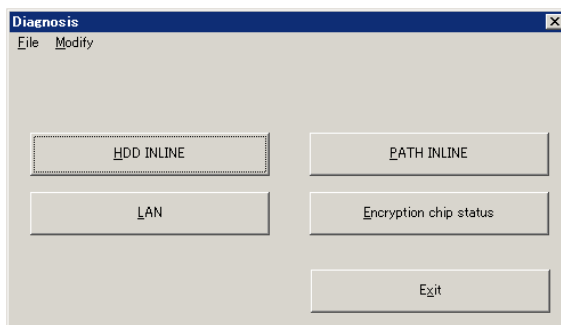
Click the [Exit] button.



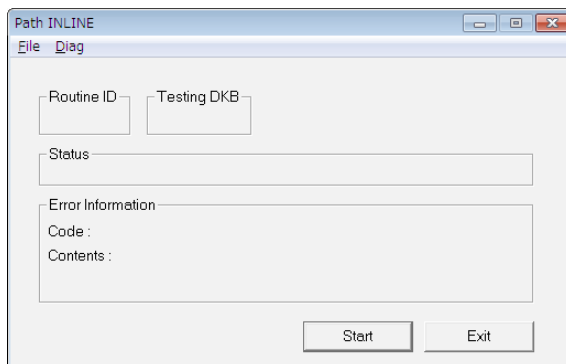
4.2 PATH INLINE Test Procedures

4.2.1 A0 Routine Test Procedures

1. <Initial window>
2. <Change Operation Mode>
Change the mode to [Modify Mode].
Click the [Diagnosis] button.
3. <Select PATH INLINE>
Click the [PATH INLINE] button.

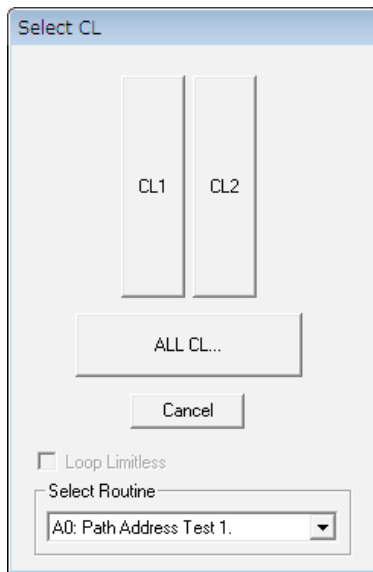


4. <Select Start>
Click the [Start] button.



5. <Select Routine and CL>

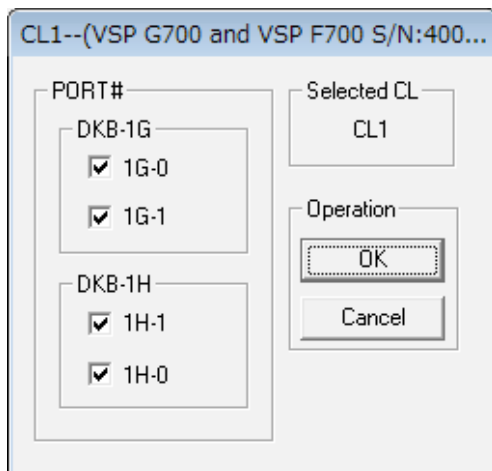
Select the routine (A0) which is to be diagnosed from “Select Routine”, click the CL for which the test routine is to be diagnosed.



If the [ALL CL...] button is selected: Go to [Step 7](#).

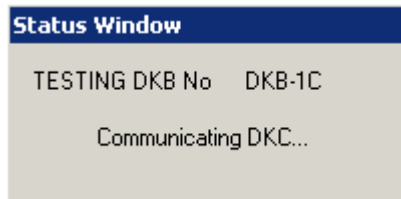
6. <Select the PORT to be diagnosed>

Check the checkbox of the PORT for which the test routine is to be diagnosed, and click the [OK] button.



7. <Status Window>

The “Status Window” window opens and the current status is displayed.



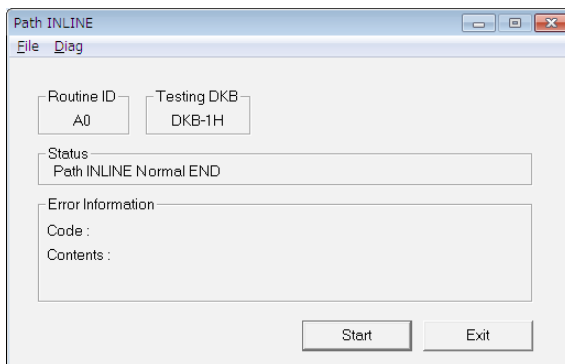
Normal complete : Go to [Step 8](#).

Abnormal complete : Go to [Step 9](#).

8. <Complete PATH INLINE>

“Path INLINE Normal END” is displayed in the Status field.

Click the [Exit] button.

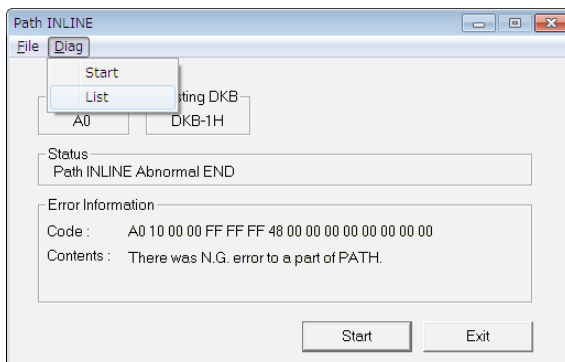


Go to [Step 13](#).

9. <Select DKB-XX Error Display>

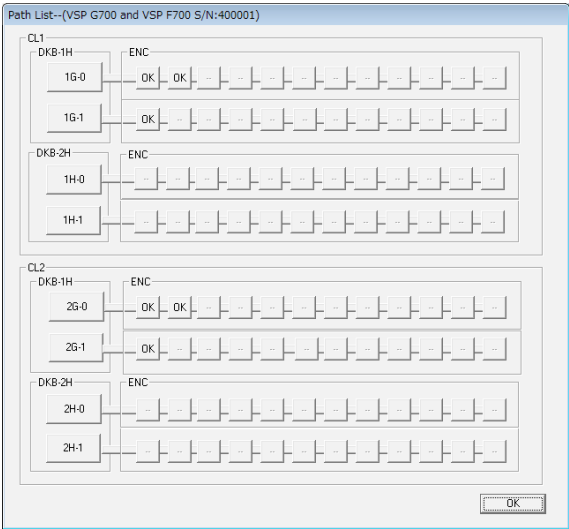
“Path INLINE Abnormal END” is displayed in the Status field.

Select [List] from [Diag].



10. <Check Failed Part>

Click the Diagnosis result button connected to each DKB [DKB-xx] port button.



When the Diagnosis result button (OK/NG/EQ) is clicked, go to [Step 11](#).
When the [OK] button in the lower right window is clicked, go to [Step 12](#).

11. <Display Details>

The details information is displayed.

CL : CL1	
Port No. : 1H-0	
Expander00	
SAS-Port status :	IN : OK
Expected Path Address :	01000001
Location :	ENC00-1
Received Path Address :	01000001
Location :	ENC00-1
Expected Phy ID :	00010203
Received Phy ID :	00010203
Link Speed :	[Phy#] [Speed]
	0x60 12Gbps
	0x61 12Gbps
	0x62 12Gbps
	0x63 12Gbps
SAS-Port status :	OUT : OK
Expected Path Address :	01000011
Location :	ENC02-1
Received Path Address :	01000011
Location :	ENC02-1
Expected Phy ID :	04050607
Received Phy ID :	04050607
Link Speed :	[Phy#] [Speed]
	0x64 12Gbps
	0x65 12Gbps
	0x66 12Gbps
	0x67 12Gbps

OK

Click the [OK] button.

Go back to [Step 10](#).

12. <Complete PATH INLINE>

Path INLINE

File Diag

Routine ID: A0 Testing DKB: DKB-1H

Status: Path INLINE Normal END

Error Information:

Code :

Contents :

Start Exit

Click the [Exit] button.

13. <Complete Diagnosis>

Click the [Exit] button.

Diagnosis

File Modify

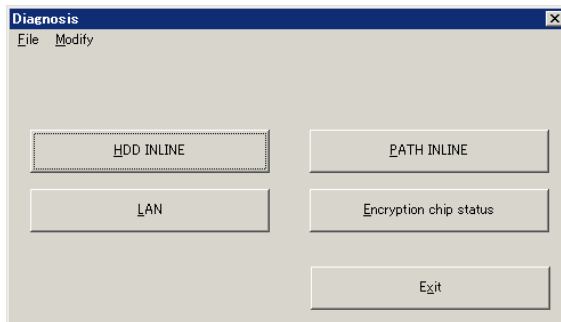
HDD INLINE PATH INLINE

LAN Encryption chip status

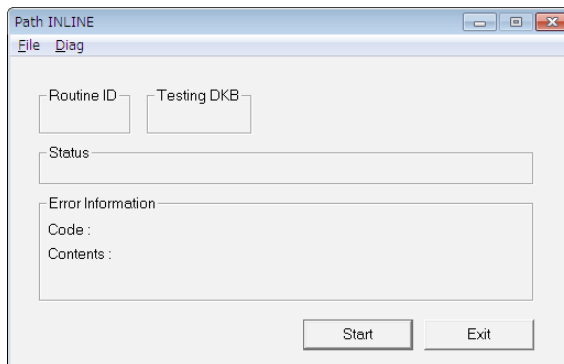
Exit

4.2.2 A3 Routine Test Procedures

1. <Initial window>
2. <Change Operation Mode>
Change the mode to [Modify Mode].
Click the [Diagnosis] button.
3. <Select PATH INLINE>
Click the [PATH INLINE] button.

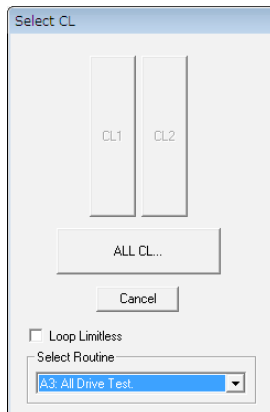


4. <Select Start>
Click the [Start] button.



5. <Select Routine>

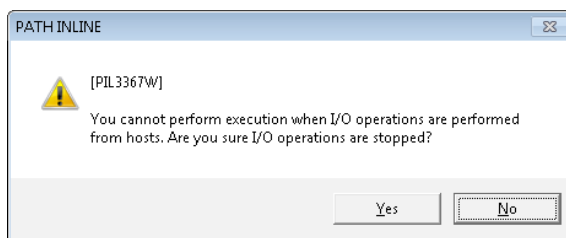
Select the routine “A3 : ” which is to be diagnosed from “Select Routine”, and click the [ALL CL] button.



In case you loop the diagnosis, check the “Loop Limitless” checkbox.

6. <I/O Check>

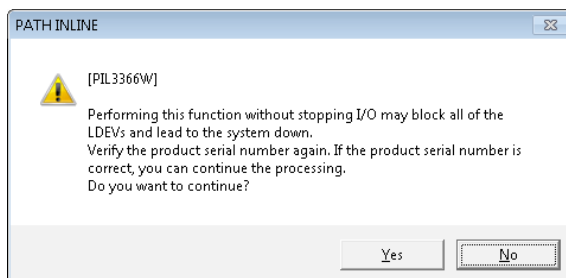
An inquiry “[3367] You cannot perform execution when I/O operations are performed from hosts. Are you sure I/O operations are stopped?” is displayed.



Check that I/O has stopped, and then click the [Yes] button.

7. <Execution Check>

An inquiry “[3366] Performing this function without stopping I/O may block all of the LDEVs and lead to the system down. Verify the product serial number again. If the product serial number is correct, you can continue the processing. Do you want to continue?” is displayed.

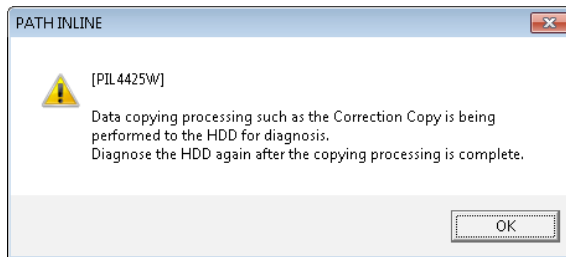


In case you execute the diagnosis, click the [Yes] button.

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8. <When Detecting Data Copy on Drive>

An inquiry “[4425] Data copying processing such as the Correction Copy is being performed to the HDD for diagnosis. Diagnose the HDD again after the copying processing is complete.” is displayed.



Clicking the [OK] button, terminates the diagnosis processing.

9. <Display Status>

“All Drive Test” window opens and the current status is displayed.



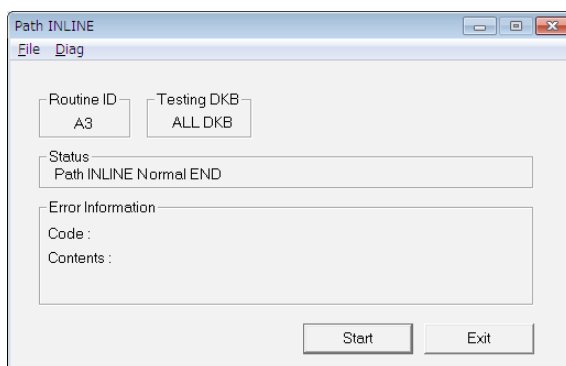
Normal complete : Go to [Step 10](#).

Abnormal complete : Go to [Step 11](#).

In case you suspend the diagnosis, click the [Stop] button.

10. <Complete PATH INLINE>

“Path INLINE Normal END” is displayed in the Status field.

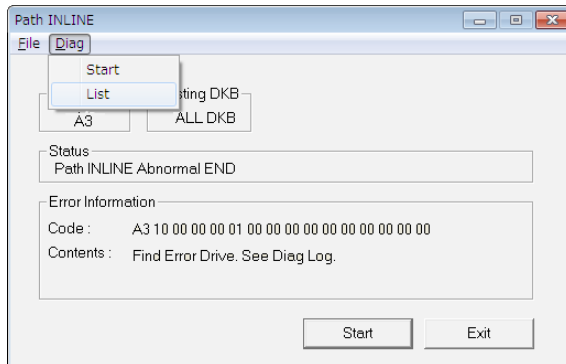


Click the [Exit] button.

Go to [Step 16](#).

11. <Display Device List>

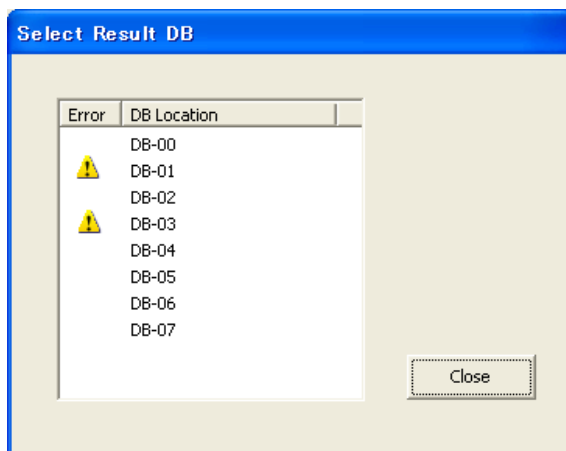
“Path INLINE Abnormal END” is displayed in the Status field.



Select [List] from [Diag].

12. <Display Select Result DB>

When the diagnosed DB includes a failed PDEV, an error icon () is displayed in the [Error] section of the concerned DB.



Click an optional DB Location from “DB Location”. Go to [Step 13](#).

To go back, click the [Close] button. Go back to [Step 15](#).

13. <Display Error Devices (Failure Has Occurred)>

When a failure occurs, “NG” is displayed in the PDEV installing position.



If you want to refer to the detailed information about the “NG” PDEV, click [NG]. Go to [Step 14](#).

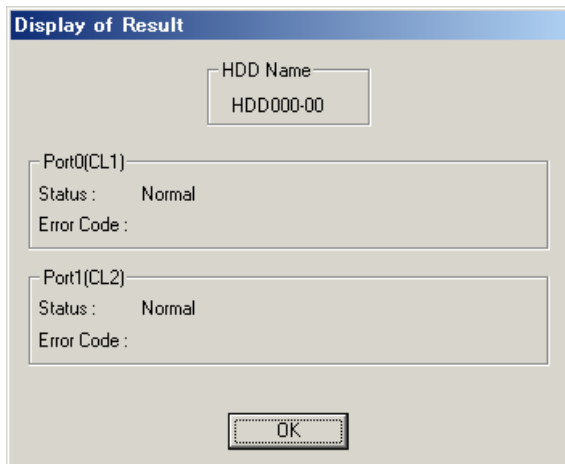
To go back, click the [OK] button. Go back to [Step 11](#).

“EQ” is displayed when the diagnosis complete on the way and shows that the installed PDEV is undiagno.

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14. <Display Details (Failure Has Occurred)>

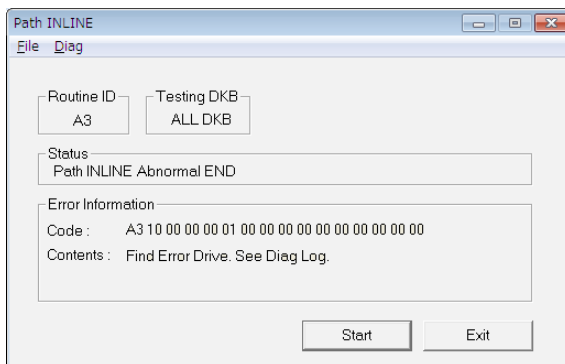
The detailed information is displayed.



Click the [OK] button.

Go back to [Step 13](#).

15. <Complete PATH INLINE>

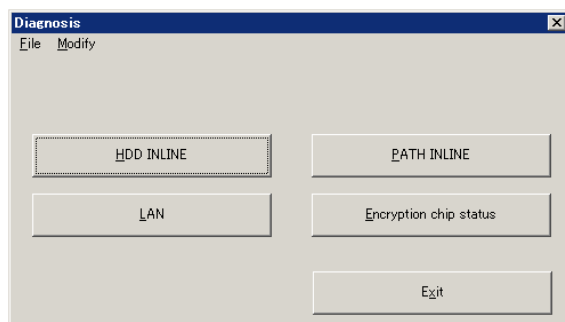


Refer to MAINTENANCE PC SECTION "[5.3.1 Log Indication](#)" for the detailed information.

Click the [Exit] button.

16. <Complete Diagnosis>

Click the [Exit] button.



4.2.3 A2 Routine Test Procedures

1. <Initial window>

2. <Change Operation Mode>

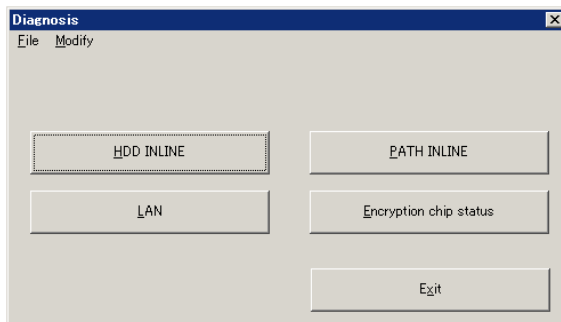
Change the mode to [Test Mode].

Click the [Diagnosis] button.

NOTE : Call Technical Support Division for asking how to change the mode to Test Mode.

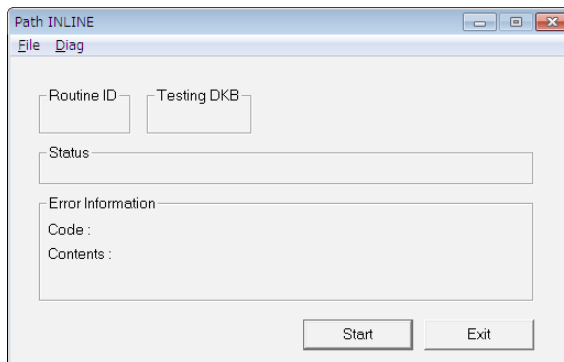
3. <Select PATH INLINE>

Click the [PATH INLINE] button.



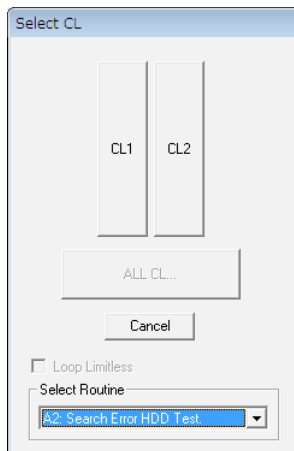
4. <Select Start>

Click the [Start] button.



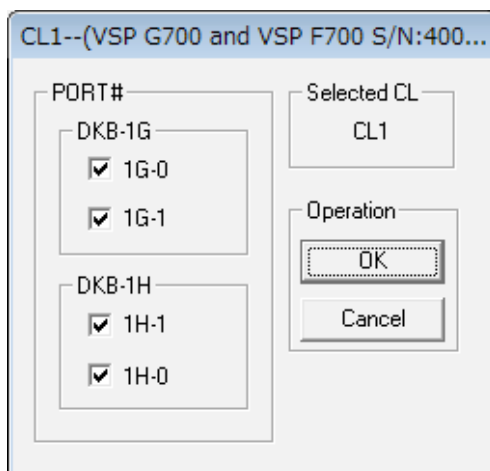
5. <Select Routine and CL>

Select the routine “A2 : ” which is to be diagnosed from “Select Routine”, and click the CL to be diagnosed.



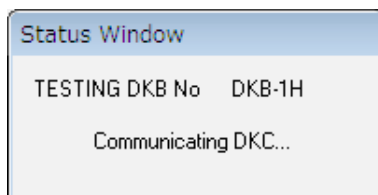
6. <Select PORT to be diagnosed>

Check the checkbox of the PORT for which the test routine is to be diagnosed, and click the [OK] button.



7. <Status Window>

The “Status Window” window opens and the current status is displayed.

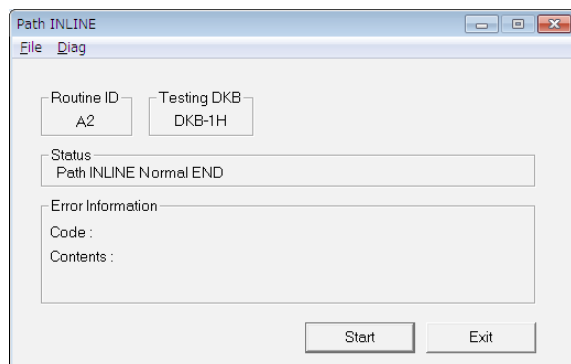


Normal complete : Go to [Step 8](#).

Abnormal complete : Go to [Step 9](#).

8. <Complete PATH INLINE>

“Path INLINE Normal END” is displayed in the Status field.

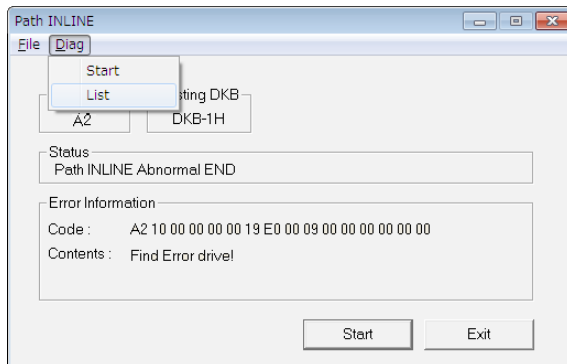


Click the [Exit] button.

Go to [Step 14](#).

9. <Display Device List>

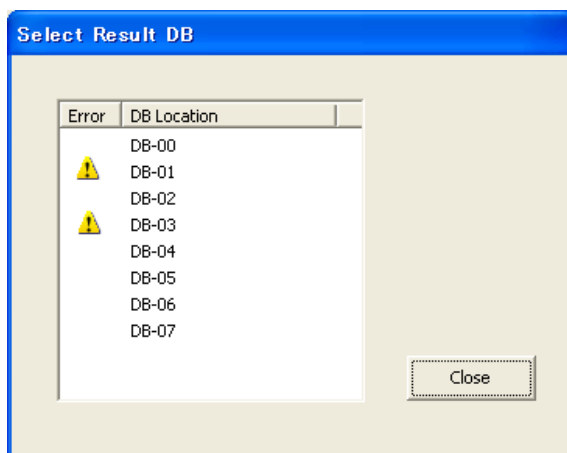
“Path INLINE Abnormal END” is displayed in the Status field.



Select [List] from [Diag].

10. <Display Select Result DB>

When the diagnosed DB includes a failed PDEV, an error icon () is displayed in the [Error] section of the concerned DB.



Click optional DB Location from [DB Location]. Go to [Step 11](#).

If you want to display other Unit, click the [Close] button. Go back to [Step 13](#).

11. <Display Error Devices (Failure Has Occurred)>

When a failure occurs, “NG” is displayed in the PDEV installing position.



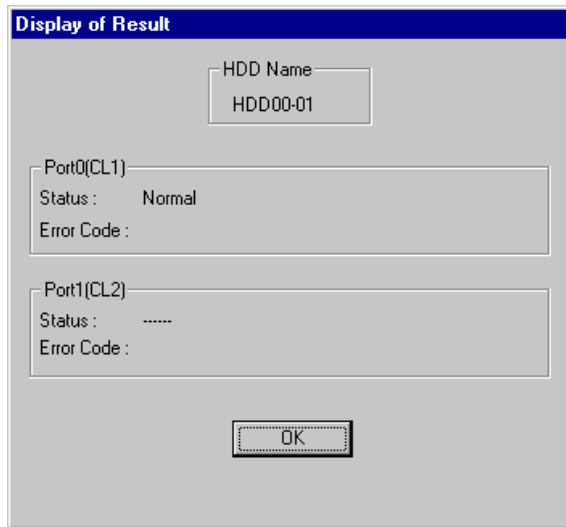
If you want to refer to the detailed information about the “NG” PDEV, click [NG]. Go to [Step 12](#).

To go back, click the [OK] button. Go back to [Step 10](#).

“EQ” is displayed when the diagnosis complete on the way and shows that the installed PDEV is undiagno.

12. <Display Details (Failure Has Occurred)>

The detailed information is displayed.

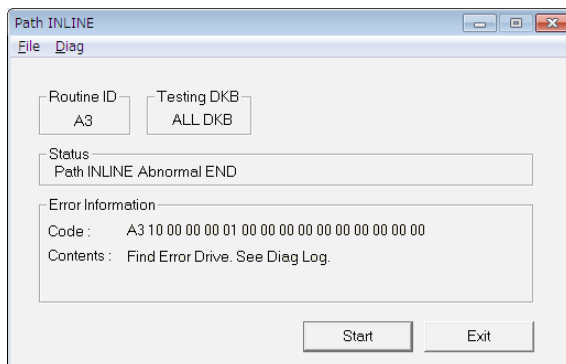


Click the [OK] button.

Go back to [Step 11](#).

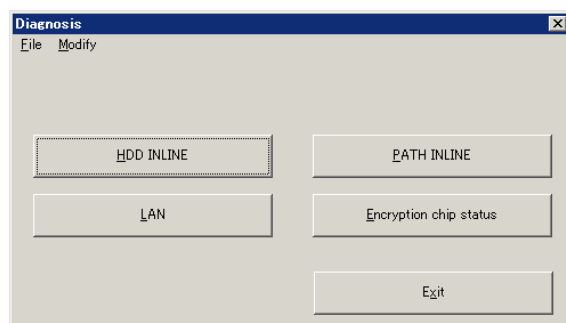
13. <Complete PATH INLINE>

Click the [Exit] button.



14. <Complete Diagnosis>

Click the [Exit] button.

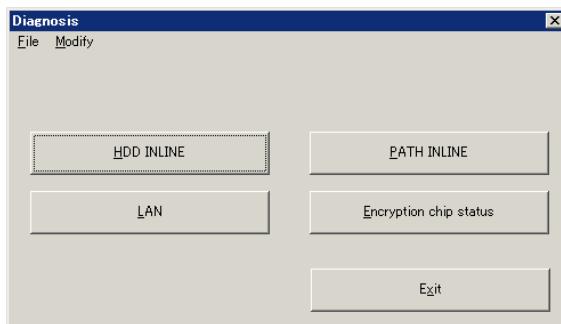


4.3 LAN Check Procedure

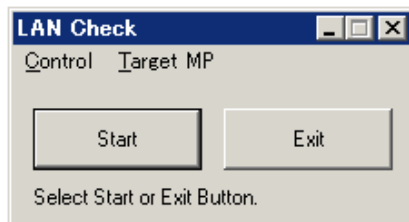
1. <Initial window>

2. <Change Operation Mode>
Change the mode to [Modify mode].
Click the [Diagnosis] button.

3. <Select LAN>
Click the [LAN] button.



4. <Start LAN Check>
Click the [Start] button in the “LAN Check” window.

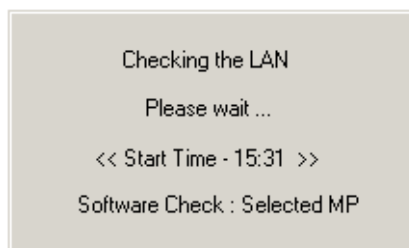


<Supplementary Explanation>

Although “Installed Processor” is set to be default to execute a diagnosis, “All processors” can be selected.

- Installed Processor : Select [Equipped MP] from [Target MP].
- All Processors : Select [All MP] from [Target MP].

5. <Display Wait Message>
The Wait message is displayed.

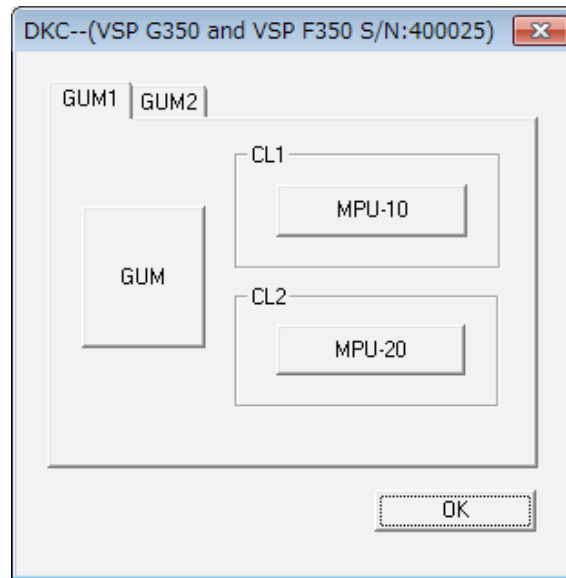


The window will change to the result display window in a few minutes.

6. <Display Result>

(1) MPU status display

The MPU status is displayed.



When the MPU button (MPU-XX) is clicked, the window is changed to the processor status window.

The window is returned to the LAN Check menu window by clicking the [OK] button.

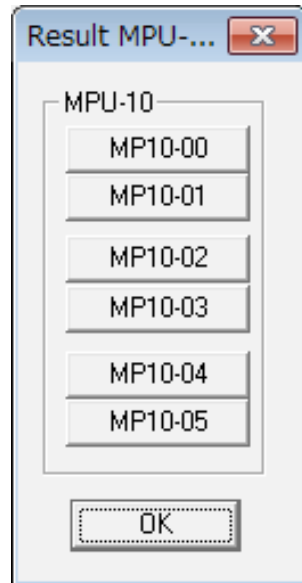
[Status Explanation]

The test result is shown by the status of the Task button as follows:

- Black : The test object is normal
- Blinking : The test object is abnormal.
- Gray : The test object is not installed.

NOTE : When the Maintenance PC is connected to CTL1 (GUM1), MPU buttons for CTL2 (GUM2) blink. When the Maintenance PC is connected to CTL2 (GUM2), MPU buttons for CTL1 (GUM1) blink.

- (2) Processor status display
The processor status is displayed.



When the MP button is clicked, the window is changed to the detailed status window.
The window is returned to the MPU status window by clicking the [OK] button.

[Status Explanation]

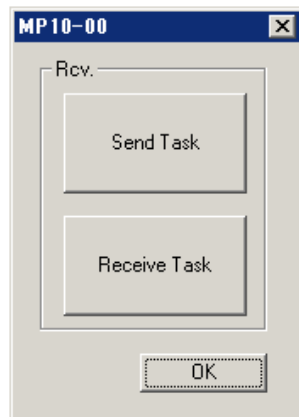
The status is shown by the status of the MP button as follows:

- Black : The concerned processor is normal.
- Blinking : The test object is abnormal.
- Gray : The test object is not installed.

NOTE : When the Maintenance PC is connected to CTL1, MP buttons for CTL2 blink. When the Maintenance PC is connected to CTL2, MP buttons for CTL1 blink.

(3) Detailed Status Display

Detailed information on the concerned processor is displayed.



The window is returned to the processor status window by clicking the [OK] button.

[Status Explanation]

The test result is shown by the status of the Task button as follows:

- Black : The processor is normal from the viewpoint of software.
- Blinking : The blinking part has a problem.
- Gray : Not diagnosed yet.

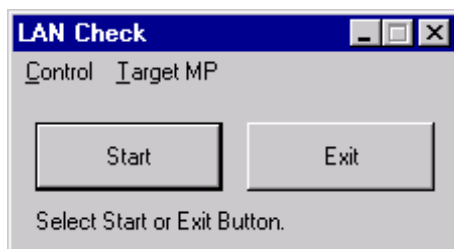
[Supplemental explanation]

There are four types of status as shown below:

- When the software is normal :
Rcv., I/F-Job, and R-Job are indicated in black.
- When the Rcv. is abnormal :
Rcv. indication blinks, and I/F-Job and R-Job are indicated in gray.
- When the I/F-Job is abnormal :
Rcv. is indicated in black, I/F-Job indication blinks, and R-Job is indicated in gray.
- When the R-Job is abnormal :
Rcv. and I/F Job are indicated in black and R-Job indication blinks.

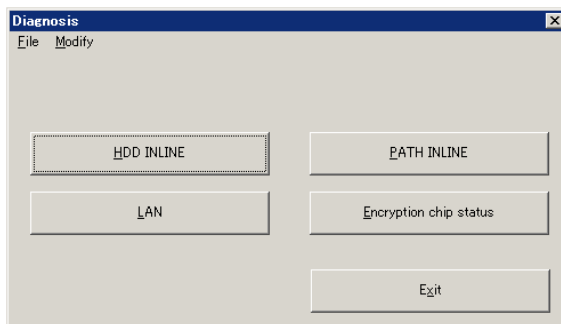
7. <Complete LAN Check>

Click the [Exit] button in the "LAN Check" window.

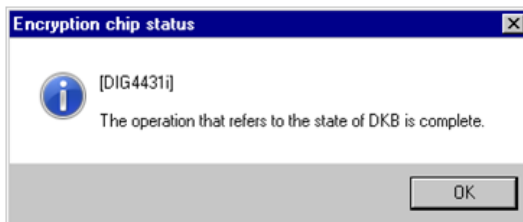


4.4 Encryption Chip Status Check Procedures

1. <Initial window>
2. <Change Operation Mode >
Change the mode to [Modify mode].
Click the [Diagnosis] button.
3. <Select Encryption chip status>
Click the [Encryption chip status] button.



4. <Confirm Encryption Disk Board>
 - When the encryption Disk Board status reference is completed
If Checker makes the status check of the encryption Disk Board complete, the execution confirmation message [4431] is displayed.



Check the status of the Encryption Disk Board referring to the SSB log "Error Code = f87e".

For the procedure for displaying the SSB log, see MAINTENANCE PC SECTION "5.3 Log", and for the procedure for referring to the SSB log, see SSBLOG SECTION (SSBLOG00-00).

- When the encryption Disk Board status reference fails
If SAS-CON (SAS-CTL) which failed in referring to a status exists in Disk Board, the error message [4432] is displayed.



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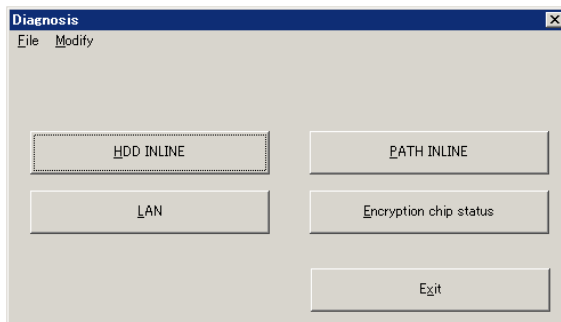
If SAS-CON (SAS-CTL) fails in referring to a status, the SSB log “Error Code = f87f” is displayed.
If SAS-CON (SAS-CTL) completes the reference operation, the SSB log “Error Code = f87e” is displayed. Check the status of the Encryption Disk Board according to the SSB log.
For the procedure for displaying the SSB log, see MAINTENANCE PC SECTION “[5.3 Log](#)”, and for the procedure for referring to the SSB log, see SSBLOG SECTION ([SSBLOG00-00](#)).

-
5. <Complete Exiting from Encryption chip status>

Click the [OK] button in the message window displayed by [Step 4](#).

-
6. <Complete Diagnosis>

Click the [Exit] button.



5. DIAG Troubleshooting

5.1 CUDG Troubleshooting

Procedures of CUDG Troubleshooting depend on CUDG Error Opportunity.

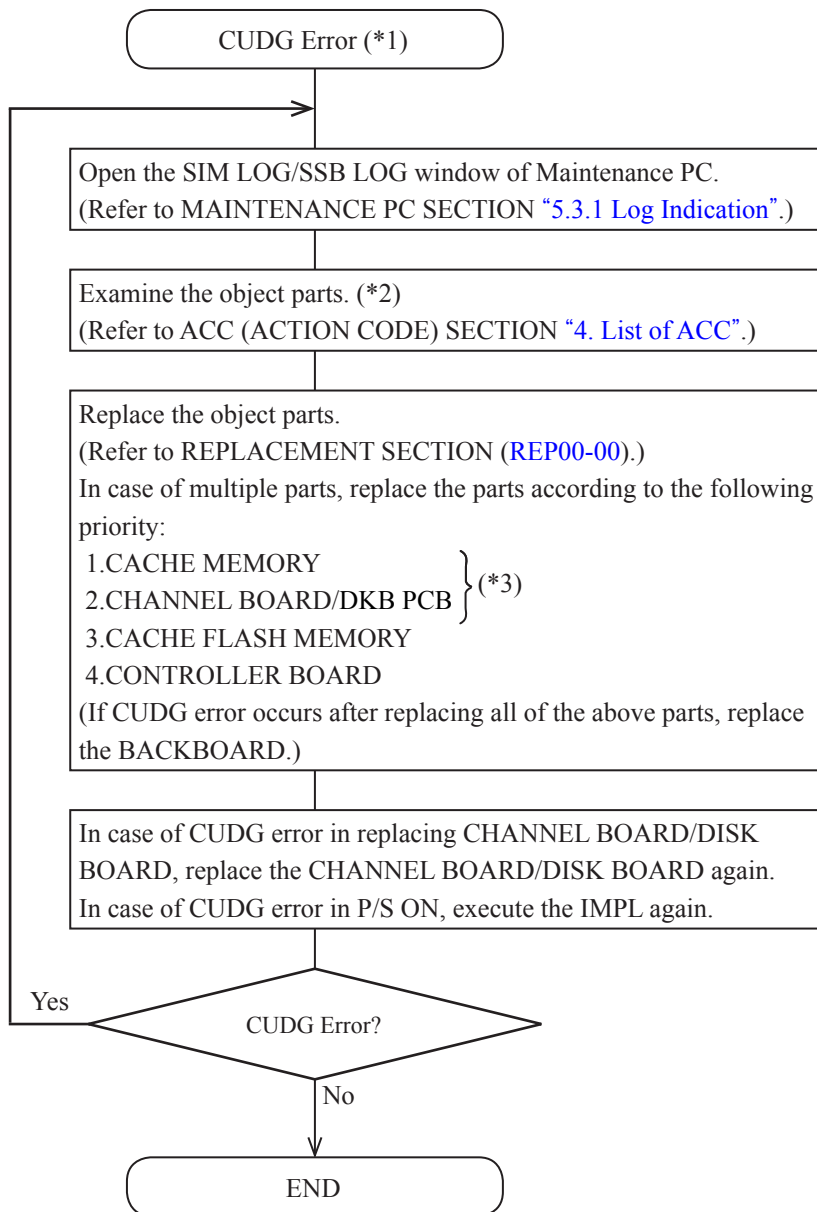
The procedures are shown in [Table 5-1](#).

Table 5-1 CUDG Troubleshooting Types

CUDG Error Opportunity	CUDG Troubleshooting Types
P/S ON Channel Board/Disk Board Replacement Channel Board/Disk Board Addition Cache Flash Memory Replacement Cache Flash Memory Addition	“5.1.1 CUDG3 Troubleshooting”
Controller Board Replacement CACHE Addition/Removal Cache Flash Memory Replacement Cache Flash Memory Addition	“5.1.2 INLINE CUDG Troubleshooting”

NOTE : If Small Form-Factor Pluggable of ACC is Controller Board or CACHE MEMORY,
refer to [“5.1.3 Controller Board, Cache Memory Troubleshooting”](#).

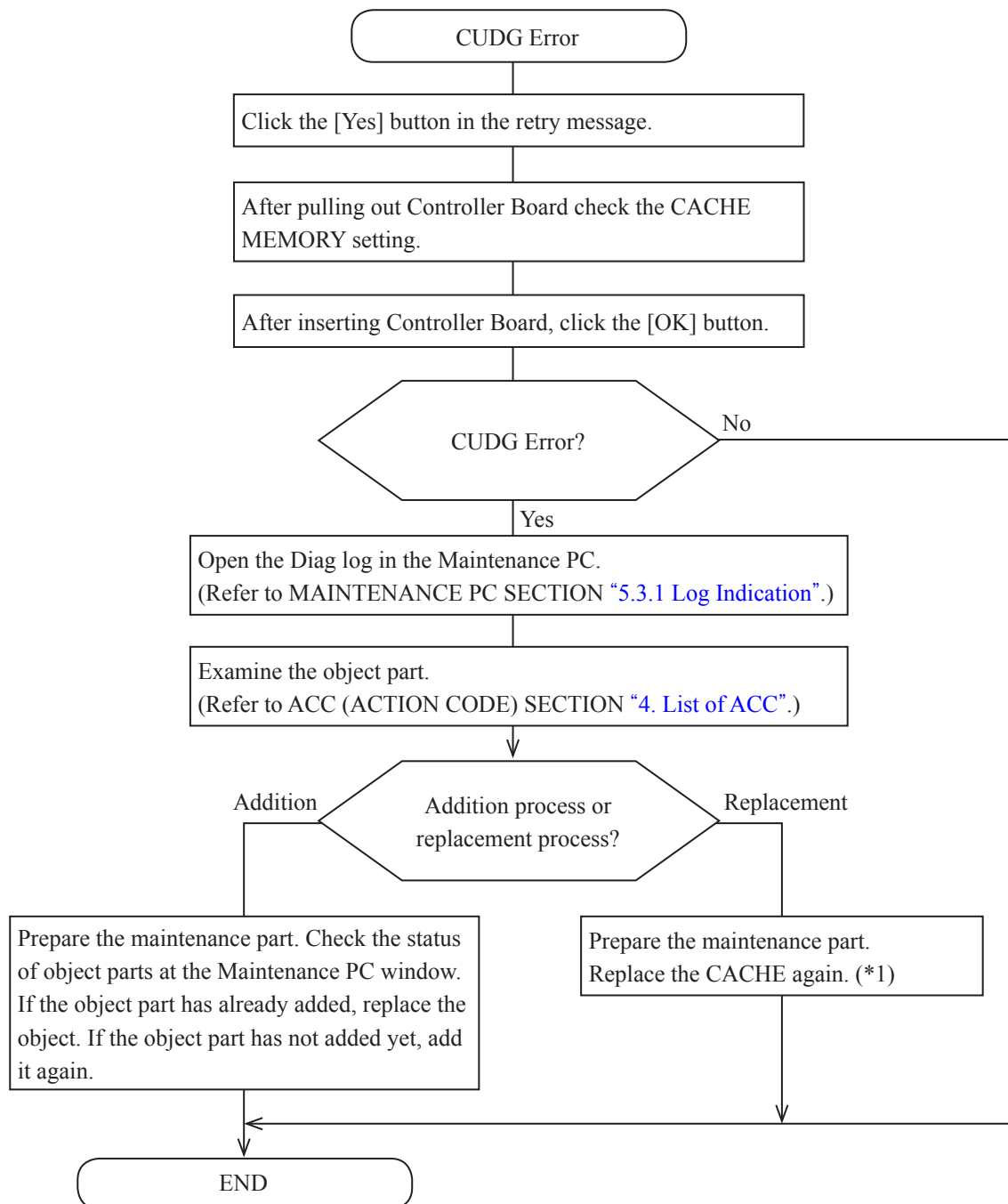
5.1.1 CUDG3 Troubleshooting



- *1: CUDG Error Code is SIM REFERENCE CODE = (760000, 760400) or SSB ERROR CODE = (3306).
- *2: Even if DKB (Disk Board) is installed when the trouble of the Link error is detected by sharing Channel Board/Disk Board SLOT, "CHB-xxx" might be displayed in the Action Code (Location). When Disk Board is installed, Action Code (Location) is judged to be "DKB-xxx".
- *3: Refer to ["5.1.3 Controller Board, Cache Memory Troubleshooting"](#).

5.1.2 INLINE CUDG Troubleshooting

1. Addition



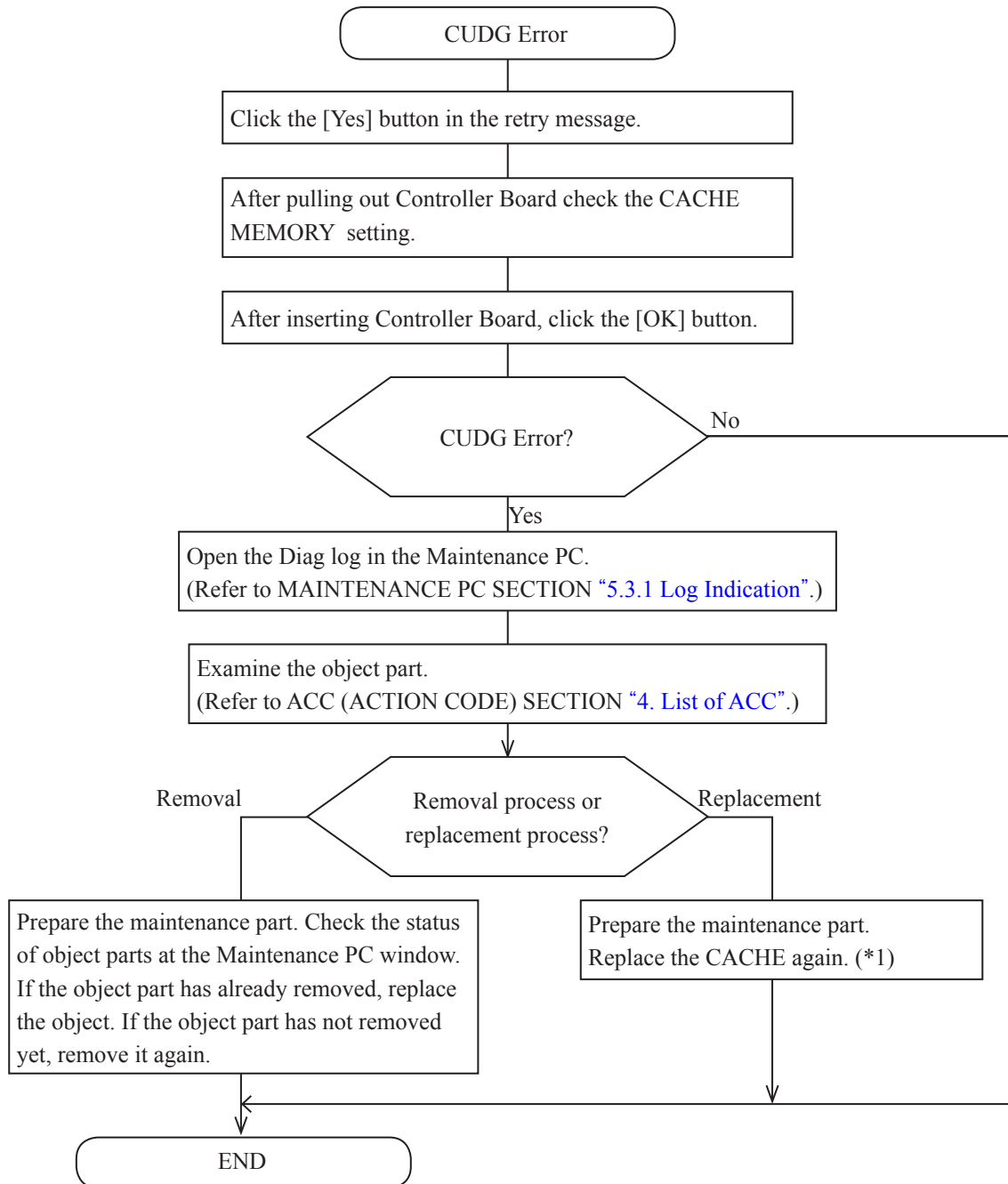
*1 : In case of multiple parts, replace the parts according to the following priority:

- 1 CACHE MEMORY
- 2 CHANNEL BOARD/DKB PCB
- 3 CACHE FLASH MEMORY
- 4 CONTROLLER BOARD

If a CUDG error occurred after replacing all of the above parts, replace Chassis.

If the error part is CACHE MEMORY /CONTROLLER BOARD, refer to ["5.1.3 Controller Board, Cache Memory Troubleshooting"](#).

2. Removal



*1: In case of multiple parts, replace the parts according to the following priority:

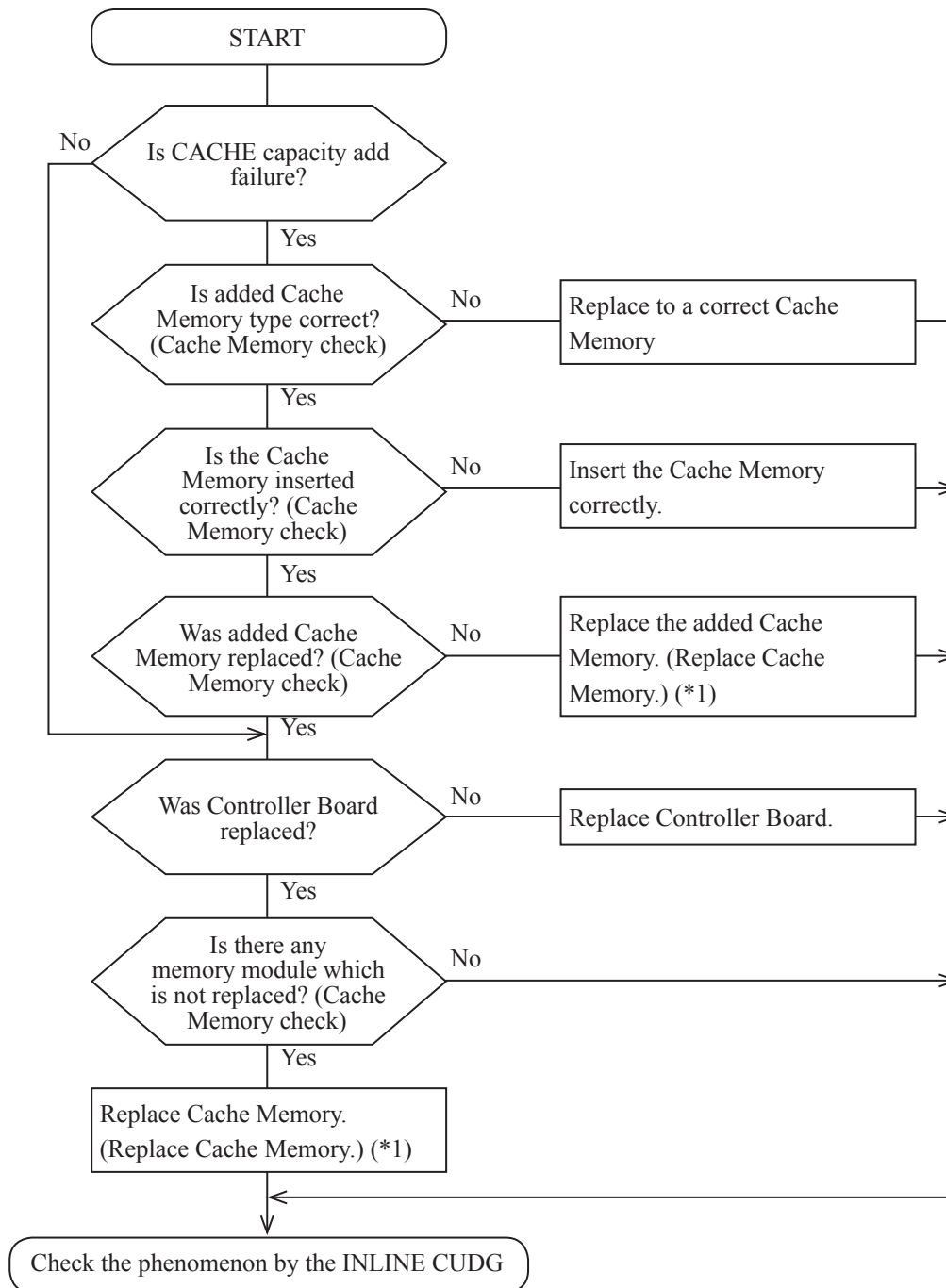
- 1 CACHE MEMORY
- 2 CHANNEL BOARD/DKB PCB
- 3 CACHE FLASH MEMORY
- 4 CONTROLLER BOARD

If a CUDG error occurred after replacing all of the above parts, replace Chassis.

If the error part is CACHE MEMORY /CONTROLLER BOARD, refer to ["5.1.3 Controller Board, Cache Memory Troubleshooting"](#).

5.1.3 Controller Board, Cache Memory Troubleshooting

If Small Form-Factor Pluggable is Controller Board, CACHE MEMORY, execute the following process.

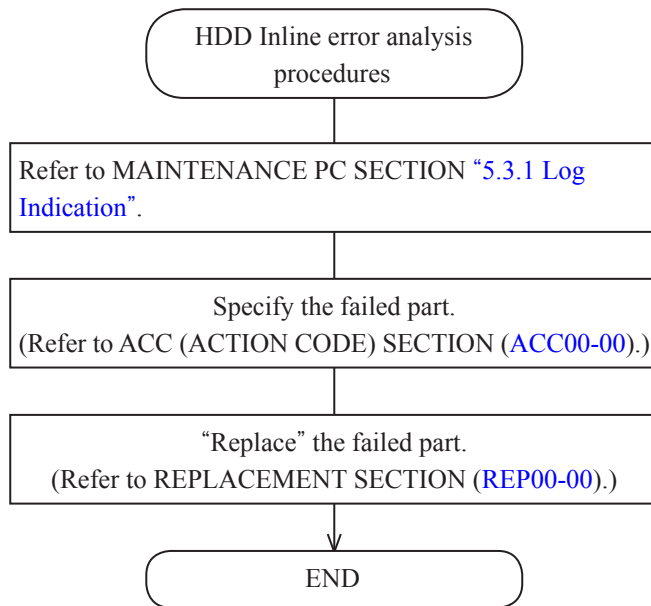


*1 : In case of multiple module groups, replace the module groups one by one.

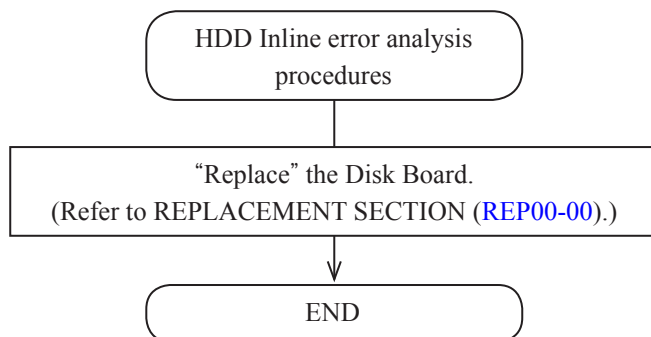
If a CUDG error occurs after replacing the group, return them to original position.

5.2 HDD INLINE Troubleshooting

Troubleshoot procedures (Except Error Code = “xx e3” / “xx e4”)

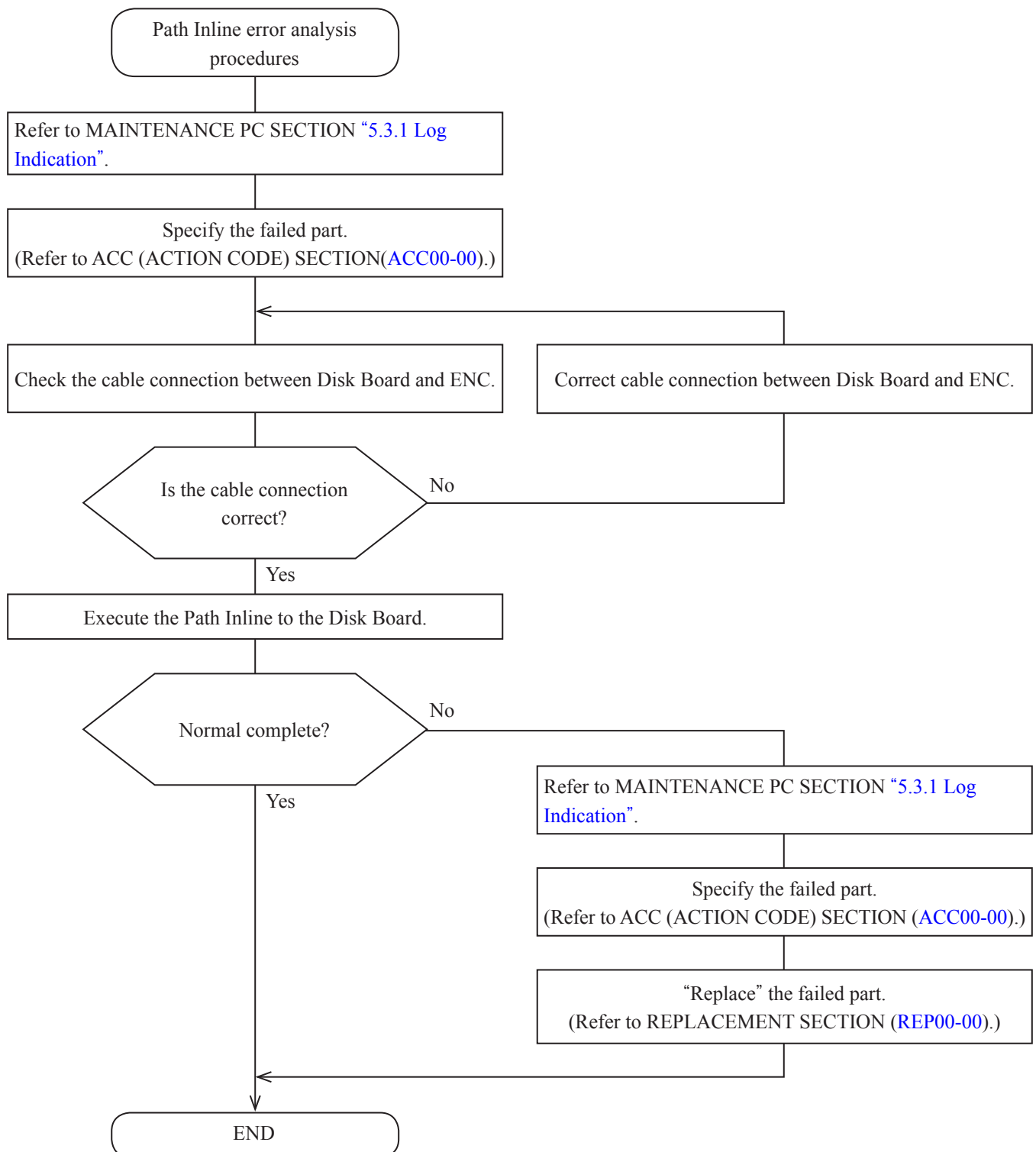


Troubleshoot procedures (In case of Error Code = “xx e3” / “xx e4”)

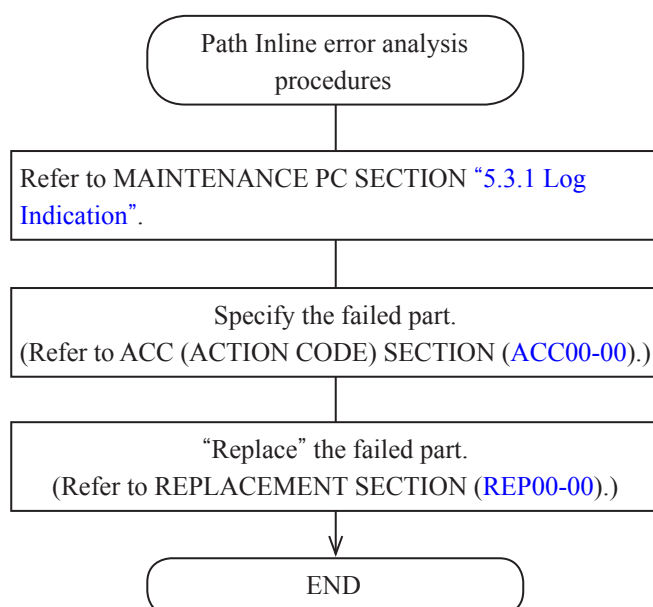


5.3 PATH INLINE Troubleshooting

Troubleshoot procedures (Error Code = “ax ad”, “ax ae”, “ax 07”)



Troubleshoot procedures (Except Error Code = “ax ad”, “ax ae”, “ax 07”)



6. DIAG Errors

6.1 HDD INLINE Error Code Table

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
XX	51									The Svp_InitMultiChain function failed.
XX	52									The Svp_RegistMultiChain function failed.
XX	53									The Svp_ExecMultChainedDkcFunc function failed.
XX	54									The Svp_GetMultiChain function failed.
XX	55									
XX	56									
XX	57									
XX	58									
XX	59									
XX	5A									
XX	5B									
XX	5C									
XX	5D									
XX	5E									

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
XX	E0									The TEST UNIT READY command failed.
XX	E1									The Bypass Check command failed.
XX	E2									The Reset Bypass command failed.
XX	E3									Communication between Controller Chassis and SVP timed out.
XX	E4									Communication failed.
XX	E5									Not Used
XX	E6									Not Used
XX	E8									The Start INLINE command failed.
XX	E9									The End INLINE command failed.
XX	EA									The specified HDD does not exist.
XX	EB									SVP error (Common function)
XX	EC									Windows error
XX	ED									SVP error (Communication function)

DIAG06-30

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to [DIAG06-10](#), when there is nothing in the following error code tables.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
C1	01									Communication of the TEST UNIT READY command failed.
C1	02									The TEST UNIT READY command failed.
C1	03									Communication of the REQUEST SENSE command failed.
C1	04									The REQUEST SENSE command failed.
C1	05									The SENSE KEY is abnormal.
C1	06									The SENSE CODE is abnormal.
C1	07									The ADDITIONAL CODE is abnormal.

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to [DIAG06-10](#), when there is nothing in the following error code tables.

[illegible]

DIAG06-50

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to [DIAG06-10](#), when there is nothing in the following error code tables.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
C3	01									Communication of the STOP UNIT command failed.
C3	02									The STOP UNIT command failed.
C3	03									The Delay function failed.
C3	04									Communication of the START UNIT command failed.
C3	05									The START UNIT command failed.
C3	06									Communication of the TEST UNIT READY command failed.
C3	07									The TEST UNIT READY command failed.
C3	08									Communication of the REQUEST SENSE command failed.
C3	09									The REQUEST SENSE command failed.
C3	0A									The SENSE KEY is abnormal.
C3	0B									The SENSE CODE is abnormal.
C3	0C									The ADDITIONAL CODE is abnormal.

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to [DIAG06-10](#), when there is nothing in the following error code tables.

[illegible]

6.2 PATH INLINE Error Code Table

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
XX	51									
XX	52									
XX	53									
XX	54									
XX	55									
XX	56									
XX	57									
XX	58									
XX	59									
XX	5A									
XX	5B									
XX	5C									
XX	5D									
XX	5E									ENC that does not exist in configuration information is installed. Please confirm the installed ENC.

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte.

Error Byte																		Contents
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	
XX	A1	D#	P#	U#														LinkRate check error
XX	A2	D#	P#	U#														Invalid DB60 pair check. (Chassis type check)
XX	A3	D#	P#	U#														Invalid DB60 pair check. (Location check)
XX	A4	D#	P#	U#														Invalid Attached SAS address data. (Next ENC connection check)
XX	A5	D#	P#	U#														Invalid Attached Phy ID data. (Next ENC connection check)
XX	A6																	
XX	A7																	
XX	A8	D#	P#	U#														LinkRate check error (Next ENC connection check)
XX	A9																	
XX	AA	D#	P#	U#														Individual ENC
XX	AB	D#	P#	U#														Invalid Phy ID
XX	AC	D#	P#	U#														Invalid Attached SAS address data. (*2)
XX	AD	D#	P#	U#														Invalid SAS address data. (*2) (Refer to AxAE for detail)
XX	AE	D#	P#	U#														Invalid SAS address data. (*2)
XX	AF	D#	P#	U#														Invalid Cluster judgment. (Chassis type check)

D# : DKB# P# : PORT# U# : DB#

*1 : Refer to SAS Address List ([Table 6-6](#) to [Table 6-10](#)) for Expected Value.

*2 : There is the possibility of a SAS cable connection mistake.

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
XX	E1									
XX	E2									
XX	E3									Communication between Controller Chassis and SVP timed out.
XX	E4									New Communication failed.
XX	E5	D#	P#							Expected value data acquisition failed in the preprocessing. (Diagnosis of the port concerned is skipped.)
XX	E6	D#	P#	U#						Expected value data acquisition failed in the preprocessing. (Diagnosis of the unit concerned is skipped.)
XX	E7	D#	P#	U#						Model Code Error
XX	E8									The Start INLINE command failed.
XX	E9									The End INLINE command failed.
XX	EA									The specified HDD does not exist.
XX	EB									GUM error (Common function)
XX	EC									Windows error
XX	ED									GUM error (Communication function)

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
XX	F9									
XX	FA									
XX	FB									
XX	FC	D#	P#	U#						FC cable connection error. There is the possibility of a FC cable connection mistake.
XX	FE									FC Check error. There is the possibility of a FC cable connection mistake.

D# : DKB# P# : PORT# U# : DB# (*1)

*1: For DKB#, PORT#, and DB# displayed in Error Byte, see [Table 6-1](#) to [Table 6-5](#) (Correspondence Table of CL#, DKB#, PORT# and DB#).

DIAG06-110

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to from [DIAG06-70](#) to [DIAG06-100](#), when there is nothing in the following error code tables.

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A0	01										The Reset Bypass command failed.
A0	02										The Bypass check command failed.
A0	03										Communication of the INQUIRY command failed.
A0	04										The INQUIRY information acquisition failed.
A0	05										The INQUIRY command failed.
A0	06										The Vender ID doesn't match.
A0	07										Port mistake. There is the possibility of a SAS cable connection mistake.
A0	0B										Bypass check error
A0	1X	D#	P0S	P1S							Failure occurred in a part of the PATH.
A0	2X	D#	P0S	P1S							Failure occurred in all the PATH.
A0	A2	D#	P#	U#							Invalid DB60 pair check. (Chassis type check)
A0	A3	D#	P#	U#							Invalid DB60 pair check. (Location check)
A0	A4	D#	P#	U#							Invalid Attached SAS address data. (Next ENC connection check)
A0	A5	D#	P#	U#							Invalid Attached Phy ID. (Next ENC connection check)
A0	AA	D#	P#	U#							Individual ENC
A0	AB	D#	P#	U#							Invalid Phy ID
A0	AC	D#	P#	U#							Invalid Attached SAS address data.
A0	AD	D#	P0S	P1S							Invalid SAS address data. (*2) (Refer to A0AE for detail)
A0	AE	D#	P#	U#							Invalid SAS address data. (*2)
A0	AF	D#	P#	U#							Invalid Cluster judgment. (Chassis type check)

DIAG06-120

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A0	E5	D#	P#								Expected value data acquisition failed in the preprocessing. (Diagnosis of the port concerned is skipped.)
A0	E6	D#	P#	U#							Expected value data acquisition failed in the preprocessing. (Diagnosis of the unit concerned is skipped.)
A0	A1	D#	P#	U#							LinkRate check error
A0	A8	D#	P#	U#							LinkRate check error (Next ENC connection check)
A0	E7	D#	P#	U#							Model code error of the set SAS address

D# : DKB# P# : PORT# U# : DB# EV : Expected Value

RV : Received Value P(0-1)S : PORT#(0-1) report (FF : Normal, Not FF : Abnormal) (*1)

*1: For DKB#, PORT#, and DB# displayed in Error Byte, see [Table 6-1](#) to [Table 6-5](#) (Correspondence Table of CL#, DKB#, PORT# and DB#).

*2 : There is the possibility of a SAS cable connection mistake.

DIAG06-130

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to from [DIAG06-70](#) to [DIAG06-100](#), when there is nothing in the following error code tables.

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A1	01										The Reset Bypass command failed.
A1	02										The Bypass check command failed.
A1	03										Communication of the INQUIRY command failed.
A1	04										The INQUIRY information acquisition failed.
A1	05										The INQUIRY command failed.
A1	06										The Vender ID doesn't match.
A1	07										PORT mistake. There is the possibility of a SAS cable connection mistake.
A1	0B										Bypass check error
A1	1X	D#	P0S	P1S							Failure occurred in a part of the PATH.
A1	2X	D#	P0S	P1S							Failure occurred in all the PATH.
A1	A2	D#	P#	U#							Invalid DB60 pair check. (Chassis type check)
A1	A3	D#	P#	U#							Invalid DB60 pair check. (Location check)
A1	A4	D#	P#	U#							Invalid Attached SAS address data. (Next ENC connection check)
A1	A5	D#	P#	U#							Invalid Attached Phy ID. (Next ENC connection check)
A1	AA	D#	P#	U#							Individual ENC
A1	AB	D#	P#	U#							Invalid Phy ID
A1	AC	D#	P#	U#							Invalid Attached SAS address data.
A1	AD	D#	P0S	P1S							Invalid SAS address data. (*2) (Refer to A1AE for detail)
A1	AE	D#	P#	U#							Invalid SAS address data. (*2)
A1	AF	D#	P#	U#							Invalid Cluster judgment. (Chassis type check)

DIAG06-140

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A1	E5	D#	P#								Expected value data acquisition failed in the preprocessing. (Diagnosis of the port concerned is skipped.)
A1	A1	D#	P#	U#							LinkRate check error
A1	A8	D#	P#	U#							LinkRate check error (Next ENC connection check)
A1	E7	D#	P#	U#							Model code error of the set SAS address

D# : DKB# P# : PORT# U# : DB# EV : Expected Value

RV : Received Value P(0-1)S : PORT#(0-1) report (FF : Normal, Not FF : Abnormal) (*1)

*1: For DKB#, PORT#, and DB# displayed in Error Byte, see [Table 6-1](#) to [Table 6-5](#) (Correspondence Table of CL#, DKB#, PORT# and DB#).

*2 : There is the possibility of a SAS cable connection mistake.

DIAG06-150

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to from [DIAG06-70 to DIAG06-100](#), when there is nothing in the following error code tables.

Error Byte										Contents
01	02	03	04	05	06	07	08	09	10	
A2	01									
A2	02									
A2	03									
A2	04									
A2	05									
A2	06									
A2	07									The Drive Read command failed.
A2	08									
A2	09									
A2	0A									
A2	0B									
A2	10									ERROR DRIVE exists. (Refer to the Diag Log for details.)

D# : DKB#

P# : PORT#

U# : DB#

DIAG06-160

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to from [DIAG06-70 to DIAG06-100](#), when there is nothing in the following error code tables.

[illegible]

U# : DB#

DIAG06-170

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to from [DIAG06-70](#) to [DIAG06-100](#), when there is nothing in the following error code tables.

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A5	01										The Reset Bypass command failed.
A5	02										The Bypass check command failed.
A5	03										Communication of the INQUIRY command failed.
A5	04										The INQUIRY information failed.
A5	05										The INQUIRY command failed.
A5	06										The Vender ID doesn't match.
A5	07										PORT mistake. There is the possibility of a SAS cable connection mistake.
A5	0B										Bypass check error
A5	1X	D#	P0S	P1S							Failure occurred in a part of the PATH.
A5	2X	D#	P0S	P1S							Failure occurred in all the PATH.
A5	A2	D#	P#	U#							Invalid DB60 pair check. (Chassis type check)
A5	A3	D#	P#	U#							Invalid DB60 pair check. (Location check)
A5	A4	D#	P#	U#							Invalid Attached SAS address data. (Next ENC connection check)
A5	A5	D#	P#	U#							Invalid Attached Phy ID. (Next ENC connection check)
A5	AA	D#	P#	U#							Individual ENC
A5	AB	D#	P#	U#							Invalid Phy ID
A5	AC	D#	P#	U#							Invalid Attached SAS address data.
A5	AD	D#	P0S	P1S							Invalid SAS address data. (*2) (Refer to A5AE for detail)
A5	AE	D#	P#	U#							Invalid SAS address data. (*2)
A5	AF	D#	P#	U#							Invalid Cluster judgment. (Chassis type check)

DIAG06-180

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A5	E5	D#	P#								An expected value data acquisition failed in the preprocessing. (Diagnosis of the port concerned is skipped.)
A5	A1	D#	P#	U#							LinkRate check error
A5	A8	D#	P#	U#							LinkRate check error (Next ENC connection check)
A5	E7	D#	P#	U#							Model code error of the set SAS address

D# : DKB# P# : PORT# U# : DB# EV : Expected Value

RV : Received Value P(0-1)S : PORT#(0-1) report (FF : Normal, Not FF : Abnormal) (*1)

*1: For DKB#, PORT#, and DB# displayed in Error Byte, see [Table 6-1](#) to [Table 6-5](#) (Correspondence Table of CL#, DKB#, PORT# and DB#).

*2 : There is the possibility of a SAS cable connection mistake.

DIAG06-190

NOTE : Replace Error Code on Diagnosis Log of SVP Information since the 8th Byte and later of the Detail Information Byte correspond to Byte 01 and later of Error Byte. Refer to from [DIAG06-70 to DIAG06-100](#), when there is nothing in the following error code tables.

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A6	01										The Reset Bypass command failed.
A6	02										The Bypass check command failed.
A6	03										Communication of the INQUIRY command failed.
A6	04										The INQUIRY information failed.
A6	05										The INQUIRY command failed.
A6	06										The Vender ID doesn't match.
A6	07										PORT mistake. There is the possibility of a SAS cable connection mistake.
A6	0B										Bypass check error
A6	1X	D#	P0S	P1S							Failure occurred in a part of the PATH.
A6	2X	D#	P0S	P1S							Failure occurred in all the PATH.
A6	A2	D#	P#	U#							Invalid DB60 pair check. (Chassis type check)
A6	A3	D#	P#	U#							Invalid DB60 pair check. (Location check)
A6	A4	D#	P#	U#							Invalid Attached SAS address data. (Next ENC connection check)
A6	A5	D#	P#	U#							Invalid Attached Phy ID. (Next ENC connection check)
A6	AA	D#	P#	U#							Individual ENC
A6	AB	D#	P#	U#							Invalid Phy ID
A6	AC	D#	P#	U#							Invalid Attached SAS address data.
A6	AD	D#	P0S	P1S							Invalid SAS address data. (*2) (Refer to A6AE for detail)
A6	AE	D#	P#	U#							Invalid SAS address data. (*2)
A6	AF	D#	P#	U#							Invalid Cluster judgment. (Chassis type check)

DIAG06-200

Error Byte											Contents
01	02	03	04	05	06	07	08	09	10	11	
A6	E5	D#	P#								An expected value data acquisition failed in the preprocessing. (Diagnosis of the port concerned is skipped.)
A6	A1	D#	P#	U#							LinkRate check error
A6	A8	D#	P#	U#							LinkRate check error (Next ENC connection check)
A6	E7	D#	P#	U#							Model code error of the set SAS address

D# : DKB# P# : PORT# U# : DB# EV : Expected Value

RV : Received Value P(0-1)S : PORT#(0-1) report (FF : Normal, Not FF : Abnormal) (*1)

*1: For DKB#, PORT#, and DB# displayed in Error Byte, see [Table 6-1](#) to [Table 6-5](#) (Correspondence Table of CL#, DKB#, PORT# and DB#).

*2 : There is the possibility of a SAS cable connection mistake.

Table 6-1 Correspondence Table of CL#, DKB#, PORT# and DB# (VSP G350, VSP F350 and VSP G130)

Cluster	DKB#	Port	DB#
00:CL1	00:DKB-1C	01:1C-1	00:DB-01
			01:DB-02
			02:DB-03
			03:DB-04
			04:DB-05
			05:DB-06
			06:DB-07
01:CL2	04:DKB-2C	01:2C-1	00:DB-01
			01:DB-02
			02:DB-03
			03:DB-04
			04:DB-05
			05:DB-06
			06:DB-07

NOTE : Refer to SAS Address List ([Table 6-6](#) to [Table 6-10](#)) for Expected Value.

Table 6-2 Correspondence Table of CL#, DKB#, PORT# and DB# (VSP G370 and VSP F370)

Cluster	DKB#	Port	DB#
00:CL1	00:DKB-1C	01:1C-1	00:DB-01
			01:DB-02
			02:DB-03
			03:DB-04
			04:DB-05
			05:DB-06
			06:DB-07
			07:DB-08
			08:DB-09
			09:DB-10
			10:DB-11
01:CL2	04:DKB-2C	01:2C-1	00:DB-01
			01:DB-02
			02:DB-03
			03:DB-04
			04:DB-05
			05:DB-06
			06:DB-07
			07:DB-08
			08:DB-09
			09:DB-10
			10:DB-11

NOTE : Refer to SAS Address List ([Table 6-6](#) to [Table 6-10](#)) for Expected Value.

Table 6-3 Correspondence Table of CL#, DKB#, PORT# and DB# (VSP G700 and VSP F700)

Cluster	DKB#	Port	DB#
00:CL1	00:DKB-1G	00:1G-0	00:DB-00
			01:DB-02
			02:DB-04
			03:DB-06
			04:DB-08
			05:DB-10
			06:DB-12
			07:DB-14
			08:DB-16
			09:DB-18
			10:DB-20
			11:DB-22
		01:1G-1	00:DB-01
			01:DB-03
			02:DB-05
			03:DB-07
			04:DB-09
			05:DB-11
			06:DB-13
			07:DB-15
			08:DB-17
			09:DB-19
			10:DB-21
			11:DB-23
	01:DKB-1H	00:1H-0	00:DB-24
			01:DB-26
			02:DB-28
			03:DB-30
			04:DB-32
			05:DB-34
			06:DB-36
			07:DB-38
			08:DB-40
			09:DB-42
			10:DB-44
			11:DB-46
		01:1H-1	00:DB-25
			01:DB-27
			02:DB-29
			03:DB-31
			04:DB-33
			05:DB-35
			06:DB-37
			07:DB-39
			08:DB-41
			09:DB-43
			10:DB-45
			11:DB-47

(To be continued)

NOTE : Refer to SAS Address List (Table 6-6 to Table 6-10) for Expected Value.

(Continued from the preceding page)

Cluster	DKB#	Port	DB#
01:CL2	04:DKB-2G	00:2G-0	00:DB-00
			01:DB-02
			02:DB-04
			03:DB-06
			04:DB-08
			05:DB-10
			06:DB-12
			07:DB-14
			08:DB-16
			09:DB-18
			10:DB-20
			11:DB-22
	05:DKB-2H	01:2G-1	00:DB-01
			01:DB-03
			02:DB-05
			03:DB-07
			04:DB-09
			05:DB-11
			06:DB-13
			07:DB-15
			08:DB-17
			09:DB-19
			10:DB-21
			11:DB-23
		00:2H-0	00:DB-24
			01:DB-26
			02:DB-28
			03:DB-30
			04:DB-32
			05:DB-34
			06:DB-36
			07:DB-38
			08:DB-40
			09:DB-42
			10:DB-44
			11:DB-46
		01:2H-1	00:DB-25
			01:DB-27
			02:DB-29
			03:DB-31
			04:DB-33
			05:DB-35
			06:DB-37
			07:DB-39
			08:DB-41
			09:DB-43
			10:DB-45
			11:DB-47

NOTE : Refer to SAS Address List (Table 6-6 to Table 6-10) for Expected Value.

Table 6-4 Correspondence Table of CL#, DKB#, PORT# and DB# (VSP G900 (Basic) and VSP F900 (Basic))

Cluster	DKB#	Port	DB#
00:CL1	00:DKB-1G	00:1G-0	00:DB-00
			01:DB-04
			02:DB-08
			03:DB-12
			04:DB-16
			05:DB-20
		01:1G-1	00:DB-01
			01:DB-05
			02:DB-09
			03:DB-13
	01:DKB-1H	00:1H-0	04:DB-17
			05:DB-21
			00:DB-02
			01:DB-06
			02:DB-10
			03:DB-14
			04:DB-18
			05:DB-22
		01:1H-1	00:DB-03
			01:DB-07
			02:DB-11
			03:DB-15
01:CL2	04:DKB-2G	00:2G-0	04:DB-19
			05:DB-23
			00:DB-00
			01:DB-04
			02:DB-08
			03:DB-12
			04:DB-16
			05:DB-20
		01:2G-1	00:DB-01
			01:DB-05
			02:DB-09
			03:DB-13
	05:DKB-2H	00:2H-0	04:DB-17
			05:DB-21
			00:DB-02
			01:DB-06
			02:DB-10
			03:DB-14
			04:DB-18
			05:DB-22
		01:2H-1	00:DB-03
			01:DB-07
			02:DB-11
			03:DB-15
			04:DB-19
			05:DB-23

NOTE : Refer to SAS Address List (Table 6-6 to Table 6-10) for Expected Value.

Table 6-5 Correspondence Table of CL#, DKB#, PORT# and DB# (VSP G900 (Option) and VSP F900 (Option))

Cluster	DKB#	Port	DB#
00:CL1	02:DKB-1E	00:1E-0	00:DB-24
			01:DB-28
			02:DB-32
			03:DB-36
			04:DB-40
			05:DB-44
		01:1E-1	00:DB-25
			01:DB-29
			02:DB-33
			03:DB-37
			04:DB-41
			05:DB-45
	03:DKB-1F	00:1F-0	00:DB-26
			01:DB-30
			02:DB-34
			03:DB-38
			04:DB-42
			05:DB-46
		01:1F-1	00:DB-27
			01:DB-31
			02:DB-35
			03:DB-39
			04:DB-43
			05:DB-47
01:CL2	06:DKB-2E	00:2E-0	00:DB-24
			01:DB-28
			02:DB-32
			03:DB-36
			04:DB-40
			05:DB-44
		01:2E-1	00:DB-25
			01:DB-29
			02:DB-33
			03:DB-37
			04:DB-41
			05:DB-45
	07:DKB-2F	00:2F-0	00:DB-26
			01:DB-30
			02:DB-34
			03:DB-38
			04:DB-42
			05:DB-46
		01:2F-1	00:DB-27
			01:DB-31
			02:DB-35
			03:DB-39
			04:DB-43
			05:DB-47

NOTE : Refer to SAS Address List (Table 6-6 to Table 6-10) for Expected Value.

Table 6-6 SAS ADDRESS List (VSP G350, VSP F350 and VSP G130)

Port	Cluster	ENC#	DB#	SAS Address
1C-1	CL1	1st	DB-01	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-03	0x500087X Tcccccc0
		4th	DB-04	0x500087X Tdddddd0
		5th	DB-05	0x500087X Teeeeee0
		6th	DB-06	0x500087X Tffffff0
		7th	DB-07	0x500087X Tgggggg0
2C-1	CL2	1st	DB-01	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-03	0x500087X Tcccccc0
		4th	DB-04	0x500087X Tdddddd0
		5th	DB-05	0x500087X Teeeeee0
		6th	DB-06	0x500087X Tffffff0
		7th	DB-07	0x500087X Tgggggg0

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

Table 6-7 SAS ADDRESS List (VSP G370 and VSP F370)

Port	Cluster	ENC#	DB#	SAS Address
1C-1	CL1	1st	DB-01	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-03	0x500087X Tcccccc0
		4th	DB-04	0x500087X Tdddddd0
		5th	DB-05	0x500087X Teeeeee0
		6th	DB-06	0x500087X Tffffff0
		7th	DB-07	0x500087X Tgggggg0
		8th	DB-08	0x500087X Thhhhhh0
		9th	DB-09	0x500087X Tiiiiii0
		10th	DB-10	0x500087X Tjjjjjj0
		11th	DB-11	0x500087X Tkkkkkk0
2C-1	CL2	1st	DB-01	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-03	0x500087X Tcccccc0
		4th	DB-04	0x500087X Tdddddd0
		5th	DB-05	0x500087X Teeeeee0
		6th	DB-06	0x500087X Tffffff0
		7th	DB-07	0x500087X Tgggggg0
		8th	DB-08	0x500087X Thhhhhh0
		9th	DB-09	0x500087X Tiiiiii0
		10th	DB-10	0x500087X Tjjjjjj0
		11th	DB-11	0x500087X Tkkkkkk0

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

Table 6-8 SAS ADDRESS List (VSP G700 and VSP F700)

Port	Cluster	ENC#	DB#	SAS Address
1G-0	CL1	1st	DB-00	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-04	0x500087X Tcccccc0
		4th	DB-06	0x500087X Tdddddd0
		5th	DB-08	0x500087X Teeeeee0
		6th	DB-10	0x500087X Tffffff0
		7th	DB-12	0x500087X Tgggggg0
		8th	DB-14	0x500087X Thhhhhh0
		9th	DB-16	0x500087X Tiiiiii0
		10th	DB-18	0x500087X Tjjjjjj0
		11th	DB-20	0x500087X Tkkkkkk0
		12th	DB-22	0x500087X Tllllll0
2G-0	CL2	1st	DB-00	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-04	0x500087X Tcccccc0
		4th	DB-06	0x500087X Tdddddd0
		5th	DB-08	0x500087X Teeeeee0
		6th	DB-10	0x500087X Tffffff0
		7th	DB-12	0x500087X Tgggggg0
		8th	DB-14	0x500087X Thhhhhh0
		9th	DB-16	0x500087X Tiiiiii0
		10th	DB-18	0x500087X Tjjjjjj0
		11th	DB-20	0x500087X Tkkkkkk0
		12th	DB-22	0x500087X Tllllll0

(To be continued)

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

(Continued from the preceding page)

Port	Cluster	ENC#	DB#	SAS Address
1G-0	CL1	1st	DB-00	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-04	0x500087X Tcccccc0
		4th	DB-06	0x500087X Tdddddd0
		5th	DB-08	0x500087X Teeeeee0
		6th	DB-10	0x500087X Tffffff0
		7th	DB-12	0x500087X Tgggggg0
		8th	DB-14	0x500087X Thhhhhh0
		9th	DB-16	0x500087X Tiiiiii0
		10th	DB-18	0x500087X Tjjjjjj0
		11th	DB-20	0x500087X Tkkkkkk0
		12th	DB-22	0x500087X Tllllll0
2G-0	CL2	1st	DB-00	0x500087X Taaaaaa0
		2nd	DB-02	0x500087X Tbbbbbb0
		3rd	DB-04	0x500087X Tcccccc0
		4th	DB-06	0x500087X Tdddddd0
		5th	DB-08	0x500087X Teeeeee0
		6th	DB-10	0x500087X Tffffff0
		7th	DB-12	0x500087X Tgggggg0
		8th	DB-14	0x500087X Thhhhhh0
		9th	DB-16	0x500087X Tiiiiii0
		10th	DB-18	0x500087X Tjjjjjj0
		11th	DB-20	0x500087X Tkkkkkk0
		12th	DB-22	0x500087X Tllllll0

(To be continued)

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

(Continued from the preceding page)

Port	Cluster	ENC#	DB#	SAS Address
1H-0	CL1	1st	DB-24	0x500087X Taaaaaa0
		2nd	DB-26	0x500087X Tbbbbbb0
		3rd	DB-28	0x500087X Tcccccc0
		4th	DB-30	0x500087X Tdddddd0
		5th	DB-32	0x500087X Teeeeee0
		6th	DB-34	0x500087X Tffffff0
		7th	DB-36	0x500087X Tgggggg0
		8th	DB-38	0x500087X Thhhhhh0
		9th	DB-40	0x500087X Tiiiiii0
		10th	DB-42	0x500087X Tjjjjjj0
		11th	DB-44	0x500087X Tkkkkkk0
		12th	DB-46	0x500087X Tllllll0
2H-0	CL2	1st	DB-24	0x500087X Taaaaaa0
		2nd	DB-26	0x500087X Tbbbbbb0
		3rd	DB-28	0x500087X Tcccccc0
		4th	DB-30	0x500087X Tdddddd0
		5th	DB-32	0x500087X Teeeeee0
		6th	DB-34	0x500087X Tffffff0
		7th	DB-36	0x500087X Tgggggg0
		8th	DB-38	0x500087X Thhhhhh0
		9th	DB-40	0x500087X Tiiiiii0
		10th	DB-42	0x500087X Tjjjjjj0
		11th	DB-44	0x500087X Tkkkkkk0
		12th	DB-46	0x500087X Tllllll0

(To be continued)

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

(Continued from the preceding page)

Port	Cluster	ENC#	DB#	SAS Address
1H-1	CL1	1st	DB-25	0x500087X Tmmmmmm0
		2nd	DB-27	0x500087X Tnnnnnn0
		3rd	DB-29	0x500087X Toooooo0
		4th	DB-31	0x500087X Tpppppp0
		5th	DB-33	0x500087X Tqqqqqq0
		6th	DB-35	0x500087X Trrrrrr0
		7th	DB-37	0x500087X Tsssss0
		8th	DB-39	0x500087X Tttttt0
		9th	DB-41	0x500087X Tuuuuuu0
		10th	DB-43	0x500087X Tvvvvvv0
		11th	DB-45	0x500087X Twwwwww0
		12th	DB-47	0x500087X Txxxxxx0
2H-1	CL2	1st	DB-25	0x500087X Tmmmmmm0
		2nd	DB-27	0x500087X Tnnnnnn0
		3rd	DB-29	0x500087X Toooooo0
		4th	DB-31	0x500087X Tpppppp0
		5th	DB-33	0x500087X Tqqqqqq0
		6th	DB-35	0x500087X Trrrrrr0
		7th	DB-37	0x500087X Tsssss0
		8th	DB-39	0x500087X Tttttt0
		9th	DB-41	0x500087X Tuuuuuu0
		10th	DB-43	0x500087X Tvvvvvv0
		11th	DB-45	0x500087X Twwwwww0
		12th	DB-47	0x500087X Txxxxxx0

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

Table 6-9 SAS ADDRESS List (VSP G900 (Basic) or VSP F900 (Basic))

Port	Cluster	ENC#	DB#	SAS Address
1G-0	CL1	1st	DB-00	0x500087X Taaaaaa0
		2nd	DB-04	0x500087X Tbbbbbb0
		3rd	DB-08	0x500087X Tcccccc0
		4th	DB-12	0x500087X Tdddddd0
		5th	DB-16	0x500087X Teeeeee0
		6th	DB-20	0x500087X Tffffff0
2G-0	CL2	1st	DB-00	0x500087X Taaaaaa0
		2nd	DB-04	0x500087X Tbbbbbb0
		3rd	DB-08	0x500087X Tcccccc0
		4th	DB-12	0x500087X Tdddddd0
		5th	DB-16	0x500087X Teeeeee0
		6th	DB-20	0x500087X Tffffff0
1G-1	CL1	1st	DB-01	0x500087X Tgggggg0
		2nd	DB-05	0x500087X Thhhhhh0
		3rd	DB-09	0x500087X Tiiiiii0
		4th	DB-13	0x500087X Tjjjjjj0
		5th	DB-17	0x500087X Tkkkkkk0
		6th	DB-21	0x500087X Tllllll0
2G-1	CL2	1st	DB-01	0x500087X Tgggggg0
		2nd	DB-05	0x500087X Thhhhhh0
		3rd	DB-09	0x500087X Tiiiiii0
		4th	DB-13	0x500087X Tjjjjjj0
		5th	DB-17	0x500087X Tkkkkkk0
		6th	DB-21	0x500087X Tllllll0

(To be continued)

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

(Continued from the preceding page)

Port	Cluster	ENC#	DB#	SAS Address
1H-0	CL1	1st	DB-02	0x500087X Tmmmmmm0
		2nd	DB-06	0x500087X Tnnnnnn0
		3rd	DB-10	0x500087X Tooooo0
		4th	DB-14	0x500087X Tpppppp0
		5th	DB-18	0x500087X Tqqqqqq0
		6th	DB-22	0x500087X Trrrrrr0
2H-0	CL2	1st	DB-02	0x500087X Tmmmmmm0
		2nd	DB-06	0x500087X Tnnnnnn0
		3rd	DB-10	0x500087X Tooooo0
		4th	DB-14	0x500087X Tpppppp0
		5th	DB-18	0x500087X Tqqqqqq0
		6th	DB-22	0x500087X Trrrrrr0
1H-1	CL1	1st	DB-03	0x500087X Tsssss0
		2nd	DB-07	0x500087X Tttttt0
		3rd	DB-11	0x500087X Tuuuuu0
		4th	DB-15	0x500087X Tvvvvv0
		5th	DB-19	0x500087X Twwww0
		6th	DB-23	0x500087X Txxxxx0
2H-1	CL2	1st	DB-03	0x500087X Tsssss0
		2nd	DB-07	0x500087X Tttttt0
		3rd	DB-11	0x500087X Tuuuuu0
		4th	DB-15	0x500087X Tvvvvv0
		5th	DB-19	0x500087X Twwww0
		6th	DB-23	0x500087X Txxxxx0

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

Table 6-10 SAS ADDRESS List (VSP G900 (Option) or VSP F900 (Option))

Port	Cluster	ENC#	DB#	SAS Address
1E-0	CL1	1st	DB-24	0x500087X Taaaaaa0
		2nd	DB-28	0x500087X Tbbbbbb0
		3rd	DB-32	0x500087X Tcccccc0
		4th	DB-36	0x500087X Tdddddd0
		5th	DB-40	0x500087X Teeeeee0
		6th	DB-44	0x500087X Tffffff0
2E-0	CL2	1st	DB-24	0x500087X Taaaaaa0
		2nd	DB-28	0x500087X Tbbbbbb0
		3rd	DB-32	0x500087X Tcccccc0
		4th	DB-36	0x500087X Tdddddd0
		5th	DB-40	0x500087X Teeeeee0
		6th	DB-44	0x500087X Tffffff0
1E-1	CL1	1st	DB-25	0x500087X Tgggggg0
		2nd	DB-29	0x500087X Thhhhhh0
		3rd	DB-33	0x500087X Tiiiiii0
		4th	DB-37	0x500087X Tjjjjjj0
		5th	DB-41	0x500087X Tkkkkkk0
		6th	DB-45	0x500087X Tllllll0
2E-1	CL2	1st	DB-25	0x500087X Tgggggg0
		2nd	DB-29	0x500087X Thhhhhh0
		3rd	DB-33	0x500087X Tiiiiii0
		4th	DB-37	0x500087X Tjjjjjj0
		5th	DB-41	0x500087X Tkkkkkk0
		6th	DB-45	0x500087X Tllllll0

(To be continued)

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

(Continued from the preceding page)

Port	Cluster	ENC#	DB#	SAS Address
1F-0	CL1	1st	DB-26	0x500087X Tmmmmmm0
		2nd	DB-30	0x500087X Tnnnnnn0
		3rd	DB-34	0x500087X Toooooo0
		4th	DB-38	0x500087X Tpppppp0
		5th	DB-42	0x500087X Tqqqqqq0
		6th	DB-46	0x500087X Trrrrrr0
2F-0	CL2	1st	DB-26	0x500087X Tmmmmmm0
		2nd	DB-30	0x500087X Tnnnnnn0
		3rd	DB-34	0x500087X Toooooo0
		4th	DB-38	0x500087X Tpppppp0
		5th	DB-42	0x500087X Tqqqqqq0
		6th	DB-46	0x500087X Trrrrrr0
1F-1	CL1	1st	DB-27	0x500087X Tssssss0
		2nd	DB-31	0x500087X Tttttt0
		3rd	DB-35	0x500087X Tuuuuuu0
		4th	DB-39	0x500087X Tvvvvvv0
		5th	DB-43	0x500087X Twwwwww0
		6th	DB-47	0x500087X Txxxxxx0
2F-1	CL2	1st	DB-27	0x500087X Tssssss0
		2nd	DB-31	0x500087X Tttttt0
		3rd	DB-35	0x500087X Tuuuuuu0
		4th	DB-39	0x500087X Tvvvvvv0
		5th	DB-43	0x500087X Twwwwww0
		6th	DB-47	0x500087X Txxxxxx0

- NOTE :
- For the 9th value of SAS Address(T), the numerical value calculated from the ENC serial number is stored. (with no duplication)
 - For the 10 to 15th value of SAS Address, The thing which merged three columns of top of the ENC serial number with Cluster number is stored. (with no duplication)

6.3 CUDG Error Code Table

6.3.1 CUDG3 Error Code Table

LSI type	Test ID	Error Code	Error Contents
—	0006	0000	Config acquisition failure in INLINE CUDG.
	0007	0000	Config CMG number is unjustified of Cache PK.
	000B	0000	INLINE CUDG parameter error.
	000C	0000	CHK1 error occurred in INLINE CUDG.
	000D	0000	Loop count excess in INLINE CUDG.

LSI type	Test ID	Error Code	Error Contents
SAS	0F20		SAS Diagnosis Initial processing.
		100F	IFPK# Invalid Parameter(s).
		1104	Beginning CHK4 check error detected.
		1204	Last CHK4 check error detected.
		3901	Code parameter check: IQ PI Read error.
		3909	Code parameter check: Response HTAG error.
		3A01	Code parameter check: OQ CI Read error.
		3A09	Code parameter check: Response OP-Code error.
		3B04	Code parameter check: Last CHK4 check error detected.
		3B09	Code parameter check: Response status error.
		3C01	Code parameter check: Read error of the IQ PI update.
		3C02	Code parameter check: Write error of the IQ PI update.
		3D09	Code parameter check: An IQ_CI value awaiting IQ_CI update exceeds the depth.
		3D0E	Code parameter check: Time-out awaiting IQ_CI update.
		3E09	Code parameter check: An IQ_CI value awaiting IQ_CI update exceeds the depth.
		3E0E	Code parameter check: Time-out awaiting OQ_Pindex update.

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LSI type	Test ID	Error Code	Error Contents
SAS	0F20		
		5101	SPCv Firmware Write processing: HDA mode check Read error.
		5109	SPCv Firmware Write processing: It is not an HDA mode.
		5601	SPCv Firmware Write processing: ILA HDAC_DMA Parameter Setting error.
		5604	SPCv Firmware Write processing: Dummy read error after setting ILA HDAC_DMA Parameter.
		5609	SPCv Firmware Write processing: ILA image size 0.
		560C	SPCv Firmware Write processing: Invalid WAIT Retry max value.
		5701	SPCv Firmware Write processing: ILA HDAC_DMA response Code read error.
		5704	SPCv Firmware Write processing: ILA HDAC_DMA polling CHK4 check error.
		5709	SPCv Firmware Write processing: ILA HDAC_DMA expected value error.
		570C	SPCv Firmware Write processing: ILA HDAC_DMA Retry counter value error.
		570E	SPCv Firmware Write processing: ILA HDAC_DMA Polling time-out.
		570F	SPCv Firmware Write processing: ILA HDAC_DMA base value error.
		5801	SPCv Firmware Write processing: ILA HDAC_DMA response Status Read error.
		5809	SPCv Firmware Write processing: ILA HDAC_DMA response Status value error.
		5B01	SPCv Firmware Write processing: ILA HDAC_EXEC Parameter Setting error.
		5B04	SPCv Firmware Write processing: Dummy read error after setting ILA HDAC_EXEC Parameter Read error.
		5B09	SPCv Firmware Write processing: ILA image size 0.
		5C01	SPCv Firmware Write processing: ILA HDAC_EXEC polling response Code read error.
		5C04	SPCv Firmware Write processing: ILA HDAC_EXEC polling CHK4 check error.
		5C09	SPCv Firmware Write processing: ILA HDAC_EXEC polling expected value error.
		5C0C	SPCv Firmware Write processing: ILA HDAC_EXEC polling Retry counter value error.
		5C0E	SPCv Firmware Write processing: ILA HDAC_EXEC Polling time out.
		5C0F	SPCv Firmware Write processing: ILA HDAC_EXEC polling base value error.

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LSI type	Test ID	Error Code	Error Contents
SAS	0F20		
		6001	SPCv Firmware Write: Scratchpad 0 Read error of Scratchpad 0 polling.
		6004	SPCv Firmware Write: Polling CHK4 check error of Scratchpad 0 polling.
		600C	SPCv Firmware Write: Polling Retry max value of Scratchpad 0 polling.
		600E	SPCv Firmware Write: Polling Time-out of Scratchpad 0 polling.
		600F	SPCv Firmware Write: Phase number Parameter.
		6101	SPCv Firmware Write processing: Host Scratchpad 4 Write error of RAAE.
		6109	SPCv Firmware Write processing: RAAE image size 0.
		6201	SPCv Firmware Write processing: Host Scratchpad 5 Write error of RAAE.
		6301	SPCv Firmware Write processing: Host Scratchpad 3 Write error of RAAE.
		6401	SPCv Firmware Write: Scratchpad 0 Read error of Scratchpad 0 polling.
		6404	SPCv Firmware Write: Polling CHK4 check error of Scratchpad 0 polling.
		640C	SPCv Firmware Write: Polling Retry max value of Scratchpad 0 polling.
		640E	SPCv Firmware Write: Polling Time-out of Scratchpad 0 polling.
		640F	SPCv Firmware Write: Phase number Parameter error of Scratchpad 0 polling.
		6501	SPCv Firmware Write processing: Host Scratchpad 4 Write error of IOP.
		6509	SPCv Firmware Write processing: IOP image size 0.
		6601	SPCv Firmware Write processing: Host Scratchpad 5 Write error of IOP.
		6701	SPCv Firmware Write processing: Host Scratchpad 3 Write error of IOP.

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LSI classification	Test ID	Error Code	Error Contents
SAS	0F20		
		6901	SPCv Firmware Write processing: Scratchpad 1 Read error of IOP.
		6904	SPCv Firmware Write processing: CHK4 check error of IOP.
		690C	SPCv Firmware Write processing: Invalid Retry max value of IOP.
		690E	SPCv Firmware Write processing: Polling Time-out of IOP.
		690F	SPCv Firmware Write processing: Phase number Parameter error of IOP.
		6A01	SPCv Firmware Write processing: FW Version acquisition error.
		6B0C	SPCv Firmware Write processing: Phase number processing contradiction.
		6C04	SPCv Firmware Write processing: Last CHK4 check error detected.
		8409	Outbound Queue processing: The Valid value of IOMB of OQ is 0.
		8601	Outbound Queue processing: OQ CI Read error.
		8A01	Outbound Queue processing: Code parameter check: OQ Cindex update error.

DIAG06-410

LSI type	Test ID	Error Code	Error Contents
SAS	0F20		
		9401	MPI Initialize processing: MPI Main Config access error.
		9409	MPI Initialize processing: MPI Main Config expected value check error.
		9501	MPI Initialize processing: MPI MNIQ/MNOQ/HPIQS Read error.
		9509	MPI Initialize processing: The IQ/OQ maximum number exceeds a limit value.
		9601	MPI Initialize processing: MPI IQCT access error.
		9609	MPI Initialize processing: MPI IQ Config expected value check error.
		9701	Register Test: Register Save error.
		9801	Register Test: Register Write error.
		9901	MPI Initialize processing: MPI OQCT access error.
		9909	MPI Initialize processing: MPI OQ Config expected value check error.
		9A01	Register Test: Register Read error.
		9B0D	Register Test: Register Comparison error.
		9C01	Register Test: Register Recovery error.
		9D01	MPI Initialize Completion check: Register Read error.
		9D04	MPI Initialize Completion check: CHK4 check error.
		9D0C	MPI Initialize Completion check: Processing contradiction.
		9D0E	MPI Initialize Completion check: Polling Time-out error.
		9E01	MPI Initialize Completion check: Register Access error.
		9E04	MPI Initialize Completion check: Polling CHK4 check error.
		9E0C	MPI Initialize Completion check: Polling Retry max value.
		9E0E	MPI Initialize Completion check: Polling Time-out error.
		9F01	MPI Initialize processing: MPI GST access error.
		9F09	MPI Initialize processing: MPI General Status expected value check error.

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LSI type	Test ID	Error Code	Error Contents
SAS	0F20		
		A301	MPI Initialize processing: MPI Initialize Request write error.
		A304	MPI Initialize processing: Last CHK4 check error.
		A50D	Read comparison error after SPROM Write.
		A901	MPI Initialize processing: PSPAT offset Read error.
		AA01	SPCve Initialize: Scratchpad 3 read error.
		AB09	SPCve Initialize: Encryption Error (POST code error).
		AC01	SPCve Initialize: SPC Firmware status check: Scratchpad 1 read error.
		AC04	SPCve Initialize: SPC Firmware status check: CHK4 check error detected.
		AC0C	SPCve Initialize: SPC Firmware status check: Invalid Retry max value.
		AC0E	SPCve Initialize: SPC Firmware status check: Polling Time-out.
		AC0F	SPCve Initialize: SPC Firmware status check: Parameter error.
		AD0C	SPCve Initialize: Invalid Phase processing number.

DIAG06-430

LSI type	Test ID	Error Code	Error Contents
SAS	0F20		
		CB01	SPROM Preparations: HDAC Register access error.
		CB04	SPROM Preparations: HDAC CHK4 check error.
		CB09	SPROM Preparations: HDAC expected value error.
		CB0C	SPROM Preparations: HDAC retry error.
		CB0E	SPROM Preparations: HDAC Polling Time-out.
		CB0F	SPROM Preparations: HDAC Base Value error.
		CC01	SPROM Read processing: HDAC Register access error.
		CC04	SPROM Read processing: HDAC CHK4 check error.
		CC09	SPROM Read processing: HDAC expected value error.
		CC0C	SPROM Read processing: HDAC retry error.
		CC0E	SPROM Read processing: HDAC Polling Time-out.
		CC0F	SPROM Read processing: HDAC Base Value error.
		CD01	SPROM Write processing: HDAC Register access error.
		CD04	SPROM Write processing: HDAC CHK4 check error.
		CD09	SPROM Write processing: HDAC expected value error.
		CD0C	SPROM Write processing: HDAC retry error.
		CD0E	SPROM Write processing: HDAC Polling Time-out.
		CD0F	SPROM Write processing: HDAC Base Value error.
		CE01	SPROM Write processing: LM to SPCv access error.
		CE02	SPROM Write processing: LM to SPCv data transfer error of data write.
		CE09	SPROM Write processing: LM to SPCv confirmation data comparison error of data write.
		CE0E	SPROM Write processing: LM to SPCv transfer Time-out of data write.
		CE0F	SPROM Write processing: LM to SPCv Write size error. (less than 4 bytes)
		CF0C	Invalid Phase processing number.
	0F20		
		D00C	Phase division processing contradiction. (Excessive number of times)
		D101	SPC EPROM CRC check error.
		D30C	SPCv Initialize: Invalid Phase processing number.
		D40F	SPC Initialize: Invalid PK type.
		D509	SPCve Initialize: SPCve is not encryption mode.

DIAG06-440

LSI type	Test ID	Error Code	Error Contents
SAS	0F21		SAS Diagnosis 1: Non-PORT Test.
		0309	MPIbaseget: PCI_BAR error detected
		0401	MPI Config Table address acquisition: IQCT offset Read error.
		0501	MPI Config Table address acquisition: OQCT offset Read error.
		0601	MPI Config Table address acquisition: MPI IQ Pindex PCI Base type Read error.
		0709	MPI Config Table address acquisition: PCI_BAR type base address acquisition error.
		0801	MPI Config Table address acquisition: MPI IQ Pindex address Offset Read error.
		0901	MPI Config Table address acquisition: MPI OQ Cindex PCI Base type Read error.
		0A09	MPI Config Table address acquisition: PCI_BAR type base address acquisition error.
		0B01	MPI Config Table address acquisition: MPI OQ Cindex address Offset Read error.
		0C01	Max Que (IQ/OQ) information acquisition: MPI MNIQ/MNOQ/HPIQS Read error.
		0D01	MPI Config Table address acquisition: MPI base address (MPI main config) acquisition error.
		0E01	Max Que (IQ/OQ) information acquisition: MPI base address (MPI main config) acquisition error.
		0F09	MPI_BASE address acquisition error

DIAG06-450

LSI type	Test ID	Error Code	Error Contents
SAS	0F21		
		1504	Beginning CHK4 check error detected.
		150F	IFPK# Invalid Parameter(s).
		1601	Scratchpad 1 Read error.
		1604	Last CHK4 check error detected.
		1609	Scratchpad 1 Status is not Ready.
		170C	Phase division contradiction. (Excessive number of times)
		1801	ECHO command: IQ PI Read error.
		1901	ECHO command: OQ CI Read error.
		1A01	ECHO command: Read error of IQ PI update.
		1A02	ECHO command: Write error of IQ PI update.
		1B09	ECHO command: An IQ_CI value awaiting IQ_CI update exceeds the depth.
		1B0E	ECHO command: Time-out awaiting IQ_CI update.
		1C09	ECHO command: An OQ_PI value awaiting OQ_PI update exceeds the depth.
		1C0E	ECHO command: Time-out awaiting OQ_Pindex update.
		1D09	ECHO command: Response HTAG error
		1E09	ECHO command: Response OP-Code error.
		1F09	ECHO command: Response status error.
	0F21		
		2004	ECHO command: Last CHK4 check error detected.
		2009	PHY Start Linkup: An error detected
		2101	SAS Test Error.
	0F21		
		2009	Fwversion acquisition: MPICongfig error.
		7F01	An error not to adjust Pindex and Cindex of OQ to the same value.
		8109	Inbound Queue processing: Invalid Index
		810e	Inbound Queue processing: Time-out
		8209	Inbound Queue processing: Pindex Invalid Index
		820e	Inbound Queue processing: Pindex Time-out
		8301	Outbound Queue processing: ECHO Response: OQ Cindex update error.
		8409	Outbound Queue processing: Valid value of IOMB of OQ is 0.
		8601	Outbound Queue processing: OQ CI Read error.
		8709	Outbound Queue processing: IOMB of OQ was unused Response.
		8801	Outbound Queue processing: PCIE_DIAG_EXECUTE Response: OQ Cindex update error.

DIAG06-460

LSI type	Test ID	Error Code	Error Contents
SAS	0F21		
		B001	PCIE_DIAG_EXECUTE command DIF: IQ PI Read error.
		B101	PCIE_DIAG_EXECUTE command DIF: OQ CI Read error.
		B201	PCIE_DIAG_EXECUTE command DIF: Read error of IQ PI update.
		B202	PCIE_DIAG_EXECUTE command DIF: Write error of IQ PI update.
		B309	PCIE_DIAG_EXECUTE command DIF: An IQ_CI value awaiting IQ_CI update exceeds the depth..
		B30E	PCIE_DIAG_EXECUTE command DIF: Time-out awaiting IQ_CI update.
		B409	PCIE_DIAG_EXECUTE command DIF: An OQ_PI value awaiting OQ_PI update exceeds the depth.
		B40E	PCIE_DIAG_EXECUTE command DIF: Time-out awaiting OQ_Pindex update.
		B509	PCIE_DIAG_EXECUTE command DIF: Response HTAG error.
		B609	PCIE_DIAG_EXECUTE command DIF: Response OP-Code error.
		B709	PCIE_DIAG_EXECUTE command DIF: Response status error.
		B801	PCIE_DIAG_EXECUTE command: IQ PI Read error.
		B901	PCIE_DIAG_EXECUTE command: OQ CI Read error.
		BA04	PCIE_DIAG_EXECUTE command DIF: CHK4 check error detected after command response.
		BB01	PCIE_DIAG_EXECUTE command: Read error of IQ PI update.
		BB02	PCIE_DIAG_EXECUTE command: Write error of IQ PI update.
		BC09	PCIE_DIAG_EXECUTE command: An error awaiting IQ_CI update.
		BC0E	PCIE_DIAG_EXECUTE command: Time-out awaiting IQ_CI update.
		BD09	PCIE_DIAG_EXECUTE command: An IQ_CI value awaiting IQ_CI update exceeds the depth.
		BD0E	PCIE_DIAG_EXECUTE command: Time-out awaiting OQ_Pindex update.
		BE09	PCIE_DIAG_EXECUTE command: Response HTAG error.
		BF09	PCIE_DIAG_EXECUTE command: Response OP-Code error.

DIAG06-470

LSI type	Test ID	Error Code	Error Contents
SAS	0F21		
		C009	PCIE_DIAG_EXECUTE command: Response status error.
		C104	PCIE_DIAG_EXECUTE command: CHK4 check error detected after command response.
		C20C	Loopback Transfer Test: Invalid Parameter Table value.
		C304	Loopback Transfer Test: Last CHK4 check error detected.
		C40D	Loopback Transfer Test: Data comparison error.
		C50D	Loopback Transfer Test2: Data comparison error.
		C604	Loopback Transfer Test2: Last CHK4 check error detected.
		C70D	Loopback Transfer T10-DIF Test: Data comparison error.
		C804	Loopback Transfer T10-DIF Test: Last CHK4 check error detected.
		D20C	Invalid Phase number.
	0F23		SAS Diagnosis End processing.
		1304	Beginning CHK4 check error detected.
		130F	IFPK# Invalid Parameter(s).
		1404	Last CHK4 check error detected.
		CA0C	Phase division internal processing contradiction (excessive number of times)

DIAG06-480

LSI type	Test ID	Error Code	Error Contents
LRP	1301		Main LRP diagnosis control.
		0003	Illegal Parameter Error.

LSI type	Test ID	Error Code	Error Contents
Tachyon/SAS/Hilda (FC16G, iSCSI)/Baker (FC16G, FC32G)	1903		Main IFPK diagnosis control.
		0002	Hard adap mode Acquisition error.
		0003	Illegal Parameter error.
		001F	Invalid Illegal Hard adap mode value.
		0023	CHK1 error detected.
		0043	Failure detected in P-Path Linkup check
		0044	IFPK type mismatch
	1990		IFPK reset/P-Path recovery
		0040	P-Path Blockade/Failure detected in IFPK resetting.
		0041	Failure detected in canceling of IFPK resetting.
		0042	Failure detected in setting of P-Path Linkup.
		0043	Failure detected in checking of P-Path Linkup.
		0023	CHK1 error detected.

LSI type	Test ID	Error Code	Error Contents
Tachyon	1910		Tachyon diagnosis.
		01xC *1	Internal processing contradiction
		01xF *1	Invalid Port# parameter
		11x4 *1	Beginning CHK4 check error detected.
		12x4 *1	Last CHK4 check error detected.
		13xC *1	Phase processing number contradiction.
		15xC *1	Internal processing contradiction Phase division contradiction. (Excessive LOOP count)
		17xF *1	IFPK# Invalid Parameter(s).
		18xF *1	Port# Invalid Parameter(s).
		1CxF *1	Loop Mode Invalid Parameter(s).
		1DxF *1	Transfer speed Invalid Parameter(s).
		22xC *1	Beginning processing: Phase processing number contradiction.
		23x4 *1	Beginning processing: CHK4 check error detected.
		27xC *1	End processing: Phase processing number contradiction.
		28x4 *1	End processing: CHK4 check error detected.

*1 : x: Port number

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LSI type	Test ID	Error Code	Error Contents
Tachyon	1910		
		40x4 *1	Tachyon_Linkup processing: Last CHK4 check error detected. (at the end)
		42x1 *1	Register Test: Register Save error.
		43x1 *1	Register Test: Register Write error.
		44x1 *1	Register Test: Register Read error.
		45xD *1	Register Test: Register Comparison error.
		46x1 *1	Register Test: Register Recovery error.
		47x1 *1	Register Setting Value Addition: QE8_Config_2 Register Write error.
		48x1 *1	Register Setting Value Addition: QE8_Config_1 Register Read error.
		49x1 *1	Register Setting Value Addition: QE8_Config_1 Register Write error.
		4Bx1 *1	Linkup processing: The acquisition of Frame Manager Link Status 1 Register (BAD CHAR CHK) failed.
		4BxE *1	Linkup processing: BAD CHAR CHK is time-out error.
		4Cx1 *1	Tachyon_Linkup processing: The setting of Frame Manager Primitive Register failed.
		4Dx1 *1	Linkup processing: The setting of Frame Manager Control Register (LIP) failed.
		4Ex1 *1	Linkup processing: Register dummy read failed after setting Frame Manager Control Register (LIP).
		4Fx1 *1	Linkup processing: The setting of Frame Manager Control Register (Offline) failed.

*1 : x: Port number

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LSI type	Test ID	Error Code	Error Contents
Tachyon	1910		
		50x1 *1	Tachyon_Linkup processing: Dummy read failed after setting Frame Manager Control Register (Offline)
		51x1 *1	Linkup processing: The setting of Frame Manager Control Register (Initialize) failed.
		52x1 *1	Linkup processing: Dummy read failed after setting Frame Manager Control Register (Initialize).
		53xE *1	Linkup processing: IMQ-PIndex doesn't become an expected value, and the Time-out error.
		54x1 *1	Linkup processing: The setting (+1) of Tachyon_IMQ_C-Index failed.
		55x1 *1	Linkup processing: Register dummy read error.
		57x1 *1	Linkup processing: The setting (+1) of Tachyon_IMQ_C-Index failed.
		58x1 *1	Linkup processing: The setting of Tachyon_SFQ_C-Index failed.
		59x1 *1	Linkup processing: The acquisition of Frame Manager Status Register failed.
		5Ax9 *1	Linkup processing: Frame Manager Status Register is outside the expected value.
		5Bx1 *1	Linkup processing: The acquisition of Frame Manager Received AL_PA Register failed.
		5Cx9 *1	Linkup processing: ACQ_ALPA of Frame Manager Received AL_PA Register is outside the expected value.
		5Dx1 *1	Linkup processing: The setting of My ID Register failed.
		5Ex1 *1	Linkup processing: The setting of Frame Manager Status Register (INT STS CLR) failed.
		5Fx1 *1	Linkup processing: The acquisition of Frame Manager Link Status 1 Register (LINK STS CLR) failed.

*1 : x: Port number

LSI type	Test ID	Error Code	Error Contents
Tachyon	1910		
		60x9 *1	Tachyon_LINKUP processing: Link Status is not cleared.
		61x1 *1	Tachyon_Linkup processing: The acquisition of Frame Manager Link Status 1 Register (LINK STS CLR CHECK) failed.
		62x9 *1	Linkup processing: Link Status is not cleared.
		68x9 *1	Tachyon_LINKUP processing: Other than Completion_Message was returned.
		69x9 *1	Tachyon_LINKUP processing: Other than Completion_Message was returned.
		73x7 *1	Beginning processing: A protocol initial setting result error.
		74x4 *1	Beginning processing: CHK4 check error detected in protocol initial setting.
		74x7 *1	Beginning processing: INIT_STATUS error.
		79x4 *1	Beginning/Terminate processing: CHK4 check error detected in port initial setting.
		7Ax1 *1	Terminate processing (optical port closed) : The setting of Frame Manager Configuration 5 Register failed.
		7Bx1 *1	Terminate processing (optical port closed) : Dummy read of Frame Manager Configuration 5 Register failed.

*1 : x: Port number

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LSI type	Test ID	Error Code	Error Contents
Tachyon	1910		
		83x7 *1	Terminate processing: A Protocol Blockade result error.
		84x4 *1	Terminate processing: A Protocol Blockade CHK4 check error detected.
		84x7 *1	Terminate processing: Protocol Blockade result is a STATUS error.
		87x7 *1	Terminate processing: Protocol Installation Information acquisition result error.
		88x4 *1	Terminate processing: Protocol Installation information acquisition CHK4 check error detected.
		88x7 *1	Terminate processing: Protocol initial setting result is an INIT_STATUS error.
		B5x1 *1	Beginning processing: S_ID entry Write error in MP search setting.
		B6x1 *1	Beginning processing: S_ID entry register enable set error in MP search setting.
		B7x2 *1	Beginning processing: MP search table Write error in MP search setting.
		C8x1 *1	Beginning processing: MP search data Read error in register save.
		C9x1 *1	Beginning processing: MP search register Read error in register save.
		CAx1 *1	Terminate processing: MP search data Write error in register recovery.
		CBx1 *1	Terminate processing: MP search register Write error in register recovery in register save.
		CCx1 *1	Beginning processing: S_ID entry register table Read error.
		CDx1 *1	Terminate processing: S_ID entry register table Write error in register recovery.

*1 : x: Port number

DIAG06-540

LSI type	Test ID	Error Code	Error Contents
Tachyon	1911		Tachyon Transfer : LM -> LM.
		02xD *1	Transfer data comparison error.
		13xD *1	Data comparison error
		14x4 *1	Last CHK4 check error detected.
		19xD *1	Data comparison error
		41x1 *1	Dummy read after IMP_C-Index update failed.
		45xD *1	Data comparison error
		63x1 *1	Data The acquisition of Virtual IMQ C-Index failed.
		64x2 *1	Data Transfer to SEST(TRE) failed.
		65x2 *1	Data Transfer to sfs(FCHS) failed.
		66x2 *1	Data Transfer to SEST(IRE) failed.
		67x1 *1	Transfer to ERQ(IRB) failed.
		69xE *1	IMQ_P-Index is not updated and the Time-out error.
		6Ax9 *1	The content of the 1st IMQ failed outside the expected value.
		6Bx1 *1	The setting (+1) of IMQ_C-Index failed.
		6CxE *1	IMQ_P-Index(2) is not updated and the Time-out error.
		6Dx9 *1	The content of the 2nd IMQ failed outside the expected value.
		6Ex1 *1	The setting (+1) of IMQ_C-Index failed.
		70x4 *1	CHK4 check error detected.
		CEx1 *1	Burst Transfer access error from LM to XR.
		CEx2 *1	Burst Transfer error from LM to XR.
		CEx9 *1	Burst Transfer check data error from LM to XR.
		CExE *1	Burst Transfer Time-out error from LM to XR.
		CExF *1	Burst Transfer Parameter error from LM to XR.

*1 : x: Port number

DIAG06-550

LSI type	Test ID	Error Code	Error Contents
Tachyon	1913		Tachyon Transfer : T10-DIF.
		02xD *1	Transfer data comparison error.
		13xD *1	Data comparison error
		19x4 *1	Last CHK4 check error detected.
		19xD *1	Data comparison error
		1Ax1 *1	T10mode2 UDT4-5 Read error.
		1Bx1 *1	T10mode2 UDT0-3 Read error.
		1Ex1 *1	T10mode3 UDT4-5 Read error.
		1Fx1 *1	T10mode3 UDT0-3 Read error.
		41x1 *1	Dummy read after IMQ_C-Index update failed.
		45xD *1	Data comparison error
		63x1 *1	The acquisition of Virtual IMQ C-Index failed.
		64x2 *1	Data Transfer to SEST(TRE) failed.
		65x2 *1	Data Transfer to sfs(FCHS) failed.
		66x2 *1	Data Transfer to SEST(IRE) failed.
		67x1 *1	Data Transfer to ERQ(IRB) failed.
		69xE *1	IMQ_P-Index is not updated and the Time-out error.
		6Ax9 *1	The content of the 1st IMQ failed outside the expected value.
		6Bx1 *1	The setting (+1) of IMQ_C-Index failed.
		6Cx9 *1	IMQ_P-Index(2) is not updated and the Time-out error.
		6Dx9 *1	The content of the 2nd IMQ failed outside the expected value.
		6Ex1 *1	The setting (+1) of IMQ_C-Index failed.
		70x4 *1	CHK4 check error detected.
		CEx1 *1	Burst Transfer access error from LM to XR.
		CEx2 *1	Burst Transfer error from LM to XR.
		CEx9 *1	Burst Transfer check data error from LM to XR.
		CExE *1	Burst Transfer Time-out error from LM to XR.
		CExF *1	Burst Transfer Parameter error from LM to XR.

*1 : x: Port number

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1760		FC16G diagnosis starts
		010C	Internal processing is inconsistent (1)
		010F	Parameter error
		020C	Internal processing is inconsistent(2)
		1404	CHK4 check detects an error (1)
		1504	CHK4 check detects an error (2)
		2609	PCI configuration value check error
	1761		Register Test
		010C	Internal processing is inconsistent
		1504	CHK4 check detects an error
		4001	Address register dummy read error (at the end)
		4101	Address register '0' Write error (at the head)
		4201	Address register dummy read error (at the head)
		4301	Data register Write error
		4401	Data register Read error
		450D	Comparison error
		4601	Address register '0' Write error (at the end)
	1762		Soft Reset Check
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		1C01	Dummy read error (1)
		1C04	CHK4 check detects an error (2)
		1D01	Soft Reset register Write error
		1E01	GPIO Data Register Write error
		1F01	GPIO Enable Register Write error
		2001	Dummy read error (2)
		2101	Register register Write error
		2201	Register access error
		2204	CHK4 check detects an error (3)
		220E	Polling time-out error
		220F	Parameter error (2)

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1763		ROM Firmware Boot Check
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1108	Firmware sum value error on PM
		1504	CHK4 check detects an error (1)
		280F	Parameter error (2)
		2901	Register access error (1)
		2904	CHK4 check detects an error (3)
		290E	Polling time-out error
		290F	Parameter error (3)
		2F01	Register access error(2)
		300C	Table creation error
	1764		Flash contents exchange
		010F	Illegal Parameter Error occurred
		1108	Flash data SUM check Error
		1504	CHK4 Error occurred
		1604	CHK4 Error occurred
		2501	PCI Reset Error end
		2504	CHK4 Error occurred
		2507	LRP Mailbox Error
		250C	Internal processing contradiction
		250E	PCI Reset Time Out Error occurred
		2A01	Register Access Error
		2A04	CHK4 Error occurred
		2A0E	Time Out Error occurred
		2A0F	Illegal Parameter Error occurred
		3701	Register Access Error
		4701	Register Access Error
		4901	Register Access Error
		4A01	Register Access Error
		4B01	Register Access Error
		4C01	Register Access Error
		4C0F	Illegal Parameter Error occurred
		4D01	Register Access Error
		4E01	Register Access Error
		4F01	Register Access Error
		4F04	CHK4 Error occurred

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1764		Flash contents exchange
		5001	Register Access Error
		5101	Register Access Error
		5201	Register Access Error
		5301	Register Access Error
		5401	Register Access Error
		5404	CHK4 Error occurred
		540E	Time Out Error occurred
		540F	Illegal Parameter Error occurred
		5501	Register Access Error
		5609	Semaphore Lock Failure
		5709	Register Write Error
		570D	Flash protection value Error
		5809	Erase expected value Error
		5A09	Illegal Version value Error
		5B09	Version disagreement
		5E01	Register Access Error
		5E02	Burst Transfer Error
		5F01	Register Access Error
		6001	Register Access Error
		6004	CHK4 Error occurred
		600E	Time Out Error occurred
		6109	Erase expected value Error
		6201	Register Access Error
		6204	CHK4 Error occurred
		6208	Check SUM Error
		620D	Contents comparison Error
		6309	Signature value checks Error
		6401	Register Access Error
		6501	Register Access Error
		6601	Register Access Error
		6609	Read Flag Status Register is value Error
		6701	Register Access Error
		6801	Register Access Error
		6804	CHK4 Error occurred
		680E	Time Out Error occurred
		680F	Illegal Parameter Error occurred

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1764		Flash contents exchange
		6901	Register Access Error
		6909	RISC to Host Interrupt Request is value Error
		6A01	Register Access Error
		6A09	RISC Paused
		6B01	Register Access Error
		6B09	Asynchronous event of an Error notification
		6B0E	Read count over
		6C01	Register Access Error
		6C09	Completion checks Error
		6D01	Register Access Error
		6E01	Register Access Error
		7607	Command completion code Error
		7701	Register Access Error
		7704	CHK4 Error occurred
		7707	Command completion code Error
		7708	Check SUM Error
		7709	Contents Size Error
		7807	Command completion code Error
		7809	MAC Address Value Error
		7A01	Register Access Error
		7A09	MAC Address Value Error
		7B01	Register Access Error
		7D01	Register Access Error
	1765		ROM Firmware command Test
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		6401	Incoming Mailbox Write error
		6501	Dummy read error (1)
		6601	Host Command and Control register Write error
		6701	Dummy read error (2)
		6801	Register access error
		6804	CHK4 check detects an error (2)
		680E	Polling time-out error
		680F	Parameter error (2)

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1765		ROM Firmware command Test
		6901	RISC to Host Status register Read error
		6909	RISC to Host Interrupt Request is OFF
		6A01	Clear RISC to PCI Interrupt Write error(1)
		6A09	RISC Paused
		6B01	Dummy read error (3)
		6B09	Asynchronous event of error notice
		6C01	Outgoing Mailbox Read error
		6C09	Completion check error
		6D01	Clear RISC to PCI Interrupt Write error(2)
		6E01	Dummy read error (4)
		7007	Command completion code error(1)
		7307	Command completion code error(2)
		730D	Data mismatch
	1766		Memory Read/Write Test
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		2A01	Register access error(1)
		2A04	CHK4 check detects an error (2)
		2A0E	Polling time-out error(1)
		2A0F	Parameter error (2)
		3104	CHK4 check detects an error (before memory test)
		3201	Flash access error(1)
		3204	CHK4 check detects an error (after memory test)
		330D	Data comparison error

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1766		Memory Read/Write Test
		4801	Flash access error(2)
		4808	Sum value error
		4C0F	Parameter error (3)
		4D01	Data register '0' clear error
		4E01	Address register Write error
		4F01	Register Read error
		4F04	CHK4 check detects an error (3)
		5001	Flash access error(3)
		6301	Flash Read error
		6401	Incoming Mailbox Write error
		6501	Dummy read error (1)
		6601	Host Command and Control register Write error
		6701	Dummy read error (2)
		6801	Register access error(2)
		6804	CHK4 check detects an error (4)
		680E	Polling time-out error(2)
		680F	Parameter error (4)
		6901	RISC to Host Status register Read error
		6909	RISC to Host Interrupt Request is OFF
		6A01	Clear RISC to PCI Interrupt Write error(1)
		6A09	RISC Paused
		6B01	Dummy read error (3)
		6B09	Asynchronous event of error notice
		6C01	Outgoing Mailbox Read error
		6C09	Completion check error
		6D01	Clear RISC to PCI Interrupt Write error(2)
		6E01	Dummy read error (4)
		7409	Initial value error
		7707	Command completion code error(1)
		7807	Command completion code error(2)

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1767		FC Firmware Boot Test
		010C	Internal processing is inconsistent (1)
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		3401	FC Firmware RISC_RAM_1 address acquisition error
		3402	FC Firmware_1 burst transfer error from LM to DXBF
		3404	CHK4 check detects an error (2)
		3502	FC Firmware_2 burst transfer error from LM to DXBF
		350D	FC Firmware_1 Comparison error
		360D	FC Firmware_2 Comparison error
		3704	CHK4 check detects an error (3)
		6401	Incoming Mailbox Write error
		6501	Dummy read error (1)
		6601	Host Command and Control register Write error
		6701	Dummy read error (2)
		6801	Register access error
		6804	CHK4 check detects an error (4)
		680E	Polling time-out error
		680F	Parameter error (2)
		6901	RISC to Host Status register Read error
		6909	RISC to Host Interrupt Request is OFF
		6A01	Clear RISC to PCI Interrupt Write error (1)
		6A09	RISC Paused
		6B01	Dummy read error (3)
		6B09	Asynchronous event of error notice
		6C01	Outgoing Mailbox Read error
		6C09	Completion check error
		6D01	Clear RISC to PCI Interrupt Write error (2)
		6E01	Dummy read error (4)
		7207	Command completion code error (1)
		720C	Internal processing is inconsistent (2)
		7407	Command completion code error (2)
		7707	Command completion code error (3)
		7807	Command completion code error (4)

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1768		FC Firmware command Test
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		6401	Incoming Mailbox Write error
		6501	Dummy read error (1)
		6601	Host Command and Control register Write error
		6701	Dummy read error (2)
		6801	Register access error
		6804	CHK4 check detects an error (2)
		680E	Polling time-out error
		680F	Parameter error (2)
		6901	RISC to Host Status register Read error
		6909	RISC to Host Interrupt Request is OFF
		6A01	Clear RISC to PCI Interrupt Write error (1)
		6A09	RISC Paused
		6B01	Dummy read error (3)
		6B09	Asynchronous event of error notice
		6C01	Outgoing Mailbox Read error
		6C09	Completion check error
		6D01	Clear RISC to PCI Interrupt Write error
		6E01	Dummy read error (4)
		7007	Command completion code error (1)
		7307	Command completion code error (2)
		730D	Data mismatch
	1769		FC Firmware version acquisition test
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		3802	Parameter block transfer error to DXBF
		3809	Mismatch of Load source and Ver. value
		6401	Incoming Mailbox Write error
		6501	Dummy read error (1)
		6601	Host Command and Control register Write error
		6701	Dummy read error (2)
		6801	Register access error
		6804	CHK4 check detects an error (2)
		680E	Polling time-out error
		680F	Parameter error (2)

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	1769		FC Firmware version acquisition test
		6901	RISC to Host Status register Read error
		6909	RISC to Host Interrupt Request is OFF
		6A01	Clear RISC to PCI Interrupt Write error (1)
		6A09	RISC Paused
		6B01	Dummy read error (3)
		6B09	Asynchronous event of error notice
		6C01	Outgoing Mailbox Read error
		6C09	Completion check error
		6D01	Clear RISC to PCI Interrupt Write error (2)
		6E01	Dummy read error (4)
		7507	Command completion code error (1)
		7509	Version value error
		7A07	Command completion code error (2)
	176A		FC Firmware configuration setting
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		6401	Incoming Mailbox Write error
		6501	Dummy read error (1)
		6601	Host Command and Control register Write error
		6701	Dummy read error (2)
		6801	Register access error
		6804	CHK4 check detects an error (2)
		680E	Polling time-out error
		680F	Parameter error (2)
		6901	RISC to Host Status register Read error
		6909	RISC to Host Interrupt Request is OFF
		6A01	Clear RISC to PCI Interrupt Write error (1)
		6A09	RISC Paused
		6B01	Dummy read error (3)
		6B09	Asynchronous event of error notice
		6C01	Outgoing Mailbox Read error
		6C09	Completion check error
		6D01	Clear RISC to PCI Interrupt Write error (2)
		6E01	Dummy read error (4)

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	176A		FC Firmware configuration setting
		6E07	Command completion code error (1)
		7907	Command completion code error (2)
		7B07	Command completion code error (3)
		8007	Command completion code error (4)
		8107	Command completion code error (5)
		8207	Command completion code error (6)
		8209	Firmware status is other than Ready
	176C		IOCB Test
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		7101	RQQ In_Pointer Read error (1)
		8601	RQQ In_Pointer Read error (2)
		8602	Burst transfer error of IOCB request parameter
		8701	RQQ In_Pointer update Write error
		8707	Command completion code error (1)
		870D	Response data mismatch
		8B01	Dummy read error
		8B09	STATUS failed
		8C01	ATQ Out_Pointer Read error
		8C09	No IOCB response
		8D04	CHK4 check detects an error (4)
		8D0E	Polling time-out error
		8D0F	Parameter error (2)
		8E01	ATQ OUT_Pointer update Write error
		8E07	No IOCB response
		8E09	Response of the same HANDLE
		8F01	RQQ In_Pointer Read error (3)
		8F07	Command completion code error (2)
		8F09	Unexpected asynchronous event

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LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	176D		DMA function check/indirect register test
		010C	Internal processing is inconsistent
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		1E01	GPIO Data Register Write error
		1F01	GPIO Enable Register Write error
		2001	Dummy read error (1)
		5604	CHK4 check detects an error (After DMA transfer)
		6104	CHK4 check detects an error (Before DMA transfer)
		6304	CHK4 check detects an error (2)
		6C0D	Data comparison error
		7201	RQQ In_Pointer Read error (1)
		7401	RQQ In_Pointer Read error (2)
		8601	RQQ In_Pointer Read error (3)
		8602	Burst transfer error of IOCB request parameter
		8604	CHK4 check detects an error (4)
		8607	Command completion code error (1)
		8609	Register Read value error (1)
		8701	RQQ In_Pointer update Write error
		8704	CHK4 check detects an error (5)
		8709	Register Read value error (2)
		8B01	Dummy read error (2)
		8B07	Command completion code error (2)
		8B09	STATUS failed

DIAG06-670

LSI type	Test ID	Error Code	Error Contents
Hilda (FC16G)	176D		DMA function check/indirect register test
		8C01	ATQ Out_Pointer Read error
		8C09	IOCB_HANDLE mismatch
		8D04	CHK4 check detects an error (9)
		8D0E	Polling time-out error
		8D0F	Parameter error (2)
		8E01	ATQ OUT_Pointer update Write error
		8E07	No IOCB response
		8E09	Response of the same HANDLE
		8F09	Unexpected asynchronous event
	176E		Data transfer function check
		010C	Internal processing is inconsistent
		010F	Parameter error
		1504	CHK4 check detects an error (1)
		5807	Mailbox Command: Diagnostic Loopback (0x0045) error (1)
		5A07	Mailbox Command: Diagnostic Loopback (0x0045) error (2)
		5C07	Mailbox Command: Diagnostic Loopback (0x0045) error (3)
		6404	CHK4 check detects an error (2)
		6504	CHK4 check detects an error (3)
		6704	CHK4 check detects an error (4)
		6707	Mailbox Command: Diagnostic Loopback (0x0045) error (4)
		6B04	CHK4 check detects an error (5)
		6B07	Mailbox Command: Diagnostic Loopback (0x0045) error (5)
		6D09	Latter part of user data is mismatched
		6D0D	Data comparison mismatch
	176E		Data transfer function check
		7004	CHK4 check detects an error (6)
		7604	CHK4 check detects an error (7)
		760D	Data comparison mismatch
	176F		FC16G diagnosis is completed

DIAG06-680

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1A10		iSCSI10G diagnosis starts
		01xC *1	Internal processing is inconsistent (1)
		01xF *1	Parameter error
		02xC *1	Internal processing is inconsistent (2)
		14x4 *1	CHK4 check detects an error (1)
		15x4 *1	CHK4 check detects an error (2)
		26x4 *1	CHK4 check detects an error (3)
		26xC *1	Internal processing is inconsistent (3)
		2Cx4 *1	CHK4 check detects an error (4)
	1A20		Initialization completion check
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		40x1 *1	Address register dummy read error (at the end)
		41x1 *1	Address register '0' Write error (at the head)
		42x1 *1	Address register dummy read error (at the head)
		43x1 *1	Data register Write error
		44x1 *1	Data register Read error
		45xD *1	Comparison error
		46x1 *1	Address register '0' Write error (at the end)
	1A30		Warm Boott Test
		01xC *1	Internal processing is inconsistent
		01xF *1	Parameter error (1)
		15x4 *1	CHK4 check detects an error (1)
		1Cx1 *1	Dummy read error (1)
		1Cx4 *1	CHK4 check detects an error (2)
		1Dx1 *1	Soft Reset register Write error
		1Ex1 *1	GPIO Data Register Write error
		1Fx1 *1	GPIO Enable Register Write error
		20x1 *1	Dummy read error (2)
		21x1 *1	Register Write error
		22x1 *1	Register access error
		22x4 *1	CHK4 check detects an error (3)
		22xE *1	Polling time-out error
		22xF *1	Parameter error (2)
		27x2 *1	Burst transfer error
		27x4 *1	CHK4 check detects an error (4)
		2Dx1 *1	Save error of registers

*1 : x: Port Number

DIAG06-690

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1A40		No operation Test
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
	1A41		Mailbox Register Test
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
	1A50		About Firmware Test
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
		5Bx9 *1	Ver. mismatch
	1A60		Firmware default setting
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
	1A61		Stop Firmware Test
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
	1A70		Internal Loopback test
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		28x7 *1	IOCB no response
		29x7 *1	IOCB status error
		45xD *1	Comparison error

*1 : x: Port Number

DIAG06-700

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1A80		Test Flash ROM
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
	1A81		Test DDR Read/Write
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
	1A82		Test OCM Read/Write
		01xC *1	Internal processing is inconsistent
		15x4 *1	CHK4 check detects an error
		22xE *1	Polling time-out error
		27x7 *1	MailBox Status error
		45xD *1	Comparison error
	1A83		Flash replacement
		010C	Internal processing is inconsistent (1)
		010F	Parameter error (1)
		1504	CHK4 check detects an error (1)
		1604	CHK4 check detects an error (2)
		2504	CHK4 check detects an error (3)
		2501	Hilda reboot error
		250E	Hilda reboot time-out error
		2A01	Register access error (1)
		2A04	CHK4 check detects an error (4)
		2A0E	Polling time-out (1)
		2A0F	Parameter error (2)
		4501	Register access error (2)
		4701	Dummy read error (1)
		4709	Flash Read Expectation error
		4901	Data register '0' clear error (1)

*1 : x: Port Number

DIAG06-710

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1A83		Flash replacement
		4A01	Address register Write error (1)
		4B01	Address register Read error
		4C01	Data register Read error
		4C0F	Parameter error (3)
		4D01	Data register '0' clear error (2)
		4E01	Address register Write error (2)
		4F01	Register Read error
		4F04	CHK4 check detects an error (5)
		5001	Flash access error (1)
		5101	Address value error
		5201	Data register Write error
		5301	Address register Write error (3)
		5401	Register access error (3)
		5404	CHK4 check detects an error (6)
		540E	Polling time-out (2)
		540F	Parameter error (4)
		5501	Flash access error (2)
		5609	Semaphore Lock failure
		5709	Write to Status Register cannot be confirmed
		5809	Erase Expectation error (1)
		5B09	Ver. unmatched
		5E01	Ver. Value Read error
		5E02	Transfer error
		5F01	Flash access error (3)
		6001	Flash access error (4)
		6004	CHK4 check error was detected during polling
		600E	Polling time-out (3)
		6109	Erase Expectation error (2)
		6201	Flash access error (5)
		6204	CHK4 check detects an error (7)
		6208	Sum value error
		620D	Contents comparison error

DIAG06-720

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1A83		Flash replacement
		6401	Incoming Mailbox Write error
		6501	Dummy read error (2)
		6601	Host Command and Control Register Write error
		6609	Read Flag Status Register is error value
		6701	Dummy read error (3)
		6801	Register access error (4)
		6804	CHK4 check detects an error (8)
		680E	Polling time-out (4)
		680F	Parameter error (5)
		6901	RISC to Host Status Register Read error
		6909	RISC to Host Interrupt Request is OFF
		6A01	Clear RISC to PCI Interrupt Write error (1)
		6A09	RISC Paused
		6B01	Dummy read error (4)
		6B09	Asynchronous event of error notice
		6C01	Outgoing Mailbox read error
		6C09	Completion check error
		6D01	Clear RISC to PCI Interrupt Write error (2)
		6E01	Dummy read error (5)
		7607	Command completion code error (1)
		7707	Command completion code error (2)
		7807	Command completion code error (3)
	1a90		PHY firmware exchange
		0004	Time Out Error occurred
		00ff	Internal processing contradiction
		010f	Parameter error
		450d	Comparison error
	1aa0		IFPK reset/P-Path recovery
		0001	P-Path recovery error
		000c	Internal processing contradiction
		000e	Time Out Error occurred

DIAG06-730

LSI type	Test ID	Error Code	Error Contents
DIMM	0C01		DIMM configuration check
		0001	Unsupported DIMM installed
		0002	DIMM installation position mismatch
		0003	DIMM type mismatch
	0C02		DIMM configuration check 2
		0001	DIMM training error was detected
		0002	Abnormal DIMM installation pattern
	0D02		Memory WT/RD Test
		0002	Data comparison error has occurred
		0040	CHK1 error has occurred
	0D1A		PD Check
		0002	DIMM type mismatch error has occurred
		0040	CHK1 error has occurred
	0D1B		DIMM information read
		0040	CHK1 error has occurred
	0D1C		DIMM SPROM information Read
		0040	CHK1 error has occurred
CFM	0BF1		Diagnostic parameter check
		0100	Abnormal diagnostic parameter
		0BF2	CFM installation check
		0100	SPEC information read error
		0200	Configuration information acquisition error
		0300	CFM type mismatch
		0040	CHK1 error has occurred
	0BF8		CFM WT/RD Test
		0001	Periodic diagnosis CMD terminates abnormally
		0002	Excessive access competition
		0040	CHK1 error has occurred

DIAG06-740

LSI type	Test ID	Error Code	Error Contents
CPU	1270		I pass diagnosis (A)
		0100	I pass write access error
		0200	I pass read access error
		0300	Data comparison error
		0400	Failure detected in I path Linkup check
		0F00	Diagnosis completion time-out
		0040	CHK1 error has occurred
	1271		I pass diagnosis (B)
		0100	I pass write access error
		0200	I pass read access error
		0300	Data comparison error
		0400	Failure detected in I path Linkup check
		0040	CHK1 error has occurred
LANC	0401		LANC diagnosis
		0100	LANCTL failure detected
		0200	Link error between PCH and LANCTL

DIAG06-750

LSI type	Test ID	Error Code	Error Contents
Tachyon	1960		Tachyon diagnosis
		01xC *1	Internal processing contradiction
		01xF *1	Invalid Port# parameter
		11x4 *1	Beginning CHK4 check error detected
		12x4 *1	Last CHK4 check error detected
		13xC *1	Phase processing number contradiction
		15xC *1	Internal processing contradiction (excessive LOOP count)
		17xF *1	Invalid IFPK# parameter
		18xF *1	Invalid Port# parameter
		1CxF *1	Invalid LOOP mode parameter
		1DxF *1	Invalid transfer speed parameter
		22xC *1	Beginning processing: Phase processing number contradiction
		23x4 *1	Beginning processing: CHK4 check error detected
		27xC *1	End processing: Phase processing number contradiction
		28x4 *1	End processing: CHK4 check error detected
		40x4 *1	Tachyon_LINKUP processing: CHK4 check error detected (at the end)
		42x1 *1	Register test: Register save error
		43x1 *1	Register test: Register Write error
		44x1 *1	Register test: Register Read error
		46x1 *1	Register test: Register recovery error
		47x1 *1	Register setting value addition: QE8_Config_2 register Write error
		48x1 *1	Register setting value addition: QE8_Config_1 register Read error
		49x1 *1	Register setting value addition: QE8_Config_1 register Write error
		4Bx1 *1	Tachyon_LINKUP processing: Frame Manager Link Status 1 Register(BAD CHAR CHK) acquisition failed
		4BxE *1	Tachyon_LINKUP processing: BAD CHAR CHK time-out error
		4Cx1 *1	Tachyon_LINKUP processing: Frame Manager Primitive Register setting failed
		4Dx1 *1	Tachyon_LINKUP processing: Frame Manager Control Register(LIP) setting failed
		4Ex1 *1	Tachyon_LINKUP processing: Dummy read after setting Frame Manager Control Register(LIP) failed
		4Fx1 *1	Tachyon_LINKUP processing: Frame Manager Control Register(Offline) setting failed

*1 : x: Port Number

DIAG06-760

LSI type	Test ID	Error Code	Error Contents
Tachyon	1960		
		50x1 *1	Tachyon_LINKUP processing: Dummy read after setting Frame Manager Control Register(Offline) failed
		51x1 *1	Tachyon_LINKUP processing: Frame Manager Control Register(Initialize) setting failed
		52x1 *1	Tachyon_LINKUP processing: Dummy read after setting Frame Manager Control Register(Initialize) failed
		53xE *1	Tachyon_LINKUP processing: IMQ_P-Index does not become the expected value after Initialize setting and time-out error
		54x1 *1	Tachyon_LINKUP processing: The setting (+1) of Tachyon IMQ_C-Index failed
		55x1 *1	Tachyon_LINKUP processing: Dummy read after updating IMQ_C-Index failed
		57x1 *1	Tachyon_LINKUP processing: The setting (+1) (2) of Tachyon IMQ_C-Index failed
		58x1 *1	Tachyon_LINKUP processing: Tachyon SFQ_C-Index setting failed
		59x1 *1	Tachyon_LINKUP processing: Frame Manager Status Register acquisition failed
		5Ax9 *1	Tachyon_LINKUP processing: Frame Manager Status Register value is outside the expected value
		5Bx1 *1	Tachyon_LINKUP processing: Frame Manager Received AL_PA Register acquisition failed
		5Cx9 *1	Tachyon_LINKUP processing: Frame Manager Received AL_PA Register ACQ_ALPA value is outside the expected value
		5Dx1 *1	Tachyon_LINKUP processing: My ID Register setting failed
		5Ex1 *1	Tachyon_LINKUP processing: Frame Manager Status Register(INT STS CLR) setting failed
		5Fx1 *1	Tachyon_LINKUP processing: Frame Manager Link Status 1 Register(LINK STS CLR) acquisition failed
		60x9 *1	Tachyon_LINKUP processing: Link Status is not cleared
		61x1 *1	Tachyon_LINKUP processing: Frame Manager Link Status 1 Register(LINK STS CLR CHECK) acquisition failed
		62x9 *1	Tachyon_LINKUP processing: Link Status is not cleared
		68x9 *1	Tachyon_LINKUP processing: Other than Completion_Message was returned
		69x9 *1	Tachyon_LINKUP processing: Other than Completion_Message was returned

*1 : x: Port Number

DIAG06-770

LSI type	Test ID	Error Code	Error Contents
Tachyon	1960		
		73x7 *1	Beginning processing: Protocol initial setting result error
		74x4 *1	Beginning processing: Protocol initial setting CHK4 check error detected
		74x7 *1	Beginning processing: Protocol initial setting result is INIT_STATUS error
		79x4 *1	Beginning/End processing: Port initial setting CHK4 check error detected
		7Ax1 *1	End processing (optical port closed): Frame Manager Configuration 5 Register setting failed
		7Bx1 *1	End processing (optical port closed): Frame Manager Configuration 5 Register dummy read failed
		83x7 *1	End processing: Protocol blockade result error
		84x4 *1	End processing: Protocol blockade CHK4 check error detected
		84x7 *1	End processing: Protocol blockade result is STATUS error
		87x7 *1	End processing: Protocol installation information acquisition result error
		88x4 *1	End processing: Protocol installation information acquisition CHK4 check error detected
		88x7 *1	End processing: Protocol initial setting result is INIT_STATUS error
		B5x1 *1	Beginning processing: S_ID entry Write error in MP search setting
		B6x1 *1	Beginning processing: S_ID entry register enable set error in MP search setting
		B7x2 *1	Beginning processing: MP search table Write error in MP search setting

*1 : x: Port Number

DIAG06-780

LSI type	Test ID	Error Code	Error Contents
Tachyon	1960		
		C8x1 *1	Beginning processing: MP search data Read error in register save
		C9x1 *1	Beginning processing: MP search register Read error in register save
		CAX1 *1	End processing: MP search data Write error in register recovery
		CBx1 *1	End processing: MP search register Write error in register recovery
		CCx1 *1	Beginning processing: S_ID entry register table Read error in register save
		CDx1 *1	End processing: S_ID entry register table Write error in register recovery
	1961		Tachyon transfer: LM → LM
		02xD *1	Data transfer comparison error
		13xD *1	Data comparison error
		14x4 *1	Last CHK4 check error detected
		19xD *1	Data comparison error
		41x1 *1	Dummy read after updating IMP_C-Index failed
		45xD *1	Data comparison error
		63x1 *1	Virtual IMQ_C-Index acquisition failed
		64x2 *1	Data transfer to SEST from TRE[SEST] failed
		65x2 *1	Data transfer to sfs from FCHS failed
		66x2 *1	Data transfer to SEST from IRE[SEST] failed
		67x1 *1	Data transfer to ERQ from IRB[ERQ] failed
		69xE *1	Virtual IMQ_P-Index is not updated and time-out error
		6Ax9 *1	The content of the first IMQ failed because it is outside the expected value
		6Bx1 *1	The setting (+1) of IMQ_C-Index failed
		6CxE *1	Virtual IMQ_P-Index (2) is not updated and time-out error
		6Dx9 *1	The content of the second IMQ failed because it is outside the expected value
		6Ex1 *1	The setting (+1) (2) of IMQ_C-Index failed
		70x4 *1	CHK4 check error detected
		CEx1 *1	Burst transfer access error from LM to XR
		CEx2 *1	Burst transfer error from LM to XR
		CEx9 *1	Burst transfer check data error from LM to XR
		CExE *1	Burst transfer time-out error from LM to XR
		CExF *1	Burst transfer parameter error from LM to XR

*1 : x: Port Number

DIAG06-790

LSI type	Test ID	Error Code	Error Contents
Tachyon	1963		Tachyon transfer: T10-DIF
		02xD *1	Transfer data comparison error
		13xD *1	Data comparison error
		19x4 *1	Last CHK4 check error detected
		19xD *1	Data comparison error
		1Ax1 *1	T10mode2 UDT4-5 Read error
		1Bx1 *1	T10mode2 UDT0-3 Read error
		1Ex1 *1	T10mode3 UDT4-5 Read error
		1Fx1 *1	T10mode3 UDT0-3 Read error
		41x1 *1	Dummy read after updating IMQ_C-Index failed
		45xD *1	Data comparison error
		63x1 *1	Virtual IMQ_C-Index acquisition failed
		64x2 *1	Data transfer to SEST from TRE[SEST] failed
		65x2 *1	Data transfer to sfs from FCHS failed
		66x2 *1	Data transfer to SEST from IRE[SEST] failed
		67x1 *1	Data transfer to ERQ from IRB[ERQ] failed
		69xE *1	Virtual IMQ_P-Index is not updated and time-out error
		6Ax9 *1	The content of the first IMQ failed because it is outside the expected value
		6Bx1 *1	The setting (+1) of IMQ_C-Index failed
		6Cx9 *1	Virtual IMQ_P-Index (2) is not updated and time-out error
		6Dx9 *1	The content of the second IMQ failed because it is outside the expected value
		6Ex1 *1	The setting (+1) (2) of IMQ_C-Index failed
		70x4 *1	CHK4 check error detected
		CEx1 *1	Burst transfer access error from LM to XR
		CEx2 *1	Burst transfer error from LM to XR
		CEx9 *1	Burst transfer check data error from LM to XR
		CExE *1	Burst transfer time-out error from LM to XR
		CExF *1	Burst transfer parameter error from LM to XR

*1 : x: Port Number

DIAG06-800

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1560		iSCSI10G diagnosis starts/Flash contents exchange
		00x2 *1	PCI Config setting error (iSCSI10G diagnosis starts)
		00x3 *1	PCI Config setting error (iSCSI10G diagnosis starts)
		00x4 *1	PCI Config setting error (iSCSI10G diagnosis starts)
		00x5 *1	PCI Config setting error (iSCSI10G diagnosis starts)
		00x6 *1	PCI Config setting error (iSCSI10G diagnosis starts)
		01xC *1	Internal processing contradiction (1) (iSCSI10G diagnosis starts)
		01xF *1	Illegal Parameter Error occurred
		02xC *1	Internal processing contradiction (2) (iSCSI10G diagnosis starts)
		11x8 *1	Flash data SUM check Error
		14x4 *1	CHK4 Error occurred (iSCSI10G diagnosis starts)
		15x4 *1	CHK4 Error occurred
		16x4 *1	CHK4 Error occurred
		25x1 *1	PCI Reset Error end
		25x4 *1	CHK4 Error occurred
		25x7 *1	LRP Mailbox Error
		25xC *1	Internal processing contradiction
		25xE *1	PCI Reset Time Out Error occurred
		26x4 *1	CHK4 Error occurred (iSCSI10G diagnosis starts)
		26xC *1	Internal processing contradiction (3) (iSCSI10G diagnosis starts)
		2Ax1 *1	Register Access Error
		2Ax4 *1	CHK4 Error occurred
		2AxE *1	Time Out Error occurred
		2AxF *1	Illegal Parameter Error occurred
		2Cx4 *1	CHK4 Error occurred (iSCSI10G diagnosis starts)
		37x1 *1	Register Access Error
		40x1 *1	Address register dummy read error (at the end) (iSCSI10G diagnosis starts)
		41x1 *1	Address register '0' Write error (at the head) (iSCSI10G diagnosis starts)
		42x1 *1	Address register dummy read error (at the head) (iSCSI10G diagnosis starts)
		43x1 *1	Data register Write error (iSCSI10G diagnosis starts)
		44x1 *1	Data register Read error (iSCSI10G diagnosis starts)
		45xD *1	Comparison error (iSCSI10G diagnosis starts)

*1 : x: Port Number

DIAG06-810

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1560		iSCSI10G diagnosis starts/Flash contents exchange
		46x1 *1	Address register '0' Write error (at the end) (iSCSI10G diagnosis starts)
		47x1 *1	Register Access Error
		49x1 *1	Register Access Error
		4Ax1 *1	Register Access Error
		4Bx1 *1	Register Access Error
		4Cx1 *1	Register Access Error
		4CxF *1	Illegal Parameter Error occurred
		4Dx1 *1	Register Access Error
		4Ex1 *1	Register Access Error
		4Fx1 *1	Register Access Error
		4Fx4 *1	CHK4 Error occurred
		50x1 *1	Register Access Error
		51x1 *1	Register Access Error
		52x1 *1	Register Access Error
		53x1 *1	Register Access Error
		54x1 *1	Register Access Error
		54x4 *1	CHK4 Error occurred
		54xE *1	Time Out Error occurred
		54xF *1	Illegal Parameter Error occurred
		55x1 *1	Register Access Error
		56x9 *1	Semaphore Lock Failure
		57x9 *1	Register Write Error
		57xD *1	Flash protection value Error
		58x9 *1	Erase expected value Error
		5Ax9 *1	Illegal Version value Error
		5Bx9 *1	Version disagreement
		5Ex1 *1	Register Access Error
		5Ex2 *1	Burst Transfer Error
		5Fx1 *1	Register Access Error

*1 : x: Port Number

DIAG06-820

LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1560		iSCSI10G diagnosis starts/Flash contents exchange
		60x1 *1	Register Access Error
		60x4 *1	CHK4 Error occurred
		60xE *1	Time Out Error occurred
		61x9 *1	Erase expected value Error
		62x1 *1	Register Access Error
		62x4 *1	CHK4 Error occurred
		62x8 *1	Check SUM Error
		62xD *1	Contents comparison Error
		63x9 *1	Signature value checks Error
		64x1 *1	Register Access Error
		65x1 *1	Register Access Error
		66x1 *1	Register Access Error
		66x9 *1	Read Flag Status Register is value Error
		67x1 *1	Register Access Error
		68x1 *1	Register Access Error
		68x4 *1	CHK4 Error occurred
		68xE *1	Time Out Error occurred
		68xF *1	Illegal Parameter Error occurred
		69x1 *1	Register Access Error
		69x9 *1	RISC to Host Interrupt Request is value Error
		6Ax1 *1	Register Access Error
		6Ax9 *1	RISC Paused
		6Bx1 *1	Register Access Error
		6Bx9 *1	Asynchronous event of an Error notification
		6BxE *1	Read count over
		6Cx1 *1	Register Access Error
		6Cx9 *1	Completion checks Error
		6Dx1 *1	Register Access Error
		6Ex1 *1	Register Access Error

*1 : x: Port Number

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LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1560		iSCSI10G diagnosis starts/Flash contents exchange
		76x7 *1	Command completion code Error
		77x1 *1	Register Access Error
		77x4 *1	CHK4 Error occurred
		77x7 *1	Command completion code Error
		77x8 *1	Check SUM Error
		77x9 *1	Contents Size Error
		78x7 *1	Command completion code Error
		78x9 *1	MAC Address Value Error
		7Ax1 *1	Register Access Error
		7Ax9 *1	MAC Address Value Error
		7Bx1 *1	Register Access Error
		7Dx1 *1	Register Access Error
	1561		Warm Boot test
		01xC *1	Internal processing contradiction
		01xF *1	Parameter error (1)
		15x4 *1	CHK4 check error detected (1)
		1Cx1 *1	Dummy read error (1)
		1Cx4 *1	CHK4 check error detected (2)
		1Dx1 *1	Soft Reset register Write error
		1Ex1 *1	GPIO Data Register Write error
		1Fx1 *1	GPIO Enable Register Write error
		20x1 *1	Dummy read error (2)
		21x1 *1	Register Write error

*1 : x: Port Number

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LSI type	Test ID	Error Code	Error Contents
Hilda (iSCSI)	1561		Warm Boot test
		22x1 *1	Register access error
		22x4 *1	CHK4 check error detected (3)
		22xE *1	Polling time-out error
		22xF *1	Parameter error (2)
		27x2 *1	Burst transfer error
		27x4 *1	CHK4 check error detected (4)
		2Dx1 *1	Register save error
	1562		No operation test / Mailbox Register test / About Firmware test
		01xC *1	Internal processing contradiction
		15x4 *1	CHK4 check error detected
		22xE *1	Polling time-out error
		27x7 *1	MailBox status error
		45xD *1	Comparison error
		5Bx9 *1	Ver. mismatch
	1563		Firmware initial setting / Stop Firmware test
		01xC *1	Internal processing contradiction
		15x4 *1	CHK4 check error detected
		22xE *1	Polling time-out error
		27x7 *1	MailBox status error
		45xD *1	Comparison error
	1564		Internal Loopback test
		01xC *1	Internal processing contradiction
		15x4 *1	CHK4 check error detected
		22xE *1	Polling time-out error
		27x7 *1	MailBox status error
		28x7 *1	No IOCB response
		29x7 *1	IOCB status error
		45xD *1	Comparison error
	1565		Peripheral memory test
		01xC *1	Internal processing contradiction
		15x4 *1	CHK4 check error detected
		22xE *1	Polling time-out error
		27x7 *1	MailBox status error
		45xD *1	Comparison error

*1 : x: Port Number

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LSI type	Test ID	Error Code	Error Contents
SW/SCM	3001		HW-strap setting check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3002		DeviceError check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3003		VID/DID check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3004		vSW setting check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3005		EEPROM access check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3006		Upstream-Port check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3007		SW initial setting value check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred

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LSI type	Test ID	Error Code	Error Contents
SW/SCM	3008		SW register read access check (configuration space)
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3009		SW register read access check (MMIO space)
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3010		SW register write access check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3011		SW PCIe path check
		0040	CHK1 error occurred
		0100	SW register expected value mismatch error occurred
		0200	SW register read error occurred
		0300	SW register write error occurred
	3020		e environment microcomputer diagnosis result check
		0040	CHK1 error occurred
		0100	e environment microcomputer diagnosis error was detected
	3021		eGCTL initial setting value check
		0040	CHK1 error occurred
		0100	eGCTL initial setting value and expected value mismatch error occurred
	3030		SW type check
		0040	CHK1 error occurred
		0100	SW type mismatch error occurred
	30F0	0000	Diagnosis parameter error (PK type)
	30F1	0000	Diagnosis parameter error (SW type)
	30F2	0000	Diagnosis phase error
GCTL	1277		Diagnosis of control signal (Emergency signal) between clusters
		1000	Expected value mismatch error of control signal (Emergency signal) between clusters has occurred
		E100	Synchronous data transmission error between clusters has occurred
		E200	Synchronous time-out between clusters has occurred

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LSI type	Test ID	Error Code	Error Contents
Baker (FC16G, FC32G)	1D01		FC32G diagnosis control
		0001	Internal processing contradiction
		0002	Illegal Parameter Error occurred
		0003	Illegal HARD ADPMODE Error occurred
	1D10		Submain (EP Configuration/Register Test/Soft Reset)
		0001	Internal processing contradiction
			EP Configuration
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
	1D12		Register Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
	1D13		Soft Reset
		0001	Internal processing contradiction
		0005	Time Out Error occurred
	1D20		Submain (ROM Firmware/Flash exchange)
		0001	Internal processing contradiction
			ROM Firmware Boot Test
		0001	Internal processing contradiction
		0005	Time Out Error occurred
	1D22		ROM Firmware Command Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D30		Submain (Memory Read-Write Test/POST Test)
		0001	Internal processing contradiction
			Memory Read-Write Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D32		POST Test
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D33		Soft Reset (After Post Test)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
	1D34		ROM Firmware Boot Test(After Post Test)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
	1D40		Submain (FC Firmware)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
	1D41		FC Firmware Boot Test
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
		0008	FC Firmware SUM check Error
		000B	FC Firmware Illegal Parameter Error occurred
	1D42		FC Firmware Command Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D43		FC Firmware Version Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
		000B	FC Firmware Illegal Parameter Error occurred

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D44		FC Firmware Parameter Setting
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D45		FC Firmware Initialize Setting
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D50		Submain (IOCB Test)
		0001	Internal processing contradiction
	1D51		IOCB Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
		000A	IOCB Error end
	1D52		DMA Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
		000A	IOCB Error end
	1D61		Flash exchange
		0001	Internal processing contradiction
	1D62		Flash Access Test
		0001	Internal processing contradiction

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D63		Flash contents SUM check
		010F	Illegal Parameter Error occurred
		1108	Flash data SUM check Error
		1504	CHK4 Error occurred
		1604	CHK4 Error occurred
		2504	CHK4 Error occurred
		2507	LRP Mailbox Error
		250C	Internal processing contradiction
		2A01	Register Access Error
		2A04	CHK4 Error occurred
		2A0E	Time Out Error occurred
		2A0F	Illegal Parameter Error occurred
		3701	Register Access Error
		4701	Register Access Error
		4901	Register Access Error
		4A01	Register Access Error
		4B01	Register Access Error
		4C01	Register Access Error
		4C0F	Illegal Parameter Error occurred
		4D01	Register Access Error
		4E01	Register Access Error
		4F01	Register Access Error
		4F04	CHK4 Error occurred
		5001	Register Access Error
		5101	Register Access Error
		5201	Register Access Error
		5301	Register Access Error
		5401	Register Access Error
		5404	CHK4 Error occurred
		540E	Time Out Error occurred
		540F	Illegal Parameter Error occurred
		5501	Register Access Error
		5609	Semaphore Lock Failure
		5709	Register Write Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D63		Flash contents SUM check
		570D	Flash protection value Error
		5809	Erase expected value Error
		5A09	Illegal Version value Error
		5B09	Version disagreement
		5E01	Register Access Error
		5E02	Burst Transfer Error
		5F01	Register Access Error
		6001	Register Access Error
		6004	CHK4 Error occurred
		600E	Time Out Error occurred
		6109	Erase expected value Error
		6201	Register Access Error
		6204	CHK4 Error occurred
		6208	Check SUM Error
		620D	Contents comparison Error
		6309	Signature value checks Error
		6401	Register Access Error
		6501	Register Access Error
		6601	Register Access Error
		6609	Read Flag Status Register is value Error
		6701	Register Access Error
		6801	Register Access Error
		6804	CHK4 Error occurred
		680E	Time Out Error occurred
		680F	Illegal Parameter Error occurred
		6901	Register Access Error
		6909	RISC to Host Interrupt Request is value Error
		6A01	Register Access Error
		6A09	RISC Paused
		6B01	Register Access Error
		6B09	Asynchronous event of an Error notification
		6B0E	Read count over
		6C01	Register Access Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D63		Flash contents SUM check
		6C09	Completion checks Error
		6D01	Register Access Error
		6E01	Register Access Error
		7607	Command completion code Error
		7701	Register Access Error
		7704	CHK4 Error occurred
		7707	Command completion code Error
		7708	Check SUM Error
		7709	Contents Size Error
		7807	Command completion code Error
		7809	MAC Address Value Error
		7A01	Register Access Error
		7A09	MAC Address Value Error
		7B01	Register Access Error
		7D01	Register Access Error
	1D64		Flash contents exchange
		010F	Illegal Parameter Error occurred
		1108	Flash data SUM check Error
		1504	CHK4 Error occurred
		1604	CHK4 Error occurred
		2504	CHK4 Error occurred
		2507	LRP Mailbox Error
		250C	Internal processing contradiction
		2A01	Register Access Error
		2A04	CHK4 Error occurred
		2A0E	Time Out Error occurred
		2A0F	Illegal Parameter Error occurred
		3701	Register Access Error
		4701	Register Access Error
		4901	Register Access Error
		4A01	Register Access Error
		4B01	Register Access Error
		4C01	Register Access Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D64		Flash contents exchange
		4C0F	Illegal Parameter Error occurred
		4D01	Register Access Error
		4E01	Register Access Error
		4F01	Register Access Error
		4F04	CHK4 Error occurred
		5001	Register Access Error
		5101	Register Access Error
		5201	Register Access Error
		5301	Register Access Error
		5401	Register Access Error
		5404	CHK4 Error occurred
		540E	Time Out Error occurred
		540F	Illegal Parameter Error occurred
		5501	Register Access Error
		5609	Semaphore Lock Failure
		5709	Register Write Error
		570D	Flash protection value Error
		5809	Erase expected value Error
		5A09	Illegal Version value Error
		5B09	Version disagreement
		5E01	Register Access Error
		5E02	Burst Transfer Error
		5F01	Register Access Error
		6001	Register Access Error
		6004	CHK4 Error occurred
		600E	Time Out Error occurred
		6109	Erase expected value Error
		6201	Register Access Error
		6204	CHK4 Error occurred
		6208	Check SUM Error
		6309	Signature value checks Error
		620D	Contents comparison Error
		6401	Register Access Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D64		Flash contents exchange
		6501	Register Access Error
		6601	Register Access Error
		6609	Read Flag Status Register is value Error
		6701	Register Access Error
		6801	Register Access Error
		6804	CHK4 Error occurred
		680E	Time Out Error occurred
		680F	Illegal Parameter Error occurred
		6901	Register Access Error
		6909	RISC to Host Interrupt Request is value Error
		6A01	Register Access Error
		6A09	RISC Paused
		6B01	Register Access Error
		6B09	Asynchronous event of an Error notification
		6B0E	Read count over
		6C01	Register Access Error
		6C09	Completion checks Error
		6D01	Register Access Error
		6E01	Register Access Error
		7607	Command completion code Error
		7701	Register Access Error
		7704	CHK4 Error occurred
		7707	Command completion code Error
		7708	Check SUM Error
		7709	Contents Size Error
		7807	Command completion code Error
		7809	MAC Address Value Error
		7A01	Register Access Error
		7A09	MAC Address Value Error
		7B01	Register Access Error
		7D01	Register Access Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D65		PCI Reset
		0005	Time Out Error occurred
		000C	PCI Reset Error end
	1D66		Flash default value check
		010F	Illegal Parameter Error occurred
		1108	Flash data SUM check Error
		1504	CHK4 Error occurred
		1604	CHK4 Error occurred
		2504	CHK4 Error occurred
		2507	LRP Mailbox Error
		250C	Internal processing contradiction
		2A01	Register Access Error
		2A04	CHK4 Error occurred
		2A0E	Time Out Error occurred
		2A0F	Illegal Parameter Error occurred
		3701	Register Access Error
		4701	Register Access Error
		4901	Register Access Error
		4A01	Register Access Error
		4B01	Register Access Error
		4C01	Register Access Error
		4C0F	Illegal Parameter Error occurred
		4D01	Register Access Error
		4E01	Register Access Error
		4F01	Register Access Error
		4F04	CHK4 Error occurred
		5001	Register Access Error
		5101	Register Access Error
		5201	Register Access Error
		5301	Register Access Error
		5401	Register Access Error
		5404	CHK4 Error occurred
		540E	Time Out Error occurred
		540F	Illegal Parameter Error occurred

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D66		Flash default value check
		5501	Register Access Error
		5609	Semaphore Lock Failure
		5709	Register Write Error
		570D	Flash protection value Error
		5809	Erase expected value Error
		5A09	Illegal Version value Error
		5B09	Version disagreement
		5E01	Register Access Error
		5E02	Burst Transfer Error
		5F01	Register Access Error
		6001	Register Access Error
		6004	CHK4 Error occurred
		600E	Time Out Error occurred
		6109	Erase expected value Error
		6201	Register Access Error
		6204	CHK4 Error occurred
		6208	Check SUM Error
		620D	Contents comparison Error
		6309	Signature value checks Error
		6401	Register Access Error
		6501	Register Access Error
		6601	Register Access Error
		6609	Read Flag Status Register is value Error
		6701	Register Access Error
		6801	Register Access Error
		6804	CHK4 Error occurred
		680E	Time Out Error occurred
		680F	Illegal Parameter Error occurred
		6901	Register Access Error
		6909	RISC to Host Interrupt Request is value Error
		6A09	RISC Paused
		6A01	Register Access Error
		6B01	Register Access Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D66		Flash default value check
		6B09	Asynchronous event of an Error notification
		6B0E	Read count over
		6C01	Register Access Error
		6C09	Completion checks Error
		6D01	Register Access Error
		6E01	Register Access Error
		7607	Command completion code Error
		7701	Register Access Error
		7704	CHK4 Error occurred
		7707	Command completion code Error
		7708	Check SUM Error
		7709	Contents Size Error
		7807	Command completion code Error
		7809	MAC Address Value Error
		7A01	Register Access Error
		7A09	MAC Address Value Error
		7B01	Register Access Error
		7D01	Register Access Error
	1D67		Flash SUM check
		010F	Illegal Parameter Error occurred
		1108	Flash data SUM check Error
		1504	CHK4 Error occurred
		1604	CHK4 Error occurred
		2504	CHK4 Error occurred
		2507	LRP Mailbox Error
		250C	Internal processing contradiction
		2A01	Register Access Error
		2A04	CHK4 Error occurred
		2A0E	Time Out Error occurred
		2A0F	Illegal Parameter Error occurred
		3701	Register Access Error
		4701	Register Access Error
		4901	Register Access Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D67		Flash SUM check
		4A01	Register Access Error
		4B01	Register Access Error
		4C01	Register Access Error
		4C0F	Illegal Parameter Error occurred
		4D01	Register Access Error
		4E01	Register Access Error
		4F01	Register Access Error
		4F04	CHK4 Error occurred
		5001	Register Access Error
		5101	Register Access Error
		5201	Register Access Error
		5301	Register Access Error
		5401	Register Access Error
		5404	CHK4 Error occurred
		540E	Time Out Error occurred
		540F	Illegal Parameter Error occurred
		5501	Register Access Error
		5609	Semaphore Lock Failure
		5709	Register Write Error
		570D	Flash protection value Error
		5809	Erase expected value Error
		5A09	Illegal Version value Error
		5B09	Version disagreement
		5E01	Register Access Error
		5E02	Burst Transfer Error
		5F01	Register Access Error
		6001	Register Access Error
		6004	CHK4 Error occurred
		600E	Time Out Error occurred
		6109	Erase expected value Error
		6201	Register Access Error
		6204	CHK4 Error occurred
		6208	Check SUM Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D67		Flash SUM check
		620D	Contents comparison Error
		6309	Signature value checks Error
		6401	Register Access Error
		6501	Register Access Error
		6601	Register Access Error
		6609	Read Flag Status Register is value Error
		6701	Register Access Error
		6801	Register Access Error
		6804	CHK4 Error occurred
		680E	Time Out Error occurred
		680F	Illegal Parameter Error occurred
		6901	Register Access Error
		6909	RISC to Host Interrupt Request is value Error
		6A01	Register Access Error
		6A09	RISC Paused
		6B01	Register Access Error
		6B09	Asynchronous event of an Error notification
		6B0E	Read count over
		6C01	Register Access Error
		6C09	Completion checks Error
		6D01	Register Access Error
		6E01	Register Access Error
		7607	Command completion code Error
		7701	Register Access Error
		7704	CHK4 Error occurred
		7707	Command completion code Error
		7708	Check SUM Error
		7709	Contents Size Error
		7807	Command completion code Error
		7809	MAC Address Value Error
		7A01	Register Access Error
		7A09	MAC Address Value Error
		7B01	Register Access Error
		7D01	Register Access Error

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D70		Submain (Loopback Test1)
	1D71	0001	Internal processing contradiction
			Data transfer Test
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D72		T10CRC Data transfer Test (32G Mode)
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D80		Submain (16G Mode Boot Test)
		0001	Internal processing contradiction
	1D81		Soft Reset (16G Mode Boot Test)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
	1D82		ROM Firmware Boot Test (16G Mode Boot Test)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
	1D83		FC Firmware Boot Test (16G Mode Boot Test)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
		0008	FC Firmware SUM check Error
		000B	FC Firmware Illegal Parameter Error occurred
	1D84		FC Firmware Command Test (16G Mode Boot Test)
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end

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LSI type	Test ID	Error Code	Error Contents
Baker (FC32G)	1D85		FC Firmware Parameter Setting (16G Mode Boot Test)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D86		FC Firmware Initialize Setting (16G Mode Boot Test)
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D90		Submain (Loopback Test2)
		0001	Internal processing contradiction
	1D91		T10CRC Data transfer Test (16G Mode)
		0001	Internal processing contradiction
		0004	Data Compare Error occurred
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end
	1D92		DIF Error Test
		0001	Internal processing contradiction
		0005	Time Out Error occurred
		0006	Mailbox Command Uncompleted
		0007	Mailbox Command Error end