IBM

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iSeries

iSeries 270, 800, 810, 820, 825, 830, 840, 870, 890, SB2, and SB3 Analyze Hardware Problems (System Reference Codes)

Version 5 Release 2

SY44-5915-01

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Note

Before using this information and the product it supports, be sure to read the information in "Safety and Environmental Notices" on page 3 and "Notices" on page 299.

First Edition (August 2002)

This edition applies only to reduced instruction set computer (RISC) systems.

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System Reference Codes

This topic uses a System reference code on the problem summary form to:

- Find a list of possible failing items.
- Point to additional isolation procedures (if available).

System reference codes (SRCs) can appear on the control panel, the product activity log (PAL), the Main Storage Dump Manager display, or on various displays within DST or SST.

1. Were you directed here from another procedure, including the Starting point for all problems?
   - **No**: Go to the Starting point for all problems.
   - **Yes**: Determine which SRC table to use.

     For SRCs appearing on the control panel, the first 4 characters represent the SRC type and the second 4 characters represent the URC. For SRCs appearing in the Product Activity Log or on other software displays, use characters 1 through 4 of word 1 for the SRC type and characters 5 through 8 of word 1 for the URC.

     The SRC table name is the same as the SRC type. For SRCs appearing on the control panel, the SRC type is the first 4 characters (see Figure 1 on page 2 for control panel layout). For SRCs appearing in the Product Activity Log or on other software displays, use characters 1 through 4 of word 1 for the SRC type. The reference code tables only support 8-character SRC formats. If the SRC provided is in a 4 character format, contact your next level of support for assistance.

     You will also need to know what the unit reference code (URC) is. For SRCs appearing on the control panel, the URC is the second 4 characters of the SRC (see Figure 1 on page 2 for control panel layout). For SRCs appearing in the Product Activity Log or on other software displays, use characters 5 through 8 of word 1 for the URC. The URCs are listed within the SRC tables, arranged in hexadecimal sequence with numeric characters listed before alphabetic characters. For example, URCs 0001 through 0009 are listed before URCs 000A through 000F.

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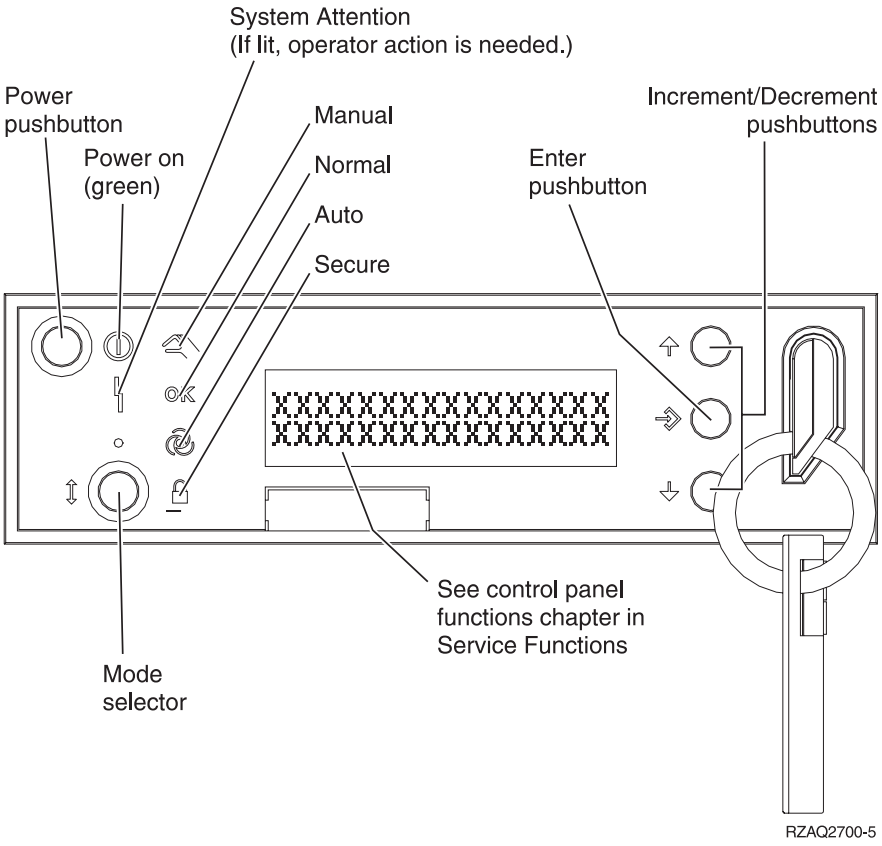

Figure 1. System Unit Control Panel layout

For additional information about using the Control Panel, see SRC address formats.

Continue with the next step for instructions on finding and using the SRC tables.

2. Links to all of the SRC tables can be found in the System reference code list. Once you find the correct SRC table, correct the problem by performing the action indicated for the URC in the **Description/Action** column of the table. If this does not correct the problem, exchange the failing items or parts listed in the **Failing Item** column in the order that they are listed.

   If no action is indicated in the SRC table, exchange the failing items or parts listed in the table.

   Notes:

   a. When exchanging the failing items, use the Remove and replace procedures.
   b. When instructed to perform problem isolation procedures, go to the Problem isolation procedures.
   c. Any additional information you need to complete the procedure, may be found in the Part locations and listings.

   The failing item listed first should be exchanged first. If exchanging the first failing item does not correct the problem, reinstall the original item and exchange the next failing item listed. Continue to exchange and reinstall the failing items, one at a time, until the problem is corrected. If exchanging the failing items does not correct the problem, ask your next level of support for assistance.

Now refer to the System reference code list and follow the instructions in the SRC table. The list contains all SRC tables for critical resources available at the time this edition was published. If you cannot find an SRC table, ask your next level of support for assistance.

This ends the procedure.

Refer to the System reference code list for more information.

Safety and Environmental Notices

Danger Notices

A danger notice calls attention to a situation that is potentially lethal or extremely hazardous to people.

Use the following danger notices throughout this book:

DANGER

To prevent a possible electrical shock during an electrical storm, do not connect or disconnect cables or station protectors for communications lines, display stations, printers, or telephones. (RSFTD003)

DANGER

To prevent a possible electrical shock from touching two surfaces with different electrical grounds, use one hand, when possible, to connect or disconnect signal cables. (RSFTD004)

DANGER

To prevent a possible electrical shock, do not use the port tester during electrical storms. (RSFTD006)

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock. (RSFTD201)

DANGER

To prevent a possible electrical shock when installing the system, ensure that the power cords for all devices are unplugged before installing signal cables. (RSFTD202)

DANGER

To prevent a possible electrical shock when adding or removing any devices to or from the system, ensure that the power cords for those devices are unplugged before the signal cables are connected or disconnected. If possible, disconnect all power cords from the existing system before you add or remove a device. (RSFTD203)

DANGER

To prevent power from switching on automatically during service procedures, select manual or secure mode on the system unit control panel or disconnect the cables that connect to J15 and J16 on the frame being serviced. (RSFTD211)

DANGER

Use caution when installing or modifying telephone lines. Disconnect the lines at the network interface before working with telephone wires that are not insulated. Never install telephone jacks that are not waterproof in wet locations. Do not install or modify telephone lines or use a telephone (other than a cordless type) during an electrical storm. Do not use a telephone to report a gas leak in the area of the leak. (RSFTD213)

Caution Notices

A caution notice calls attention to a situation that is potentially hazardous to people because of some existing condition.

CAUTION:
Be careful when removing or installing this part or unit. This part or unit is heavy, but has a weight smaller than 18 kilograms (39.7 pounds). (RSFTC201)

CAUTION:
The weight of this part or unit is between 18 and 32 kilograms (39.7 and 70.5 pounds). It takes two persons to safely lift this part or unit. (RSFTC204)

CAUTION:
The battery is a lead-acid battery. To avoid possible explosion, do not burn. Exchange only with the IBM-approved part. Recycle or discard the battery as instructed by local regulations.

In the United States, IBM has a process for the collection of this battery. For information, call 1-800-426-4333. Have the IBM part number for the battery unit available when you call. (RSFTC225)

CAUTION:
The battery is a lithium battery. To avoid possible explosion, do not burn or charge the battery. Exchange only with the IBM-approved part. Discard the battery as instructed by local regulations. (RSFTC227)

CAUTION:
The circuit card contains lead solder. To avoid the release of lead (Pb) into the environment, do not burn. Discard the circuit card as instructed by local regulations. (RSFTC234)

CAUTION:
This assembly has a circuit card that contains lead solder. To avoid the release of lead (Pb) into the environment, do not burn. Discard the assembly as instructed by local regulations. (RSFTC235)

CAUTION:
The optical link card contains a laser. To avoid the release of toxic substances into the environment, do not burn. Discard the optical link as instructed by local regulations. (RSFTC236)

Attention Notices

An attention notice indicates the possibility of damage to a program, device, system, or data.

Laser Safety Information

CAUTION:
This product may contain a CD-ROM which is a class 1 laser product. (RSFTC240)

Product Recycling and Disposal

Components of the system, such as structural parts and circuit cards, can be recycled where recycling facilities exist. IBM does not currently collect and recycle used IBM products from customers in the United States other than those products that are involved in trade-in programs. Companies are available to disassemble, reutilize, recycle, or dispose of electronic products. Contact an IBM account representative for more information.

The system unit contains batteries and circuit boards with lead solder. Before you dispose of this unit, these batteries and circuit boards must be removed and discarded according to local regulations or recycled where facilities exist. This book contains specific information on each battery type where applicable.

Battery Return Program

In the United States, IBM has established a collection process for reuse, recycling, or proper disposal of used IBM batteries and battery packs. For information on proper disposal of the batteries in this unit, please contact IBM at 1-800-426-4333. Please have the IBM part number that is listed on the battery available when you make your call. For information on battery disposal outside the United States, contact your local waste disposal facility.

Environmental Design

The environmental efforts that have gone into the design of the system signify IBM's commitment to improve the quality of its products and processes. Some of these accomplishments include the elimination of the use of Class I ozone-depleting chemicals in the manufacturing process, reductions in manufacturing wastes, and increased product energy efficiency. For more information, contact an IBM account representative.

Print this topic

To view or download the PDF version, select System Reference Codes (about xxx KB or xxx pages).

Other information

You can also view or print any of the following PDFs:

- Manuals:

  Note to Writers: If you only have one PDF, use a sentence here instead of this nested list.

  – PDF 1 (link to your PDF file) (about xxx pages)

  – PDF 2 (link to your PDF file) (about xxx pages)

Saving PDF files

To save a PDF on your workstation for viewing or printing:

1. Right-click the PDF in your browser (right-click the link above).
2. Click **Save Target As...**
3. Navigate to the directory in which you would like to save the PDF.
4. Click **Save**.

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If you need Adobe Acrobat Reader to view or print these PDFs, you can download a copy from theAdobe Web site

(www.adobe.com/products/acrobat/readstep.html) .

(0000) Control Panel Reference Codes

The control panel detected a failure.

1. Look at the four rightmost characters of the Data display for word 1. These four characters are the unit reference code.
2. Find the unit reference code in the following tables, depending on the system model.

For details on the Failing Item column entries, see the Control Panel Failing Items Detail table, which follows the Reference Code tables below.

Choose from the appropriate model:

- Models 270, 800, 810, 820, 825
- Models 830, 840, 870, 890, SB2, and SB3

Table 1. (0000) Control Panel Reference Codes for system Models 270, 800, 810, 820, and 825

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1110 to 1113	Failure of CEC power supply not identified by SPCN. This reference code can be caused by something holding the system Power On Reset (POR) line active.	TWRCARD ANYBUS
1114	Failure of CEC power supply not identified by SPCN. This reference code can be caused by something holding the system Power On Reset (POR) line active.	TWRCARD CTLPNL ANYBUS
2222	Service processor failure caused machine check interrupt. Before exchanging the TWRCARD, remove the adapter cards from the TWRCARD and perform an IPL. If the IPL completes successfully, one of the adapter cards you removed is defective.	TWRCARD ANYBUS
3333	SPCN to CSP interface error. An attempt to communicate between the SPCN and the CSP processor failed.	TWRCARD
3334	CSP to VPD Collector interface error. An attempt to communicate between the CSP and the VPD Collector failed.	TWRCARD
4444	Power on request failure A power-on request was not completed successfully. A control panel-detected power-on failure occurred.	TWRCARD BACKPLN
5553	Incorrect key used or the key is not completely inserted The key inserted is not the correct key or is not completely inserted.	CTLPNL TWRCARD
AABB	Remote power-on failure An attempt was made to power on the system by a remote power-on operation with the keylock mode on the control panel set to Secure or Manual. To correct the problem, select Normal or Auto mode on the control panel and perform the remote power-on operation again, if necessary.	USER TWRCARD CTLPNL
AACC	Service processor power-on failure An attempt was made to power on the system from the service processor with Secure or Manual mode selected on the control panel. To correct the problem, select Normal or Auto mode on the control panel and perform the service processor power-on operation again, if necessary. **Note:** This reference code may occur if the service processor card was exchanged and Manual mode was selected. Select Normal mode on the control panel.	USER CTLPNL TWRCARD
AADD	Manual power-on failure An attempt was made to power on the system manually with Secure or Auto mode selected on the control panel. To correct the problem, select Manual or Normal mode on the control panel and manually power on the system again.	USER CTLPNL
AAEE	SPCN - control panel interface error. An attempt was made to power on the system from the SPCN with Secure or Manual mode selected on the control panel. To correct the problem, select Normal or Auto mode and attempt the remote power-on operation again. If this does not correct the problem, exchange the failing items.	USER CTLPNL TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
BBBB	Battery not working correctly A problem was detected with the battery supplying power to the time-of-day clock. The battery is either weak or is not connected securely. **Note:** This is not a critical failure. However, if there is a power failure, the time of day will be lost.	TOD TWRCARD

Table 2. (0000) Control Panel Reference Codes for system Models 830, 840, 870, 890, SB2, and SB3

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1110 to 1113	Failure of CEC power supply not identified by SPCN. This reference code can be caused by something holding the system Power On Reset (POR) line active.	TWRCARD ANYBUS
1114	Operators panel and service processor have been reset This reference code can be caused by something holding the system Power On Reset (POR) line active.	TWRCARD CTLPNL ANYBUS
2222	Service processor failure caused machine check interrupt. Before exchanging the TWRCARD, remove the adapter cards from the TWRCARD and perform an IPL. If the IPL completes successfully, one of the adapter cards you removed is defective.	TWRCARD ANYBUS
3333	SPCN to CSP interface error. An attempt to communicate between the SPCN and the CSP processor failed.	TWRCARD
3334	CSP to VPD Collector interface error. An attempt to communicate between the CSP and the VPD Collector failed.	CLKCARD TWRCARD BACKPLN
4444	Power on request failure A power-on request was not completed successfully. A control panel-detected power-on failure occurred.	TWRCARD BACKPLN
5553	Incorrect key used or the key is not completely inserted The key inserted is not the correct key or is not completely inserted.	CTLPNL TWRCARD
AABB	Remote power-on failure An attempt was made to power on the system by a remote power-on operation with the keylock mode on the control panel set to Secure or Manual. To correct the problem, select Normal or Auto mode on the control panel and perform the remote power-on operation again, if necessary.	USER TWRCARD CTLPNL
AACC	Service processor power-on failure An attempt was made to power on the system from the service processor with Secure or Manual mode selected on the control panel. To correct the problem, select Normal or Auto mode on the control panel and perform the service processor power-on operation again, if necessary. **Note:** This reference code may occur if the service processor card was exchanged and Manual mode was selected. Select Normal mode on the control panel.	USER CTLPNL TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
AADD	Manual power-on failure An attempt was made to power on the system manually with Secure or Auto mode selected on the control panel. To correct the problem, select Manual or Normal mode on the control panel and manually power on the system again.	USER CTLPNL
AAEE	SPCN - control panel interface error. An attempt was made to power on the system from the SPCN with Secure or Manual mode selected on the control panel. To correct the problem, select Normal or Auto mode and attempt the remote power-on operation again. If this does not correct the problem, exchange the failing items.	USER CTLPNL TWRCARD BACKPLN
BBBB	Battery not working correctly A problem was detected with the battery supplying power to the time-of-day clock. The battery is either weak or is not connected securely. **Note:** This is not a critical failure. However, if there is a power failure, the time of day will be lost.	TOD TWRCARD

Control Panel Failing Items Detail

Use these tables for details on the Failing Item column in the Reference Codes table(s) above.

Table 3. Control Panel Failing Items for system Models 270, 800, 810, 820, and 825

Failing Item	Description	Document Description
ANYBUS	IOP card bus error	Problem Analysis; Symbolic FRU Isolation
CLKCARD	Clock card	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control Panel	Problem Analysis; Symbolic FRU Isolation
TOD	Control Panel Battery	Problem Analysis; Symbolic FRU Isolation
TWRCARD	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
USER	Operator/User Error	Problem Analysis; Symbolic FRU Isolation

Table 4. Control Panel Failing Items for system Models 830, 840, 870, 890, SB2, and SB3

Failing Item	Description	Document Description
ANYBUS	IOP card bus error	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Back Plane Unit	Problem Analysis; Symbolic FRU Isolation
CLKCARD	Clock card	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control Panel	Problem Analysis; Symbolic FRU Isolation
TOD	Control Panel Battery	Problem Analysis; Symbolic FRU Isolation
TWRCARD	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
USER	Operator/User Error	Problem Analysis; Symbolic FRU Isolation

(1xxx) System Power Control Network (SPCN) Reference Codes

The system power control network (SPCN) detected a failure.

Note: The second and third characters of the SRC indicate the frame number of the failing unit.

1. Look at the four rightmost characters of the SRC for Function 11 or Function 5. These characters are the unit reference code.
2. Find the unit reference code in the following tables, depending on the system model.

   Note: xSeries Server (formerly Netfinity) frames will have only the frame number flashing on the failing unit's PCI (SPCN) card assembly which is visible after removing the cover.

Choose the model you are working on:

- Models 270 and 820
- Models 800, 810, and 825
- Models 830, 840, SB2, and SB3
- Models 870 and 890

(1xxx) SPCN Reference Codes for Models 270 and 820

For details on the Failing Item column entries, see the SPCN Failing Items Detail table.

Table 1. SPCN reference codes for Models 270 and 820:

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
00A0	SPCN BATs in process No action required. This reference code is logged for information only. If this reference code is present for more than 1 minute, exchange the failing items.	TWRCARD
00A1	Regulator 1 has been turned off by system No action required. This reference code is logged for information only.	
00A2	Regulator 2 has been turned off by system No action required. This reference code is logged for information only.	
00A3	Regulator 3 has been turned off by system No action required. This reference code is logged for information only.	
00A4	Regulator 4 has been turned off by system No action required. This reference code is logged for information only.	
00A5	Regulator 5 has been turned off by system No action required. This reference code is logged for information only.	
00A6	Regulator 6 has been turned off by system No action required. This reference code is logged for information only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
00A7	The system is running on the Battery Power Unit. No action required. This reference code is logged for information only.	
00A8	The Battery Power Unit is not fully charged. No action required. This reference code is logged for information only.	
00A9	Battery Power Unit test is in process. No action required. This reference code is logged for information only.	
00AA	Download in process No action required. This reference code is logged for information only.	
00AB	Rack UEPO switch is OFF. Informational reference code. The UEPO switch must be returned to the On position to power on the rack.	TWRCARD CTLPNL 6462417
00AC	Detected AC loss If system powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	ACMODUL
00BA	The system is running on the Battery Power Unit. No action required. This reference code is displayed for information only.	
00BC	Battery Power Unit test is in process. No action required. This reference code is displayed for information only.	
00CA	CPM power down is complete. No action required. This reference code is displayed for information only.	
00EF	Remote EPO switch is OFF	
0100	Install Disk Unit 1 Concurrent maintenance informational reference code.	
0101	Install Disk Unit 2 Concurrent maintenance informational reference code.	
0102	Install Disk Unit 3 Concurrent maintenance informational reference code.	
0103	Install Disk Unit 4 Concurrent maintenance informational reference code.	
0104	Install Disk Unit 5 Concurrent maintenance informational reference code.	
0105	Install Disk Unit 6 Concurrent maintenance informational reference code.	
0106	Install Disk Unit 7 Concurrent maintenance informational reference code.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0107	Install Disk Unit 8 Concurrent maintenance informational reference code.	
0108	Install Disk Unit K1 Concurrent maintenance informational reference code.	
0109	Install Disk Unit K2 Concurrent maintenance informational reference code.	
010A	Install Disk Unit K3 Concurrent maintenance informational reference code.	
010B	Install Disk Unit K4 Concurrent maintenance informational reference code.	
010C	Install Disk Unit K5 Concurrent maintenance informational reference code.	
010D	Install Disk Unit K6 Concurrent maintenance informational reference code.	
010E	Install Disk Unit K7 Concurrent maintenance informational reference code.	
010F	Install Disk Unit K8 Concurrent maintenance informational reference code.	
0110	Install Disk Unit K9 Concurrent maintenance informational reference code.	
0111	Install Disk Unit K10 Concurrent maintenance informational reference code.	
0112	Install Disk Unit K11 Concurrent maintenance informational reference code.	
0113	Install Disk Unit K12 Concurrent maintenance informational reference code.	
0114	Install Disk Unit K13 Concurrent maintenance informational reference code.	
0115	Install Disk Unit K14 Concurrent maintenance informational reference code.	
0116	Install device 1 Concurrent maintenance informational reference code.	
0117	Install device 2 Concurrent maintenance informational reference code.	
0118	Install Disk Unit 9 Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0119	Install Disk Unit 10 Concurrent maintenance informational reference code.	
011A	Install Disk Unit 11 Concurrent maintenance informational reference code.	
011B	Install Disk Unit 12 Concurrent maintenance informational reference code.	
011C	Install device 3 Concurrent maintenance informational reference code.	
011D	Install Disk Unit K15 Concurrent maintenance informational reference code.	
011E	Install Disk Unit K16 Concurrent maintenance informational reference code.	
011F	Install Device 4 Concurrent maintenance informational reference code.	
0120	Install Disk Unit K17 Concurrent maintenance informational reference code.	
0121	Install Disk Unit K18 Concurrent maintenance informational reference code.	
0122	Install Disk Unit K19 Concurrent maintenance informational reference code.	
0123	Install Disk Unit K20 Concurrent maintenance informational reference code.	
0124	Install Disk Unit K21 Concurrent maintenance informational reference code.	
0125	Install Disk Unit K22 Concurrent maintenance informational reference code.	
0126	Install Disk Unit K23 Concurrent maintenance informational reference code.	
0127	Install Disk Unit K24 Concurrent maintenance informational reference code.	
0128	Install Disk Unit K25 Concurrent maintenance informational reference code.	
0129	Install Disk Unit K26 Concurrent maintenance informational reference code.	
012A	Install Disk Unit K27 Concurrent maintenance informational reference code.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
012B	Install Disk Unit K28 Concurrent maintenance informational reference code.	
012C	Install Disk Unit K29 Concurrent maintenance informational reference code.	
012D	Install Disk Unit K30 Concurrent maintenance informational reference code.	
012E	Install Disk Unit K31 Concurrent maintenance informational reference code.	
012F	Install Disk Unit K32 Concurrent maintenance informational reference code.	
0200	Remove Disk Unit 1 Concurrent maintenance informational reference code.	
0201	Remove Disk Unit 2 Concurrent maintenance informational reference code.	
0202	Remove Disk Unit 3 Concurrent maintenance informational reference code.	
0203	Remove Disk Unit 4 Concurrent maintenance informational reference code.	
0204	Remove Disk Unit 5 Concurrent maintenance informational reference code.	
0205	Remove Disk Unit 6 Concurrent maintenance informational reference code.	
0206	Remove Disk Unit 7 Concurrent maintenance informational reference code.	
0207	Remove Disk Unit 8 Concurrent maintenance informational reference code.	
0208	Remove Disk Unit K1 Concurrent maintenance informational reference code.	
0209	Remove Disk Unit K2 Concurrent maintenance informational reference code.	
020A	Remove Disk Unit K3 Concurrent maintenance informational reference code.	
020B	Remove Disk Unit K4 Concurrent maintenance informational reference code.	
020C	Remove Disk Unit K5 Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
020D	Remove Disk Unit K6 Concurrent maintenance informational reference code.	
020E	Remove Disk Unit K7 Concurrent maintenance informational reference code.	
020F	Remove Disk Unit K8 Concurrent maintenance informational reference code.	
0210	Remove Disk Unit K9 Concurrent maintenance informational reference code.	
0211	Remove Disk Unit K10 Concurrent maintenance informational reference code.	
0212	Remove Disk Unit K11 Concurrent maintenance informational reference code.	
0213	Remove Disk unit K12 Concurrent maintenance informational reference code.	
0214	Remove Disk Unit K13 Concurrent maintenance informational reference code.	
0215	Remove Disk Unit K14 Concurrent maintenance informational reference code.	
0216	Remove device 1 Concurrent maintenance informational reference code.	
0217	Remove device 2 Concurrent maintenance informational reference code.	
0218	Remove Disk Unit 9 Concurrent maintenance informational reference code.	
0219	Remove Disk Unit 10 Concurrent maintenance informational reference code.	
021A	Remove Disk Unit 11 Concurrent maintenance informational reference code.	
021B	Remove Disk Unit 12 Concurrent maintenance informational reference code.	
021C	Remove device 3 Concurrent maintenance informational reference code.	
021D	Remove Disk Unit K15 Concurrent maintenance informational reference code.	
021E	Remove Disk Unit K16 Concurrent maintenance informational reference code.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
021F	Remove device 4 Concurrent maintenance informational reference code.	
0220	Remove Disk Unit K17 Concurrent maintenance informational reference code.	
0221	Remove Disk Unit K18 Concurrent maintenance informational reference code.	
0222	Remove Disk Unit K19 Concurrent maintenance informational reference code.	
0223	Remove Disk Unit K20 Concurrent maintenance informational reference code.	
0224	Remove Disk Unit K21 Concurrent maintenance informational reference code.	
0225	Remove Disk Unit K22 Concurrent maintenance informational reference code.	
0226	Remove Disk Unit K23 Concurrent maintenance informational reference code.	
0227	Remove Disk Unit K24 Concurrent maintenance informational reference code.	
0228	Remove Disk Unit K25 Concurrent maintenance informational reference code.	
0229	Remove Disk Unit K26 Concurrent maintenance informational reference code.	
022A	Remove Disk Unit K27 Concurrent maintenance informational reference code.	
022B	Remove Disk Unit K28 Concurrent maintenance informational reference code.	
022C	Remove Disk Unit K29 Concurrent maintenance informational reference code.	
022D	Remove Disk Unit K30 Concurrent maintenance informational reference code.	
022E	Remove Disk Unit K31 Concurrent maintenance informational reference code.	
022F	Remove Disk Unit K32 Concurrent maintenance informational reference code.	
0300	Disk Unit 1 regulator has been turned on Installation of disk unit 1 is complete, and the regulator is turned on.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0301	Disk Unit 2 regulator has been turned on Installation of disk unit 2 is complete, and the regulator is turned on.	
0302	Disk Unit 3 regulator has been turned on Installation of disk unit 3 is complete, and the regulator is turned on.	
0303	Disk Unit 4 regulator has been turned on Installation of disk unit 4 is complete, and the regulator is turned on.	
0304	Disk Unit 5 regulator has been turned on Installation of disk unit 5 is complete, and the regulator is turned on.	
0305	Disk Unit 6 regulator has been turned on Installation of disk unit 6 is complete, and the regulator is turned on.	
0306	Disk Unit 7 regulator has been turned on Installation of disk unit 7 is complete, and the regulator is turned on.	
0307	Disk Unit 8 regulator has been turned on Installation of disk unit 8 is complete, and the regulator is turned on.	
0308	Disk Unit K1 regulator has been turned on Installation of disk unit K1 is complete, and the regulator is turned on.	
0309	Disk Unit K2 regulator has been turned on Installation of disk unit K2 is complete, and the regulator is turned on.	
030A	Disk Unit K3 regulator has been turned on Installation of disk unit K3 is complete, and the regulator is turned on.	
030B	Disk Unit K4 regulator has been turned on Installation of disk unit K4 is complete, and the regulator is turned on.	
030C	Disk Unit K5 regulator has been turned on Installation of disk unit K5 is complete, and the regulator is turned on.	
030D	Disk Unit K6 regulator has been turned on Installation of disk unit K6 is complete, and the regulator is turned on.	
030E	Disk Unit K7 regulator has been turned on Installation of disk unit K7 is complete, and the regulator is turned on.	
030F	Disk Unit K8 regulator has been turned on Installation of disk unit K8 is complete, and the regulator is turned on.	
0310	Disk Unit K9 regulator has been turned on Installation of disk unit K9 is complete, and the regulator is turned on.	
0311	Disk Unit K10 regulator has been turned on Installation of disk unit K10 is complete, and the regulator is turned on.	
0312	Disk Unit K11 regulator has been turned on Installation of disk unit K11 is complete, and the regulator is turned on.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0313	Disk Unit K12 regulator has been turned on Installation of disk unit K12 is complete, and the regulator is turned on.	
0314	Disk Unit K13 regulator has been turned on Installation of disk unit K13 is complete, and the regulator is turned on.	
0315	Disk Unit K14 regulator has been turned on Installation of disk unit K14 is complete, and the regulator is turned on.	
0316	Device 1 regulator has been turned on Installation of device 1 is complete, and the regulator is turned on.	
0317	Device 2 regulator has been turned on Installation of device 2 is complete, and the regulator is turned on.	
0318	Disk Unit 9 regulator has been turned on Installation of disk unit 9 is complete, and the regulator is turned on.	
0319	Disk Unit 10 regulator has been turned on Installation of disk unit 10 is complete, and the regulator is turned on.	
031A	Disk Unit 11 regulator has been turned on Installation of disk unit 11 is complete, and the regulator is turned on.	
031B	Disk Unit 12 regulator has been turned on Installation of disk unit 12 is complete, and the regulator is turned on.	
031C	Device 3 regulator has been turned on Installation of device 3 is complete, and the regulator is turned on.	
031D	Disk Unit K15 regulator has been turned on Installation of disk unit K15 is complete, and the regulator is turned on.	
031E	Disk Unit K16 regulator has been turned on Installation of disk unit K16 is complete, and the regulator is turned on.	
031F	Device 4 regulator has been turned on Installation of device 4 is complete, and the regulator is turned on.	
0320	Disk Unit K17 regulator has been turned on Installation of disk unit K17 is complete, and the regulator is turned on.	
0321	Disk Unit K18 regulator has been turned on Installation of disk unit K18 is complete, and the regulator is turned on.	
0322	Disk Unit K19 regulator has been turned on Installation of disk unit K19 is complete, and the regulator is turned on.	
0323	Disk Unit K20 regulator has been turned on Installation of disk unit K20 is complete, and the regulator is turned on.	
0324	Disk Unit K21 regulator has been turned on Installation of disk unit K21 is complete, and the regulator is turned on.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0325	Disk Unit K22 regulator has been turned on Installation of disk unit K22 is complete, and the regulator is turned on.	
0326	Disk Unit K23 regulator has been turned on Installation of disk unit K23 is complete, and the regulator is turned on.	
0327	Disk Unit K24 regulator has been turned on Installation of disk unit K24 is complete, and the regulator is turned on.	
0328	Disk Unit K25 regulator has been turned on Installation of disk unit K25 is complete, and the regulator is turned on.	
0329	Disk Unit K26 regulator has been turned on Installation of disk unit K26 is complete, and the regulator is turned on.	
032A	Disk Unit K27 regulator has been turned on Installation of disk unit K27 is complete, and the regulator is turned on.	
032B	Disk Unit K28 regulator has been turned on Installation of disk unit K28 is complete, and the regulator is turned on.	
032C	Disk Unit K29 regulator has been turned on Installation of disk unit K29 is complete, and the regulator is turned on.	
032D	Disk Unit K30 regulator has been turned on Installation of disk unit K30 is complete, and the regulator is turned on.	
032E	Disk Unit K31 regulator has been turned on Installation of disk unit K31 is complete, and the regulator is turned on.	
032F	Disk Unit K32 regulator has been turned on Installation of disk unit K32 is complete, and the regulator is turned on.	
0400	Removal of Disk Unit 1 is complete	
0401	Removal of Disk Unit 2 is complete	
0402	Removal of Disk Unit 3 is complete	
0403	Removal of Disk Unit 4 is complete	
0404	Removal of Disk Unit 5 is complete	
0405	Removal of Disk Unit 6 is complete	
0406	Removal of Disk Unit 7 is complete	
0407	Removal of Disk Unit 8 is complete	
0408	Removal of Disk Unit K1 is complete	
0409	Removal of Disk Unit K2 is complete	
040A	Removal of Disk Unit K3 is complete	
040B	Removal of Disk Unit K4 is complete	
040C	Removal of Disk Unit K5 is complete	
040D	Removal of Disk Unit K6 is complete	
040E	Removal of Disk Unit K7 is complete	
040F	Removal of Disk Unit K8 is complete	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0410	Removal of Disk Unit K9 is complete	
0411	Removal of Disk Unit K10 is complete	
0412	Removal of Disk Unit K11 is complete	
0413	Removal of Disk Unit K12 is complete	
0414	Removal of Disk Unit K13 is complete	
0415	Removal of Disk Unit K14 is complete	
0416	Removal of device 1 is complete	
0417	Removal of device 2 is complete	
0418	Removal of Disk Unit 9 is complete	
0419	Removal of Disk Unit 10 is complete	
041A	Removal of Disk Unit 11 is complete	
041B	Removal of Disk Unit 12 is complete	
041C	Removal of device 3 is complete	
041D	Removal of Disk Unit K15 is complete	
041E	Removal of Disk Unit K16 is complete	
041F	Removal of device 4 is complete	
0500	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit 1, and the bus was released. You must reinitialize the operation to continue.	
0501	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit 2, and the bus was released. You must reinitialize the operation to continue.	
0502	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit 3, and the bus was released. You must reinitialize the operation to continue.	
0503	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 4, and the bus was released. You must reinitialize the operation to continue.	
0504	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 5, and the bus was released. You must reinitialize the operation to continue.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0505	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 6, and the bus was released. You must reinitialize the operation to continue.	
0506	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 7, and the bus was released. You must reinitialize the operation to continue.	
0507	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 8, and the bus was released. You must reinitialize the operation to continue.	
0508	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K1, and the bus was released. You must reinitialize the operation to continue.	
0509	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K2, and the bus was released. You must reinitialize the operation to continue.	
050A	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K3, and the bus was released. You must reinitialize the operation to continue.	
050B	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K4, and the bus was released. You must reinitialize the operation to continue.	
050C	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K5, and the bus was released. You must reinitialize the operation to continue.	
050D	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K6, and the bus was released. You must reinitialize the operation to continue.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
050E	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K7, and the bus was released. You must reinitialize the operation to continue.	
050F	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K8, and the bus was released. You must reinitialize the operation to continue.	
0510	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K9, and the bus was released. You must reinitialize the operation to continue.	
0511	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K10, and the bus was released. You must reinitialize the operation to continue.	
0512	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K11, and the bus was released. You must reinitialize the operation to continue.	
0513	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K12, and the bus was released. You must reinitialize the operation to continue.	
0514	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K13, and the bus was released. You must reinitialize the operation to continue.	
0515	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K14, and the bus was released. You must reinitialize the operation to continue.	
0516	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 1, and the bus was released. You must reinitialize the operation to continue.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0517	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 2, and the bus was released. You must reinitialize the operation to continue.	
0518	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 9, and the bus was released. You must reinitialize the operation to continue.	
0519	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 10, and the bus was released. You must reinitialize the operation to continue.	
051A	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 11, and the bus was released. You must reinitialize the operation to continue.	
051B	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 12, and the bus was released. You must reinitialize the operation to continue.	
051C	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 3, and the bus was released. You must reinitialize the operation to continue.	
051D	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K15, and the bus was released. You must reinitialize the operation to continue.	
051E	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K16, and the bus was released. You must reinitialize the operation to continue.	
051F	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 4, and the bus was released. You must reinitialize the operation to continue.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0700	Timeout, no action detected. Reinitialize the operation Disk unit 1 was powered off but not removed. Concurrent maintenance informational reference code.	
0701	Timeout, no action detected. Reinitialize the operation Disk unit 2 was powered off but not removed. Concurrent maintenance informational reference code.	
0702	Timeout, no action detected. Reinitialize the operation Disk unit 3 was powered off but not removed. Concurrent maintenance informational reference code. You must reinitialize the operation to continue.	
0703	Timeout, no action detected. Reinitialize the operation. Disk unit 4 was powered off but not removed. Concurrent maintenance informational reference code.	
0704	Timeout, no action detected. Reinitialize the operation. Disk unit 5 was powered off but not removed. Concurrent maintenance informational reference code.	
0705	Timeout, no action detected. Reinitialize the operation. Disk unit 6 was powered off but not removed. Concurrent maintenance informational reference code.	
0706	Timeout, no action detected. Reinitialize the operation. Disk unit 7 was powered off but not removed. Concurrent maintenance informational reference code.	
0707	Timeout, no action detected. Reinitialize the operation. Disk unit 8 was powered off but not removed. Concurrent maintenance informational reference code.	
0708	Timeout, no action detected. Reinitialize the operation Disk unit K1 was powered off but not removed. Concurrent maintenance informational reference code.	
0709	Timeout, no action detected. Reinitialize the operation Disk unit K2 was powered off but not removed. Concurrent maintenance informational reference code.	
070A	Timeout, no action detected. Reinitialize the operation Disk unit K3 was powered off but not removed. Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
070B	Timeout, no action detected. Reinitialize the operation Disk unit K4 was powered off but not removed. Concurrent maintenance informational reference code.	
070C	Timeout, no action detected. Reinitialize the operation Disk unit K5 was powered off but not removed. Concurrent maintenance informational reference code.	
070D	Timeout, no action detected. Reinitialize the operation Disk unit K6 was powered off but not removed. Concurrent maintenance informational reference code.	
070E	Timeout, no action detected. Reinitialize the operation Disk unit K7 was powered off but not removed. Concurrent maintenance informational reference code.	
070F	Timeout, no action detected. Reinitialize the operation Disk unit K8 was powered off but not removed. Concurrent maintenance informational reference code.	
0710	Timeout, no action detected. Reinitialize the operation Disk unit K9 was powered off but not removed. Concurrent maintenance informational reference code.	
0711	Timeout, no action detected. Reinitialize the operation Disk unit K10 was powered off but not removed. Concurrent maintenance informational reference code.	
0712	Timeout, no action detected. Reinitialize the operation Disk unit K11 was powered off but not removed. Concurrent maintenance informational reference code.	
0713	Timeout, no action detected. Reinitialize the operation Disk unit K12 was powered off but not removed. Concurrent maintenance informational reference code.	
0714	Timeout, no action detected. Reinitialize the operation Disk unit K13 was powered off but not removed. Concurrent maintenance informational reference code.	
0715	Timeout, no action detected. Reinitialize the operation Disk unit K14 was powered off but not removed. Concurrent maintenance informational reference code.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0716	Timeout, no action detected. Reinitialize the operation Device 1 was powered off but not removed. Concurrent maintenance informational reference code.	
0717	Timeout, no action detected. Reinitialize the operation Device 2 was powered off but not removed. Concurrent maintenance informational reference code.	
0718	Timeout, no action detected. Reinitialize the operation. Disk unit 9 was powered off but not removed. Concurrent maintenance informational reference code.	
0719	Timeout, no action detected. Reinitialize the operation. Disk unit 10 was powered off but not removed. Concurrent maintenance informational reference code.	
071A	Timeout, no action detected. Reinitialize the operation. Disk unit 11 was powered off but not removed. Concurrent maintenance informational reference code.	
071B	Timeout, no action detected. Reinitialize the operation. Disk unit 12 was powered off but not removed. Concurrent maintenance informational reference code.	
071C	Timeout, no action detected. Reinitialize the operation Device 3 was powered off but not removed. Concurrent maintenance informational reference code.	
071D	Timeout, no action detected. Reinitialize the operation Disk unit K15 was powered off but not removed. Concurrent maintenance informational reference code.	
071E	Timeout, no action detected. Reinitialize the operation Disk unit K16 was powered off but not removed. Concurrent maintenance informational reference code.	
071F	Timeout, no action detected. Reinitialize the operation Device 4 was powered off but not removed. Concurrent maintenance informational reference code.	
0800	Blower B01 powered off for concurrent maintenance	
0801	Blower B02 powered off for concurrent maintenance	
0802	Blower B03 powered off for concurrent maintenance	
0803	Blower B04 powered off for concurrent maintenance	
0900	Power Supply P01 powered off for concurrent maintenance	
0901	Power Supply P02 powered off for concurrent maintenance	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0902	Power Supply P03 powered off for concurrent maintenance	
0903	Power Supply P04 powered off for concurrent maintenance	
0904	Power Supply P05 powered off for concurrent maintenance	
0905	Power Supply P06 powered off for concurrent maintenance	
0F0F	AC Module Failure The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F12	Undefined box ID, EEPROM test failed The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F13	Undefined box ID, Code type mismatch The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F1F	Undefined box ID, LCD test failed The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F2C	Unknown box ID The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F2D	Unknown box ID, Code level mismatch. The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F2E	SPCN Network Fault The box ID is not defined. A network communications failure occurred.	TWRCARD BACKPLN 21F9429
102B	PCC Overcurrent The power control compartment is causing an over current condition in the FC 5032 Removable Storage Unit power system. The ac module and the SPCN port cable should be exchanged together.	TWRCARD 21F5680 21F5793 21F9362
1510	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1511	Power supply failure	PWRSPLY TWRCARD
1512	Power supply failure	PWRSPLY TWRCARD CBLALL
1513 to 1514	Power supply failure	PWRSPLY TWRCARD
1516	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD
1520	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1521	Power supply failure	PWRSPLY TWRCARD
1522	Power supply failure	PWRSPLY TWRCARD CBLALL
1523 to 1524	Power supply failure	PWRSPLY TWRCARD
1526	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD
1530	Power Supply P03 fault/AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1531	Power Supply P03 fault	PWRSPLY TWRCARD
1532	Power Supply P03 Communication fault	PWRSPLY TWRCARD CBLALL
1533	Power Supply P03 fault	PWRSPLY TWRCARD
1534	Power Supply P03 Fault	PWRSPLY TWRCARD
1611	Regulator Fault on Card Position M01	PWRREG TWRCARD
1612	Regulator Communication Fault on Card Position M01	PWRREG TWRCARD
1613, 1621	Regulator Fault on Card Position M01	PWRREG TWRCARD
1622	Regulator Communication Fault on Card Position M01	PWRREG TWRCARD
1623	Regulator Fault on Card Position M01	PWRREG TWRCARD
1810	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1820	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1830	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1840	Load fault on the -12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B01	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B02	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1B03	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B04	Load fault on the -12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B05	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B06 to 1B07	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B11	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B12	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B13	Load fault on the +3.3V bus	PWROC TWRCARD
1B14	Load fault on the -12V bus	PWROC TWRCARD
1B16 to 1B17	Load fault on the +2.5V bus	PWROC TWRCARD
2131	Power Supply P01 Fault A fault has been detected for Power Supply P01.	PWRSPLY SPNLCRD
2132	Power Supply P02 Fault A fault has been detected for Power Supply P02.	PWRSPLY SPNLCRD
2133	Power Supply P03 Fault A fault has been detected for Power Supply P03.	PWRSPLY SPNLCRD
2134	Power Supply P04 Fault A fault has been detected for Power Supply P04.	PWRSPLY SPNLCRD
2141	Power Supply P01 Fault A fault has been detected for Power Supply P01.	PWRSPLY SPNLCRD
2142	Power Supply P02 Fault A fault has been detected for Power Supply P02.	PWRSPLY SPNLCRD
2143	Power Supply P03 Fault A fault has been detected for Power Supply P03.	PWRSPLY SPNLCRD
2144	Power Supply P04 Fault A fault has been detected for Power Supply P04.	PWRSPLY SPNLCRD
2151	Power Supply P01 Fault A fault has been detected for Power Supply P01.	PWRSPLY SPNLCRD
2152	Power Supply P02 Fault A fault has been detected for Power Supply P02.	PWRSPLY SPNLCRD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2153	Power Supply P03 Fault A fault has been detected for Power Supply P03.	PWRSPLY SPNLCRD
2154	Power Supply P04 Fault A fault has been detected for Power Supply P04.	PWRSPLY SPNLCRD
2201	Power Supply P01 or P02 Overcurrent Fault A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2202	Power Supply P03 or P04 Overcurrent Fault A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2210	One of the CPM regulators has reported a fault	PWRSPLY SPNLCRD
2211	CPM Regulator 1 Fault	PWRSPLY SPNLCRD
2212	CPM Regulator 2 Fault	PWRSPLY SPNLCRD
2213	CPM Regulator 3 Fault	PWRSPLY SPNLCRD
2221	Power Good Fault A MFIOP power good fault occurred.	SPNLCRD PGDPART CBLALL
2222	Power Good Type M Fault A Memory power good fault occurred.	SPNLCRD PGDPART CBLALL
2223	Power Good Type P Fault A Processor power good fault occurred.	SPNLCRD PGDPART CBLALL
2224	Power Good Type I Fault A Internal expansion power good fault occurred.	SPNLCRD PGDPART CBLALL
2231	System Unit Interlock Failure	INTRLCK SPNLCRD CBLALL
2232	Secondary Frame Interlock Failure	INTRLCK SPNLCRD CBLALL
2240	Air Moving Device Panel Fault	AIRMOVR PWRSPLY
2241	Air Moving Device 1 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2242	Air Moving Device 2 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2244	Air Moving Device 4 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2245	Air Moving Device 5 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2246	Air Moving Device 6 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2260	Timeout on Panel for Request of VPD	CTLPNL
2301	Power Supply P01 or P02 Overcurrent error A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2302	Power Supply P03 or P04 Overcurrent error A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2311	Power Supply P01 error A fault detection failure occurred for Power Supply P01.	PWRSPLY SPNLCRD CBLALL
2312	Power Supply P02 error A fault detection failure occurred for Power Supply P02.	PWRSPLY SPNLCRD CBLALL
2313	Power Supply P03 error A fault detection failure occurred for Power Supply P03.	PWRSPLY SPNLCRD CBLALL
2314	Power Supply P04 error A fault detection failure occurred for Power Supply P04.	PWRSPLY SPNLCRD CBLALL
2321	Power Good Fault A MFIOP power good error was detected.	SPNLCRD CBLALL PGDPART
2322	Power Good Type M error A Memory power good error was detected.	SPNLCRD CBLALL PGDPART
2323	Power Good Type P error A Processor power good error was detected.	SPNLCRD CBLALL PGDPART
2324	Power Good Type I error A Internal expansion power good error was detected.	SPNLCRD CBLALL PGDPART
2330	Power Supply P01 not installed	PWRSPLY SPNLCRD
2331	Power Supply P01 ID is Invalid	PWRSPLY SPNLCRD
2332	Power Supply P02 ID is Invalid	PWRSPLY SPNLCRD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2333	Power Supply P03 ID is Invalid	PWRSPLY SPNLCRD
2334	Power Supply P04 ID is Invalid	PWRSPLY SPNLCRD
2400 to 2402	UPS Enable/Disable Failure	UPSUNIT SPNLCRD
2403	UPS CPM Failure	UPSUNIT SPNLCRD
2404	UPS Battery Failure	BATRY UPSUNIT
2405	UPS Unit Failure	UPSUNIT SPNLCRD
2406 to 2407	UPS Enable/Disable Failure	UPSUNIT SPNLCRD
2410 to 2411	UPS Test Failure	UPSUNIT SPNLCRD
2413	UPS Interface Failure	UPSUNIT SPNLCRD
2600	Power Good Fault	PGDPART TWRCARD PWRSPLY
2601 to 2604	Power Good Fault	PGDPART TWRCARD
2610	Processor/Memory Card not installed	PWRSPLY TWRCARD
2611	Processor Regulator fault	PWRREG TWRCARD
2612	Optical Converter 5V Fault The SPCN detected a fault on the SPCN card optical converter 5V.	CBLALL TWRCARD
2613	Configuration Requires 200V Input Configuration now requires 200V AC power.	CBLALL
300E	EPO Circuit Fault The ac module installed in the 9406 Expansion Unit (FC 504x) detected a fault in the UEPO signal. The signal was active and the incoming ac voltage was still present.	TWRCARD 21F9362 21F5680
302B	PCC Overcurrent The power control compartment is causing an over current condition in the 9406 Expansion Unit power system. Exchange the ac module and the SPCN port cable at the same time.	TWRCARD 21F5680 21F9631 21F9362
3100	I2C Bus Controller Communication fault	I2CBUS TWRCARD
3101	I2C Bus 1 Communication fault	I2CBUS TWRCARD
3102	I2C Bus 2 Communication fault	I2CBUS TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3103	I2C Bus 3 Communication fault	I2CBUS TWRCARD
3104	I2C Bus 4 Communication fault	I2CBUS TWRCARD
3105	I2C Bus 5 Communication fault	I2CBUS TWRCARD
3106	I2C Bus 6 Communication fault	I2CBUS TWRCARD
3110	I2C Bus DASD Backplane 1 Communication fault	I2CBUS TWRCARD
3111	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
3112	I2C Bus DASD Backplane 3 Communication fault	I2CBUS TWRCARD
3113	I2C Bus Adapter Communication fault	I2CBUS TWRCARD
3114	I2C Bus PCI Backplane Communication fault	I2CBUS TWRCARD
3115	I2C Bus Panel Communication fault	I2CBUS TWRCARD
3116	I2C Bus Fan Local Controller Communication fault	I2CBUS TWRCARD
3117	I2C Bus Fan Remote Controller Communication fault	I2CBUS TWRCARD
3118	I2C Bus SPCN VPD Communication fault	I2CBUS TWRCARD
311C	I2C Bus Panel Communication fault	I2CBUS TWRCARD
311D	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
311E	I2C Bus DASD Backplane 3 Communication fault	I2CBUS TWRCARD
4410	Internal Battery Power Unit Fault Internal Battery Power Unit in the system has failed.	BATRY BATCHGR TWRCARD CBLALL
4411	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4412	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR BATRY TWRCARD CBLALL
4413	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4414	Battery Charger Load fault	PWROC BATRY TWRCARD CBLALL

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4415	Battery Power Unit missing	BATRY TWRCARD CBLALL
4416	Internal Battery Power Unit Charger Fault	BATCHGR TWRCARD CBLALL
4417	Battery Charger Unit missing	BATCHGR TWRCARD CBLALL
4500 to 4502	UPS Enable/Disable Failure	UPSUNIT TWRCARD
4503	UPS CPM Failure	UPSUNIT TWRCARD
4504	UPS Battery Failure	BATRY UPSUNIT
4505	UPS Unit Failure	UPSUNIT TWRCARD
4507	UPS Enable/Disable Failure	UPSUNIT TWRCARD
4510	UPS Test Failure	UPSUNIT TWRCARD
4513	UPS Interface Failure	UPSUNIT TWRCARD
6018	One of the regulators has reported a fault A regulator fault was detected.	PWRREG BKSPCN
601A	One of the CPM regulators has reported a fault A CPM regulator fault was detected.	PWRREG BKSPCN FI00030
6118	Regulator over current fault One of the regulators detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG BKSPCN
6218	Regulator over current fault Regulator 1 detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG BKSPCN
6238	Regulator over current fault Regulator 2 detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG BKSPCN
6258	Regulator over current fault Regulator 3 detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG ACMODUL
6318	Regulator Fault Regulator 1 has reported a fault.	PWRREG BKSPCN
631A	Regulator Fault Regulator 1 has reported a fault.	PWRREG ACMODUL FI00030

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6338	Regulator Fault Regulator 2 reported a fault.	PWRREG BKSPCN
633A	Regulator Fault Regulator 2 reported a fault.	PWRREG ACMODUL FI00030
6358	Regulator Fault A regulator 3 reported a fault.	PWRREG ACMODUL
6400 to 6401	Power Good Fault	PGDPART FI00065 BKSPCN
6518	One of the regulators has reported a fault An over current sensor failure occurred for a regulator. The ac module or one of the regulators can cause this fault.	PWRREG BKSPCN
6618	Regulator over current fault Regulator 1 reported a false over current condition. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
6638	Regulator over current fault Regulator 2 reported a false over current condition. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
6658	Regulator over current fault Regulator 3 reported a false over current condition. Fault tolerance may allow continued system operation.	PWRREG ACMODUL
6718	Regulator fault Regulator 1 reported a fault. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
671A	Regulator fault	PWRREG BKSPCN FI00030
6738	Regulator fault Regulator 2 reported a fault. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
673A	Regulator fault Regulator 18 reported a fault. Fault tolerance may allow continued system operation.	PWRREG BKSPCN FI00030
6758	Regulator fault Regulator 3 reported a fault. Fault tolerance may allow continued system operation.	PWRREG ACMODUL

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6818	One of the regulators has reported a fault A fault detection failure occurred for a regulator. The regulator or the ac module/SPCN card can cause this fault.	PWRREG BKSPCN
6918	One of the regulators has reported a fault An over current fault detection failure occurred for a regulator. The regulator or the ac module/SPCN card can cause this fault.	PWRREG BKSPCN
6A18	Regulator Fault A regulator fault detection failure occurred for regulator 1. The ac module or the regulator can cause this fault.	PWRREG BKSPCN BACKPLN
6A38	Regulator Fault A regulator fault detection failure occurred for regulator 2. The regulator or the ac module/SPCN card can cause this fault.	PWRREG BKSPCN BACKPLN
6A58	Regulator Fault A regulator fault detection failure occurred for regulator 3. The regulator or the ac module/SPCN card can cause this fault.	PWRREG ACMODUL BACKPLN
6B00	Disk Unit 1 regulator fault The regulator that powers disk unit 1 reported a fault.	DISKTRY DISKDRV BKSPCN
6B01	Disk Unit 2 regulator fault The regulator that powers disk unit 2 reported a fault.	DISKTRY DISKDRV BKSPCN
6B02	Disk Unit 3 regulator fault The regulator that powers disk unit 3 reported a fault.	DISKTRY DISKDRV BKSPCN
6B03	Disk Unit 4 regulator fault The regulator that powers disk unit 4 reported a fault.	DISKTRY DISKDRV BKSPCN
6B04	Disk Unit 5 regulator fault The regulator that powers disk unit 5 reported a fault.	DISKTRY DISKDRV BKSPCN
6B05	Disk Unit 6 regulator fault The regulator that powers disk unit 6 reported a fault.	DISKTRY DISKDRV BKSPCN
6B06	Disk Unit 7 regulator fault The regulator that powers disk unit 7 reported a fault.	DISKTRY DISKDRV BKSPCN
6B07	Disk Unit 8 regulator fault The regulator that powers disk unit 8 reported a fault.	DISKTRY DISKDRV BKSPCN
6B08	Disk Unit K1 regulator fault The regulator that powers disk unit K1, located in slot K1 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B09	Disk Unit K2 regulator fault The regulator that powers disk unit K2, located in slot K2 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6B0A	Disk Unit K3 regulator fault The regulator that powers disk unit K3, located in slot K3 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0B	Disk Unit K4 regulator fault The regulator that powers disk unit K4, located in slot K4 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0C	Disk Unit K5 regulator fault The regulator that powers disk unit K5, located in slot 5 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0D	Disk Unit K6 regulator fault The regulator that powers disk unit K6, located in slot K6 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0E	Disk Unit K7 regulator fault The regulator that powers disk unit K7, located in slot K7 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0F	Disk Unit K8 regulator fault The regulator that powers disk unit K8, located in slot K8 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B10	Disk Unit K9 regulator fault The regulator that powers disk unit K9, located in slot K9 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B11	Disk Unit K10 regulator fault The regulator that powers disk unit K10, located in slot K10 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B12	Disk Unit K11 regulator fault The regulator that powers disk unit K11, located in slot K11 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B13	Disk Unit K12 regulator fault The regulator that powers disk unit K12, located in slot K12 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B14	Disk Unit K13 regulator fault The regulator that powers disk unit K13, located in slot K13 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B15	Disk Unit K14 regulator fault The regulator that powers disk unit K14, located in slot K14 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B16	Device 1 regulator fault The regulator for device 1 or D01 reported a fault.	RMDEV BKSPCN
6B17	Device 2 regulator fault The regulator for device 2 or D02 reported a fault.	RMDEV BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6B18	Disk Unit 9 regulator fault The regulator that powers disk unit 9 reported a fault.	DISKTRY DISKDRV BKSPCN
6B19	Disk Unit 10 regulator fault The regulator that powers disk unit 10 reported a fault.	DISKTRY DISKDRV BKSPCN
6B1A	Disk Unit 11 regulator fault The regulator that powers disk unit 11 reported a fault.	DISKTRY DISKDRV BKSPCN
6B1B	Disk Unit 12 regulator fault The regulator that powers disk unit 12 reported a fault.	DISKTRY DISKDRV BKSPCN
6B1C	Device 3 regulator fault The regulator for device 3 reported a fault.	RMDEV BKSPCN
6B1D	Disk Unit K15 regulator fault The regulator that powers disk unit K15, located in slot K15 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B1E	Disk Unit K16 regulator fault The regulator that powers disk unit K16, located in slot K16 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B1F	Device 4 regulator fault The regulator for device 4 reported a fault.	RMDEV BKSPCN
6B20	Disk Unit K17 regulator fault The regulator that powers disk unit K17 reported a fault.	DISKTRY DISKDRV BKSPCN
6B21	Disk Unit K18 regulator fault The regulator that powers disk unit K18 reported a fault.	DISKTRY DISKDRV BKSPCN
6B22	Disk Unit K19 regulator fault The regulator that powers disk unit K19 reported a fault.	DISKTRY DISKDRV BKSPCN
6B23	Disk Unit K20 regulator fault The regulator that powers disk unit K20 reported a fault.	DISKTRY DISKDRV BKSPCN
6B24	Disk Unit K21 regulator fault The regulator that powers disk unit K21 reported a fault.	DISKTRY DISKDRV BKSPCN
6B25	Disk Unit K22 regulator fault The regulator that powers disk unit K22 reported a fault.	DISKTRY DISKDRV BKSPCN
6B26	Disk Unit K23 regulator fault The regulator that powers disk unit K23 reported a fault.	DISKTRY DISKDRV BKSPCN
6B27	Disk Unit K24 regulator fault The regulator that powers disk unit K24 reported a fault.	DISKTRY DISKDRV BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6B28	Disk Unit K25 regulator fault The regulator that powers disk unit K25 reported a fault.	DISKTRY DISKDRV BKSPCN
6B29	Disk Unit K26 regulator fault The regulator that powers disk unit K26 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2A	Disk Unit K27 regulator fault The regulator that powers disk unit K27 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2B	Disk Unit K28 regulator fault The regulator that powers disk unit K28 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2C	Disk Unit K29 regulator fault The regulator that powers disk unit K29 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2D	Disk Unit K30 regulator fault The regulator that powers disk unit K30 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2E	Disk Unit K31 regulator fault The regulator that powers disk unit K31 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2F	Disk Unit K32 regulator fault The regulator that powers disk unit K32 reported a fault.	DISKTRY DISKDRV BKSPCN
6C00	Disk Unit 1 regulator fault A fault detection failure occurred for the regulator that powers disk unit 1 or F01. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C01	Disk Unit 2 regulator fault A fault detection failure occurred for the regulator that powers disk unit 2 or F02. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C02	Disk Unit 3 regulator fault A fault detection failure occurred for the regulator that powers disk unit 3 or F03. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C03	Disk Unit 4 regulator fault A fault detection failure occurred for the regulator that powers disk unit 4 or F04. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C04	Disk Unit 5 regulator fault A fault detection failure occurred for the regulator that powers disk unit 5 or F05. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C05	Disk Unit 6 regulator fault A fault detection failure occurred for the regulator that powers disk unit 6 or F06. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C06	Disk Unit 7 regulator fault A fault detection failure occurred for the regulator that powers disk unit 7 or F07. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C07	Disk Unit 8 regulator fault A fault detection failure occurred for the regulator that powers disk unit 8 or F08. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C08	Disk Unit K1 regulator fault A fault detection failure occurred for the regulator that powers disk unit K1, located in slot 1 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C09	Disk Unit K2 regulator fault A fault detection failure occurred for the regulator that powers disk unit K2, located in slot 2 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0A	Disk Unit K3 regulator fault A fault detection failure occurred for the regulator that powers disk unit K3, located in slot 3 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0B	Disk Unit K4 regulator fault A fault detection failure occurred for the regulator that powers disk unit K4, located in slot 4 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0C	Disk Unit K5 regulator fault A fault detection failure occurred for the regulator that powers disk unit K5, located in slot 5 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0D	Disk Unit K6 regulator fault A fault detection failure occurred for the regulator that powers disk unit K6, located in slot 6 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0E	Disk Unit K7 regulator fault A fault detection failure occurred for the regulator that powers disk unit K7, located in slot 7 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0F	Disk Unit K8 regulator fault A fault detection failure occurred for the regulator that powers disk unit K8, located in slot 8 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C10	Disk Unit K9 regulator fault A fault detection failure occurred for the regulator that powers disk unit K9, located in slot 9 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C11	Disk Unit K10 regulator fault A fault detection failure occurred for the regulator that powers disk unit K10, located in slot 10 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C12	Disk Unit K11 regulator fault A fault detection failure occurred for the regulator that powers disk unit K11, located in slot 11 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C13	Disk Unit K12 regulator fault A fault detection failure occurred for the regulator that powers disk unit K12, located in slot 12 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C14	Disk Unit K13 regulator fault A fault detection failure occurred for the regulator that powers disk unit K13, located in slot 13 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C15	Disk Unit K14 regulator fault A fault detection failure occurred for the regulator that powers disk unit K14, located in slot 14 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C16	Device 1 regulator fault A fault detection failure occurred for the regulator that powers device 1 or D01. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C17	Device 2 regulator fault A fault detection failure occurred for the regulator that powers device 2 or D02. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C18	Disk Unit 9 regulator fault A fault detection failure occurred for the regulator that powers disk unit 9. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C19	Disk Unit 10 regulator fault A fault detection failure occurred for the regulator that powers disk unit 10. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1A	Disk Unit 11 regulator fault A fault detection failure occurred for the regulator that powers disk unit 11. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1B	Disk Unit 12 regulator fault A fault detection failure occurred for the regulator that powers disk unit 12. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1C	Device 3 regulator fault A fault detection failure occurred for the regulator that powers device 3. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C1D	Disk Unit K15 regulator fault A fault detection failure occurred for the regulator that powers disk unit K15, located in slot 15 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C1E	Disk Unit K16 regulator fault A fault detection failure occurred for the regulator that powers disk unit K16, located in slot 16 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1F	Device 4 regulator fault A fault detection failure occurred for the regulator that powers device 4. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C20	Disk Unit K17 regulator fault A fault detection failure occurred for the regulator that powers disk unit K17.	DISKTRY BKSPCN
6C21	Disk Unit K18 regulator fault A fault detection failure occurred for the regulator that powers disk unit K18.	DISKTRY BKSPCN
6C22	Disk Unit K19 regulator fault A fault detection failure occurred for the regulator that powers disk unit K19.	DISKTRY BKSPCN
6C23	Disk Unit K20 regulator fault A fault detection failure occurred for the regulator that powers disk unit K20.	DISKTRY BKSPCN
6C24	Disk Unit K21 regulator fault A fault detection failure occurred for the regulator that powers disk unit K21.	DISKTRY BKSPCN
6C25	Disk Unit K22 regulator fault A fault detection failure occurred for the regulator that powers disk unit K22.	DISKTRY BKSPCN
6C26	Disk Unit K23 regulator fault A fault detection failure occurred for the regulator that powers disk unit K23.	DISKTRY BKSPCN
6C27	Disk Unit K24 regulator fault A fault detection failure occurred for the regulator that powers disk unit K24.	DISKTRY BKSPCN
6C28	Disk Unit K25 regulator fault A fault detection failure occurred for the regulator that powers disk unit K25.	DISKTRY BKSPCN
6C29	Disk Unit K26 regulator fault A fault detection failure occurred for the regulator that powers disk unit K26.	DISKTRY BKSPCN
6C2A	Disk Unit K27 regulator fault A fault detection failure occurred for the regulator that powers disk unit K27.	DISKTRY BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C2B	Disk Unit K28 regulator fault A fault detection failure occurred for the regulator that powers disk unit K28.	DISKTRY BKSPCN
6C2C	Disk Unit K29 regulator fault A fault detection failure occurred for the regulator that powers disk unit K29.	DISKTRY BKSPCN
6C2D	Disk Unit K30 regulator fault A fault detection failure occurred for the regulator that powers disk unit K30.	DISKTRY BKSPCN
6C2E	Disk Unit K31 regulator fault A fault detection failure occurred for the regulator that powers disk unit K31.	DISKTRY BKSPCN
6C2F	Disk Unit K32 regulator fault A fault detection failure occurred for the regulator that powers disk unit K32.	DISKTRY BKSPCN
7000 to 7004	Air Moving Device Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR BKSPCN
7101	Power supply failure The ac power supply module reported a fault. One of the other power supplies may also cause this error.	PWRSPLY
7102	Power supply failure Feature power supply 2 reported a fault. An ac module or one of the other feature power supplies may also cause this error.	PWRSPLY ACMODUL
7103	Power supply failure Feature power supply 1 reported a fault. The ac module or one of the other feature power supplies may also cause this error.	PWRSPLY ACMODUL
7201	Power Supply over current fault The ac module reported an over current condition. This is usually caused by one of the regulators. Perform SPCN-PIP10.	PWRREG PWRSPLY ACMODUL
7202	Power Supply over current fault Feature power supply 2 reported an over current condition. This is usually caused by one of the regulators. Perform SPCN-PIP10.	PWRREG PWRSPLY ACMODUL
7203	Power Supply over current fault Feature power supply 1 reported an over current condition. This is usually caused by one of the regulators. Perform SPCN-PIP10.	PWRREG PWRSPLY ACMODUL

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7300	AC Module Over current The ac module or one of the feature power supplies reported an over current condition. Perform SPCN-PIP10.	ACMODUL PWRSPLY
7400	Control Supply fault A control supply fault was reported in the ac module.	ACMODUL BKSPCN
7401	Control Supply over current A control supply over current condition was detected in the ac module.	ACMODUL PWRREG BKSPCN
7402	Control Supply 5V regulator fault The SPCN detected a fault in the +5 V dc regulator of the control supply in the ac module.	ACMODUL BKSPCN
7403	Control Supply 12V regulator fault The SPCN detected a fault in the +12 V dc regulator of the control supply in the ac module.	ACMODUL
7404	Control Supply 12V regulator over current An over current condition was detected in the +12 V dc regulator of the control supply in the ac module. Perform SPCN-PIP10.	ACMODUL PWRSPLY FI00251
7407	Optical Converter 5V Fault The SPCN detected a fault on the SPCN card optical converter 5V.	90H6287 SPNLCRD
7500 to 7503	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR BKSPCN
7610	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7611	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7620	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7621	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
7630	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7631	Air Moving Device missing error A problem was dectected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7640	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7641	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7710	Air Moving Device BP1 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR TWRCARD
7711	Air Moving Device BP1 Not Present A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
7720	Air Moving Device BP2 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR TWRCARD
7721	Air Moving Device BP2 Not Present A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
8001	A Battery Power Unit 1 Failed A response was received from battery power unit 1 charger that was not valid.	46G3890 ACMODUL BACKPLN
8002	Battery Power Unit 2 Failed A response was received from battery power unit 2 charger that was not valid.	46G3890 ACMODUL BACKPLN
8101	A Battery Power Unit 1 Failed Battery power unit 1 capacity test failed.	46G3890
8102	Battery Power Unit 2 Failed Battery power unit 2 capacity test failed.	46G3890
8110	Battery Power Unit 1 and 2 Failed Replace both batteries.	BATRY
8201	A Battery Power Unit 1 Failed Battery power unit 1 charging fault was detected.	46G3890

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8202	Battery Power Unit 2 Failed Battery power unit 2 charging fault was detected.	46G3890
8301	A Battery Power Unit 1 Failed Battery power unit 1 load test fault occurred.	46G3890
8302	Battery Power Unit 2 Failed Battery power unit 2 load test fault occurred.	46G3890
8400	No VPD Found due to Invalid Bypass	TWRCARD
8401	Timeout on Panel for Request of VPD	VPDPART TWRCARD
8402	Unable to Collect VPD	VPDPART BKSPCN
8403	VPD Critical Mismatch	VPDPART BKSPCN
8404 to 8406	Processor Unit VPD Mismatch	VPDPART BKSPCN
840A	VPD 5V Power Off Failure	VPDPART TWRCARD
840B	VPD 5V Power On Failure	VPDPART TWRCARD
840C	Memory Module Misplug	VPDPART TWRCARD
840D	SPCN Configuration mismatch	IDPART TWRCARD
840E	SPCN Default Configuration loaded	IDPART TWRCARD
840F	SPCN Configuration mismatch	IDPART TWRCARD
8413 to 8416	Invalid Processor VPD	VPDPART TWRCARD
8423 to 8426	No Processor VPD	VPDPART TWRCARD
8610	Air Moving Device B01 Not Present	AIRMOVR TWRCARD
8620	Air Moving Device B02 Not Present	AIRMOVR TWRCARD
8810	Battery Power Unit missing	BATRY
8811	Battery Charger Unit missing	BATCHGR
8910	External Netfinity Server 3.3V fault	ALTMANL TWRCARD
8920	External Netfinity Server Power Good fault	TWRCARD ALTMANL
8930	Integrated Netfinity Adapter fault	TWRCARD
8940 to 8943	External Netfinity Server R485 Communication fault	TWRCARD CBLALL ALTMANL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9012	Address not valid. LIC command had a frame address that was not valid. Exchange the SPCN frame-to-frame cables to the failing frame.	TWRCARD CBLALL
9013	Invalid Node Address. The address in the SPCN command does not match the secondary nodes assigned address. Exchange the failing items for the SPCN node reporting the error.	TWRCARD CBLALL
9014	A command has an invalid address mode. A command from the system unit specified a unit address of D or E or had a frame address of 00. Exchange the failing items in the system unit.	AJDG301 TWRCARD
9016, 9021	A command to an SPCN node was rejected. No action required. This reference code is logged for information only.	
9022	Addressed Unit not in frame. The addressed unit does not exist in the addressed frame. No action required. This reference code is logged for information only.	
9023	Addressed Unit exists, but the frame is powered off. The addressed unit is in a frame that is powered off. No action required. This reference code is logged for information only.	
9024	SPCN Licensed Internal Code not valid. The Licensed Internal Code in one of the secondary nodes is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9025	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in one of the frames is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9026	Battery Power Unit is reporting a low charge. The battery power unit is not charged enough to run a test. No action required. This reference code is logged for information only.	
9027	Battery Power Unit is defective. No action required. This reference code is logged for information only.	
9028	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in the primary node is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9029	SPCN VPD Damaged The VPD record in the EEPROM has bad data. Exchange the failing items for the node reporting the failure.	TWRCARD
902C	Battery Power Unit test was aborted. The battery power unit test was aborted. No action required. This reference code is logged for information only.	
902D	Addressed frame is not in SPCN configuration table. The addressed frame is not in the SPCN configuration table. No action required. This reference code is logged for information only.	
9031	Frame-to-Frame Communications Failure The SPCN detected a BCC error on a transmission from another frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9032	SPCN Communications Failure, unit to rack. The frame detected a BCC error on a transmission from a secondary node to the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9033	SPCN Communications Failure, rack to unit. A secondary node detected a BCC error on a transmission from the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9034	Unsupported Packet Size The receiving node detected a packet exceeding 70 bytes. The frame can also return this code if a secondary node returns more than 10 bytes to a PAS command. No action required. This reference code is logged for error analysis only.	
9035	Secondary SPCN node timeout. A secondary SPCN node did not respond to a command. The command was attempted again and failed. No action required. This reference code is logged for error analysis only.	
9036	Frame Timeout One or more frames did not respond to a command. The command is attempted again. No action required. This reference code is logged for error analysis only.	
903B	Invalid Packet Length for data sent. The number of bytes sent or received does not match the number of bytes specified in the command. No action required. This reference code is logged for error analysis only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9041	Invalid Load Type The down load was successful, but the wrong type of Licensed Internal Code was loaded. The operation was attempted again but was not successful. Exchange the failing items for the node reporting the fault.	AJDG301 TWRCARD
9042	EEPROM Failure The EEPROM in an SPCN node cannot be written successfully. Exchange the SPCN node reported in the failure.	TWRCARD
9043	Download Failure The Licensed Internal Code download to an SPCN node was completed but was not successful. Exchange the failing SPCN node.	TWRCARD
9046	QDS Packet Sequence Error The Packet Sequence number is wrong. The download was stopped.	TWRCARD
9047	QDS Block Sequence Error The Block Sequence number is wrong. The download was stopped.	TWRCARD
9048	The SPCN ROS and EEPROM LIC is not compatable. The LIC levels in the nodes ROS and EEPROM are not compatible. Exchange the failing items for the failing node.	TWRCARD AJDG301
9080	Undefined Status Code An SPCN node returned an unknown status code. Exchange the failing SPCN node.	TWRCARD BACKPLN
90F0	A frame was dropped from the SPCN configuration. A frame was dropped from the SPCN configuration. This is usually caused by a loss of ac power or a problem with the frame-to-frame cable.	TWRCARD CBLALL
90F1	A frame was added to the SPCN configuration. No action required. This reference code is logged for information only.	
9100	Battery capacity test completed. No action required. This reference code is logged for information only.	
9101	VLIC-SPCN Timeout A Licensed Internal Code timeout occurred. The SPCN failed to respond to a Licensed Internal Code command.	TWRCARD CTLPNL SVCPROC
9102	Assign Permanent Address command failure A node failed to perform an Assign Permanent Address command.	TWRCARD
9103	Download Initialize Timeout An SPCN node failed to enter the download state after an Initialize for Download command. Exchange the failing SPCN node.	TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9104	Download Completion Timeout An SPCN node failed to leave the download state. Exchange the failing SPCN node.	TWRCARD
9105	Load Damaged Timeout An SPCN node failed to enter the operational state. Exchange the failing SPCN node.	TWRCARD
9106	An SPCN LID was not found. No action required. This reference code is logged for information only.	
9107	An SPCN microcode download is required. No action required. This reference code is logged for error analysis only.	
9108	A status change occured in one of the SPCN nodes. No action required. This reference code is logged for information only.	
9109	Licensed Internal Code part number is not correct. The AROS part number field was not updated to the correct level after the system attempted to load new Licensed Internal Code.	TWRCARD
9110	Battery Power Unit capacity test failed. The battery power unit was not able to pass the capacity test.	BATRY
9111	SPCN is too large for VLIC. There are more nodes in the network than VLIC can service.	AJDG301
9112	Primary SPCN node is reporting load damaged. The Licensed Internal Code for the primary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9113	Secondary SPCN node is reporting load damaged. The Licensed Internal Code for the secondary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9114	Frame SPCN node is reporting load damaged. The Licensed Internal Code for a SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9115	SPCN Command rejected by the Service Processor. The service processor rejected an SPCN command from the Licensed Internal Code. No action required. This reference code is logged for information only.	
9116	SPCN - Control Panel interface failure. The SPCN to control panel interface is not working.	
9117	SPCN - Control Panel interface is now working. The SPCN to control panel interface is now working. No action required. This reference code is logged for information only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9212	Frame Address field not valid. A Licensed Internal Code command had a frame address that is not valid. Exchange the failing items for the failing node.	TWRCARD
9213	Invalid Address status, secondary node. The address in the SPCN command does not match the assigned address of the secondary node. Exchange the failing items for the failing node.	TWRCARD
9214	Invalid Address Mode status Invalid Address Mode occurred during Frame Command processing.	TWRCARD AJDG301
9215	Invalid Frame Command status Invalid Frame Command occurred during Frame Command processing.	TWRCARD AJDG301
921B	System Unit SPCN Port Fault status. System Unit Port Fault occurred during Command processing.	TWRCARD AJDG301
922B	Address Unassigned status A secondary node has no address assigned during Command processing.	TWRCARD AJDG301
9231	Frame-to-Frame Communications Failure A frame-to-frame communications failure occurred during STF processing.	TWRCARD CBLALL
9232	Intrarack Communications Failure An SPCN secondary node to frame communications failure occurred during Command processing.	TWRCARD CBLALL
9233	Intrarack Communications Failure An SPCN frame to secondary node communications failure occurred during Command processing.	TWRCARD CBLALL
9234	Unsupported Packet Size status Unsupported Packet Size occurred during STF and Secondary Node Command processing.	TWRCARD CTLPNL SVCPROC
9235	SPCN Secondary Node Timeout status An SPCN Secondary Node Timeout occurred during Command processing. If the failing secondary node is in a 9337, go to the “Analyzing Problems” section in the *9337 Disk Array Service Information* manual.	TWRCARD AJDG301 CBLALL
9236	Frame Timeout status An SPCN Frame Node Timeout occurred during Network post processing.	TWRCARD CBLALL
9238	Secondary Node Fault An SPCN Secondary Node Fault occurred during Command processing.	TWRCARD AJDG301
9239	Frame Node Fault An internal error in the SPCN frame node prevents the running of a Frame command.	TWRCARD AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
923A	ASA Failure The frame address returned by a secondary node does not match the address of the frame.	TWRCARD AJDG301
923B	Invalid Packet Length for data sent. An Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
9280	Response Stack Overflow Too many responses were received during System Frame command processing.	CBLALL AJDG301 TWRCARD
9281	Response Overrun Response Overrun occurred during System Frame processing.	CBLALL AJDG301 TWRCARD
9282	No Free Entries No free entries were found during System Frame processing.	CBLALL AJDG301 TWRCARD
9283	ARA Failure An Assign Frame Address Failure occurred during ARA Preprocessing.	TWRCARD AJDG301
9284	Undefined status Undefined Status occurred during Frame or STF processing.	TWRCARD AJDG301
9285	BCC Fault A BCC Error was detected during Network post processing.	TWRCARD
9286	Length Check Error. Length Check occurred during SPCN post processing.	TWRCARD AJDG301
9287	Undefined status Undefined Status occurred during Command processing.	TWRCARD AJDG301
9288	Configuration Error A configuration error was detected during System Frame processing.	TWRCARD AJDG301
9289	Invalid Packet Length for data sent. Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
A100	Battery Power Unit capacity test failure The battery power unit capacity test time exceeds the installed battery capacity. The battery power may not be enough to provide a controlled stop during a loss of incoming ac voltage. This reference code is logged for information only.	
A201	A Battery Power Unit 1 Failed Battery power unit 1 capacity test failed.	BATRY BATCHGR
A202	Battery Power Unit 2 Failed Battery power unit 2 capacity test failed.	BATRY BATCHGR

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
A300	Battery Power Unit missing The existing number of battery power units installed may not be adequate for the current configuration. If the battery power units are installed, insure that they are properly connected before replacing any FRUs.	BATCHGR BATRY
A301	A Battery Power Unit 1 Failed The installed SPCN Licensed Internal Code does not give support to the type of battery power unit installed. Install the latest SPCN code.	AJDG301 BATCHGR
A302	Battery Power Unit 2 Failed The installed SPCN Licensed Internal Code does not give support to the type of battery power unit installed. Install the latest SPCN code.	AJDG301 BATCHGR
AC01 to AC02	Internal Battery Power Unit Charger Fault	BATCHGR BKSPCN
B101	A Battery Power Unit 1 Failed Battery power unit reported an over current condition on the +29 V dc bus.	PWRREG BATCHGR BACKPLN
B102	Battery Power Unit 2 Failed Battery power unit 2 reported an over current condition on the +29 V dc bus.	PWRREG BATCHGR BACKPLN
B201	A Battery Power Unit 1 Failed Battery power unit 1 reported an over current condition on the +31 V dc bus.	PWRREG BATCHGR BACKPLN
B202	Battery Power Unit 2 Failed Battery power unit 2 reported an over current condition on the +31 V dc bus.	PWRREG BATCHGR BACKPLN
C510	A Battery Power Unit 1 Failed SPCN-to-battery power unit 1 or 3 communications fault occurred.	BATCHGR ACMODUL BACKPLN
C511	Battery Power Unit 2 Failed SPCN-to-battery power unit 2 communications fault occurred.	BATCHGR ACMODUL BACKPLN
C512	AC Module Failure SPCN serial port communications fault occurred.	ACMODUL
C600	AC Module Failure The AC module control supply failed to turn off.	ACMODUL
C601	AC Module Failure AC module bus voltage control test fault occurred.	ACMODUL
C602	AC Module Failure AC module fault detection failure occurred.	ACMODUL
C609	Clock Card Failure The clock card in slot 17 is missing or defective.	CLKCARD BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
C62E	SPCN Network Fault An SPCN frame-to-frame communication failure was detected. SRNPU or POSORMU.	TWRCARD CBLALL
C701 to C703	SPCN Frame-to-Frame Communication fault	TWRCARD CBLALL
CB00	Unknown box ID The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN
CB05 to CB06	AC Module Failure The SPCN ROS and EPROMs test failed.	ACMODUL
CB1D	AC Module Failure The LCD test failure was detected on an Extension/Expansion Unit.	ACMODUL 17G0573
CC00	AC Module Failure An unknown fault was detected. The machine failed to power up.	ACMODUL FI00065 BKSPCN
CD00	No Power Supplies Present SPCN cannot detect any power supplies installed.	BKSPCN PWRSPLY
CE18	Regulator Not Present No regulators can be found. If the regulators are installed, exchange the failing items.	PWRREG ACMODUL
CE1A	Regulator Not Present If regulator 3 in slot R03 is installed, exchange the failing items.	PWRREG BKSPCN
D001	A Battery Power Unit 1 Failed A response was received from battery power unit 1 charger that was not valid.	86G8020 ACMODUL BACKPLN
D002	Battery Power Unit 2 Failed A response was received from battery power unit 2 charger that was not valid.	86G8020 ACMODUL BACKPLN
D101	A Battery Power Unit 1 Failed Battery power unit 1 capacity test failed.	86G8040 86G8020
D102	Battery Power Unit 2 Failed Battery power unit 2 capacity test failed.	86G8040 86G8020
D110	Battery Power Unit 1 and 2 Failed Replace both batteries.	BATRY
D201	A Battery Power Unit 1 Failed Battery power unit 1 charging fault was detected.	86G8020 86G8040
D202	Battery Power Unit 2 Failed Battery power unit 2 charging fault was detected.	86G8020 86G8040

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
D301	A Battery Power Unit 1 Failed Battery power unit 1 load test fault occurred.	86G8020 86G8040
D302	Battery Power Unit 2 Failed Battery power unit 2 load test fault occurred.	86G8020 86G8040
E002	Battery Power Unit 2 Failed A response was received from battery power unit 2 charger that was not valid.	86G7750 ACMODUL BACKPLN
E102	Battery Power Unit 2 Failed External battery power unit 2 capacity test failed.	86G7714 86G7750
E202	Battery Power Unit 2 Failed External battery power unit 2 charging fault was detected.	86G7750 86G7714
E302	Battery Power Unit 2 Failed External battery power unit 2 load test fault occurred.	86G7750 86G7714
F401	Internal Battery Power Unit Charger Fault	BATCHGR BKSPCN
F501	Internal Battery Power Unit Fault	BATRY BATCHGR
F601	Internal Battery Power Unit or Charger Fault	BATCHGR BATRY
F701	Internal Battery Power Unit Charger Fault	BATCHGR BATRY
F802	External Battery Power Unit Charger Fault	BATCHGR BKSPCN
F902	External Battery Power Unit Fault	BATRY BATCHGR
FA02	External Battery Power Unit or Charger Fault	BATCHGR BATRY
FB02	External Battery Power Unit Charger Fault	BATCHGR BATRY

Table 2. SPCN failing items for system Models 270 and 820:

Failing Item	Description	Document Description
17G0573	Expansion Unit Control Panel	Repair and Parts
21F5680	AC Module, SPCN Secondary node.	Repair and Parts
21F5793	Fan assembly.	Repair and Parts
21F9362	SPCN Port Cable	Repair and Parts
21F9429	Cable Carrier, 5040 and 5042 feature.	Repair and Parts
21F9631	Fan assembly.	Repair and Parts
46G3890	Internal Battery Power Unit	Repair and Parts
6462417	Rack Control Panel cable.	Repair and Parts
86G7714	External Battery Power Unit	Repair and Parts

Failing Item	Description	Document Description
86G7750	Battery Power Unit Charger	Repair and Parts
86G8020	Battery Power Unit Charger	Repair and Parts
86G8040	Battery Power Unit	Repair and Parts
90H6287	Optical Converter	Repair and Parts
ACMODUL	AC Module	Problem Analysis; Symbolic FRU Isolation
AIRMOVR	Fan and Blower assemblies	Problem Analysis; Symbolic FRU Isolation
AJDG301	Vertical Licensed Internal Code.	Service Functions; APAR or LICTR
ALTMANL	Alternate Manual Required	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Back Plane Unit	Problem Analysis; Symbolic FRU Isolation
BATCHGR	Battery Power Unit Charger	Problem Analysis; Symbolic FRU Isolation
BATRY	Battery Power Unit	Problem Analysis; Symbolic FRU Isolation
BKSPCN	SPCN card	Problem Analysis; Symbolic FRU Isolation
CBLALL	Cable Failure	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control Panel	Problem Analysis; Symbolic FRU Isolation
DISKDRV	Disk Unit Power regulator	Problem Analysis; Symbolic FRU Isolation
DISKTRY	Disk unit tray	Problem Analysis; Symbolic FRU Isolation
I2CBUS	I2C Bus Part	Problem Analysis; Symbolic FRU Isolation
IDPART	Vital Product Data Parts	Problem Analysis; Symbolic FRU Isolation
INTRLCK	Interlock part	Problem Analysis; Symbolic FRU Isolation
PGDPART	Power Good Part	Problem Analysis; Symbolic FRU Isolation
PWROC	Power Supply overcurrent	Problem Analysis; Symbolic FRU Isolation
PWRREG	Regulator.	Problem Analysis; Symbolic FRU Isolation
PWRSPLY	Power Supply	Problem Analysis; Symbolic FRU Isolation
RMDEV	Disk Unit or Removable Media Device	Problem Analysis; Symbolic FRU Isolation
SPNLCRD	SPCN panel card	Problem Analysis; Symbolic FRU Isolation
SVCPROC	Service Processor Card	Problem Analysis; Symbolic FRU Isolation
TWRCARD	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
UPSUNIT	UPS unit part	Problem Analysis; Symbolic FRU Isolation
VPDPART	VPD Communication Part	Problem Analysis; Symbolic FRU Isolation

(1xxx) SPCN Reference Codes for Models 800, 810, and 825

For details on the Failing Item column entries, see the SPCN Failing Items Detail table.

Table 1. SPCN reference codes for Models 800, 810, and 825

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
00A0	SPCN BATs in process No action required. This reference code is logged for information only. If this reference code is present for more than 1 minute, exchange the failing items.	TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
00AA	Download in process No action required. This reference code is logged for information only.	
00AC	Detected AC loss If system powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	ACMODUL
00BA	The system is running on the Battery Power Unit. No action required. This reference code is displayed for information only.	
00BC	Battery Power Unit test is in process. No action required. This reference code is displayed for information only.	
00CA	Thermal calibration in progress	
00EF	Remote EPO switch is OFF	
1510	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1511	Power supply failure	PWRSPLY TWRCARD
1512	Power supply failure	PWRSPLY TWRCARD CBLALL
1513 to 1514	Power supply failure	PWRSPLY TWRCARD
1516	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD
1520	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1521	Power supply failure	PWRSPLY TWRCARD
1522	Power supply failure	PWRSPLY TWRCARD CBLALL
1523 to 1524	Power supply failure	PWRSPLY TWRCARD
1526	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD
1530	Power Supply P03 fault/AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1531	Power Supply P03 fault	PWRSPLY TWRCARD
1532	Power Supply P03 Communication fault	PWRSPLY TWRCARD CBLALL
1533 to 1534	Power Supply P03 fault	PWRSPLY TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1B01	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B02	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B03	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B04	Load fault on the -12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B05	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B06 to 1B07	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B0A	Load Fault on the +12V/-12v bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B0B	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B0C	Load Fault on the +3.3V/+1.5v bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B0D	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B0E	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B0F	Load Fault on the +1.5V/+1.3v bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B11	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B12	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B13	Load fault on the +3.3V bus	PWROC TWRCARD
1B14	Load fault on the -12V bus	PWROC TWRCARD
1B16 to 1B17	Load fault on the +2.5V bus	PWROC TWRCARD
1C01	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C03	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1C05	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C06 to 1C08	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1F01	No SRC Translate	
2600	Power Good Fault	PGDPART TWRCARD PWRSPLY
2601 to 2606	Power Good Fault	PGDPART TWRCARD
2610	Processor/Memory Card not installed	PWRSPLY TWRCARD
2611	Processor Regulator fault	PWRREG TWRCARD
2612	Optical Converter 5V Fault The SPCN detected a fault on the SPCN card optical converter 5V.	CBLALL TWRCARD
2613	Configuration Requires 200V Input Configuration now requires 200V AC power.	CBLALL
3100	I2C Bus Controller Communication fault	I2CBUS TWRCARD
3101	I2C Bus 1 Communication fault	I2CBUS TWRCARD
3102	I2C Bus 2 Communication fault	I2CBUS TWRCARD
3103	I2C Bus 3 Communication fault	I2CBUS TWRCARD
3104	I2C Bus 4 Communication fault	I2CBUS TWRCARD
3105	I2C Bus 5 Communication fault	I2CBUS TWRCARD
3106	I2C Bus 6 Communication fault	I2CBUS TWRCARD
3110	I2C Bus DASD Backplane 1 Communication fault	I2CBUS TWRCARD
3111	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
3112	I2C Bus DASD Backplane 3 Communication fault	I2CBUS TWRCARD
3113	I2C Bus Adapter Communication fault	I2CBUS TWRCARD
3114	I2C Bus PCI Backplane Communication fault	I2CBUS TWRCARD
3115	I2C Bus Panel Communication fault	I2CBUS TWRCARD
3116	I2C Bus Fan Local Controller Communication fault	I2CBUS TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3117	I2C Bus Fan Remote Controller Communication fault	I2CBUS TWRCARD
3118	I2C Bus SPCN VPD Communication fault	I2CBUS TWRCARD
3119	I2C Bus 4 Communication fault	I2CBUS TWRCARD
311A	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
311C	I2C Bus Panel Communication fault	I2CBUS TWRCARD
311D	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
311E	I2C Bus DASD Backplane 3 Communication fault	I2CBUS TWRCARD
3121	I2C Bus DASD Backplane 1 Communication fault	I2CBUS TWRCARD
3122	I2C Bus Device Backplane 4 Communication fault	I2CBUS TWRCARD
4410	Internal Battery Power Unit Fault Internal Battery Power Unit in the system has failed.	BATRY BATCHGR TWRCARD CBLALL
4411	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4412	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR BATRY TWRCARD CBLALL
4413	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4414	Battery Charger Load fault	PWROC BATRY TWRCARD CBLALL
4415	Battery Power Unit missing	BATRY TWRCARD CBLALL
4417	Battery Charger Unit missing	BATCHGR TWRCARD CBLALL
7610	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7611	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7620	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7621	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
7630	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7631	Air Moving Device missing error A problem was dectected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7640	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7641	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
8400	No VPD Found due to Invalid Bypass	TWRCARD
8401	Timeout on Panel for Request of VPD	VPDPART TWRCARD
8402	Unable to Collect VPD	VPDPART TWRCARD
8403	VPD Critical Mismatch	VPDPART TWRCARD
8404 to 8406	Processor Unit VPD Mismatch	VPDPART TWRCARD
8409	No Processor Installed	VPDPART TWRCARD
840A	VPD 5V Power Off Failure	VPDPART TWRCARD
840B	VPD 5V Power On Failure	VPDPART TWRCARD
840C	Memory Module Misplug	VPDPART TWRCARD
840D	SPCN Configuration mismatch	IDPART TWRCARD
840E	SPCN Default Configuration loaded	IDPART TWRCARD
840F	SPCN Configuration mismatch	IDPART TWRCARD
8413 to 8416	Invalid Processor VPD	VPDPART TWRCARD
8423 to 8426	No Processor VPD	VPDPART TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8610	Air Moving Device B01 Not Present	AIRMOVR TWRCARD
8620	Air Moving Device B02 Not Present	AIRMOVR TWRCARD
8910	External Netfinity Server 3.3V fault	ALTMANL TWRCARD
8920	External Netfinity Server Power Good fault	TWRCARD ALTMANL
8930	Integrated Netfinity Adapter fault	TWRCARD
8940 to 8943	External Netfinity Server R485 Communication fault	TWRCARD CBLALL ALTMANL
9012	Address not valid. LIC command had a frame address that was not valid. Exchange the SPCN frame-to-frame cables to the failing frame.	TWRCARD CBLALL
9013	Invalid Node Address. The address in the SPCN command does not match the secondary nodes assigned address. Exchange the failing items for the SPCN node reporting the error.	TWRCARD CBLALL
9014	A command has an invalid address mode. A command from the system unit specified a unit address of D or E or had a frame address of 00. Exchange the failing items in the system unit.	AJDG301 TWRCARD
9016, 9021	A command to an SPCN node was rejected. No action required. This reference code is logged for information only.	
9022	Addressed Unit not in frame. The addressed unit does not exist in the addressed frame. No action required. This reference code is logged for information only.	
9023	Addressed Unit exists, but the frame is powered off. The addressed unit is in a frame that is powered off. No action required. This reference code is logged for information only.	
9024	SPCN Licensed Internal Code not valid. The Licensed Internal Code in one of the secondary nodes is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9025	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in one of the frames is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9026	Battery Power Unit is reporting a low charge. The battery power unit is not charged enough to run a test. No action required. This reference code is logged for information only.	
9027	Battery Power Unit is defective. No action required. This reference code is logged for information only.	
9028	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in the primary node is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9029	SPCN VPD Damaged The VPD record in the EEPROM has bad data. Exchange the failing items for the node reporting the failure.	TWRCARD
902C	Battery Power Unit test was aborted. The battery power unit test was aborted. No action required. This reference code is logged for information only.	
902D	Addressed frame is not in SPCN configuration table. The addressed frame is not in the SPCN configuration table. No action required. This reference code is logged for information only.	
9031	Frame-to-Frame Communications Failure The SPCN detected a BCC error on a transmission from another frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9032	SPCN Communications Failure, unit to rack. The frame detected a BCC error on a transmission from a secondary node to the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9033	SPCN Communications Failure, rack to unit. A secondary node detected a BCC error on a transmission from the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9034	Unsupported Packet Size The receiving node detected a packet exceeding 70 bytes. The frame can also return this code if a secondary node returns more than 10 bytes to a PAS command. No action required. This reference code is logged for error analysis only.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9035	Secondary SPCN node timeout. A secondary SPCN node did not respond to a command. The command was attempted again and failed. No action required. This reference code is logged for error analysis only.	
9036	Frame Timeout One or more frames did not respond to a command. The command is attempted again. No action required. This reference code is logged for error analysis only.	
903B	Invalid Packet Length for data sent. The number of bytes sent or received does not match the number of bytes specified in the command. No action required. This reference code is logged for error analysis only.	
9041	Invalid Load Type The down load was successful, but the wrong type of Licensed Internal Code was loaded. The operation was attempted again but was not successful. Exchange the failing items for the node reporting the fault.	AJDG301 TWRCARD
9042	EEPROM Failure The EEPROM in an SPCN node cannot be written successfully. Exchange the SPCN node reported in the failure.	TWRCARD
9043	Download Failure The Licensed Internal Code download to an SPCN node was completed but was not successful. Exchange the failing SPCN node.	TWRCARD
9046	QDS Packet Sequence Error The Packet Sequence number is wrong. The download was stopped.	TWRCARD
9047	QDS Block Sequence Error The Block Sequence number is wrong. The download was stopped.	TWRCARD
9048	The SPCN ROS and EEPROM LIC is not compatable. The LIC levels in the nodes ROS and EEPROM are not compatible. Exchange the failing items for the failing node.	TWRCARD AJDG301
9080	Undefined Status Code An SPCN node returned an unknown status code. Exchange the failing SPCN node.	TWRCARD BACKPLN
90F0	A frame was dropped from the SPCN configuration. A frame was dropped from the SPCN configuration. This is usually caused by a loss of ac power or a problem with the frame-to-frame cable.	TWRCARD CBLALL
90F1	A frame was added to the SPCN configuration. No action required. This reference code is logged for information only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9100	Battery capacity test completed. No action required. This reference code is logged for information only.	
9101	VLIC-SPCN Timeout A Licensed Internal Code timeout occurred. The SPCN failed to respond to a Licensed Internal Code command.	TWRCARD CTLPNL SVCPROC
9102	Assign Permanent Address command failure A node failed to perform an Assign Permanent Address command.	TWRCARD
9103	Download Initialize Timeout An SPCN node failed to enter the download state after an Initialize for Download command. Exchange the failing SPCN node.	TWRCARD
9104	Download Completion Timeout An SPCN node failed to leave the download state. Exchange the failing SPCN node.	TWRCARD
9105	Load Damaged Timeout An SPCN node failed to enter the operational state. Exchange the failing SPCN node.	TWRCARD
9106	An SPCN LID was not found. No action required. This reference code is logged for information only.	
9107	An SPCN microcode download is required. No action required. This reference code is logged for error analysis only.	
9108	A status change occured in one of the SPCN nodes. No action required. This reference code is logged for information only.	
9109	Licensed Internal Code part number is not correct. The AROS part number field was not updated to the correct level after the system attempted to load new Licensed Internal Code.	TWRCARD
9110	Battery Power Unit capacity test failed. The battery power unit was not able to pass the capacity test.	BATRY
9111	SPCN is too large for VLIC. There are more nodes in the network than VLIC can service.	AJDG301
9112	Primary SPCN node is reporting load damaged. The Licensed Internal Code for the primary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9113	Secondary SPCN node is reporting load damaged. The Licensed Internal Code for the secondary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9114	Frame SPCN node is reporting load damaged. The Licensed Internal Code for a SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9115	SPCN Command rejected by the Service Processor. The service processor rejected an SPCN command from the Licensed Internal Code. No action required. This reference code is logged for information only.	
9116	SPCN - Control Panel interface failure. The SPCN to control panel interface is not working.	
9117	SPCN - Control Panel interface is now working. The SPCN to control panel interface is now working. No action required. This reference code is logged for information only.	
91DD	All SPCN Downloads Complete	
9212	Frame Address field not valid. A Licensed Internal Code command had a frame address that is not valid. Exchange the failing items for the failing node.	TWRCARD
9213	Invalid Address status, secondary node. The address in the SPCN command does not match the assigned address of the secondary node. Exchange the failing items for the failing node.	TWRCARD
9214	Invalid Address Mode status Invalid Address Mode occurred during Frame Command processing.	TWRCARD AJDG301
9215	Invalid Frame Command status Invalid Frame Command occurred during Frame Command processing.	TWRCARD AJDG301
921B	System Unit SPCN Port Fault status. System Unit Port Fault occurred during Command processing.	TWRCARD AJDG301
922B	Address Unassigned status A secondary node has no address assigned during Command processing.	TWRCARD AJDG301
9231	Frame-to-Frame Communications Failure A frame-to-frame communications failure occurred during STF processing.	TWRCARD CBLALL
9232	Intrarack Communications Failure An SPCN secondary node to frame communications failure occurred during Command processing.	TWRCARD CBLALL
9233	Intrarack Communications Failure An SPCN frame to secondary node communications failure occurred during Command processing.	TWRCARD CBLALL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9234	Unsupported Packet Size status Unsupported Packet Size occurred during STF and Secondary Node Command processing.	TWRCARD CTLPNL SVCPROC
9235	SPCN Secondary Node Timeout status An SPCN Secondary Node Timeout occurred during Command processing. If the failing secondary node is in a 9337, go to the "Analyzing Problems" section in the *9337 Disk Array Service Information* manual.	TWRCARD AJDG301 CBLALL
9236	Frame Timeout status An SPCN Frame Node Timeout occurred during Network post processing.	TWRCARD CBLALL
9238	Secondary Node Fault An SPCN Secondary Node Fault occurred during Command processing.	TWRCARD AJDG301
9239	Frame Node Fault An internal error in the SPCN frame node prevents the running of a Frame command.	TWRCARD AJDG301
923A	ASA Failure The frame address returned by a secondary node does not match the address of the frame.	TWRCARD AJDG301
923B	Invalid Packet Length for data sent. An Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
9280	Response Stack Overflow Too many responses were received during System Frame command processing.	CBLALL AJDG301 TWRCARD
9281	Response Overrun Response Overrun occurred during System Frame processing.	CBLALL AJDG301 TWRCARD
9282	No Free Entries No free entries were found during System Frame processing.	CBLALL AJDG301 TWRCARD
9283	ARA Failure An Assign Frame Address Failure occurred during ARA Preprocessing.	TWRCARD AJDG301
9284	Undefined status Undefined Status occurred during Frame or STF processing.	TWRCARD AJDG301
9285	BCC Fault A BCC Error was detected during Network post processing.	TWRCARD
9286	Length Check Error. Length Check occurred during SPCN post processing.	TWRCARD AJDG301
9287	Undefined status Undefined Status occurred during Command processing.	TWRCARD AJDG301
9288	Configuration Error A configuration error was detected during System Frame processing.	TWRCARD AJDG301

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9289	Invalid Packet Length for data sent. Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
C62E	SPCN Network Fault An SPCN frame-to-frame communication failure was detected. SRNPU or POSORMU.	TWRCARD CBLALL
CB15	EEPROM Failure	TWRCARD

Table 2. SPCN failing items for Models 800, 810, and 825

Failing Item	Description	Document Description
ACMODUL	AC Module	Problem Analysis; Symbolic FRU Isolation
AIRMOVR	Fan and Blower assemblies	Problem Analysis; Symbolic FRU Isolation
AJDG301	Vertical Licensed Internal Code.	Service Functions; APAR or LICTR
ALTMANL	Alternate Manual Required	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Back Plane Unit	Problem Analysis; Symbolic FRU Isolation
BATCHGR	Battery Power Unit Charger	Problem Analysis; Symbolic FRU Isolation
BATRY	Battery Power Unit	Problem Analysis; Symbolic FRU Isolation
CBLALL	Cable Failure	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control Panel	Problem Analysis; Symbolic FRU Isolation
I2CBUS	I2C Bus Part	Problem Analysis; Symbolic FRU Isolation
IDPART	Vital Product Data Parts	Problem Analysis; Symbolic FRU Isolation
PGDPART	Power Good Part	Problem Analysis; Symbolic FRU Isolation
PWROC	Power Supply overcurrent	Problem Analysis; Symbolic FRU Isolation
PWRREG	Regulator.	Problem Analysis; Symbolic FRU Isolation
PWRSPLY	Power Supply	Problem Analysis; Symbolic FRU Isolation
SVCPROC	Service Processor Card	Problem Analysis; Symbolic FRU Isolation
TWRCARD	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
UPSUNIT	UPS unit part	Problem Analysis; Symbolic FRU Isolation
VPDPART	VPD Communication Part	Problem Analysis; Symbolic FRU Isolation

(1xxx) SPCN Reference Codes for Models 830, 840, SB2, and SB3

For details on the Failing Item column entries, see the SPCN Failing Items Detail table, which follows the Reference Code table below.

Note: On Models 840/SB3, the C in the SRC (1xxC xxxx) indicates that the failure is on the processor frame, not on the FC 9079 Base I/O Tower.

Table 1. SPCN reference codes for Models 830, 840, SB2, and SB3:

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
00A0	SPCN BATs in process No action required. This reference code is logged for information only. If this reference code is present for more than 1 minute, exchange the failing items.	TWRCARD
00A1	Regulator 1 has been turned off by system No action required. This reference code is logged for information only.	
00A2	Regulator 2 has been turned off by system No action required. This reference code is logged for information only.	
00A3	Regulator 3 has been turned off by system No action required. This reference code is logged for information only.	
00A4	Regulator 4 has been turned off by system No action required. This reference code is logged for information only.	
00A5	Regulator 5 has been turned off by system No action required. This reference code is logged for information only.	
00A6	Regulator 6 has been turned off by system No action required. This reference code is logged for information only.	
00A7	The system is running on the Battery Power Unit. No action required. This reference code is logged for information only.	
00A8	The Battery Power Unit is not fully charged. No action required. This reference code is logged for information only.	
00A9	Battery Power Unit test is in process. No action required. This reference code is logged for information only.	
00AA	Download in process No action required. This reference code is logged for information only.	
00AB	Rack UEPO switch is OFF. Informational reference code. The UEPO switch must be returned to the On position to power on the rack.	TWRCARD CTLPNL 6462417
00AC	Detected AC loss If system powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	ACMODUL
00BA	The system is running on the Battery Power Unit. No action required. This reference code is displayed for information only.	
00BC	Battery Power Unit test is in process. No action required. This reference code is displayed for information only.	
00CA	CPM power down is complete. No action required. This reference code is displayed for information only.	
00EF	Remote EPO switch is OFF	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0100	Install Disk Unit 1 Concurrent maintenance informational reference code.	
0101	Install Disk Unit 2 Concurrent maintenance informational reference code.	
0102	Install Disk Unit 3 Concurrent maintenance informational reference code.	
0103	Install Disk Unit 4 Concurrent maintenance informational reference code.	
0104	Install Disk Unit 5 Concurrent maintenance informational reference code.	
0105	Install Disk Unit 6 Concurrent maintenance informational reference code.	
0106	Install Disk Unit 7 Concurrent maintenance informational reference code.	
0107	Install Disk Unit 8 Concurrent maintenance informational reference code.	
0108	Install Disk Unit K1 Concurrent maintenance informational reference code.	
0109	Install Disk Unit K2 Concurrent maintenance informational reference code.	
010A	Install Disk Unit K3 Concurrent maintenance informational reference code.	
010B	Install Disk Unit K4 Concurrent maintenance informational reference code.	
010C	Install Disk Unit K5 Concurrent maintenance informational reference code.	
010D	Install Disk Unit K6 Concurrent maintenance informational reference code.	
010E	Install Disk Unit K7 Concurrent maintenance informational reference code.	
010F	Install Disk Unit K8 Concurrent maintenance informational reference code.	
0110	Install Disk Unit K9 Concurrent maintenance informational reference code.	
0111	Install Disk Unit K10 Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0112	Install Disk Unit K11 Concurrent maintenance informational reference code.	
0113	Install Disk Unit K12 Concurrent maintenance informational reference code.	
0114	Install Disk Unit K13 Concurrent maintenance informational reference code.	
0115	Install Disk Unit K14 Concurrent maintenance informational reference code.	
0116	Install device 1 Concurrent maintenance informational reference code.	
0117	Install device 2 Concurrent maintenance informational reference code.	
0118	Install Disk Unit 9 Concurrent maintenance informational reference code.	
0119	Install Disk Unit 10 Concurrent maintenance informational reference code.	
011A	Install Disk Unit 11 Concurrent maintenance informational reference code.	
011B	Install Disk Unit 12 Concurrent maintenance informational reference code.	
011C	Install device 3 Concurrent maintenance informational reference code.	
011D	Install Disk Unit K15 Concurrent maintenance informational reference code.	
011E	Install Disk Unit K16 Concurrent maintenance informational reference code.	
011F	Install Device 4 Concurrent maintenance informational reference code.	
0120	Install Disk Unit K17 Concurrent maintenance informational reference code.	
0121	Install Disk Unit K18 Concurrent maintenance informational reference code.	
0122	Install Disk Unit K19 Concurrent maintenance informational reference code.	
0123	Install Disk Unit K20 Concurrent maintenance informational reference code.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0124	Install Disk Unit K21 Concurrent maintenance informational reference code.	
0125	Install Disk Unit K22 Concurrent maintenance informational reference code.	
0126	Install Disk Unit K23 Concurrent maintenance informational reference code.	
0127	Install Disk Unit K24 Concurrent maintenance informational reference code.	
0128	Install Disk Unit K25 Concurrent maintenance informational reference code.	
0129	Install Disk Unit K26 Concurrent maintenance informational reference code.	
012A	Install Disk Unit K27 Concurrent maintenance informational reference code.	
012B	Install Disk Unit K28 Concurrent maintenance informational reference code.	
012C	Install Disk Unit K29 Concurrent maintenance informational reference code.	
012D	Install Disk Unit K30 Concurrent maintenance informational reference code.	
012E	Install Disk Unit K31 Concurrent maintenance informational reference code.	
012F	Install Disk Unit K32 Concurrent maintenance informational reference code.	
01AC	Detected AC loss If system powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	ACMODUL
0200	Remove Disk Unit 1 Concurrent maintenance informational reference code.	
0201	Remove Disk Unit 2 Concurrent maintenance informational reference code.	
0202	Remove Disk Unit 3 Concurrent maintenance informational reference code.	
0203	Remove Disk Unit 4 Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0204	Remove Disk Unit 5 Concurrent maintenance informational reference code.	
0205	Remove Disk Unit 6 Concurrent maintenance informational reference code.	
0206	Remove Disk Unit 7 Concurrent maintenance informational reference code.	
0207	Remove Disk Unit 8 Concurrent maintenance informational reference code.	
0208	Remove Disk Unit K1 Concurrent maintenance informational reference code.	
0209	Remove Disk Unit K2 Concurrent maintenance informational reference code.	
020A	Remove Disk Unit K3 Concurrent maintenance informational reference code.	
020B	Remove Disk Unit K4 Concurrent maintenance informational reference code.	
020C	Remove Disk Unit K5 Concurrent maintenance informational reference code.	
020D	Remove Disk Unit K6 Concurrent maintenance informational reference code.	
020E	Remove Disk Unit K7 Concurrent maintenance informational reference code.	
020F	Remove Disk Unit K8 Concurrent maintenance informational reference code.	
0210	Remove Disk Unit K9 Concurrent maintenance informational reference code.	
0211	Remove Disk Unit K10 Concurrent maintenance informational reference code.	
0212	Remove Disk Unit K11 Concurrent maintenance informational reference code.	
0213	Remove Disk unit K12 Concurrent maintenance informational reference code.	
0214	Remove Disk Unit K13 Concurrent maintenance informational reference code.	
0215	Remove Disk Unit K14 Concurrent maintenance informational reference code.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0216	Remove device 1 Concurrent maintenance informational reference code.	
0217	Remove device 2 Concurrent maintenance informational reference code.	
0218	Remove Disk Unit 9 Concurrent maintenance informational reference code.	
0219	Remove Disk Unit 10 Concurrent maintenance informational reference code.	
021A	Remove Disk Unit 11 Concurrent maintenance informational reference code.	
021B	Remove Disk Unit 12 Concurrent maintenance informational reference code.	
021C	Remove device 3 Concurrent maintenance informational reference code.	
021D	Remove Disk Unit K15 Concurrent maintenance informational reference code.	
021E	Remove Disk Unit K16 Concurrent maintenance informational reference code.	
021F	Remove device 4 Concurrent maintenance informational reference code.	
0220	Remove Disk Unit K17 Concurrent maintenance informational reference code.	
0221	Remove Disk Unit K18 Concurrent maintenance informational reference code.	
0222	Remove Disk Unit K19 Concurrent maintenance informational reference code.	
0223	Remove Disk Unit K20 Concurrent maintenance informational reference code.	
0224	Remove Disk Unit K21 Concurrent maintenance informational reference code.	
0225	Remove Disk Unit K22 Concurrent maintenance informational reference code.	
0226	Remove Disk Unit K23 Concurrent maintenance informational reference code.	
0227	Remove Disk Unit K24 Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0228	Remove Disk Unit K25 Concurrent maintenance informational reference code.	
0229	Remove Disk Unit K26 Concurrent maintenance informational reference code.	
022A	Remove Disk Unit K27 Concurrent maintenance informational reference code.	
022B	Remove Disk Unit K28 Concurrent maintenance informational reference code.	
022C	Remove Disk Unit K29 Concurrent maintenance informational reference code.	
022D	Remove Disk Unit K30 Concurrent maintenance informational reference code.	
022E	Remove Disk Unit K31 Concurrent maintenance informational reference code.	
022F	Remove Disk Unit K32 Concurrent maintenance informational reference code.	
02AC	Detected AC loss If system powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	ACMODUL
0300	Disk Unit 1 regulator has been turned on Installation of disk unit 1 is complete, and the regulator is turned on.	
0301	Disk Unit 2 regulator has been turned on Installation of disk unit 2 is complete, and the regulator is turned on.	
0302	Disk Unit 3 regulator has been turned on Installation of disk unit 3 is complete, and the regulator is turned on.	
0303	Disk Unit 4 regulator has been turned on Installation of disk unit 4 is complete, and the regulator is turned on.	
0304	Disk Unit 5 regulator has been turned on Installation of disk unit 5 is complete, and the regulator is turned on.	
0305	Disk Unit 6 regulator has been turned on Installation of disk unit 6 is complete, and the regulator is turned on.	
0306	Disk Unit 7 regulator has been turned on Installation of disk unit 7 is complete, and the regulator is turned on.	
0307	Disk Unit 8 regulator has been turned on Installation of disk unit 8 is complete, and the regulator is turned on.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0308	Disk Unit K1 regulator has been turned on Installation of disk unit K1 is complete, and the regulator is turned on.	
0309	Disk Unit K2 regulator has been turned on Installation of disk unit K2 is complete, and the regulator is turned on.	
030A	Disk Unit K3 regulator has been turned on Installation of disk unit K3 is complete, and the regulator is turned on.	
030B	Disk Unit K4 regulator has been turned on Installation of disk unit K4 is complete, and the regulator is turned on.	
030C	Disk Unit K5 regulator has been turned on Installation of disk unit K5 is complete, and the regulator is turned on.	
030D	Disk Unit K6 regulator has been turned on Installation of disk unit K6 is complete, and the regulator is turned on.	
030E	Disk Unit K7 regulator has been turned on Installation of disk unit K7 is complete, and the regulator is turned on.	
030F	Disk Unit K8 regulator has been turned on Installation of disk unit K8 is complete, and the regulator is turned on.	
0310	Disk Unit K9 regulator has been turned on Installation of disk unit K9 is complete, and the regulator is turned on.	
0311	Disk Unit K10 regulator has been turned on Installation of disk unit K10 is complete, and the regulator is turned on.	
0312	Disk Unit K11 regulator has been turned on Installation of disk unit K11 is complete, and the regulator is turned on.	
0313	Disk Unit K12 regulator has been turned on Installation of disk unit K12 is complete, and the regulator is turned on.	
0314	Disk Unit K13 regulator has been turned on Installation of disk unit K13 is complete, and the regulator is turned on.	
0315	Disk Unit K14 regulator has been turned on Installation of disk unit K14 is complete, and the regulator is turned on.	
0316	Device 1 regulator has been turned on Installation of device 1 is complete, and the regulator is turned on.	
0317	Device 2 regulator has been turned on Installation of device 2 is complete, and the regulator is turned on.	
0318	Disk Unit 9 regulator has been turned on Installation of disk unit 9 is complete, and the regulator is turned on.	
0319	Disk Unit 10 regulator has been turned on Installation of disk unit 10 is complete, and the regulator is turned on.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
031A	Disk Unit 11 regulator has been turned on Installation of disk unit 11 is complete, and the regulator is turned on.	
031B	Disk Unit 12 regulator has been turned on Installation of disk unit 12 is complete, and the regulator is turned on.	
031C	Device 3 regulator has been turned on Installation of device 3 is complete, and the regulator is turned on.	
031D	Disk Unit K15 regulator has been turned on Installation of disk unit K15 is complete, and the regulator is turned on.	
031E	Disk Unit K16 regulator has been turned on Installation of disk unit K16 is complete, and the regulator is turned on.	
031F	Device 4 regulator has been turned on Installation of device 4 is complete, and the regulator is turned on.	
0320	Disk Unit K17 regulator has been turned on Installation of disk unit K17 is complete, and the regulator is turned on.	
0321	Disk Unit K18 regulator has been turned on Installation of disk unit K18 is complete, and the regulator is turned on.	
0322	Disk Unit K19 regulator has been turned on Installation of disk unit K19 is complete, and the regulator is turned on.	
0323	Disk Unit K20 regulator has been turned on Installation of disk unit K20 is complete, and the regulator is turned on.	
0324	Disk Unit K21 regulator has been turned on Installation of disk unit K21 is complete, and the regulator is turned on.	
0325	Disk Unit K22 regulator has been turned on Installation of disk unit K22 is complete, and the regulator is turned on.	
0326	Disk Unit K23 regulator has been turned on Installation of disk unit K23 is complete, and the regulator is turned on.	
0327	Disk Unit K24 regulator has been turned on Installation of disk unit K24 is complete, and the regulator is turned on.	
0328	Disk Unit K25 regulator has been turned on Installation of disk unit K25 is complete, and the regulator is turned on.	
0329	Disk Unit K26 regulator has been turned on Installation of disk unit K26 is complete, and the regulator is turned on.	
032A	Disk Unit K27 regulator has been turned on Installation of disk unit K27 is complete, and the regulator is turned on.	
032B	Disk Unit K28 regulator has been turned on Installation of disk unit K28 is complete, and the regulator is turned on.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
032C	Disk Unit K29 regulator has been turned on Installation of disk unit K29 is complete, and the regulator is turned on.	
032D	Disk Unit K30 regulator has been turned on Installation of disk unit K30 is complete, and the regulator is turned on.	
032E	Disk Unit K31 regulator has been turned on Installation of disk unit K31 is complete, and the regulator is turned on.	
032F	Disk Unit K32 regulator has been turned on Installation of disk unit K32 is complete, and the regulator is turned on.	
0400	Removal of Disk Unit 1 is complete	
0401	Removal of Disk Unit 2 is complete	
0402	Removal of Disk Unit 3 is complete	
0403	Removal of Disk Unit 4 is complete	
0404	Removal of Disk Unit 5 is complete	
0405	Removal of Disk Unit 6 is complete	
0406	Removal of Disk Unit 7 is complete	
0407	Removal of Disk Unit 8 is complete	
0408	Removal of Disk Unit K1 is complete	
0409	Removal of Disk Unit K2 is complete	
040A	Removal of Disk Unit K3 is complete	
040B	Removal of Disk Unit K4 is complete	
040C	Removal of Disk Unit K5 is complete	
040D	Removal of Disk Unit K6 is complete	
040E	Removal of Disk Unit K7 is complete	
040F	Removal of Disk Unit K8 is complete	
0410	Removal of Disk Unit K9 is complete	
0411	Removal of Disk Unit K10 is complete	
0412	Removal of Disk Unit K11 is complete	
0413	Removal of Disk Unit K12 is complete	
0414	Removal of Disk Unit K13 is complete	
0415	Removal of Disk Unit K14 is complete	
0416	Removal of device 1 is complete	
0417	Removal of device 2 is complete	
0418	Removal of Disk Unit 9 is complete	
0419	Removal of Disk Unit 10 is complete	
041A	Removal of Disk Unit 11 is complete	
041B	Removal of Disk Unit 12 is complete	
041C	Removal of device 3 is complete	
041D	Removal of Disk Unit K15 is complete	
041E	Removal of Disk Unit K16 is complete	
041F	Removal of device 4 is complete	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0500	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit 1, and the bus was released. You must reinitialize the operation to continue.	
0501	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit 2, and the bus was released. You must reinitialize the operation to continue.	
0502	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit 3, and the bus was released. You must reinitialize the operation to continue.	
0503	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 4, and the bus was released. You must reinitialize the operation to continue.	
0504	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 5, and the bus was released. You must reinitialize the operation to continue.	
0505	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 6, and the bus was released. You must reinitialize the operation to continue.	
0506	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 7, and the bus was released. You must reinitialize the operation to continue.	
0507	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 8, and the bus was released. You must reinitialize the operation to continue.	
0508	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K1, and the bus was released. You must reinitialize the operation to continue.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0509	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K2, and the bus was released. You must reinitialize the operation to continue.	
050A	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K3, and the bus was released. You must reinitialize the operation to continue.	
050B	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K4, and the bus was released. You must reinitialize the operation to continue.	
050C	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K5, and the bus was released. You must reinitialize the operation to continue.	
050D	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K6, and the bus was released. You must reinitialize the operation to continue.	
050E	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K7, and the bus was released. You must reinitialize the operation to continue.	
050F	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K8, and the bus was released. You must reinitialize the operation to continue.	
0510	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K9, and the bus was released. You must reinitialize the operation to continue.	
0511	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K10, and the bus was released. You must reinitialize the operation to continue.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0512	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K11, and the bus was released. You must reinitialize the operation to continue.	
0513	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K12, and the bus was released. You must reinitialize the operation to continue.	
0514	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K13, and the bus was released. You must reinitialize the operation to continue.	
0515	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K14, and the bus was released. You must reinitialize the operation to continue.	
0516	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 1, and the bus was released. You must reinitialize the operation to continue.	
0517	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 2, and the bus was released. You must reinitialize the operation to continue.	
0518	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 9, and the bus was released. You must reinitialize the operation to continue.	
0519	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 10, and the bus was released. You must reinitialize the operation to continue.	
051A	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 11, and the bus was released. You must reinitialize the operation to continue.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
051B	Timeout, no action detected. Reinitialize the operation. No action was detected for the installation or removal of disk unit 12, and the bus was released. You must reinitialize the operation to continue.	
051C	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 3, and the bus was released. You must reinitialize the operation to continue.	
051D	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K15, and the bus was released. You must reinitialize the operation to continue.	
051E	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of disk unit K16, and the bus was released. You must reinitialize the operation to continue.	
051F	Timeout, no action detected. Reinitialize the operation No action was detected for the installation or removal of device 4, and the bus was released. You must reinitialize the operation to continue.	
0700	Timeout, no action detected. Reinitialize the operation Disk unit 1 was powered off but not removed. Concurrent maintenance informational reference code.	
0701	Timeout, no action detected. Reinitialize the operation Disk unit 2 was powered off but not removed. Concurrent maintenance informational reference code.	
0702	Timeout, no action detected. Reinitialize the operation Disk unit 3 was powered off but not removed. Concurrent maintenance informational reference code. You must reinitialize the operation to continue.	
0703	Timeout, no action detected. Reinitialize the operation. Disk unit 4 was powered off but not removed. Concurrent maintenance informational reference code.	
0704	Timeout, no action detected. Reinitialize the operation. Disk unit 5 was powered off but not removed. Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0705	Timeout, no action detected. Reinitialize the operation. Disk unit 6 was powered off but not removed. Concurrent maintenance informational reference code.	
0706	Timeout, no action detected. Reinitialize the operation. Disk unit 7 was powered off but not removed. Concurrent maintenance informational reference code.	
0707	Timeout, no action detected. Reinitialize the operation. Disk unit 8 was powered off but not removed. Concurrent maintenance informational reference code.	
0708	Timeout, no action detected. Reinitialize the operation Disk unit K1 was powered off but not removed. Concurrent maintenance informational reference code.	
0709	Timeout, no action detected. Reinitialize the operation Disk unit K2 was powered off but not removed. Concurrent maintenance informational reference code.	
070A	Timeout, no action detected. Reinitialize the operation Disk unit K3 was powered off but not removed. Concurrent maintenance informational reference code.	
070B	Timeout, no action detected. Reinitialize the operation Disk unit K4 was powered off but not removed. Concurrent maintenance informational reference code.	
070C	Timeout, no action detected. Reinitialize the operation Disk unit K5 was powered off but not removed. Concurrent maintenance informational reference code.	
070D	Timeout, no action detected. Reinitialize the operation Disk unit K6 was powered off but not removed. Concurrent maintenance informational reference code.	
070E	Timeout, no action detected. Reinitialize the operation Disk unit K7 was powered off but not removed. Concurrent maintenance informational reference code.	
070F	Timeout, no action detected. Reinitialize the operation Disk unit K8 was powered off but not removed. Concurrent maintenance informational reference code.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0710	Timeout, no action detected. Reinitialize the operation Disk unit K9 was powered off but not removed. Concurrent maintenance informational reference code.	
0711	Timeout, no action detected. Reinitialize the operation Disk unit K10 was powered off but not removed. Concurrent maintenance informational reference code.	
0712	Timeout, no action detected. Reinitialize the operation Disk unit K11 was powered off but not removed. Concurrent maintenance informational reference code.	
0713	Timeout, no action detected. Reinitialize the operation Disk unit K12 was powered off but not removed. Concurrent maintenance informational reference code.	
0714	Timeout, no action detected. Reinitialize the operation Disk unit K13 was powered off but not removed. Concurrent maintenance informational reference code.	
0715	Timeout, no action detected. Reinitialize the operation Disk unit K14 was powered off but not removed. Concurrent maintenance informational reference code.	
0716	Timeout, no action detected. Reinitialize the operation Device 1 was powered off but not removed. Concurrent maintenance informational reference code.	
0717	Timeout, no action detected. Reinitialize the operation Device 2 was powered off but not removed. Concurrent maintenance informational reference code.	
0718	Timeout, no action detected. Reinitialize the operation. Disk unit 9 was powered off but not removed. Concurrent maintenance informational reference code.	
0719	Timeout, no action detected. Reinitialize the operation. Disk unit 10 was powered off but not removed. Concurrent maintenance informational reference code.	
071A	Timeout, no action detected. Reinitialize the operation. Disk unit 11 was powered off but not removed. Concurrent maintenance informational reference code.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
071B	Timeout, no action detected. Reinitialize the operation. Disk unit 12 was powered off but not removed. Concurrent maintenance informational reference code.	
071C	Timeout, no action detected. Reinitialize the operation Device 3 was powered off but not removed. Concurrent maintenance informational reference code.	
071D	Timeout, no action detected. Reinitialize the operation Disk unit K15 was powered off but not removed. Concurrent maintenance informational reference code.	
071E	Timeout, no action detected. Reinitialize the operation Disk unit K16 was powered off but not removed. Concurrent maintenance informational reference code.	
071F	Timeout, no action detected. Reinitialize the operation Device 4 was powered off but not removed. Concurrent maintenance informational reference code.	
0800	Blower B01 powered off for concurrent maintenance	
0801	Blower B02 powered off for concurrent maintenance	
0802	Blower B03 powered off for concurrent maintenance	
0803	Blower B04 powered off for concurrent maintenance	
0900	Power Supply P01 powered off for concurrent maintenance	
0901	Power Supply P02 powered off for concurrent maintenance	
0902	Power Supply P03 powered off for concurrent maintenance	
0903	Power Supply P04 powered off for concurrent maintenance	
0904	Power Supply P05 powered off for concurrent maintenance	
0905	Power Supply P06 powered off for concurrent maintenance	
0F0F	AC Module Failure The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F12	Undefined box ID, EEPROM test failed The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F13	Undefined box ID, Code type mismatch The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F1F	Undefined box ID, LCD test failed The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0F2C	Unknown box ID The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F2D	Unknown box ID, Code level mismatch. The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN 21F9429
0F2E	SPCN Network Fault The box ID is not defined. A network communications failure occurred.	TWRCARD BACKPLN 21F9429
102B	PCC Overcurrent The power control compartment is causing an over current condition in the FC 5032 Removable Storage Unit power system. The ac module and the SPCN port cable should be exchanged together.	TWRCARD 21F5680 21F5793 21F9362
1100	Power Supply P01 error A fault detection failure occurred for Power Supply P01.	PWRSPLY ACMODUL BKSPCN CBLALL
1101	Power Supply P02 error A fault detection failure occurred for Power Supply P02.	PWRSPLY ACMODUL BKSPCN CBLALL
1102	Power Supply P03 error A fault detection failure occurred for Power Supply P03.	PWRSPLY ACMODUL BKSPCN CBLALL
1103	Power Supply P04 error A fault detection failure occurred for Power Supply P04.	PWRSPLY ACMODUL BKSPCN CBLALL
1104	Power Supply P05 error A fault detection failure occured for Power Supply P05.	PWRSPLY ACMODUL BKSPCN CBLALL
1105	Power Supply P06 error A fault detection failure occured for Power Supply P06.	PWRSPLY ACMODUL BKSPCN CBLALL
1108	Regulator R01 error A fault detection failure occurred for Regulator R01.	PWRREG BKSPCN
1109	Regulator R02 error A fault detection failure occurred for Regulator R02.	PWRREG BKSPCN
110A	Regulator R03 error A fault detection failure occurred for Regulator R03.	PWRREG BKSPCN
110B	Regulator R04 error A fault has been detected for Regulator R04.	PWRREG BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
110C	Regulator R05 error A fault detection failure occurred for Regulator R05.	PWRREG BKSPCN
110D	Regulator R06 error A fault detection failure occurred for Regulator R06.	PWRREG BKSPCN
110E	Regulator R07 error A fault detection failure occurred for Regulator R07.	PWRREG BKSPCN
110F	Regulator R08 error A fault detection failure occurred for Regulator R08.	PWRREG BKSPCN
1110	Regulator R09 error A fault detection failure occurred for regulator R09.	PWRREG BKSPCN
1111	Regulator R10 error A fault detection failure occurred for Regulator R10.	PWRREG BKSPCN
1112	Regulator R11 error A fault detection failure occurred for Regulator R11.	PWRREG BKSPCN
1113	Regulator R12 error A fault detection failure occurred for Regulator R12.	BKSPCN BACKPLN
1114	Regulator R13 error A fault detection failure occurred for Regulator R13.	BKSPCN BACKPLN
1115	Regulator R14 error A fault detection failure occurred for Regulator R14.	BKSPCN BACKPLN
1116	Regulator R15 error A fault detection failure occurred for Regulator R15.	BKSPCN BACKPLN
1117	Regulator R16 error A fault detection failure occurred for Regulator R16.	BKSPCN BACKPLN
1118	Regulator R17 error A fault detection failure occurred for Regulator R17.	BKSPCN BACKPLN
1119	Regulator R18 error A fault detection failure occurred for Regulator R18.	BKSPCN BACKPLN
111A	Regulator R19 error A fault detection failure occurred for Regulator R19.	BKSPCN BACKPLN
111B	Regulator R20 error A fault detection failure occurred for Regulator R20.	PWRREG BKSPCN
111C	Regulator R21 error A fault detection failure occurred for Regulator R21.	PWRREG BKSPCN
111D	Regulator R22 error A fault detection failure occurred for Regulator R22.	PWRREG BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
111E	Regulator R23 error A fault detection failure occurred for Regulator R23.	PWRREG BKSPCN
1200	29V Buss Fault A 29V Bus fault has been detected.	BUSPWR BKSPCN
1201	3.3V Memory 2 Control Regulator Fault A 3.3V Memory 2 Control Regulator fault has been detected.	DMREG BKSPCN
1202	2.5V Memory Control Regulator Fault A 2.5V Memory Control Regulator fault has been detected.	DMREG BKSPCN
1203	Cache Regulator Fault A Cache Regulator fault has been detected.	DMREG BKSPCN
1204	3.3V Memory 1 Control Regulator Fault A 3.3V Memory 1 Control Regulator fault has been detected.	DMREG BKSPCN
1205	Processor 1 Regulator Fault A Processor 1 Regulator fault has been detected.	DMREG BKSPCN
1206	Processor 2 Regulator Fault A Processor 2 Regulator fault has been detected.	DMREG BKSPCN
1207	Clock Regulator Fault .A Clock Regulator fault has been detected.	DMREG BKSPCN
1300	Power Supply P01 Fault A fault has been detected for Power Supply P01.	PWRSPLY BKSPCN
1301	Power Supply P02 Fault A fault has been detected for Power Supply P02.	PWRSPLY BKSPCN
1302	Power Supply P03 Fault A fault has been detected for Power Supply P03.	PWRSPLY BKSPCN
1303	Power Supply P04 Fault A fault has been detected for Power Supply P04.	PWRSPLY BKSPCN
1304	Power Supply P05 Fault A fault has been detected for Power Supply P05.	PWRSPLY BKSPCN
1305	Power Supply P06 Fault A fault has been detected for Power Supply P06.	PWRSPLY BKSPCN
1308	Regulator R01 Fault A fault has been detected for Regulator R01.	PWRREG BKSPCN
1309	Regulator R02 Fault A fault has been detected for Regulator R02.	PWRREG BKSPCN
130A	Regulator R03 Fault A fault has been detected for Regulator R03.	PWRREG BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
130B	Regulator R04 Fault A fault has been detected for Regulator R04.	PWRREG BKSPCN
130C	Regulator R05 Fault A fault has been detected for Regulator R05.	PWRREG BKSPCN
130D	Regulator R06 Fault A fault has been detected for Regulator R06.	PWRREG BKSPCN
130E	Regulator R07 Fault A fault has been detected for Regulator R07.	PWRREG BKSPCN
130F	Regulator R08 Fault A fault has been detected for Reulator R08.	PWRREG BKSPCN
1310	Regulator R09 Fault A fault has been detected for Regulator R09.	PWRREG BKSPCN
1311	Regulator R10 Fault A fault has been detected for Regulator R10.	PWRREG BKSPCN
1312	Regulator R11 Fault A fault has been detected for Regulator R11.	PWRREG BKSPCN
1313	Regulator R12 Fault A fault has been detected for Regulator R12.	BKSPCN BACKPLN
1314	Regulator R13 Fault A fault has been detected for Regulator R13.	BKSPCN BACKPLN
1315	Regulator R14 Fault A fault has been detected for Regulator R14.	BKSPCN BACKPLN
1316	Regulator R15 Fault A fault has been detected for Regulator R15.	BKSPCN BACKPLN
1317	Regulator R16 Fault A fault has been detected for Regulator R16.	BKSPCN BACKPLN
1318	Regulator R17 Fault A fault has been detected for Regulator R17.	BKSPCN BACKPLN
1319	Regulator R18 Fault A fault has been detected for Regulator R18.	BKSPCN BACKPLN
131A	Regulator R19 Fault A fault has been detected for Regulator R19.	BKSPCN BACKPLN
131B	Regulator R20 Fault A fault has been detected for Regulator R20.	PWRREG BKSPCN
131C	Regulator R21 Fault A fault has been detected for Regulator R21.	PWRREG BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
131D	Regulator R22 Fault A fault has been detected for Regulator R22.	PWRREG BKSPCN
131E	Regulator R23 Fault A fault has been detected for Regulator R23.	PWRREG BKSPCN
1401	3.3V Memory Control 2 Domain Fault A 3.3V Memory 2 Control Domain fault has been detected.	DMREG BKSPCN
1402	2.5V Memory Control Domain Fault A 2.5V Memory Control Domain fault has been detected.	DMREG BKSPCN
1403	Cache Regulator Domain Fault A Cache Regulator Domain fault has been detected.	DMREG BKSPCN
1404	3.3V Memory Control 1 Domain Fault A 3.3V Memory Control 1 Domain fault has been detected.	DMREG BKSPCN
1405	Processor 1 Regulator Domain Fault A Processor 1 Regulator Domain fault has been detected.	DMREG BKSPCN
1406	Processor 2 Regulator Domain Fault A Processor 2 Regulator Domain fault has been detected.	DMREG BKSPCN
1407	Clock Regulator Domain Fault .A Clock Regulator Domain fault has been detected.	DMREG BKSPCN
1510	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1511	Power supply failure	PWRSPLY TWRCARD
1512	Power supply failure	PWRSPLY TWRCARD CBLALL
1513 to 1514	Power supply failure	PWRSPLY TWRCARD
1516	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD
1520	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1521	Power supply failure	PWRSPLY TWRCARD
1522	Power supply failure	PWRSPLY TWRCARD CBLALL
1523 to 1524	Power supply failure	PWRSPLY TWRCARD
1526	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1530	Power Supply P03 fault/AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1531	Power Supply P03 fault	PWRSPLY TWRCARD
1532	Power Supply P03 Communication fault	PWRSPLY TWRCARD CBLALL
1533 to 1534	Power Supply P03 fault	PWRSPLY TWRCARD
1611	Regulator Fault on Card Position M01	PWRREG TWRCARD
1612	Regulator Communication Fault on Card Position M01	PWRREG TWRCARD
1613, 1621	Regulator Fault on Card Position M01	PWRREG TWRCARD
1622	Regulator Communication Fault on Card Position M01	PWRREG TWRCARD
1623	Regulator Fault on Card Position M01	PWRREG TWRCARD
1631	Regulator Fault on Card Position M06	PWRREG TWRCARD
1632	Regulator Communication Fault on Card Position M06	PWRREG TWRCARD
1633	Regulator Fault on Card Position M06	PWRREG TWRCARD
1810	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1820	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1830	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1840	Load fault on the -12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1910	Power Supply PP1 fault/AC loss If the Power Supply PP1 powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	PWRSPLY TWRCARD
1911	Power Supply PP1 fault	PWRSPLY TWRCARD
1912	Power Supply PP1 Communication fault	PWRSPLY TWRCARD
1913	Power Supply PP1 fault	PWRSPLY TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1920	Power Supply PP2 fault/AC loss If the Power Supply PP2 powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	PWRSPLY TWRCARD
1921	Power Supply PP2 fault	PWRSPLY TWRCARD
1922	Power Supply PP2 Communication fault	PWRSPLY TWRCARD
1923	Power Supply PP2 fault	PWRSPLY TWRCARD
1A00	CPM Regulator Load Fault	PWRSPLY TWRCARD
1A10	CPM Regulator PP1 Fault	PWRSPLY TWRCARD
1A20	CPM Regulator PP2 Fault	PWRSPLY TWRCARD
1B01	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B02	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B03	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B04	Load fault on the -12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B05	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B06 to 1B07	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B09	CPM Regulator Load Fault	PWROC TWRCARD
1C01	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C03	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C05	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C06 to 1C08	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C09	CPM Regulator Load Fault	PWRREG BKSPCN
1F00	No SRC Translate	AJSDJ04

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2131	Power Supply P01 Fault A fault has been detected for Power Supply P01.	PWRSPLY SPNLCRD
2132	Power Supply P02 Fault A fault has been detected for Power Supply P02.	PWRSPLY SPNLCRD
2133	Power Supply P03 Fault A fault has been detected for Power Supply P03.	PWRSPLY SPNLCRD
2134	Power Supply P04 Fault A fault has been detected for Power Supply P04.	PWRSPLY SPNLCRD
2141	Power Supply P01 Fault A fault has been detected for Power Supply P01.	PWRSPLY SPNLCRD
2142	Power Supply P02 Fault A fault has been detected for Power Supply P02.	PWRSPLY SPNLCRD
2143	Power Supply P03 Fault A fault has been detected for Power Supply P03.	PWRSPLY SPNLCRD
2144	Power Supply P04 Fault A fault has been detected for Power Supply P04.	PWRSPLY SPNLCRD
2151	Power Supply P01 Fault A fault has been detected for Power Supply P01.	PWRSPLY SPNLCRD
2152	Power Supply P02 Fault A fault has been detected for Power Supply P02.	PWRSPLY SPNLCRD
2153	Power Supply P03 Fault A fault has been detected for Power Supply P03.	PWRSPLY SPNLCRD
2154	Power Supply P04 Fault A fault has been detected for Power Supply P04.	PWRSPLY SPNLCRD
2201	Power Supply P01 or P02 Overcurrent Fault A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2202	Power Supply P03 or P04 Overcurrent Fault A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2210	One of the CPM regulators has reported a fault	PWRSPLY SPNLCRD
2211	CPM Regulator 1 Fault	PWRSPLY SPNLCRD
2212	CPM Regulator 2 Fault	PWRSPLY SPNLCRD
2213	CPM Regulator 3 Fault	PWRSPLY SPNLCRD
2221	Power Good Fault A MFIOP power good fault occurred.	SPNLCRD PGDPART CBLALL

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2222	Power Good Type M Fault A Memory power good fault occurred.	SPNLCRD PGDPART CBLALL
2223	Power Good Type P Fault A Processor power good fault occurred.	SPNLCRD PGDPART CBLALL
2224	Power Good Type I Fault A Internal expansion power good fault occurred.	SPNLCRD PGDPART CBLALL
2231	System Unit Interlock Failure	INTRLCK SPNLCRD CBLALL
2232	Secondary Frame Interlock Failure	INTRLCK SPNLCRD CBLALL
2240	Air Moving Device Panel Fault	AIRMOVR PWRSPLY
2241	Air Moving Device 1 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2242	Air Moving Device 2 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2244	Air Moving Device 4 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2245	Air Moving Device 5 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2246	Air Moving Device 6 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR SPNLCRD
2260	Timeout on Panel for Request of VPD	CTLPNL
2301	Power Supply P01 or P02 Overcurrent error A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2302	Power Supply P03 or P04 Overcurrent error A POW-PIP is required for identifying which load is at fault.	PWROC SPNLCRD CBLALL
2311	Power Supply P01 error A fault detection failure occurred for Power Supply P01.	PWRSPLY SPNLCRD CBLALL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2312	Power Supply P02 error A fault detection failure occurred for Power Supply P02.	PWRSPLY SPNLCRD CBLALL
2313	Power Supply P03 error A fault detection failure occurred for Power Supply P03.	PWRSPLY SPNLCRD CBLALL
2314	Power Supply P04 error A fault detection failure occurred for Power Supply P04.	PWRSPLY SPNLCRD CBLALL
2321	Power Good Fault A MFIOP power good error was detected.	SPNLCRD CBLALL PGDPART
2322	Power Good Type M error A Memory power good error was detected.	SPNLCRD CBLALL PGDPART
2323	Power Good Type P error A Processor power good error was detected.	SPNLCRD CBLALL PGDPART
2324	Power Good Type I error A Internal expansion power good error was detected.	SPNLCRD CBLALL PGDPART
2330	Power Supply P01 not installed	PWRSPLY SPNLCRD
2331	Power Supply P01 ID is Invalid	PWRSPLY SPNLCRD
2332	Power Supply P02 ID is Invalid	PWRSPLY SPNLCRD
2333	Power Supply P03 ID is Invalid	PWRSPLY SPNLCRD
2334	Power Supply P04 ID is Invalid	PWRSPLY SPNLCRD
2400 to 2402	UPS Enable/Disable Failure	UPSUNIT SPNLCRD
2403	UPS CPM Failure	UPSUNIT SPNLCRD
2404	UPS Battery Failure	BATRY UPSUNIT
2405	UPS Unit Failure	UPSUNIT SPNLCRD
2406 to 2407	UPS Enable/Disable Failure	UPSUNIT SPNLCRD
2410 to 2411	UPS Test Failure	UPSUNIT SPNLCRD
2413	UPS Interface Failure	UPSUNIT SPNLCRD
2600	Power Good Fault	PGDPART TWRCARD PWRSPLY
2601 to 2604	Power Good Fault	PGDPART TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2610	Processor/Memory Card not installed	PWRSPLY TWRCARD
2612	Optical Converter 5V Fault The SPCN detected a fault on the SPCN card optical converter 5V.	CBLALL TWRCARD
2613	Configuration Requires 200V Input Configuration now requires 200V AC power.	CBLALL
300E	EPO Circuit Fault The ac module installed in the 9406 Expansion Unit (FC 504x) detected a fault in the UEPO signal. The signal was active and the incoming ac voltage was still present.	TWRCARD 21F9362 21F5680
302B	PCC Overcurrent The power control compartment is causing an over current condition in the 9406 Expansion Unit power system. Exchange the ac module and the SPCN port cable at the same time.	TWRCARD 21F5680 21F9631 21F9362
3100	I2C Bus Controller Communication fault	I2CBUS TWRCARD
3101	I2C Bus 1 Communication fault	I2CBUS TWRCARD
3102	I2C Bus 2 Communication fault	I2CBUS TWRCARD
3103	I2C Bus 3 Communication fault	I2CBUS TWRCARD
3104	I2C Bus 4 Communication fault	I2CBUS TWRCARD
3105	I2C Bus 5 Communication fault	I2CBUS TWRCARD
3106	I2C Bus 6 Communication fault	I2CBUS TWRCARD
3110	I2C Bus DASD Backplane 1 Communication fault	I2CBUS TWRCARD
3111	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
3112	I2C Bus DASD Backplane 3 Communication fault	I2CBUS TWRCARD
3113	I2C Bus Adapter Communication fault	I2CBUS TWRCARD
3114	I2C Bus PCI Backplane Communication fault	I2CBUS TWRCARD
3115	I2C Bus Panel Communication fault	I2CBUS TWRCARD
3116	I2C Bus Fan Local Controller Communication fault	I2CBUS TWRCARD
3117	I2C Bus Fan Remote Controller Communication fault	I2CBUS TWRCARD
3118	I2C Bus SPCN VPD Communication fault	I2CBUS TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
311C	I2C Bus Panel Communication fault	I2CBUS TWRCARD
4410	Internal Battery Power Unit Fault Internal Battery Power Unit in the system has failed.	BATRY BATCHGR TWRCARD CBLALL
4411	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4412	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR BATRY TWRCARD CBLALL
4413	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4414	Battery Charger Load fault	PWROC BATRY TWRCARD CBLALL
4415	Battery Power Unit missing	BATRY TWRCARD CBLALL
4416	Internal Battery Power Unit Charger Fault	BATCHGR TWRCARD CBLALL
4417	Battery Charger Unit missing	BATCHGR TWRCARD CBLALL
4500 to 4502	UPS Enable/Disable Failure	UPSUNIT TWRCARD
4503	UPS CPM Failure	UPSUNIT TWRCARD
4504	UPS Battery Failure	BATRY UPSUNIT
4505	UPS Unit Failure	UPSUNIT TWRCARD
4507	UPS Enable/Disable Failure	UPSUNIT TWRCARD
4510	UPS Test Failure	UPSUNIT TWRCARD
4513	UPS Interface Failure	UPSUNIT TWRCARD
6018	One of the regulators has reported a fault A regulator fault was detected.	PWRREG BKSPCN
601A	One of the CPM regulators has reported a fault A CPM regulator fault was detected.	PWRREG BKSPCN FI00030

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6118	Regulator over current fault One of the regulators detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG BKSPCN
6218	Regulator over current fault Regulator 1 detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG BKSPCN
6238	Regulator over current fault Regulator 2 detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG BKSPCN
6258	Regulator over current fault Regulator 3 detected an over current condition. This may be caused by the regulator or one of cards powered by the regulator.	PWRREG ACMODUL
6318	Regulator Fault Regulator 1 has reported a fault.	PWRREG BKSPCN
631A	Regulator Fault Regulator 1 has reported a fault.	PWRREG ACMODUL FI00030
6338	Regulator Fault Regulator 2 reported a fault.	PWRREG BKSPCN
633A	Regulator Fault Regulator 2 reported a fault.	PWRREG ACMODUL FI00030
6358	Regulator Fault A regulator 3 reported a fault.	PWRREG ACMODUL
6400 to 6401	Power Good Fault	PGDPART FI00065 BKSPCN
6518	One of the regulators has reported a fault An over current sensor failure occurred for a regulator. The ac module or one of the regulators can cause this fault.	PWRREG BKSPCN
6618	Regulator over current fault Regulator 1 reported a false over current condition. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
6638	Regulator over current fault Regulator 2 reported a false over current condition. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
6658	Regulator over current fault Regulator 3 reported a false over current condition. Fault tolerance may allow continued system operation.	PWRREG ACMODUL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6718	Regulator fault Regulator 1 reported a fault. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
671A	Regulator fault	PWRREG BKSPCN FI00030
6738	Regulator fault Regulator 2 reported a fault. Fault tolerance may allow continued system operation.	PWRREG BKSPCN
673A	Regulator fault Regulator 18 reported a fault. Fault tolerance may allow continued system operation.	PWRREG BKSPCN FI00030
6758	Regulator fault Regulator 3 reported a fault. Fault tolerance may allow continued system operation.	PWRREG ACMODUL
6818	One of the regulators has reported a fault A fault detection failure occurred for a regulator. The regulator or the ac module/SPCN card can cause this fault.	PWRREG BKSPCN
6918	One of the regulators has reported a fault An over current fault detection failure occurred for a regulator. The regulator or the ac module/SPCN card can cause this fault.	PWRREG BKSPCN
6A18	Regulator Fault A regulator fault detection failure occurred for regulator 1. The ac module or the regulator can cause this fault.	PWRREG BKSPCN BACKPLN
6A38	Regulator Fault A regulator fault detection failure occurred for regulator 2. The regulator or the ac module/SPCN card can cause this fault.	PWRREG BKSPCN BACKPLN
6A58	Regulator Fault A regulator fault detection failure occurred for regulator 3. The regulator or the ac module/SPCN card can cause this fault.	PWRREG ACMODUL BACKPLN
6B00	Disk Unit 1 regulator fault The regulator that powers disk unit 1 reported a fault.	DISKTRY DISKDRV BKSPCN
6B01	Disk Unit 2 regulator fault The regulator that powers disk unit 2 reported a fault.	DISKTRY DISKDRV BKSPCN
6B02	Disk Unit 3 regulator fault The regulator that powers disk unit 3 reported a fault.	DISKTRY DISKDRV BKSPCN
6B03	Disk Unit 4 regulator fault The regulator that powers disk unit 4 reported a fault.	DISKTRY DISKDRV BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6B04	Disk Unit 5 regulator fault The regulator that powers disk unit 5 reported a fault.	DISKTRY DISKDRV BKSPCN
6B05	Disk Unit 6 regulator fault The regulator that powers disk unit 6 reported a fault.	DISKTRY DISKDRV BKSPCN
6B06	Disk Unit 7 regulator fault The regulator that powers disk unit 7 reported a fault.	DISKTRY DISKDRV BKSPCN
6B07	Disk Unit 8 regulator fault The regulator that powers disk unit 8 reported a fault.	DISKTRY DISKDRV BKSPCN
6B08	Disk Unit K1 regulator fault The regulator that powers disk unit K1, located in slot K1 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B09	Disk Unit K2 regulator fault The regulator that powers disk unit K2, located in slot K2 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0A	Disk Unit K3 regulator fault The regulator that powers disk unit K3, located in slot K3 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0B	Disk Unit K4 regulator fault The regulator that powers disk unit K4, located in slot K4 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0C	Disk Unit K5 regulator fault The regulator that powers disk unit K5, located in slot 5 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0D	Disk Unit K6 regulator fault The regulator that powers disk unit K6, located in slot K6 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0E	Disk Unit K7 regulator fault The regulator that powers disk unit K7, located in slot K7 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B0F	Disk Unit K8 regulator fault The regulator that powers disk unit K8, located in slot K8 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B10	Disk Unit K9 regulator fault The regulator that powers disk unit K9, located in slot K9 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B11	Disk Unit K10 regulator fault The regulator that powers disk unit K10, located in slot K10 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6B12	Disk Unit K11 regulator fault The regulator that powers disk unit K11, located in slot K11 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B13	Disk Unit K12 regulator fault The regulator that powers disk unit K12, located in slot K12 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B14	Disk Unit K13 regulator fault The regulator that powers disk unit K13, located in slot K13 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B15	Disk Unit K14 regulator fault The regulator that powers disk unit K14, located in slot K14 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B16	Device 1 regulator fault The regulator for device 1 or D01 reported a fault.	RMDEV BKSPCN
6B17	Device 2 regulator fault The regulator for device 2 or D02 reported a fault.	RMDEV BKSPCN
6B18	Disk Unit 9 regulator fault The regulator that powers disk unit 9 reported a fault.	DISKTRY DISKDRV BKSPCN
6B19	Disk Unit 10 regulator fault The regulator that powers disk unit 10 reported a fault.	DISKTRY DISKDRV BKSPCN
6B1A	Disk Unit 11 regulator fault The regulator that powers disk unit 11 reported a fault.	DISKTRY DISKDRV BKSPCN
6B1B	Disk Unit 12 regulator fault The regulator that powers disk unit 12 reported a fault.	DISKTRY DISKDRV BKSPCN
6B1C	Device 3 regulator fault The regulator for device 3 reported a fault.	RMDEV BKSPCN
6B1D	Disk Unit K15 regulator fault The regulator that powers disk unit K15, located in slot K15 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B1E	Disk Unit K16 regulator fault The regulator that powers disk unit K16, located in slot K16 of the disk expansion unit, reported a fault.	DISKTRY DISKDRV BKSPCN
6B1F	Device 4 regulator fault The regulator for device 4 reported a fault.	RMDEV BKSPCN
6B20	Disk Unit K17 regulator fault The regulator that powers disk unit K17 reported a fault.	DISKTRY DISKDRV BKSPCN
6B21	Disk Unit K18 regulator fault The regulator that powers disk unit K18 reported a fault.	DISKTRY DISKDRV BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6B22	Disk Unit K19 regulator fault The regulator that powers disk unit K19 reported a fault.	DISKTRY DISKDRV BKSPCN
6B23	Disk Unit K20 regulator fault The regulator that powers disk unit K20 reported a fault.	DISKTRY DISKDRV BKSPCN
6B24	Disk Unit K21 regulator fault The regulator that powers disk unit K21 reported a fault.	DISKTRY DISKDRV BKSPCN
6B25	Disk Unit K22 regulator fault The regulator that powers disk unit K22 reported a fault.	DISKTRY DISKDRV BKSPCN
6B26	Disk Unit K23 regulator fault The regulator that powers disk unit K23 reported a fault.	DISKTRY DISKDRV BKSPCN
6B27	Disk Unit K24 regulator fault The regulator that powers disk unit K24 reported a fault.	DISKTRY DISKDRV BKSPCN
6B28	Disk Unit K25 regulator fault The regulator that powers disk unit K25 reported a fault.	DISKTRY DISKDRV BKSPCN
6B29	Disk Unit K26 regulator fault The regulator that powers disk unit K26 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2A	Disk Unit K27 regulator fault The regulator that powers disk unit K27 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2B	Disk Unit K28 regulator fault The regulator that powers disk unit K28 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2C	Disk Unit K29 regulator fault The regulator that powers disk unit K29 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2D	Disk Unit K30 regulator fault The regulator that powers disk unit K30 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2E	Disk Unit K31 regulator fault The regulator that powers disk unit K31 reported a fault.	DISKTRY DISKDRV BKSPCN
6B2F	Disk Unit K32 regulator fault The regulator that powers disk unit K32 reported a fault.	DISKTRY DISKDRV BKSPCN
6C00	Disk Unit 1 regulator fault A fault detection failure occurred for the regulator that powers disk unit 1 or F01. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C01	Disk Unit 2 regulator fault A fault detection failure occurred for the regulator that powers disk unit 2 or F02. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C02	Disk Unit 3 regulator fault A fault detection failure occurred for the regulator that powers disk unit 3 or F03. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C03	Disk Unit 4 regulator fault A fault detection failure occurred for the regulator that powers disk unit 4 or F04. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C04	Disk Unit 5 regulator fault A fault detection failure occurred for the regulator that powers disk unit 5 or F05. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C05	Disk Unit 6 regulator fault A fault detection failure occurred for the regulator that powers disk unit 6 or F06. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C06	Disk Unit 7 regulator fault A fault detection failure occurred for the regulator that powers disk unit 7 or F07. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C07	Disk Unit 8 regulator fault A fault detection failure occurred for the regulator that powers disk unit 8 or F08. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C08	Disk Unit K1 regulator fault A fault detection failure occurred for the regulator that powers disk unit K1, located in slot 1 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C09	Disk Unit K2 regulator fault A fault detection failure occurred for the regulator that powers disk unit K2, located in slot 2 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0A	Disk Unit K3 regulator fault A fault detection failure occurred for the regulator that powers disk unit K3, located in slot 3 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0B	Disk Unit K4 regulator fault A fault detection failure occurred for the regulator that powers disk unit K4, located in slot 4 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0C	Disk Unit K5 regulator fault A fault detection failure occurred for the regulator that powers disk unit K5, located in slot 5 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0D	Disk Unit K6 regulator fault A fault detection failure occurred for the regulator that powers disk unit K6, located in slot 6 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C0E	Disk Unit K7 regulator fault A fault detection failure occurred for the regulator that powers disk unit K7, located in slot 7 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C0F	Disk Unit K8 regulator fault A fault detection failure occurred for the regulator that powers disk unit K8, located in slot 8 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C10	Disk Unit K9 regulator fault A fault detection failure occurred for the regulator that powers disk unit K9, located in slot 9 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C11	Disk Unit K10 regulator fault A fault detection failure occurred for the regulator that powers disk unit K10, located in slot 10 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C12	Disk Unit K11 regulator fault A fault detection failure occurred for the regulator that powers disk unit K11, located in slot 11 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C13	Disk Unit K12 regulator fault A fault detection failure occurred for the regulator that powers disk unit K12, located in slot 12 of the disk expansion unit. The regulator or the ac module/SPCN card can cause this fault.	DISKTRY BKSPCN
6C14	Disk Unit K13 regulator fault A fault detection failure occurred for the regulator that powers disk unit K13, located in slot 13 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C15	Disk Unit K14 regulator fault A fault detection failure occurred for the regulator that powers disk unit K14, located in slot 14 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C16	Device 1 regulator fault A fault detection failure occurred for the regulator that powers device 1 or D01. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C17	Device 2 regulator fault A fault detection failure occurred for the regulator that powers device 2 or D02. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C18	Disk Unit 9 regulator fault A fault detection failure occurred for the regulator that powers disk unit 9. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C19	Disk Unit 10 regulator fault A fault detection failure occurred for the regulator that powers disk unit 10. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C1A	Disk Unit 11 regulator fault A fault detection failure occurred for the regulator that powers disk unit 11. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1B	Disk Unit 12 regulator fault A fault detection failure occurred for the regulator that powers disk unit 12. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1C	Device 3 regulator fault A fault detection failure occurred for the regulator that powers device 3. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C1D	Disk Unit K15 regulator fault A fault detection failure occurred for the regulator that powers disk unit K15, located in slot 15 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1E	Disk Unit K16 regulator fault A fault detection failure occurred for the regulator that powers disk unit K16, located in slot 16 of the disk expansion unit. The regulator or the ac module can cause this fault.	DISKTRY BKSPCN
6C1F	Device 4 regulator fault A fault detection failure occurred for the regulator that powers device 4. The regulator or the ac module can cause this fault.	RMDEV BKSPCN
6C20	Disk Unit K17 regulator fault A fault detection failure occurred for the regulator that powers disk unit K17.	DISKTRY BKSPCN
6C21	Disk Unit K18 regulator fault A fault detection failure occurred for the regulator that powers disk unit K18.	DISKTRY BKSPCN
6C22	Disk Unit K19 regulator fault A fault detection failure occurred for the regulator that powers disk unit K19.	DISKTRY BKSPCN
6C23	Disk Unit K20 regulator fault A fault detection failure occurred for the regulator that powers disk unit K20.	DISKTRY BKSPCN
6C24	Disk Unit K21 regulator fault A fault detection failure occurred for the regulator that powers disk unit K21.	DISKTRY BKSPCN
6C25	Disk Unit K22 regulator fault A fault detection failure occurred for the regulator that powers disk unit K22.	DISKTRY BKSPCN
6C26	Disk Unit K23 regulator fault A fault detection failure occurred for the regulator that powers disk unit K23.	DISKTRY BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C27	Disk Unit K24 regulator fault A fault detection failure occurred for the regulator that powers disk unit K24.	DISKTRY BKSPCN
6C28	Disk Unit K25 regulator fault A fault detection failure occurred for the regulator that powers disk unit K25.	DISKTRY BKSPCN
6C29	Disk Unit K26 regulator fault A fault detection failure occurred for the regulator that powers disk unit K26.	DISKTRY BKSPCN
6C2A	Disk Unit K27 regulator fault A fault detection failure occurred for the regulator that powers disk unit K27.	DISKTRY BKSPCN
6C2B	Disk Unit K28 regulator fault A fault detection failure occurred for the regulator that powers disk unit K28.	DISKTRY BKSPCN
6C2C	Disk Unit K29 regulator fault A fault detection failure occurred for the regulator that powers disk unit K29.	DISKTRY BKSPCN
6C2D	Disk Unit K30 regulator fault A fault detection failure occurred for the regulator that powers disk unit K30.	DISKTRY BKSPCN
6C2E	Disk Unit K31 regulator fault A fault detection failure occurred for the regulator that powers disk unit K31.	DISKTRY BKSPCN
6C2F	Disk Unit K32 regulator fault A fault detection failure occurred for the regulator that powers disk unit K32.	DISKTRY BKSPCN
7000 to 7004	Air Moving Device Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR BKSPCN
7101	Power supply failure The ac power supply module reported a fault. One of the other power supplies may also cause this error.	PWRSPLY
7102	Power supply failure Feature power supply 2 reported a fault. An ac module or one of the other feature power supplies may also cause this error.	PWRSPLY ACMODUL
7103	Power supply failure Feature power supply 1 reported a fault. The ac module or one of the other feature power supplies may also cause this error.	PWRSPLY ACMODUL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7201	Power Supply over current fault The ac module reported an over current condition. This is usually caused by one of the regulators. Perform SPCN-PIP10.	PWRREG PWRSPLY ACMODUL
7202	Power Supply over current fault Feature power supply 2 reported an over current condition. This is usually caused by one of the regulators. Perform SPCN-PIP10.	PWRREG PWRSPLY ACMODUL
7203	Power Supply over current fault Feature power supply 1 reported an over current condition. This is usually caused by one of the regulators. Perform SPCN-PIP10.	PWRREG PWRSPLY ACMODUL
7300	AC Module Over current The ac module or one of the feature power supplies reported an over current condition. Perform SPCN-PIP10.	ACMODUL PWRSPLY
7400	Control Supply fault A control supply fault was reported in the ac module.	ACMODUL BKSPCN
7401	Control Supply over current A control supply over current condition was detected in the ac module.	ACMODUL PWRREG BKSPCN
7402	Control Supply 5V regulator fault The SPCN detected a fault in the +5 V dc regulator of the control supply in the ac module.	ACMODUL BKSPCN
7403	Control Supply 12V regulator fault The SPCN detected a fault in the +12 V dc regulator of the control supply in the ac module.	ACMODUL
7404	Control Supply 12V regulator over current An over current condition was detected in the +12 V dc regulator of the control supply in the ac module. Perform SPCN-PIP10.	ACMODUL PWRSPLY FI00251
7405	Control Supply 5VSW Regulator Fault	IDPART TWRCARD
7406	Control Supply 5VSW power off failure This failure must be corrected before removing powered VPDPART to avoid damage.	ACMODUL CTLPNL BKSPCN
7407	Optical Converter 5V Fault The SPCN detected a fault on the SPCN card optical converter 5V.	90H6287 SPNLCRD
7410 to 7411	AC Module Failure	ACMODUL BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7412 to 7413	Control Supply 5VSW Regulator Fault	ACMODUL BKSPCN
7414 to 7415	Control Supply 5VSW power off failure This failure must be corrected before removing powered VPDPART to avoid damage.	ACMODUL BKSPCN
7416	VPD 5V Power On Failure	ACMODUL BKSPCN
7417	Optical Converter 5V Fault	BKSPCN CBLALL
7500 to 7503	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR BKSPCN
7610	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7611	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7620	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7621	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
7630	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7631	Air Moving Device missing error A probelm was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7640	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7641	Air Moving Device missing error A probelm was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7710	Air Moving Device BP1 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7711	Air Moving Device BP1 Not Present A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
7720	Air Moving Device BP2 Fault A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed or operating at the wrong speed.	AIRMOVR TWRCARD
7721	Air Moving Device BP2 Not Present A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
7730	Air Moving Device BP1 Fault	AIRMOVR TWRCARD
7731	Air Moving Device BP1 Not Present	AIRMOVR TWRCARD
7740	Air Moving Device BP2 Fault	AIRMOVR TWRCARD
7741	Air Moving Device BP2 Not Present	AIRMOVR TWRCARD
8001	A Battery Power Unit 1 Failed A response was received from battery power unit 1 charger that was not valid.	46G3890 ACMODUL BACKPLN
8002	Battery Power Unit 2 Failed A response was received from battery power unit 2 charger that was not valid.	46G3890 ACMODUL BACKPLN
8101	A Battery Power Unit 1 Failed Battery power unit 1 capacity test failed.	46G3890
8102	Battery Power Unit 2 Failed Battery power unit 2 capacity test failed.	46G3890
8110	Battery Power Unit 1 and 2 Failed Replace both batteries.	BATRY
8201	A Battery Power Unit 1 Failed Battery power unit 1 charging fault was detected.	46G3890
8202	Battery Power Unit 2 Failed Battery power unit 2 charging fault was detected.	46G3890
8301	A Battery Power Unit 1 Failed Battery power unit 1 load test fault occurred.	46G3890
8302	Battery Power Unit 2 Failed Battery power unit 2 load test fault occurred.	46G3890
8400	No VPD Found due to Invalid Bypass	TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8401	Timeout on Panel for Request of VPD	VPDPART TWRCARD
8402	Unable to Collect VPD	VPDPART TWRCARD
8403	VPD Critical Mismatch	VPDPART TWRCARD
8404 to 8406	Processor Unit VPD Mismatch	VPDPART TWRCARD
8409	No Processor Installed	VPDPART BKSPCN
840A	VPD 5V Power Off Failure	VPDPART TWRCARD
840B	VPD 5V Power On Failure	VPDPART TWRCARD
840C	Memory Module Misplug	VPDPART TWRCARD
840D	SPCN Configuration mismatch	IDPART TWRCARD
840E	SPCN Default Configuration loaded	IDPART TWRCARD
840F	SPCN Configuration mismatch	IDPART TWRCARD
8413 to 8416	Invalid Processor VPD	VPDPART TWRCARD
8423 to 8426	No Processor VPD	VPDPART TWRCARD
8430	SPCN Configuration mismatch The V/S Comm cable is required, but not connected.	IDPART TWRCARD
8431	SPCN Configuration mismatch The V/S Comm cable is connected, but not supported by current configuration.	IDPART TWRCARD
8440	SPCN Configuration mismatch The V/S Comm cable is required, but not connected.	IDPART TWRCARD
8441	SPCN Configuration mismatch The V/S Comm cable is connected, but not supported by current configuration.	IDPART TWRCARD
8450	SPCN Configuration mismatch	IDPART
8610	Air Moving Device B01 Not Present	AIRMOVR TWRCARD
8620	Air Moving Device B02 Not Present	AIRMOVR TWRCARD
8810	Battery Power Unit missing	BATRY
8811	Battery Charger Unit missing	BATCHGR
8910	External Netfinity Server 3.3V fault	ALTMANL TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8920	External Netfinity Server Power Good fault	TWRCARD ALTMANL
8930	Integrated Netfinity Adapter fault	TWRCARD
8940 to 8943	External Netfinity Server R485 Communication fault	TWRCARD CBLALL ALTMANL
9012	Address not valid. LIC command had a frame address that was not valid. Exchange the SPCN frame-to-frame cables to the failing frame.	TWRCARD CBLALL
9013	Invalid Node Address. The address in the SPCN command does not match the secondary nodes assigned address. Exchange the failing items for the SPCN node reporting the error.	TWRCARD CBLALL
9014	A command has an invalid address mode. A command from the system unit specified a unit address of D or E or had a frame address of 00. Exchange the failing items in the system unit.	AJDG301 TWRCARD
9016, 9021	A command to an SPCN node was rejected. No action required. This reference code is logged for information only.	
9022	Addressed Unit not in frame. The addressed unit does not exist in the addressed frame. No action required. This reference code is logged for information only.	
9023	Addressed Unit exists, but the frame is powered off. The addressed unit is in a frame that is powered off. No action required. This reference code is logged for information only.	
9024	SPCN Licensed Internal Code not valid. The Licensed Internal Code in one of the secondary nodes is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9025	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in one of the frames is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9026	Battery Power Unit is reporting a low charge. The battery power unit is not charged enough to run a test. No action required. This reference code is logged for information only.	
9027	Battery Power Unit is defective. No action required. This reference code is logged for information only.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9028	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in the primary node is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9029	SPCN VPD Damaged The VPD record in the EEPROM has bad data. Exchange the failing items for the node reporting the failure.	TWRCARD
902C	Battery Power Unit test was aborted. The battery power unit test was aborted. No action required. This reference code is logged for information only.	
902D	Addressed frame is not in SPCN configuration table. The addressed frame is not in the SPCN configuration table. No action required. This reference code is logged for information only.	
9031	Frame-to-Frame Communications Failure The SPCN detected a BCC error on a transmission from another frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9032	SPCN Communications Failure, unit to rack. The frame detected a BCC error on a transmission from a secondary node to the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9033	SPCN Communications Failure, rack to unit. A secondary node detected a BCC error on a transmission from the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9034	Unsupported Packet Size The receiving node detected a packet exceeding 70 bytes. The frame can also return this code if a secondary node returns more than 10 bytes to a PAS command. No action required. This reference code is logged for error analysis only.	
9035	Secondary SPCN node timeout. A secondary SPCN node did not respond to a command. The command was attempted again and failed. No action required. This reference code is logged for error analysis only.	
9036	Frame Timeout One or more frames did not respond to a command. The command is attempted again. No action required. This reference code is logged for error analysis only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
903B	Invalid Packet Length for data sent. The number of bytes sent or received does not match the number of bytes specified in the command. No action required. This reference code is logged for error analysis only.	
9041	Invalid Load Type The down load was successful, but the wrong type of Licensed Internal Code was loaded. The operation was attempted again but was not successful. Exchange the failing items for the node reporting the fault.	AJDG301 TWRCARD
9042	EEPROM Failure The EEPROM in an SPCN node cannot be written successfully. Exchange the SPCN node reported in the failure.	TWRCARD
9043	Download Failure The Licensed Internal Code download to an SPCN node was completed but was not successful. Exchange the failing SPCN node.	TWRCARD
9046	QDS Packet Sequence Error The Packet Sequence number is wrong. The download was stopped.	TWRCARD
9047	QDS Block Sequence Error The Block Sequence number is wrong. The download was stopped.	TWRCARD
9048	The SPCN ROS and EEPROM LIC is not compatable. The LIC levels in the nodes ROS and EEPROM are not compatible. Exchange the failing items for the failing node.	TWRCARD AJDG301
9080	Undefined Status Code An SPCN node returned an unknown status code. Exchange the failing SPCN node.	TWRCARD BACKPLN
90F0	A frame was dropped from the SPCN configuration. A frame was dropped from the SPCN configuration. This is usually caused by a loss of ac power or a problem with the frame-to-frame cable.	TWRCARD CBLALL
90F1	A frame was added to the SPCN configuration. No action required. This reference code is logged for information only.	
9100	Battery capacity test completed. No action required. This reference code is logged for information only.	
9101	VLIC-SPCN Timeout A Licensed Internal Code timeout occurred. The SPCN failed to respond to a Licensed Internal Code command.	TWRCARD CTLPNL SVCPROC
9102	Assign Permanent Address command failure A node failed to perform an Assign Permanent Address command.	TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9103	Download Initialize Timeout An SPCN node failed to enter the download state after an Initialize for Download command. Exchange the failing SPCN node.	TWRCARD
9104	Download Completion Timeout An SPCN node failed to leave the download state. Exchange the failing SPCN node.	TWRCARD
9105	Load Damaged Timeout An SPCN node failed to enter the operational state. Exchange the failing SPCN node.	TWRCARD
9106	An SPCN LID was not found. No action required. This reference code is logged for information only.	
9107	An SPCN microcode download is required. No action required. This reference code is logged for error analysis only.	
9108	A status change occured in one of the SPCN nodes. No action required. This reference code is logged for information only.	
9109	Licensed Internal Code part number is not correct. The AROS part number field was not updated to the correct level after the system attempted to load new Licensed Internal Code.	TWRCARD
9110	Battery Power Unit capacity test failed. The battery power unit was not able to pass the capacity test.	BATRY
9111	SPCN is too large for VLIC. There are more nodes in the network than VLIC can service.	AJDG301
9112	Primary SPCN node is reporting load damaged. The Licensed Internal Code for the primary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9113	Secondary SPCN node is reporting load damaged. The Licensed Internal Code for the secondary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9114	Frame SPCN node is reporting load damaged. The Licensed Internal Code for a SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9115	SPCN Command rejected by the Service Processor. The service processor rejected an SPCN command from the Licensed Internal Code. No action required. This reference code is logged for information only.	
9116	SPCN - Control Panel interface failure. The SPCN to control panel interface is not working.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9117	SPCN - Control Panel interface is now working. The SPCN to control panel interface is now working. No action required. This reference code is logged for information only.	
9212	Frame Address field not valid. A Licensed Internal Code command had a frame address that is not valid. Exchange the failing items for the failing node.	TWRCARD
9213	Invalid Address status, secondary node. The address in the SPCN command does not match the assigned address of the secondary node. Exchange the failing items for the failing node.	TWRCARD
9214	Invalid Address Mode status Invalid Address Mode occurred during Frame Command processing.	TWRCARD AJDG301
9215	Invalid Frame Command status Invalid Frame Command occurred during Frame Command processing.	TWRCARD AJDG301
921B	System Unit SPCN Port Fault status. System Unit Port Fault occurred during Command processing.	TWRCARD AJDG301
922B	Address Unassigned status A secondary node has no address assigned during Command processing.	TWRCARD AJDG301
9231	Frame-to-Frame Communications Failure A frame-to-frame communications failure occurred during STF processing.	TWRCARD CBLALL
9232	Intrarack Communications Failure An SPCN secondary node to frame communications failure occurred during Command processing.	TWRCARD CBLALL
9233	Intrarack Communications Failure An SPCN frame to secondary node communications failure occurred during Command processing.	TWRCARD CBLALL
9234	Unsupported Packet Size status Unsupported Packet Size occurred during STF and Secondary Node Command processing.	TWRCARD CTLPNL SVCPROC
9235	SPCN Secondary Node Timeout status An SPCN Secondary Node Timeout occurred during Command processing. If the failing secondary node is in a 9406 Expansion Unit (FC 504x), go to the “Analyzing Problems” section in the in the SY44-4934-00, FC 504x Problem Analysis and Repair and Parts information.	TWRCARD AJDG301 CBLALL
9236	Frame Timeout status An SPCN Frame Node Timeout occurred during Network post processing.	TWRCARD CBLALL
9238	Secondary Node Fault An SPCN Secondary Node Fault occurred during Command processing.	TWRCARD AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9239	Frame Node Fault An internal error in the SPCN frame node prevents the running of a Frame command.	TWRCARD AJDG301
923A	ASA Failure The frame address returned by a secondary node does not match the address of the frame.	TWRCARD AJDG301
923B	Invalid Packet Length for data sent. An Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
9280	Response Stack Overflow Too many responses were received during System Frame command processing.	CBLALL AJDG301 TWRCARD
9281	Response Overrun Response Overrun occurred during System Frame processing.	CBLALL AJDG301 TWRCARD
9282	No Free Entries No free entries were found during System Frame processing.	CBLALL AJDG301 TWRCARD
9283	ARA Failure An Assign Frame Address Failure occurred during ARA Preprocessing.	TWRCARD AJDG301
9284	Undefined status Undefined Status occurred during Frame or STF processing.	TWRCARD AJDG301
9285	BCC Fault A BCC Error was detected during Network post processing.	TWRCARD
9286	Length Check Error. Length Check occurred during SPCN post processing.	TWRCARD AJDG301
9287	Undefined status Undefined Status occurred during Command processing.	TWRCARD AJDG301
9288	Configuration Error A configuration error was detected during System Frame processing.	TWRCARD AJDG301
9289	Invalid Packet Length for data sent. Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
A100	Battery Power Unit capacity test failure The battery power unit capacity test time exceeds the installed battery capacity. The battery power may not be enough to provide a controlled stop during a loss of incoming ac voltage. This reference code is logged for information only.	
A201	A Battery Power Unit 1 Failed Battery power unit 1 capacity test failed.	BATRY BATCHGR
A202	Battery Power Unit 2 Failed Battery power unit 2 capacity test failed.	BATRY BATCHGR

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
A300	Battery Power Unit missing The existing number of battery power units installed may not be adequate for the current configuration. If the battery power units are installed, insure that they are properly connected before replacing any FRUs.	BATCHGR BATRY
A301	A Battery Power Unit 1 Failed The installed SPCN Licensed Internal Code does not give support to the type of battery power unit installed. Install the latest SPCN code.	AJDG301 BATCHGR
A302	Battery Power Unit 2 Failed The installed SPCN Licensed Internal Code does not give support to the type of battery power unit installed. Install the latest SPCN code.	AJDG301 BATCHGR
AC01 to AC02	Internal Battery Power Unit Charger Fault	BATCHGR BKSPCN
B101	A Battery Power Unit 1 Failed Battery power unit reported an over current condition on the +29 V dc bus.	PWRREG BATCHGR BACKPLN
B102	Battery Power Unit 2 Failed Battery power unit 2 reported an over current condition on the +29 V dc bus.	PWRREG BATCHGR BACKPLN
B201	A Battery Power Unit 1 Failed Battery power unit 1 reported an over current condition on the +31 V dc bus.	PWRREG BATCHGR BACKPLN
B202	Battery Power Unit 2 Failed Battery power unit 2 reported an over current condition on the +31 V dc bus.	PWRREG BATCHGR BACKPLN
C510	A Battery Power Unit 1 Failed SPCN-to-battery power unit 1 or 3 communications fault occurred.	BATCHGR ACMODUL BACKPLN
C511	Battery Power Unit 2 Failed SPCN-to-battery power unit 2 communications fault occurred.	BATCHGR ACMODUL BACKPLN
C512	AC Module Failure SPCN serial port communications fault occurred.	ACMODUL
C600	AC Module Failure The AC module control supply failed to turn off.	ACMODUL
C601	AC Module Failure AC module bus voltage control test fault occurred.	ACMODUL
C602	AC Module Failure AC module fault detection failure occurred.	ACMODUL
C609	Clock Card Failure The clock card in slot 17 is missing or defective.	CLKCARD BKSPCN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
C62E	SPCN Network Fault An SPCN frame-to-frame communication failure was detected. SRNPU or POSORMU.	TWRCARD CBLALL
C701 to C703	SPCN Frame-to-Frame Communication fault	TWRCARD CBLALL
CB00	Unknown box ID The SPCN node cannot determine the machine type of the box in which it is installed.	TWRCARD BACKPLN
CB05 to CB06	AC Module Failure The SPCN ROS and EPROMs test failed.	ACMODUL
CB1D	AC Module Failure The LCD test failure was detected on an Extension/Expansion Unit.	ACMODUL 17G0573
CC00	AC Module Failure An unknown fault was detected. The machine failed to power up.	ACMODUL FI00065 BKSPCN
CD00	No Power Supplies Present SPCN cannot detect any power supplies installed.	BKSPCN PWRSPLY
CE18	Regulator Not Present No regulators can be found. If the regulators are installed, exchange the failing items.	PWRREG ACMODUL
CE1A	Regulator Not Present If regulator 3 in slot R03 is installed, exchange the failing items.	PWRREG BKSPCN
D001	A Battery Power Unit 1 Failed A response was received from battery power unit 1 charger that was not valid.	86G8020 ACMODUL BACKPLN
D002	Battery Power Unit 2 Failed A response was received from battery power unit 2 charger that was not valid.	86G8020 ACMODUL BACKPLN
D101	A Battery Power Unit 1 Failed Battery power unit 1 capacity test failed.	86G8040 86G8020
D102	Battery Power Unit 2 Failed Battery power unit 2 capacity test failed.	86G8040 86G8020
D110	Battery Power Unit 1 and 2 Failed Replace both batteries.	BATRY
D201	A Battery Power Unit 1 Failed Battery power unit 1 charging fault was detected.	86G8020 86G8040
D202	Battery Power Unit 2 Failed Battery power unit 2 charging fault was detected.	86G8020 86G8040

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
D301	A Battery Power Unit 1 Failed Battery power unit 1 load test fault occurred.	86G8020 86G8040
D302	Battery Power Unit 2 Failed Battery power unit 2 load test fault occurred.	86G8020 86G8040
E002	Battery Power Unit 2 Failed A response was received from battery power unit 2 charger that was not valid.	86G7750 ACMODUL BACKPLN
E102	Battery Power Unit 2 Failed External battery power unit 2 capacity test failed.	86G7714 86G7750
E202	Battery Power Unit 2 Failed External battery power unit 2 charging fault was detected.	86G7750 86G7714
E302	Battery Power Unit 2 Failed External battery power unit 2 load test fault occurred.	86G7750 86G7714
F401	Internal Battery Power Unit Charger Fault	BATCHGR BKSPCN
F501	Internal Battery Power Unit Fault	BATRY BATCHGR
F601	Internal Battery Power Unit or Charger Fault	BATCHGR BATRY
F701	Internal Battery Power Unit Charger Fault	BATCHGR BATRY
F802	External Battery Power Unit Charger Fault	BATCHGR BKSPCN
F902	External Battery Power Unit Fault	BATRY BATCHGR
FA02	External Battery Power Unit or Charger Fault	BATCHGR BATRY
FB02	External Battery Power Unit Charger Fault	BATCHGR BATRY

Table 2. SPCN failing items for Models 830, 840, SB2, and SB3:

Failing Item	Description	Document Description
17G0573	Expansion Unit Control Panel	Repair and Parts
21F5680	AC Module, SPCN Secondary node.	Repair and Parts
21F5793	Fan assembly.	Repair and Parts
21F9362	SPCN Port Cable	Repair and Parts
21F9429	Cable Carrier, 5040 and 5042 feature.	Repair and Parts
21F9631	Fan assembly.	Repair and Parts
46G3890	Internal Battery Power Unit	Repair and Parts
6462417	Rack Control Panel cable.	Repair and Parts
86G7714	External Battery Power Unit	Repair and Parts

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Failing Item	Description	Document Description
86G7750	Battery Power Unit Charger	Repair and Parts
86G8020	Battery Power Unit Charger	Repair and Parts
86G8040	Battery Power Unit	Repair and Parts
90H6287	Optical Converter	Repair and Parts
ACMODUL	AC Module	Problem Analysis; Symbolic FRU Isolation
AIRMOVR	Fan and Blower assemblies	Problem Analysis; Symbolic FRU Isolation
AJDG301	Vertical Licensed Internal Code.	Service Functions; APAR or LICTR
ALTMANL	Alternate Manual Required	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Back Plane Unit	Problem Analysis; Symbolic FRU Isolation
BATCHGR	Battery Power Unit Charger	Problem Analysis; Symbolic FRU Isolation
BATRY	Battery Power Unit	Problem Analysis; Symbolic FRU Isolation
BKSPCN	SPCN card	Problem Analysis; Symbolic FRU Isolation
BUSPWR	Domain 29V Bus	Problem Analysis; Symbolic FRU Isolation
CBLALL	Cable Failure	Problem Analysis; Symbolic FRU Isolation
CLKCARD	Clock card	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control Panel	Problem Analysis; Symbolic FRU Isolation
DISKDRV	Disk Unit Power regulator	Problem Analysis; Symbolic FRU Isolation
DISKTRY	Disk unit tray	Problem Analysis; Symbolic FRU Isolation
DMREG	Domain Regulator	Problem Analysis; Symbolic FRU Isolation
I2CBUS	I2C Bus Part	Problem Analysis; Symbolic FRU Isolation
IDPART	Vital Product Data Parts	Problem Analysis; Symbolic FRU Isolation
INTRLCK	Interlock part	Problem Analysis; Symbolic FRU Isolation
PGDPART	Power Good Part	Problem Analysis; Symbolic FRU Isolation
PWROC	Power Supply overcurrent	Problem Analysis; Symbolic FRU Isolation
PWRREG	Regulator.	Problem Analysis; Symbolic FRU Isolation
PWRSPLY	Power Supply	Problem Analysis; Symbolic FRU Isolation
RMDEV	Disk Unit or Removable Media Device	Problem Analysis; Symbolic FRU Isolation
SPNLCRD	SPCN panel card	Problem Analysis; Symbolic FRU Isolation
SVCPROC	Service Processor Card	Problem Analysis; Symbolic FRU Isolation
TWRCARD	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
UPSUNIT	UPS unit part	Problem Analysis; Symbolic FRU Isolation
VPDPART	VPD Communication Part	Problem Analysis; Symbolic FRU Isolation

(1xxx) SPCN Reference Codes for Models 870 and 890

If you reached this point from the Service Action Log (SAL), return to the SAL and display the failing item information for this entry. Go directly to the symbolic FRU specified in the failing items list.

Note: On Models 870 and 890, the two rightmost characters on the control panel display (following the dash) are the table identifier (-xx). The table identifier is required to determine which Model 870 or 890 reference code table applies to the unit reference code recorded.

For details on the Failing Item column entries, see the SPCN Failing Items Detail table, which follow the Reference Code tables below.

For system Models 870 and 890, SPCN Reference Codes:

Choose from the following code format and table identifier:

Note: On Models 870 and 890, the A, B, or C in the SRC (1xxA xxxx, 1xxB xxxx, or 1xxC xxxx) indicates that the failure is on the processor frame, not on the FC 9094 Base I/O Tower.

- Table 1. SPCN reference codes for system Models 870 and 890 with table identifier 90
- Table 2. SPCN reference codes for system Models 870 and 890 with table identifier A0
- Table 3. SPCN reference codes for system Models 870 and 890 with table identifier B0

Table 1. SPCN reference codes for system Models 870 and 890 with table identifier 90:

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
00A0	SPCN BATs in process No action required. This reference code is logged for information only. If this reference code is present for more than 1 minute, exchange the failing items.	TWRCARD
00AA	Download in process No action required. This reference code is logged for information only.	
00AC	Detected AC loss If system powers on normally or stays powered on after AC power failure, no replacement of parts may be needed.	ACMODUL
00BA	The system is running on the Battery Power Unit. No action required. This reference code is displayed for information only.	
00BC	Battery Power Unit test is in process. No action required. This reference code is displayed for information only.	
00CA	Thermal calibration in progress	
00EF	Remote EPO switch is OFF	
1500	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1501	Power supply failure	PWRSPLY TWRCARD
1502	Power supply failure	PWRSPLY TWRCARD CBLALL
1503	Power supply failure	PWRSPLY TWRCARD
1510	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1511	Power supply failure	PWRSPLY TWRCARD
1512	Power supply failure	PWRSPLY TWRCARD CBLALL
1513 to 1514	Power supply failure	PWRSPLY TWRCARD
1516	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD
1520	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1521	Power supply failure	PWRSPLY TWRCARD
1522	Power supply failure	PWRSPLY TWRCARD CBLALL
1523 to 1524	Power supply failure	PWRSPLY TWRCARD
1526	No Power Supplies Present The required power supplies are not installed.	PWRSPLY TWRCARD
1530	Detected AC loss Before replacing any parts, verify that the AC input voltage is correct.	PWRSPLY TWRCARD
1531	Power supply failure	PWRSPLY TWRCARD
1532	Power supply failure	PWRSPLY TWRCARD CBLALL
1533	Power supply failure	PWRSPLY TWRCARD
1534	Power Supply P03 fault	PWRSPLY TWRCARD
1B01	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B02	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B03	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B04	Load fault on the -12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B05	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1B06 to 1B07	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B11	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B12	Load fault on the +5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1B13	Load fault on the +3.3V bus	PWROC TWRCARD
1B14	Load fault on the -12V bus	PWROC TWRCARD
1B16 to 1B17	Load fault on the +2.5V bus	PWROC TWRCARD
1C01	Load fault on the +12V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C03	Load fault on the +3.3V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C05	Load fault on the +1.8V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1C06 to 1C08	Load fault on the +2.5V bus An isolation procedure is required for identifying which load is at fault.	PWROC TWRCARD
1F01	No SRC Translate	
2600	Power Good Fault	PGDPART TWRCARD PWRSPLY
2601 to 2606	Power Good Fault	PGDPART TWRCARD
2610	Processor/Memory Card not installed	PWRSPLY TWRCARD
2612	Optical Converter 5V Fault The SPCN detected a fault on the SPCN card optical converter 5V.	CBLALL TWRCARD
2613	Configuration Requires 200V Input Configuration now requires 200V AC power.	CBLALL
3100	I2C Bus Controller Communication fault	I2CBUS TWRCARD
3101	I2C Bus 1 Communication fault	I2CBUS TWRCARD
3102	I2C Bus 2 Communication fault	I2CBUS TWRCARD
3103	I2C Bus 3 Communication fault	I2CBUS TWRCARD
3104	I2C Bus 4 Communication fault	I2CBUS TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3105	I2C Bus 5 Communication fault	I2CBUS TWRCARD
3106	I2C Bus 6 Communication fault	I2CBUS TWRCARD
3110	I2C Bus DASD Backplane 1 Communication fault	I2CBUS TWRCARD
3111	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
3112	I2C Bus DASD Backplane 3 Communication fault	I2CBUS TWRCARD
3113	I2C Bus Adapter Communication fault	I2CBUS TWRCARD
3114	I2C Bus PCI Backplane Communication fault	I2CBUS TWRCARD
3115	I2C Bus Panel Communication fault	I2CBUS TWRCARD
3116	I2C Bus Fan Local Controller Communication fault	I2CBUS TWRCARD
3117	I2C Bus Fan Remote Controller Communication fault	I2CBUS TWRCARD
3118	I2C Bus SPCN VPD Communication fault	I2CBUS TWRCARD
3119	I2C Bus 4 Communication fault	I2CBUS TWRCARD
311C	I2C Bus Panel Communication fault	I2CBUS TWRCARD
311D	I2C Bus DASD Backplane 2 Communication fault	I2CBUS TWRCARD
311E	I2C Bus DASD Backplane 3 Communication fault	I2CBUS TWRCARD
3123	I2C Bus 6 Communication fault	I2CBUS TWRCARD
4410	Internal Battery Power Unit Fault Internal Battery Power Unit in the system has failed.	BATRY BATCHGR TWRCARD CBLALL
4411	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4412	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR BATRY TWRCARD CBLALL
4413	Internal Battery Power Unit Charger Fault Internal Battery Power Unit Charger in the system has failed.	BATCHGR TWRCARD CBLALL
4414	Battery Charger Load fault	PWROC BATRY TWRCARD CBLALL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4415	Battery Power Unit missing	BATRY TWRCARD CBLALL
4417	Battery Charger Unit missing	BATCHGR TWRCARD CBLALL
7610	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7611	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7620	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7621	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving device if missing, replace if already installed.	AIRMOVR TWRCARD
7630	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7631	Air Moving Device missing error A problem was dectected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
7640	Air Moving Device Fault The Air Moving Device is operating at the wrong speed.	AIRMOVR TWRCARD
7641	Air Moving Device missing error A problem was detected with an Air Moving Device which can be caused by an Air Moving Device not being installed. Install Air Moving Device if missing, replace if already installed.	AIRMOVR TWRCARD
8400	No VPD Found due to Invalid Bypass	TWRCARD
8401	Timeout on Panel for Request of VPD	VPDPART TWRCARD
8402	Unable to Collect VPD	VPDPART TWRCARD
8403	VPD Critical Mismatch	VPDPART TWRCARD
8404 to 8406	Processor Unit VPD Mismatch	VPDPART TWRCARD
8409	No Processor Installed	VPDPART TWRCARD
840A	VPD 5V Power Off Failure	VPDPART TWRCARD
840B	VPD 5V Power On Failure	VPDPART TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
840C	Memory Module Misplug	VPDPART TWRCARD
840D	SPCN Configuration mismatch	IDPART TWRCARD
840E	SPCN Default Configuration loaded	IDPART TWRCARD
840F	SPCN Configuration mismatch	IDPART TWRCARD
8413 to 8416	Invalid Processor VPD	VPDPART TWRCARD
8423 to 8426	No Processor VPD	VPDPART TWRCARD
8430	SPCN Configuration mismatch The V/S Comm cable is required, but not connected.	IDPART TWRCARD
8431	SPCN Configuration mismatch The V/S Comm cable is connected, but not supported by current configuration.	IDPART TWRCARD
8440	SPCN Configuration mismatch The V/S Comm cable is required, but not connected.	IDPART TWRCARD
8441	SPCN Configuration mismatch The V/S Comm cable is connected, but not supported by current configuration.	IDPART TWRCARD
8450	SPCN Configuration mismatch	IDPART
8468 to 8469	Capacitor card fault	CAPPWR
8610	Air Moving Device B01 Not Present	AIRMOVR TWRCARD
8620	Air Moving Device B02 Not Present	AIRMOVR TWRCARD
8700	BPA A AC loss	MAPPWR
8701	BPA B AC loss	MAPPWR
8710	BPC A communication failure	CBLPWR BPCPWR
8711	BPC B communication failure	CBLPWR BPCPWR
8722	BPC-A and -B are not at standby	BPCPWR
8731	A DCA or fan has dropped to N-mode status in MCM subsystem	BPCPWR
8750	BPC download failure on BPA A	BPCPWR
8751	BPC download failure on BPA B	BPCPWR
8800	BPC A cable missing	CBLPWR
8801	BPC B cable missing	CBLPWR
8910	External Netfinity Server 3.3V fault	ALTMANL TWRCARD
8920	External Netfinity Server Power Good fault	TWRCARD ALTMANL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8930	Integrated Netfinity Adapter fault	TWRCARD
8940 to 8943	External Netfinity Server R485 Communication fault	TWRCARD CBLALL ALTMANL
8A00	SPCN Configuration mismatch	
9012	Address not valid. LIC command had a frame address that was not valid. Exchange the SPCN frame-to-frame cables to the failing frame.	TWRCARD CBLALL
9013	Invalid Node Address. The address in the SPCN command does not match the secondary nodes assigned address. Exchange the failing items for the SPCN node reporting the error.	TWRCARD CBLALL
9014	A command has an invalid address mode. A command from the system unit specified a unit address of D or E or had a frame address of 00. Exchange the failing items in the system unit.	AJDG301 TWRCARD
9016, 9021	A command to an SPCN node was rejected. No action required. This reference code is logged for information only.	
9022	Addressed Unit not in frame. The addressed unit does not exist in the addressed frame. No action required. This reference code is logged for information only.	
9023	Addressed Unit exists, but the frame is powered off. The addressed unit is in a frame that is powered off. No action required. This reference code is logged for information only.	
9024	SPCN Licensed Internal Code not valid. The Licensed Internal Code in one of the secondary nodes is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9025	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in one of the frames is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9026	Battery Power Unit is reporting a low charge. The battery power unit is not charged enough to run a test. No action required. This reference code is logged for information only.	
9027	Battery Power Unit is defective. No action required. This reference code is logged for information only.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9028	SPCN Licensed Internal Code is not valid. The Licensed Internal Code in the primary node is not valid. The code will be reloaded. No action required. This reference code is logged for error analysis only.	
9029	SPCN VPD Damaged The VPD record in the EEPROM has bad data. Exchange the failing items for the node reporting the failure.	TWRCARD
902C	Battery Power Unit test was aborted. The battery power unit test was aborted. No action required. This reference code is logged for information only.	
902D	Addressed frame is not in SPCN configuration table. The addressed frame is not in the SPCN configuration table. No action required. This reference code is logged for information only.	
9031	Frame-to-Frame Communications Failure The SPCN detected a BCC error on a transmission from another frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9032	SPCN Communications Failure, unit to rack. The frame detected a BCC error on a transmission from a secondary node to the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9033	SPCN Communications Failure, rack to unit. A secondary node detected a BCC error on a transmission from the frame. The transmission is attempted again. No action required. This reference code is logged for error analysis only.	
9034	Unsupported Packet Size The receiving node detected a packet exceeding 70 bytes. The frame can also return this code if a secondary node returns more than 10 bytes to a PAS command. No action required. This reference code is logged for error analysis only.	
9035	Secondary SPCN node timeout. A secondary SPCN node did not respond to a command. The command was attempted again and failed. No action required. This reference code is logged for error analysis only.	
9036	Frame Timeout One or more frames did not respond to a command. The command is attempted again. No action required. This reference code is logged for error analysis only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
903B	Invalid Packet Length for data sent. The number of bytes sent or received does not match the number of bytes specified in the command. No action required. This reference code is logged for error analysis only.	
9041	Invalid Load Type The down load was successful, but the wrong type of Licensed Internal Code was loaded. The operation was attempted again but was not successful. Exchange the failing items for the node reporting the fault.	AJDG301 TWRCARD
9042	EEPROM Failure The EEPROM in an SPCN node cannot be written successfully. Exchange the SPCN node reported in the failure.	TWRCARD
9043	Download Failure The Licensed Internal Code download to an SPCN node was completed but was not successful. Exchange the failing SPCN node.	TWRCARD
9046	QDS Packet Sequence Error The Packet Sequence number is wrong. The download was stopped.	TWRCARD
9047	QDS Block Sequence Error The Block Sequence number is wrong. The download was stopped.	TWRCARD
9048	The SPCN ROS and EEPROM LIC is not compatable. The LIC levels in the nodes ROS and EEPROM are not compatible. Exchange the failing items for the failing node.	TWRCARD AJDG301
9080	Undefined Status Code An SPCN node returned an unknown status code. Exchange the failing SPCN node.	TWRCARD BACKPLN
90F0	A frame was dropped from the SPCN configuration. A frame was dropped from the SPCN configuration. This is usually caused by a loss of ac power or a problem with the frame-to-frame cable.	TWRCARD CBLALL
90F1	A frame was added to the SPCN configuration. No action required. This reference code is logged for information only.	
9100	Battery capacity test completed. No action required. This reference code is logged for information only.	
9101	VLIC-SPCN Timeout A Licensed Internal Code timeout occurred. The SPCN failed to respond to a Licensed Internal Code command.	TWRCARD CTLPNL SVCPROC
9102	Assign Permanent Address command failure A node failed to perform an Assign Permanent Address command.	TWRCARD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9103	Download Initialize Timeout An SPCN node failed to enter the download state after an Initialize for Download command. Exchange the failing SPCN node.	TWRCARD
9104	Download Completion Timeout An SPCN node failed to leave the download state. Exchange the failing SPCN node.	TWRCARD
9105	Load Damaged Timeout An SPCN node failed to enter the operational state. Exchange the failing SPCN node.	TWRCARD
9106	An SPCN LID was not found. No action required. This reference code is logged for information only.	
9107	An SPCN microcode download is required. No action required. This reference code is logged for error analysis only.	
9108	A status change occured in one of the SPCN nodes. No action required. This reference code is logged for information only.	
9109	Licensed Internal Code part number is not correct. The AROS part number field was not updated to the correct level after the system attempted to load new Licensed Internal Code.	TWRCARD
9110	Battery Power Unit capacity test failed. The battery power unit was not able to pass the capacity test.	BATRY
9111	SPCN is too large for VLIC. There are more nodes in the network than VLIC can service.	AJDG301
9112	Primary SPCN node is reporting load damaged. The Licensed Internal Code for the primary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9113	Secondary SPCN node is reporting load damaged. The Licensed Internal Code for the secondary SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9114	Frame SPCN node is reporting load damaged. The Licensed Internal Code for a SPCN node is damaged. The reload failed because the code could not be found.	TWRCARD
9115	SPCN Command rejected by the Service Processor. The service processor rejected an SPCN command from the Licensed Internal Code. No action required. This reference code is logged for information only.	
9116	SPCN - Control Panel interface failure. The SPCN to control panel interface is not working.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9117	SPCN - Control Panel interface is now working. The SPCN to control panel interface is now working. No action required. This reference code is logged for information only.	
91DD	All SPCN Downloads Complete	
9212	Frame Address field not valid. A Licensed Internal Code command had a frame address that is not valid. Exchange the failing items for the failing node.	TWRCARD
9213	Invalid Address status, secondary node. The address in the SPCN command does not match the assigned address of the secondary node. Exchange the failing items for the failing node.	TWRCARD
9214	Invalid Address Mode status Invalid Address Mode occurred during Frame Command processing.	TWRCARD AJDG301
9215	Invalid Frame Command status Invalid Frame Command occurred during Frame Command processing.	TWRCARD AJDG301
921B	System Unit SPCN Port Fault status. System Unit Port Fault occurred during Command processing.	TWRCARD AJDG301
922B	Address Unassigned status A secondary node has no address assigned during Command processing.	TWRCARD AJDG301
9231	Frame-to-Frame Communications Failure A frame-to-frame communications failure occurred during STF processing.	TWRCARD CBLALL
9232	Intrarack Communications Failure An SPCN secondary node to frame communications failure occurred during Command processing.	TWRCARD CBLALL
9233	Intrarack Communications Failure An SPCN frame to secondary node communications failure occurred during Command processing.	TWRCARD CBLALL
9234	Unsupported Packet Size status Unsupported Packet Size occurred during STF and Secondary Node Command processing.	TWRCARD CTLPNL SVCPROC
9235	SPCN Secondary Node Timeout status An SPCN Secondary Node Timeout occurred during Command processing. If the failing secondary node is in a 9337, go to the “Analyzing Problems” section in the *9337 Disk Array Service Information* manual.	TWRCARD AJDG301 CBLALL
9236	Frame Timeout status An SPCN Frame Node Timeout occurred during Network post processing.	TWRCARD CBLALL
9238	Secondary Node Fault An SPCN Secondary Node Fault occurred during Command processing.	TWRCARD AJDG301

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9239	Frame Node Fault An internal error in the SPCN frame node prevents the running of a Frame command.	TWRCARD AJDG301
923A	ASA Failure The frame address returned by a secondary node does not match the address of the frame.	TWRCARD AJDG301
923B	Invalid Packet Length for data sent. An Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
9280	Response Stack Overflow Too many responses were received during System Frame command processing.	CBLALL AJDG301 TWRCARD
9281	Response Overrun Response Overrun occurred during System Frame processing.	CBLALL AJDG301 TWRCARD
9282	No Free Entries No free entries were found during System Frame processing.	CBLALL AJDG301 TWRCARD
9283	ARA Failure An Assign Frame Address Failure occurred during ARA Preprocessing.	TWRCARD AJDG301
9284	Undefined status Undefined Status occurred during Frame or STF processing.	TWRCARD AJDG301
9285	BCC Fault A BCC Error was detected during Network post processing.	TWRCARD
9286	Length Check Error. Length Check occurred during SPCN post processing.	TWRCARD AJDG301
9287	Undefined status Undefined Status occurred during Command processing.	TWRCARD AJDG301
9288	Configuration Error A configuration error was detected during System Frame processing.	TWRCARD AJDG301
9289	Invalid Packet Length for data sent. Invalid Packet Length occurred for data exchanged.	AJDG301 TWRCARD
C62E	SPCN Network Fault An SPCN frame-to-frame communication failure was detected. SRNPU or POSORMU.	TWRCARD CBLALL
CB15	EEPROM Failure	TWRCARD

Table 2. SPCN reference codes for system Models 870 and 890 with table identifier A0:

For SRCs in this table, where x is a variable number or character, xnnn or xxnn will appear in the table representing the variable.

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0856	BPR-1 communication fault	MAPPWR
0866	BPR-2 communication fault	MAPPWR
0876	BPR-3 communication fault	MAPPWR
0D06	BPA 350V power failure	MAPPWR
1C06	Cage air flow cooling problem	MAPPWR
CE16	BPC-A to BPC-B communication fault Check cable and connector pins between the two BPCs before replacing BPCs.	BPCPWR
D216	BPA-A to BPA-B communication fault	MAPPWR
D616	UPS utility failure	UPSUNIT
D716	UPS battery low condition was detected	UPSUNIT
D816	UPS reported a bypass active	UPSUNIT
D916	UPS utility power restored	UPSUNIT
DA16	UPS installed	UPSUNIT
DB16	UPS not available	UPSUNIT
DC16	UPS battery low condition was reset	UPSUNIT
DD16	UPS reported bypass no longer active	UPSUNIT
DF16	UPS failure	UPSUNIT
E106	Critical logic overtemperature	MAPPWR
E206	Ambient room temperature limit exceeded	
F4X6	Hardware configuration cannot support N-mode power	
F806, F906, FA06	BPC AC power loss or phase missing	MAPPWR
FDB6	BPC Room EPO switch has been detected open	MAPPWR
FE06, FE16	BPC UEPO switch is in the bypass position	MAPPWR
FE56	BPR-1 communication fault	MAPPWR
FE66	BPR-2 communication fault	MAPPWR
FE76	BPR-3 communication fault	MAPPWR
X115	Processor MDA-1 cable fault	MAPPWR
X215	Processor MDA-2 cable fault	MAPPWR
X315	Processor MDA-3 cable fault	MAPPWR
X415	Processor MDA-4 cable fault	MAPPWR
X515	Processor DCA-1 cable fault	MAPPWR
X615	Processor DCA-2 cable fault	MAPPWR
X715	Processor DCA-3 cable fault	MAPPWR
X925	Processor DCA-4 cable fault	MAPPWR
XA25	Processor DCA-5 cable fault	MAPPWR
XX0X	BPA FRU failure not isolated	MAPPWR
XX11	BPC fault	BPCPWR
XX13	BPC Seeprom VPD fault	BPCPWR
XX17	BPF Fan fault	BPFPWR
XX21	BPD-1 fault	BPDPWR

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
XX22	BPC to BPD-1 communication fault	BPDPWR BPCPWR MAPPWR
XX23	BPD-1 Seeprom VPD fault	BPDPWR
XX31	BPD-2 fault	BPDPWR
XX32	BPC to BPD-2 communication fault	BPDPWR BPCPWR MAPPWR
XX33	BPD-2 Seeprom VPD fault	BPDPWR
XX51	BPR-1 fault	BPRPWR
XX52	BPC to BPR-1 communication fault	BPRPWR BPCPWR MAPPWR
XX53	BPR-1 Seeprom VPD fault	BPRPWR
XX61	BPR-2 fault	BPRPWR
XX62	BPC to BPR-2 communication fault	BPRPWR BPCPWR MAPPWR
XX63	BPR-2 Seeprom VPD fault	BPRPWR
XX71	BPR-3 fault	BPRPWR
XX72	BPC to BPR-3 communication fault	BPRPWR BPCPWR MAPPWR
XX73	BPR-3 Seeprom VPD fault	BPRPWR
XXB1	BPA EPO Switch fault	MAPPWR

Table 3. SPCN reference codes for system Models 870 and 890 with table identifier B0:

For SRCs in this table where x is a variable number or character, xxnn will appear in the table representing the variable.

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0FB6, 0FC6, 0FD6, 0FE6	MCM running over temperature	MAPPWR
1C06	Airflow loss in MCM subsystem resulting in over-temperature	MAPPWR
6114	1.8V bus processor subsystem load fault	MAPPWR
6124, 6134	1.5V bus processor subsystem load fault	MAPPWR
6144	3.3V bus processor subsystem load fault	MAPPWR
6514	5.0V bus processor subsystem load fault	MAPPWR
6814	2.5V bus processor subsystem load fault	MAPPWR
6914	1.8V bus processor subsystem load fault	MAPPWR
6924, 6934	1.5V bus processor subsystem load fault	MAPPWR
6944	3.3V bus processor subsystem load fault	MAPPWR
6D14	5.0V bus processor subsystem load fault	MAPPWR
7E06	No MCMs detected or MCMs mismatch	MAPPWR

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7EB6, 7EC6, 7ED6, 7EE6	MCM running over temperature	MAPPWR
7F06	No MCMs detected or MCMs mismatch	MAPPWR
B014	2.5V bus processor subsystem load fault	MAPPWR
B114	1.8V bus processor subsystem load fault	MAPPWR
B124, B134	1.5V bus processor subsystem load fault	MAPPWR
B144	3.3V bus processor subsystem load fault	MAPPWR
B544	5.0V bus processor subsystem load fault	MAPPWR
B814	2.5V bus processor subsystem load fault	MAPPWR
B914	1.8V bus processor subsystem load fault	MAPPWR
B924, B934	1.5V bus processor subsystem load fault	MAPPWR
B944	3.3V bus processor subsystem load fault	MAPPWR
BD44	5.0V bus processor subsystem load fault	MAPPWR
E006, E106	Processor over-temperature detected	MAPPWR
E1B6, E1C6, E1D6, E1E6	MCM running over temperature	MAPPWR
F206	Error not isolated; VPD on BPR may be corrupted	MAPPWR
F306	SPCN Configuration mismatch	MAPPWR
F406	Hardware configuration cannot support N-mode power	MAPPWR
F516, F526, F536, F546, F556, F566, F576, F586, F596, F5A6	A DCA or fan has dropped to N-mode status in MCM subsystem	
F606	SPCN Configuration mismatch	MAPPWR
XX11	Processor DCA-1 fault	DCAPWR
XX13	Processor DCA-1 Seeprom VPD fault	DCAPWR
XX15	Processor DCA-1 cable fault	CBLPWR
XX21	Processor DCA-2 fault	DCAPWR
XX23	Processor DCA-2 Seeprom VPD fault	DCAPWR
XX25	Processor DCA-2 cable fault	CBLPWR
XX31	Processor DCA-3 fault	DCAPWR
XX33	Processor DCA-3 Seeprom VPD fault	DCAPWR
XX35	Processor DCA-3 cable fault	CBLPWR
XX41	Processor DCA-4 fault	DCAPWR
XX43	Processor DCA-4 Seeprom VPD fault	DCAPWR
XX45	Processor DCA-4 cable fault	CBLPWR
XX51	Processor DCA-5 fault	DCAPWR
XX53	Processor DCA-5 Seeprom VPD fault	DCAPWR
XX55	Processor DCA-5 cable fault	CBLPWR
XX61	Processor DCA-6 fault	DCAPWR
XX63	Processor DCA-6 Seeprom VPD fault	DCAPWR
XX65	Processor DCA-6 cable fault	CBLPWR

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
XX71	Processor MDA-1 fault	MDAPWR
XX73	Processor MDA-1 Seeprom VPD fault	MDAPWR
XX75	Processor MDA-1 cable fault	CBLPWR
XX77	Processor Fan 1 fault	MDAPWR MSAPWR
XX81	Processor MDA-2 fault	MDAPWR
XX83	Processor MDA-2 Seeprom VPD fault	MDAPWR
XX85	Processor MDA-2 cable fault	CBLPWR
XX87	Processor Fan 2 fault	MDAPWR MSAPWR
XX91	Processor MDA-3 fault	MDAPWR
XX93	Processor MDA-3 Seeprom VPD fault	MDAPWR
XX95	Processor MDA-3 cable fault	CBLPWR
XX97	Processor Fan 3 fault	MDAPWR MSAPWR
XXA1	Processor MDA-4 fault	MDAPWR
XXA3	Processor MDA-4 Seeprom VPD fault	MDAPWR
XXA5	Processor MDA-4 cable fault	CBLPWR
XXA7	Processor Fan 4 fault	MDAPWR MSAPWR

SPCN failing items for Models 870 and 890:

Choose from the following code format and table identifier:

- Table 4. SPCN failing items for Models 870 and 890 with table identifier 90
- Table 5. SPCN failing items for Models 870 and 890 with table identifier A0
- Table 6. SPCN failing items for Models 870 and 890 with table identifier B0

Table 4. SPCN failing items for Models 870 and 890 with table identifier 90:

Failing Item	Description	Document Description
ACMODUL	AC Module	Problem Analysis; Symbolic FRU Isolation
AIRMOVR	Fan and Blower assemblies	Problem Analysis; Symbolic FRU Isolation
AJDG301	Vertical Licensed Internal Code.	Service Functions; APAR or LICTR
ALTMANL	Alternate Manual Required	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Back Plane Unit	Problem Analysis; Symbolic FRU Isolation
BATCHGR	Battery Power Unit Charger	Problem Analysis; Symbolic FRU Isolation
BATRY	Battery Power Unit	Problem Analysis; Symbolic FRU Isolation
BPCPWR	Power Controller Part	Problem Analysis; Symbolic FRU Isolation
CAPPWR	Capacitor card part	Problem Analysis; Symbolic FRU Isolation
CBLALL	Cable Failure	Problem Analysis; Symbolic FRU Isolation
CBLPWR	Cable Unit Part	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control Panel	Problem Analysis; Symbolic FRU Isolation
I2CBUS	I2C Bus Part	Problem Analysis; Symbolic FRU Isolation

Failing Item	Description	Document Description
IDPART	Vital Product Data Parts	Problem Analysis; Symbolic FRU Isolation
MAPPWR	MAP Power Problem	Problem Analysis; Symbolic FRU Isolation
PGDPART	Power Good Part	Problem Analysis; Symbolic FRU Isolation
PWROC	Power Supply overcurrent	Problem Analysis; Symbolic FRU Isolation
PWRREG	Regulator.	Problem Analysis; Symbolic FRU Isolation
PWRSPLY	Power Supply	Problem Analysis; Symbolic FRU Isolation
SVCPROC	Service Processor Card	Problem Analysis; Symbolic FRU Isolation
TWRCARD	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
UPSUNIT	UPS unit part	Problem Analysis; Symbolic FRU Isolation
VPDPART	VPD Communication Part	Problem Analysis; Symbolic FRU Isolation

Table 5. SPCN failing items for Models 870 and 890 with table identifier A0:

Failing Item	Description	Document Description
BPCPWR	Power Controller Part	Problem Analysis; Symbolic FRU Isolation
BPDPWR	Power Distribution Part	Problem Analysis; Symbolic FRU Isolation
BPFPWR	Fan and Blower assemblies	Problem Analysis; Symbolic FRU Isolation
BPRPWR	Power Regulator Part	Problem Analysis; Symbolic FRU Isolation
IBFPWR	Battery Power Unit	Problem Analysis; Symbolic FRU Isolation
MAPPWR	MAP Power Problem	Problem Analysis; Symbolic FRU Isolation
UPSUNIT	UPS unit part	Problem Analysis; Symbolic FRU Isolation

Table 6. SPCN failing items for Models 870 and 890 with table identifier B0:

Failing Item	Description	Document Description
CBLPWR	Cable Unit Part	Problem Analysis; Symbolic FRU Isolation
DCAPWR	DC Converter Assembly	Problem Analysis; Symbolic FRU Isolation
MAPPWR	MAP Power Problem	Problem Analysis; Symbolic FRU Isolation
MDAPWR	Fan and Blower Drive Assembly	Problem Analysis; Symbolic FRU Isolation
MSAPWR	Fan and Blower assemblies	Problem Analysis; Symbolic FRU Isolation
OCPWR	Power Supply overcurrent	Problem Analysis; Symbolic FRU Isolation

(2105) Disk Unit Reference Codes

1. If the error is reported on the control panel, the unit reference code is characters 5 through 8 of the top 16 character line of function 11. If the error is reported on the console, the unit reference code is the 4 rightmost characters of word 1.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Disk Unit Failing Items Details, which follows the reference code table below.

Table 1. (2105) Disk Unit Reference Codes

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3002	Addressed device is not responding	FCPORT FCDEV FCIOA FCINTF OPT_CLN
3010	Disk device returned wrong response to IOP	FCDEV FCIOA OPT_CLN
3020	Storage subsystem configuration error If an MES is being installed, verify the configuration.	FCDEV FCIOA OPT_CLN
3029	A device replacement has occurred No action required. This reference code is logged for information only.	
3100	Fibre Channel interface error occurred	FCINTF FCDEV FCIOA OPT_CLN
3109	IOP timed out a disk command	FCDEV FCINTF FCIOA OPT_CLN
34FF	Format in progress The device indicated that a format is in progress. When the format is complete, the device should be useable. No action is required. This reference code is logged for information only.	
FFF3	Disk media format bad	FCDEV
FFF4	Disk device problem	FCDEV
FFF5	Disk sector read error	FCDEV
FFF6	Disk device detected recoverable error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see “Hardware Service Manager” in the *iSeries Service Functions*.	FCDEV
FFFA	Disk device wrong response was recovered by the IOP A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see “Hardware Service Manager” in the *iSeries Service Functions*.	FCDEV FCIOA OPT_CLN
FFFE	Temporary Fibre Channel interface error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see “Hardware Service Manager” in the *iSeries Service Functions*.	FCINTF FCDEV FCIOA OPT_CLN

Table 2. Disk Unit Failing Items Details

Failing Item	Description	Document Description
FCDEV	Fibre Channel device	Problem Analysis; Symbolic FRU Isolation

Failing Item	Description	Document Description
FCINTF	Fibre Channel interface	Problem Analysis; Symbolic FRU Isolation
FCIOA	Fibre Channel IOA	Problem Analysis; Symbolic FRU Isolation
FCPORT	Port not operational	Problem Analysis; Symbolic FRU Isolation
IOP	I/O processor card	Problem Analysis; Symbolic FRU Isolation
OPT_CLN	Fiber optic cleaning kit	Problem Analysis; Symbolic FRU Isolation

(2629, 2718, 2726, 2728, 2729, 2740, 2741, 2809, 2810, 2824, 282C, 6532, 6533, 6534, 671A) Reference Codes

These Storage IOAs are allowed only on migrated towers. See Migrated Expansion Unit Problem Analysis, Repair and Parts, SY44-5968-00.

(2746) Twinaxial – Workstation Adapter Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Workstation Adapter Failing Items Details, which follows the reference code table below.

Table 1. (2746) Twinaxial – Workstation Adapter Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B904	I/O adapter Licensed Internal Code failed.	AJDGP01 FI00719
B934	Incompatible hardware detected.	FI00719 FI00718
B940	I/O adapter hardware error detected	FI00719 FI00718 AJDGP01
B941 to B942	One half of I/O adapter failed.	FI00719 FI00718 AJDGP01

Table 2. Workstation Adapter Failing Items Details

Failing Item	Description	Document Description
AJDGP01	LIC - Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR

(2748, 2757, 2763, 2778, 2782, 5703) Reference Codes

If the error is reported on the control panel, the unit reference code is characters 5 through 8 of the top 16 character line of function 11. If the error is reported on the console, the unit reference code is the 4 rightmost characters of word 1.

Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2748, 2757, 2763, 2778, 2782, 5703) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3006	System bus error	IOP ANYBUS STORIOA
3020	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 0. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA
3021	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 1. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA
3022	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 2. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA
3023	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 3. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA
3100	I/O processor card detected interface error Error occurred on SCSI bus 0. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN
3101	I/O processor card detected interface error Error occurred on SCSI bus 1. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN
3102	I/O processor card detected interface error Error occurred on SCSI bus 2. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN
3103	I/O processor card detected interface error Error occurred on SCSI bus 3. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3120	I/O Processor detected that the bus is not operational A device was added to SCSI bus 0 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3121	I/O Processor detected that the bus is not operational A device was added to SCSI bus 1 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3122	I/O Processor detected that the bus is not operational A device was added to SCSI bus 2 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3123	I/O Processor detected that the bus is not operational A device was added to SCSI bus 3 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3140	I/O Processor detected that the bus is now operational This reference code and the 3120 reference code that occurred before it require no service action, since SCSI bus 0 is now operational.	
3141	I/O Processor detected that the bus is now operational This reference code and the 3121 reference code that occurred before it require no service action, since SCSI bus 1 is now operational.	
3142	I/O Processor detected that the bus is now operational This reference code and the 3122 reference code that occurred before it require no service action, since SCSI bus 2 is now operational.	
3143	I/O Processor detected that the bus is now operational This reference code and the 3123 reference code that occurred before it require no service action, since SCSI bus 3 is now operational.	
3150	I/O processor detected a SCSI bus configuration error Internal and external SCSI cables are connected to SCSI bus 0 at the same time. Correct the SCSI bus 0 configuration.	SVCDOCS
3151	I/O processor detected a SCSI bus configuration error Internal and external SCSI cables are connected to SCSI bus 1 at the same time. Correct the SCSI bus 1 configuration.	SVCDOCS
3400	I/O processor card detected device error	FI02112 STORIOA FI01106 DEVTERM FI01140
3401	Device backplane problem	DEVBPLN
3501	I/O processor Licensed Internal Code error	AJDGP01 IOP
3600 to 3601	System log entry only, no service action required	
8008	A permanent cache battery pack failure occurred	CACHBAT STORIOA
8009	Impending cache battery pack failure	CACHBAT

2748, 2757, 2763, 2778, 2782, 5703

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8012	Attached read cache devices exceed capacity supported by IOA Reduce the number of read caches on the IOA.	SVCDOCS
8100	I/O processor Licensed Internal Code error	AJDGP01 IOP
8130	IOA detected recoverable device bus error An error occurred on SCSI bus 0. No action is required. This reference code is logged for information only.	
8131	IOA detected recoverable device bus error An error occurred on SCSI bus 1. No action is required. This reference code is logged for information only.	
8132	IOA detected recoverable device bus error An error occurred on SCSI bus 2. No action is required. This reference code is logged for information only.	
8133	IOA detected recoverable device bus error An error occurred on SCSI bus 3. No action is required. This reference code is logged for information only.	
8140	IOA detected recoverable device bus error No action is required. This reference code is logged for information only.	
8141	IOA detected recoverable device error No action is required. This reference code is logged for information only.	
8145	A recoverable I/O processor error occurred.	STORIOA
8146	Disk device detected recoverable error	FI01105
8150	A permanent I/O processor failure occurred	STORIOA ANYBRDG
8151	I/O processor Licensed Internal Code error	AJDGP01 STORIOA
8155 to 8156	A permanent I/O processor failure occurred	AJDGP01 STORIOA
8157	I/O adapter card error Display the Service Action Log entry for this SRC. If the Failing Item indicates I/O adapter, then replace the I/O adapter. If the Failing Item indicates SVCDOCS, then do NOT replace the I/O adapter. This is a recoverable error. Perform the following for the I/O processor that the I/O adapter is attached to: 1. If the I/O Processor is not operable and disk units are attached, use Hardware Service Manager to re-IPL the IOP. Other resources attached to the IOP may then need to be Varied On. 2. If disk units are not attached, perform the VRYCFG RESET(*YES) command to reset the IOP and Vary On attached resources.	SVCDOCS
8200	I/O processor Licensed Internal Code error	AJDGP01 IOP
9000	I/O processor card detected device error	FI01105 STORIOA

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9001	I/O processor card detected device configuration error Perform SDIOP-PIP33.	SVCDOCS
9002	I/O processor card detected device error Perform SDIOP-PIP16.	FI01105 STORIOA FI01140 BACKPLN FI01106
9008	I/O card does not support functions expected by devices Perform SDIOP-PIP25.	SVCDOCS
9009	Call your next level of support for assistance	SVCDOCS
9010	Cache data associated with attached devices cannot be found Perform SDIOP-PIP31.	SVCDOCS
9011	Cache data belongs to devices other than those attached Perform SDIOP-PIP32.	SVCDOCS
9014	Mode jumper overridden due to cache data in conflicting mode See JOVERRIDE.	SVCDOCS
9015	Mode jumper missing See JMISSING.	SVCDOCS
9020 to 9021	Array not functional due to present hardware configuration. Perform SDIOP-PIP20.	SVCDOCS
9022 to 9024	Array not functional due to present hardware configuration. Perform SDIOP-PIP22.	SVCDOCS
9025	Disk unit is not supported at its physical location. Perform SDIOP-PIP21.	SVCDOCS
9026	Array not functional due to present hardware configuration. Perform SDIOP-PIP22.	SVCDOCS
9027	Array not functional due to present hardware configuration. Perform SDIOP-PIP34.	SVCDOCS
9028	Incorrect hardware configuration change has been detected. Reduce the number of arrays on IOP. Either move all devices in an array to another IOP that supports arrays, or stop an array on this IOP.	SVCDOCS
9029	Incorrect hardware configuration change has been detected. Contact your next level of support.	SVCDOCS
902F	Array addendum Product Activity Log entry This entry contains additional array information for 90xx reference codes when the array contains more than 10 array members. Use the 90xx entry that occurred at the same time as this reference code as the starting point for this problem.	

2748, 2757, 2763, 2778, 2782, 5703

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9030	Array no longer protected due to missing or failed disk unit Perform SDIOP-PIP21.	SVCDOCS
9031, 9040	Array protection temporarily suspended No action required. Protection will be automatically restarted.	
9041	Background array parity check detected and corrected errors Call your next level of support to report the problem.	AJDGP01
9050	Required cache data cannot be located for a disk unit. Perform SDIOP-PIP30.	SVCDOCS
9051	IOP cache data exists for a missing or failed device. If all configured units are missing, a 9054 reference code may appear in the product activity log. If so, perform the action indicated for the 9054 reference code. Otherwise, perform SDIOP-PIP27.	SVCDOCS
9052	Cache data exists for device that has been modified. Contact your next level of support.	SVCDOCS
9053	IOP resources not available due to previous problems. Take action on other IOP reference codes which have surfaced. If you cannot get to SST or DST, and cannot perform a type A or B IPL, perform a type D IPL from removable media. Look for Product Activity Log entries for other IOP reference codes and take action on them.	SVCDOCS
9054	IOP resources not available due to previous problems. Power off the system and remove all new or replacement disk units. IPL the system to DST. If you cannot perform a type A or B IPL, perform a type D IPL from removable media. Look for Product Activity Log entries for other IOP reference codes and take action on them.	SVCDOCS
9081	I/O processor card detected device error	FI01105 STORIOA
9082	I/O processor card detected device error Perform SDIOP-PIP16.	FI01105 STORIOA FI01140 BACKPLN FI01106
9090	Disk unit has been modified after the last known status. Re-IPL the system. If any reference codes are surfaced, go to RCT and use the new reference code as the entry point to the problem. If you cannot resolve the problem, contact your next level of support.	SVCDOCS
9091	Incorrect hardware configuration change has been detected. Re-IPL the system. If any reference codes are surfaced, go to RCT and use the new reference code as the entry point to the problem. If you cannot resolve the problem, contact your next level of support.	SVCDOCS

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9092	Disk unit requires initialization before use. Perform SDIOP-PIP26.	SVCDOCS
9093	Read cache device not in correct format Contact your next level of support.	SVCDOCS
B934	Incompatible hardware detected.	STORIOA
FF3D	I/O adapter detected recoverable error	STORIOA ANYBRDG
FF6D	I/O processor detected a recoverable system bus error	IOP ANYBUS

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
ANYBRDG	System I/O bus or any attached card	Problem Analysis; Symbolic FRU Isolation
ANYBUS	IOP card bus error	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Card Enclosure or Planar Board	Problem Analysis; Symbolic FRU Isolation
CACHBAT	Cache battery pack	Problem Analysis; Symbolic FRU Isolation
DEVBPLN	Device backplane	Problem Analysis; Symbolic FRU Isolation
DEVTERM	Terminating plug	Problem Analysis; Symbolic FRU Isolation
IOP	I/O processor card	Problem Analysis; Symbolic FRU Isolation
PCIBUS	Any PCI card on the PCI bus	Problem Analysis; Symbolic FRU Isolation
STORIOA	Storage I/O adapter	Problem Analysis; Symbolic FRU Isolation
SVCDOCS	Customer engineer directed to system problem analysis	Problem Analysis; Symbolic FRU Isolation
USER	System Operator/User	Problem Analysis; Symbolic FRU Isolation

(2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702) Reference Codes

1. If the error is reported on the control panel, the unit reference code is characters 5 through 8 of the top 16 character line of function 11. If the error is reported on the console, the unit reference code is the 4 rightmost characters of word 1.
2. Find the unit reference code in the following table.

Attention: The 673x is a read cache. Perform all actions required for 673x as a disk drive and logic card except where separate 673x cache instructions are provided.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284D, 284E, 286C, 286D, 286E, 286F, 5702) Reference Codes

2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0A17	A permanent I/O processor failure occurred	IOP MA_BRDG AJDGP01 AJDG301
0A22	I/O processor detected a storage transfer error	AJDGP01 AJDG301 IOP MA_BRDG
102E	Out of alternate sectors for disk storage	FI01105
1307	I/O processor resource not available	AJDGP01 AJDG301
1310	I/O processor resource not available The I/O processor error log is being filled faster than the errors are being reported to the system. Check other errors reported to the system and correct them.	
1317	I/O processor card error Display the Service Action Log entry for this SRC. If the Failing Item indicates IOP, then replace the IOP. If the Failing Item indicates SVCDOCS, then do NOT replace the IOP. This is a recoverable error. Perform the following: 1. If the I/O Processor is not operable and disk units are attached, use Hardware Service Manager to re-IPL the IOP. Other resources attached to the IOP may then need to be Varied On. 2. If disk units are not attached, perform the VRYCFG RESET(*YES) command to reset the IOP and Vary On attached resources.	SVCDOCS
2200	I/O processor Licensed Internal Code error	AJDGP01
2201	Removable media error during IPL	USER FI01105
2202	Removable media error during IPL	FI00022 FI01105
3000	A permanent I/O processor failure occurred	FI01101 IOP MA_BRDG
3001	Not valid condition in I/O Processor Licensed Internal Code The Licensed Internal Code found a condition that should not have occurred.	IOP AJDGP01
3002	Addressed device failed to respond to selection Perform SDIOP-PIP16.	FI01105 STORIOA FI01140 FI01141 FI01106
3006	System bus error	IOP ANYBUS FI01101
3020	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 0. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3021	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 1. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA
3022	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 2. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA
3023	I/O processor detected a SCSI bus configuration error Error occurred on SCSI bus 3. To correct or isolate a possible user error or configuration error, perform SDIOP-PIP17. Use the failing item (FI) codes to find failing devices.	USER FI01107 STORIOA
3080	I/O processor Licensed Internal Code error	AJDGP01
3081	System log entry only, no service action required	
3084	I/O processor card or Licensed Internal Code error A microprocessor exception occurred on the I/O processor.	AJDGP01 IOP FI01104 MA_BRDG
3087	I/O processor resource not available The Licensed Internal Code could not allocate resources on the I/O processor card.	AJDGP01 AJDG301 IOACNFG FI01104
3100	I/O processor card detected interface error Error occurred on SCSI bus 0. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN
3101	I/O processor card detected interface error Error occurred on SCSI bus 1. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN
3102	I/O processor card detected interface error Error occurred on SCSI bus 2. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN
3103	I/O processor card detected interface error Error occurred on SCSI bus 3. Perform SDIOP-PIP13.	FI01107 STORIOA FI01140 BACKPLN
3109	I/O processor timed out a device command Perform SDIOP-PIP16.	FI01105 STORIOA FI01140 BACKPLN FI01106
3110	I/O processor card detected interface error Perform SDIOP-PIP16.	FI01105 STORIOA FI01140 BACKPLN FI01106

2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3120	I/O Processor detected that the bus is not operational A device was added to SCSI bus 0 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3121	I/O Processor detected that the bus is not operational A device was added to SCSI bus 1 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3122	I/O Processor detected that the bus is not operational A device was added to SCSI bus 2 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3123	I/O Processor detected that the bus is not operational A device was added to SCSI bus 3 of the I/O Adapter and caused the bus to become not operational. Remove the device.	SVCDOCS
3136	The removable media device is assigned elsewhere	USER FI01105
3140	I/O Processor detected that the bus is now operational This reference code and the 3120 reference code that occurred before it require no service action, since SCSI bus 0 is now operational.	
3141	I/O Processor detected that the bus is now operational This reference code and the 3121 reference code that occurred before it require no service action, since SCSI bus 1 is now operational.	
3142	I/O Processor detected that the bus is now operational This reference code and the 3122 reference code that occurred before it require no service action, since SCSI bus 2 is now operational.	
3143	I/O Processor detected that the bus is now operational This reference code and the 3123 reference code that occurred before it require no service action, since SCSI bus 3 is now operational.	
3150	I/O processor detected a SCSI bus configuration error Internal and external SCSI cables are connected to SCSI bus 0 at the same time. Correct the SCSI bus 0 configuration.	SVCDOCS
3151	I/O processor detected a SCSI bus configuration error Internal and external SCSI cables are connected to SCSI bus 1 at the same time. Correct the SCSI bus 1 configuration.	SVCDOCS
3200	A tape/CD or disk device reported a failure	FI01105 STORIOA IOP MEDIA
3203	Disk media format bad	FI01105
3205, 3215	Disk sector read error Disk unit data may need to be reloaded, but the disk unit does not need to be replaced.	FI01105
3250	Disk unit requires initialization before use. Perform a D-IPL and work on errors found in the log.	USER

2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3300	Storage unit detected a media problem Perform SDIOP-PIP1.	MEDIA FI00121 FI01141
3400	I/O processor card detected device error NOTE: If external devices are attached check EXTSCSI and DEVTERM first.	FI02112 STORIOA FI01106 DEVTERM FI01140
3401	Device backplane problem	DEVBPLN
3501	I/O processor Licensed Internal Code error	AJDGP01 IOP
3600 to 3601	System log entry only, no service action required	
6070	A permanent I/O processor failure occurred	IOP
6071	I/O processor Licensed Internal Code error	AJDGP01
6072	I/O processor Licensed Internal Code error	AJDGP01 IOP
6073	IPL device not ready	MEDIA FI01105 USER
6075	I/O processor resource not available	AJDGP01
6076	I/O processor card detected media error	MEDIA AJDGP01 FI01105
6081 to 6083	I/O processor Licensed Internal Code error	AJDGP01 IOP
6085	I/O processor Licensed Internal Code error	AJDGP01 IOP MA_BRDG
6200	A permanent IOA hardware error occurred	FCIOA OPT_CLN
6201	IOA LID is not valid	AJDGP01
6602	An I/O processor Licensed Internal Code error occurred.	AJDGP01
8000	A permanent IOP or cache adaptor card failure occurred. **Note:** DO NOT replace both FRUs at the same time. Exchange the FRUs one at a time in the order shown.	STORIOA CACHE
8002	A permanent cache adaptor card failure occurred. **Note:** DO NOT replace both FRUs at the same time. Exchange the FRUs one at a time in the order shown.	CACHE STORIOA
8004	Voltage drop detected on I/O processor 5 volt power supply.	FI01141 STORIOA
8005	A recoverable IOP or cache adaptor card error occurred. **Note:** DO NOT replace both FRUs at the same time. Exchange the FRUs one at a time in the order shown.	STORIOA CACHE
8007	A recoverable cache adaptor card error occurred. **Note:** DO NOT replace both FRUs at the same time. Exchange the FRUs one at a time in the order shown.	CACHE STORIOA

2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8010 to 8011	A permanent cache adaptor card failure occurred. The cache adaptor card may be missing, broken or incompatible. **Note:** DO NOT replace both FRUs at the same time. Exchange the FRUs one at a time in the order shown.	CACHE STORIOA
8100	I/O processor Licensed Internal Code error	AJDGP01 IOP
8130	IOA detected recoverable device bus error An error occurred on SCSI bus 0. No action is required. This reference code is logged for information only.	
8131	IOA detected recoverable device bus error An error occurred on SCSI bus 1. No action is required. This reference code is logged for information only.	
8132	IOA detected recoverable device bus error An error occurred on SCSI bus 2. No action is required. This reference code is logged for information only.	
8133	IOA detected recoverable device bus error An error occurred on SCSI bus 3. No action is required. This reference code is logged for information only.	
8140	IOA detected recoverable device bus error No action is required. This reference code is logged for information only.	
8141	IOA detected recoverable device error No action is required. This reference code is logged for information only.	
8145	A recoverable I/O processor error occurred.	STORIOA
8146	Disk device detected recoverable error	FI01105
8150	A permanent I/O processor failure occurred	STORIOA ANYBRDG
8151	I/O processor Licensed Internal Code error	AJDGP01 STORIOA
8155 to 8156	A permanent I/O processor failure occurred	AJDGP01 STORIOA
8157	I/O adapter card error Display the Service Action Log entry for this SRC. If the Failing Item indicates I/O adapter, then replace the I/O adapter. If the Failing Item indicates SVCDOCS, then do NOT replace the I/O adapter. This is a recoverable error. Perform the following for the I/O processor that the I/O adapter is attached to: 1. If the I/O Processor is not operable and disk units are attached, use Hardware Service Manager to re-IPL the IOP. Other resources attached to the IOP may then need to be Varied On. 2. If disk units are not attached, perform the VRYCFG RESET(*YES) command to reset the IOP and Vary On attached resources.	SVCDOCS
8200	I/O processor Licensed Internal Code error	AJDGP01 IOP

2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8300	I/O processor card or Licensed Internal Code error A microprocessor exception occurred on the I/O processor.	STORIOA IOP AJDGP01
8301	Not valid condition in I/O Processor Licensed Internal Code The Licensed Internal Code found a condition that should not have occurred.	FI01101 AJDGP01 IOP
8400	I/O processor Licensed Internal Code error	AJDGP01
9000	I/O processor card detected device error	FI01105 STORIOA
9001	I/O processor card detected device configuration error Perform SDIOP-PIP33.	SVCDOCS
9002	I/O processor card detected device error Perform SDIOP-PIP16.	FI01105 STORIOA FI01140 BACKPLN FI01106
9008	I/O card does not support functions expected by devices Perform SDIOP-PIP25.	SVCDOCS
9009	Call your next level of support for assistance	SVCDOCS
9010	Cache data associated with attached devices cannot be found Perform SDIOP-PIP19.	SVCDOCS
9011	Cache data belongs to devices other than those attached Perform SDIOP-PIP19.	SVCDOCS
9012	IOP requires a cache adaptor card but cannot find it. The cache adapter card is missing or broken. Perform SDIOP-PIP29.	CACHE
9013	The IOP and attached cache adaptor card are not compatible. Perform SDIOP-PIP19.	SVCDOCS
9020 to 9021	Array not functional due to present hardware configuration. Perform SDIOP-PIP20.	SVCDOCS
9022 to 9024	Array not functional due to present hardware configuration. Perform SDIOP-PIP22.	SVCDOCS
9025	Disk unit is not supported at its physical location. Perform SDIOP-PIP21.	SVCDOCS
9026 to 9027	Array not functional due to present hardware configuration. Perform SDIOP-PIP22.	SVCDOCS
9028	Incorrect hardware configuration change has been detected. Reduce the number of arrays on IOP. Either move all devices in an array to another IOP that supports arrays, or stop an array on this IOP.	SVCDOCS

2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9029	Incorrect hardware configuration change has been detected. Contact your next level of support.	SVCDOCS
902F	Array addendum Product Activity Log entry This entry contains additional array information for 90xx reference codes when the array contains more than 10 members. Use the 90xx entry that occurred at the same time as this reference code as the starting point for this problem.	
9030	Array no longer protected due to missing or failed disk unit Perform SDIOP-PIP21.	SVCDOCS
9031, 9040	Array protection temporarily suspended No action required. Protection will be automatically restarted.	
9041	Background array parity check detected and corrected errors Call your next level of support to report the problem.	AJDGP01
9050	Required cache data cannot be located for a disk unit. Perform SDIOP-PIP23.	SVCDOCS
9051	IOP cache data exists for a missing or failed device. If all configured units are missing, a 9054 reference code may appear in the product activity log. If so, perform the action indicated for the 9054 reference code. Otherwise, perform SDIOP-PIP27.	SVCDOCS
9052	Cache data exists for device that has been modified. Perform SDIOP-PIP28.	SVCDOCS
9053	IOP resources not available due to previous problems. Take action on other IOP reference codes which have surfaced. If you cannot get to SST or DST, and cannot perform a type A or B IPL, perform a type D IPL from removable media. Look for Product Activity Log entries for other IOP reference codes and take action on them.	SVCDOCS
9054	IOP resources not available due to previous problems. Power off the system and remove all new or replacement disk units. IPL the system to DST. If you cannot perform a type A or B IPL, perform a type D IPL from removable media. Look for Product Activity Log entries for other IOP reference codes and take action on them.	SVCDOCS
9081	I/O processor card detected device error	FI01105 STORIOA
9082	I/O processor card detected device error Perform SDIOP-PIP16.	FI01105 STORIOA FI01140 BACKPLN FI01106

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9090	Disk unit has been modified after the last known status. Re-IPL the system. If any reference codes are surfaced, go to RCT and use the new reference code as the entry point to the problem. If you cannot resolve the problem, contact your next level of support.	SVCDOCS
9091	Incorrect hardware configuration change has been detected. Re-IPL the system. If any reference codes are surfaced, go to RCT and use the new reference code as the entry point to the problem. If you cannot resolve the problem, contact your next level of support.	SVCDOCS
9092	Disk unit requires initialization before use. Perform SDIOP-PIP26.	SVCDOCS
B3B1 to B3B7	A permanent I/O processor failure occurred	IOP
B3B8	Multi-adapter bridge error detected.	MA_BRDG IOP
B3B9	A permanent I/O processor failure occurred	IOP
B3E0 to B3E1	I/O processor detected a fault condition.	IOP MA_BRDG
B410 to B411	A permanent I/O processor failure occurred	STORIOA
B412	Tape/CD or disk bus interface error occurred Perform SDIOP-PIP16.	FI01107 FI01140 STORIOA DEVTERM
B935	Unknown hardware detected	FI01101 AJDGP01 IOP MA_BRDG
BE00	I/O processor detected a fault condition.	AJDGP01 IOP FI01104 MA_BRDG
FF3D	I/O adapter detected recoverable error	STORIOA ANYBRDG
FF6D	I/O processor detected a recoverable system bus error	IOP ANYBUS

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDG301	Vertical Licensed Internal Code	Service Functions; APAR or LICTR
AJDGP01	I/O card Licensed Internal Code	Service Functions; APAR or LICTR
AJDGP01	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
ANYBRDG	System I/O bus or any attached card	Problem Analysis; Symbolic FRU Isolation
ANYBUS	IOP card bus error	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Card Enclosure or Planar Board	Problem Analysis; Symbolic FRU Isolation
CACHBAT	Cache battery pack	Problem Analysis; Symbolic FRU Isolation
CACHE	Cache adaptor card	Problem Analysis; Symbolic FRU Isolation

2749, 2767, 2768, 2842, 2843, 2844, 284B, 284C, 284D, 284E, 286C, 286D, 286E, 286F, 5702

Failing Item	Description	Document Description
CMPRES1	Compressed device and compression IOA are not compatible	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control panel, or the interface to the Control panel	Problem Analysis; Symbolic FRU Isolation
DEVBPLN	Device backplane	Problem Analysis; Symbolic FRU Isolation
DEVTERM	Terminating plug	Problem Analysis; Symbolic FRU Isolation
FCIOA	Fibre Channel IOA	Problem Analysis; Symbolic FRU Isolation
IOACNFG	Configuration error	Problem Analysis; Symbolic FRU Isolation
IOP	I/O processor card	Problem Analysis; Symbolic FRU Isolation
MA_BRDG	Multi-adapter bridge	Problem Analysis; Symbolic FRU Isolation
MEDIA	Defective media	Problem Analysis; Symbolic FRU Isolation
OPT_CLN	Fiber optic cleaning kit	Problem Analysis; Symbolic FRU Isolation
PCIBUS	Any PCI card on the PCI bus	Problem Analysis; Symbolic FRU Isolation
STORIOA	Storage I/O adapter	Problem Analysis; Symbolic FRU Isolation
SVCDOCS	Customer engineer directed to system problem analysis	Problem Analysis; Symbolic FRU Isolation
USER	System Operator/User	Problem Analysis; Symbolic FRU Isolation

(2765, 2766, 2787, 5704) Reference Codes

If the error is reported on the control panel, the unit reference code is characters 5 through 8 of the top 16 character line of function 11. If the error is reported on the console, the unit reference code is the 4 rightmost characters of word 1.

Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2765, 2766, 2787, 5704) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3020	I/O processor detected a configuration error Either too many devices or the wrong kind of devices have been configured under the IOA. Change the configuration.	SVCDOCS
3100	I/O processor card detected interface error	FCINTF ANYFC FCIOA OPT_CLN
3120	I/O processor detected a port failure	FCPORT FCIOA FCDEV OPT_CLN
3140	I/O Processor detected that a port is now operational This reference code and the 3120 reference code that occurred before it require no service action, since the port is now operational.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3400	I/O processor card detected device error	FCDEV FCINTF ANYFC FCIOA OPT_CLN
34FF	Format in progress The device indicated that a format is in progress. When the format is complete, the device should be useable. No action is required. This reference code is logged for information only.	
8130, 8140	Recovered Fibre Channel interface error No action required. This reference code is logged for information only.	
8141	IOA detected recoverable device error No action required. This reference code is logged for information only.	
8145	A recoverable I/O processor error occurred.	FCIOA OPT_CLN
8146	Disk device detected recoverable error	FCDEV
8150	A permanent I/O processor failure occurred	FCIOA ANYBRDG OPT_CLN
8151	I/O processor Licensed Internal Code error	AJDGP01 FCIOA IOP OPT_CLN
8155 to 8156	A permanent I/O processor failure occurred	AJDGP01 FCIOA OPT_CLN
9091 to 9092	Incorrect hardware configuration change has been detected. Reset the I/O processor and then IPL the I/O processor. For information on how to reset and IPL the I/O processor, see “Debug the Resource” in the “Hardware Service Manager” section of the *iSeries Service Functions*. If an I/O processor reset and I/O processor IPL does not resolve the problem, contact your next level of support.	SVCDOCS
FF3D	Recovered IOA error	FCIOA ANYBRDG OPT_CLN

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
ANYBRDG	System I/O bus or any attached card	Problem Analysis; Symbolic FRU Isolation
ANYFC	Any Fibre Channel device	Problem Analysis; Symbolic FRU Isolation
FCDEV	Fibre Channel device	Problem Analysis; Symbolic FRU Isolation
FCINTF	Fibre Channel interface	Problem Analysis; Symbolic FRU Isolation
FCIOA	Fibre Channel IOA	Problem Analysis; Symbolic FRU Isolation
FCPORT	Port not operational	Problem Analysis; Symbolic FRU Isolation

Failing Item	Description	Document Description
IOP	I/O processor card	Problem Analysis; Symbolic FRU Isolation
OPT_CLN	Fiber optic cleaning kit	Problem Analysis; Symbolic FRU Isolation
SVCDOCS	Customer engineer directed to system problem analysis	Problem Analysis; Symbolic FRU Isolation

(283C, 283D, 283F, 28B9, 28BC, 28CB, 28CC, 28CD, 5306) Device Backplane Reference Codes

1. If the error is reported on the control panel, the unit reference code is characters 5 through 8 of the top 16 character line of function 11. If the error is reported on the console, the unit reference code is the 4 rightmost characters of word 1.
2. Find the unit reference code in the following table.

Attention: The 673x is a read cache. Perform all actions required for 673x as a disk drive and logic card except where separate 673x cache instructions are provided.

For more on the Failing Item column entries, see Table 2. Device Backplane Failing Items Details, which follows the reference code table below.

Table 1. (283C, 283D, 283F, 28B9, 28BC, 28CB, 28CC, 28CD, 5306) Device Backplane Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3002	Addressed device backplane failed to respond to selection	DEVBPLN STORIOA FI01140 FI01106
3109	I/O adapter timed out a device backplane command	DEVBPLN STORIOA FI01140 FI01106
8401	Removable media power fault	DEVBPLN
FFF4	Device backplane problem	DEVBPLN STORIOA FI01140 FI01106

Table 2. Device Backplane Failing Items Details

Failing Item	Description	Document Description
BACKPLN	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
CMPRES1	Compressed device and compression IOA are not compatible	Problem Analysis; Symbolic FRU Isolation
DEVBPLN	Device backplane	Problem Analysis; Symbolic FRU Isolation
DEVTERM	Device terminator	Problem Analysis; Symbolic FRU Isolation
DISKDRV	Disk drive and logic card	Problem Analysis; Symbolic FRU Isolation
STORIOA	Storage I/O adapter	Problem Analysis; Symbolic FRU Isolation

Failing Item	Description	Document Description
SVCDOCS	Customer engineer directed to system problem analysis	Problem Analysis; Symbolic FRU Isolation

(3490) Tape Unit Reference Codes

A tape or a 3490 Tape Unit failure occurred.

Note: For tape device and IOP reset procedures, see TU-PIP4.

1. Is the operating system available and can you enter commands from the command line?
   - **Yes**: Is OS/400 available on the system (see "Determining the Dominant Operating System" in the *iSeries Service Functions*)?
     - **No**: Continue with the next step.
     - **Yes**: Use the online problem analysis procedures to isolate the problem. Use the Work with Problem (**WRKPRB**) command to determine if a recent problem was entered in the problem log, or use the Verify Tape (**VFYTAP**) command to run verification tests.
   - **No**: Continue with the next step.
2. Verify that the 3490 is powered on.
3. Verify that the channel Enable/Disable switches are set to the Enable position.
4. Verify that the 3490 online/offline switches are set to the online position.
5. Load the first tape.
6. Start a type **D** IPL from the system unit control panel.

   Does the IPL complete successfully?
   - **Yes**: The problem has been corrected.

     This ends the procedure.
   - **No**: Obtain another copy of the tape. Repeat steps 5 and 6 using the new tape. If this does not correct the problem, continue with the next step.
7. Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code.
8. If the 3490 indicator panel shows a check (CHK) code or an error code, see the "Start" section of the 3490 service information.
9. See SRC Address Formats to determine the IOP, IOA, and device address.
10. Find the unit reference code in the following table.
11. See the "Start" section of the 3490 service information.

For more on the Failing Item column entries, see Table 2. Tape Unit Failing Items Details, which follows the reference code table below.

Table 1. (3490) Tape Unit Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0xxx, 1xxx, 2000	Tape unit failure Use online problem analysis and the 3490 Tape Unit service information to analyze the problem.	

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2001	Tape path dirty or write data check error Clean the tape path using the cleaning procedures in the *3490 Magnetic Tape Subsystem Operator's Guide*, GA32-0124. Use the 3490 Tape Unit service information to continue analyzing the problem.	MHK0001 DHK0002
2003	Tape path dirty or write identification record error Clean the tape path using the cleaning procedures in the *3490 Magnetic Tape Subsystem Operator's Guide*, GA32-0124. Use the 3490 Tape Unit service information to continue analyzing the problem.	MHK0001 DHK0002
2008	Tape path dirty or read data check error Clean the tape path using the cleaning procedures in the *3490 Magnetic Tape Subsystem Operator's Guide*, GA32-0124. Use the 3490 Tape Unit service information to continue analyzing the problem.	MHK0001 DHK0002
2009	Tape path dirty or read identification record error Clean the tape path using the cleaning procedures in the *3490 Magnetic Tape Subsystem Operator's Guide*, GA32-0124. Use the 3490 Tape Unit service information to continue analyzing the problem.	MHK0001 DHK0002
2010	Tape unit failure Use online problem analysis and the 3490 Tape Unit service information to continue analyzing the problem.	
2014	Recoverable tape unit failure; logged only No action required. This reference code is logged for information only.	
2015	Tape unit failure Clean the tape path using the cleaning procedures in the *3490 Magnetic Tape Subsystem Operator's Guide*, GA32-0124. Use the 3490 Tape Unit service information to continue analyzing the problem.	DHK0002 FI00856 FI00845
2017	Write Protect violation reported by tape unit; logged only No action required. This reference code is logged for information only.	
202x, 205x, 206x, 21xx, 22xx	Tape unit failure Use online problem analysis and the 3490 Tape Unit service information to continue analyzing the problem.	
23xx	Tape Library failure Use the 3494 Tape Library Dataserver Maintenance Information to analyze the problem.	
26xx, 27xx, 3xxx, 4xxx, 5xxx, 6xxx, 7xxx, 8xxx	Tape unit failure Use online problem analysis and the 3490 Tape Unit service information to continue analyzing the problem.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9020	I/O processor detected a SCSI bus configuration error Before exchanging any parts, verify that the following conditions are not present: • Tape and DASD devices attached to the same type 6501 I/O processor • A device type or model that is not given support	UHKCNFG FI00851 FI00130
9100	Interface error detected by I/O processor or by tape unit Before exchanging any parts, do the following: 1. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 2. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 3. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00851 FI00856 05H3834 EXTSCSI 61G8324
9200	I/O processor addressed the tape unit; no response Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00851 FI00856 05H3834 EXTSCSI 61G8324
9201	Tape unit command timeout Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00851 FI00856 05H3834 EXTSCSI 61G8324
9210	Illegal or unsupported tape unit response	FI00851 FI00856 FI00130
9300	Tape unit failure	DHK0002
9301	Tape device failure, redundancy lost The tape unit detected a hardware failure that does not prevent the tape unit from completing the present operation. See the 3590 Tape Unit service information to determine the failing item.	DHK0002
9302	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9310	Licensed Internal Code for the tape unit is not correct	FI00851 FI00130
9320	Tape device Licensed Internal Code failure Do the following: 1. Take a dump of the tape device Licensed Internal Code (see the 3490 Tape Drive service information). 2. Power off the tape unit. Then power on the tape unit to resume operation.	FI00851
9350	Tape unit detected a read or write error on tape medium A permanent read or write error occurred, and the tape unit determined that the tape cartridge is defective. Exchange the tape cartridge.	MHKTMED UHKCLN FI00851
9351	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130
9355	The data format is incorrect; the tape cannot be read The tape device does not give support to the data format on the tape cartridge. Re-initialize the tape cartridge or use a different tape cartridge.	MHKTMED UHKCLN FI00851
9500	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130
96xx	Tape unit failure Use online problem analysis and the 3490 Tape Unit service information to continue analyzing the problem.	
9800 to 9803	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only.	
9810	Problem analysis has determined a part should be replaced. This reference code is used for ending Online Problem Analysis with a list of failing items. (Information Only)	
9899	Problem analysis completed, the problem has been corrected. This reference code is used for ending Online Problem Analysis when no problem was found or the problem was corrected.	UHKFIXD
9900	Licensed Internal Code for tape unit was not upgraded The I/O processor loading of Licensed Internal Code (LIC) to the programmable tape unit was not completed. The tape unit will continue to operate with the previous LIC. You may do either of the following: • Wait for next IPL when the system will attempt to load the LIC for the tape unit again. • Perform TU-PIP4 to reset the IOP and the tape unit. When the IOP is reset, if the device has the wrong level of LIC, the IOP will attempt to load the new LIC.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
Axxx, Bxxx, Cxxx, Dxxx, Exxx, F00x	Tape unit failure Use online problem analysis and the 3490 Tape Unit service information to continue analyzing the problem.	
FFD5	Device error reported; tape I/O processor Verify the following: 1. That power is switched on in the 3490 Tape Unit Rack: • Set the 3490 Rack Unit Emergency Power Off switch to the On position. • Ensure that the 3490 Rack Enable/Off switch is set to the Enable position. • Press the 3490 Rack Power On button. 2. Verify the following on 3490 Tape Unit: • The Channel Enable/Disable switches are set to the Enable position. • The Normal/Test switch is set to the Normal position. • The CU Online/Offline switch is set to the Online position. • The Drive Address Online/Offline switches are set to the Online position. • The Drive DC Power switches are set to the On position. If you are attempting to perform an IPL from the device that had the error, verify that the drive control unit address switch has an address of hexadecimal 7 and the drive unit address switch has an address of 0. Use the 3490 Tape Unit service information to continue analyzing the problem.	UHK0003 DHK0002
FFF6	Volume statistics; logged only No action required. This reference code is logged for information only.	

Table 2. Tape Unit Failing Items Details

Failing Item	Description	Document Description
05H3834	Interposer	Magnetic tape subsystem service information
61G8324	Terminating plug	Magnetic tape subsystem service information
DHK0002	I/O device	Use the sense bytes and 3490 MI to find the failing items
EXTSCSI	External signal cable	Problem Analysis; Symbolic FRU Isolation
MHK0001	Tape	Magnetic tape subsystem operator's information
MHKTMED	Defective tape	Magnetic tape subsystem operator's information
UHK0003	I/O device not communicating	Magnetic tape subsystem operator's information
UHKCLN	Tape unit needs cleaning	Magnetic tape subsystem operator's information
UHKCNFG	Tape configuration detected by I/O processor; not valid	Installation
UHKUSRT	System Operator/User	System operation information

(3494) Tape Library Reference Codes

A tape or a tape library failure occurred.

Note: For tape device and IOP reset procedures, see TU-PIP4.

1. Is the operating system available, and can you enter commands from the command line?
   - **Yes**: Is OS/400 available on the system (see "Determining the Dominant Operating System" in the *iSeries Service Functions*)?
     - **No**: Continue with the next step.
     - **Yes**: Use the online problem analysis procedures to isolate the problem. Use the Work with Problem (**WRKPRB**) command to determine if a recent problem was entered in the problem log, or use the Verify Tape (**VFYTAP**) command to run verification tests.
   - **No**: Continue with the next step.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Tape Library Failing Items Details, which follows the reference code table below.

Table 1. (3494) Tape Library Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2301	Library device failure Library attachment facility equipment check. Use the 3494 Tape Library Dataserver Maintenance Information and follow the procedures for analyzing a "LIBRARY PROBLEM - NO ERROR MESSAGE."	3494
2303	Library device failure Device control unit and library manager Licensed Internal Code are incompatible. Use the 3494 Tape Library Dataserver Maintenance Information and follow the procedures for analyzing a "LIBRARY PROBLEM - NO ERROR MESSAGE."	DHALIBC DHADEVC
2306 to 2307	Library device failure Library vision failure. Use the 3494 Tape Library Dataserver Maintenance Information and follow the procedures for analyzing a "LIBRARY PROBLEM - NO ERROR MESSAGE."	3494
2308	Library device failure Library manager equipment check. Use the 3494 Tape Library Dataserver Maintenance Information and follow the procedures for analyzing a "LIBRARY MANAGER HARDWARE PROBLEM"	3494

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2309	Library device failure Library equipment check. Use the 3494 Tape Library Dataserver Maintenance Information and follow the procedures for analyzing a ″LIBRARY PROBLEM - NO ERROR MESSAGE.″	3494
2310 to 2311	Library device requires operator intervention Put the library into pause mode and perform the intervention indicated on the library manager console.	
2319	Tape unit failure Use the tape unit service information to analyze the failure.	FI00851
2321	Library enclosure environmental alert was detected. Use the 3494 Tape Library Dataserver Maintenance Information and follow the procedures for analyzing a ″LIBRARY PROBLEM - NO ERROR MESSAGE.″	3494

Table 2. Tape Library Failing Items Details

Failing Item	Description	Document Description
3494	Library device	IBM 3494 Maintenance Information, SA37-0270
DHADEVC	3490 Control Unit Licensed Internal Code	Refer to I/O device service information
DHALIBC	3494 Library Manager Licensed Internal Code	IBM 3494 Maintenance Information, SA37-0270

(3570) Tape Unit Reference Codes

A tape or a 3570 Tape Unit failure occurred.

Note: For tape device and IOP reset procedures, see TU-PIP4.

1. Is the operating system available and can you enter commands from the command line?
   - **Yes**: Is OS/400 available on the system (see “Determining the Dominant Operating System” in the *iSeries Service Functions*)?
     - **No**: Continue with the next step.
     - **Yes**: Use the online problem analysis procedures to isolate the problem. Use the Work with Problem (**WRKPRB**) command to determine if a recent problem was entered in the problem log, or use the Verify Tape (**VFYTAP**) command to run verification tests.
   - **No**: Continue with the next step.
2. Verify that the 3570 is powered on.
3. Ensure that the 3570 SCSI address is set to “0”.
4. Load the first tape.
5. Start a type **D** IPL from the system unit control panel.

   Does the IPL complete successfully?
   - **Yes**: The problem has been corrected.

     This ends the procedure.

- **No**: Obtain another copy of the tape. Repeat this step using the new tape. If this does not correct the problem, continue with the next step of this procedure.

6. Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code.
7. If the amber light on the 3570 indicator panel is on continuously, see the "Start" section of the 3570 service information.
8. See SRC Address Formats to determine the IOP, IOA, and device address.
9. Find the unit reference code in the following table.
10. See the "Start" section of the 3570 service information.

For more on the Failing Item column entries, see Table 2. Tape Unit Failing Items Details, which follows the reference code table below.

Table 1. (3570) Tape Unit Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9020	I/O processor detected a SCSI bus configuration error Before exchanging any parts, verify that the following conditions are not present: • Tape and DASD devices attached to an I/O processor that does not support tape and DASD devices at the same time. • A device type or model that is not given support.	UHZCNFG DHZDEV FI00130
9100	Interface error detected by I/O processor or by tape unit Before exchanging any parts, do the following: 1. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 2. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 3. Ensure that a terminating plug is attached to the device end of the SCSI cable.	DHZDEV FI00131 05H3834 EXTSCSI 61G8324
9101	Fibre Channel interface error detected If the attached device is an external device, do the following before exchanging any parts: 1. Ensure that the Fibre Channel cable is correctly connected to the ports. 2. Clean the Fibre Channel connectors. 3. If there is a hub attached, verify that the hub is operational. 4. If there is a gateway device attached, refer to the gateway device service documentation for additional problem analysis procedures. 5. refer to the tape device service documentation for additonal problem analysis procedures.	FCIOA FCDEV FCCABLE
9102	Gateway device detected a SCSI interface error Use the gateway device service documentation to analyze the problem.	DHZDEV FCGATE EXTSCSI 61G8324

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9200	I/O processor addressed the tape unit; no response Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	DHZDEV FI00131 05H3834 EXTSCSI 61G8324
9201	Tape unit command timeout Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	DHZDEV FI00131 05H3834 EXTSCSI 61G8324
9202	Tape unit failed after Licensed Internal Code was loaded Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	DHZDEV FI00131 05H3834 EXTSCSI 61G8324
9210	Illegal or unsupported tape unit response	DHZDEV FI00131 FI00130
9211	Gateway device detected a bus protocol error Use the gateway device service documentation to analyze the problem.	FCGATE FCIOA DHZDEV ANYFC FCCABLE EXTSCSI 61G8324
9300	Tape unit failure	DHZDEV
9301	Tape device failure, redundancy lost The tape unit detected a hardware failure that does not prevent the tape unit from completing the current operation. Refer to the 3570 Tape Unit service information to determine the failing item.	DHZDEV

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9302	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130
9303	Gateway device failure Use the gateway device service documenation to analyze the problem.	FCGATE
9310	Licensed Internal Code for the tape unit is not correct	DHZDEV FI00130
9320	Tape device Licensed Internal Code failure Perform the following: 1. Take a dump of the tape unit Licensed Internal Code (see the 3570 Tape Unit service information). 2. Power off the tape unit. Then power on the tape unit to resume operation. 3. Ask your next level of support for assistance.	FI00130 DHZDEV
9321	Gateway device Licensed Internal Code error Use the gateway device service documenation to analyze the problem.	FCCODE
9350	Tape unit detected a read or write error on tape medium A permanent read or write error occurred, and the tape unit determined that the tape cartridge is defective. Exchange the tape cartridge.	MHZTMED UHZCLN DHZDEV
9351	Tape with excessive error rate was mounted in tape device. The tape unit detected that the mounted tape cartridge has a history of excessive read and write errors. It is recommended that you exchange the tape cartridge.	MHZTMED UHZCLN DHZDEV
9355	The data format is incorrect; the tape cannot be read The tape unit does not give support to the data format on the tape cartridge. Use a different tape cartridge.	UHZUSER MHZTMED UHZCLN DHZDEV
9500	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130
9800 to 9803	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only.	
9810	Problem analysis has determined a part should be replaced. This reference code is used for ending Online Problem Analysis with a list of failing items. (Information Only)	
9899	Problem analysis completed, the problem has been corrected. This reference code is used for ending Online Problem Analysis when no problem was found or the problem was corrected.	UHZFIXD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9900	Licensed Internal Code for tape unit was not upgraded The I/O processor loading of Licensed Internal Code (LIC) to the programmable tape unit was not completed. The tape unit will continue to operate with the previous LIC. You may do either of the following: • Wait for next IPL when the system will attempt to load the LIC for the tape drive again. • Perform TU-PIP4 to reset the IOP and the tape unit. When the IOP is reset, if the device has the wrong level of LIC, the IOP will attempt to load the new LIC.	UHZUSER
FFF6	Tape volume statistics logged (no action required)	

Table 2. Tape Unit Failing Items Details

Failing Item	Description	Document Description
05H3834	Interposer	IBM 3570 Tape Drive Service Guide
61G8324	Terminating plug	IBM 3570 Tape Drive Service Guide
ANYFC	Any device on Fibre Channel interface	Problem Analysis; Symbolic FRU Isolation
DHZDEV	Tape unit failure	IBM 3570 Tape Drive Service Guide
EXTSCSI	External signal cable	Problem Analysis; Symbolic FRU Isolation
FCCABLE	Fibre Channel cable	Problem Analysis; Symbolic FRU Isolation
FCCODE	Gateway device Licensed Internal Code	Problem Analysis; Symbolic FRU Isolation
FCDEV	Fibre Channel device	Problem Analysis; Symbolic FRU Isolation
FCGATE	Gateway device	IBM SAN Data Gateway Service Guide
FCIOA	Fibre Channel IOA	Problem Analysis; Symbolic FRU Isolation
MHZTMED	Defective tape	Magnetic tape subsystem service information
UHZCLN	Tape unit needs cleaning	Magnetic tape subsystem operator's information
UHZCNFG	Tape configuration detected by I/O processor; not valid	Installation
UHZUSER	Operator action required	System operation information

(3590) Tape Unit Reference Codes

A tape or a 3590 Tape Unit failure occurred.

Note: For tape device and IOP reset procedures, see TU-PIP4.

1. Is the operating system available and can you enter commands from the command line?
   - **Yes**: Is OS/400 available on the system (see "Determining the Dominant Operating System" in the *iSeries Service Functions*)?
     - **No**: Continue with the next step.
     - **Yes**: Use the online problem analysis procedures to isolate the problem. Use the Work with Problem (**WRKPRB**) command to determine if a recent problem was entered in the problem log, or use the Verify Tape (**VFYTAP**) command to run verification tests.

- **No**: Continue with the next step.

2. Verify that the 3590 is powered on.
3. Ensure that the 3590 SCSI address is set to "0".
4. Verify that the 3590 online/offline switches are set to the online position.
5. Load the first tape.
6. Start a type **D** IPL from the system unit control panel.

   Does the IPL complete successfully?

   - **Yes**: The problem has been corrected.

     This ends the procedure.
   - **No**: Obtain another copy of the tape. Repeat this step using the new tape. If this does not correct the problem, continue with the next step.
7. If the 3590 indicator panel shows a FRU identifier (FID) code, see the "Start" section of the 3590 service information.
8. Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code.
9. See SRC Address Formats to determine the IOP, IOA, and device address.
10. Find the unit reference code in the following table.
11. See the "Start" section of the 3590 service information.

For more on the Failing Item column entries, see Table 2. Tape Unit Failing Items Details, which follows the reference code table below.

Table 1. (3590) Tape Unit Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9020	I/O processor detected a SCSI bus configuration error Before exchanging any parts, verify that the following conditions are *not* present: • Tape and DASD devices attached to an I/O processor that does not support tape and DASD devices at the same time. • A device type or model that is not given support	UHQCNFG FI00851 FI00130
9100	Interface error detected by I/O processor or by tape unit Before exchanging any parts, do the following: 1. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 2. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 3. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00851 FI00131 05H3834 EXTSCSI 61G8324

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9101	Fibre Channel interface error detected If the attached device is an external device, do the following before exchanging any parts: 1. Ensure that the Fibre Channel cable is correctly connected to the ports. 2. Clean the Fibre Channel connectors. 3. If there is a hub attached, verify that the hub is operational. 4. If there is a gateway device attached, refer to the gateway device service documentation for additional problem analysis procedures. 5. refer to the tape device service documentation for additonal problem analysis procedures.	FCIOA FCDEV FCCABLE
9102	Gateway device detected a SCSI interface error Use the gateway device service documentation to analyze the problem.	FI00851 FCGATE EXTSCSI 61G8324
9200	I/O processor addressed the tape unit; no response Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00851 FI00131 05H3834 EXTSCSI 61G8324
9201	Tape unit command timeout Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00851 FI00131 05H3834 EXTSCSI 61G8324
9202	Tape unit failed after Licensed Internal Code was loaded Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that an interposer is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable between the interposer and the device is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00851 FI00131 05H3834 EXTSCSI 61G8324
9210	Illegal or unsupported tape unit response	FI00851 FI00131 FI00130

3590

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9211	Gateway device detected a bus protocol error Use the gateway device service documentation to analyze the problem.	FCGATE FCIOA FI00851 ANYFC FCCABLE EXTSCSI 61G8324
9300	Tape unit failure	FI00851
9301	Tape device failure, redundancy lost The tape unit detected a hardware failure that does not prevent the tape unit from completing the present operation. See the 3590 Tape Unit service information to determine the failing item.	FI00851
9302	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130
9303	Gateway device failure Use the gateway device service documenation to analyze the problem.	FCGATE
9310	Licensed Internal Code for the tape unit is not correct	FI00851 FI00130
9320	Tape device Licensed Internal Code failure Do the following: 1. Take a dump of the tape device Licensed Internal Code (see the 3590 Tape Unit service information). 2. Power off the tape unit. Then power on the tape unit to resume operation.	FI00130 FI00851
9321	Gateway device Licensed Internal Code error Use the gateway device service documenation to analyze the problem.	FCCODE
9350	Tape unit detected a read or write error on tape medium A permanent read or write error occurred, and the tape unit determined that the tape cartridge is defective. Exchange the tape cartridge.	MHQTMED UHQCLN FI00851
9351	Tape with excessive error rate was mounted in tape device. The tape unit detected that the installed tape cartridge has a history of excessive read and write errors. It is recommended that you exchange the tape cartridge.	MHQTMED UHQCLN FI00851
9355	The data format is incorrect; the tape cannot be read The tape device does not give support to the data format on the tape cartridge. Format the tape cartridge again or use a different tape cartridge. See the *3590 Tape Drive Operator's Guide* for instructions on formatting a tape cartridge.	MHQTMED UHQCLN FI00851
9500	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9800 to 9803	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only.	
9810	Problem analysis has determined a part should be replaced. This reference code is used for ending Online Problem Analysis with a list of failing items. (Information Only)	
9899	Problem analysis completed, the problem has been corrected. This reference code is used for ending Online Problem Analysis when no problem was found or the problem was corrected.	UHQFIXD
9900	Licensed Internal Code for tape unit was not upgraded The I/O processor loading of Licensed Internal Code (LIC) to the programmable tape unit was not completed. The tape unit will continue to operate with the previous LIC. You may do either of the following: • Wait for next IPL when the system will attempt to load the LIC for the tape unit again. • Perform TU-PIP4 to reset the IOP and the tape unit. When the IOP is reset, if the device has the wrong level of LIC, the IOP will attempt to load the new LIC.	
FFF6	Tape volume statistics logged (no action required)	

Table 2. Tape Unit Failing Items Details

Failing Item	Description	Document Description
05H3834	Interposer	IBM 3590 Tape Drive Service Guide
61G8324	Terminating plug	IBM 3590 Tape Drive Service Guide
ANYFC	Any device on Fibre Channel interface	Problem Analysis; Symbolic FRU Isolation
EXTSCSI	External signal cable	Problem Analysis; Symbolic FRU Isolation
FCCABLE	Fibre Channel cable	Problem Analysis; Symbolic FRU Isolation
FCCODE	Gateway device Licensed Internal Code	Problem Analysis; Symbolic FRU Isolation
FCDEV	Fibre Channel device	Problem Analysis; Symbolic FRU Isolation
FCGATE	Gateway device	IBM SAN Data Gateway Service Guide
FCIOA	Fibre Channel IOA	Problem Analysis; Symbolic FRU Isolation
MHQTMED	Defective tape	Magnetic tape subsystem service information
UHQCLN	Tape unit needs cleaning	Magnetic tape subsystem operator's information
UHQCNFG	Tape configuration detected by I/O processor; not valid	Installation

(432x, 660x, 671x, 673x) Disk Unit Reference Codes

If the error is reported on the control panel, the unit reference code is characters 5 through 8 of the top 16 character line of function 11. If the error is reported on the console, the unit reference code is the 4 rightmost characters of word 1.

432x, 660x, 671x, 673x

Find the unit reference code in the following table. If the failing item is a disk unit, go to Start Disk Service.

Attention: The 673x is a read cache. Perform all actions required for 673x as a disk drive and logic card except where separate 673x cache instructions are provided.

For more on the Failing Item column entries, see Table 2. Disk Unit Failing Items Details, which follows the reference code table below.

Table 1. (432x, 660x, 671x, 673x) Disk Unit Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
102E	Out of alternate sectors for disk storage	DISKDRV
3002	Addressed device failed to respond to selection	DISKDRV STORIOA BACKPLN FI01106 FI01140
3010	Disk device returned wrong response to IOP	DISKDRV STORIOA FI01140 FI01141
3020	Storage subsystem configuration error If an MES is being installed, verify the configuration.	DISKDRV FI01106 STORIOA FI01140
3029	A device replacement has occurred No action required. This reference code is logged for information only.	
3100	Tape/CD or disk bus interface error occurred Perform DU-PIP3.	DISKDRV STORIOA FI01106 FI01140
3109	IOP timed out a disk command	DISKDRV STORIOA FI01106 FI01140
3110	Disk bus interface error occurred Perform DU-PIP3.	STORIOA DISKDRV FI01106 FI01140
3130	Device Licensed Internal Code The device is not supported with the level of code currently on the system. Contact your next level of support.	SVCDOCS
3131	Device or IOA Licensed Internal Code The device does not support a needed attribute and is running with degraded performance. Contact your next level of support.	SVCDOCS
7000	Disk sector read error No action required. This reference code is logged for information only.	DISKDRV

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7001	Temporary disk data error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see "Hardware Service Manager" in the *iSeries Service Functions*.	DISKDRV
7003	Device format error If the disk has not been formatted by the system, initialize and format the disk. See "Work with disk unit recovery" in the *iSeries Service Functions*.	
7004	System log entry only, no service action required	
7050	Data compression failure Contact your next level of support.	SVCDOCS
7051	Compressed device and compression IOA are not compatible The customer should perform the "Recovering From 6xxx7051 SRC" procedure in the *Backup and Recovery*, SC41-5304-06.	CMPRES1
7052	Data compression warning The customer should perform the "Recovering From 6xxx7052 SRC" procedure in the *Backup and Recovery*, SC41-5304-06.	SVCDOCS
FFF2	Disk motor problem	DISKDRV
FFF3	Disk media format bad	DISKDRV
FFF4	Disk device problem	DISKDRV STORIOA
FFF5	Disk sector read error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see "Hardware Service Manager" in the *iSeries Service Functions*.	DISKDRV
FFF6	Disk device detected recoverable error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see "Hardware Service Manager" in the *iSeries Service Functions*.	DISKDRV
FFF7	Temporary disk data error No action required. This reference code is logged for information only.	DISKDRV
FFF8 to FFF9	Temporary disk data error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see "Hardware Service Manager" in the *iSeries Service Functions*.	DISKDRV
FFFA	Temporary disk bus error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see "Hardware Service Manager" in the *iSeries Service Functions*.	DISKDRV STORIOA FI01140 FI01141 BACKPLN

432x, 660x, 671x, 673x

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
FFFB	SCSI bus reset occurred No action required. This reference code is logged for information only.	
FFFE	Temporary disk bus error A disk unit service action is recommended only if the Service Action Log contains an entry for this reference code. For more information about the Service Action Log, see "Hardware Service Manager" in the *iSeries Service Functions*.	DISKDRV STORIOA FI01106 FI01140

Table 2. Disk Unit Failing Items Details

Failing Item	Description	Document Description
BACKPLN	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
CMPRES1	Compressed device and compression IOA are not compatible	Problem Analysis; Symbolic FRU Isolation
DEVTERM	Device terminator	Problem Analysis; Symbolic FRU Isolation
DISKDRV	Disk drive and logic card	Problem Analysis; Symbolic FRU Isolation
STORIOA	Storage I/O adapter	Problem Analysis; Symbolic FRU Isolation
SVCDOCS	Customer engineer directed to system problem analysis	Problem Analysis; Symbolic FRU Isolation

(632x, 6330, 6336) Optical Storage Unit Reference Codes

An optical storage unit failure occurred.

Notes:

1. If the system is available, use online diagnostic tests when possible.
2. Search the problem log (**WRKPRB**) for a recent optical storage entry that may assist in analyzing the problem. The WRKPRB entry will provide a unit reference code that can be found in the following table.
3. Use the Hardware Service Manager (HSM) verify function (via DST or SST) and verify that the unit is operating correctly.

Perform the following:

1. If the system is available, attempt the failing operation again with an optical media that is known to be good.

   Does the operation complete successfully?

   - **Yes**: The original optical media may be defective, or the problem may be intermittent.

     Attempt the failing operation again with the original optical media to verify.

     This ends the procedure.
   - **No**: Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Optical Storage Unit Failing Items Details, which follows the reference code table below.

Table 1. (632x, 6330, 6336) Optical Storage Unit Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
C002	SCSI selection or reselection timeout occurred	FI00870 FI01106 FI01112 MEDIA FI01140 FI01141 DEVTERM CDTRAY
C010	Undefined sense key returned by device	FI00870
C020	Device internal configuration error	FI00870
C100	SCSI bus command error occurred	FI00870 FI01106 FI01112 MEDIA FI01140 FI01141 DEVTERM CDTRAY
C110	SCSI command timeout occurred	FI00870 FI01106 FI01112 MEDIA FI01140 FI01141 DEVTERM CDTRAY
C210	Unexpected device condition recovered The device successfully recovered from a temporary error. No action is required. This reference code is logged for information only.	
C300	Media or device error occurred Perform the following: 1. Clean the disk. 2. Attempt the failing operation again. 3. If this does not correct the problem, exchange the failing items.	MEDIA FI00870
C301	Media or device error occurred Dust check encountered. Optical media and/or drive's optical lens is dirty. Clean the optical drive and the media contained in the drive.	
C302	Media or device error occurred While writing to the media, an 'out of spare sectors' condition was encountered. The media can no longer be written to but is still readable. Clean the optical drive and the media contained in the drive.	

632x, 6330, 6336

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
C333	Incompatible media was detected Perform the following: 1. Verify that the disk has a format that is given support. 2. If the format is given support, clean the disk and attempt the failing operation again. 3. If the operation fails again with the same reference code, ask your media source for a replacement disk.	MEDIA FI00870
C400	Interface error detected by device	FI00870 FI01106 FI01112 FI01140 FI01141 DEVTERM CDTRAY
C402	I/O processor internal program error occurred Ask your next level of support for assistance.	FI00130
CFF2	Recovered from device not ready - Start Unit issued The device successfully recovered from a temporary error. No action is required. This reference code is logged for information only.	
CFF4	Internal device error occurred	FI00870
CFF6	Device recovered from error after retries The device successfully recovered from a temporary error. No action is required. This reference code is logged for information only.	
CFF7	Recovered device error The device successfully recovered from a temporary error. No action is required. This reference code is logged for information only.	
CFFE	Recovered SCSI bus error The device successfully recovered from a temporary error. No action is required. This reference code is logged for information only.	
FF09	Licensed Internal Code for optical device was not upgraded This reference code is logged for information only.	
FF3D	Recovered I/O processor error The device successfully recovered from a temporary error. No action is required. This reference code is logged for information only.	
FF6D	Recovered System bus error The device successfully recovered from a temporary error. No action is required. This reference code is logged for information only.	

Table 2. Optical Storage Unit Failing Items Details

Failing Item	Description	Document Description
CDTRAY	Flex cable on tray assembly	Problem Analysis; Symbolic FRU Isolation
DEVTERM	Bus Terminator	Problem Analysis; Symbolic FRU Isolation
MEDIA	Optical Media	System operation information

(63A0) Tape Unit Reference Codes

A tape unit failure occurred.

Note: For tape device and IOP reset procedures, see TU-PIP4.

1. Is the operating system available and can you enter commands from the command line?
   - **Yes**: Is OS/400 available on the system (see "Determining the Dominant Operating System" in the *iSeries Service Functions*)?
     - **No**: Continue with the next step.
     - **Yes**: Use the online problem analysis procedures to isolate the problem. Use the Work with Problem (**WRKPRB**) command to determine if a recent problem was entered in the problem log, or use the Verify Tape (**VFYTAP**) command to run verification tests.
   - **No**: Continue with the next step.
2. Clean the recording head in the tape unit.
3. Attempt the failing operation again.

   Does the operation complete successfully?
   - **Yes**: The original data cartridge is defective. The problem has been corrected.

     This ends the procedure.
   - **No**: Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Tape Unit Failing Items Details, which follows the reference code table below.

Table 1. (63A0) Tape Unit Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9020	I/O processor detected a SCSI bus configuration error Before exchanging any parts, verify that the following condition is not present: • Tape and DASD devices attached to an I/O Processor that does not support Tape and Dasd devices at the same time.	UH7CNFG FI00871 FI00130
9100	Interface error detected by I/O processor or by tape unit If the attached device is an external device, do the following before exchanging any parts: 1. If an interposer is required, make sure that it is connected between the I/O processor and the SCSI cable. 2. Ensure that the SCSI cable is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 3. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00871 FI01112 FI00872 DEVTERM

63A0

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9101	Fibre Channel interface error detected If the attached device is an external device, do the following before exchanging any parts: 1. Ensure that the Fibre Channel cable is correctly connected to the ports. 2. Clean the Fibre Channel connectors. 3. If there is a hub attached, verify that the hub is operational. 4. If there is a gateway device attached, refer to the gateway device service documentation for additional problem analysis procedures. 5. refer to the tape device service documentation for additonal problem analysis procedures.	FCIOA FCDEV FCCABLE
9102	Gateway device detected a SCSI interface error Use the gateway device service documentation to analyze the problem.	FI00871 FCGATE FI00872 DEVTERM
9200	I/O processor addressed the tape unit; no response If the attached device is an external device, do the following before exchanging any parts: 1. Ensure that the device is powered on. 2. If an interposer is required, make sure that it is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00871 FI01112 FI00872 DEVTERM
9201	Tape unit command timeout If the attached device is an external device, do the following before exchanging any parts: 1. Ensure that the device is powered on. 2. If an interposer is required, make sure that it is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00871 FI01112 FI00872 DEVTERM MH7TMED
9202	Tape unit failed after Licensed Internal Code was loaded If the attached device is an external device, do the following before exchanging any parts: 1. Ensure that the device is powered on. 2. If an interposer is required, make sure that it is connected between the I/O processor and the SCSI cable. 3. Ensure that the SCSI cable is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 4. Ensure that a terminating plug is attached to the device end of the SCSI cable.	FI00871 FI01112 FI00872 DEVTERM
9210	Illegal or unsupported tape unit response	FI00871 FI01112 FI00130

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9211	Gateway device detected a bus protocol error Use the gateway device service documentation to analyze the problem.	FCGATE FCIOA FI00871 ANYFC FCCABLE FI00872 DEVTERM
9300	Tape unit failure	FI00871
9301	Tape device failure, redundancy lost The tape unit detected a hardware failure that does not prevent the tape unit from completing the current operation.	FI00871
9302	Tape device failure or media error The tape unit detected a failure that may be caused by a hardware failure or a media error. Refer to the tape unit service information for possible information on diagnositic tests that can be run to isolate between hardware and media failures.	MH7TMED FI00871
9303	Gateway device failure Use the gateway device service documenation to analyze the problem.	FCGATE
9310	Licensed Internal Code for the tape unit is not correct	FI00130 FI00871
9320	Tape device Licensed Internal Code failure	FI00130 FI00871
9321	Gateway device Licensed Internal Code error Use the gateway device service documenation to analyze the problem.	FCCODE
9350	Tape unit detected a read or write error on tape medium A permanent read or write error occurred. Clean the tape unit and retry the operation. If cleaning the tape unit does not correct the problem, exchange the tape media.	MH7TMED UH7CLN FI00871
9351	Tape with excessive error rate was mounted in tape device. The tape unit detected that the mounted tape cartridge has a history of excessive read and write errors. It is recommended that you exchange the tape cartridge.	MH7TMED UH7CLN FI00871
9355	The data format is incorrect; the tape cannot be read The tape unit has detected that the data format on the tape media is not supported. Clean the tape unit and retry the operation. If the operation continues to fail, use a different tape cartridge.	UH7USER MH7TMED UH7CLN FI00871
9500	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130

63A0

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9800 to 9803	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only.	
9810	Problem analysis has determined a part should be replaced. This reference code is used for ending Online Problem Analysis with a list of failing items. (Information Only)	
9899	Problem analysis completed, the problem has been corrected. This reference code is used for ending Online Problem Analysis when no problem was found or the problem was corrected.	UH7FIXD
9900	Licensed Internal Code for tape unit was not upgraded The I/O processor loading of Licensed Internal Code (LIC) to the programmable tape unit was not completed. The tape unit will continue to operate with the previous LIC. You may do either of the following: • Wait for next IPL when the system will attempt to load the LIC for the tape drive again. • Perform TU-PIP4 to reset the IOP and the tape unit. When the IOP is reset, if the device has the wrong level of LIC, the IOP will attempt to load the new LIC.	UH7USER
FFF6	Tape volume statistics logged (no action required)	

Table 2. Tape Unit Failing Items Details

Failing Item	Description	Document Description
ANYFC	Any device on Fibre Channel interface	Problem Analysis; Symbolic FRU Isolation
DEVTERM	Terminating plug	Problem Analysis; Symbolic FRU Isolation
FCCABLE	Fibre Channel cable	Problem Analysis; Symbolic FRU Isolation
FCCODE	Gateway device Licensed Internal Code	Problem Analysis; Symbolic FRU Isolation
FCDEV	Fibre Channel device	Problem Analysis; Symbolic FRU Isolation
FCGATE	Gateway device	IBM SAN Data Gateway Service Guide
FCIOA	Fibre Channel IOA	Problem Analysis; Symbolic FRU Isolation
MH7TMED	Defective tape	Magnetic tape subsystem service information
UH7CLN	Tape unit needs cleaning	Magnetic tape subsystem operator's information
UH7CNFG	Tape configuration detected by I/O processor; not valid	Installation
UH7USER	Operator action required	System operation information

(6A59) Workstation Adapter Console Reference Codes

The workstation adapter console detected a failure.

Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Workstation Adapter Console Failing Items Details, which follows the reference code table below.

Table 1. (6A59) Workstation Adapter Console Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0AD2 to 0AD3	Communications adapter card test failed	FI00718
0B25	Communications adapter card test failed	FI00719 FI00718 FI00727
0BA0, 0BAB, 0BB0, 0BD0 to 0BD1	Communications adapter card test failed	FI00719 FI00718
0BEE	I/O card Licensed Internal Code ended abnormally	FI00719 FI00718
0C10	Communications adapter card test failed	FI00719 FI00718 FI00727
0C20	Communications adapter card test failed	FI00719 FI00718
0C30	Adapter card failed modem interface test	FI00719 FI00718
0C40, 0C43	Synchronous-data-link-control send-receive test failed	FI00719 FI00718
0C50, 0C53	Binary synchronous control send-receive test failed	FI00719 FI00718
0C60, 0C63	Asynchronous send-receive test failed	FI00719 FI00718
0C70, 0C80	Communications adapter card test failed	FI00719 FI00718
0C90	Communications adapter card X.21 test failed	FI00719 FI00718
0CA1, 0CC0	Communications adapter card test failed	FI00719 FI00718
5007	Diagnostic wrap test completed; no errors detected	
5008	Diagnostic wrap test completed; error was detected	FI00719 DPAC FI00718
FFFF	User suspected communications problem.	UNAUPPR

Table 2. Workstation Adapter Console Failing Items Details

Failing Item	Description	Document Description
DPAC	Communications two-port adapter cable	Problem Analysis; Symbolic FRU Isolation
UNAUPPR	User suspected problem	

(7208) Tape Drive Reference Codes

An 8mm tape drive failure occurred.

Note: For tape device and IOP reset procedures, see TU-PIP4.

1. Is the operating system available and can you enter commands from the command line?
   - **Yes**: Is OS/400 available on the system (see "Determining the Dominant Operating System" in the *iSeries Service Functions*)?
     - **No**: Continue with the next step.
     - **Yes**: Use the online problem analysis procedures to isolate the problem. Use the Work with Problem (**WRKPRB**) command to determine if a recent problem was entered in the problem log, or use the Verify Tape (**VFYTAP**) command to run verification tests.
   - **No**: Go to step 4 of this procedure.
2. Clean the recording head in the tape unit. Use the correct IBM Cleaning Cartridge Kit:
   - In Canada, the United States, and all other countries use part 16G8467.
3. Attempt the failing operation again.

   Does the operation complete successfully?
   - **No**: Continue with the next step.
   - **Yes**: The original data cartridge is defective. The problem has been corrected.

     This ends the procedure.
4. Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code.

   Is the failing tape unit located in a type 9427 Tape Library device?
   - **Yes**: Go to "(9427) Tape Unit Reference Codes" on page 192.
   - **No**: Does the label on the front of the 7208 Tape Drive show 7208-002?
     - **Yes**: See Table 1. (7208) Model 002 Tape Drive Reference Codesand find the unit reference code.
     - **No**: The label shows 7208-012. See Table 3. (7208) Model 012 Tape Drive Reference Codes and find the unit reference code.

Table 1. (7208) Model 002 Tape Drive Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0001	Tape unit failure 1. Look at the In-use lights. If the green light is off and the yellow light is on, the tape unit is indicating an error condition. 2. Switch off power to the tape unit. 3. Switch on power to the tape unit. 4. Clean the recording head in the tape unit. Use the IBM Cleaning Cartridge Kit (part 21F8593). 5. Use a new data cartridge if saving data. Also see the procedure for reference code FFFF.	MLVTMED 91F0914

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0002	Tape unit formatter failure 1. Look at the In-use lights. If the green light is off and the yellow light is on, the tape unit is indicating an error condition. 2. Switch off power to the tape unit. 3. Switch on power to the tape unit. 4. Clean the recording head in the tape unit. Use the IBM Cleaning Cartridge Kit (part 21F8593). 5. Use a new data cartridge if saving data. Also see the procedure for reference code FFFF.	91F0914 MLVTMED
0003	Tape unit servo failure 1. Look at the In-use lights. If the green light is off and the yellow light is on, the tape unit is indicating an error condition. 2. Switch off power to the tape unit. 3. Switch on power to the tape unit. 4. Clean the recording head in the tape unit. Use the IBM Cleaning Cartridge Kit (part 21F8593). 5. Use a new data cartridge if saving data. Also see the procedure for reference code FFFF.	91F0914 MLVTMED
0004	Tape unit motion failure 1. Look at the In-use lights. If the green light is off and the yellow light is on, the tape unit is indicating an error condition. 2. Switch off power to the tape unit. 3. Switch on power to the tape unit. 4. Clean the recording head in the tape unit. Use the IBM Cleaning Cartridge Kit (part 21F8593). 5. Use a new data cartridge if saving data. Also see the procedure for reference code FFFF.	MLVTMED 91F0914
3002	I/O processor addressed the tape unit; no response The tape unit did not respond to a command sent by the IOP. 1. Ensure that the tape unit is powered on. If the tape unit does not become powered on, refer to the “Maintenance Analysis Procedures” in the *7208 Model 2 8 mm Tape Drive Service Guide*, SA23-2640, to analyze the problem. 2. Switch off power to the tape unit. 3. Reseat the signal cable to the tape unit. 4. Reseat the signal cable to the IOP. 5. Switch on power to the tape unit.	91F0914 81F9128 FI00830 FI00141 91F0721 53F3861 42F7300
3005	Blank tape or BOT encountered The tape unit has found blank tape or BOT. When using a new data cartridge, the tape must first be initialized. This error can also occur when reading a tape if the tape was removed from the tape unit before writing was complete. Also see the procedure for reference code FFFF.	MLVTMED 91F0914 AJEDA00

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3010	Illegal or unsupported tape unit response 1. Look at the In-use lights. If the green light is off and the yellow light is on, the tape unit is indicating an error condition. 2. Switch off power to the tape unit. 3. Switch on power to the tape unit. 4. Clean the recording head in the tape unit. Use the IBM Cleaning Cartridge Kit (part 21F8593). 5. Use a new data cartridge if saving data. Also see the procedure for reference code FFFF.	91F0914 AJEDA00
3100	IOP to tape unit interface error 1. Ensure that the tape unit is powered on. If the tape unit does not become powered on, refer to the "Maintenance Analysis Procedures" in the *7208 Model 2 8 mm Tape Drive Service Guide*, SA23-2640, to analyze the problem. 2. Switch off power to the tape unit. 3. Reseat the signal cable to the tape unit. 4. Reseat the signal cable to the IOP. 5. Switch on power to the tape unit.	91F0914 FI00141 FI00830 91F0721 42F7300 53F3861 81F9128 AJEDA00
3110	Tape unit command timeout The tape unit did not complete a command sent by the IOP in the time allowed. 1. Ensure that the tape unit is powered on. If the tape unit does not become powered on, refer to the "Maintenance Analysis Procedures" in the *7208 Model 2 8 mm Tape Drive Service Guide*, SA23-2640, to analyze the problem. 2. Switch off power to the tape unit. 3. Reseat the signal cable to the tape unit. 4. Reseat the signal cable to the IOP. 5. Switch on power to the tape unit.	91F0914 FI00141 FI00830 91F0721 42F7300 53F3861 81F9128 AJEDA00
FF4D	IOP to tape unit interface error; logged only No action required. This reference code is logged for information only.	
FF5D	Tape unit response error; logged only No action required. This reference code is logged for information only.	
FFF6	Volume statistics; logged only No action required. This reference code is logged for information only.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
FFFE	Read data error: tape path dirty This error may be caused by a dirty recording head, poor or damaged tapes, worn or damaged data cartridges, or using a format that is not correct. 1. Switch off power to the tape unit. 2. Switch on power to the tape unit. 3. Clean the recording head in the tape unit. Use the IBM Cleaning Cartridge Kit (part 21F8593). 4. Visually inspect the data cartridge. If it is damaged, discard it. 5. Check the lifetime statistics on the system for this tape volume ID. If the cartridge has a history of tape errors, discard it. If the data on the tape was not written by an AS/400 system, the format may not be correct. Do not use the cleaning cartridge more than 12 times. Each data cartridge must have a unique volume ID label. The user must assign a volume ID when the tape is initialized (INZTAP).	MLVTMED 91F0914
FFFF	Write data error: tape path dirty This error may be caused by a dirty recording head, poor or damaged tapes, worn or damaged data cartridges, or using a format that is not correct. 1. Switch off power to the tape unit. 2. Switch on power to the tape unit. 3. Clean the recording head in the tape unit. Use the IBM Cleaning Cartridge Kit (part 21F8593). 4. Visually inspect the data cartridge. If it is damaged, discard it. 5. Check the lifetime statistics on the system for this tape volume ID. If the cartridge has a history of tape errors, discard it. If the data on the tape was not written by an AS/400 system, the format may not be correct. Do not use the cleaning cartridge more than 12 times. Each data cartridge must have a unique volume ID label. The user must assign a volume ID when the tape is initialized (INZTAP).	MLVTMED 91F0914

Table 2. Model 002 Tape Drive Failing Items

Failing Item	Description	Document Description
42F7300	Fan	7208 8mm Tape Drive service information
53F3861	Internal signal cable	7208 8mm Tape Drive service information
81F9128	Power supply	7208 8mm Tape Drive service information
91F0721	Terminating plug	7208 8mm Tape Drive service information
91F0914	Tape drive	7208 8mm Tape Drive service information
AJEDA00	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
MLVTMED	Defective tape	7208 8mm Tape Drive service information

Table 3. (7208) Model 012 Tape Drive Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0001	Tape unit failure The tape drive reported a hardware error to the IOP; the amber light on the tape drive may be blinking. Perform TU-PIP2.	46G2227 ML2TMED
030B	Tape unit detected a read error on the tape medium Read (or write) errors may be caused by: • Poor or damaged tape • Dirty read/write heads • Damaged data cartridges • Using a data cartridge previously recorded in a format or density that is not correct • Using the wrong data cartridge (for example, one in a different format or density from another set of data cartridges) If the data on the tape was not written by an AS/400 system, the format or the density may not be correct. Get or make a new copy of the data cartridge. If you are performing a write or a save operation, initialize the tape. See the note below. If you are performing a read or a restore operation, the tape may be worn or the device that wrote the tape may be the cause of the problem. Perform TU-PIP2. When the system is available, perform the following: • Verify the operation of the tape drive. Use the VFYTAP system command. **Note:** When a tape is initialized, a new label is recorded at the beginning of the tape, and any data recorded previously is erased and overwritten. To initialize used tapes, use the INZTAP system command with "Check for active files" option of *NO. Use of the INZTAP "Clear" (security erase) option is not recommended. The 7208 Tape Drive performs a write operation to erase all of the tape; writing (erasing) a full-size tape takes up to 3.5 hours.	ML2TMED 46G2227 46G3934 42F7300
0311, 0316	Tape unit detected a read error on the tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227 46G3934 42F7300
031C	The data format is incorrect; the tape cannot be read The tape format is not known or not compatible. The data cartridge may not have been recorded on an AS/400 system. Get another copy of the data cartridge recorded in a format and density given support by the AS/400 system.	ML2TMED 46G2227

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0336	The data format is incorrect; the tape cannot be read The tape format is not known or not compatible. The data cartridge may not have been recorded on an AS/400 system. Get another copy of the data cartridge recorded in a format and density given support by the AS/400 system.	ML2TMED 46G2227 46G3934 42F7300
0337 to 0338, 033D	Tape unit detected a read error on the tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227 46G3934 42F7300
0395 to 0397, 039D to 039F	Tape unit detected a write error on tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227
03AE, 03B0	Tape unit detected a read or write error on tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227
03B3 to 03B4	Tape unit detected a write error on tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227
03B5	Tape unit detected a read error on the tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227
0417 to 0419, 0458, 045A, 0467 to 0468, 046D, 0498 to 049A, 049C, 04A1 to 04A8, 04AB to 04AD, 04FA, 04FC to 04FD	Tape unit failure The tape drive reported a hardware error to the IOP; the amber light on the tape drive may be blinking. Perform TU-PIP2.	46G2227 ML2TMED 46G3934 42F7300
3002	I/O processor addressed the tape unit; no response The tape drive did not respond to commands from the IOP. Perform the following: 1. Ensure that the system interface cable is connected. 2. Ensure that power is on. If the above items are correct, perform the following: 1. TU-PIP1. 2. TU-PIP3.	46G2227 46G3934 FI00830 FI00141 46G2599 17G1500 42F7300
3004	Tape unit failed after Licensed Internal Code was loaded The tape drive does not respond to IOP commands after new Licensed Internal Code was transferred to the tape drive. Perform TU-PIP4.	46G2227

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3005	Blank tape or BOT encountered The tape drive has found a blank tape or BOT. When using a new data cartridge, the tape must first be initialized. This error can also occur when reading a tape if that tape was removed from the tape drive before writing was complete. Also see the Action for reference code 030B.	ML2TMED 46G2227 AJEDA00
3010	Illegal or unsupported tape unit response The tape drive returned a response to the IOP that is illegal or is not given support. Perform the following: 1. TU-PIP1. 2. TU-PIP3 in TPUNIT	46G2227 AJEDA00
3100	Interface error detected by I/O processor or by tape unit The IOP or the device detected a permanent error on the interface to the system. Perform the following: 1. TU-PIP1. 2. TU-PIP3.	46G2227 FI00141 FI00830 46G2599 42F7300 17G1500 46G3934 AJEDA00
3110	Tape unit command timeout The tape drive did not complete a command sent by the IOP in the time allowed. Perform the following: 1. TU-PIP1. 2. TU-PIP2 in TPUNIT	46G2227 FI00141 FI00830 46G2599 42F7300 17G1500 46G3934 AJEDA00
4016 to 4017	Licensed Internal Code for the tape unit is not correct	AJEDA00
9020	I/O processor detected a SCSI bus configuration error Before exchanging any parts, verify that the following conditions are not present: • Tape and DASD devices attached to an I/O Processor that does not support attachment of both tape and DASD devices at the same time. • A device type or model that is not given support.	UL2CNFG 46G2227 FI00130
9100	Interface error detected by I/O processor or by tape unit Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 3. Ensure that a terminating plug is attached to the device.	46G2227 FI00131 46G3934 FI00830 46G2599 17G1500

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9200	I/O processor addressed the tape unit; no response Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are not bent or damaged pins on the SCSI cable. 3. Ensure that the terminating plug is attached to the device.	46G2227 46G3934 FI00830 FI00131 46G2599 17G1500 42F7300
9201	Tape unit command timeout Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are not bent or damaged pins on the SCSI cable. 3. Ensure that the terminating plug is attached to the device.	46G2227 46G3934 FI00830 FI00131 46G2599 17G1500 42F7300
9202	Tape unit failed after Licensed Internal Code was loaded Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are not bent or damaged pins on the SCSI cable. 3. Ensure that the terminating plug is attached to the device.	46G2227 46G3934 FI00830 FI00131 46G2599 17G1500 42F7300
9210	Illegal or unsupported tape unit response	46G2227 FI00130 FI00131
9300	Tape unit failure The tape drive reported a hardware error to the IOP; the amber light on the tape drive may be blinking. Perform TU-PIP2.	46G2227 ML2TMED 46G3934 42F7300
9301	Tape device failure, redundancy lost The tape device detected a hardware failure that does not prevent the tape unit from completed the current operation. Refer to the Tape unit service information to determine the failing item.	46G2227 ML2TMED 46G3934 42F7300
9302	Tape device failure or media error The tape unit detected a failure that may be caused by a hardware failure or a media error. Refer to the tape unit service information for possible information on diagnostic tests that can be run to isolate between hardware and media failures.	ML2TMED 46G2227 46G3934 42F7300
9310	Licensed Internal Code for the tape unit is not correct	46G2227 FI00130
9320	Tape device Licensed Internal Code failure	FI00130 46G2227

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9350	Tape unit detected a read or write error on tape medium A permanent read or write error occured. Clean the tape unit and retry the operation. If cleaning the tape unit does not correct the problem, exchange the tape media.	ML2TMED 46G2227 46G3934 42F7300
9351	Tape with excessive error rate was mounted in tape device. The tape unit detected that the mounted tape cartridge has a history of excessive read and write errors. It is recommended that you exchange the tape cartridge.	ML2TMED UL2CLN 46G2227
9355	The data format is incorrect; the tape cannot be read The tape unit has detected that the data format on the tape media is not supported. Clean the tape unit and retry the operation. If the operation continues to fail, use a different tape cartridge.	UL2USR1 ML2TMED UL2CLN 46G2227
9500	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more information, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130
9800 to 9803	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only.	
9810	Problem analysis has determined a part should be replaced. This reference code is used for ending Online Problem Analysis with a list of failing items. (Information only)	
9899	Problem analysis completed, the problem has been corrected. This reference code is used for ending Online Problem Analysis when no problem was found or the problem was corrected.	UL2FIXD
9900, FF09	Licensed Internal Code for tape unit was not upgraded The I/O processor loading of Licensed Internal Code (LIC) to the programmable tape drive was not completed. The tape drive will continue to operate with the previous LIC. You may do either of the following: • Wait for next IPL when the system will attempt to load the LIC for the tape drive again. • Perform TU-PIP4 to reset the IOP and the tape drive. When the IOP is reset, if the device has the wrong level of LIC, the IOP will attempt to load the new LIC.	UL2WAIT
FF4D	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only. When the system is available, display the operator messages, find message CPI946B, and press F14 to run online problem analysis to see if the error threshhold has been exceeded.	46G2227 FI00141 FI00830 46G2599 46G3934 17G1500 42F7300 AJEDA00

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
FF5D	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only. When the system is available, display the operator messages, find message CPI946B, and press F14 to run online problem analysis to see if the error threshhold has been exceeded.	46G2227 46G3934 FI00830 FI00141 46G2599 17G1500 42F7300
FFF6	Tape volume statistics logged (no action required) No action required. This reference code is logged for information only.	
FFF8	Asynchronous device attached; synchronous device expected The attached device is operational and working in the asynchronous mode of data transfer. The IBM tape unit uses the synchronous mode of data transfer; if the attached device is an IBM tape unit, exchange the tape unit.	46G2227
FFFE	Tape unit detected a read error on the tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227 46G3934 42F7300
FFFF	Tape unit detected a write error on tape medium Perform the Action for reference code 030B.	ML2TMED 46G2227

Table 4. Model 012 Tape Drive Failing Items

Failing Item	Description	Document Description
17G1500	Internal signal cable	7208 Model 012 5.0GB External 8mm Tape Drive Service Guide
42F7300	Fan	7208 Model 012 5.0GB External 8mm Tape Drive Service Guide
46G2227	Tape drive	7208 Model 012 5.0GB External 8mm Tape Drive Service Guide
46G2599	Terminating plug	7208 Model 012 5.0GB External 8mm Tape Drive Service Guide
46G3934	Power supply	7208 Model 012 5.0GB External 8mm Tape Drive Service Guide
AJEDA00	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
ANYBUS	IOP card bus error	Problem Analysis; Symbolic FRU Isolation
ML2TMED	Defective tape	7208 Model 012 5.0GB External 8mm Tape Drive Service Guide
UL2CLN	Tape unit needs cleaning	Magnetic tape subsystem operator's information
UL2CNFG	Tape configuration detected by I/O processor; not valid	Magnetic tape subsystem operator's information
UL2USR1	Operator action required	Magnetic tape subsystem operator's information
UL2WAIT	Wait to next IPL or perform TU-PIP4	Problem Analysis

(9348) Tape Unit Reference Codes

A tape or a 9348 Tape Unit failure occurred.

Note: If the system is available, use the online diagnostic tests when possible. Use the Work with Problem (**WRKPRB**) command to determine if a recent problem has been entered in the problem log, or use the Verify Tape (**VFYTAP**) command. Other helpful commands are Work with Hardware Resources (**WRKHDWRSC *STG**) and Work with Configuration Status (**WRKCFGSTS *DEV *TAP**). For tape device and IOP reset procedures, see TU-PIP4.

1. Verify that the 9348 Tape Unit is powered on and that the interface cable connections are correct for each 9348 Tape Unit.
2. Clean the tape path as described in the *9348 Tape Unit Service Information*.
3. Load the first tape and start a type "D" IPL from the system unit control panel.

   Does the IPL complete successfully?

   - **Yes**: The problem has been corrected.

     This ends the procedure.
   - **No**: Obtain another copy of the tape. Repeat this step using the new tape. If this does not correct the problem, continue with the next step.
4. Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code.
5. If the tape unit indicator panel shows an error condition, see the *9348 Tape Unit Service Information* and find the unit reference code.

(9427) Tape Unit Reference Codes

The tape library detected a failure.

1. Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Tape Unit Failing Items Details, which follows the reference code table below.

Table 1. (9427) Tape Unit Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0001	Tape unit failure Refer to the 9427 8mm Tape Cartridge Library Service Guide.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
03xx	Tape unit detected an error on the tape medium Read (or write) errors may be caused by: • Poor or damaged tape • Dirty read/write heads • Damaged data cartridges • Using a data cartridge previously recorded in a format or density that is not correct • Using the wrong data cartridge (for example, one in a different format or density from another set of data cartridges) Do the following: 1. Clean the tape unit and retry the operation. 2. If cleaning the tape unit does not correct the problem, exchange the tape media.	
04xx	Tape unit failure The tape drive reported a hardware error to the IOP; the amber light on the tape drive may be blinking. Refer to the 9427 8mm Tape Cartridge Library Service Guide.	
3xxx	Device or interface error. Refer to the 9427 8mm Tape Cartridge Library Service Guide.	
4016 to 4017	Licensed Internal Code for the tape unit is not correct	AJEDA00
9020	I/O processor detected a SCSI bus configuration error Before exchanging any parts, verify that the following conditions are not present: • Tape and DASD devices attached to an I/O Processor that does not support attachment of both tape and DASD devices at the same time. • A device type or model that is not given support.	ULYCNFG 86G9251 FI00130 86G9254
9100	Interface error detected by I/O processor or by tape unit Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are no bent or damaged pins on the SCSI cable. 3. Ensure that a terminating plug is attached to the device.	86G9251 FI00131 86G9254 EXTSCSI 86G9255 86G9274 17G9134 FI00130
9200	I/O processor addressed the tape unit; no response Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are not bent or damaged pins on the SCSI cable. 3. Ensure that the terminating plug is attached to the device.	86G9251 86G9274 86G9254 FI00131 EXTSCSI 17G9134 87G1531 86G9255

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9201	Tape unit command timeout Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are not bent or damaged pins on the SCSI cable. 3. Ensure that the terminating plug is attached to the device.	86G9251 FI00131 86G9254 EXTSCSI 17G9134 86G9255 86G9274 FI00130
9202	Tape unit failed after Licensed Internal Code was loaded Before exchanging any parts, do the following: 1. Ensure that the device is powered on. 2. Ensure that the SCSI cable between the device and the I/O Processor or I/O Adaptor is seated correctly, and that there are not bent or damaged pins on the SCSI cable. 3. Ensure that the terminating plug is attached to the device.	86G9251 86G9274 86G9254
9210	Illegal or unsupported tape unit response	86G9251 FI00130 FI00131
9300	Tape unit failure The tape drive reported a hardware error to the IOP; the amber light on the tape drive may be blinking. Perform TU-PIP2.	86G9251 LIBDEV MLYTMED 86G9274 86G9255
9301	Tape device failure, redundancy lost The tape device detected a hardware failure that does not prevent the tape unit from completed the current operation. Refer to the Tape unit service information to determine the failing item.	86G9251 LIBDEV MLYTMED 86G9274 86G9255
9302	Tape device failure or media error The tape unit detected a failure that may be caused by a hardware failure or a media error. Refer to the tape unit service information for possible information on diagnostic tests that can be run to isolate between hardware and media failures.	MLYTMED 86G9251
9310	Licensed Internal Code for the tape unit is not correct	86G9251 FI00130
9320	Tape device Licensed Internal Code failure	FI00130 86G9251
9350	Tape unit detected a read or write error on tape medium A permanent read or write error occured. Clean the tape unit and retry the operation. If cleaning the tape unit does not correct the problem, exchange the tape media.	MLYTMED 86G9251
9351	Tape with excessive error rate was mounted in tape device. The tape unit detected that the mounted tape cartridge has a history of excessive read and write errors. It is recommended that you exchange the tape cartridge.	MLYTMED ULYCLN 86G9251

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
9355	The data format is incorrect; the tape cannot be read The tape unit has detected that the data format on the tape media is not supported. Clean the tape unit and retry the operation. If the operation continues to fail, use a different tape cartridge.	ULYUSR1 MLYTMED ULYCLN 86G9251
9500	I/O processor Licensed Internal Code error If the system is operational, take a dump of the I/O processor data. For more infomration, see the *iSeries Service Functions* information or ask your next level of support for assistance.	FI00130
9600	Equipment Check Failure on Library Device. See library device service information to resolve the error.	LIBDEV
9800 to 9803	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only.	
9810	Problem analysis has determined a part should be replaced. This reference code is used for ending Online Problem Analysis with a list of failing items. (Information only)	
9899	Problem analysis completed, the problem has been corrected. This reference code is used for ending Online Problem Analysis when no problem was found or the problem was corrected.	ULYFIXD
9900	Licensed Internal Code for tape unit was not upgraded The I/O processor loading of Licensed Internal Code (LIC) to the programmable tape drive was not completed. The tape drive will continue to operate with the previous LIC. You may do either of the following: • Wait for next IPL when the system will attempt to load the LIC for the tape drive again. • Perform TU-PIP4 to reset the IOP and the tape drive. When the IOP is reset, if the device has the wrong level of LIC, the IOP will attempt to load the new LIC.	ULYWAIT
FF09	Licensed Internal Code for tape unit was not upgraded The I/O processor loading of Licensed Internal Code (LIC) to the programmable tape drive was not completed. The tape drive will continue to operate with the previous LIC. You may do either of the following: • Wait for next IPL when the system will attempt to load the LIC for the tape drive again. • See the system service documentation to reset the IOP and the tape drive. When the IOP is reset, if the device has the wrong level of LIC, the IOP will attempt to load the new LIC.	ULYWAIT

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
FF4D	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only. When the system is available, display the operator messages, find message CPI946B, and press F14 to run online problem analysis to see if the error threshhold has been exceeded.	86G9251 FI00141 EXTSCSI 17G9134 86G9253 86G9255 AJSLC01
FF5D	I/O processor successfully recovered from temporary error No action required. This reference code is logged for information only. When the system is available, display the operator messages, find message CPI946B, and press F14 to run online problem analysis to see if the error threshhold has been exceeded.	86G9251 86G9253 EXTSCSI FI00141 17G9134 86G9255
FFF6	Tape volume statistics logged (no action required) No action required. This reference code is logged for information only.	
FFF8	Asynchronous device attached; synchronous device expected The attached device is operational and working in the asynchronous mode of data tranfer. The IBM tape unit uses the synchronous mode of data transfer; if the attached device is an IBM tape unit, exchange the tape unit.	86G9251
FFFE	Tape unit detected a read error on the tape medium Perform the Action for reference code 03xx.	MLYTMED 86G9251 86G9253
FFFF	Tape unit detected a write error on tape medium Perform the Action for reference code 03xx.	MLYTMED 86G9251

Table 2. Tape Unit Failing Items Details

Failing Item	Description	Document Description
17G9134	Terminating plug	Magnetic tape subsystem service information
86G9251	Tape Drive	7208 Model 012 5.0GB External 8mm Tape Drive Service Guide
86G9251	Tape drive	Magnetic tape subsystem service information
86G9253	Power supply	Magnetic tape subsystem service information
86G9254	Controller logic card	Magnetic tape subsystem service information
86G9255	Internal signal cable	Magnetic tape subsystem service information
87G1531	Operator Panel/LCD Assembly	Magnetic tape subsystem service information
AJSLC01	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
EXTSCSI	Cable assembly	Problem Analysis; Symbolic FRU Isolation
LIBDEV	Media Library Device	Magnetic tape subsystem service information
MLYTMED	Defective tape	System operation information
ULYCLN	Tape unit needs cleaning	Magnetic tape subsystem operator's information
ULYCNFG	Tape configuration detected by I/O processor; not valid	Magnetic tape subsystem operator's information
ULYUSR1	Operator action required	Magnetic tape subsystem operator's information
ULYWAIT	Wait to next IPL or perform TU-PIP4	Problem Analysis

(A1xx, B1xx) Service Processor Reference Codes

If the SRC is A1xx 3xxx, see *Working with Storage Dumps* in the *iSeries Service Functions* information.

If the SRC is A1xx 8xxx, go to Powering Off the System.

1. Look at the 4 rightmost characters of the Data display for word 1. These 4 characters are the unit reference code.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Service Processor Failing Items Details, which follows the reference code table below.

Table 1. (A1xx, B1xx) Service Processor Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1000, 1002, 1005	Service processor card failure	SVCPROC
1007 to 1008	Service processor real time clock problem	SVCPROC
100E to 100F, 1300	Service processor card failure	SVCPROC
1360	Service processor reset was issued LIC has detected a problem with the Service processor and has reset it but has not initiated reload of the Service processor. Some system service operations have been suspended and the system should be scheduled for power down as soon as possible. Perform a system IPL. If no PTFs are available to fix this problem, send the Service processor dump in to IBM.	AJDGP01 AJDG301 SVCPROC
1370, 1380	Service processor card failure	SVCPROC
1381	Service processor card failure	AJDGP01 SVCPROC
1384	Service processor card failure	SVCPROC
1387	Service processor card failure The Licensed Internal Code could not allocate resources on the Service processor.	SVCPROC
1400 to 1401, 1670, 1672, 1675, 1681 to 1683, 4600	Service processor card failure	SVCPROC
4601	System Card(s) or BackPlane	SYSUNIT
4602	Any device attached to Bus 1	BUS1
4603	Service processor card failure	AJDGP01 SVCPROC
4604	Any device attached to Bus 1 or the Load Source IOP Perform SP-PIP45.	IPLINTF
4605	Problem with load source device media	LSMEDIA
4606	Problem detected with control panel	CTLPNL
4607	Alternate load source device (tape/optical)	LSMEDIA
4608	Service Processor Problem Isolation Procedure Perform SP-PIP42.	AJDGP01 SVCPROC

A1xx, B1xx

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4609	Service Processor Problem Isolation Procedure Perform SP-PIP43.	AJDGP01
460A	Service processor real time clock problem The system time and date has been lost. The correct time and date must be entered on the system.	SVCPROC
460B	Battery not working correctly A problem was detected with the battery supplying power to the time-of-day clock. The battery is either weak or is not connected securely. **Note:** This is not a critical failure. However, if there is a power failure, the time of day will be lost.	TOD
460C	Power supply	IOPWR
4611	System processor card failure	SVCPROC SYSUNIT
4612	Service Processor Problem Isolation Procedure	AJDGP01 SVCPROC
4613	Service Processor Problem Isolation Procedure	SVCPROC
4614	Service Processor Problem Isolation Procedure	SYSUNIT
4622	Problem detected with control panel	CTLPNL SVCPROC
4633	SPCN to CSP interface error.	SPCNCRD SVCPROC
4644	CSP to VPD Collector interface error.	VPDCONC SVCPROC
4645 to 4646	CSP to VPD Collector interface error.	VPDCONC SVCPROC SYSUNIT
4647	CSP to VPD Collector interface error.	SVCPROC CTLPNL
4648	CSP to VPD Collector interface error.	VPDCONC SVCPROC SYSUNIT
4650	System processor card failure	PROC
4651	System processor card failure	PROC0
4652	System processor card failure	PROC1
4653	System processor card failure	PROC2
4654	System processor card failure	PROC3
4660	Main storage failure	JTPORT MSTORE
4661 to 4662	Main storage failure	MSTORE
4680	System processor card failure	HSLCTLR
4681	System processor card failure	CLKCARD
4682	Problem detected with control panel For Model 825, perform SP-PIP44. For all other models, replace the items in the failing item list.	CTLPNL

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4690	Service processor LIC problem If this SRC is displayed at the control panel, then record all of the SRC data words. Perform a main storage dump using control panel function 22, and report the problem to the next level of support. If this SRC is displayed at the system console dump manager screen then save the main storage dump and report the problem to service.	AJDG301
4691 to 4697	Service processor Licensed Internal Code Perform INT-PIP24.	AJDGP01
4698	Operator/User Error	OPUSR
4699	Service processor Licensed Internal Code Perform INT-PIP24.	AJDGP01
469A	Service processor Licensed Internal Code Perform INT-PIP24.	AJDGP01 AJDG301
469B	Service processor LIC problem Record all the SRC data words, attempt a main storage dump, and replace the FRUs listed if necessary.	AJDG301
469C	Service processor Licensed Internal Code Perform INT-PIP24, then replace the FRUs listed if necessary.	AJDGP01
469D	Service processor Licensed Internal Code If this SRC is displayed at the system console dump manager screen then save the main storage dump and report the LIC failure to service. If this SRC is displayed at the control panel then perform INT-PIP24.	AJDGP01
469E	Service processor Licensed Internal Code Perform INT-PIP24.	AJDGP01 SYSUNIT SVCPROC
469F	Service processor Licensed Internal Code Perform INT-PIP24.	AJDGP01 SVCPROC SYSUNIT
4998	Operator/User Error	UCSUSER
6010	Any device attached to Bus 1	JTPORT

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8FF0	Information only, no service action required Service processor error log entry. If the secondary refcode is 806A, a successful download of control panel code has occured. If the secondary refcode is 8EEE, one of the following conditions may have occured. Operation was successful but current keylock position was not in Auto or normal. The Time-of-Day (TOD) chip had to be reset due to an invalid power-up state. TOD requests will not work successfully until a write TOD is done (CHGSYSVAL QDATE). Timed-Power-On request has been acknowledged. Power on sequences must be set for valid months, days, hours, minutes, and seconds, for future times, and for times when the system will be powered off.	
8FF1	System down, condition reported	

Table 2. Service Processor Failing Items Details

Failing Item	Description	Document Description
AJDG301	Licensed Internal Code	Service Functions; APAR or LICTR
AJDGP01	Service processor Licensed Internal Code	Service Functions; APAR or LICTR
ALTINTF	System bus	Problem Analysis; Symbolic FRU Isolation
AUSTIN0	RESERVED - Austin Only code - flash update by diskette	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Back Plane Unit	Problem Analysis; Symbolic FRU Isolation
BUS1	System bus	Problem Analysis; Symbolic FRU Isolation
CECPWR	Power supply	Problem Analysis; Symbolic FRU Isolation
CLCKCRD	Clock Card	Problem Analysis; Symbolic FRU Isolation
CLKCARD	Clock Card	Problem Analysis; Symbolic FRU Isolation
CTLPNL	Control Panel, or the interface to the Control Panel	Problem Analysis; Symbolic FRU Isolation
HSLCTLR	System processor card	Problem Analysis; Symbolic FRU Isolation
IOPWR	Power Supply	Problem Analysis; Symbolic FRU Isolation
IPLINTF	System bus	Problem Analysis; Symbolic FRU Isolation
JTPORT	System Interconnect cable, connection or interposer card	Problem Analysis; Symbolic FRU Isolation
LSMEDIA	Tape, DASD or Optical Media	Problem Analysis; Symbolic FRU Isolation
MSTORE	Main storage cards	Problem Analysis; Symbolic FRU Isolation
OPUSR	Operator/User Error	System Operations: Operator's Guide SC41-8082
PROC	System processor card	Problem Analysis; Symbolic FRU Isolation

Failing Item	Description	Document Description
PROC0	System processor card	Problem Analysis; Symbolic FRU Isolation
PROC1	System processor card	Problem Analysis; Symbolic FRU Isolation
PROC2	System processor card	Problem Analysis; Symbolic FRU Isolation
PROC3	System processor card	Problem Analysis; Symbolic FRU Isolation
SPCNCRD	SPCN card	Problem Analysis; Symbolic FRU Isolation
STORIOA	Storage I/O Adapter	Problem Analysis; Symbolic FRU Isolation
SVCPROC	Service Processor Card	Problem Analysis; Symbolic FRU Isolation
SYSUNIT	System unit	Problem Analysis; Symbolic FRU Isolation
TOD	Control Panel Battery	Problem Analysis; Symbolic FRU Isolation
TWRCARD	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
UCSPIP	Service Processor Problem Isolation Procedure	
UCSUSER	Option not valid at this time	Service Functions; Working with Storage Dumps
VPDCONC	The system vital product data has failed	Problem Analysis; Symbolic FRU Isolation

(A6xx) LIC Reference Codes

Use the "(B6xx) Licensed Internal Code (LIC) Reference Codes" on page 262.

(A9xx, B9xx) Reference Codes

This section informs service representatives that all A9xx and B9xxx SRCs and their associated unit reference codes give information about the user (customer) program.

1. The service representative should have the user see "Problem Handling Tables and Procedures" in the Information Center at http://www.ibm.com/eserver/iseries/infocenter for the descriptions and actions indicated by these reference codes. For additional help, the user should contact their next level of support.

   Note: A brief description of some of the C9xx codes can be found in the *iSeries Service Functions* information (see "IPL Status SRC Sequence" under "Initial Program Load Information").

   A complete description and definition of these codes are found in the *iSeries OS/400 Diagnostic Aids* information under "Unit Reference Codes". This information is used by the support representatives.
2. If a Licensed Internal Code error is suspected and the recovery action recommends an IPL, then take a main storage dump to save the error conditions (see "Working with Storage Dumps" in the *iSeries Service Functions* information) **before** the customer does an IPL. Support may need the information saved in this dump.
3. Have the customer continue with the recommended recovery action.

(B003) Asynchronous Communications Reference Codes

The Asynchronous Communications detected a failure.

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Asynchronous Communications Failing Items Details, which follows the reference code table below.

Table 1. (B003) Asynchronous Communications Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
2321	Procedure error in Licensed Internal Code	CNGTEMP
2322	Data-set-ready error on modem interface	CNGTEMP
2340	Data-set-ready changed to not active; for information only	FI00704 CNGTHRS FI00701 FI00719
3200	Clear-to-send state changed; error limit per 256 reached	FI00704 CNGTHRS FI00701 FI00719
3201	Data-set-ready state changed; error limit per 256 reached	FI00704 CNGTHRS FI00701 FI00719
3202	Clear-to-send state changed; error limit per 256 reached	FI00704 CNGTHRS FI00701 FI00719
3203	Carrier-detect state changed; error limit per 256 reached	FI00704 CNGTHRS FI00701 FI00719
3204	Call not completed; error limit per 256 reached	CNGTEL GNGLINK FI00705 FI00703
3205	Call completed with error; error limit per 256 reached	CNGTHRS
3206	Data-line-occupied error; error limit per 256 reached	FI00703 CNGTHRS GNGLINK FI00702
3207	Abandon-call-retry error; error limit per 256 reached	FI00703 CNGTHRS GNGLINK FI00702 CNGTEL
3208	Present-next-digit error; error limit per 256 reached	FI00703 CNGTHRS FI00702 FI00719

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3209	Distant-station-connected error; error limit per 256 reached	FI00703 CNGTHRS GNGLINK FI00702 CNGTEL
320B	Data-set-ready state changed; error limit per 256 reached	FI00704 CNGTHRS FI00701 FI00719
320C	Incorrect number dialed; error limit per 256 reached	CNGTEL CNGTHRS
4200	Break character received; error limit per 256 reached	GNGLINK CNGTHRS
4202	Received storage overrun; error limit per 256 reached	FI00730 CNGTHRS
4203	Incorrect stop bit; error limit per 256 reached	GNGLINK CNGLBPS CNGTHRS
4204	Receive-time-out error; error limit per 256 reached	CNGTHRS GNGLINK
4205	Number of characters discarded; error limit per 256 reached	GNGLINK CNGLBPS CNGLOAD CNGTHRS
4206	Procedure error in Licensed Internal Code	FI00730 AJDG301
4209	Wrong data received; error limit per 256 reached	GNGLINK CNGTHRS
4220	Port already in use	AJDG301 FI00719 CNGSLPT
4240	Port not installed	AJDG301 FI00719 CNGSLPT
4340	Automatic call unit port is not installed	AJDG301 CNGASPT FI00719 FI00702
4376	Automatic call unit already in use	AJDG301 GNGRESC CNGASPT
4502	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
4503	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730 CNGDTRT
4504	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGASPT CNGSLPT

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4505 to 4506	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGASPT FI00730 CNGSLPT
4507	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730 CNGSTOP
4508	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
4509	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGTMOD FI00730
450A	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730 CNGCTYP
450B to 450C	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
450D	Wrong configuration value sent by Licensed Internal Code	CNGPRTY CNGBCHR FI00730 AJDG301
450E	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730 CNGMCFL
4549	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
4590	Wrong number specified in controller description	CNGTEL FI00703 FI00701 CNGCLBR FI00719
4592	No number specified in controller description	AJDG301 CNGTEL
4594	Wrong number specified in controller description	CNGTEL FI00730 AJDG301 CNGCLBR
5410	Switched line already in use	FI00704 CNGCMOD FI00701 FI00719
5472	Data-line-occupied error at time of starting	FI00703 GNGRESC FI00719 FI00702
5474	Automatic call unit line connection error	FI00702 FI00703 FI00719 GNGLINK
5476	Present-next-digit error	FI00702 FI00703 FI00719

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
5501	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
5502	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGTMOD FI00730
5503	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGCMOD FI00730
5510	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGECHO FI00730
5511 to 5512	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
5513	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGEORT FI00730
5514	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
5515	Wrong configuration value sent by Licensed Internal Code	AJDG301 CNGFLOC FI00730
5549	Wrong configuration value sent by Licensed Internal Code	AJDG301 FI00730
5590	Wrong length for number dialed	AJDG301
5630	Automatic call unit distant-station-connected time out	FI00700 GNGLINK CNGRMTA FI00701 FI00719
5632	Automatic call unit had data-set-ready time out	FI00700 CNGTEL FI00703 CNGDRTY CNGRMTA FI00701 FI00719 GNGLINK
5684	Time-out on call-clear-request	FI00704 FI00701 AJDG301 FI00719
5886	Automatic call unit line connection error	FI00704 FI00719 FI00701
5A18	Clear-to-send signal failed to drop on modem interface	FI00704 FI00701 FI00719
5A1C	Clear-to-send signal dropped on modem interface	GNGLINK CNGCTSV FI00704 FI00701 FI00719

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
5A20	Clear-to-send not active on modem interface	GNGLINK CNGCTSV FI00704 FI00701 FI00719
5A24	Carrier-detect dropped on modem interface	FI00701 FI00704 GNGLINK FI00719
5A54	Time-out; data-set-ready did not drop	FI00704 CNGDSRT FI00701 FI00719
5A58	Time-out; data-set-ready not received	FI00701 FI00704 FI00719 AJDG301
5C68	Procedure error in Licensed Internal Code	AJDG301 FI00730
5E00	Wrong or no external communications cable installed	FI00701 CNGASPT CNGSLPT FI00719
5E01	Call received during dialing procedure	GNGRESC FI00704 FI00701 FI00719
6210	Resource or storage not available	CNGMAXI FI00730
6212, 6214	Communications controller error	FI00730 FI00718
6288	Port not operational	FI00719 AJDG301 CNGSLPT
6320	Abandon-call-retry	FI00700 CNGTEL FI00703 FI00719 FI00702
6322	Abandon-call-retry; not all numbers dialed	CNGTEL FI00703 FI00702 FI00719 FI00730
6870	Automatic call unit power turned off	FI00703 FI00702 FI00719
6890	Data-set-ready dropped on modem interface No action is required if Operations Console is attached.	GNGLINK FI00701 FI00704 FI00719

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6C05	I/O card Licensed Internal Code error	FI00730 AJDG301
6C0A	Hardware detected failure	FI00719 FI00718
7200	Communications Configuration	CNGSLPT
7210	Resource or storage not available	CNGMAXI FI00730
7212	Procedure error in Licensed Internal Code	AJDG301 FI00730
7C00	Asynchronous server program ended abnormally	FI00730
7C02	Wrong command sent by Licensed Internal Code	FI00730
7C03	Resource or storage not available	CNGLOAD FI00730 CNGDTRT CNGECHO CNGEORT CNGPRTY
7C04	Wrong internal routing information	FI00730
7C05, 7C09	Error in I/O card Licensed Internal Code	FI00730
8011	IOP activation failed. The MDMCNTRYID parameter in Network Attributes is not set. Use the CHGNETA command to set MDMCNTRYID value.	CNGCONF
8013	IOP activation failed. The MDMCNTRYID parameter in Network Attributes is not valid for this adapter. Use the CHGNETA command to change MDMCNTRYID.	CNGCONF
8020	System log entry only, no service action required	
FFFF	User suspected communications problem.	UNGUPPR

Table 2. Asynchronous Communications Failing Items Details

Failing Item	Description	Document Description
AJDG301	Licensed Internal Code	Service Functions; APAR or LICTR
CNGASPT	ACRSRCNAME value in CRTLINASC command	Communications Configuration
CNGBCHR	BITSCHAR value in CRTLINASC command	Communications Configuration
CNGCLBR	CALLNBR value in CRTLINASC command	Communications Configuration
CNGCMOD	CNN value in CRTLINASC command	Communications Configuration
CNGCTSV	CTSTMR value in CRTLINASC command	Communications Configuration
CNGCTYP	AUTOANS, AUTODIAL, DIALCMD, SWTCNN, CNN in CRTLINASC	Communications Configuration
CNGDRTY	DIALRTY value in CRTCTLASC command	Communications Configuration
CNGDSRT	DSRDRPTMR value in the CRTLINASC command	Communications Configuration
CNGDTRT	LINESPEED value in CRTLINASC command	Communications Configuration
CNGECHO	ECHO value in CRTLINASC command	Communications Configuration

Failing Item	Description	Document Description
CNGEORT	EORTBL value in CRTLINASC command	Communications Configuration
CNGFLOC	FLOWCNTL value in CRTLINASC command	Communications Configuration
CNGLBPS	LINESPEED, BITSCHAR, PARITY, STOPBITS values in CRTLINASC	Communications Configuration
CNGLOAD	System processor workload heavy	Communications Configuration
CNGMAXI	MAXBUFFER value in CRTLINASC command	Communications Configuration
CNGMCFL	DUPLEX, CNN, MODEMRATE values in CRTLINASC command	Communications Configuration
CNGPRTY	PARITY value in CRTLINASC command	Communications Configuration
CNGRMTA	RMTANSTMR value in CRTLINASC command	Communications Configuration
CNGSLPT	RSRCNAME value in CRTLINASC command	Communications Configuration
CNGSTOP	STOPBITS value in CRTLINASC command	Communications Configuration
CNGTEL	CNNNBR value in CRTCTLASC command	Communications Configuration
CNGTEMP	No failure found	Communications Configuration
CNGTHRS	THRESHOLD value in CRTLINASC command	Communications Configuration
CNGTMOD	DUPLEX, ECHO, FLOWCNTL value in CRTLINASC command	Communications Configuration
GNGLINK	External devices or network	
GNGRESC	Line or automatic call unit already in use	
UNGUPPR	User suspected communications problem.	

(B006) Common Licensed Internal Code Reference Codes

The common Licensed Internal Code detected a failure.

1. Look at charcters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Common Licensed Internal Code Failing Items Details, which follows the reference code table below.

Table 1. (B006) Common Licensed Internal Code Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1201	I/O processor resource not available A deactivation failed to get a resource controlled by Licensed Internal Code.	AJEQU00 AJDG301
1202	Not valid condition in I/O Processor Licensed Internal Code An error in an activation or deactivation occurred.	AJEQU00 AJDG301 FI00131
1203	I/O processor resource not available A resource needed to perform a requested function is not available in the Licensed Internal Code.	AJEQU00 AJDG301

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1204	Not valid condition in I/O Processor Licensed Internal Code The Licensed Internal Code has recovered from a condition that was not expected.	AJEQU00 AJDG301 FI00131
1205 to 1206	I/O processor card or Licensed Internal Code error A microprocessor exception occurred on the I/O processor.	AJEQU00 FI00131 FI00132
1207	I/O processor resource not available The Licensed Internal Code could not allocate memory resources on the I/O processor card.	AJEQU00 AJDG301
1208	Not valid condition in I/O Processor Licensed Internal Code The Licensed Internal Code found a condition that should not have occurred.	AJEQU00 AJDG301 FI00131
1209	I/O processor was not ready for interrupt that occurred	AJEQU00 FI00131
1210	I/O processor resource not available The I/O processor error log is being filled faster than the errors are being reported to the system. Check other errors reported to the system and correct them.	
1211	System bus error	FI00131 ANYBUS AJEQU00 AJDG301
1212	A permanent I/O processor failure occurred	FI00131 AJEQU00
1213	System bus error	AJDG301 AJEQU00 FI00131
1214 to 1215	I/O processor card or Licensed Internal Code error	FI00131 AJEQU00
1301	I/O processor resource not available An activation or deactivation failed to get a resource controlled by Licensed Internal Code.	CDAWKLD AJDGP01 AJDG301
1302	Not valid condition in I/O Processor Licensed Internal Code An error in an activation or deactivation occurred.	AJDGP01 AJDG301 FI00131 FI00132
1303	I/O processor resource not available A resource needed to perform a requested function is not available in the Licensed Internal Code.	IOACNFG AJDGP01 AJDG301
1304	Not valid condition in I/O Processor Licensed Internal Code The Licensed Internal Code has recovered from an unexpected condition.	AJDGP01 AJDG301 FI00131 FI00132
1305 to 1306	I/O processor card or Licensed Internal Code error A microprocessor exception occurred on the I/O processor.	AJDGP01 FI00131 FI00132 BACKPLN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1307	I/O processor resource not available The Licensed Internal Code could not allocate memory resources on the I/O processor card.	AJDGP01 AJDG301 IOACNFG FI00132
1308	Not valid condition in I/O Processor Licensed Internal Code The Licensed Internal Code found a condition that should not have occurred.	AJDGP01 AJDG301 FI00131
1309	I/O processor was not ready for interrupt that occurred	AJDGP01 FI00131 FI00132 FI01117
1310	I/O processor resource not available The I/O processor error log is being filled faster than the errors are being reported to the system. Check other errors reported to the system and correct them.	
1311	System bus error	FI00131 ANYBUS AJDGP01 AJDG301
1312	A permanent I/O processor failure occurred	FI00131 AJDGP01
1313	System bus error	AJDG301 AJDGP01 FI00131
1316	I/O processor card or Licensed Internal Code error	AJDGP01 FI00132 FI00131
1317	I/O processor card error Display the Service Action Log entry for this SRC. If the Failing Item indicates IOP, then replace the IOP. If the Failing Item indicates SVCDOCS, then do NOT replace the IOP. This is a recoverable error. Perform the following: 1. If the I/O Processor is not operable and disk units are attached, use Hardware Service Manager to re-IPL the IOP. Other resources attached to the IOP may then need to be Varied On. 2. If disk units are not attached, perform the VRYCFG RESET(*YES) command to reset the IOP and Vary On attached resources.	SVCDOCS
1318	I/O processor card error	FI00131
1403	Service processor Licensed Internal Code error A resource needed to perform a requested function is not available in the Licensed Internal Code.	AJDGP01 SVCPROC
1404	Service processor Licensed Internal Code error The Licensed Internal Code has recovered from an unexpected condition.	AJDGP01 SVCPROC
1405	Service processor Licensed Internal Code error A recoverable microcode condition occurred on the Service processor.	AJDGP01 SVCPROC

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1406	Service processor Licensed Internal Code failed A microprocessor exception occurred on the Service processor.	AJDGP01 SVCPROC AJDG301
1407	Service processor Licensed Internal Code failed The Licensed Internal Code could not allocate resources on the Service processor.	AJDGP01 SVCPROC AJDG301
1408	Service processor Licensed Internal Code failed	AJDGP01 AJDG301 SVCPROC
1409	Service processor Licensed Internal Code failed The Service processor was not ready for an interrupt that occurred.	AJDGP01 SVCPROC
1A01	I/O processor resource not available A deactivation failed to get a resource controlled by Licensed Internal Code.	CDAWKLD FI00130 AJDG301
1A02	Not valid condition in I/O Processor Licensed Internal Code An error in an activation or deactivation occurred.	FI00130 FI00131 FI00132
1A03	I/O processor resource not available A resource that is needed to perform a requested function is not available in the Licensed Internal Code.	FI00130 AJDG301 CDAWKLD
1A04	Recovered from condition in Licensed Internal Code. The Licensed Internal Code has recovered from a condition that was not expected.	FI00130 AJDG301 FI00131 FI00132
1A05 to 1A06	I/O processor card or Licensed Internal Code error A microprocessor exception occurred on the I/O processor.	FI00130 FI00131 FI00132
1A07	I/O processor resource not available The Licensed Internal Code could not allocate memory resources on the I/O processor card.	CDAWKLD FI00132 FI00130 AJDG301
1A08	Not valid condition in I/O Processor Licensed Internal Code The Licensed Internal Code found a condition that should not have occurred.	FI00130 FI00131 FI00132
1A09	Threshold overflow The I/O processor card has detected a threshold of recoverable error conditions. The errors are either wrong interruptions or memory error corrections. If in communications, the line is still running. **Note:** If a large number of these errors occur during a short time, they may be caused by an electrically noisy environment, a defective communications I/O processor card or modem, or a communications I/O processor code problem.	FI00131 FI00132 FI01117 FI00130
1A10	Error reported to system The I/O processor error log is being filled faster than the errors are being reported to the system. Check other errors reported to the system and correct them.	

Table 2. Common Licensed Internal Code Failing Items Details

Failing Item	Description	Document Description
AJDG301	Licensed Internal Code	Service Functions; APAR or LICTR
AJDGP01	Licensed Internal Code	Service Functions; APAR or LICTR
AJDGP01	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
AJEQU00	I/O processor Licensed Internal Code	Service Functions; APAR or LICTR
ANYBUS	System bus	Problem Analysis; Symbolic FRU Isolation
BACKPLN	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
CDAWKLD	Too many communications lines in use	
IOACNFG	Configuration error	Problem Analysis; Symbolic FRU Isolation
SVCDOCS	Customer engineer directed to system problem analysis	Problem Analysis; Symbolic FRU Isolation
SVCPROC	Service Processor Card	Problem Analysis; Symbolic FRU Isolation

(B070) Reference Codes

1. Look at charcters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (B070) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0000	Device no response time-out; temporary error	FI00601 FI00602 FI00610
0001	WS IOP detected error when transmitting data Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU7777 GAU8888 FI00610 FI00615
0003	WS IOP detected parity error from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures in Intermittent PIPs; 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU7777 FI00610

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0004	Device detected parity error from WS IOP Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU7777 FI00610
0005	WS IOP detected error when transmitting data Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU8888 FI00610 FI00615
0006	WS IOP detected wrong data from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00601 FI00602 GAU8888 FI00610
0007	WS IOP detected wrong address from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00601 GAU8888 GAU7777 FI00610
0008	WS IOP detected device power turned off, and then on Perform TWSC-PIP1.	GAUEEEE FI00601
0009	WS IOP detected wrong device response to start command Perform TWSC-PIP1.	FI00601 FI00610
0020	Device detected wrong command or device ID from WS IOP Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610
0021	Device detected not valid value from WS IOP Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0022	Device detected storage or data overrun Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610
0023	Device detected null or attribute exception error Perform TWSC-PIP1.	FI00601 FI00610
0024	Device detected wrong start command from WS IOP Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610
0025	WS IOP detected wrong exception response from device Perform TWSC-PIP1.	FI00601 FI00610
0026	WS IOP detected not valid pass-through command Perform TWSC-PIP1.	GAU9999 FI00610
0049	WS IOP detected wrong request or response from device Perform TWSC-PIP1.	FI00601 FI00610
0082	WS IOP detected wrong device type from device Perform TWSC-PIP1.	FI00601
0090	WS IOP detected no status change from device Perform TWSC-PIP1.	FI00601 FI00610
0091	WS IOP detected busy time-out from device Perform TWSC-PIP1.	FI00601 FI00610
0100	Device no response time-out; temporary error	FI00601 FI00602 FI00610
0101	WS IOP detected error when transmitting data Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU7777 GAU8888 FI00610 FI00615
0103	WS IOP detected parity error from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU7777 FI00610

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0104	Device detected parity error from WS IOP Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU7777 FI00610
0105	WS IOP detected error when transmitting data Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00601 GAU8888 FI00610 FI00615
0106	WS IOP detected wrong data from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00601 FI00602 GAU8888 FI00610
0107	WS IOP detected wrong address from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00601 GAU8888 GAU7777 FI00610
0108	WS IOP detected device power turned off, and then on Perform TWSC-PIP1.	GAUEEEE FI00601
0109	WS IOP detected wrong device response to start command Perform TWSC-PIP1.	FI00601 FI00610
0111	WS IOP detected wrong keyboard scan code from display Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610
0120	Device detected wrong command or device ID from WS IOP Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0121	Device detected not valid value from WS IOP Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610
0122	Device detected storage or data overrun Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610
0123	Device detected null or attribute exception error Perform TWSC-PIP1.	FI00601 FI00610
0124	Device detected wrong start command from WS IOP Perform TWSC-PIP1.	FI00601 AJLYD01 FI00610
0125	WS IOP detected wrong exception response from device Perform TWSC-PIP1.	FI00601 FI00610
0126	WS IOP detected not valid pass-through command Perform TWSC-PIP1.	GAU9999 FI00610
0149	WS IOP detected wrong request or response from device Perform TWSC-PIP1.	FI00601 FI00610
0170	WS IOP detected error downloading printer definition table	AJDG301 FI00601
0171	WS IOP detected error downloading printer definition table	FI00601 AJLYD01
0172	WS IOP detected error downloading printer definition table	CAUPDT AJDG301 FI00601
0173	WS IOP detected error downloading printer definition table	CAUPDT FI00601
0174	WS IOP detected error unloading printer definition table	FI00601 AJLYD01
0175	WS IOP detected device configuration error	FI00601 AJLYD01
0176 to 0177	WS IOP detected error downloading LIC to device	GAUDMCC FI00601
0181	Wrong magnetic stripe reader response Perform TWSC-PIP1.	FI00605 MAUFFFF FI00601 FI00610
0182	WS IOP detected wrong device type from device Perform TWSC-PIP1.	FI00601
0183	WS IOP detected wrong display size value Perform TWSC-PIP1.	FI00601
0184	WS IOP detected wrong keyboard identification Verify that the correct keyboard is attached correctly to the workstation. If the correct keyboard is attached correctly to the workstation, perform TWSC-PIP1.	FI00601

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0189	Wrong magnetic stripe reader or light pen status Perform TWSC-PIP1.	FI00601 FI00605 FI00607 FI00610
0190	WS IOP detected no status change from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00601 FI00610 GAU7777
0191	WS IOP detected busy time-out from device Perform TWSC-PIP1.	FI00601 FI00610
0200	Device no response time-out; temporary error	FI00604 FI00602 FI00610
0201	WS IOP detected error when transmitting data Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00604 GAU7777 GAU8888 FI00610 FI00615
0203	WS IOP detected parity error from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00604 GAU7777 FI00610
0204	Device detected parity error from WS IOP Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00604 GAU7777 FI00610

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0205	WS IOP detected error when transmitting data Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00602 FI00604 GAU7777 FI00610 FI00615
0206	WS IOP detected wrong data from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00604 FI00602 GAU8888 FI00610
0207	WS IOP detected wrong address from device Is the problem intermittent? **No** **Yes** ↓ Perform the following procedures: 1. INT-PIP5 2. INT-PIP14 Perform TWSC-PIP1.	FI00604 GAU8888 GAU7777 FI00610
0208	WS IOP detected device power turned off, and then on	GAUEEEE FI00604
0209	WS IOP detected wrong device response to start command	FI00604 FI00610
0210	Printer detected equipment error	FI00604
0211	Printer detected equipment error	FI00604 AJLYD01 FI00610
0212	Printer detected equipment error	FI00604
0220	Device detected wrong command or device ID from WS IOP	FI00604 AJLYD01 FI00610
0221	Device detected not valid value from WS IOP	FI00604 AJLYD01 FI00610
0222	Device detected storage or data overrun	FI00604 AJLYD01 FI00610
0223	WS IOP detected start command to printer was lost	FI00604 FI00602 FI00610

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0224	Device detected wrong start command from WS IOP	FI00604 AJLYD01 FI00610
0225	WS IOP detected wrong exception response from device	FI00604 FI00610
0226, 0230 to 0239, 0240 to 0248	Printer detected equipment error	FI00604
0249	WS IOP detected wrong request or response from device	FI00604 FI00610
026X, 027X, 028X	Printer detected equipment error See printer documentation for more information.	FI00604
0290	WS IOP detected no status change from device	FI00604 FI00610
0291	WS IOP detected busy time-out from device	FI00604 FI00610
02A0 to 02AF, 02FF	Printer detected equipment error Consult the printer's manual for additional information.	FI00604
A000	Too many devices active on the workstation IOP This error occurs if you attempted to activate more workstations than allowed. Switch off power to (or remove) one or more of the display stations (except for the console) that are attached to this workstation I/O processor. Perform an initial program load (IPL) from the control panel to correct the problem. Refer to the local workstation diagrams for the location of workstations if necessary.	GAUBBBB
B000	WS IOP fails to report part, model and serial number Perform TWSC-PIP1.	FI00610
C000	WS IOP error not known	AJLYD01 FI00610
D000	Work Station IOA start-up test error	FI00610
D010	WS IOP storage failure corrected Perform TWSC-PIP1.	FI00610
D011	WS IOP card storage failure	FI00610
D021	WS IOP detected errors on all cables	FI00602 FI00601 FI00610 FI00615
D022	WS IOP parity errors detected on all cables	FI00602 FI00601 FI00610 FI00615
D023	WS IOP detected errors on some, but not all cables Perform TWSC-PIP1.	FI00602 FI00601 FI00610

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
E000	WS IOP or IOA error during working operation	AJLYD01 FI00610
F000	WS IOP or IOA operating system program error	AJLYD01 FI00719

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDG301	OS/400 licensed program	Service Functions; APAR or LICTR
AJDGP01	LIC - Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR
AJLYD01	Work Station IOP or IOA system Licensed Internal Code	Service Functions; APAR or LICTR
CAUPDT	Device Licensed Internal Code change	Communications Configuration
GAU7777	Electrical interference	
GAU8888	Other work station on port is failing	
GAU9999	Error occurred with pass-through command	
GAUBBBB	Too many work stations are active on the workstation IOP	
GAUDMCC	Device Licensed Internal Code change	
GAUEEEE	Active device turned off	
MAUFFFF	Magnetic stripe	Refer to I/O device service information
UAUFF00	User suspected problem.	

(B075) Workstation Adapter Console Reference Codes

The workstation adapter console detected a failure.

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Workstation Adapter Console Failing Items Details, which follows the reference code table below.

Table 1. (B075) Workstation Adapter Console Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0101	WS IOP detected error when transmitting data Perform WSAC-PIP1.	FI00601 GXC7777 FI00631 FI00730
0103	WS IOP detected parity error from device Perform WSAC-PIP1.	FI00601 GXC7777 FI00631 FI00730

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0104	Device detected parity error from WS IOP Perform WSAC-PIP1.	FI00601 GXC7777 FI00631 FI00730
0105	WS IOP detected error when transmitting data Perform WSAC-PIP1.	FI00601 GXC7777 FI00631 FI00730
0106	WS IOP detected wrong data from device Perform WSAC-PIP1.	FI00601 FI00631 GXC7777 FI00730
0107	WS IOP detected wrong address from device Perform WSAC-PIP1.	FI00601 GXC7777 FI00730
0108	WS IOP detected device power turned off, and then on Perform WSAC-PIP1.	GXCEEEE FI00601
0109	WS IOP detected wrong device response to start command Perform WSAC-PIP1.	FI00601 FI00615
0111	WS IOP detected wrong keyboard scan code from display Perform WSAC-PIP1.	FI00601 FI00730
0120	Device detected wrong command or device ID from WS IOP Perform WSAC-PIP1.	FI00601 FI00730
0121	Device detected not valid value from WS IOP Perform WSAC-PIP1.	FI00601 FI00730
0122	Device detected storage or data overrun Perform WSAC-PIP1.	FI00601 FI00730
0123	Device detected null or attribute exception error Perform WSAC-PIP1.	FI00601 FI00730
0124	Device detected wrong start command from WS IOP Perform WSAC-PIP1.	FI00601 FI00730
0125	WS IOP detected wrong exception response from device Perform WSAC-PIP1.	FI00601 FI00730
0126	WS IOP detected not valid pass-through command Perform WSAC-PIP1.	GXC9999 FI00730
0149	WS IOP detected wrong request or response from device Perform WSAC-PIP1.	FI00601 FI00730
0190	WS IOP detected no status change from device Perform WSAC-PIP1.	FI00601 GXC7777 FI00730
0191	WS IOP detected busy time-out from device Perform WSAC-PIP1.	FI00601 FI00730

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0201	WS IOP detected error when transmitting data Perform WSAC-PIP1.	FI00604 GXC7777 FI00631 FI00730
0203	WS IOP detected parity error from device Perform WSAC-PIP1.	FI00604 GXC7777 FI00631 FI00730
0204	Device detected parity error from WS IOP Perform WSAC-PIP1.	FI00604 GXC7777 FI00631 FI00730
0205	WS IOP detected error when transmitting data Perform WSAC-PIP1.	FI00604 GXC7777 FI00631 FI00730
0206	WS IOP detected wrong data from device Perform WSAC-PIP1.	FI00604 FI00631 FI00730
0207	WS IOP detected wrong address from device Perform WSAC-PIP1.	FI00604 GXC7777 FI00730
0208	WS IOP detected device power turned off, and then on	GXCEEEE FI00604
0209	WS IOP detected wrong device response to start command	FI00604 FI00730
0211	Printer detected equipment error	FI00604 FI00730
0221	Device detected not valid value from WS IOP	FI00604 FI00730
0224	Device detected wrong start command from WS IOP	FI00604 FI00730
0225	WS IOP detected wrong exception response from device	FI00604 FI00730
0290	WS IOP detected no status change from device	FI00604 FI00730
0291	WS IOP detected busy time-out from device	FI00604 FI00730
5000	Wrong command sent by Licensed Internal Code	AJDG301
5001	Procedure error in Licensed Internal Code	AJDG301
5002	Procedure error in Licensed Internal Code Procedure error in machine instructions	CXCTEMP AJDG301
5006	Procedure error in Licensed Internal Code	AJDG301
5007	Procedure error in Licensed Internal Code	AJDG301 CXCMSTA
5009	Incorrect command value sent by Licensed Internal Code	AJDG301
500A	Procedure error in Licensed Internal Code	AJDG301

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
500D	Incorrect command value sent by Licensed Internal Code	AJDG301 CXCMAXI
5022	Procedure error in Licensed Internal Code	AJDG301
5206	Communications controller storage not available	CXCBUSY
56EA	Clear-to-send signal dropped on modem interface	GXCLINK FI00704 CXCCTSV FI00719 FI00701
56ED	Data-set-ready turn-on time-out on modem interface	FI00701 FI00704 FI00719 AJLAG01
56F1	Data-set-ready dropped on modem interface	FI00704 FI00701 GXCLINK FI00719
5710	Nonproductive receive time-out while receiving from remote	CXCNPRT FI00700 FI00705 FI00704 GXCLINK FI00701 FI00719
5712	No data received from remote equipment; time-out	AJLAG01 CXCENCD CXCINAT GXCLINK FI00704 FI00705 FI00700 CXCSTAD FI00701 CXCDTAR FI00719 CXCMRTY
5715	Remote equipment did not respond causing an idle-time-out	GXCLINK CXCRPTO FI00701 FI00704 CXCMRTY FI00705 CXCENCD FI00700 CXCDTAR FI00719
5718	Retry limit reached for sending frames to remote equipment	GXCLINK FI00705 FI00704 FI00700 CXCMRTY FI00719 FI00701
5719	Retry limit reached for sending frames to remote equipment	FI00700

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
5720	Retry limit reached for sending poll frame to remote	FI00700 CXCMODU
5721	Could not send frame to remote equipment; local problem	FI00704 CXCDTAR FI00701 FI00719 FI00730
5722	Wrong command value sent by OS/400 licensed program	AJLAG01 CXCSTAD
A000	Too many devices active on the workstation IOP	GXCBBBB
B000	WS IOP fails to report part, model and serial number Perform WSAC-PIP1.	FI00615
C000, D000	WS IOP error not known	AJLAG01
D001	Wrong or no external communications cable installed	FI00631 AJLAG01
F003	WS IOA buffer utilization threshold exceeded temporarily	AJLAG01
FFFF	User believes there is a problem Reference code FFFF is assigned by the ANZPRB (Analyze Problems) for user-detected errors. Run ANZPRB again if the problem still exists or look in the problem log (WRKPRB) for possible failing FRUs.	UXCFF00

Table 2. Workstation Adapter Console Failing Items Details

Failing Item	Description	Document Description
AJDG301	Vertical Licensed Internal Code	Service Functions; APAR or LICTR
AJLAG01	Licensed Internal Code	Service Functions; APAR or LICTR
CXCBUSY	Too many communications lines in use	Communications Configuration
CXCCONF	Configuration or OS/400 licensed program	Communications Configuration
CXCCPTO	CNNPOLLTMR value in CRTLINSDLC command	Communications Configuration
CXCCTSV	CTSTMR value in CRTLINSDLC command	Communications Configuration
CXCDTAR	LINESPEED value in CRTLINSDLC command	Communications Configuration
CXCENCD	NRZI value in CRTLINSDLC command	Communications Configuration
CXCINAT	INACTTMR value in CRTLINSDLC command	Communications Configuration
CXCMAXI	MAXFRAME value in CRTLINSDLC command	Communications Configuration
CXCMODU	MODULUS value in CRTLINSDLC command	Communications Configuration
CXCMRTY	FRAMERTY value in CRTLINSDLC command	Communications Configuration
CXCMSTA	MAXCTL value in CRTLINSDLC command	Communications Configuration
CXCNPRT	NPRDRCVTMR value in CRTLINSDLC command	Communications Configuration
CXCRPTO	IDLTMR value in CRTLINSDLC command	Communications Configuration
CXCSNDT	SHMNODE value in CRTLINSDLC command	Communications Configuration
CXCSTAD	STNADR value in CRTCTL_____command	Communications Configuration
CXCTEMP	No failure found	Communications Configuration

Failing Item	Description	Document Description
GXC7777	Electrical interference	
GXC8888	Other workstation on port is failing	
GXC9999	Error occurred with pass-through command	
GXCBBBB	Too many devices are active on the workstation IOP	
GXCEEEE	Active device turned off	
GXCLINK	Communications network equipment	
UXCFF00	User suspected problem	

(B2xx) Logical Partition Reference Codes

The code that logically partitions the system detected an error in the logical partition. These reference codes are posted in the Partition Status screens under the SST/DST **Work with system partitions** option.

1. Characters 3 and 4 of word 1 are the partition ID of the logical partition with the problem.
2. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Logical Partition Failing Items Details, which follows the reference code table below.

Table 1. (B2xx) Logical Partition Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1210	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Look in the Primary partition's Service Action Log for a B6005090 during the secondary partition IPL. Use that SRC and go to RCT. If you do not find a B6005090 in the Service Action Log of the Primary partition then look for any SRC which was logged during the IPL of the Primary partition. Search the Service Action Log first and if you do not find an SRC there then search the Product Activity Log. Use the new SRC and go to RCT.	FI00580
1220	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Initiate a Primary partition main storage dump then contact your next level of support.	FI00099
1230	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. See the *iSeries Service Functions* information. This is a partitioning configuration problem. The partition is lacking the necessary resources to IPL. Refer the customer to their software support.	FI00099 LPARCFG

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1250	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. The primary partition's IPL mode does not allow the secondary partition to IPL in the mode the secondary partition attempted to IPL in. If the primary partition is IPL'd in 'C' mode then secondary partitions can only IPL in 'C' mode. Other modes are not allowed. IPL the primary partition in either 'A' mode or 'B'. Then retry the IPL of the secondary partition.	LPARCFG
1260	A problem occurred during the IPL of a secondary partition The secondary partition identified in the xx field of the B2xx SRC could not IPL at the Timed Power On setting because the IPL mode of the secondary partition was not set to Automatic or Normal. Go into the "Work With System Partitions" option of SST/DST and reset the IPL mode to Normal/Automatic, then re-IPL the secondary.	LPARSUP
1270	A problem occurred during the IPL of a secondary partition The guest partition identified in the xx field of the B2xx SRC could not IPL because the Primary partition was not in a full paging environment. IPL the Primary partition past the Storage Management full paging IPL step. Re-IPL the guest partition.	
1310	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. No alternate (D-mode) IPL IOP was selected. The IPL will attempt to continue, but there may not be enough information to find the correct D-mode load source. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Have the customer configure an alternate IPL IOP for the secondary partition. Then retry the secondary partition IPL.	LPARCFG
1320	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. No default load source IOP was selected for an A/B-mode IPL. The IPL will attempt to continue, but there may not be enough information to find the correct load source. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Have the customer configure a load source IOP for the secondary partition. Then retry the secondary partition IPL.	LPARCFG
3110	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Contact your next level of support.	LPARSUP

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3113	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Look in the Service Action Log of the Primary partition for B600xxxx SRCs that were logged when the secondary partition was IPLing. Correct the B600xxxx problem, then retry the secondary partition IPL. If there are no B600xxxx SRCs in the Service Action Log of the Primary partition from the secondary partition's IPL then contact your next level of support.	LPARSUP
3114	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Look in the Service Action Log of the Primary partition for B600xxxx SRCs with the same bus/board/card numbers identified in the B2xx xxxx SRC words. Use the new SRC and go to RCT. The B2xx xxxx SRC Format is Word 1: B2xx3114, Word 3: Bus, Word 4: Board, Word 5: Card.	FI00096
3120	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Retry count exceeded. Contact your next level of support.	LPARSUP
3123	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Due to the multi-adapter bridge configuration the IOA with the load source device for the secondary partition does not belong to the IOP it was assigned to when the secondary partition was configured. Contact your next level of support.	LPARSUP
3125	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information on logical partitions. See the *iSeries Service Functions* information. Primary partition main store utilization problem. The Primary partition code could not obtain a segment of main storage within the Primary partition's main store to use for managing the creation of a secondary partition.	LPARCFG
3128	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. An unexpected failure return code was returned when attempting to query the IOA slots that are assigned to an IOP.	FI00099

B2xx

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
3130	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. If word 3 is zero, then this SRC is informational and can be ignored. Otherwise there is a problem in the Primary partition. A non-zero bus number has no associated bus object. Contact your next level of support.	LPARSUP
3135	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. An unknown bus type was detected.	FI00099
3140	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. The load-source IOP is not owned by the secondary partition. This is a configuration problem in the secondary partition. Have the customer re-configure the partition to have the intended load-source IOP. If there is not a configuration problem then contact your next level of support.	LPARSUP
3200	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Look for an SRC in the Service Action Log of the Primary partition logged at the time the secondary partition was IPLing. Use the new SRC and go to RCT.	FI00098 FI00096
4310	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Initiate a Primary partition main storage dump and contact your next level of support.	FI00099
4311	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Initiate a primary partition main storage dump and contact your next level of support.	FI00099
4312	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Received an unexpected Direct Select Address. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Initiate a Primary partition main storage dump and contact your next level of support.	FI00099

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4315	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Storage in the Primary partition could not be allocated for the LID manager. The IPL of the secondary partition is failed. Increase the allocated storage to the Primary partition.	LPARCFG
4320	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Configuration error. Expected a disk unit and got some other kind of adapter or device. See the *iSeries Service Functions* information.	LPARSUP
4321	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Configuration error. Expected a tape or optical unit and received some other kind of adapter or device. See the *iSeries Service Functions* information.	LPARSUP
5106	Problem detected during main storage dump The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Not enough space in the Primary partition's ASP to contain the dump. Contact your next level of support.	LPARSUP
5114	Problem detected during main storage dump The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. There is not enough space on the secondary partition's load-source to contain the dump.	FI00099
5115	Problem detected during main storage dump The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. There was an error reading the secondary partition's main storage dump from the secondary partition's load-source into the Primary partition's main storage.	LPARSUP
5117	Problem detected during main storage dump The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. A main storage dump has occurred but cannot be written to the load source device because a valid dump already exists. Contact your next level of support.	LPARSUP
5121, 5135, 5145	Problem detected during main storage dump The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. There was an error writing the secondary partition's main storage dump to the secondary partition's load-source.	LPARSUP
5148	Problem detected during main storage dump The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. An error occurred while doing a main storage dump that would have caused another main storage dump. Contact your next level of support.	LPARSUP

B2xx

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6012	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. The secondary partition's LID failed to completely load into the the partition's mainstore area. Contact your next level of support.	LPARSUP
6015	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. The load-source media is corrupted or invalid. A SLIP install of the secondary partition is required to recover.	MEDIA FI00099
6025	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. This is a problem with the load-source media being corrupt or invalid. A SLIP install of the secondary partition is required to recover.	MEDIA FI00099
6027	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. A failure occurred when allocating memory for an internal object used for LID load operations.	LPARCFG
6110	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Error on load-source device. See the information about logical partitions. See the *iSeries Service Functions* information. Record the SRC. The Direct Select Address of the device IOP in the SRC. Word 3: Bus, Word 4: Board, Word 5: Card.	FI00098
6900	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. The guest partition's allocated memory is not large enough for the kernel specified to load. Increase the size of the secondary partition's memory allocation. Word 3 of the SRC is the allocated size of the secondary partition and word 4 of the SRC is the required size of the kernel.	LPARCFG

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6905	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. There is no valid kernel to load for the specified IPL Mode of the guest partition. Either the kernel is not valid or there is not a kernel in the selected IPL Mode. Verify that the kernel specified to load is valid and the IPL mode specified is where the kernel is located. If the problem persists then record all words of the SRC and contact your next level of support.	LPARCFG
6910	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. A storage management problem occurred loading the guest partition. Record all the words of the SRC and contact your next level of support.	LPARCFG
6920	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. A problem occurred while loading the guest partition. Record all the words of the SRC and contact your next level of support.	LPARSUP
6930	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. A problem occurred while loading the guest partition. Record all of the words in the SRC and contact your next level of support.	LPARCFG
7111	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Load-source device driver does not point to an IOP hardware driver. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Initiate a Primary partition main storage dump, and contact your next level of support.	FI00099
7115	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. The IOP identified in word 5 is not reporting to the secondary partition. Removing an IOP hardware driver (not the load source for the current IPL) from the Primary partition failed. The IPL will continue, but the secondary partition will not be able to establish connections to this IOP. Word 3: Bus, Word 4: Board, Word 5: Card.	FI00099 LPARSUP
7117	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. The IOP identified in word 5 is not reporting to the secondary partition. Removing the IOP hardware driver that is associated with the current load-source has failed. The IPL will fail. Read and understand the information about logical partitions. See the *iSeries Service Functions* information. Record the SRC. The location of the IOP is in SRC words 3, 4 and 5. Word 3: Bus, Word 4: Board, Word 5: Card.	FI00099 LPARSUP

B2xx

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7200	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. An error condition was encountered when communicating with the load source IOP for the partition identified in the xx field of the B2xx SRC.	LPARSUP
8081	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. An internal LIC timeout has occurred. The partition may continue to IPL but it may experience problems while running.	LPARSUP
8105	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. There was a failure loading the VPD areas of the secondary partition. The load-source media has been corrupted. A SLIP install of the partition is required.	MEDIA FI00099
8107	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. There was a problem getting a segment of main storage in the Primary partition's main store.	FI00099
8115	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. There was a low level partition to partition communication failure. A secondary partition re-IPL is necessary to recover. If this SRC appears again when the partition is re-IPLed contact your next level of support.	LPARSUP
F000	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. An operation has timed out. Look in the Service Action Log of the Primary partition for a failure during the last IPL of the secondary partition. Use the new SRC and go to RCT. If you do not find a failure in the Service Action Log from the last IPL of the partition then record all words of this SRC and call your next level of support. See the *iSeries Service Functions* information.	LPARSUP
F001	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. A bus time out occurred on a command to the load source IOP.	FI00098 FI00096
F002	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Timeout waiting for the load source hardware driver. Initiate a main store dump of secondary partition.	LPARSUP
F003	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. Partition processors did not start LIC within the timeout window.	FI00099

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
F004 to F005	A problem occurred during power off of secondary partition. The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. From the ″Work with partition status screen″ the primary partition issued a power down message to the secondary partition but the message response from the secondary timed out. Initiate a main store dump of the secondary partition.	FI00099
F006	A problem occurred during the IPL of a secondary partition The partition ID is characters 3 and 4 of the B2xx reference code in word 1 of the SRC. The LID load operation for the secondary partition's IPL timed out.	FI00098 FI00096

Logical Parition Failing Items Details

If the system has logical partitions, perform this procedure from the logical partition that reported the problem.

Table 2. Logical Partition Failing Items

Failing Item	Description	Document Description
LPARCFG	LPAR configuration, processors, memory, console or load-src	Problem Analysis; Symbolic FRU Isolation
LPARSUP	LPAR complex problem, call next level of support	Problem Analysis; Symbolic FRU Isolation
MEDIA	Load source media corrupted	Problem Analysis; Symbolic FRU Isolation

(2742, 2793, 2805) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2742, 2793, 2805) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B940	I/O adapter hardware error detected	FI00719 AJDGP01
B941	One of the ports on the IOA has failed.	FI00719 AJDGP01

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	Licensed Internal Code	Service Functions; APAR or LICTR

(2750, 2751) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

Table 1. (2750, 2751) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B980 to B983	I/O adapter hardware error detected	FI00719 FI00730

(2838, 2849) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2838, 2849) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B904	I/O adapter Licensed Internal Code failed.	AJDGP01 FI00719
B930	I/O adapter Licensed Internal Code failed.	AJDGP01 FI00718 FI00719
B931	I/O adapter hardware error detected	FI00719 FI00718 AJDGP01
B933	Incompatible hardware detected.	FI00719 AJDGP01

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	LIC - Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR

(2761) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

Table 1. (2761) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B980 to B983	I/O adapter hardware error detected	FI00719 FI00730

(2745) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2745) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B904	I/O adapter Licensed Internal Code failed.	AJDGP01 FI00719
B934	Incompatible hardware detected.	FI00719 FI00718
B940	I/O adapter hardware error detected	FI00719 FI00718 AJDGP01
B941 to B942	One half of I/O adapter failed.	FI00719 FI00718 AJDGP01

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	LIC - Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR

(2771, 2772) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2771, 2772) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B904	I/O adapter Licensed Internal Code failed.	AJDGP01 FI00719
B934	Incompatible hardware detected.	FI00719 FI00718
B940	I/O adapter hardware error detected	FI00719 FI00718 AJDGP01
B941 to B942	One half of I/O adapter failed.	FI00719 FI00718 AJDGP01

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	LIC - Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR

(287F) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (287F) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B9A0	I/O adapter hardware error detected	FI00719 AJDGP01

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR

(2724, 2744, 6149) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2724, 2744, 6149) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B904	I/O adapter Licensed Internal Code failed.	AJDGP01 FI00719
B920	I/O adapter Licensed Internal Code failed.	AJDGP01 FI00718 FI00719
B921	I/O adapter hardware error detected	FI00719 FI00718 AJDGP01
B934	Incompatible hardware detected.	FI00719 FI00718

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR

(2743, 2760, 5700, 5701) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom

16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.

3. Find the unit reference code in the following table.

For more on the Failing Item column entries, see Table 2. Failing Items Details, which follows the reference code table below.

Table 1. (2760, 2743, 5700, 5701) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B9A0	I/O adapter hardware error detected	FI00719 FI00718 AJDGP01

Table 2. Failing Items Details

Failing Item	Description	Document Description
AJDGP01	LIC - Input/Output Processor Licensed Internal Code	Service Functions; APAR or LICTR

(281x) – Reference Codes

1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code.
2. Look at the last 8 characters of the top 16 character line of function 12 (word 3). These 8 characters are the direct select address of the card (BBBBCcbb). The unit address portion of the card address is characters 1 through 8 of the bottom 16 character line of function 11 (Word 4). Card locations can be found using the 16 character address. See SRC Address Formats.
3. Find the unit reference code in the following table.

Table 1. (281x) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B910	I/O adapter hardware error detected	FI00719 FI00730 FI00718

(B427) System Processor Reference Codes

The system processor detected a failure.

These reference codes are for the Models 270, 800, 810, 820, and 825.

Collect data from Functions 11, 12, and 13 of the system panel, or words 1 through 9 from the Main Store Dump (MSD) screen. This SRC, beginning with "**B4**", may contain up to five FRUs. Eight characters of this data represent a single FRU. The FRU characters have two parts: a unit reference code, and a type number. The location of this data is shown below:

```
PANEL FUNC 11:   B4xx____   RC01TP01
                 RC02RC03   RC04RC05

PANEL FUNC 12:   DATA0012   DATA0013
```

```
                TP02TP03   TP04TP05

 PANEL FUNC 13: DATA0016   DATA0017
                DATA0018   DATA0019
```

The FRU information for FRU 1 would be RC01 and TP01, for FRU 2 would be RC02 and TP02, etc.

Characters	Description / Meaning	Length
RC01	FRU 1 - Ref Code	4 Characters
TP01	FRU 1 - Type	4 Characters
RC02	FRU 2 - Ref Code	4 Characters
TP02	FRU 2 - Type	4 Characters
RC03, TP03, RC04, TP04, RC05, TP05 same as above.		
DATA012, DATA013, DATA016, DATA017, DATA018, DATA019	Miscellaneous Data - Not applicable, but may be needed for your next level of support.	8 Characters

The example below shows relevant data for three FRUs:
RC01=4300, TP01=244A, RC02=8200, TP02=2884, RC03=8100, TP03=2884,
the remaining values are zeroes.

```
PANEL FUNC 11:   B427____   4300244A
                 82008100   00000000

PANEL FUNC 12:   xxxxxxxx   xxxxxxxx
                 28842884   00000000

PANEL FUNC 13:   xxxxxxxx   xxxxxxxx
                 xxxxxxxx   xxxxxxxx
```

Characters	Description / Meaning	Length
4300	FRU 1 - Ref Code = 4300	4 Characters
244A	FRU 1 - Type = 244A	4 Characters
8200	FRU 2 - Ref Code = 8200	4 Characters
2884	FRU 2 - Type = 2884	4 Characters
8100	FRU 3 - Ref Code = 8100	4 Characters
2884	FRU 3 - Type = 2884	4 Characters

Below is the information as shown in a MSD SCREEN:

```
1 -  B4xx____RC01TP01RC02RC03RC04RC05
2 -  DATA0012
3 -  DATA0013
4 -  TP02TP03
5 -  TP04TP05
     .
     .
     .
9 -  DATA0019
```

The FRU information for FRU 1 would be **FI1A** and **FI1B** or for FRU 2 it would be **FI2A** and **FI2B**, and so forth.

Each reference code has an associated Failing Item, given in the table below. Here the failing item is a Symbolic FRU. When you use the reference code and

description when following the procedure described in the Symbolic FRU documentation, you should end up with a hardware FRU, code update, or directions to call your next level of support.

Each reference code also has an associated Priority Code. The first digit of the reference code in the table below gives the priority.

- **Mandatory** priority reference codes start with either a **4**, **5**, or **7**. You should replace all mandatory failing items before the next IPL.
- **High** priority reference codes start with either a **8**, **9**, or **B**. A FRU with a high priority has a high probability of resolving the problem. Replace high priority failing items in order, one at a time with an IPL in between.
- **Low** priority reference codes start with either a **C**, **D**, or **F**. A FRU with a low priority has a low probability of resolving the problem. Replace low priority failing items after replacement of mandatory and high priority items.

The second part of the FRU information is the type number. This will be used in combination with the Failing Item information to determine the Part Number from the Type, Model, and Part Number list. If the failing item is given as a Symbolic FRU, go to the Symbolic FRU section to determine the failing part. Then go to the tables in the Locations and Addresses section for the physical mapping of the information in the Location column.

For more on the Failing Item column entries, see Table 2. System Processor Failing Items Details, which follows the reference code table below.

Table 1. (B427) System Processor Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4001	System Card(s) or BackPlane	CCIN
4003	System Card(s) or BackPlane	ANYPROC
4004 to 4005	System Sub-Card(s)	CTLPNCD
4009	System Card(s) or BackPlane	ANYMEM
400A to 400D, 4010 to 4017	System Sub-Card(s)	CCIN
40A0	Service processor Licensed Internal Code	AJDGP01
40A1	Licensed Internal Code error	AJDG301
40A2	Service processor Licensed Internal Code	AJDGP01
40A4	Call your next level of support for assistance	NEXTLVL
40A6	Main storage failure	NOMSUSE
40A9	System memory card configuration problem detected	MEMCFG
40E1	Service processor Licensed Internal Code	AJDGP01
4100	System Card(s) or BackPlane	CCIN
4101 to 4104, 410D to 410E, 4111 to 4114, 411D, 4121 to 4124, 412D, 4131 to 4134, 413D	System Sub-Card(s)	CCIN
4200	System Card(s) or BackPlane	CCIN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4201 to 4204, 420D to 420E, 4211 to 4214, 421D to 421E, 4221 to 4224, 422D to 422E, 4231 to 4234, 423D to 423E	System Sub-Card(s)	CCIN
4300	System Card(s) or BackPlane	CCIN
4301 to 4302, 430D, 4311 to 4312, 431D, 4321 to 4322, 432D, 4331 to 4332, 433D	System Sub-Card(s)	CCIN
7102, 7140, 7282 to 7283	System bus error	RIOPORT
7401	System Card(s) or BackPlane	FI00017
7402	Bus expansion card	FI00017
7404 to 7406	Optical link on Bus Expansion Adapter card failed	FI00017
7408	Bus expansion card	FI00017
7409 to 740D	Optical link on Bus Expansion Adapter card failed	FI00017
8001	System Card(s) or BackPlane	CCIN
8003	System Card(s) or BackPlane	ANYPROC
8004 to 8005	System Sub-Card(s)	CTLPNCD
8009	System Card(s) or BackPlane	ANYMEM
800A to 800D, 8010 to 8017	System Sub-Card(s)	CCIN
80A0	Service processor Licensed Internal Code	AJDGP01
80A1	Licensed Internal Code error	AJDG301
80A2	Service processor Licensed Internal Code	AJDGP01
80A4	Call your next level of support for assistance	NEXTLVL
80A6	Main storage failure	NOMSUSE
80A9	System memory card configuration problem detected	MEMCFG
80E1	Service processor Licensed Internal Code	AJDGP01
8100	System Card(s) or BackPlane	CCIN
8101 to 8104, 810D to 810E, 8111 to 8114, 811D, 8121 to 8124, 812D, 8131 to 8134, 813D	System Sub-Card(s)	CCIN
8200	System Card(s) or BackPlane	CCIN
8201 to 8204, 820D to 820E, 8211 to 8214, 821D to 821E, 8221 to 8224, 822D to 822E, 8231 to 8234, 823D to 823E	System Sub-Card(s)	CCIN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8300	System Card(s) or BackPlane	CCIN
8301 to 8302, 830D, 8311 to 8312, 831D, 8321 to 8322, 832D, 8331 to 8332, 833D	System Sub-Card(s)	CCIN
B102, B140, B282 to B283	System bus error	RIOPORT
B401	System Card(s) or BackPlane	FI00017
B402	Bus expansion card	FI00017
B404 to B406	Optical link on Bus Expansion Adapter card failed	FI00017
B408	Bus expansion card	FI00017
B409 to B40D	Optical link on Bus Expansion Adapter card failed	FI00017
C001	System Card(s) or BackPlane	CCIN
C003	System Card(s) or BackPlane	ANYPROC
C004 to C005	System Sub-Card(s)	CTLPNCD
C009	System Card(s) or BackPlane	ANYMEM
C00A to C00D, C010 to C017	System Sub-Card(s)	CCIN
C0A0	Service processor Licensed Internal Code	AJDGP01
C0A1	Licensed Internal Code error	AJDG301
C0A2	Service processor Licensed Internal Code	AJDGP01
C0A4	Call your next level of support for assistance	NEXTLVL
C0A6	Main storage failure	NOMSUSE
C0A9	System memory card configuration problem detected	MEMCFG
C0E1	Service processor Licensed Internal Code	AJDGP01
C100	System Card(s) or BackPlane	CCIN
C101 to C104, C10D to C10E, C111 to C114, C11D, C121 to C124, C12D, C131 to C134, C13D	System Sub-Card(s)	CCIN
C200	System Card(s) or BackPlane	CCIN
C201 to C204, C20D to C20E, C211 to C214, C21D to C21E, C221 to C224, C22D to C22E, C231 to C234, C23D to C23E	System Sub-Card(s)	CCIN
C300	System Card(s) or BackPlane	CCIN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
C301 to C302, C30D, C311 to C312, C31D, C321 to C322, C32D, C331 to C332, C33D	System Sub-Card(s)	CCIN
F102, F140, F282 to F283	System bus error	RIOPORT
F401	System Card(s) or BackPlane	FI00017
F402	Bus expansion card	FI00017
F404 to F406	Optical link on Bus Expansion Adapter card failed	FI00017
F408	Bus expansion card	FI00017
F409 to F40D	Optical link on Bus Expansion Adapter card failed	FI00017

System Processor Failing Items Detail

Use this table for details on the Failing Item column in the Reference Codes table(s) above.

Table 2. System Processor Failing Items Details

Failing Item	Description	Document Description
AJDG301	Slic Code	Service Functions; APAR or LICTR
AJDGP01	Service Processor Code	Service Functions; APAR or LICTR
ANYMEM	Main Storage Card - Location Unknown	Problem Analysis; Symbolic FRU Isolation
ANYPROC	Processor Unknown	Problem Analysis; Symbolic FRU Isolation
CCIN	Card	Problem Analysis; Symbolic FRU Isolation
CCIN	System Backplane	Problem Analysis; Symbolic FRU Isolation
CTLPNCD	Control Panel Card	Problem Analysis; Symbolic FRU Isolation
MEMCFG	Memory configuration error	Problem Analysis; Symbolic FRU Isolation
NEXTLVL	Contact your next level of support	Problem Analysis; Symbolic FRU Isolation
NOMSUSE	No usable main storage	Problem Analysis; Symbolic FRU Isolation
RIOPORT	MUM RIO IO PORT	Problem Analysis; Symbolic FRU Isolation

(B428, B448) System Processor Reference Codes

The system processor detected a failure.

These reference codes are for Models 825, 870, and 890.

If the system is operational, look in the Service Action Log for a list of failing items. If the failing item is a Symbolic FRU, go to that section of the documentation and follow the procedure. If the failing item is hardware, go to the locations tables for the model on which you are working. The table will match a FRU to the failing component, direct you to the proper remove and replace procedure, and provide location information.

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The following gives background information regarding processor / memory SRC formats and control panel functions.

Collect data from Functions 11, 12, and 13 of the system panel, or words 1 through 9 from the Main Store Dump (MSD) screen. This SRC, beginning with "**B4**", may contain up to five FRUs. Eight characters of this data represent a single FRU. The FRU characters have two parts: a unit reference code, and a type number. The type number is usually a CCIN. If the number is 0000, either the fix will involve software, or the CCIN for the failed hardware cannot be determined without using the procedure to which you will be directed. The location of this data is shown below:

```
PANEL FUNC 11:   B4xx____   RC01TP01
                 RC02RC03   RC04RC05

PANEL FUNC 12:   DATA0012   DATA0013
                 TP02TP03   TP04TP05

 PANEL FUNC 13:  DATA0016   DATA0017
                 DATA0018   DATA0019
```

The FRU information for FRU 1 would be RC01 and TP01, for FRU 2 would be RC02 and TP02, etc.

Characters	Description / Meaning	Length
RC01	FRU 1 - Ref Code	4 Characters
TP01	FRU 1 - Type	4 Characters
RC02	FRU 2 - Ref Code	4 Characters
TP02	FRU 2 - Type	4 Characters
RC03, TP03, RC04, TP04, RC05, TP05 same as above.		
DATA012, DATA013, DATA016, DATA017, DATA018, DATA019	Miscellaneous Data - Not applicable, but may be needed for your next level of support.	8 Characters

```
The example below shows relevant data for three FRUs:
RC01=4300, TP01=244A, RC02=8200, TP02=2884, RC03=8100, TP03=2884,
the remaining values are zeroes.

PANEL FUNC 11:   B427____   4300244A
                 82008100   00000000

PANEL FUNC 12:   xxxxxxxx   xxxxxxxx
                 28842884   00000000

PANEL FUNC 13:   xxxxxxxx   xxxxxxxx
                 xxxxxxxx   xxxxxxxx
```

Characters	Description / Meaning	Length
4300	FRU 1 - Ref Code = 4300	4 Characters
244A	FRU 1 - Type = 244A	4 Characters
8200	FRU 2 - Ref Code = 8200	4 Characters
2884	FRU 2 - Type = 2884	4 Characters
8100	FRU 3 - Ref Code = 8100	4 Characters
2884	FRU 3 - Type = 2884	4 Characters

Below is the information as shown in a MSD SCREEN:

```
1 -  B4xx____RC01TP01RC02RC03RC04RC05
2 -  DATA0012
3 -  DATA0013
4 -  TP02TP03
5 -  TP04TP05
     .
     .
     .
9 -  DATA0019
```

The FRU information for FRU 1 would be **FI1A** and **FI1B** or for FRU 2 it would be **FI2A** and **FI2B**, and so forth.

The first part of the FRU information is the unit reference code. Find the reference codes in the table below to determine the Priority and Location of the failing items. See the tables in the Locations and addresses topic for the physical mapping of the information in the Location column.

Each reference code also has an associated Priority Code. The first digit of the reference code in the table below gives the priority.

- **Mandatory** priority reference codes start with a **4**. You should replace all mandatory failing items before the next IPL.
- **High** priority reference codes start with an **8**. A FRU with a high priority has a high probability of resolving the problem. Replace high priority failing items in order, one at a time with an IPL in between.
- **Low** priority reference codes start with a **C**. A FRU with a low priority has a low probability of resolving the problem. Replace low priority failing items after replacement of mandatory and high priority items.

The second part of the FRU information is the type number. This will be used in combination with the Failing Item information to determine the Part Number from the Type, Model, and Part Number list. If the failing item is given as a Symbolic FRU, go to the Symbolic FRU topic to determine the failing part. Then go to the tables in the Locations and Addresses topic for the physical mapping of the information in the Location column.

Table 1. (B428, B448) System Processor Reference Codes

Reference Code	Priority	Description	Failing Item
4001	Mandatory	Clock Card	CCIN
4002	Mandatory	Processor Backplane	CCIN
4003 to 4006	Mandatory	Processor Card	ANYPROC
4007	Mandatory	Processor Cache Card	CCIN
400A to 400D	Mandatory	Network Interface Controller If this error occurs at IPL time, clean the cable connections (if optical), then reseat the cables. If that does not correct the problem, replace the cable prior to continuing with the FRU list.	CCIN
400E to 400F	Mandatory	Processor Configuration Card	CCIN

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Reference Code	Priority	Description	Failing Item
4010 to 401F, 4020 to 4027, 4100 to 4101, 4110 to 4111, 4120 to 4121	Mandatory	Memory Card	ANYMEM
4A03 to 4A06	Mandatory	Contact your next level of support	NEXTLVL
4B00 to 4B03, 4B10 to 4B17, 4B20 to 4B27, 4B30 to 4B37	Mandatory	I/O Port	RIOPORT
4BE0	Mandatory	I/O Port See the Locations Section for the system on which you are working. The HSL I/O Bridge in the base I/O tower may have failed.	RIOPORT
4BF0 to 4BFD	Mandatory	I/O Port	RIOPORT
4C03	Mandatory	Processor Card	ANYPROC
4C09	Mandatory	Memory Card	ANYMEM
4C0A	Mandatory	I/O Port	CCIN
4C10 to 4C13	Mandatory	Configuration Mismatch	PROCMM
4CA5	Mandatory	Configuration Mismatch Check the locations section for the system on which you are working for base system components and processor and memory configuration rules. If the problem is not corrected, contact your next level of support.	NEXTLVL
4CA6	Mandatory	Invalid memory configuration	NOMSUSE
4CA9	Mandatory	Invalid memory configuration	MEMCFG
4D00 to 4D0F	Mandatory	Processor Cache Card	CCIN
4EA0 to 4EA2	Mandatory	Code Error	PROCODE
4EA4	Mandatory	Contact your next level of support	NEXTLVL
4EAF	Mandatory	Code Error	PROCODE
4EB0	Mandatory	I/O Port	JTPORT
4EB1 to 4EBC	Mandatory	I/O Port	PRCLINE
4EE1 to 4EE2	Mandatory	Code Error	PROCODE
4EE5	Mandatory	Contact your next level of support	NEXTLVL PROCODE
8001	High	Clock Card	CCIN
8002	High	Processor Backplane	CCIN
8003 to 8006	High	Processor Card	CCIN
8007	High	Processor Cache Card	CCIN
800A to 800D	High	Network Interface Controller If this error occurs at IPL time, clean the cable connections (if optical), then reseat the cables. If that does not correct the problem, replace the cable prior to continuing with the FRU list.	CCIN
800E to 800F	High	Processor Configuration Card	CCIN

Reference Code	Priority	Description	Failing Item
8010 to 801F, 8020 to 8027, 8100 to 8101, 8110 to 8111, 8120 to 8121	High	Memory Card	ANYMEM
8A03 to 8A06	High	Contact your next level of support	NEXTLVL
8B00 to 8B03, 8B10 to 8B17, 8B20 to 8B27, 8B30 to 8B37	High	I/O Port	RIOPORT
8BE0	High	I/O Port See the Locations section for the model on which you are working. The HSL I/O Bridge card in the base I/O tower may have failed.	RIOPORT
8BF0 to 8BFD	High	I/O Port	RIOPORT
8C03	High	Processor Card	ANYPROC
8C09	High	Memory Card	ANYMEM
8C0A	High	I/O Port	CCIN
8C10 to 8C13	High	Configuration Mismatch	PROCMM
8CA5	High	Configuration Mismatch Check the locations section for the system on which you are working for base system components and processor and memory configuration rules. If the problem is not corrected, contact your next level of support.	NEXTLVL
8CA6	High	Invalid memory configuration	NOMSUSE
8CA9	High	Invalid memory configuration	MEMCFG
8D00 to 8D0F	High	Processor Cache Card	CCIN
8EA0 to 8EA2	High	Code Error	PROCODE
8EA4	High	Contact your next level of support	NEXTLVL
8EAF	High	Code Error	PROCODE
8EB0	High	I/O Port	JTPORT
8EB1 to 8EBC	High	I/O Port	PRCLINE
8EE1 to 8EE2	High	Code Error	PROCODE
8EE5	High	Contact your next level of support	NEXTLVL PROCODE
C001	Low	Clock Card	CCIN
C002	Low	Processor Backplane	CCIN
C003 to C006	Low	Processor Card	CCIN
C007	Low	Processor Cache Card	CCIN
C00A to C00D	Low	Network Interface Controller If this error occurs at IPL time, clean the cable connections (if optical), then reseat the cables. If that does not correct the problem, replace the cable prior to continuing with the FRU list.	CCIN
C00E to C00F	Low	Processor Configuration Card	CCIN

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Reference Code	Priority	Description	Failing Item
C010 to C01F, C020 to C027, C100 to C101, C110 to C111, C120 to C121	Low	Memory Card	ANYMEM
CA03 to CA06	Low	Contact your next level of support	NEXTLVL
CB00 to CB03, CB10 to CB17, CB20 to CB27, CB30 to CB37	Low	I/O Port	RIOPORT
CBE0	Low	I/O Port See the Locations section for the model on which you are working. The HSL I/O Bridge card in the base I/O tower may have failed.	RIOPORT
CBF0 to CBFD	Low	I/O Port	RIOPORT
CC03	Low	Processor Card	ANYPROC
CC09	Low	Memory Card	ANYMEM
CC0A	Low	I/O Port	CCIN
CC10 to CC13	Low	Configuration Mismatch	PROCMM
CCA5	Low	Configuration Mismatch Check the locations section for the system on which you are working for base system components and processor and memory configuration rules. If the problem is not corrected, contact your next level of support.	NEXTLVL
CCA6	Low	Invalid memory configuration	NOMSUSE
CCA9	Low	Invalid memory configuration	MEMCFG
CD00 to CD0F	Low	Processor Cache Card	CCIN
CEA0 to CEA2	Low	Code Error	PROCODE
CEA4	Low	Contact your next level of support	NEXTLVL
CEAF	Low	Code Error	PROCODE
CEB0	Low	I/O Port	JTPORT
CEB1 to CEBC	Low	I/O Port	PRCLINE
CEE1 to CEE2	Low	Code Error	PROCODE
CEE5	Low	Contact your next level of support	NEXTLVL PROCODE

(B437) System Processor Reference Codes

The system processor detected a failure.

Note: This procedure applies only to system Models 830, and SB2.

Collect data from Functions 11, 12, and 13 of the system panel, or words 1 through 9 from the Main Store Dump (MSD) screen. This SRC, beginning with "**B4**", may

contain up to five FRUs. Eight characters of this data represent a single FRU. The FRU characters have two parts: a unit reference code, and a type number. The location of this data is shown below:

```
PANEL FUNC 11:    B4xx____   RC01TP01
                  RC02RC03   RC04RC05

PANEL FUNC 12:    DATA0012   DATA0013
                  TP02TP03   TP04TP05

 PANEL FUNC 13:   DATA0016   DATA0017
                  DATA0018   DATA0019
```

The FRU information for FRU 1 would be RC01 and TP01, for FRU 2 would be RC02 and TP02, etc.

Characters	Description / Meaning	Length
RC01	FRU 1 - Ref Code	4 Characters
TP01	FRU 1 - Type	4 Characters
RC02	FRU 2 - Ref Code	4 Characters
TP02	FRU 2 - Type	4 Characters
RC03, TP03, RC04, TP04, RC05, TP05 same as above.		
DATA012, DATA013, DATA016, DATA017, DATA018, DATA019	Miscellaneous Data - Not applicable, but may be needed for your next level of support.	8 Characters

The example below shows relevant data for three FRUs:
RC01=4300, TP01=245C, RC02=8200, TP02=2881, RC03=8600, TP03=2732,
the remaining values are zeroes.

```
PANEL FUNC 11:   B437____   4300245C
                 82008600   00000000

PANEL FUNC 12:   xxxxxxxx   xxxxxxxx
                 28812732   00000000

PANEL FUNC 13:   xxxxxxxx   xxxxxxxx
                 xxxxxxxx   xxxxxxxx
```

Characters	Description / Meaning	Length
4300	FRU 1 - Ref Code = 4300	4 Characters
245C	FRU 1 - Type = 245C	4 Characters
8200	FRU 2 - Ref Code = 8200	4 Characters
2881	FRU 2 - Type = 2881	4 Characters
8600	FRU 3 - Ref Code = 8600	4 Characters
2732	FRU 3 - Type = 2732	4 Characters

Below is the information as shown in a MSD SCREEN:

```
1 -  B4xx____RC01TP01RC02RC03RC04RC05
2 -  DATA0012
3 -  DATA0013
4 -  TP02TP03
5 -  TP04TP05
```

```
.
.
.
9 -  DATA0019
```

Each reference code has an associated Failing Item, given in the table below. Here the failing item is a Symbolic FRU. When you use the reference code and description when following the procedure described in the Symbolic FRU documentation, you should end up with a hardware FRU, code update, or directions to call your next level of support.

Each reference code also has an associated Priority Code. The first digit of the reference code in the table below gives the priority.

- **Mandatory** priority reference codes start with either a **4**, **5**, or **7**.
- **High** priority reference codes start with either a **8**, **9**, or **B**.
- **Low** priority reference codes start with either a **C**, **D**, or **F**.

You should replace all mandatory failing items before the next IPL. A FRU with a high priority has a high probability of resolving the problem. Replace high priority failing items in order, one at a time with an IPL in between. A FRU with a low priority has a low probability of resolving the problem. Replace low priority failing items after replacement of mandatory and high priority items.

For more on the Failing Item column entries, see Table 2. System Processor Failing Items Details — Models 830 & SB2, which follows the reference code table below.

Table 1. (B437) System Processor Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4001	System Card(s) or BackPlane	CCIN
4003	System Card(s) or BackPlane	ANYPROC
4004 to 4005	System Sub-Card(s)	CTLPNCD
4009	System Card(s) or BackPlane	ANYMEM
40A0	Service processor Licensed Internal Code	AJDGP01
40A1	Licensed Internal Code error	AJDG301
40A2	Service processor Licensed Internal Code	AJDGP01
40A4	Call your next level of support for assistance	NEXTLVL
40A6	Main storage failure	NOMSUSE
40E1	Service processor Licensed Internal Code	AJDGP01
4200	System Card(s) or BackPlane	CCIN
4201 to 4208, 420D to 420F, 4211 to 4218, 421D to 421F, 4221 to 4228, 422D to 422F, 4231 to 4238, 423D to 423F	System Sub-Card(s)	CCIN
42FF	System Sub-Card(s)	ANYMEMX
4300, 4400, 4500	System Card(s) or BackPlane	CCIN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4501 to 4508, 450D to 450F, 4511 to 4518, 451D to 451F, 4521 to 4528, 452D to 452F, 4531 to 4538, 453D to 453F	System Sub-Card(s)	CCIN
45FF	System Sub-Card(s)	ANYMEMX
4600 to 4601	System Card(s) or BackPlane	CCIN
7101 to 7108, 7140 to 7141	System bus error	RIOPORT
7201, 7280	Bus expansion card	MUMIOCD
7281 to 7283	System bus error	RIOPORT
7301	Bus expansion card	FI00015
7302 to 7305	Optical link on Bus Expansion Adapter card failed	FI00017
7306	Bus expansion card	FI00015
7307 to 730A	Optical link on Bus Expansion Adapter card failed	FI00017
730B	Bus expansion card	FI00015
730C to 730F	Optical link on Bus Expansion Adapter card failed	FI00017
73FF	Bus expansion card	FI00015
7401	System Card(s) or BackPlane	FI00017
7402	Bus expansion card	FI00017
7404 to 7406	Optical link on Bus Expansion Adapter card failed	FI00017
7408	Bus expansion card	FI00017
7409 to 740D	Optical link on Bus Expansion Adapter card failed	FI00017
8001	System Card(s) or BackPlane	CCIN
8003	System Card(s) or BackPlane	ANYPROC
8004 to 8005	System Sub-Card(s)	CTLPNCD
8009	System Card(s) or BackPlane	ANYMEM
80A0	Service processor Licensed Internal Code	AJDGP01
80A1	Licensed Internal Code error	AJDG301
80A2	Service processor Licensed Internal Code	AJDGP01
80A4	Call your next level of support for assistance	NEXTLVL
80A6	Main storage failure	NOMSUSE
80E1	Service processor Licensed Internal Code	AJDGP01
8200	System Card(s) or BackPlane	CCIN
8201 to 8208, 820D to 820F, 8211 to 8218, 821D to 821F, 8221 to 8228, 822D to 822F, 8231 to 8238, 823D to 823F	System Sub-Card(s)	CCIN
82FF	System Sub-Card(s)	ANYMEMX
8300, 8400, 8500	System Card(s) or BackPlane	CCIN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
8501 to 8508, 850D to 850F, 8511 to 8518, 851D to 851F, 8521 to 8528, 852D to 852F, 8531 to 8538, 853D to 853F	System Sub-Card(s)	CCIN
85FF	System Sub-Card(s)	ANYMEMX
8600 to 8601	System Card(s) or BackPlane	CCIN
B101 to B108, B140 to B141	System bus error	RIOPORT
B201, B280	Bus expansion card	MUMIOCD
B281 to B283	System bus error	RIOPORT
B301	Bus expansion card	FI00015
B302 to B305	Optical link on Bus Expansion Adapter card failed	FI00017
B306	Bus expansion card	FI00015
B307 to B30A	Optical link on Bus Expansion Adapter card failed	FI00017
B30B	Bus expansion card	FI00015
B30C to B30F	Optical link on Bus Expansion Adapter card failed	FI00017
B3FF	Bus expansion card	FI00015
B401	System Card(s) or BackPlane	FI00017
B402	Bus expansion card	FI00017
B404 to B406	Optical link on Bus Expansion Adapter card failed	FI00017
B408	Bus expansion card	FI00017
B409 to B40D	Optical link on Bus Expansion Adapter card failed	FI00017
C001	System Card(s) or BackPlane	CCIN
C003	System Card(s) or BackPlane	ANYPROC
C004 to C005	System Sub-Card(s)	CTLPNCD
C009	System Card(s) or BackPlane	ANYMEM
C0A0	Service processor Licensed Internal Code	AJDGP01
C0A1	Licensed Internal Code error	AJDG301
C0A2	Service processor Licensed Internal Code	AJDGP01
C0A4	Call your next level of support for assistance	NEXTLVL
C0A6	Main storage failure	NOMSUSE
C0E1	Service processor Licensed Internal Code	AJDGP01
C200	System Card(s) or BackPlane	CCIN
C201 to C208, C20D to C20F, C211 to C218, C21D to C21F, C221 to C228, C22D to C22F, C231 to C238, C23D to C23F	System Sub-Card(s)	CCIN
C2FF	System Sub-Card(s)	ANYMEMX

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
C300, C400, C500	System Card(s) or BackPlane	CCIN
C501 to C508, C50D to C50F, C511 to C518, C51D to C51F, C521 to C528, C52D to C52F, C531 to C538, C53D to C53F	System Sub-Card(s)	CCIN
C5FF	System Sub-Card(s)	ANYMEMX
C600 to C601	System Card(s) or BackPlane	CCIN
F101 to F108, F140 to F141	System bus error	RIOPORT
F201, F280	Bus expansion card	MUMIOCD
F281 to F283	System bus error	RIOPORT
F301	Bus expansion card	FI00015
F302 to F305	Optical link on Bus Expansion Adapter card failed	FI00017
F306	Bus expansion card	FI00015
F307 to F30A	Optical link on Bus Expansion Adapter card failed	FI00017
F30B	Bus expansion card	FI00015
F30C to F30F	Optical link on Bus Expansion Adapter card failed	FI00017
F3FF	Bus expansion card	FI00015
F401	System Card(s) or BackPlane	FI00017
F402	Bus expansion card	FI00017
F404 to F406	Optical link on Bus Expansion Adapter card failed	FI00017
F408	Bus expansion card	FI00017
F409 to F40D	Optical link on Bus Expansion Adapter card failed	FI00017

Table 2. System Processor Failing Items Details — Models 830 & SB2

Failing Item	Description	Document Description
AJDG301	Slic Code	Service Functions; APAR or LICTR
AJDGP01	Service Processor Code	Service Functions; APAR or LICTR
ANYMEM	Main Storage Card - Location Unknown	Problem Analysis; Symbolic FRU Isolation
ANYMEMX	Card	Problem Analysis; Symbolic FRU Isolation
ANYPROC	Processor Unknown	Problem Analysis; Symbolic FRU Isolation
CCIN	Card	Problem Analysis; Symbolic FRU Isolation
CCIN	System Backplane	Problem Analysis; Symbolic FRU Isolation
CTLPNCD	Control Panel Card	Problem Analysis; Symbolic FRU Isolation
MUMIOCD	MUM IO CARD TO CEC	Problem Analysis; Symbolic FRU Isolation
NEXTLVL	Contact your next level of support	Problem Analysis; Symbolic FRU Isolation
NOMSUSE	No usable main storage	Problem Analysis; Symbolic FRU Isolation
RIOPORT	MUM RIO IO PORT	Problem Analysis; Symbolic FRU Isolation

(B467) System Processor Reference Codes

The system processor detected a failure.

Note: This procedure applies only to system Models 840 and SB3.

Collect data from Functions 11, 12, and 13 of the system panel, or words 1 through 9 from the Main Store Dump (MSD) screen. This SRC, beginning with "**B4**", may contain up to five FRUs. Eight characters of this data represent a single FRU. The FRU characters have two parts: a unit reference code, and a type number. The location of this data is shown below:

```
PANEL FUNC 11:   B4xx____   RC01TP01
                 RC02RC03   RC04RC05

PANEL FUNC 12:   DATA0012   DATA0013
                 TP02TP03   TP04TP05

 PANEL FUNC 13:  DATA0016   DATA0017
                 DATA0018   DATA0019
```

The FRU information for FRU 1 would be RC01 and TP01, for FRU 2 would be RC02 and TP02, etc.

Characters	Description / Meaning	Length
RC01	FRU 1 - Ref Code	4 Characters
TP01	FRU 1 - Type	4 Characters
RC02	FRU 2 - Ref Code	4 Characters
TP02	FRU 2 - Type	4 Characters
RC03, TP03, RC04, TP04, RC05, TP05 same as above.		
DATA012, DATA013, DATA016, DATA017, DATA018, DATA019	Miscellaneous Data - Not applicable, but may be needed for your next level of support.	8 Characters

```
The example below shows relevant data for three FRUs:
RC01=5200, TP01=245E, RC02=8100, TP02=3197, RC03=9300, TP03=25AA,
the remaining values are zeroes.

PANEL FUNC 11:   B467____   5200245E
                 81009300   00000000

PANEL FUNC 12:   xxxxxxxx   xxxxxxxx
                 319725AA   00000000

PANEL FUNC 13:   xxxxxxxx    xxxxxxxx
                 xxxxxxxx    xxxxxxxx
```

Characters	Description / Meaning	Length
5200	FRU 1 - Ref Code = 5200	4 Characters
245E	FRU 1 - Type = 245E	4 Characters
8100	FRU 2 - Ref Code = 8100	4 Characters
3197	FRU 2 - Type = 3197	4 Characters
9300	FRU 3 - Ref Code = 9300	4 Characters
25AA	FRU 3 - Type = 25AA	4 Characters

Below is the information as shown in a MSD SCREEN:

```
1 -  B4xx____RC01TP01RC02RC03RC04RC05
2 -  DATA0012
3 -  DATA0013
4 -  TP02TP03
5 -  TP04TP05
     .
     .
     .
9 -  DATA0019
```

The FRU information for FRU 1 would be **FI1A** and **FI1B** or for FRU 2 it would be **FI2A** and **FI2B**, and so forth.

Each reference code has an associated Failing Item, given in the table below. Here the failing item is a Symbolic FRU. When you use the reference code and description when following the procedure described in the Symbolic FRU documentation, you should end up with a hardware FRU, code update, or directions to call your next level of support.

Each reference code also has an associated Priority Code. The first digit of the reference code in the table below gives the priority.

- **Mandatory** priority reference codes start with either a **4**, **5**, or **7**.
- **High** priority reference codes start with either a **8**, **9**, or **B**.
- **Low** priority reference codes start with either a **C**, **D**, or **F**.

You should replace all mandatory failing items before the next IPL. A FRU with a high priority has a high probability of resolving the problem. Replace high priority failing items in order, one at a time with an IPL in between. A FRU with a low priority has a low probability of resolving the problem. Replace low priority failing items after replacement of mandatory and high priority items.

For more on the Failing Item column entries, see Table 2. System Processor Failing Items Details — Models 840 & SB3, which follows the reference code table below.

Table 1. (B467) System Processor Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4001	System Card(s) or BackPlane	CCIN
4002	Control panel	CTLPNL
4003	System Card(s) or BackPlane	ANYPROC
4004 to 4005	System Sub-Card(s)	CTLPNCD
4009	System Card(s) or BackPlane	ANYMEM
400A to 400D	System Card(s) or BackPlane	CCIN
40A0	Service processor Licensed Internal Code	AJDGP01
40A1	Licensed Internal Code error	AJDG301
40A2	Service processor Licensed Internal Code	AJDGP01
40A4	Call your next level of support for assistance	NEXTLVL
40A6	Main storage failure	NOMSUSE
40E1	Service processor Licensed Internal Code	AJDGP01

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4100, 4200, 4300, 4500, 4600, 4800, 4900, 4A00, 4B00, 4C00, 4D00, 4E00, 4F00, 5000, 5100, 5200, 5300, 5400, 5500, 5600, 5700, 5800	System Card(s) or BackPlane	CCIN
7101 to 710F, 7110, 7140 to 7143	System bus error	RIOPORT
7201, 7280	Bus expansion card	MUMIOCD
7281 to 7283	System bus error	RIOPORT
7301	Bus expansion card	FI00015
7302 to 7305	Optical link on Bus Expansion Adapter card failed	FI00017
7306	Bus expansion card	FI00015
7307 to 730A	Optical link on Bus Expansion Adapter card failed	FI00017
730B	Bus expansion card	FI00015
730C to 730F	Optical link on Bus Expansion Adapter card failed	FI00017
73FF	Optical link on Bus Expansion Adapter card failed	FI00015
8001	System Card(s) or BackPlane	CCIN
8002	Control panel	CTLPNL
8003	System Card(s) or BackPlane	ANYPROC
8004 to 8005	System Sub-Card(s)	CTLPNCD
8009	System Card(s) or BackPlane	ANYMEM
800A to 800D	System Card(s) or BackPlane	CCIN
80A0	Service processor Licensed Internal Code	AJDGP01
80A1	Licensed Internal Code error	AJDG301
80A2	Service processor Licensed Internal Code	AJDGP01
80A4	Call your next level of support for assistance	NEXTLVL
80A6	Main storage failure	NOMSUSE
80E1	Service processor Licensed Internal Code	AJDGP01
8100, 8200, 8300, 8500, 8600, 8800, 8900, 8A00, 8B00, 8C00, 8D00, 8E00, 8F00, 9000, 9100, 9200, 9300, 9400, 9500, 9600, 9700, 9800	System Card(s) or BackPlane	CCIN
B101 to B10F, B110, B140 to B143	System bus error	RIOPORT
B201, B280	Bus expansion card	MUMIOCD
B281 to B283	System bus error	RIOPORT
B301	Bus expansion card	FI00015
B302 to B305	Optical link on Bus Expansion Adapter card failed	FI00017
B306	Bus expansion card	FI00015

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
B307 to B30A	Optical link on Bus Expansion Adapter card failed	FI00017
B30B	Bus expansion card	FI00015
B30C to B30F	Optical link on Bus Expansion Adapter card failed	FI00017
B3FF	Bus expansion card	FI00015
C001	System Card(s) or BackPlane	CCIN
C002	Control panel	CTLPNL
C003	System Card(s) or BackPlane	ANYPROC
C004 to C005	System Sub-Card(s)	CTLPNCD
C009	System Card(s) or BackPlane	ANYMEM
C00A to C00D	System Card(s) or BackPlane	CCIN
C0A0	Service processor Licensed Internal Code	AJDGP01
C0A1	Licensed Internal Code error	AJDG301
C0A2	Service processor Licensed Internal Code	AJDGP01
C0A4	Call your next level of support for assistance	NEXTLVL
C0A6	Main storage failure	NOMSUSE
C0E1	Service processor Licensed Internal Code	AJDGP01
C100, C200, C300, C500, C600, C800, C900, CA00, CB00, CC00, CD00, CE00, CF00, D000, D100, D200, D300, D400, D500, D600, D700, D800	System Card(s) or BackPlane	CCIN
F101 to F10F, F110, F140 to F143	System bus error	RIOPORT
F201, F280	Bus expansion card	MUMIOCD
F281 to F283	System bus error	RIOPORT
F301	Bus expansion card	FI00015
F302 to F305	Optical link on Bus Expansion Adapter card failed	FI00017
F306	Bus expansion card	FI00015
F307 to F30A	Optical link on Bus Expansion Adapter card failed	FI00017
F30B	Bus expansion card	FI00015
F30C to F30F	Optical link on Bus Expansion Adapter card failed	FI00017
F3FF	Bus expansion card	FI00015

Table 2. System Processor Failing Items Details — Models 840 & SB3

Failing Item	Description	Document Description
AJDG301	Slic Code	Service Functions; APAR or LICTR
AJDGP01	Service Processor Code	Service Functions; APAR or LICTR
ANYMEM	Main Storage Card - Location Unknown	Problem Analysis; Symbolic FRU Isolation
ANYPROC	Processor Unknown	Problem Analysis; Symbolic FRU Isolation
CCIN	System Backplane	Problem Analysis; Symbolic FRU Isolation

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Failing Item	Description	Document Description
CTLPNCD	Control Panel Card	Problem Analysis; Symbolic FRU Isolation
MUMIOCD	MUM IO CARD TO CEC	Problem Analysis; Symbolic FRU Isolation
NEXTLVL	Contact your next level of support	Problem Analysis; Symbolic FRU Isolation
NOMSUSE	No usable main storage	Problem Analysis; Symbolic FRU Isolation
RIOPORT	MUM RIO IO PORT	Problem Analysis; Symbolic FRU Isolation

(B4FF) System Processor Reference Codes

Follow the instructions for the model you are working on:

- Models 270, 820, 830, SB2, or SB3
- Models 800, 810, 825, 870, or 890

(B4FF) System Processor Reference Codes — Instructions for Models 270, 820, 830, SB2, or SB3

A major system problem has occurred.

The reference code is the first eight characters of the display data for panel function 11.

1. Is the reference code B4FF 0003?
   - **Yes**: The System cannot find any processors. If you are working on a Model 830 or Model 840, the PCI drawer may be the failing item. See the Symbolic FRU TWRPLNR. If that fails to correct the problem, exchange the J-Tag cable. See the Power and signal cables table for the system on which you are working. If that fails to correct the problem, any processor may be the failing item. Refer to Symbolic FRU ANYPROC, for the procedure to determine processor location and part information.

     If this does not fix the problem, contact your next level of support.

     This ends the procedure.
   - **No**: Continue with the next step.
2. Is the reference code B4FF 00B7?
   - **Yes**: The system did not pass a check for a minimum amount of hardware present in order for the IPL to continue. There may be a hardware failure causing the problem. Please choose from the following actions:
     - **For Models 270 and 820:** Replace the System Unit Backplane (see Locations – Model 270 or Locations – Model 820).
     - **For Models 830 and SB2:** Replace the Bridge card in C08 of the FC 9074 Base I/O Tower (see Locations – Model 830).
     - **For Models 840 and SB3:** Replace the Bridge card in C08 of the FC 9079 Base I/O Tower (see Locations – Model 840

     If the problem is not resolved after replacing the part listed above, contact your next level of support. They will need the step code in word 13 of the SRC to proceed.
   - **No**: Continue with the next step.
3. Is the reference code B4FF 80A0?

- **Yes**: There was a failed attempt to call the SRC function instruction start or instruction stop. This may be caused by a code problem. Load AJDGP01 from RETAIN. IPL the system. If the problem is not corrected, contact your next level of support.
- **No**: Continue with the next step.

4. Choose one of the following:
   - If you are working on a system Model 270 or 820, then continue with the next step.
   - If you are working on a system Model 830, 840, SB2, or SB3, then go to step 6 of this procedure.
5. Is the reference code B4FF 00B0 or B4FF 00B1?
   - **No**: Contact your next level of support.

     This ends the procedure.
   - **Yes**: If the reference code is B4FF00B1, then the System Unit Backplane may be the failing item. If the reference code is B4FF00B0, then the System Unit Backplane may be the failing item, or the failure may be caused by the Licensed Internal code. For either reference code, perform the following:

     Note: If the reference code B4FF 00B1 occurred after a power outage, try removing incoming power, reapplying it, and then retrying the IPL.

     a. Before exchanging any parts, verify that all connections to the System Unit Backplane are secure.
     b. Exchange the System Unit Backplane in position MB1.
        - **For Model 270**: To determine the location, CCIN, part number, and removal and installation procedure for the System Unit Backplane, locate card position MB1 in the FRU Locations and Failing Components table for the processor feature code of the Model 270 you are working on. Use Locations -- Model 270 and the processor feature code to determine which Model 270 locations diagram and FRU Locations and Failing Components table to use.
        - **For Model 820**: To determine the location of the System Unit Backplane, see Model 820 locations. To determine the CCIN, part number, and removal and installation procedure for the System Unit Backplane, locate card position MB1 and FRU name "System Unit Backplane" in Model 820.

     If this does not fix the problem, contact your next level of support.

     This ends the procedure.
6. Is the reference code B4FF 00B0 or B4FF 00B1?
   - **Yes**: Continue with the next step.
   - **No**: Go to step 8 on page 260 of this procedure.
7. If the SRC B4FF 00B1 occurred after a power outage, remove the incoming power, wait 30 seconds, reapply the power and retry the IPL. If the system IPLs without the error, the procedure is complete. If the reference code is B4FF00B1, then the HSL I/O bridge card may be the failing item. If the reference code is B4FF00B0, then the HSL I/O bridge Card may be the failing item, or the failure may be caused by the Licensed Internal code. For either reference code, exchange HSL I/O bridge card in location C08. To determine the CCIN, part number, and removal and installation procedure, locate card position C08 and FRU name "HSL I/O bridge card" from the following:

- For Models 830 and SB2, see Locations -- Models 830, SB2 System Unit with FC 9074 Base I/O Tower.
- For Models 840 and SB3, see Locations -- Models 840, SB3 System Unit with Processor Tower and FC 9079 Base I/O Tower.

Did this fix the problem?

- **Yes**: **This ends the procedure.**
- **No**: Exchange the Tower Card in position CB1. To determine CCIN, part number, and removal and installation procedure, locate card position CB1 and FRU name ″ Tower Card″ from the following:
  - For Model 830, SB2 see Locations -- Models 830, SB2 System Unit with FC 9074 Base I/O Tower.
  - For Model 840, SB3 see Locations -- Models 840, SB3 System Unit with Processor Tower and FC 9079 Base I/O Tower.

If the problem still has not been fixed, contact your next level of support.

This ends the procedure.

8. Is the reference code B4FF00B3?
   - **No**: Contact your next level of support.

     This ends the procedure.
   - **Yes**: Continue with the next step.
9. Choose one of the following:
   - The system cannot find any processors. If you are working on a Model 830 or a Model 840, the PCI drawer may be the failing item. See Symbolic FRU TWRPLNR . If that fails to correct the problem, exchange the J-Tag cable. See the Power and Signal cables table for the system on which you are working. If that fails to correct the problem, any processor may be the failing item. Refer to Symbolic FRU ANYPROC for the procedure to determine processor location and part information.
   - **For system Models 830 and SB2:** The Clock card in location M06A may be the failing item. To determine the CCIN, part number, and removal and installation procedure, locate card position M06A and FRU name ″Clock Card″ in Locations -- Models 830, SB2 System Unit with FC 9074 Base I/O Tower. Exchange the failing item.

     Did this fix the problem?

     - **Yes**: **This ends the procedure.**
     - **No**: Exchange the network interface controller (NIC) card. To determine the CCIN, part number, and removal and installation procedure, locate card position M06 and FRU name ″network interface controller (NIC) card″ in Locations -- Models 830, SB2 System Unit with FC 9074 Base I/O Tower.

       If the problem still is not fixed, contact your next level of support.

       This ends the procedure.
   - **For system Models 840 and SB3:** The network interface controller (NIC) card in location M17 may be the failing item. To determine the CCIN, part number, and removal and installation procedure, locate card position M17 and FRU name ″network interface controller (NIC) card″ in Locations -- Models 840, SB3 System Unit with Processor Tower and FC 9079 Base I/O Tower. Exchange the failing item.

     If this did not fix the problem, contact your next level of support.

     This ends the procedure.

(B4FF) System Processor Reference Codes — Instructions for Models 800, 810, 825, 870, and 890

An SRC starting with B4FF indicates the system failed to complete an IPL because of a processor related problem. Find the full SRC from the list below and take the indicated action to correct the problem.

B4FF00B0 or B4FF00B1: Indicates a problem with either the Service Processor code or the load source RIO Bridge.

1. If the SRC B4FF 00B1 occurred after a power outage, remove the incoming power, wait 30 seconds, reapply the power and retry IPL. If the system IPLs without the error, the procedure is complete.
2. Load AJDGP01 from RETAIN. IPL the system. If the problem is not corrected, continue with the next step.
3. Replace the load source RIO Bridge.
   - For **Models 800 and 810**: Replace the System Unit Backplane. See Locations – Models 800 and 810 for location information, and a link to the remove and replace instructions.
   - For **Model 825**: Replace the System Unit Backplane. See Locations – Model 825 for location information, and a link to the remove and replace instructions.
   - For **Models 870 and 890**: Replace the Tower card in the base I/O Unit. See Locations – Models 870 and 890
4. **B4FF00B3**: Indicates a problem with a processor or Service Processor code. Load AJDGP01 from RETAIN. IPL the system. If the problem is not corrected, follow the instructions for the Model you are working on.
   - For **Models 800 and 810**: Replace the System unit backplane. See Locations – Models 800 and 810 for location information, and a link to the remove and replace instructions.
   - For **Model 825**: Replace the MCM module. See Locations – Model 825 for location information, and a link to the remove and replace instructions.
   - For **Models 870 and 890**: Replace the MCM module in location M21. See Locations – Models 870 and 890 for location information, and a link to the remove and replace instructions.
5. **B4FF00B4**: Indicates a problem with a processor or Service Processor code. Load AJDGP01 from RETAIN. IPL the system. If the problem is not corrected, follow the instructions for the Model you are working on.
   - For **Models 800 and 810**: Replace the System unit backplane. See Locations – Models 800 and 810 for location information, and a link to the remove and replace instructions.
   - For **Model 825**: Replace the Processor in location C13. See Locations – Model 825 for location information, and a link to the remove and replace instructions.
   - For **Models 870 and 890**: Replace the MCM module in location M11. See Locations – Models 870 and 890
6. **B4FF00B5**: Indicates a problem with a processor or Service Processor code. Load AJDGP01 from RETAIN. IPL the system. If the problem is not corrected, follow the instructions for the Model you are working on.
   - For **Models 800 and 810**: Replace the System unit backplane. See Locations – Models 800 and 810 for location information, and a link to the remove and replace instructions.

- For **Model 825**: Replace the Processor in location C13. See Locations – Model 825 for location information, and a link to the remove and replace instructions.
- For **Models 870 and 890**: Replace the MCM module in location M16. See Locations – Models 870 and 890 for location information, and the link to the remove and replace instructions.

7. **B4FF00B6**: Indicates a problem with a processor or Service Processor code. Load AJDGP01 from RETAIN. IPL the system. If the problem is not corrected, follow the instructions for the Model you are working on.
   - For **Models 800 and 810**: Replace the System unit backplane. See Locations – Models 800 and 810 for location information, and a link to the remove and replace instructions.
   - For **Models 870 and 890**: Replace the MCM module in location M14. See Locations – Models 870 and 890 for location information, and a link to the remove and replace instructions.
8. **B4FF00B7**: The system did not pass a check for a minimum hardware configuration present in order for the IPL to continue. The group of chips failed to meet the requirement are given in word 13 of the SRC. Check to see if the PCI cards are properly seated in the card slots, and that any cables are cleaned and properly connected to the cards. Then re-IPL the system. If that does not correct the problem, replace the Service Processor. See the Locations and addresses page for the model you are working on. If that does not correct the problem, call your next level of support.
9. **B4FF0EAF**: Indicates a problem with Service Processor code. Load AJDGP01 from RETAIN. IPL the system. If the problem is not corrected, contact your next level of support.

(B6xx) Licensed Internal Code (LIC) Reference Codes

Use this table for both A6xx and B6xx reference codes.Bus errors are of the form B600 69xx. Other subsystems that produce Licensed Internal Code errors are also represented in the B600 Reference Code Table.

Perform the following:

1. Find the SRC in the **SRC** column of the following table.
2. Perform the actions in the **What You Should Do** column of the table.

In all cases, once the failing item is determined, go to the locations table for the system or tower you are working on to determine the location, and remove and replace procedure for the failing item.

SRC	What You Should Do
11 A6xx xxxx	Licensed Internal Code intervention is needed. 1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code. 2. See the table below and find the unit reference code.

SRC	What You Should Do
11 B6xx xxxx	The Licensed Internal Code detected a failure. 1. Look at characters 5 through 8 of the top 16 character line of function 11 (4 rightmost characters of word 1). These 4 characters are the unit reference code. 2. See the table below and find the unit reference code. 3. When working with the Product Activity Log, system LIC entries often occur as a secondary effect of other hardware related entries. The following list is a suggested method of isolating these kinds of problems. a. Examine the date and time of the informational reference codes. b. Determine if any other reference codes were logged at or before the same date and time. c. Start the service approach based on these other logged errors.

For more on the Failing Item column entries, see Licensed Internal Code (LIC) Failing Items Details, which follows the reference code table below.

Table 1. (B6xx) Licensed Internal Code (LIC) Reference Codes

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0000	Operating system status code This reference code is for information only. It is shown in the Product activity log as a side effect of a condition that was detected by LIC. Normally, no action should be taken as a result of information reference codes. However, to isolate the root cause, use these suggestions: 1. Examine the date and time of the informational reference code. 2. Determine if any other reference codes have been logged at or before the same date and time. 3. Begin the service approach based on these other logged errors.	
0102	A machine check occurred during IPL Words 2 to 9 of this SRC contain additional diagnostic information. Record SRC words 1 through 9 before attempting to IPL again and report the problem to your Software Service Provider.	
0103	Main storage dump must be copied for service. Perform LIC-PIP1.	
0104	Terminate Immediate reference code is bad Perform LIC-PIP8.	AJDG301
0105	More than one request to terminate the system was issued Perform LIC-PIP8.	AJDG301
0106	Terminate Immediate data is not valid Perform LIC-PIP8.	AJDG301

B6xx (including A6xx)

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0202	Unrecoverable read error Restore the Licensed Internal Code using “Licensed Internal Code Install and Restore” in the *iSeries Service Functions* information.	
0210	The system ASP has run out of disk storage The out of storage condition in the system ASP can be caused by an allocation failure in some other system software. This could be a looping condition that continues to allocate storage. Conact your service representative for assistance with the Main Storage Dump.	
0244, 0255, 0266	Contact was lost with the device indicated Do not power off the system. Perform LIC-PIP13.	FI00580 FI00500 FI00302 FI00301 AJDG301
0277	A compression disk unit cannot complete an operation. **Note:** Do not power off the system when performing this procedure. Look at the 4 leftmost characters of the Data display for word 7. These four characters indicate the type of problem that exists and the recovery action to perform. If these characters are 8402 or 2002, the compression disk unit is temporarily full of data. The command to the compression disk is being held. When the storage subsystem controller has created sufficient space on the compression disk unit to contain the data, the command which is being held will be released and the system will resume normal processing. If the system does not resume normal processing within 20 minutes, contact your next level of support. If these characters are 8400 or 2000, the compression disk unit is full of data. The command to the compression disk is being held. Ask the customer to perform the recovery actions in the ″Disk Unit Full Considerations″ section of the Backup and Recovery Guide, SC41-5304.	
0302	Recursion in exception handler Perform LIC-PIP8.	AJDG301
0304	Component specific exception handler return code not valid Perform LIC-PIP8.	AJDG301
0305	Exception while storage management lock is held Perform LIC-PIP8.	AJDG301
0308	LIC exception code detected a problem Component Specific Exception Handler recursion is detected in an OS/400 process. Perform LIC-PIP8.	AJDG301
0317	Traceback for code not found Perform LIC-PIP8.	AJDG301
0323 to 0329	LIC exception code detected a problem Perform LIC-PIP8.	AJDG301

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0333	A branch to a bad address was attempted Perform LIC-PIP8.	AJDG301
0334	Exception Handler could not be removed Perform LIC-PIP8.	AJDG301
0335	Code resumed to not valid address following exception Perform LIC-PIP8.	AJDG301
0401	A machine check occurred during IPL Perform LIC-PIP8.	AJDG301
0402	A machine check occurred during authority initialization Perform LIC-PIP8.	AJDG301
0403	Unhandled exception during IPL or install Perform LIC-PIP8.	AJDG301
0405	Unhandled exception in authority recovery Perform LIC-PIP8.	AJDG301
0406	Unhandled exception in data base recovery Perform LIC-PIP8.	AJDG301
0407	Unhandled exception in data base initialization Perform LIC-PIP8.	AJDG301
0408	Unhandled exception in journal recovery Perform LIC-PIP8.	AJDG301
0409	Unhandled exception in journal synchronization Perform LIC-PIP8.	AJDG301
0410	Unhandled exception in journal clean up Perform LIC-PIP8.	AJDG301
0411	Unhandled exception in commit recovery Perform LIC-PIP8.	AJDG301
0412	Unhandled exception in commit initialization Perform LIC-PIP8.	AJDG301
0413	Rebuild of recovery object index failed Perform LIC-PIP8.	AJDG301
0414	Install of operating system failed on read from media Perform LIC-PIP8.	FI00300
0415	Create user profile failed Perform LIC-PIP8.	AJDG301
0417	Initiating the initial process failed Perform LIC-PIP8.	AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0418 to 0419, 0420	The information loaded from the install media is not valid Perform LIC-PIP8.	AJDG301
0421	Bad return code creating a queue or message Perform LIC-PIP8.	AJDG301
0422	The Load/Dump command failed Perform LIC-PIP8.	AJDG301
0439	Opening the IPCF connection failed Perform LIC-PIP8.	AJDG301
0440	Termination code is not valid Perform LIC-PIP8.	AJDG301
0441	Power off system command failed Perform LIC-PIP8.	AJDG301
0443	Programmed IPL command failure Perform LIC-PIP8.	AJDG301
0446	Error during machine termination Perform LIC-PIP8.	AJDG301
0447	Failure to reach MI boundary Perform LIC-PIP8.	AJDG301
0449	Exception in MI boundary manager Perform LIC-PIP8.	AJDG301
0506	Attempt to destroy a task with critical flag on Perform LIC-PIP8.	AJDG301
0607	Maximum stack size exceeded in process or task Perform LIC-PIP8.	AJDG301
0620	Event management index is not usable Perform LIC-PIP8.	AJDG301
0650	Resource management segment could not be created or extended A main store dump was initiated. Words 2 to 9 of this SRC contain additional diagnostic information. Record SRC words 1 through 9. Perform a system IPL and collect the Product activity log and mainstore dump and provide them along with the recorded SRC information to IBM Service Support. The problem may also be that there is not enough auxiliary storage.	AJDG301

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
0801	Invalid LID directory detected During system IPL, the LIDMgr detected an I/O failure or media failure while trying to read the LID directory. Perform LIC-PIP8.	FI00070 FI00300 AJDG301
0802	LID directory unusable During system IPL, the LIDMgr detected that the LID directory and associated load source is not usable. Reinstall the Licensed Internal Code using "Licensed Internal Code Install and Restore" in the *iSeries Service Functions* information. For more information, contact IBM Service Support.	AJDG301
0901	The LinkLoader has found its bad flag ON This reference code is usually the result of a system termination while the LinkLoader is performing its work. Reinstall the Licensed Internal Code using "Licensed Internal Code Install and Restore" in the *iSeries Service Functions* information.	
0902	Unable to perform programmed IPL The LinkLoader was not successful in performing a programmed IPL. Perform a system IPL. If the problem persists, examine the main storage dump and determine the reason for the failure of the programmed IPL.	
1001	Enqueuing a task to the TDQ which is already enqueued on TDQ Perform LIC-PIP8.	AJDG301
1103	MISR not readable; must be readable for Normal Mode install MISR is not readable. Perform a manual install to reinitialize the system.	
1104	Failure reading media or not install media Determine that correct install media is loaded. If correct install media is installed, media could be corrupt. Obtain another copy of the install media and reattempt the install. If the install still fails, contact your service representative.	
1201	Critical database segment could not be created Perform LIC-PIP8.	AJDG301
1204	Error in constraint enforcement Perform LIC-PIP8.	AJDG301
1210	Object not found in the in-use table Perform LIC-PIP8.	AJDG301
1215	Error in critical code sequence Perform LIC-PIP8.	AJDG301
1219	A back leveled driver has been detected Perform LIC-PIP8.	AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
1604	Not able to create APPN task An error occurred during task creation which requires a power off of the system. Perform LIC-PIP8.	AJDG301
1724	An attempt to create a segment failed The create could fail for two reasons: • A code problem Perform LIC-PIP8. • No free auxiliary storage on the system Add additional DASD if the create failed because no auxiliary storage was available.	AJDG301
1730	An IPL is needed to restore system performance Licensed Internal Code has detected a condition that is impacting system performance. System operation can continue, but system performance may be noticeably reduced until the next IPL. Look at the Product Activity Log entry, and find the value at offset x'000180'. If the value equals x'00000122', the error was caused by too much processor memory being installed. For more information, contact IBM Service Support.	GG3PL01
3000	Logical partition service function Main Storage Dump. Copy the current main storage dump to media. For more information on how to copy a Main Storage Dump, refer to the *iSeries* Service Functions Information (see "Copying a Main Storage Dump" under "Working with Storage Dumps").	AJDG301
4401	Missing DASD units. Copy the current main storage dump to media. For more information on how to perform a Main Storage Dump, refer to *iSeries* Service Functions information (see "Copying a Main Storage Dump" under "Working with Storage Dumps").	
4402	Missing DASD units. Copy the current main storage dump to media. Then exit the Main Storage Dump Manager. For more information on how to perform a Main Storage Dump, refer to *iSeries* Service Functions information (see "Copying a Main Storage Dump" under "Working with Storage Dumps").	
4403	Storage Management failed to reach full paging. Copy the current main storage dump to media. For more information on how to perform a Main Storage Dump, refer to *iSeries* Service Functions information (see "Copying a Main Storage Dump" under "Working with Storage Dumps").	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4404	Auto copy failed or not attempted. Copy the current main storage dump. If copying to system ASP, existing copies may need to be deleted or renamed. Then exit the Main Storage Dump Manager. For more information on how to perform a Main Storage Dump, refer to *iSeries* Service Functions information (see ″Copying a Main Storage Dump″ under ″Working with Storage Dumps″).	
4405	System ASP threshold exceeded after auto copy done. Delete other system ASP copies or exit the Main Storage Dump Manager and then from DST copy the Auto Copy to media and then delete the Auto Copy in system ASP.	
4700	Processor On Demand error detected. Processor on Demand Data Block key is not valid. Replace the Processor Capacity card.	CTLPNCD
4701	Processor On Demand error detected. Processor On Demand Data Block contains data that does not match the expected data. Contact your service provider.	AJDG301
4703	Processor On Demand error detected. Processor On Demand Serialization has failed during IPL. Contact your service provider.	AJDG301
4710	Processor On Demand error detected. SPCN communication failure during Processor On Demand. Look in the Product Activity Log for other SPCN errors and perform the actions indicated for those errors.	SPNLCRD
4712	Processor On Demand error detected. Correct any Processor Capacity card or SPCN failures.	CTLPNCD
4713	Incorrect Processor Capacity Card installed. The Processor Capacity Card is the failing item since it has been swapped in from a different system. Put the Procesor Capacity Card back in the system it came from, and re-install this system's original Processor Capacity Card.	CTLPNCD
4714	Processor Capacity card replaced on unactivated POD system. Processor Capacity Card replaced on unactivated Processor On Demand System. Contact your service provider.	
4715	Processor On Demand error detected. Correct any Processor Capacity card or SPCN failures.	CTLPNCD

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
4730	Processor On Demand error detected. Processor On Demand standby processors are in use. Contact your service provider.	AJDG301
4731	Processor On Demand error detected. The Processor On Demand Trial Activation period is not valid. Contact your next level of support.	AJDG301
4733	Processor On Demand error detected. Contact your service provider.	AJDG301
4740	Processor On Demand error detected. The Processor On Demand Activation code just entered is not valid. Contact your next level of support.	AJDG301
4741	Processor On Demand error detected. A nonvalid Processor On Demand Activation code has been entered more than 5 consecutive times. Contact your service provider.	AJDG301
4745	Processor Capacity card replaced on activated POD system. Contact IBM Support to order a replacement Processor On Demand activation code.	
4747	1 hour left in POD 14 day Trial Activation Period. If a new activation code was purchased, it should be entered now. Otherwise, the system will revert back to its previous activation state at the end of the Trial Activation Period.	
5001	DST received no response from a work station controller The workstation I/O processor for the system or partition console did not respond. If the system uses an *iSeries* Operations Console, perform OPCON-PIP1. Otherwise, perform BUS-PIPCNSL01.	FI00380 AJDG301
5002	DST problem attempting to use the system console A code problem occurred during an attempt to use the system console. Perform LIC-PIP3.	AJDG301 FI00380
5003	Service program failed The ASCII system console failed to respond.	FI00320 FI00602 UG3USR1 AJDG301 FI00380
5004	DST console failed to respond The system console failed to respond. If the system uses an *iSeries* Operations Console, perform OPCON-PIP1. Otherwise, perform TWSC-PIP1.	FI00320 FI00602 UG3USR1 AJDG301 FI00380

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
5005	Service program failed The workstation adapter system console failed to respond. Perform WSAC-PIP1.	FI00320 FI00602 UG3USR1 AJDG301 FI00380
5007	Service program failed The workstation adapter console failed to respond. If the system uses an *iSeries* Operations Console, perform OPCON-PIP1. Otherwise, perform WSAC-PIP1.	FI00320 FI00602 UG3USR1 AJDG301 FI00380
5008	DST console failed to respond Perform Operations Console-PIP3.	FI00719
5010	IPL service function ended abnormally Perform LIC-PIP4.	AJDG301
5082	DST lost contact with the console A service program lost contact with the system console. Do you have a twinaxial terminal for the console? **No** **Yes** ↓ Perform TWSC-PIP1. Perform WSAC-PIP1.	AJDG301 UG3USR1
5083	IPL service function ended abnormally A service program lost contact with the system console. Perform TWSC-PIP1.	AJDG301 UG3USR1
5090	System startup failed in unattended IPL mode Perform the following: • If reference code A6005090 is displayed on the control panel for more than 10 minutes, perform LIC-PIP11. • For reference code B6005090, perform LIC-PIP11.	FI00580 FI00500 FI00301 FI00021 FI00065 AJDG301
5092	System is in DASD migration mode "Install Licensed Internal Code" and "Upgrade Load Source" was specified but the key is not in the manual position. Change the key position to manual and perform a system IPL.	
5094	IASP detected a failure during the vary on operation Perform LIC-PIP12.	SVCDOCS
50FF	DST unrecoverable program error Perform LIC-PIP3.	AJDG301 FI00380

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
5120	System LIC detected a program exception System LIC detected a programming problem. If performance or other system degradation is occurring, the system may be operating with reduced resources. Check the Product activity log for related entries. If this reference code is logged with a *Class* of Informational, then no action is required. Otherwise, perform LIC-PIP1.	AJDG301 FI00130
5121	System LIC program exception occurred System LIC detected a programming problem for which a main storage dump may have been initiated. A problem log entry may be generated for this ref code. Perform LIC-PIP1.	AJDG301
5122	System LIC program exception occurred System LIC detected an IOP programming problem for which an IOP dump may have been initiated. Perform LIC-PIP1.	FI00130 AJDG301 FI00131
5123	System LIC program exception occurred System LIC detected an interface problem with the IOP or an IOP programming problem for which an IOP and main storage dump may have been initiated. Perform LIC-PIP1.	FI00130 AJDG301 FI00131
5126	Addressed device failed to respond to selection	DISKDRV STORIOA DISKTRY FI01106 FI01140 FI01141 DEVTERM BACKPLN
5127	IOP timed out a disk command	DISKDRV STORIOA FI01106 DISKTRY FI01140 FI01141 DEVTERM BACKPLN
5128	I/O processor failure	FI01112 FI01107
512D	An IOP dump was initiated Copy the IOP dump entry and any related entries from the Product Activity Log to suitable media, and give to an IBM service representative.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
512E	System LIC program exception occurred The system was in a D IPL mode when the problem was detected. A main storage dump was not taken. Perform LIC-PIP1.	AJDG301 FI00130
5206	System LIC detected a missing IOP LIC code load System LIC detected a missing IOP LIC code load during IPL of the IOP. This indicates that either the IOP code load is not installed on the system load source device or that system LIC was unable to successfully read that load from the load source device. Perform LIC-PIP1.	UG3USR1
5209	System LIC detected an IOP timeout during IOP IPL Verify that all IOP cable connections are secure, and check tape and other non-disk devices and media to verify that they are in a ready state. Perform LIC-PIP1.	UG3USR1 FI00130 AJDG301
5219	System LIC program exception occurred An IOP signalled to system LIC that it had entered a critical internal state. LIC automatically attempted to restart the IOP. This reference code is logged for information only. No action is required.	FI00310 FI00318 FI00065 FI00130 AJDG301
5275	The system issued a reset/reload to the IOP. System Licensed Internal Code detected that an IOP Reset/Reload has occurred, and that the IOP sucessfully recovered. Users who were signed on to a Workstation device under the IOP will need to sign back on. Any LAN/WAN communications lines under the IOP will need to be restarted. Tape/Optical devices under the IOP may need to be varied back on. To determine the cause of the IOP Reset/Reload, check the Product Activity Log for additional entries logged with the same System Log ID, and perform any actions indicated for those errors.	
5276	IOP Reset was issued LIC has detected a problem with the Service Processor IOP and has reset it but has not initiated reload of the Service Processor. If the load source is mirrored, some system operations may be able to continue normally. However, some system service operations have been suspended and the system should be scheduled for power down as soon as possible. Perform a system IPL. If the IPL is successful, then perform LIC-PIP1 to determine the cause of the problem. If the system IPL is not successful, perform the action described in the new SRC.	AJGLD01 AJDG301 FI00021
5310	System LIC program exception occurred System LIC detected a logical partition configuration data consistency error. Copy the Product Activity Log data for this error and any related entries and contact your next level of hardware service support.	LPARSUP

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
5311	System LIC program exception occurred LPAR configuration data does not match current system configuration. The system will not IPL past DST until the problem is corrected. Following is a list of problems which may have caused this SRC to be reported: • Non-configured disk unit which was previously a load source on a partitioned system. • Load source configuration data does not match partition for which it is being used. • Load source configuration data does not match system serial number for which it is being used. • Load source configuration data is newer than primary partition configuration data. Perform LPAR-PIP01.	LPARSUP
5312	System LIC program exception occurred LPAR configuration data informational error. The LPAR configuration data was found to be or inconsistent on a secondary partition's load source. The data was automatically updated to the current system level.	
5313	System LIC program exception occurred LPAR configuration data informational error. The LPAR configuration data was found to be inconsistent on a primary partition and could only be corrected with an older copy of the data.	LPARCFG
5340	Secondary partition not running at optimum. Check the Primary partition's Product Activity Log for system processor entries from approximately the same time. Perform the actions indicated for those entries. For more information on Logical Partitioning, see the Logical Partitioning Information in the *iSeries Service Functions*.	
5341	Secondary partition not running at optimum. Check the primary partition Product Activity Log for system memory entries from approximately the same time. Perform the actions indicated for those entries. For more information on Logical Partitioning, see the Logical Partitioning Information in the *iSeries Service Functions*.	
5342	Secondary partition not running at optimum. Check the Primary partition's Product Activity Log for system processor entries from approximately the same time. Perform the actions indicated for those entries. For more information on Logical Partitioning, see the Logical Partitioning Information in the *iSeries Service Functions*.	
5343	Secondary partition not running at optimum. Check the Primary partition's Product Activity Log for system memory errors from approximately the same time. Perform the actions indicated for those entries. For more information on Logical Partitioning see the Logical Partitioning Information in the *iSeries Service Functions*.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
5344	Secondary partition not running at optimum. The interactive performance specified in the configuration data for this partition could not be met. Contact your next level of support.	LPARSUP
5350	Secondary partition software release not supported. The logical partition software version is outside the supported release delta. Check the Release Delta from the Primary partition ″Display Partition Release Level″ screen. Check the LPAR documentation for the release level of the Primary partition and determine what the supported Release Delta is.	
5380	System LIC program exception occurred Record the Procduct Activity Log (PAL) hex data for this SRC or print the PAL entry. Contact your next level of support.	LPARSUP
5390	System LIC program exception occurred Record the Product Actvity Log (PAL) hex data for this SRC or print the PAL entry. Contact your next level of support.	LPARSUP
5555	SLIC I/O DASD subsystem error recovery in progress.	
6900	System bus error If you are working on a model 270, 7xx, or 8xx, the possible failing items are SIADPCD and MA_BRDG. Continue by working those symbolic FRUs. The copper bus, bus 4 in the SPD migrated tower, is inoperative due to a stuck line or a parity error. Any SPD system bus-related hardware on bus 4 may have failed including the HSL I/O bridge or HSL cable connecting SPD bus 4 to the HSL loop. Perform BUS-PIP1.	FI00065 AJDG301
6901	Bus Expansion Adapter card failed The copper bus, the first SPD bus in the system unit or migrated tower, has failed due to an internal chip error on the local bus adapter. Perform BUS-PIP1. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	LBUSADP AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6902	Bus Expansion Adapter card failed An optical bus has failed due to an internal chip error on one of the remote bus adapters. Perform BUS-PIP1.	FI00203 AJDG301
6905	Optical bus failed An optical bus is inoperative due to a stuck line or an invalid bus command. Any bus-related hardware may have failed. Perform BUS-PIP1. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	FI00065 LBUSADP AJDG301
6906	High Speed Link (HSL) I/O bridge failure LIC could not access part of the HSL I/O bridge VPD. The bridge and HSL loop may be prevented from becoming operational. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SIIOADP OPT_CLN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6907	High Speed Link (HSL) I/O bridge failure LIC detected invalid data in the HSL I/O bridge VPD. The bridge and HSL loop may not have become operational. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SIIOADP OPT_CLN
6908	High Speed Link (HSL) I/O bridge failure LIC data in the I/O bus vpd could not be accessed. The I/O Bus identified in the SRC may not have become operational. If there is a B600 6906 reference code, close this problem in the SAL and work the 6906 error. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SIIOADP OPT_CLN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6909	High Speed Link (HSL) I/O bridge failure LIC detected invalid data in the I/O bus VPD. The bus and resources associated with it may not be operational. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed. If the Srevice Action Log only indicated a frame number, see the locations section for the frame type. The location of the HSL I/O Bridge will be given in the tables. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SIIOADP OPT_CLN
6910	I/O processor failure An I/O processor timed out, returned bad status, or is not following the system bus protocol. Perform LIC-PIP7.	FI00310 FI00318 FI00065 FI00130 AJDG301
6938	Not valid system configuration detected This system model does not allow a configuration of more than three (non-OptiConnect) I/O Processors. Power down the system and remove the extra (non-OptiConnect) I/O Processor(s) so that there are three or less. Restart the system.	
6944	Missing or failed I/O processor cards A system bus appears to be empty. If the bus is not empty, two I/O processors in consecutive slots may be missing or broken. If there are broken I/O processors, then another more serious SRC has occurred. Otherwise find the bus number for this failure from the Product activity log and use the system configuration list to verify the configuration of the I/O processors on that bus.	FI00317 FI00316 AJDG301
6960	Multi-adapter bridge card slot error, do not use card slot Slot unavailable due to 64 bit card in adjacent slot. One of the messages documented with the symbolic FRU will describe the problem. See the SLOTERR symbolic FRU for a list of messages and corrective actions.	SLOTERR

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6961	Multi-adapter bridge card slot error, do not use card slot LED control failure, do not use slot. The card location is not available for use. The Failing Item with the card slot error is in the Failing Item list for this reference code. See the SLOTERR symbolic FRU for the list of messages and a further description of the problem detected by Licensed Internal Code. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	SLOTERR MASBUS
6962	Multi-adapter bridge card slot error, do not use card slot Power control failure, do not use slot. If there is a Linux partition in the system, any IOPs plugged into slots owned by a Linux partition will not power on. This error will be logged. Correct the situation by removing the IOP cards. The card location is not available for use. The Failing Item with the card slot error is in the Failing Item list for this reference code. See the SLOTERR symbolic FRU for the list of messages and a further description of the problem detected by Licensed Internal Code. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	SLOTERR MASBUS

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6963	Multi-adapter bridge card slot error, do not use card slot Power control failure, do not use slot. The card location is not available for use. The Failing Item with the card slot error is in the Failing Item list for this reference code. See the SLOTERR symbolic FRU for the list of messages and a further description of the problem detected by Licensed Internal Code. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	SLOTERR MASBUS
6964	Multi-adapter bridge configuration change or error Multi-adapter bridge has no IOP for the I/O adapters. LIC detected I/O adapters under the multi-adapter bridge but did not detect an I/O processor. The I/O adapters are not available. See the MABRCFG symbolic FRU for the list of messages, a further description of the problem detected by Licensed Internal Code and the corrective action. If there is a Linux partition in the system, any IOPs plugged into slots owned by a Linux partition will not power on. This error will be logged. Correct the situation by removing the IOP cards.	MABRCFG
6965	Multi-adapter bridge configuration change or error Card type not supported in this slot. An I/O processor or I/O adapter card type is installed in the location indicated in word 7 of the SRC. The card type is not supported in that slot under the Multi-adapter bridge. The card is unavailable. See the MABRCFG symbolic FRU for the list of messages, a further description of the problem detected by Licensed Internal Code and the corrective action.	MABRCFG
6966	Multi-adapter bridge configuration change or error I/O processor removed from multi-adapter bridge card slot. On the previous IPL an I/O processor was in the card location specified in word 7 of the SRC. The I/O processor was not detected on this IPL. See the MABRCFG symbolic FRU for the list of messages, a further description of the problem detected by Licensed Internal Code and the corrective action.	MABRCFG

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6967	Multi-adapter bridge configuration change or error I/O adapter unavailable due to moved I/O processor card. The I/O adapter specified in word 7 of the SRC is not available. On the previous IPL there was an I/O processor card the adapter was assigend to. The I/O processor was not detected on this IPL. See the MABRCFG symbolic FRU for the list of messages, a further description of the problem detected by Licensed Internal Code and the corrective action.	MABRCFG
6968	Multi-adapter bridge configuration change or error IOA removed from multi-adapter bridge slot. On the previous IPL an I/O adapter was in the card slot specified in word 7 of the SRC. That I/O adapter was not detected on this IPL. See the MABRCFG symbolic FRU for the list of messages, a further description of the problem detected by Licensed Internal Code and the corrective action.	MABRCFG
6969	Multi-adapter bridge configuration change or error I/O adapter replaced by I/O processor card. On the previous IPL there was an I/O adapter in the location specified in word 7 of the SRC. This IPL LIC detected that the IOA was replaced by an IOP in that location. See the MABRCFG symbolic FRU for the list of messages, a further description of the problem detected by Licensed Internal Code and the corrective action.	MABRCFG

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6970	High Speed Link (HSL) resource failure A system PCI bus failure was detected. Word 7 of the SRC contains the bus number. This failure can occur when a tower in an HSL loop is powered off using concurrent maintenance. If this is the case, close this problem. This error is most likely in the hardware that makes up the PCI bus, the PCI bus side of the HSL I/O bridge or the multi-adapter bridge. In some cases it may be caused by a failing IOP in the multi-adapter bridge's domain. When an IOP is causing the problem, the failing IOP cannot be identified. NOTE: This SRC can occur for the PCI bus resource on a PCI bus in an I/O expansion unit when the unit is powered off for a concurrent maintenance action. Exchange the failing items in the order they are listed in the SAL or this document until you get to the PIOCARD failing item. If the problem still exists after exchanging the failing items up to, but not including, PIOCARD then perform BUS-PIPMAB03 to determine the failing I/O processor card. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SI_PHB PRI_PCI MA_BRDG PIOCARD OPT_CLN
6971	High Speed Link (HSL) resource failure Failure in a multi-adapter bridge or on the bus to the card location it controls. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed. Perform BUS-PIPMAB02	MA_BRDG MASBUS PIOCARD

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6972	High Speed Link (HSL) resource failure Multi-adapter Bridge (MaB) failure detected. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	MA_BRDG
6973	High Speed Link (HSL) resource failure Mulit-adapter Bridge has detected a problem in the card installed in the location specified in word 7 of the SRC. If this SRC occurs on a system, check word 5 of the SRC. If word 5 is not zero (0000 0000) , use the FRU list in the Service Action Log or the Symbolic FRU PIOCARD. If word 5 is zero, find the FRU by using the Symbolic FRU SIIOADP.	PIOCARD ---OR-- SIIOADP
6974	Multi-adapter bridge configuration change or error PCI I/O processor rejected the assignment of or the removal of an I/O adapter. The direct select address in word 7 of the SRC specifies the location of the IOA. The direct select address of the IOP is in word 5 of the SRC. Use the DSABRKDWNTAB and the CARDPOSTAB to determine the card locations for the IOA and the IOP. Use slot concurrent maintenance under HSM to assign or remove the IOA.	MABRCFG
6975	The system issued a reset/reload to the service processor. Service processor error.	AJDGP01
6976	Service processor failure. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	SVCPROC

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6980	Network Interface Controller (NIC) resource failure The FRU list displayed in the Service Action Log (SAL) may vary from the failing item list given in this document. Use the FRU list in the SAL if the SAL is available to you. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SICNTRL OPT_CLN
6981	High Speed Link (HSL) I/O bridge failure Cycle power on the frame identified as the frame with failed HSL I/O Bridge prior to replacing FRUs. The FRU list displayed in the Service Action Log (SAL) may vary from the failing item list given in this document. Use the FRU list in the SAL if the SAL is available to you. If you find either a B600 6982 or B600 6984 SRC logged at approximately the same time as this SRC then they were caused by the same failure. If you find a 6982 SRC logged at approximately the same time then close this problem and service the 6982 SRC. The failing item listed for this SRC is one of the failing items listed for B600 6982. If the SAL entry for this SRC has a location listed then record the location for use in servicing the 6982 SRC. NOTE: This SRC can occur for the HSL I/O Bridge resource in an I/O expansion unit when the unit is powered off for a concurrent maintenance action. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SIIOADP OPT_CLN

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6982	High Speed Link (HSL) connection failure Connection failure between HSL links. A B600 6984 SRC may also appear in the PAL. Both SRCs are reporting the same failure. Multiple B600 6982 errors may occur due to retry and recovery activity. If the recovery efforts were successful, there will be a B600 6985 with a xxxx 3206 in word 4 logged after all B600 6982 errors in the PAL. If this is the case, close out all the B600 6982 enteries. NOTE: This SRC can occur for the HSL loop resource when an I/O expansion unit on the loop is powered off for a concurrent maintenance action. 1. If there is a B600 6987 SRC in the SAL logged at about the same time, close this problem and work the B600 6987. Otherwise, continue with the next step. 2. Search for a B600 6981 SRC in the SAL logged at approximately the same time. If you find one then go to step 3. Otherwise perform the following: • Perform BUS-PIPHSL06 to determine if this loop connects to any other systems and return here. (BUSCBLX FRU in the SAL will indicate the loop number this failure is on.) If this loop is connected to other systems then continue with the steps that follow, otherwise go to step 2. • Check for HSL failures in the SALs of the other system(s). HSL failures are SAL entries with HSL I/O Bridge and Network Interface Controller (NIC) resources. Ignore B600 6982 and B600 6984 SRCs. If there are any HSL failures on the other system(s), (not including B600 6982 and B600 6984), then continue with the steps that follow, otherwise go to step 2. • Repair the problem(s) on the other system(s) and then return to this step. After making repairs on other system(s) check the Product Activity Log (PAL) of this system for a B600 6985 and this loop's resource name logged after the repairs you made on the other system(s). If there is a 6985 logged after the repairs on the other system(s) then continue with the steps that follow, otherwise go to step 2. • For the B600 6985 SRC you found use FRU SIRSTAT to determine if it is indicating that the loop is complete. If the loop is complete then this problem has been resolved. Use BUS-PIPHSL01 to verify that the loop is now working properly. Otherwise, go to setp 2. 3. The FRU list displayed in the SAL may be different from the failing item list given here. Use the FRU list in the SAL when it is available. If the Symbolic FRU BUSCBLx is in the SAL for this SRC then perform BUS-PIPHSL01. Otherwise exchange the FRUs in the SAL according to their part action codes. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SIIOADP SICNTRL BUSCBLX REM_NIC OPT_CLN
6983	An invalid High Speed Link (HSL) configuration was detected. An HSL loop has an invalid configuration. Word 4 of the SRC contains the program return code (PRC) which identifies the problem with the loop's configuration. Use the PRC and the FRU listed to determine the problem. If you are using the Service Action Log (SAL) the FRU description may already indicate the configuration problem.	SIRGCFG

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6984	High Speed Link (HSL) loop status message. An HSL loop has switched to its alternate path. This is an informational SRC only. Word 7 of the SRC contains the loop number in the leftmost 4 digits. The loop number is in hexadecimal format. You must convert the hexadecimal loop number into decimal format to recognize the loop number in HSM. This SRC can be caused by a tower on the HSL loop powering off. This SRC may also appear in the SAL with a B600 6982 or B600 6981 logged at approximately the same time. In that case the other SRC is reporting a failure and this SRC is reporting that the alternate HSL path is now being used. Service the other SRC if present.	

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6985	High Speed Link (HSL) loop status message. If this SRC is not in Service Action Log (SAL) then it is informational. Use FRU SIRSTAT to determine what this SRC means. Otherwise, continue with the following steps: This error can appear in the SAL when a tower or another system in the loop did not complete powering on before LIC checked this loop for errors. Search the PAL for all B600 6985 SRCs logged for this loop and use FRU SIRSTAT to determine if this error requires service. There may be multiple B600 6985 with xxxx 3205 in word 4 errors for the same loop resource in the SAL. This is caused by retry and recovery attempts. If there is a B600 6985 with xxxx 3206 in word 4 after the above B600 6985 enteries in the PAL, then the recovery efforts were successful. If this is the case, close all the B600 6985 enteries for that loop resource in the SAL. 1. If you find a B600 6981 in the SAL then close that problem and go to step 2. Otherwise perform the following: • Perform BUS-PIPHSL06 to determine if any other systems are connected to this loop and return here. (BUSCBLX FRU in the SAL indicates the loop number.) If there are other system(s) then continue with the steps that follow, otherwise go to step 2. • Check for HSL failures on the other system(s) before replacing parts. HSL failures are SAL entries with HSL I/O Brige and Network Interface Controller (NIC) resources. Ignore B600 6982 and B600 6984 entries. If there are HSL failures on other system(s) then continue with the steps that follow, otherwise go to step 2. • Repair the problems on the other systems and return to this step. After making repairs on the other system(s) check the PAL of this system for a B600 6985 logged after the repairs you made on the other system(s). If you find one then continue with the steps that follow, otherwise go to step 2. • For the B600 6985 log you found, use FRU SIRSTAT to determine if the loop is now complete. If the loop is complete then this problem has been resolved. Use BUS-PIPHSL01 to verify that the loop is now working properly. Otherwise, go to step 2. 2. Use the SAL's FRU list when it is available. If this SRC appears in the SAL with the Symbolic FRU BUSCBLx listed as a FRU, then perform problem isolation procedure BUS-PIPHSL01. Otherwise exchange the FRUs listed in the SAL according to their part action codes. NOTE: A fiber optic cleaning kit may be required for optical HSL connections.	SIRSTAT ---OR-- SIIOADP SICNTRL BUSCBLX OPT_CLN

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
6986	System bus error During IPL, system LIC detected an HSL I/O bridge that was already initialized. The bridge should have been in a flushed and unintialized state after powering on. There is a problem with SPCN components that prevented the tower from powering off after a previous power off was issued. The tower will not be configured for this IPL. This reference code is equivalent to 1xxx 90F0. When referring to the ″CBLALL″ symbolic FRU in the Failing Item list, perform the ″CBLALL″ procedure using reference code ″90F0″. Word 5 of the SRC identifies the frame. Determine the frame by breaking down word 5: Word 5 -> xxxx xxNN where: NN is the frame number in hexadecimal format.	TWRCARD CBLALL
6987	High Speed Link (HSL) connection failure Failures are occuring on the HSL link. There may be B600 6982 errors logged on the same loop and about the same time as this error. Close those errors and continue to correct the problem by working this error. • If there is a cable FRU in the Service Action Log: 1. If the connection is copper and either end has a loose connection, reseat the cable. To do this, disconnect the connection and wait a minimum of 30 seconds. Then reconnect the cable and complete the tightening process in at most 30 seconds. Repeat the process at the other end of the cable. If the error persists, replace the FRUs in the SAL. 2. If the connection is optical, clean the connections at both ends of the cable. See OPT_CLN. If the error persists, replace the FRUs in the SAL. 3. If the error persists, replace the FRUs at each end of the cable starting with the FROM FRU listed in the SAL. • If there was no cable in the SAL, replace the FRUs listed in the SAL.	BUSCBLX OPT_CLN
6990	Service processor failure. The FRU list displayed in the Service Action Log (SAL) may vary from the failing item list given in this document. Use the FRU list in the SAL if the SAL is available to you.	SVCPROC
6991 to 6992	Service processor failure.	AJDGP01
6993	Service processor failure. A failure occurred with the service processor hardware or the service processor LIC. The FRU list displayed in the Service Action Log (SAL) may vary from the failing item list given in this document. Use the FRU list in the SAL if the SAL is available to you.	SVCPROC AJDGP01
6994	Service processor failure. The FRU list displayed in the Service Action Log (SAL) may vary from the failing item list given in this document. Use the FRU list in the SAL if the SAL is available to you.	SVCPROC

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
699C	Wrap plug is installed on Bus Expansion Adapter card This reference code is for information only. It indicates the presence of a wrap plug on the local optical link card.	
69A8	Informational bus reference code This reference code is for information only and might include the following: • Optical speed encode • Broken optical links now operational • Other information	
69B8	Bus hardware configuration problem The optical bus cabling is not connected correctly. Perform BUS-PIP1.	FI00187 AJDG301
69C1	A failure occurred on another system Perform BUS-PIP1.	FI01040 FI00206 FI00182 AJDG301
69C2	Information only, no service action required. HSL OptiConnect normal connection to another system or partition. This reference code is informational only. HSL Opticonnect has established connection normally. The local system or partition is participating in HSL Opticonnect with other systems or partitions on the same HSL loop.	
69C3	Information only, no service action required. Opticonnect normal remote disconnection from OptiConnect participation. This reference code is informational only. HSL Opticonnect disconnected normally from a remote node. The local system or partition has stopped participating in HSL Opticonnect with the remote system or partition on the same HSL loop. Possible reasons include: • A remote system or partition went off line due to a normal power off or disable of HSL Opticonnect	
69C5	I/O processor failure The OptiConnect/400 card which connects this system to another system has failed. The failing card is located in an I/O processor card slot. Perform BUS-PIP1.	FI00206 FI01040 AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
69C6	Abnormal or unexpected HSL OptiConnect disconnection from a remote system or partition. The local system or partition disconnected from a remote system or partition due to an unexpected event or failure. The problem is most likely with the remote system or partition. Intervention at the remote system is most likely required. Examine both the local and remote HSL Opticonnected systems or partitions for problems on this HSL loop. Possible reasons include: A fatal error in software or hardware in the remote system or partition or a power failure in the remote system. If there was not a complete HSL loop before this error occurred then a failure or power down in an HSL component between the local system or partition and the remote system or partition could have caused this error. Check for a problem with: an HSL cable, HSL I/O bridge or a power problem in an expansion I/O tower or unit on this loop. Examine the Service Action Log (SAL) on the local system or partition for HSL failures on the same HSL loop at approximately the same time this error occurred. Examine the remote system or partition for problems. If the remote system or partition is powered on and IPL'd then examine the Service Action Log (SAL) on the remote system or partition for problems on the same HSL loop at approximately the same time this error occurred. Correct any problems you find with the remote and local systems or partitions that happened at approximately the same time and involve HSL Opticonnect or HSL loop components or Network Interface Controllers. When the remote system is IPL'd it will automatically reconnect with this system or partition. If there are no problems with the remote system or partition and there are no problems with the local system or partition then collect all the Product Activity Log information for this failure on both systems. Be sure to record all words in the SRC. Contact your next level of support.	REM_SYS

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
69C7	Abnormal or unexpected HSL OptiConnect disconnection from a remote system or partition. The local system or partition disconnected from a remote system or partition due to an unexpected event or failure. LIC will attempt to recover from the error. Intervention at the local or remote system or partition may be required. Possible causes are: time out, hang or hardware failure. The problem may be with: the local system or partition or the remote system or partition. If there was not a complete HSL loop before this error then a failure or power down in an HSL component between the local system or partition and the remote system or partition could have caused this error. Check for SRCs with FRUs like: HSL cables, HSL I/O bridge or a power problem in an expansion I/O tower or unit on this loop. Examine the SAL on the local system or partition for failures on the same loop, or with the Network Interface Controller at approximately the same time. Examine the remote system or partition for problems. Correct any HSL or NIC problems you find with the remote and local systems or partitions. If there are no problems with the remote system or partition and there are no problems with the local system or partition then collect all the PAL information for this failure on both systems. Be sure to record all words in the SRC. Contact your next level of support.	REM_SYS LOC_SYS

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
69C8	Abnormal or unexpected HSL OptiConnect disconnection from a remote system or partition. The local system or partition disconnected from a remote system or partition due to an unexpected event or failure. All of the HSL OptiConnect connections on this loop will be in a failed state. LIC will attempt to recover from the error. Intervention at the local or remote system or partition may be required. Possible causes are: • time out of a critical message • LIC code / table problem • Network deadlock detected The problem may be with: • The local system or partition • The remote system or partition Examine the Service Action Log (SAL) on the local system or partition for HSL failures on the same HSL loop, or with the Network Interface Controller at approximately the same time this error occurred. Examine the remote system or partition for problems. Examine the Service Action Log (SAL) on the remote system or partition for problems on the same HSL loop or with the Network Interface Controller at approximately the same time this error occurred. Correct any problems you find with the remote and local systems or partitions that happened at approximately the same time and involve HSL Opticonnect or HSL loop components or Network Interface Controllers. If there are no problems with the remote system or partition and there are no problems with the local system or partition then collect all the Product Activity Log information for this failure on all systems or partitions. Be sure to record all words in the SRCs. Contact your next level of support.	REM_SYS LOC_SYS AJDG301
69C9	Abnormal or unexpected HSL OptiConnect disconnection from a remote system or partition. The local system or partition disconnected from a remote system or partition due to an failure in a LIC virtualized bus unit. LIC will attempt to recover from the error. Possible causes are: • LIC problem where the local bus unit is off line. • LIC problem where the remote bus unit is off line. Examine the Service Action Log (SAL) on the local system or partition for HSL Opticonnect failures that occurred at approximately the same time this error occurred. Examine the remote system or partition for problems. Examine the Service Action Log (SAL) on the remote system or partition for HSL Opticonnect problems that occurred at approximately the same time this error occurred. Collect all the Product Activity Log information for this failure on all systems and partitions on this HSL loop. Be sure to record all words in the SRCs. Contact your next level of support with the information you have collected.	AJDG301 REM_SYS LOC_SYS

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
69CF	Abnormal or unexpected HSL OptiConnect disconnection from a remote system or partition. LIC internal error. All systems participating in HSL OptiConnect will be disconnected. The system must be re-IPL'd to recover. Before re-IPL'ing the system initiate a main store dump. After getting the dump, examine the Service Action Log (SAL) on the local system or partition for HSL Opticonnect failures that occurred at approximately the same time this error occurred. Examine the remote systems or partitions for problems. Examine the Service Action Log (SAL) on the remote systems or partitions for HSL Opticonnect problems that occurred at approximately the same time this error occurred. Collect all the Product Activity Log information for this failure on all systems and partitions on this HSL loop. Be sure to record all words in the SRCs. Contact your next level of support with the information you have collected.	AJDG301
69D0	Bus Expansion Adapter card failed An internal error was detected on a local optical link card. Perform BUS-PIP1.	FI00182 FI00055 AJDG301
69D8	Bus Expansion Adapter failed A primary optical link had a failure. Contact with the bus may still be possible through this link or through a redundant link. Perform BUS-PIP1. For this reference code the failing item list presented in the ″Service Action Log″ can be different from the failing item list documented here. That is due to the differences in system models and features installed. If the ″Service Action Log″ is available then use the failing item list presented there for servicing this reference code. If the ″Service Action Log″ is not available then use the failing item list documented here. By following the procedures in the symbolic FRUs listed here you will isolate to the correct FRU list based on system model and features installed.	FI00182 FI00203 FI00055 LBUSADP AJDG301
69E0	Bus Expansion Adapter card failed An internal error was detected on a remote bus adapter card. Perform BUS-PIP1.	FI00203 AJDG301
69E8	Bus Expansion Adapter failed Redundancy has been lost due to a secondary optical link failure. Contact with the bus may still be possible through the primary optical link. Perform BUS-PIP1.	FI00203 FI00205 FI00057 AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
69F0	Bus Expansion Adapter failed Contact has been lost to the bus. Perform BUS-PIP1.	FI00180 FI00182 FI00203 FI00056 FI00205 LBUSADP AJDG301
69F8	Bus Expansion Adapter failed An optical link initialization failure occurred. The number and configuration of the system buses can not be determined. Perform BUS-PIP1.	FI00180 FI00203 FI00182 FI00186 FI00057 AJDG301
7001	ISDN call in rejected	GG3COMM
7002	Lines not selected	GG3COMM
7003	Network interfaces not selected	GG3COMM
7004	TCP/IP informational error This reference code is logged when the TCP/IP Attribute “Log Protocol Errors” is set, and the TCP/IP System LIC “silently discards” an inbound datagram. “Silently discard” is defined to mean discard the received datagram without reporting an error to the originating host device. Examples of such datagrams are those with checksums or destination addresses which are not valid. This reference code is for information only. Normally no action should be taken as a result of this reference code. It is generated in order to assist with remote device or TCP/IP network problem determination.	
7055	Statistics were logged, no service action required This reference code is logged for information only.	
7100	APPN session initiation attempt has timed out This reference code is used to indicate that LIC timed out on a request to initiate a session. The user must run problem analysis for this reference code. If this indicates a software problem, the user should dial IBM Software Support for assistance. The Problem Determination Procedure (PDP) will indicate whether the original timeout condition still exists and what the corrective actions should be.	AJDG301 GG3PL03 GG3PL01 GG3PL02
7101	APPN session initiation attempt has failed This reference code is used to indicate that LIC attempted to satisfy a session initiation request, but some failure condition was detected by LIC. The failure condition could be a configuration or operational problem in the network. The user must run problem analysis for this reference code. If this indicates a software problem, the user should dial IBM Software Support for assistance. The Problem Determination Procedure (PDP) will indicate whether the original timeout condition still exists and what the corrective actions should be.	GG3PL04 GG3PL05 GG3PL06 AJDG301

Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7102	APPN CP-CP session ended.	
7201	A utility failure occurred. This reference code is for information only. The Uninterruptible Power System (UPS) is reporting a utility failure.	
7202	Utility power restored. This reference code is for information only. The Uninterruptible Power System (UPS) is reporting that utility power has been restored.	
7203	A battery low condition was detected. This reference code is for information only. The Uninterruptible Power System (UPS) is reporting a battery low condition.	
7204	Uninterruptible Power System reported a bypass active This reference code is for information only. The Uninterruptible Power System (UPS) is reporting a bypass is active.	
7205	Battery low condition was reset. This reference code is for information only. The Uninterruptible Power System (UPS) is no longer reporting a battery low condition.	
7206	UPS reported bypass no longer active This reference code is for information only. The Uninterruptible Power System (UPS) is no longer reporting a bypass active condition.	
7207	Battery Power Unit needs service The replacement period for BPU 1, installed in the System Unit, has been exceeded.	FI00315
7208	Battery Power Unit needs service The replacement period for BPU 2, installed in the System Unit, has been exceeded.	FI00315
7209	Battery Power Unit needs service The replacement period for BPU 1, installed in the Expansion Unit, has been exceeded.	FI00315
720A	Battery Power Unit replacement dates do not match The replacement dates for one of the Battery Power Units do not match. Run ″Display Hardware Configuration″ and verify that the dates match the labels on the batteries.	
7701	SCSI jumper card was not detected.	21H7625 BACKPLN
7702	Incorrect SCSI jumper card detected	21H7625
7703	System LIC detected a program exception Storage Management detected a DASD datacheck condition and the defective sector was reallocated. Perform a system IPL to restart the system.	
7704	General failure detected by HRI component.	AJDG301

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Reference Code	Description/Action Perform all actions before exchanging Failing Items	Failing Item
7777	Hardware configuration change detected A hardware resource is missing. The resource reported in to the system on a previous IPL, but has not reported in on the current IPL. This could occur for several different reasons. 1. It could be a normal situation where the resource is currently powered off. In this case, when the resource is powered back on, it will no longer be missing. 2. The hardware resource could also be missing if it has been removed from the system, for example, a tape drive that was replaced with a different tape drive. The service representative should use the Hardware service manager to remove the entry for this resource. 3. The resource may not have reported in on this IPL because it is failing. Perform problem analysis to determine why the resource is failing.	
CFFC	Optical library device condition not expected The optical disk drive addressing within the optical library is incorrect. This error is likely to be the result of faulty cabling or switch setting following service to an optical library. Contact your hardware service provider.	OPTLCBL DRVSWCH
CFFD	Optical drive failure	OPTLDRV
CFFF	Media determined to be bad in Optical library	
F103	Main storage dump must be copied for service. Perform LIC-PIP1.	
FDC0	LIC program reported informational error This reference code is logged for information only. No action required.	
FDC5	LIC program failed and data was captured This reference code indicates first failure data capture (FFDC) data was collected for a problem reported by licensed internal code. The user should dial IBM Software Support for assistance.	GG3FFDC

Table 2. Licensed Internal Code (LIC) Failing Items Details

Failing Item	Description	Document Description
21H7625	Incorrect, defective or missing SCSI jumper card	Repair and Parts; removal and installation procedures
AJDG301	Licensed Internal Code	Service Functions; APAR or LICTR
AJDGP01	Service Processor LIC	Repair and Parts; removal and installation procedures
AJGLD01	I/O card Licensed Internal Code	Service Functions; APAR or LICTR
BACKPLN	Card enclosure or backplane	Problem Analysis; Symbolic FRU Isolation
BSTWRPL	FC 9074, FC 9079 Base I/O tower card with service processor	Problem Analysis; Symbolic FRU Isolation
BUSCBLX	HSL (SI) cable or connection or interposer	Problem Analysis; Symbolic FRU Isolation
CBLALL	SPCN cable to HSL connected I/O tower	Problem Analysis; Symbolic FRU Isolation
CTLPNCD	System Unit Control Panel Card Assembly	Problem Analysis; Symbolic FRU Isolation

Failing Item	Description	Document Description
CVTCARD	HSL (SI) I/O Adapter for FC 5076 SPD migrated tower	Problem Analysis; Symbolic FRU Isolation
DEVTERM	Terminating plug	Problem Analysis; Symbolic FRU Isolation
DISKDRV	Disk Drive and Logic Card	Problem Analysis; Symbolic FRU Isolation
DISKTRY	Disk unit tray	Problem Analysis; Symbolic FRU Isolation
DRVSWCH	Drive address switch	Problem Analysis; Symbolic FRU Isolation
GG3COMM	Communications failure	
GG3FFDC	LIC program failed and data was captured	
GG3PL01	System performance problem	
GG3PL02	Network performance problem	
GG3PL03	Switched link activation failure message not answered	
GG3PL04	Transmission groups in the network must be activated	
GG3PL05	Class-of-service specified does not provide a route	
GG3PL06	COS acceptable TGs and nodes do not exist for the route	
LBUSADP	SPD local bus adapter, where optical daughters plug	Problem Analysis; Symbolic FRU Isolation
LOC_SYS	Local HSL Opticonnect system or partition.	Local HSL OptiConnect system
LPARCFG	″LPARCFG″ LPAR configuration - processors, memory or ld src	Problem Analysis; Symbolic FRU Isolation
LPARSUP	″LPARSUP″ LPAR complex problem, call next level of support.	Problem Analysis; Symbolic FRU Isolation
MABRCFG	Multi-adapter bridge configuration error or change	Problem Analysis; Symbolic FRU Isolation
MASBUS	Multi-adapter bridge secondary bus or card slot	Problem Analysis; Symbolic FRU Isolation
MA_BRDG	Multi-adapter bridge high level symbolic	Problem Analysis; Symbolic FRU Isolation
OPTDRIV	Optical Disk Drive	Problem Analysis; Symbolic FRU Isolation
OPTLCBL	Optical Library drive cabling	Problem Analysis; Symbolic FRU Isolation
OPTLDRV	Optical Library optical drive	Problem Analysis; Symbolic FRU Isolation
OPT_CLN	Fiber optic cleaning kit	Fiber optic cleaning kit
PIOCARD	PCI nodes adapter card, IOP or IOA	Problem Analysis; Symbolic FRU Isolation
PPCIMIN	Primary PCI bus in 5075 I/O tower	Problem Analysis; Symbolic FRU Isolation
PPCISYS	Primary PCI bus in a system unit	Problem Analysis; Symbolic FRU Isolation
PPCITWR	Primary PCI bus in a 5074 I/O tower	Problem Analysis; Symbolic FRU Isolation
PRI_PCI	Primary system PCI bus to a MaB, high level symbolic	Problem Analysis; Symbolic FRU Isolation
REM_NIC	A remote NIC in a cluster.	
REM_SYS	HSL opticonnect remote system or partition.	Remote HSL OptiConnect system
SIADPCD	High Speed Link (SI) I/O adapter card in FC 5074 I/O tower	Problem Analysis; Symbolic FRU Isolation
SICNTRL	HSL (SI) controller, high level symbolic	Problem Analysis; Symbolic FRU Isolation

B6xx (including A6xx)

Failing Item	Description	Document Description
SIIOADP	High Speed Link (SI) I/O adapter, high level symbolic	Problem Analysis; Symbolic FRU Isolation
SIRGCFG	SI ring invalid configuration	Problem Analysis; Symbolic FRU Isolation
SIRSTAT	System Interconect ring status	Problem Analysis; Symbolic FRU Isolation
SI_CARD	HSL (SI) controller card on a system unit	Problem Analysis; Symbolic FRU Isolation
SI_PHB	PCI host bridge adapter, high level symbolic	Problem Analysis; Symbolic FRU Isolation
SLOTERR	Multi-adapter bridge slot error	Problem Analysis; Symbolic FRU Isolation
SPNLCRD	SPCN panel card	Problem Analysis; Symbolic FRU Isolation
STORIOA	Active I/O processor	Problem Analysis; Symbolic FRU Isolation
SVCDOCS	Customer engineer directed to system problem analysis	Problem Analysis; Symbolic FRU Isolation
SVCPROC	Service Processor	Problem Analysis; Symbolic FRU Isolation
SYSBKPL	System unit backplane	Problem Analysis; Symbolic FRU Isolation
TWRBKPL	FC 5075 I/O tower backplane	Problem Analysis; Symbolic FRU Isolation
TWRCARD	SPCN failing component in HSL I/O tower	Problem Analysis; Symbolic FRU Isolation
TWRPLNR	FC 5074, FC 9074, FC 9079 I/O tower PCI card planar	Problem Analysis; Symbolic FRU Isolation
UG3USR1	Operator response required	

(C1xx) Service Processor IPL Status Reference Code

This is a normal reference code during the IPL of the system. You may suspect that the IPL is not advancing correctly when the 6 rightmost characters do not change for 2 minutes. The IPL may take longer with more I/O units and main storage. Perform the the ″IPL Status SRCs″ procedure in the *iSeries Service Functions* if you suspect a problem.

If, after performing that procedure, there is still a problem, ask your next level of support for assistance.

This ends the procedure.

(D1xx 3xxx) Service Processor Main Storage Dump Status Reference Code

This is a normal reference code showing the status of the system when performing a main storage dump. You may suspect that the system is not operating correctly when the rightmost characters do not change for 2 minutes.

Note: It takes approximately 1 minute to dump each 20MB of main storage. For more information on main storage dumps, see ″Working with Storage Dumps″ in the *iSeries Service Functions* information.

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