Power Systems

Failing function codes, failing items, and symbolic FRUs

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Note

Before using this information and the product it supports, read the information in "Safety notices" on page v, "Notices" on page 397, the *IBM Systems Safety Notices* manual, G229-9054, and the *IBM Environmental Notices and User Guide*, Z125–5823.

This edition applies to IBM Power Systems™ servers that contain the POWER7 processor and to all associated models.

Contents

Safety notices

Safety notices may be printed throughout this guide:

- **DANGER** notices call attention to a situation that is potentially lethal or extremely hazardous to people.
- **CAUTION** notices call attention to a situation that is potentially hazardous to people because of some existing condition.
- **Attention** notices call attention to the possibility of damage to a program, device, system, or data.

World Trade safety information

Several countries require the safety information contained in product publications to be presented in their national languages. If this requirement applies to your country, safety information documentation is included in the publications package (such as in printed documentation, on DVD, or as part of the product) shipped with the product. The documentation contains the safety information in your national language with references to the U.S. English source. Before using a U.S. English publication to install, operate, or service this product, you must first become familiar with the related safety information documentation. You should also refer to the safety information documentation any time you do not clearly understand any safety information in the U.S. English publications.

Replacement or additional copies of safety information documentation can be obtained by calling the IBM Hotline at 1-800-300-8751.

German safety information

Das Produkt ist nicht für den Einsatz an Bildschirmarbeitsplätzen im Sinne § 2 der Bildschirmarbeitsverordnung geeignet.

Laser safety information

IBM® servers can use I/O cards or features that are fiber-optic based and that utilize lasers or LEDs.

Laser compliance

IBM servers may be installed inside or outside of an IT equipment rack.

DANGER

When working on or around the system, observe the following precautions:

Electrical voltage and current from power, telephone, and communication cables are hazardous. To avoid a shock hazard:

- **Connect power to this unit only with the IBM provided power cord. Do not use the IBM provided power cord for any other product.**
- **Do not open or service any power supply assembly.**
- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**
- **The product might be equipped with multiple power cords. To remove all hazardous voltages, disconnect all power cords.**
- **Connect all power cords to a properly wired and grounded electrical outlet. Ensure that the outlet supplies proper voltage and phase rotation according to the system rating plate.**
- **Connect any equipment that will be attached to this product to properly wired outlets.**
- **When possible, use one hand only to connect or disconnect signal cables.**
- **Never turn on any equipment when there is evidence of fire, water, or structural damage.**
- **Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.**
- **Connect and disconnect cables as described in the following procedures when installing, moving, or opening covers on this product or attached devices.**

  To Disconnect:

  1. **Turn off everything (unless instructed otherwise).**
  2. **Remove the power cords from the outlets.**
  3. **Remove the signal cables from the connectors.**
  4. **Remove all cables from the devices.**

  To Connect:

  1. **Turn off everything (unless instructed otherwise).**
  2. **Attach all cables to the devices.**
  3. **Attach the signal cables to the connectors.**
  4. **Attach the power cords to the outlets.**
  5. **Turn on the devices.**

  (D005)

DANGER

Observe the following precautions when working on or around your IT rack system:

- **Heavy equipment–personal injury or equipment damage might result if mishandled.**
- **Always lower the leveling pads on the rack cabinet.**
- **Always install stabilizer brackets on the rack cabinet.**
- **To avoid hazardous conditions due to uneven mechanical loading, always install the heaviest devices in the bottom of the rack cabinet. Always install servers and optional devices starting from the bottom of the rack cabinet.**
- **Rack-mounted devices are not to be used as shelves or work spaces. Do not place objects on top of rack-mounted devices.**

- **Each rack cabinet might have more than one power cord. Be sure to disconnect all power cords in the rack cabinet when directed to disconnect power during servicing.**
- **Connect all devices installed in a rack cabinet to power devices installed in the same rack cabinet. Do not plug a power cord from a device installed in one rack cabinet into a power device installed in a different rack cabinet.**
- **An electrical outlet that is not correctly wired could place hazardous voltage on the metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.**

CAUTION

- **Do not install a unit in a rack where the internal rack ambient temperatures will exceed the manufacturer's recommended ambient temperature for all your rack-mounted devices.**
- **Do not install a unit in a rack where the air flow is compromised. Ensure that air flow is not blocked or reduced on any side, front, or back of a unit used for air flow through the unit.**
- **Consideration should be given to the connection of the equipment to the supply circuit so that overloading of the circuits does not compromise the supply wiring or overcurrent protection. To provide the correct power connection to a rack, refer to the rating labels located on the equipment in the rack to determine the total power requirement of the supply circuit.**
- *(For sliding drawers.)* **Do not pull out or install any drawer or feature if the rack stabilizer brackets are not attached to the rack. Do not pull out more than one drawer at a time. The rack might become unstable if you pull out more than one drawer at a time.**
- *(For fixed drawers.)* **This drawer is a fixed drawer and must not be moved for servicing unless specified by the manufacturer. Attempting to move the drawer partially or completely out of the rack might cause the rack to become unstable or cause the drawer to fall out of the rack.**

(R001)

CAUTION:
Removing components from the upper positions in the rack cabinet improves rack stability during relocation. Follow these general guidelines whenever you relocate a populated rack cabinet within a room or building:

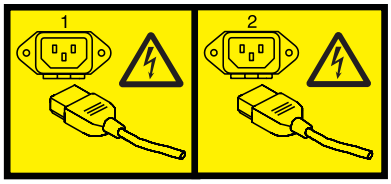
- **Reduce the weight of the rack cabinet by removing equipment starting at the top of the rack cabinet. When possible, restore the rack cabinet to the configuration of the rack cabinet as you received it. If this configuration is not known, you must observe the following precautions:**
  - **Remove all devices in the 32U position and above.**
  - **Ensure that the heaviest devices are installed in the bottom of the rack cabinet.**
  - **Ensure that there are no empty U-levels between devices installed in the rack cabinet below the 32U level.**
- **If the rack cabinet you are relocating is part of a suite of rack cabinets, detach the rack cabinet from the suite.**
- **Inspect the route that you plan to take to eliminate potential hazards.**
- **Verify that the route that you choose can support the weight of the loaded rack cabinet. Refer to the documentation that comes with your rack cabinet for the weight of a loaded rack cabinet.**
- **Verify that all door openings are at least 760 x 230 mm (30 x 80 in.).**
- **Ensure that all devices, shelves, drawers, doors, and cables are secure.**
- **Ensure that the four leveling pads are raised to their highest position.**
- **Ensure that there is no stabilizer bracket installed on the rack cabinet during movement.**
- **Do not use a ramp inclined at more than 10 degrees.**
- **When the rack cabinet is in the new location, complete the following steps:**
  - **Lower the four leveling pads.**
  - **Install stabilizer brackets on the rack cabinet.**
  - **If you removed any devices from the rack cabinet, repopulate the rack cabinet from the lowest position to the highest position.**
- **If a long-distance relocation is required, restore the rack cabinet to the configuration of the rack cabinet as you received it. Pack the rack cabinet in the original packaging material, or equivalent. Also lower the leveling pads to raise the casters off of the pallet and bolt the rack cabinet to the pallet.**

(R002)

(L001)

(L002)

(L003)



or

All lasers are certified in the U.S. to conform to the requirements of DHHS 21 CFR Subchapter J for class 1 laser products. Outside the U.S., they are certified to be in compliance with IEC 60825 as a class 1 laser product. Consult the label on each part for laser certification numbers and approval information.

CAUTION:
This product might contain one or more of the following devices: CD-ROM drive, DVD-ROM drive, DVD-RAM drive, or laser module, which are Class 1 laser products. Note the following information:

- **Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.**
- **Use of the controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.**

(C026)

CAUTION:
Data processing environments can contain equipment transmitting on system links with laser modules that operate at greater than Class 1 power levels. For this reason, never look into the end of an optical fiber cable or open receptacle. (C027)

CAUTION:
This product contains a Class 1M laser. Do not view directly with optical instruments. (C028)

CAUTION:
Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following information: laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam. (C030)

CAUTION:
The battery contains lithium. To avoid possible explosion, do not burn or charge the battery.

Do Not:
- **___ Throw or immerse into water**
- **___ Heat to more than 100°C (212°F)**
- **___ Repair or disassemble**

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. (C003)

Power and cabling information for NEBS (Network Equipment-Building System) GR-1089-CORE

The following comments apply to the IBM servers that have been designated as conforming to NEBS (Network Equipment-Building System) GR-1089-CORE:

The equipment is suitable for installation in the following:
- Network telecommunications facilities
- Locations where the NEC (National Electrical Code) applies

The intrabuilding ports of this equipment are suitable for connection to intrabuilding or unexposed wiring or cabling only. The intrabuilding ports of this equipment *must not* be metallically connected to the interfaces that connect to the OSP (outside plant) or its wiring. These interfaces are designed for use as intrabuilding interfaces only (Type 2 or Type 4 ports as described in GR-1089-CORE) and require isolation from the exposed OSP cabling. The addition of primary protectors is not sufficient protection to connect these interfaces metallically to OSP wiring.

Note: All Ethernet cables must be shielded and grounded at both ends.

The ac-powered system does not require the use of an external surge protection device (SPD).

The dc-powered system employs an isolated DC return (DC-I) design. The DC battery return terminal *shall not* be connected to the chassis or frame ground.

Failing function codes, failing items, and symbolic FRUs

Failing function codes (FFCs), failing items, and symbolic field replaceable units (FRUs) provide the information necessary to fix a problem that is identified by a system reference code (SRC) or service request number (SRN).

Failing function codes

Failing function codes represent functions within the system unit.

The failing function codes are listed in numerical order.

Failing function code 11A

The cryptographic coprocessor adapter battery kit is the failing item.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
11A		09J8199	Cryptographic coprocessor adapter battery kit	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 132

The program that just loaded might be damaged.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 141

The 857 MB disk enclosure assembly is the failing item.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
141		4569502	857 MB Disk Enclosure Assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 151

Failing function code 151 is not supported on these models. Continue with the next FRU in the list.

Failing function code 152

A power supply is the problem.

See FFC 153.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 153

An expansion unit power supply is the failing item.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
153	5886	39R6547	Power supply	U*n*-E*x*
153	5887	See System parts.	Power supply	U*n*-P1-E*x*
153	5888, EDR1	See System parts.	Power supply	U*n*-P1-E*x*
153	5786, 5787, 7031-D24, 7031-T24	12R9078 (966 watt) 15R7998 (845 watt) **Note:** Use with a power supply that has the same wattage.	Power supply	U*n*-E*x*
153	7314-G30	42R4491	Power supply	U*n*-E*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 159

The problem is with a tablet.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
159	6093 Models 21, 22	6247455	Tablet cursor	U*n*-P1-C*x*-T*y*
159	6093 Models 11, 12	74F3131	Tablet cursor, 4-button	U*n*-P1-C*x*-T*y*
159	6093 Models 11, 12	74F3132	Tablet cursor, 6-button	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 165

Failing function code 165 is not supported on these models. Continue with the next FRU in the list.

Failing function code 166

The problem is with a fan assembly.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
166	5886	39R6547	Fan (in power supply FRU)	U*n*-E*x*
166	5887	See System parts.	Fan (in power supply FRU)	U*n*-P1-E*x*
166	5888, EDR1	See System parts.	Fan assembly	U*n*-P1-C*x*-A1
166	7031-D24, 7031-T24	39J0859	Fan assembly	U*n*-A*x*
166	Any	See System parts.	Fan assembly	U*n*-A*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 169

This failing function code is not supported on the system. Continue with the next FRU in the failing item list.

Failing function code 185

The problem is with an X.25 interface co-processor adapter.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
185	Any	71G6458	X.25 Interface Co-Processor adapter	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 186

The problem is with the co-processor multiport adapter.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
186	Any	33F8967	Co-Processor Multiport adapter Model 2	U*n*-P1-C*x*
186	Any	84F7540	Co-Processor Multiport adapter Model 2 daughter card	U*n*-P1-C*x*

186	Any	53F2662	Co-Processor Multiport adapter Model 2 memory module (1 MB)	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 188

The problem is with a tablet stylus.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
188	6093 models 11, 12	74F3133	Tablet stylus	
188	6093 models 21, 22	6247454	Tablet stylus	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 190

The problem is with an internal disk signal cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
190		21P7063	Internal disk signal cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 192

The problem is with a power supply for a portable disk drive.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
192	7203	00G2960	Portable disk drive power supply	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 199

The problem is with an internal disk unit backplane.

See FFC 2667.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 201

The problem is with an internal disk signal cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
201		21P7063	Internal disk signal cable (associated with FFC 190)	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 210

This failing function code is not supported on the system. Continue with the next FRU in the failing item list.

Failing function code 221

The problem is a system I/O control logic problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
221	All	See System parts.	System backplane or I/O backplane	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 227

The problem is a system status logic problem.

Replace the system backplane or I/O backplane.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 240

The problem is a token-ring network problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
240	Any		Token-ring network problem	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 241

The problem is an Ethernet network problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
241	Any		Ethernet network problem	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2502

A backplane might be failing.

Replace the system backplane or I/O backplane.

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2503

A SAS RAID enablement card might be failing.

Replace the SAS RAID enablement card.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2504

A SAS RAID auxiliary cache card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2504	All	44V3298	SAS RAID auxiliary cache card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2505

A SAS RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2505	All	44V3298	PCI-XDDR backplane 3 Gb SAS RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 251

The problem is in the cables for a parallel printer.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
251	Any	8529214	Cable, parallel printer	U*n*-P1-C*x*-T*y*
251	Any	8185219	Cable, parallel printer	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2512

A SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2512	Any	97P6130	PCI-X DDR quad channel ultra320 SCSI RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2513

A SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2513	Any	42R6578	PCI-X DDR quad channel ultra320 SCSI RAID adapter **Note:** This FRU is an assembly of two parts. Replace the entire assembly. The same FRU is used for FFC 252E.	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2514

A SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2514	Any	39J2012	PCI-X DDR dual channel ultra320 SCSI RAID adapter	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2515

A SAS adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2515	Any	44V3296	PCI-X DDR External Dual - x4 Port SAS adapter	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2516

A PCIe JBOD SAS adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2516	Any	See Managing PCI adapters.	PCIe JBOD SAS adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2517

A PCI-X RAID SAS adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2517	Any	See Managing PCI adapters.	PCI-X RAID SAS adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2518

A PCIe RAID SAS adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2518	Any	See Managing PCI adapters.	PCIe RAID SAS adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2519

A PCI-X DDR RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2519	Any	44V8622	PCI-X DDR RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 251D

A PCI-X DDR auxiliary cache adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
251D	Any	44V8622	PCI-X DDR auxiliary cache adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 252

The problem is in the standard 9-pin to 25-pin converter cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
252	Any	23R4632	Standard 9-pin to 25-pin converter cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2520

The SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2520	Any	09P2544	Dual-channel ultra3 SCSI PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2521

The processor subsystem chassis might be failing.

Replace the processor subsystem chassis.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2522

The SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2522	Any	97P6513	PCI-X dual channel U320 SCSI adapter **Note:** Use the location code to identify the failing FRU. Determine whether the failing FRU is integrated on the system board. If the failing FRU is integrated, use FFC 221. If the failing FRU is not integrated, replace the FRU identified here.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2523

The SCSI RAID adapter or enablement card might be failing.

The following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	Any	97P3960	PCI-X dual channel U320 SCSI RAID adapter or enablement card. **Note:** 1. Use the location code to identify if the failing FRU is a RAID enablement card plugged into a special slot on the I/O backplane or if it is a PCI-X adapter. 2. If the failing FRU is a PCI-X adapter, replace the FRU identified here. If the failing FRU is a RAID enablement card use FFC 2525. 3. If the problem persists after replacing the RAID enablement card, use FFC 2522 to replace the integrated SCSI adapter.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2524

The SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

2524	Any	97P6513	Missing options resolution for integrated PCI-X dual channel U320 SCSI adapter. **Note:** Use the location code to identify the failing FRU. If the failing FRU is integrated on the system backplane, replace the system backplane. If the failing FRU is not integrated on the system backplane, replace the PCI-X dual channel U320 SCSI adapter (part number 97P6513).	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2525

The SCSI RAID enablement card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2525	Any	80P2868	Missing options resolution for integrated PCI-X dual channel U320 SCSI RAID enablement card.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2526

The SCSI RAID battery pack might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2526	Any	44L0313	PCI-X ultra320 SCSI RAID Battery Pack	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2527

The SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2527	Any	42R6249	Quad channel ultra320 SCSI RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2528

The SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2528	Any	42R4860	PCI-X dual channel ultra320 SCSI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2529

The SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2529	Any	39J5652	PCI-X dual channel ultra320 SCSI RAID adapter	
2529	Any	39J5653	PCI-X dual channel ultra320 SCSI RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 252B

The SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

252B	Any	39M3417	PCI-X DDR dual channel ultra320 SCSI adapter (2 way)	
252B	Any	39M3419	PCI-X DDR dual channel ultra320 SCSI adapter (4 way)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 252D

The SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
252D	Any	42R4860	PCI-X DDR dual channel ultra320 SCSI adapter	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 252E

The SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
252E	Any	42R6578	PCI-X DDR quad channel ultra320 SCSI RAID adapter **Note:** This FRU is an assembly of two parts. Replace the entire assembly. The same FRU is used for FFC 2513.	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 253

The multiprotocol cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

253	Any		The problem is in the multiprotocol cable, EIA-422A, which is provided by the customer.	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2530

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2530	Any	09P3196	10/100 Mbps Ethernet PCI adapter II	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2531

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2531	Any	03N6971	10 Gigabit-LR Ethernet PCI-X adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2532

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2532	Any	03N6969	10 Gigabit-SR Ethernet PCI-X adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2533

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2533	Any	10N8264	10 Gigabit-SR Ethernet PCI-X 2.0 DDR adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2534

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2534	Any	10N8263	10 Gigabit-LR Ethernet PCI-X 2.0 DDR adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2535

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2535	Any	03N5444	4-port 10/100/1000 base-TX Ethernet PCI-X adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2537

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2537	Any	03N6973* or 80P6451**	Dual port gigabit Ethernet-SX PCI-X adapter	U*n*-P*x*-C*x*

* Designed to comply with RoHS requirement.

** Not designed to comply with the RoHS requirement.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2538

The Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2538	Any	03N5297* or 00P6131**	2-Port 10/100/1000 Base-TX Ethernet PCI-X adapter (FC 5706)	U*n*-P*x*-C*x*
2538	Any	03N5298* or 80P6450**	2-Port 10/100/1000 Base-TX Ethernet PCI-X adapter (FC 1983)	U*n*-P*x*-C*x*
2538	Any	03N5531* or 03N4701**	2-Port 10/100/1000 Base-TX Ethernet PCI-X adapter (FC 1990)	U*n*-P*x*-C*x*

* Designed to comply with RoHS requirement.

** Not designed to comply with the RoHS requirement.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 254

The problem is in the 4-port multiprotocol EIA-232, V.24 cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
254	Any	71F0165	4-port multiprotocol EIA-232, V.24 cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 254E

The Fibre Channel expansion card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
254E	Any	13N2056	Fibre Channel expansion card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2550

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2550	Any	80P7124	GXT4500P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2551

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2551	Any	09P3391	POWER® GXT6500P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2555

A 73 GB SAS interface 3.5 inch form-factor drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2555	Any	See Finding parts, locations, and addresses.	73 GB SAS interface 3.5 inch form-factor drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2556

A 146 GB SAS interface 3.5 inch form-factor drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2556	Any	See Finding parts, locations, and addresses.	146 GB SAS interface 3.5 inch form-factor drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2557

A 300 GB SAS interface 3.5 inch form-factor drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2557	Any	See Finding parts, locations, and addresses.	300 GB SAS interface 3.5 inch form-factor drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 256

The problem is in the 3.04 m (10 ft) token-ring cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
256	Any	6339098	3.04 m (10 ft) token-ring cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2562

The keyboard/mouse USB PCI attachment card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2562	Any	09P2470	Keyboard/mouse USB PCI attachment card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2564

The keyboard/mouse USB PCI attachment card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2564	Any	80P2994	Keyboard/mouse USB PCI attachment card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2566

The diskette drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2566	Any	03N4962	USB 3.5 inch micro diskette drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2568

The CD-ROM might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2568	Any		Generic USB CD-ROM	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 256D

The Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

256D	Any	26R0893 26R0889	4 Gb Fibre Channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 256E

The 4-port 10/100/1000 Base-TX PCI Express adapter might be failing.

Replace the 4-port 10/100/1000 Base-TX PCI Express adapter. If the problem is not resolved, replace the I/O backplane.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 257

The problem is in the 4-port multiprotocol, V.35 cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
257	Any	71F0162	4-port multiprotocol, V.35 cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2570

The cryptographic accelerator PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2570	Any	11P1856	IBM cryptographic accelerator PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2571

The 2-port PCI asynchronous EIA-232 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

2571	Any	80P4353	2-Port PCI Asynchronous EIA-232 adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2572

The xCrypto coprocessor card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2572	Any	41U0442 12R6540	PCI xCrypto coprocessor card	
11A		41V1061	Battery kit	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2576

The 4-port PCIe serial adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2576	Any	See Managing PCI adapters.	4-port PCIe serial adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2578

The cryptographic coprocessor adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2578	Any	See Managing PCI adapters.	PCIe cryptographic coprocessor adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2579

The cryptographic coprocessor adapter battery is the failing item.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2579	Any	See Managing PCI adapters.	PCIe cryptographic coprocessor adapter battery	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 258

The problem is in the 4-port multiprotocol cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
258	Any	40F9897	4-port multiprotocol cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2580

The SCSI accessed fault-tolerant enclosure (SAF-TE) device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2580	Any	21P7165	SCSI accessed fault-tolerant enclosure (SAF-TE) device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2581

The 1 GB iSCSI TOE PCI-X adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2581	Any	03N6056	1 GB iSCSI TOE PCI-X adapter (copper connector)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2583

The 1 GB iSCSI TOE PCI-X adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2583	Any	26K6490	1 GB iSCSI TOE PCI-X adapter (JS daughter card) (copper connector)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2586

The failing function code indicates a failure in the Host Ethernet Adapter (HEA), which is a part of the pass-through card.

The HEA controller is integrated on the I/O backplane in the system unit. Replace the pass-through card. If the problem is not resolved, replace the I/O backplane.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2587

The DVD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2587	Any	39J5774	Slimline DVD-ROM drive	U*n*-P4-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2588

The DVD-RAM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2588	Any	39J5772	IBM 4.7 GB Slimline DVD-RAM drive	U*n*-P4-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 259

The problem is in the async EIA-232D, V.24 cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
259	Any	42R5206	Async EIA-232D, V.24 cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2590

The 48x IDE CD-ROM drive black bezel might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2590	Any	24P3605	48x IDE CD-ROM drive black bezel	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2591

The IDE 16/48X DVD-ROM black bezel might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2591	Any	53P2735	IDE 16/48X DVD-ROM black bezel	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2592

The IDE 8X/24X DVD-ROM might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2592	Any	39J3522	Slimline IDE 8X/24X DVD-ROM	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2593

The IDE DVD-RAM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2593	Any	39J1364	IDE DVD-RAM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25A0

A backplane might be failing.

Replace the system backplane.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25A2

The USB DVD-RAM drive might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25A2	Any	For 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, see Managing devices for the 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D. For 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D, see Managing devices for the 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D. For 8233-E8B or 8236-E8C, see Managing devices for the 8233-E8B or 8236-E8C. For 8248-L4T, 8408-E8D, 9109-RMD, see Managing devices for the 8248-L4T, 8408-E8D, 9109-RMD. For 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD, see Managing devices for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.	USB DVD-RAM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25A3

The integrated serial adapter on the Ethernet PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2B56	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	00E0778	2 x 1 Gb and 2 x 10 Gb twinaxial Ethernet adapter	
2B57	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	00E0784	2 x 1 Gb and 2 x 10 Gb optical Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25A4

The 2-port PCIe asynchronous EIA-232 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25A4	Any	See PCIe 2-port Async EIA-232 Adapter (FC 5289 and FC 5290).	2-port PCIe asynchronous EIA-232 adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25B9

The 1 GB PCI-X iSCSI TOE Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25B9	Any	03N6058	1 GB PCI-X iSCSI TOE Ethernet adapter (fiber)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25C0

The Gigabit-SX Ethernet PCI-X adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	Any	00P3055	IBM Gigabit-SX Ethernet PCI-X adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25C1

The 10/100/1000 base-TX PCI-X adapter might be failing.

Replace the 10/100/1000 base-TX PCI-X adapter.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25C2

The dual-port Gigabit SX Ethernet PCI-X adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25C2	Any	00P4290	IBM dual-port Gigabit SX Ethernet PCI-X adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25C3

The 10/100/1000 base-TX dual-port PCI-X adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25C3	Any	00P4289	IBM 10/100/1000 base-TX dual-port PCI-X adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25C4

The Broadcom dual-port Gbps Ethernet PCI-X adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25C4	Any	13N0504	Broadcom dual-port Gbps Ethernet PCI-X adapter	
25C4	Any	73P9031	Broadcom dual-port Gbps Ethernet PCI-X daughter card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25D0

The audio adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25D0	Any	00P4648	PCI audio adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25D2

Configuring JS21 SAS expansion adapter.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25D3

A 2-port 6 Gb LSI SAS expansion PCIe x8 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25D3	Any	74Y0500	2-port 6 Gb LSI SAS expansion PCIe x8 adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25D5

A 4-port 6 Gb LSI SAS expansion PCIe x8 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25D5	Any	46K3659	4-port 6 Gb LSI SAS expansion PCIe x8 adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25E5

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25E5	Any	10N7756	PCIe 2D graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25E6

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25E6	Any	74Y2025	Low profile PCIe 2D graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25E7

The graphics adapter cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25E7	Any	74Y2031	Low profile PCIe 2D graphics adapter Y-breakout cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 25F8

The 1 GB PCI-X iSCSI TOE Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
25F8	Any	80P4092	1 GB PCI-X iSCSI TOE Ethernet adapter (copper)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 260

The problem is in the 4-port multiprotocol, X.21 cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
260	Any	71F0164	4-port multiprotocol, X.21 cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2600

The Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2600	Any	80P6416	PCI 64-Bit Fibre Channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2601

The Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2601	Any	03N7069	PCI 64-Bit Fibre Channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2602

The Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2602	Any	03N5012	PCI 64-Bit 4 GB Fibre Channel adapter (Low Profile 1-Port)	
2602	Any	03N5029	PCI 64-Bit 4 GB Fibre Channel adapter (2-Port)	

CCIN or FFC	Type and model	Part number	Description	Location code
2602	Any	03N5027	PCI 64-Bit 4 GB Fibre Channel adapter (Low Profile 2-Port)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2603

The 1-port or 2-port 4 Gb PCIe Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2603	Any	See Managing PCI adapters.	1-port 4 Gb PCIe Fibre Channel adapter	U*n*-P*x*-C*x*
2603	Any	See Managing PCI adapters.	2-port 4 Gb PCIe Fibre Channel adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2604

Configuring Fibre Channel daughter card.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2606

The 8 Gb Fibre Channel 2-port PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2606	Any	See Managing PCI adapters.	8 Gb Fibre Channel 2-port PCI adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2608

The Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2608	Any	See PCIe2 FH 4-Port 8 Gb Fibre Channel Adapter (FC 5729).	PCIe2 4-port 8 Gb Fibre Channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2609

The Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2609	Any	See PCIe2 16 Gb 2-port Fibre Channel Adapter (FC EN0A; CCIN 577F).	PCIe2 16 Gb 2-port Fibre Channel full-height adapter	
2609	Any	See PCIe2 LP 16 Gb 2-port Fibre Channel Adapter (FC EN0B; CCIN 577F).	PCIe2 16 Gb 2-port Fibre Channel low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 261

The problem is in the RS/232 interposer.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
261	Any	10N7453	RS/232 interposer	U*n*-P1-T*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2611

The 36/72 GB Data72 4-mm internal tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2611	Any	95P1989	36/72 GB Data72 4-mm internal tape drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2612

The 80/160 GB internal tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2612	Any	19P4898	80/160 GB internal tape drive with VXA technology	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2613

The 200/400 GB half high Ultrium 2 tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2613	Any	96P1775	200/400 GB Half High Ultrium 2 tape drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2614

The 160/320 GB internal tape drive VXA-320 might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2614	Ant	95P1976	160/320 GB internal tape drive VXA-320	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2615

The DAT 160 80 GB tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

2615	Any	23R9723	DAT 160 80 GB tape drive	U*n*-D1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2616

The 36/72 GB 4 mm internal tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2616	Any	23R2619	36/72 GB 4 mm internal tape drive	U*n*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2617

The LTO3 400 GB tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2617	Any	23R7038	LTO3 400 GB tape drive	U*n*-D1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2618

The 800 GB/1.6 TB Ultrium 4 SAS tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2618	Any	45E1127	800 GB/1.6 TB Ultrium 4 SAS tape drive	U*n*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2619

The 3.5 inch DAT 160 80 GB SAS tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
1124	Any	46C2214	3.5 inch DAT 160 80 GB SAS tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 262

The problem is in the 8-port multiport interface cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
262	Any	00F5524	8-port multiport interface cable	U*n*-P1-C*x*-T*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2625

The 2-port 4x InfiniBand QDR adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2625	Any	74Y2987	2-port 4x InfiniBand QDR adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2628

The PCIe2 2-port 4x InfiniBand QDR adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2628	Any	See PCIe2 2-port 4X InfiniBand QDR Adapter (FC 5283 and FC 5285).	PCIe2 2-port 4x InfiniBand QDR adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2629

A PCIe QDR host channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
	Any	See Failing function code 2625.	PCIe QDR host channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 262B

The 2-port PCIe2 10 GbE RoCE SFP+ adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
262B	Any	See PCIe2 LP 2-Port 10GbE RoCE SFP+ Adapter (FC EC27 and FC EC28).	PCIe2 2-port 10 GbE RoCE SFP+ low-profile adapter	
262B	Any	See PCIe2 LP 2-Port 10GbE RoCE SFP+ Adapter (FC EC27 and FC EC28).	PCIe2 2-port 10 GbE RoCE SFP+ full-height adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 262D

The 2-port PCIe2 10 GbE RoCE SR adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
262D	Any	See PCIe2 LP 2-port 10 GbE RoCE SR Adapter (FC EC29; CCIN EC29).	PCIe2 2-port 10 GbE RoCE SR low-profile adapter	
262D	Any	See PCIe2 LP 2-port 10 GbE RoCE SR Adapter (FC EC30; CCIN EC29).	PCIe2 2-port 10 GbE RoCE SR full-height adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 263

The problem is in the EIA-232 terminal cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
263	Any	10N6535	EIA-232 Terminal cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2631

The integrated IDE controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2631	Any		Integrated IDE controller	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2640

The 2.5 inch IDE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2640	Any	See System parts.	2.5 inch IDE disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2641

The 73.4 GB U3 10,000 rpm 68–pin bolt in SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

2641	Any	03N5255	73.4 GB U3 10,000 rpm 68-pin bolt in SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2642

The 73.4 GB U3 10,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2642	Any	03N5260 or 03N6325	73.4 GB U3 10,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2643

The 73.4 GB U3 10,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2643	Any	03N6327 or 03N5262	73.4 GB U3 10,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2644

The 146.8 GB 10,000 rpm 80–pin SCSI bolt in disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2644	Any	03N5256	146.8 GB 10,000 rpm 80-pin SCSI bolt in disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2645

The 146.8 GB 10,000 rpm ultra320 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2645	Any	03N5265 or 03N6330	146.8 GB 10,000 rpm ultra320 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2646

The 146.8 GB 10,000 rpm ultra320 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2646		03N6332 or 03N5267	146.8 GB 10,000 rpm ultra320 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2647

The 300 GB 10,000 rpm ultra320 bolt in SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2647	Any	03N5257	300 GB 10,000 rpm ultra320 bolt in SCSI disk drive, 1 inch	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2648

The 300 GB 10,000 rpm ultra320 bolt in SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2648	Any	03N5270 or 03N6335	300 GB 10,000 rpm ultra320 bolt in SCSI disk drive, 1 inch	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2649

The 300 GB 10,000 rpm ultra320 SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2649		03N5272 or 03N6337	300 GB 10,000 rpm ultra320 SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 264B

The 36.4 GB 15,000 rpm ultra3 80–pin SCSI disk drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
264B	Any	03N5275 or 03N6340	36.4 GB 15,000 rpm ultra3 80-pin SCSI disk drive and carrier	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 264D

The 36.4 GB U3 15,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
264D	Any	03N5277 or 03N6342	36.4 GB U3 15,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 264E

The 73.4 GB U320 15,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
264E	Any	03N5280 or 03N6345	73.4 GB U320 15,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2650

Configuring iSCSI devices.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2651

Configuring SVC.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2653

The 73.4 GB U3 15,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2653	Any	03N6347 or 03N5282	73.4 GB U3 15,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2654

The 146.8 GB U320 15,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2654	Any	03N5285 or 03N6350	146.8 GB U320 15,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2655

The 146.8 GB 15,000 rpm 80–pin U320 SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2655	Any	03N5288 or 03N6352	146.8 GB 15,000 rpm 80-pin U320 SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2658

The 73.4 GB 10,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2658	Any	03N5762	73.4 GB 10,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2659

The 146.8 GB 10,000 rpm 80–pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2659	Any	03N5763	146.8 GB 10,000 rpm 80-pin SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 265B

The 300 GB 10,000 rpm ultra320 SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
265B	Any	03N5764	300 GB 10,000 rpm ultra320 SCSI disk drive, 1 inch	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 266

The problem is in the RJ-45 to DB-25 converter cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
266	Any	59F3432	RJ-45 to DB-25 converter cable	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2667

The problem is with a SAS enclosure services manager or with a system backplane.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2667	7214-1U2	95P4036	Electronics tray, also known as the enclosure services manager	U*n*-P1
2667	5886	44V3937	Enclosure services manager	U*n*-C1, U*n*-C2
2667	5887	See System parts.	Enclosure services manager	U*n*-P1-C1, U*n*-P1-C2
2667	5888, EDR1	See System parts.	Enclosure RAID module	U*n*-P1-C1, U*n*-P1-C2
2667	System unit	See System parts.	System backplane or I/O backplane	
2667	5802	See System parts.	PORT card	U*n*-P3-C*x*
2667	5803	See System parts.	PORT card	U*n*-P3-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 267

The problem is in the 4-port multiprotocol jumper cable assembly.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
267	Any	81F8570	4-port multiprotocol jumper cable assembly	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2670

A 73 GB SAS interface small form factor 10,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2670	Any	42R8391	73 GB SAS interface small form factor 10,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2671

A 146 GB SAS interface small form factor 10,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2671	Any	42R8392	146 GB SAS interface small form factor 10,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2672

A 300 GB SAS interface small form factor 10,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2672	Any	44V6833	300 GB SAS interface small form factor 10,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2679

The DVD-RAM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2679	Any	See System parts.	SATA Slimline DVD-RAM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 267B

The DVD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
267B	Any	See System parts.	SATA Slimline DVD-ROM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2680

The problem is with a generic SAS adapter.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2680	Any		Generic SAS adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2681

The media bay insert might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2681	7214-1U2	95P4044	DVD tray assembly	U*n*-P*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2682

A 450 GB SAS interface 3.5 inch form factor 15,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2682	Any	See System parts.	450 GB SAS interface 3.5 inch form factor 15,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2684

A 73 GB SAS interface small form factor 15,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2684	Any	See System parts.	73 GB SAS interface small form factor 15,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2685

A 146 GB SAS interface small form factor 15,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2685	Any	See System parts.	146 GB SAS interface small form factor 15,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2687

A 73 GB SAS small form factor solid state drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2687	Any	See System parts.	73 GB SAS small form factor solid state drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2690

A 600 GB SAS interface 3.5 inch form factor 15,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2690	Any	See System parts.	600 GB SAS interface 3.5 inch form factor 15,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2699

A 600 GB SAS interface small form factor 10,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2699	Any	See System parts.	600 GB SAS interface small form factor 10,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26B4

A 200 GB SATA 1.8 inch form factor solid state drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
26B4	Any	See System parts.	200 GB SATA 1.8 inch form factor solid state drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26B8

A 200 GB SAS solid state drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
	Any	See System parts.	200 GB SAS solid state drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26BD

The SAS to SATA bridge function for SATA solid state drives might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
57CD	Any	See Managing PCI adapters.	3Gb PCIe RAID and SSD SAS adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26D0

The DAT 320 160 GB SAS tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
26D0	Any	See System parts.	DAT 320 160 GB SAS tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26D1

The DAT 320 160 GB USB tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
26D1	Any	See System parts.	DAT 320 160 GB USB tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26D2

A 600 GB SAS interface small form factor 10,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

26D2	Any	See System parts.	600 GB SAS interface small form factor 10,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26D3

A 300 GB SAS interface small form factor 15,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
26D3	Any	See System parts.	300 GB SAS interface small form factor 15,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26DD

A 900 GB SAS interface small form factor 10,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
26DD	Any	See System parts.	900 GB SAS interface small form factor 10,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26E0

An internal RDX USB 2 dock might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
26E0	Any	46C5380	Internal 5.25 inch RDX USB 2 dock	
26E0	Any	46C2217	Internal 3.5 inch RDX USB 2 dock	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26E1

An external RDX USB 2 dock might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
26E1	Any	46C5381	External RDX USB 2 dock	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26E2

A removable disk cartridge might be failing.

Removable disk cartridges are supply items. To receive warranty service or to purchase additional removable disk cartridges in the United States and Canada, call 1-888-IBM-MEDIA. In other locations, contact your local provider of IBM storage products or see Storage Media (http://www.ibm.com/storage/media).

Removable disk cartridges are not service items. IBM service representatives are not dispatched to service or replace removable disk cartridges.

Failing function code 26E5

The LTO5 SAS tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
26E5	Any	46C2006	LTO5 SAS tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26E7

An internal RDX USB 3 dock might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
26E7	Any	46C2346	Internal 5.25 inch RDX USB 3 dock	
26E7	Any	46C2444	Internal 3.5 inch RDX USB 3 dock	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 26E9

An external RDX USB 3 dock might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
26E9	Any	46C2347	External RDX USB 3 dock	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 271

The problem is an X.25 attachment cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
271	Any	07F3151	Cable, X.25 attachment cable, X.21 (3 m)	U*n*-P1-C*x*-T*y*
271	Any	53F3926	Cable, X.25 attachment cable, X.21 (6 m)	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2710

The OHCI USB Native or Lily 4-port PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2710	Any	See Managing PCI adapters.	OHCI USB Native or Lily 4-port PCIe adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2712

The USB converter card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
2712	7226-1U3	46C2592	USB converter card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2713

The SATA redriver card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
2713	7226-1U3	46C1761	SATA redriver card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 272

The problem is an X.25 attachment cable, V.24.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
272	Any	07F3160	Cable, X.25 attachment cable, V.24 (3 m)	U*n*-P1-C*x*-T*y*
272	Any	53F3927	Cable, X.25 attachment cable, V.24 (6 m)	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2720

The DVD-RAM drive might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
2720	Any	See SATA Slimline DVD-RAM Drive (FC 5762).	SATA Slimline DVD-RAM drive (FC 5762)	
2720	Any	See SATA Slimline DVD-RAM Drive (FC 5771).	SATA Slimline DVD-RAM drive (FC 5771)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2722

The LTO6 serial-attached SCSI (SAS) tape drive might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2722	Any	35P1055	LTO6 SAS tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2723

The LTO6 FC tape drive might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2723	Any	35P1060	LTO6 FC tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 273

The problem is an X.25 attachment cable, V.35.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
273	Any	07F3171	Cable, X.25 attachment cable, V.35 (3 m)	U*n*-P1-C*x*-T*y*
273	Any	53F3928	Cable, X.25 attachment cable, V.35 (6 m)	U*n*-P1-C*x*-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2740

A 400 GB SAS small-form factor solid-state drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2740	Any	See System parts.	400 GB SAS small-form factor solid-state drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2743

A 800 GB SAS small-form factor solid-state drive might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
2743	Any	See System parts.	800 GB SAS small-form factor solid-state drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 274E

A 400 GB SAS small-form factor solid-state drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
274E	Any	See System parts.	400 GB SAS small-form factor solid-state drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2751

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4C	Any	74Y3832	Dual 10 Gb copper and dual 10GBase-T Ethernet integrated multifunction card (FC EN10)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2752

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4C	Any	74Y3832	Dual 10 Gb copper and dual 10GBase-T Ethernet integrated multifunction card (FC EN10)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2753

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4D	Any	74Y3843	Dual 10 Gb optical and dual 10GBase-T Ethernet integrated multifunction card (FC EN11)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2754

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4D	Any	74Y3843	Dual 10 Gb optical and dual 10GBase-T Ethernet integrated multifunction card (FC EN11)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2756

A GX++ 2-port 10 Gb FCoE CNA SR optical adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2B74	9119-FHB	See 9119-FHB system parts.	GX++ 2-port 10 Gb FCoE CNA SR optical adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2757

A GX++ 2-port 10 Gb FCoE CNA SR optical adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2B74	9119-FHB	See 9119-FHB system parts.	GX++ 2-port 10 Gb FCoE CNA SR optical adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 276

The problem is in the SCSI controller cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
276	Any	31F4221	SCSI controller cable	U*n*-P1-T*x* (x equals 12, 13, or 14)

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 277

The problem is in the internal SCSI controller cable.

See SCSI service hints in the service information for the unit on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2777

The GX++ to PCIe2 1-port 4X InfiniBand QDR adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
2777	Any	00E9887	GX++ to PCIe2 1-port 4X InfiniBand QDR adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2780

A 300 GB SAS interface small form factor 15,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2780	Any	See System parts.	300 GB SAS interface small form factor 15,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2782

A 600 GB SAS interface small form factor 15,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2782	Any	See System parts.	600 GB SAS interface small form factor 15,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 279

The PTC resistor has been tripped.

Note: This problem is related to a SCSI single-ended adapter. See SCSI service hints in the service information that is for the unit on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 27D2

A 1.2 TB SAS interface small form factor 10,000 rpm disk drive might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

FFC	Type and model	Part number	Description	Location code
27D2	Any	See System parts.	1.2 TB SAS interface small form factor 10,000 rpm disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 27E3

A 400 GB SAS 1.8 inch form factor solid state drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
27E3	Any	See System parts.	400 GB SAS 1.8 inch form factor solid state drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 287

A power supply in an expansion unit might be failing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 289

A power supply in an expansion unit might be failing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 293

The problem is a PCI-to-PCI bridge problem.

Replace the system backplane or I/O backplane.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 296

The problem is a PCI device or adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

296	Any		The FRU can only be identified by its location code reported by the diagnostic programs. See the Display Diagnostic Log summary for more information regarding the service request number.	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 297

The texture memory module for the GXT800P graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
297	Any	93H6055	Texture memory module for the GXT800P graphics adapter	U*n*-P1-C*x*-C*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 298

The problem is in the base memory module for the GXT800P graphics adapter.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	Any	93H6057	Base memory module for the GXT800P graphics adapter	U*n*-P1-C*x*-C*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2C3

The problem is in a 2-port multiprotocol adapter cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

2C3	Any	93H5263	2-Port Multiprotocol adapter cable V.24	U*n*-P1-C*x*-T*x*
2C3	Any	93H5264	2-Port Multiprotocol adapter cable V.35	U*n*-P1-C*x*-T*x*
2C3	Any	93H5265	2-Port Multiprotocol adapter cable V.36	U*n*-P1-C*x*-T*x*
2C3	Any	93H5267	2-Port Multiprotocol adapter cable X.21	U*n*-P1-C*x*-T*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2C9

The problem is in the PCI bus on the I/O backplane.

Replace the I/O backplane.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D01

The SCSI RAID battery pack might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D01	Any	39J5554	PCI-X quad channel U320 SCSI RAID battery pack, attached to the PCI-X quad channel U320 SCSI RAID adapter	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D02

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D02	Any		Generic USB reference to controller/adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D03

The SCSI RAID battery pack might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D03	Any	39J5555	PCI-X ultra320 SCSI RAID Battery Pack	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D05

The battery pack for the internal SAS RAID enablement card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D05	Any	74Y5667	Battery pack for the internal SAS RAID enablement card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D06

The PCI-X RAID battery pack might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D06	Any	42R3965	PCI-X RAID battery pack	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D07

The PCI-X DDR auxiliary cache adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

2D07	Any	42R5133	PCI-X DDR auxiliary cache adapter	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D0B

The SAS RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D0B	Any	44V4813	PCI Express x8 Ext Dual-x4 3 Gb SAS RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D0E

The PCIe SAS RAID battery pack might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D0E	Any	44V7597	PCIe SAS RAID battery pack	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D11

A PCIe3 RAID SAS adapter quad-port 6 Gb adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
57B4	Any	See PCIe3 RAID SAS Adapter.	PCIe3 RAID SAS adapter quad-port 6 Gb full-height adapter	U*n*-P*x*-C*x*
57B4	Any	See PCIe3 RAID SAS Adapter.	PCIe3 RAID SAS adapter quad-port 6 Gb low-profile adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D14

An embedded SAS adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BBE	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Small form factor SAS disk drive backplane with embedded SAS adapters	U*n*-P2-C9

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D15

An embedded SAS RAID adapter might be failing.

All failing items listed in the following table for a specific type and model must be replaced at the same time. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BBE	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Small form factor SAS disk drive backplane with embedded SAS adapters	U*n*-P2-C9
2BC2	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	175 MB cache RAID and dual storage IOA enablement card	U*n*-P2-C9-C1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D16

A RAID storage controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BE0	8202-E4B, 8205-E6B	See System parts.	RAID storage controller	U*n*-P1-C19

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D17

An embedded SAS RAID adapter might be failing.

All failing items listed in the following table for a specific type and model must be replaced at the same time. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BE1	8202-E4B, 8205-E6B	See System parts.	RAID enablement card	U*n*-P1-C13
2BCF	8202-E4B, 8205-E6B	See System parts.	Cache battery card	U*n*-P1-C14
	8202-E4B, 8205-E6B	See System parts.	System backplane	U*n*-P1
2BE1	8231-E2B	See System parts.	RAID enablement card	U*n*-P1-C12
2BCF	8231-E2B	See System parts.	Cache battery card	U*n*-P1-C13
	8231-E2B	See System parts.	System backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D18

The RAID and cache storage controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BD9	8202-E4B, 8205-E6B	See System parts.	RAID and cache storage controller	U*n*-P1-C19
2BD9	8231-E2B	See System parts.	RAID and cache storage controller	U*n*-P1-C18

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D19

The cache battery pack for the SAS adapters that are imbedded on the disk drive backplane might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D19	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Cache battery pack for the SAS adapters that are imbedded on the disk drive backplane	U*n*-P2-C9-C1-E*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D1B

The battery on a cache battery card or a RAID and cache storage controller might be failing.

If the SRN that sent you here is 2D17-*xxxx* or 2D26-*xxxx*, replace the battery on the cache battery card. If the SRN that sent you here is 2D18-*xxxx* or 2D28-*xxxx*, replace the battery on the RAID and cache storage controller.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D1B	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Battery on cache battery card	U*n*-P1-C14-E1
2D1B	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Battery on RAID and cache storage controller	U*n*-P1-C19-E1
2D1B	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Battery on cache battery card	U*n*-P1-C13-E1
2D1B	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Battery on RAID and cache storage controller	U*n*-P1-C18-E1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D1D

A PCIe2 RAID SAS adapter dual-port 6 Gb adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
57C4	Any	See PCIe2 RAID SAS Adapter Dual-port 6 Gb (FC ESA1; CCIN 57C4).	PCIe2 RAID SAS adapter dual-port 6 Gb full-height adapter	U*n*-P*x*-C*x*
57C4	Any	See PCIe2 RAID SAS Adapter Dual-port 6 Gb LP (FC ESA2; CCIN 57C4).	PCIe2 RAID SAS adapter dual-port 6 Gb low-profile adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D1F

A PCIe2 1.8 GB cache RAID SAS adapter tri-port 6 Gb adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
57BB	Any	See PCIe2 1.8 GB Cache RAID SAS Adapter Tri-port 6Gb (FC ESA3; CCIN 57BB).	PCIe2 1.8 GB cache RAID SAS adapter tri-port 6 Gb adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D20

A PCIe2 1.8 GB cache RAID SAS adapter tri-port 6 Gb adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
57B5	Any	See PCIe2 1.8 GB Cache RAID SAS Tri-port 6 Gb Adapter (FC 5913; CCIN 57B5).	PCIe2 1.8 GB cache RAID SAS adapter tri-port 6 Gb adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D21

A PCIe3 12 GB cache RAID SAS adapter quad-port 6 Gb adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code

57CE	Any	See PCIe3 12 GB Cache RAID SAS 6 Gb Adapter.	PCIe3 12 GB cache RAID SAS adapter quad-port 6 Gb adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D23

An embedded SAS adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Small form factor SAS disk drive backplane with embedded SAS adapters	U*n*-P2-C9

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D24

An Redundant Array of Independent Disks (RAID) module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2D24	5888, EDR1	See System parts.	Enclosure RAID module	U*n*-P1-C1, U*n*-P1-C2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D25

An embedded SAS adapter might be failing.

All failing items listed in the following table for a specific type and model must be replaced at the same time. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

57C7	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D26

An embedded SAS RAID adapter might be failing.

All failing items listed in the following table for a specific type and model must be replaced at the same time. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BCF	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	Cache battery card	U*n*-P1-C14
57CB	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	System backplane	U*n*-P1
2BCF	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cache battery card	U*n*-P1-C13
57CB	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D27

A RAID storage controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2B4F	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	RAID storage controller	U*n*-P1-C19

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D28

The RAID and cache storage controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

2B4C	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	RAID and cache storage controller	U*n*-P1-C19
2B4C	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	RAID and cache storage controller	U*n*-P1-C18

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D3

The problem is in the service processor card.

The FRU part number is 10N8752.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D4

The problem is a system/SP interface logic problem (I/O backplane or system backplane).

For the FRU part number, see the service information for the unit on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D40

A 3Gb PCIe RAID and SSD SAS adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
57CD	Any	See Managing PCI adapters.	3Gb PCIe RAID and SSD SAS adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D5

The problem is a service processor to primary I/O bus problem.

Replace the I/O backplane. The FRU part number is 42R7352.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D6

The problem is a service processor card.

Replace the service processor card. The FRU part number is 10N8752.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D7

The problem is in the operator panel.

The FRU part number is 39J3272.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2D9

The problem is in the power controller.

Replace the I/O backplane. The FRU part number is 42R7352.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E0

The problem is in the fan sensor.

Replace the I/O backplane. The FRU part number is 42R7352.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E01

The 10 Gb Ethernet-SR PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E01	Any	10N9033	10 Gb Ethernet-SR PCIe adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E02

The 10 Gb Ethernet-LR PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E02	Any	10N9034	10 Gb Ethernet-LR PCIe adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E03

The 10 Gb Ethernet-SR PCIe host bus adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E03	Any	10N9505	10 Gb Ethernet-SR PCIe host bus adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E04

The 10 Gb Ethernet-CX4 PCIe host bus adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E04	Any	46K6696	10 Gb Ethernet-CX4 PCIe host bus adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E08

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E08	Any	See PCIe2 2x10GbE SFP+ Copper 2x1GbE UTP Adapter (FC 5279 and FC 5745).	PCIe2 2 x 10 Gb Ethernet and 2 x 1 Gb Ethernet UTP Adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E0B

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E0B	Any	See PCIe2 2x10GbE SR 2x1GbE UTP Adapter (FC 5280 and FC 5744).	PCIe2 2 x 10 Gb Ethernet and 2 x 1 Gb Ethernet UTP Adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E1

The problem is a thermal sensor.

Replace the operator (control) panel. The FRU part number is 39J3272.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E12

The Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E12	Any	46C7006	8 Gb Fibre Channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E17

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E17	Any	See PCIe2 LP 8 Gb 4-port Fibre Channel Adapter (FC ENOY).	PCIe2 low-profile 8 Gb 4-port Fibre Channel adapter (FC ENOY)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E2

The problem is a voltage sensor problem.

Replace the system backplane. The FRU part number is 03N6902.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E20

A 10 Gb PCIe FCoE CNA slot Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E20	Any	See System parts.	10 Gb PCIe FCoE CNA slot Fibre Channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E22

A 10 Gb PCIe FCoE CNA slot Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E22	Any	See System parts.	10 Gb PCIe FCoE CNA slot Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E24

A PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E24	Any	See PCIe2 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0H; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet full-height adapter	

CCIN or FFC	Type and model	Part number	Description	Location code
2E24	Any	See PCIe2 LP 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0J; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E26

A PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E26	Any	See PCIe2 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0H; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet full-height adapter	
2E26	Any	See PCIe2 LP 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0J; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E3

The problem is in the serial port controller.

Replace the service processor card. The FRU part number is 10N8752.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E30

A 10 Gb Ethernet-SR PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E30	Any	74Y2094	10 Gb Ethernet-SR PCIe adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E31

A 10 Gb twinaxial Ethernet PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E31	Any	74Y2095	10 Gb twinaxial Ethernet PCIe adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E38

An Ethernet PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2B57	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	00E0784	2 x 1 Gb and 2 x 10 Gb optical Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E39

An Ethernet PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2B56	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	00E0778	2 x 1 Gb and 2 x 10 Gb twinaxial Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E3B

An Ethernet PCIe adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2B56	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	00E0778	2 x 1 Gb and 2 x 10 Gb twinaxial Ethernet adapter	
2B57	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	00E0784	2 x 1 Gb and 2 x 10 Gb optical Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E4

The problem is in the JTAG/COP controller.

Replace the service processor. The FRU part number is 10N8752.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E41

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E41	Any	See PCIe2 LP 4-port 1GbE Adapter (FC 5260).	PCIe2 LP 4-port 1 GbE adapter (FC 5260)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E42

A PCIe2 2-port 10 GbE BaseT RJ45 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2CC4	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D, 8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMC, 9117-MMD, 9179-MHC, 9179-MHD	See PCIe2 2-port 10 GbE BaseT RJ45 Adapter (FC EN0W; CCIN 2CC4).	PCIe2 2-port 10 GbE BaseT RJ45 adapter	
2CC4	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See PCIe2 LP 2-port 10 GbE BaseT RJ45 Adapter (FC EN0X; CCIN 2CC4).	PCIe2 2-port 10 GbE BaseT RJ45 adapter (low profile)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E43

A PCIe2 4-port (10Gb+1GbE) SR+RJ45 or PCIe2 4-port (10Gb+1GbE) Copper SFP+RJ45 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2CC3	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D, 8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMC, 9117-MMD, 9179-MHC, 9179-MHD	See PCIe2 4-Port (10Gb+1GbE) SR+RJ45 Adapter (FC EN0S; CCIN 2CC3).	PCIe2 4-port (10Gb+1GbE) SR+RJ45 adapter	
2CC3	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See PCIe2 LP 4-Port (10Gb+1GbE) SR+RJ45 Adapter (FC EN0T; CCIN 2CC3).	PCIe2 4-port (10Gb+1GbE) SR+RJ45 adapter (low profile)	
2CC3	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D, 8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMC, 9117-MMD, 9179-MHC, 9179-MHD	See PCIe2 4-port (10Gb+1GbE) Copper SFP+RJ45 Adapter (FC EN0U; CCIN 2CC3).	PCIe2 4-port (10Gb+1GbE) Copper SFP+RJ45 adapter	

2CC3	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See PCIe2 LP 4-port (10Gb+1GbE) Copper SFP+RJ45 Adapter (FC EN0V; CCIN 2CC3).	PCIe2 4-port (10Gb+1GbE) Copper SFP+RJ45 adapter (low profile)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E54

A PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E54	Any	See PCIe2 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0H; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet full-height adapter	
2E54	Any	See PCIe2 LP 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0J; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E55

A PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E55	Any	See PCIe2 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0H; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet full-height adapter	
2E55	Any	See PCIe2 LP 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0J; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E56

A PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E56	Any	See PCIe2 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0H; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet full-height adapter	
2E56	Any	See PCIe2 LP 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0J; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E57

A PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E57	Any	See PCIe2 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0H; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet full-height adapter	
2E57	Any	See PCIe2 LP 2x10Gb FCoE 2x1GbE SFP+ Adapter (FC EN0J; CCIN 2B93).	PCIe2 2-port 10 Gb FCoE SR and 2-port 1 Gb RJ45 Ethernet low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E58

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4D	Any	74Y3843	Dual 10 Gb optical and dual 10GBase-T Ethernet integrated multifunction card (FC EN11)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E59

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4D	Any	74Y3843	Dual 10 Gb optical and dual 10GBase-T Ethernet integrated multifunction card (FC EN11)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E5D

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4D	Any	74Y3843	Dual 10 Gb optical and dual 10GBase-T Ethernet integrated multifunction card (FC EN11)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E5E

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4C	Any	74Y3832	Dual 10 Gb copper and dual 10GBase-T Ethernet integrated multifunction card (FC EN10)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E6

The problem is in a PCI differential ultra SCSI controller.

For the failing FRU part number, see the following table.

CCIN or FFC	Type and model	Part number	Description	Location code
2E6		See Managing PCI adapters for FRU part numbers	SCSI PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E60

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4C	Any	74Y3832	Dual 10 Gb copper and dual 10GBase-T Ethernet integrated multifunction card (FC EN10)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E62

An integrated multifunction card might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2C4C	Any	74Y3832	Dual 10 Gb copper and dual 10GBase-T Ethernet integrated multifunction card (FC EN10)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E63

A GX++ 2-port 16 Gb Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN	Type and model	Part number	Description	Location code
2B9B	9119-FHB	See 9119-FHB system parts.	GX++ 2-port 16 Gb Fibre Channel adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E7

The problem is a generic PCI SCSI adapter.

To determine the FRU part number, check the system unit or expansion unit for SCSI PCI adapters.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E72

A PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E72	Any	See PCIe2 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0K; CCIN 2CC1) .	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 full-height adapter	
2E72	Any	See PCIe2 LP 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0L; CCIN 2CC1).	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E8

The problem is in a processor card.

To determine the FRU part number, check the system unit for installed processor cards.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E84

A PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E84	Any	See PCIe2 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0K; CCIN 2CC1) .	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 full-height adapter	
2E84	Any	See PCIe2 LP 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0L; CCIN 2CC1).	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E85

A PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E85	Any	See PCIe2 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0K; CCIN 2CC1) .	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 full-height adapter	
2E85	Any	See PCIe2 LP 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0L; CCIN 2CC1).	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E86

A PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E86	Any	See PCIe2 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0K; CCIN 2CC1) .	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 full-height adapter	
2E86	Any	See PCIe2 LP 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0L; CCIN 2CC1).	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 2E87

A PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 adapter might be failing.

Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2E87	Any	See PCIe2 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0K; CCIN 2CC1) .	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 full-height adapter	
2E87	Any	See PCIe2 LP 4-port (10Gb FCoE & 1GbE) Copper&RJ45 Adapter (FC EN0L; CCIN 2CC1).	PCIe2 4-port 10 Gb FCoE and 1 Gb Ethernet copper and RJ45 low-profile adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 301

The problem is in system memory.

Go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 303

The problem is in system memory.

Go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 304

The problem is in system memory.

Go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 305

The problem is in system memory.

To determine the FRU part number, go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 306

The problem is a remote I/O (RIO) cable.

To determine the FRU part number, go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 30A

The problem is in system memory.

To determine the FRU part number, go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 30B

The problem is in system memory.

To determine the FRU part number, go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 440

The problem is a 9.1 GB ultra SCSI disk drive (no carrier).

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
440	Any	25L3101	9.1 GB ultra SCSI disk drive (no carrier)	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 441

The problem is an 18.2 GB ultra SCSI disk drive (no carrier).

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
441	Any	25L3100	18.2 GB ultra SCSI disk drive (no carrier)	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 442

The problem is a 9.1 GB ultra LVD SCSI disk drive.

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
442	Any	09L3117	9.1 GB ultra LVD SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 443

The problem is an 18.2 GB ultra LVD SCSI disk drive.

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
443	Any	09L3118	18.2 GB ultra LVD SCSI disk drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 444

The problem is a 2-port multiprotocol PCI adapter (ASIC).

The FRU part number is 00P5920.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 445

The problem is a 146.8 GB 15,000 rpm 80–pin U320 SCSI bolt in disk drive.

The FRU part number is 80P3911.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 446

The problem is a 300 GB 10,000 rpm 58–pin U320 SCSI bolt in disk drive.

The FRU part number is 80P3157.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 447

The problem is a PCI 64-bit Fibre Channel adapter.

The FRU part number is 80P4384.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 451

The problem is a 73.4 GB 15,000 rpm Ultra3 SCSI disk drive and carrier.

The FRU part number is 03N6345 or 03N5280.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 453

The problem is a 146.8 GB 10,000 rpm SCSI disk drive and carrier.

The FRU part number is 00P3837, 00P2669, or 03N6330.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 458

The problem is a 36 GB DAT tape drive.

The FRU part number is 71P9163.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 459

The problem is a 36 GB DAT72 tape drive.

The FRU part number for the 36/72 GB 4 mm DAT72 SAS tape drive is 23R2530.

The FRU part number for the 36/72 GB 4 mm DAT72 LVD tape drive is 95P1988.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 541

The problem is a 40 GB tape drive.

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
541	7205-440, 7337-360	19P2042, 19P1629	40 GB tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 542

The problem is a tape drive.

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
542	7208-345, 7334-410	19P0708, 19P0207	60 GB tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 56B

The problem is a 36.4 GB 15,000 rpm disk drive.

The FRU part number is 07N6777.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 56D

The problem is a 36.4 GB 15,000 rpm ultra3 SCSI disk drive and carrier.

The FRU part number is 80P3161 or 00P2697.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 57B

The problem is a 73.4 GB 10,000 rpm, 68-pin Ultra LVD SCSI disk drive.

The FRU part number is 09P4882 07N3172, 00P3069, 80P3153, or 80P3397.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 57D

The problem is a 73.4 GB 10,000 rpm, 80-pin SCSI disk drive and carrier.

The FRU part number is 09P3928 or 09P4890.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 58B

The problem is a 9.1 GB 10,000 rpm SCSI disk drive and carrier.

The FRU part number is 09P4874 or 09P3921.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 58D

The problem is a 18.2 GB 10,000 rpm SCSI disk drive and carrier.

The FRU part number is 00P3829 or 00P3064.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 59B

The problem is a 36.4 GB 10,000 rpm SCSI disk drive and carrier.

The FRU part number is 00P3831 or 00P3068.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 601

The problem is a 9.1 GB LVD 68-pin SCSI disk drive.

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
601	Any	07N3675, 03N3873, 31L8768	9.1 GB LVD 68-pin SCSI disk drive, 9.1 GB LVD 68-pin drive and carrier (U2), 9.1 GB LVD 68-pin drive and carrier (SP) **Note:** The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 60B

The problem is a 18.2 GB LVD 10,000 rpm, 68-pin SCSI disk drive.

The FRU part number is 07N4813, 09P4429, 07N3174, 00P3061, or 80P3149.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 613

The problem is a 8 mm 80 GB VXA-2 tape device.

The FRU part number is 95P1871.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 61B

The problem is a 36.4 GB 10,000 rpm, 80-pin SCSI disk drive.

The FRU part number is 07N4833, 09P4443, 07N3177, 00P3067, or 80P3152.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 61D

The 36.4 GB 10,000 rpm drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
61D	Any	00P1519	36.4 GB 10,000 rpm drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 61E

The 18.2 GB 10,000 rpm drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
61E	Any	00P1511	18.2 GB 10,000 rpm drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 621

The problem is a 9.1 GB LVD 80-pin drive and carrier (U2).

The FRU part number is 03N3301.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 623

The problem is an 18.2 GB LVD 68-pin SCSI disk drive.

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
623	Any	07N3674, 03N3874, 31L8770	18.2 GB LVD 68-pin SCSI disk drive, 18.2 GB LVD 68-pin drive and carrier (U2), 18.2 GB LVD 68-pin drive and carrier (SP)	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 624

The problem is an 18.2 GB LVD 80-pin drive and carrier (U2).

The FRU part number is 03N3302.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 62D

The 9.1 GB 10,000 rpm, 68-pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
62D	Any	09P4868, 07N3179, 80P3148	9.1 GB 10,000 rpm, 68-pin SCSI disk drive	

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 62E

The 9.1 GB 10,000 rpm drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
62E	Any	00P1508	9.1 GB 10,000 rpm drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 636

The problem is a TURBOWAYS 622 Mbps PCI MMF ATM adapter.

The FRU part number is 53P1942.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 637

The problem is a dual channel PCI-2 ultra2 SCSI adapter.

The FRU part number is 03N3606.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 638

The problem is a 4.5 GB 16-bit Ultra SCSI SE disk drive.

The FRU part number is 22L0027.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 639

The problem is a 9.1 GB ultra SCSI disk drive (68-pin).

See the following table for the FRU part number.

CCIN or FFC	Type and model	Part number	Description	Location code
639	Any	34L2232, 08L1155, 06H9389, 06H7691, 1147429	9.1 GB ultra SCSI disk drive (68-pin) spacer tray ID cable screw	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 63A

The 9.1 GB 10,000 rpm, 68-pin SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
63A	Any	09P4868, 07N3179, 80P3148	9.1 GB 10,000 rpm, 68-pin SCSI disk drive	

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 63B

The problem is a 9.1 GB 10,000 rpm, 80-pin SCSI disk drive.

The FRU part number is 07N4853.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 63C

The problem is a 18.2 GB LVD 10,000 rpm, 68-pin SCSI disk drive.

The FRU part number is 07N4813, 09P4429, 07N3174, 00P3061, or 80P3149.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 63D

The problem is a disk drive failure.

Go to the service information for the system on which you are working.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 63E

The problem is a 36.4 GB 10,000 rpm, 68-pin SCSI disk drive.

The FRU part number is 07N4803, 09P4439, 07N3173, 00P3065, or 80P3151.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 63F

The problem is a 36.4 GB 10,000 rpm, 80-pin SCSI disk drive.

The FRU part number is 07N4833, 09P4443, 07N3177, 00P3067, or 80P3152.

Note: The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 640

The 9.1 GB Ultra SCSI disk drive (80-pin) might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
640	Any	34L2233	9.1 GB ultra SCSI disk drive (80-pin)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 643

The 18.2 GB Ultra LVD SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
643	Any	09L3116	18.2 GB ultra LVD SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 644

The 36.2 GB Ultra LVD SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
644	Any	09L3339	36.2 GB ultra LVD SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 646

The high-speed token-ring PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
646	Any	03N3554	High-speed token-ring PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 64A

The 9.1 GB 10,000 rpm drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
64A	Any	00P1508	9.1 GB 10,000 rpm drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 64B

The 9.1 GB LVD 80-pin drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
64B	Any	00P1517	9.1 GB LVD 80-pin drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 64C

The 18.2 GB 10,000 rpm drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
64C	Any	00P1511	18.2 GB 10,000 rpm drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 64D

The 18.2 GB LVD 80-pin drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
64D	Any	00P1520	18.2 GB LVD 80-pin drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 64E

The 36.4 GB 10,000 rpm drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
64E	Any	00P1514	36.4 GB 10,000 rpm drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 64F

The 36.4 GB 10,000 rpm drive and carrier might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
64F	Any	00P1519	36.4 GB 10,000 rpm drive and carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 650

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
650	Any	See note.	Unknown disk drive	

Note: This FFC indicates that the disk drive could not be configured correctly. Refer to the disk drive FRU part number.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 653

The 18.2 GB ultra-SCSI 16-bit disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
653	Any	59H6923	18.2 GB ultra-SCSI 16-bit disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 655

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
655	Any	11K0313	GXT130P PCI graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 657

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
657	Any	07L7495	GXT2000P 3D graphics adapter PCI	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 65A

See failing function code 67E.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 65B

This failing function code is no longer used.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 65E

See failing function code 254A.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 65F

See failing function code 254B.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 662

This failing function code is not supported on the system. Continue with the next FRU in the failing item list.

Failing function code 663

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
663		87H3734	IBM ARTIC960RxD PCI adapter (base card)	
663		47L8851	IBM ARTIC960RxF adapter	
663		09J8829	IBM ARTIC960 Quad T1/E1 adapter (daughter card)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 664

The SCSI-2 CD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

664	Any	04N2967	SCSI-2 CD-ROM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 667

The PCI 3-channel ultra2 SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
667	Any	01K7396	PCI 3-channel ultra2 SCSI RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 669

The PCI Gb Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
669	Any	41L6396	PCI Gigabit Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 66A

The keyboard/mouse USB PCI attachment card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
66A	Any	09P2470	Keyboard/mouse USB PCI attachment card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 66C

The 10/100/1000 base-T Ethernet PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
66C	Any	00P1690	10/100/1000 base-T Ethernet PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 66D

The PCI 4-channel Ultra3 SCSI RAID adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
66D	Any	37L6892	PCI 4-channel ultra3 SCSI RAID adapter (base card only)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 66E

The DVD-RAM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
66E	Any	04N5967	4.7 GB DVD-RAM drive, black bezel	
66E	Any	04N5968	4.7 GB DVD-RAM drive, white bezel	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 670

18.2 GB SCSI 80–pin SCA driver configuration.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 671

9.1 GB SCSI 80–pin SCA driver configuration.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 672

9.1 GB SCSI differential drive configuration.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 673

The 18.2 GB differential SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
673	Any	59H6925	18.2 GB differential SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 674

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
674	Any	31L7567	ESCON channel PCI adapter assembly	
674	Any	39H8084	IBM ARTIC960Rx PCI base adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 675

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
675	Any	87H3427	IBM ARTIC960Hx PCI base adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 677

The PCI 32-bit Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
677	Any	09P1173	PCI 32-Bit Fibre Channel adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 678

The 12 GB 4 mm SCSI tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
678	Any	59H3879	12 GB 4 mm SCSI tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 679

The 4.5 GB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
679	Any	83H7105	4.5 GB SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 67B

The cryptographic coprocessor card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
67B	Any	See Managing PCI adapters.	PCI cryptographic coprocessor card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 67E

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
67E	Any	03N5853	GXT135P PCI graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 681

The 9.1 GB Ultra-SCSI 16-bit drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
681	Any	59H6926	9.1 GB ultra-SCSI 16-bit drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 682

The CD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
682	Any	93H8055	20X (MAX) SCSI-2 CD-ROM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 683

The 2105 might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
683	Any		2105 - all models	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 684

The remote asynchronous note might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
684	Any	93H6563	Enhanced remote asynchronous node, 16-Port RS-422	
684	Any	93H7091	Power supply, remote async node	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 685

The video accelerator adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
685	Any	93H2534	GXT120P 2D video accelerator adapter PCI	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 686

The 8-port asynchronous EIA-232/RS-422 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
686	Any	93H6541	8-port asynchronous EIA-232/RS-422 adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 687

The 128-port asynchronous controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
687	Any	93H6545	128-port asynchronous controller	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 689

The 4.5 GB 16-bit Ultra SCSI SE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
689	Any	83H7105	4.5 GB 16-bit ultra SCSI SE disk drive	
689	Any	93H9005	4.5 GB 16-bit ultra SCSI SE disk drive assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 68C

The 20 GB 4 mm tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
68C	Any	19P0802	20 GB 4 mm tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 68E

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
68E	Any	00P2368	GXT6000P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 690

The 9.1 GB 16-bit Ultra SCSI SE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
690	Any	76H2698	9.1 GB 16-bit ultra SCSI SE disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 691

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
691	Any	93H5513	TURBOWAYS 25 ATM PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 692

A tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
692	Any	59H3121	7205-311 35 GB DLT tape drive	
692	Any	59H3569	3447-105 35 GB DLT tape drive	
692	Any	59H3569	3447-106 35 GB DLT tape drive	
692	Any	59H3570	7337-305 35 GB DLT tape drive	
692	Any	59H3570	7337-306 35 GB DLT tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 693

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
693	Any	93H5839	Eicon ISDN DIVA PRO 2.0 PCI S/T adapter for PowerPC® system	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 697

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
697	Any	21H3890	TURBOWAYS 155 PCI MMF ATM adapter (1 MB)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 698

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
698	Any	21H7977	TURBOWAYS 155 PCI UTP ATM adapter (1 MB)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 699

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
699	Any	94H0385	3Com Fast EtherLink XL PCI 10/100 Ethernet for PowerPC Microprocessor-based Systems	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 69B

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
69B	Any	21P4106	64-bit/66 MHz PCI ATM MMF adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 69D

An adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
69D	Any	21P4112	64-bit/66 MHz PCI ATM 155 UTP adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 6C9

A SCSI DVD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
6C9	Any	53P2799	SCSI DVD-ROM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 6CC

An SSA drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
6CC	Any	59H6259	4.5 GB SSA drive (DCHC/DGHC) in a blue-handled carrier	
6CC	Any	21H8734	9.1 GB 1.6-inch SSA drive (DCHC) in a blue-handled carrier	
6CC	Any	05J6446	9.1 GB 1.0-inch SSA drive (DGHC) in a blue-handled carrier	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 700

The 1.1 GB 8-bit SE disk drive assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
700	Any	74G6995	1.1 GB 8-bit SE disk drive assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 701

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
701	Any	74G7006	1.1 GB 16-bit SE disk drive assembly	
701	Any	06H8631	Tray assembly	
701	Any	06H7691	4 position ID cable	
701	Any	27H0380	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 702

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
702	Any	74G7009	1.1 GB 16-bit DE disk drive assembly	
702	Any	74G7015	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 703

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
703	Any	74G6996	2.2 GB 8-bit SE disk drive	
703	Any	74G6998	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 704

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
704	Any	74G8824	2.2 GB 16-bit SE disk drive assembly	
704	Any	74G7007	2.2 GB 16-bit SE disk drive unit	
704	Any	06H8631	Tray assembly	
704	Any	06H7691	4 position ID cable	
704	Any	27H0380	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 705

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
705	Any	74G7010	2.2 GB 16-bit DE disk drive assembly	
705	Any	74G7015	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 706

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
706	Any	74G7008	4.5 GB 16-bit SE disk drive	
706	Any	74G8825	4.5 GB 16-bit SE disk drive assembly	
706	Any	06H8631	Tray assembly	
706	Any	06H7691	4 position ID cable	
706	Any	27H0380	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 707

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
707	Any	74G7011	4.5 GB 16-bit DE disk drive assembly	
707	Any	74G7015	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 709

The 128-port ISA adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	Any	73H3384	128-port ISA adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 711

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
711	Any		Unknown adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 713

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
711	Any	87H3427	IBM ARTIC960Hx PCI base adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 716

The system memory might be failing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 717

The Ethernet adapter is being configured.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 721

The SCSI device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
721	Any		Unknown SCSI device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 722

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	Any		Unknown disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 723

The CD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
723	Any		Unknown CD-ROM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 724

The tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
724	Any		Unknown tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 725

The display might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
725	Any	96G2130	P50 display, 15-inch, northern hemisphere	
725	Any	96G2699	P50 display, 15-inch, southern hemisphere	
725	Any	96G3020	P70 display, 17-inch, northern hemisphere	
725	Any	96G2150	P70 display, 17-inch, southern hemisphere	
725	Any	21L4570	P72 display, 17-inch, northern (white)	
725	Any	21L4571	P72 display, 17-inch, northern (black)	
725	Any	61H0215	P72 display, 17-inch, southern (white)	
725	Any	61H0216	P72 display, 17-inch, southern (black)	
725	Any	61H0412	P92 display, 19-inch, northern (white)	
725	Any	61H0223	P92 display, 19-inch, northern (black)	
725	Any	61H0224	P92 display, 19-inch, southern (white)	
725	Any	61H0225	P92 display, 19-inch, southern (black)	
725	Any	96G2701	P200 display, 20-inch, northern hemisphere	
725	Any	96G3049	P200 display, 20-inch, southern hemisphere	
725	Any	60H0233	P202 display, 21-inch, northern (white)	
725	Any	60H0234	P202 display, 21-inch, northern (black)	
725	Any	60H0235	P202 display, 21-inch, southern (white)	
725	Any	60H0236	P202 display, 21-inch, southern (black)	
725	Any		Unknown adapter type	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 726

The input device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
726	Any		Unknown input device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 727

The async device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
727	Any		Unknown async device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 728

The device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
728	Any		Unknown parallel device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 730

The diskette drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
730	Any		Unknown diskette drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 733

The 140 GB 8 mm tape library might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
733	Any	59H3161	140 GB 8 mm tape library	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 734

The CD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
734	Any	73H1513	Quad Speed SCSI-2 600 MB CD-ROM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 736

The keyboard and speaker cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
736	Any	Located on the underside of the keyboard	Quiet touch keyboard and speaker cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 741

The disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

741	Any	52G0124	1.08 GB SCSI-2 disk drive (1-inch high)	
741	Any	06H8631	8-bit tray assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 742

The T2 PCI Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
742	Any	11H8128	T2 PCI Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 745

The tape cartridge auto loader might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
745	7332-005	Service documentation for this device supplies the FRU part numbers.	16 GB DDS-2 tape cartridge auto loader	
	Any	Service documentation for this device supplies the FRU part numbers.	48 GB DDS-3 tape cartridge auto loader	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 746

The SCSI-2 fast/wide PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
746	Any	73H3562	SCSI-2 Fast/Wide PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 747

The SCSI-2 differential fast/wide PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
747	Any	93H8407	SCSI-2 differential fast/wide PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 749

The 8 mm tape library might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
749	7331 model 205	For FRU numbers, see the service documentation for this device.	8 mm tape library	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 74A

The SCSI-2 fast/wide PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
74A	Any	93H4808	SCSI-2 Fast/Wide PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 750

The token-ring PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
750	Any	04H8098	Auto LANStreamer Token-Ring PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 751

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
751	Any	08L1319	SCSI 32-bit SE F/W RAID adapter	
751	Any	06H6036	SCSI RAID cable (1.0 m)	
751	Any	52G4233	SCSI RAID cable (2.5 m)	
751	Any	40H7351	SCSI RAID cable (6.0 m)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 757

The SCSI 13 GB 1/4-inch tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
757	Any	87G4858	SCSI 13 GB 1/4-inch tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 759

The 1080 MB disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
759	Any	87G8976	1080 MB disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 763

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
763	Any	31L7847	SP switch MX adapter	
763	Any	46H9688	Wrap plug	
763	Any	77G0818	Terminator	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 764

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
764	Any	08L0398	SP system attachment adapter	
764	Any	46H9688	Wrap plug	
764	Any	77G0818	Terminator	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 772

The 4.5 GB 16-bit SCSI F/W disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
772	Any	83H7105	4.5 GB 16-bit SCSI F/W disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 773

The 9.1 GB 16-bit SCSI F/W disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
773	Any	76H2698	9.1 GB 16-bit SCSI F/W disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 774

The 9.1 GB external SCSI DE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
774	Any	27H1677	9.1 GB external SCSI DE disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 775

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
775	Any	93H5107	MVP Power graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 776

The token-ring adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
776	Any	93H6594	PCI token-ring adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 777

The 10/100 Base-TX Ethernet PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
777	Any	94H0823	10/100 Base-TX Ethernet PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 778

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
778	Any	24L0030	POWER GXT3000P 3D graphics adapter PCI	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 77B

The 4-port 10/100 Ethernet Tx PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
77B	Any	03N3952	4-port 10/100 Ethernet Tx PCI adapter	
77B	Any	09P1421	4-port 10/100 Ethernet Tx PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 77C

A 1 GB 16 bit SE SCSI disk drive is being configured.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 780

The X.25 interface coprocessor adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
780	Any	40H1937	X.25 interface coprocessor adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 781

The coprocessor multiport adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
781	Any	84F7540	Coprocessor multiport adapter, model 2 (daughter) **Note:** Replace the daughter card before replacing the base card.	
781	Any	33F8967	Coprocessor multiport adapter, model 2 (base)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 783

The 24/48 GB DDS-2 4 mm tape autoloader might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
783	Any	76H0473	24/48 GB DDS-2 4 mm tape autoloader (vertical orientation)	
783	Any	76H0474	24/48 GB DDS-2 4 mm tape autoloader (horizontal orientation)	

783	Any	41H8714	tape magazine	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 784

The 2.1 GB SCSI-2 disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
784	Any	93H7151	2.1 GB 8-bit SCSI-2 disk drive	
784	Any	93H7152	2.1 GB 16-bit SCSI-2 disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 785

The 8-port ISA async EIA-232/RS-422 adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
785	Any	40H6632	8-port ISA Async EIA-232/RS-422 adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 786

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
786	Any	93H6264	GXT250P high-performance graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 787

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
787	Any	94H0028	GXT500P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 788

The video capture adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
788	Any	07L9009	Ultimedia video capture adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 789

The external 2.6 GB rewritable optical disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
789	Any	50G0212	External 2.6 GB rewritable optical disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 78B

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
78B	Any	00P2429	POWER GXT4000P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 78D

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
78D	Any	03N4169	GXT300P 2D graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 790

The multibus integrated Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
790	Any	42R7352	Multibus integrated Ethernet adapter problem. Replace the I/O backplane.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 791

The 2.2 GB 16-bit SE disk drive assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
791	Any	74G8824	2.2 GB 16-bit SE disk drive assembly	
791	Any	74G7007	2.2 GB 16-bit SE disk drive unit tray assembly	
791	Any	06H8631	Tray assembly	
791	Any	06H7691	Four-position ID cable	
791	Any	27H0380	Electronics card assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 792

The 4.5 GB 16-bit SE disk drive assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
792	Any	83H7105	4.5 GB 16-bit SE disk drive assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 793

The 9.1 GB 16-bit SE disk drive assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
793	Any	76H2698	9.1 GB 16-bit SE disk drive assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 795

The FDDI LPSAS adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
795	Any	73H3405	FDDI LPSAS adapter (single fiber)	
795	Any	73H3401	FDDI LPDAS adapter (dual fiber)	
795	Any	73H3413	FDDI UPSAS adapter (single fiber)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 799

The 2-port multiprotocol PCI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
799	Any	93H6086	2-Port Multiprotocol PCI adapter	
799	Any	93H3662	2-Port Multiprotocol PCI Wrap Plug	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 7C0

The system backplane might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
7C0	Any	03N6902	Interface problem between processor and system. Replace the system backplane.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 7C1

The system backplane might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
7C1	Any		Business audio subsystem problem. Replace the system unit's system backplane.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 804

The 8x speed SCSI-2 CD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
804	Any	73H2601	8x speed SCSI-2 CD-ROM drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 806

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
806	Any	07L7113	GXT800P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 807

The SCSI device enclosure might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
807	Any		SCSI device enclosure **Note:** If the resource description on the screen displays: 1. SES or SCSI Enclosure Services Device, use FFC 199. 2. SAFTE or SCSI Accessed Fault-Tolerant Enclosure Device, use FFC 2580.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 80C

The SSA adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
80C	Any		SSA adapter problem. See the *SSA Adapters User's Guide and Maintenance Information*.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 811

The processor complex might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
811	Any		Processor complex being identified	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 812

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
812	Any		Common standard adapter logic problem **Note:** For type, model, and FRU information, see FFC 227.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 814

The NIO backplane might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
814	Any	11K0571	NIO backplane, 9076 and POWER3 SMP high node	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 815

Floating-point processor problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
815	Any		Floating-point processor problem **Note:** For type, model, and FRU information, see FFC 210.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 816

Operator panel logic problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
816	Any		Operator panel logic problem **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 817

The system backplane might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
817	Any		System backplane. For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 820

There might be an interprocessor-related testing problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	Any		Interprocessor-related testing problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 821

There might be a standard keyboard adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
821	Any		Standard keyboard adapter problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 823

There might be a standard mouse adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
823	Any		Standard mouse adapter problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 824

There might be a standard tablet adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	Any		Standard tablet adapter problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 825

The NIO backplane might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
825	Any	11K0571	NIO backplane, 9076 and POWER3 SMP high node	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 826

There might be a system port 1 adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
826	Any		System port 1 adapter problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 827

There might be a built-in parallel port adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

827	Any		Built-in parallel port adapter problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 828

There might be a standard diskette adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	Any		Standard diskette adapter problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 82C

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
82C	Any	11H6095	S15 graphics PCI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 830

The 8-port ISA adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
830	Any	11H5969	8-Port ISA adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 831

There might be a system port 2 adapter problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	Any		System port 2 adapter problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 836

The 128-port async controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
836	Any	73H3384	128-port async controller	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 837

The remote async node might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
837	Any	88G3842	Remote async node, 16-port EIA-232 enhanced remote async node	
837	Any	93H6549	Remote async node, 16-port EIA-232 rack mounted node	
837	Any	40H2589	Remote async node, 16-port EIA-232 power supply	
837	Any	80P3869	Remote async node	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 840

The PCI single-ended Ultra SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
840	Any	93H3809	PCI single-ended ultra SCSI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 844

The SCSI subsystem controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
844	Any		RAIDiant array SCSI subsystem controller **Note:** See the 7135 documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 845

The SCSI 2.0 GB disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
845	Any		RAIDiant array SCSI 2.0 GB disk drive **Note:** See the 7135 documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 846

The SCSI 1.3 GB disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
846	Any		RAIDiant array SCSI 1.3 GB disk drive **Note:** See the 7135 documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 868

There might be an integrated SCSI I/O controller problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
868	Any		Integrated SCSI I/O controller problem. **Note:** For type, model, and FRU information, see FFC 221.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 887

This failing function code is not supported on the system. Continue with the next FRU in the failing item list.

Failing function code 891

The SCSI adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
891	Any		Vendor SCSI adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 892

The display adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
892	Any		Vendor display adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 893

The LAN adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
893	Any		Vendor LAN adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 894

The async communications adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
894	Any		Vendor async communications adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 899

There might be an atape problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
899	Any		Atape problem	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 89C

The CD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

89C	Any	73H1513	600 MB Double Speed Tray-Loading CD-ROM **Note:** The 2x CD-ROM drive is no longer available. A 4x CD-ROM drive will be shipped as a replacement.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 900

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
900	Any	93H7983	GXT110P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 901

The SCSI device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
901	Any		Vendor SCSI device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 902

The display might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
902	Any		Vendor display	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 903

The async device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
903	Any		Vendor async device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 904

The parallel device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
904	Any		Vendor parallel device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 905

The device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
905	Any		Other vendor device	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 908

The graphics accelerator attachment adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
908	Any	93H2399	POWER GXT1000™ graphics accelerator attachment adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 912

The 2.0 GB SCSI-2 DE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
912	Any	86F0119	2.0 GB SCSI-2 DE disk drive	
912	Any	86F0125	Differential frame electronics **Attention:** Check RETAIN for frame electronics availability. Replace the complete drive assembly whenever possible. Replace the logic card only when the data on the disk must be saved.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 913

The 1 GB DE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
913	Any	6374682	1 GB DE disk drive, half-height	
913	Any	6374683	Differential frame electronics **Attention:** Check RETAIN for frame electronics availability. Replace the complete drive assembly whenever possible. Replace the logic card only when the data on the disk must be saved.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 914

The 5 GB 8 mm SCSI DE tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
914	Any	16G8492	5 GB 8 mm SCSI DE tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 915

The 4 GB or 8 GB 4 mm tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
915	Any	59H3481	4 GB or 8 GB 4 mm tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 917

The 2.0 GB DE F/W disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
917	Any	86F0767	2.0 GB DE F/W disk drive **Note:** If the disk drive is in a 7134 drawer, replace it with FRU part number 67G3022.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 918

The 2.0 GB 16-bit SCSI SE F/W disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

918	Any	86F0766	2.0 GB 16-bit SCSI SE F/W disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 921

The keyboard might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
921	Any	1392090	101-key keyboard	
921	Any	1394609	101-key keyboard	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 922

This failing function code is not supported on the system. Continue with the next FRU in the failing item list.

Failing function code 923

The keyboard might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
923	Any	1392090	106-key international keyboard problem Keyboard, Chinese	
923	Any	79F0167	106-key international keyboard problem Keyboard, Japanese-Kanji	
923	Any	66G0507	106-key international keyboard problem Japanese, Enhanced	
923	Any	06H5286	106-key international keyboard problem Keyboard, Korean	
923	Any	02G7353	106-key international keyboard problem Keyboard, Taiwanese	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 925

The mouse might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
925	Any	93H9113	3-button mouse	
925	Any	76H5084	3-button mouse	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 926

The tablet might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
926	Any	6247450	Tablet, 5083 model 21	
926	Any	74F3130	Tablet, 6093 model 11	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 927

The tablet might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
927	Any	6247452	Tablet, 5083 model 22	
927	Any	74F3140	Tablet, 6093 model 12	
927	Any	93H7714	Tablet, 6093 model 21	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 929

The cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
929	Any	39F8227	Dials, 6094 model 10 cable, serial attachment, power	
929	Any	39F8302	Dials, 6094 model 10 cable, serial attachment, power	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 930

The keyboard might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
930	Any	39F8226	Lighted program function keyboard (LPFK), 6094 model 20	
930	Any	39F8302	Cable, serial attachment, power	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 935

The diskette drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
935	Any	93F2361	1.44 MB 3.5-inch white diskette drive	
935	Any	76H4091	1.44 MB 3.5-inch black diskette drive	
935	Any	07L7814	1.44 MB 3.5-inch diskette drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 938

The adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	Any		Serial HIPPI PCI adapter **Note:** 1. Use the number printed above the bar code to order this part. 2. The FRU part number of the wrap plug that is used for this adapter is 21H3547.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 946

This failing function code is not supported on the system. Continue with the next FRU in the failing item list.

Failing function code 947

The 1000 MB 16-bit disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
947	Any	84G3491	1000 MB, 16-bit disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 950

Unknown SCSI device is missing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
950	Any		Unknown SCSI device is missing.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 951

The 670 MB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
951	Any	53F3429	670 MB SCSI disk drive	
951	Any	6373521	Disk drive logic card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 952

The 355 MB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
952	Any	53F3427	355 MB SCSI disk drive **Note:** Replace the complete drive whenever possible. If extreme data saving measures are necessary, replace the logic card.	
952	Any	6373521	Logic card **Note:** Replace the complete drive whenever possible. If extreme data saving measures are necessary, replace the logic card.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 953

The 320 MB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

953	Any	93X0961	320 MB SCSI disk drive **Note:** Replace the complete drive whenever possible. Replace the logic card only when the data on the disk must be saved.	
953	Any	93X0901	Logic card and frame assembly **Note:** Replace the complete drive whenever possible. Replace the logic card only when the data on the disk must be saved.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 954

The 400 MB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
954	Any	00G1948	400 MB SCSI disk drive **Note:** Replace the complete drive whenever possible. Replace the logic card only when the data on the disk must be saved.	
954	Any	73F8994	Logic card and frame assembly **Note:** Replace the complete drive whenever possible. Replace the logic card only when the data on the disk must be saved.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 955

The 857 MB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
955	Any	45G9502	857 MB SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 956

The 355 MB or 670 MB logic card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
956	Any	6373521	355 MB or 670 MB logic card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 959

The 160 MB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
959	Any	81F8085	160 MB SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 960

The 1.37 GB SCSI disk drive assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

960	Any	52G0061	1.37 GB SCSI disk drive assembly **Note:** Logic card stocking is limited; special ordering is required. Check RETAIN for logic card availability. Replace the complete drive assembly when possible. Replace the logic card when the data on the disk must be saved.	
960	Any	31G9756	Logic card **Note:** Logic card stocking is limited; special ordering is required. Check RETAIN for logic card availability. Replace the complete drive assembly when possible. Replace the logic card when the data on the disk must be saved.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 962

The machine type 3161 device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
962	Any		A machine type 3161 device is attached. Use device documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 963

The machine type 3163 device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

963	Any		A machine type 3163 device is attached. Use device documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 964

The tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
964	Any	59H2839	20 GB 8 mm SE SCSI tape drive (internal, white)	
964	Any	59H4120	20 GB 8 mm SE SCSI tape drive (internal, black)	
964	Any	59H2835	20 GB 8 mm diff SCSI tape drive (external, white)	
964	Any	59H2842	400 GB 8 mm diff tape autoloader (No LCD in bezel, white)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 966

The audio and video decoder adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
966	Any	93H2136	MediaStreamer audio and video decoder adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 968

The 1 GB SCSI SE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
968	Any	55F9902	1 GB SCSI SE disk drive **Note:** Check RETAIN for frame logic card availability. Replace the complete drive assembly when possible. Replace the logic card when the data on the disk must be saved.	
968	Any	55F9909	Single-ended frame electronics **Note:** Check RETAIN for frame logic card availability. Replace the complete drive assembly when possible. Replace the logic card when the data on the disk must be saved.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 970

The 1/2-inch 9-track tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
970	Any		1/2-inch 9-track tape drive. Use device documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 971

The 150 MB 1/4-inch tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
971	Any	16G8423	150 MB 1/4-inch tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 972

The 2.3 GB 8 mm tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
972	Any	16G8421	2.3 GB 8 mm tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 973

The SCSI tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
973	Any		Other SCSI tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 974

The CD-ROM drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
974	Any	88G3929	CD-ROM drive (type A or type B bezel)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 980

The machine type 4216 device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
980	Any		Machine type 4216. Use device documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 981

The 540 MB SCSI-2 Single-Ended disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
981	Any	51G8237	540 MB SCSI-2 Single-Ended disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 982

The machine type 3852 device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
982	Any		Machine type 3852. Use device documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 983

The machine type 4201 device might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
983	Any		Machine type 4201. Use device documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 984

The 1 GB 8-bit disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
984	Any	45G9467	1 GB 8-bit disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 986

The 2.4 GB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
986	Any	36G0454	2.4 GB SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 987

The 600 MB CD-ROM-2 disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
987	Any	73H1513	600 MB CD-ROM-2 disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 989

The 200 MB SCSI disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
989	Any	43G1842	200 MB SCSI disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 990

The 2.0 GB SCSI-2 SE disk drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
990	Any	86F0118	2.0 GB SCSI-2 SE disk drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 991

The 525 MB 1/4-inch SCSI tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
991	Any	46G2700	525 MB 1/4-inch SCSI tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 992

The machine type 5202 might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
992	5202		Use the service documentation for the 5202.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 993

The machine type 5204 might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
993	5204		Use the service documentation for the 5204.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 994

The 5 GB or 10 GB 8 mm internal tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
994	5202	59H3159	5 GB or 10 GB 8 mm internal tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 995

The 1.2 GB 1/4-inch cartridge tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
995	Any	21H5155	1.2 GB 1/4-inch cartridge tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 998

The 2.0 GB 4 mm SCSI tape drive might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
998	Any	8191193	2.0 GB 4 mm SCSI tape drive	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code 999

The machine type 3514, 7137 disk array subsystems might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
999	Any		Machine type 3514, 7137 disk array subsystems **Note:** Refer to the 3514 or 7137 documentation.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B08

The Ethernet 10 base twisted-pair transceiver might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B08	Any	02G7431	Ethernet 10 base twisted-pair transceiver	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B09

The Ethernet/ISO 8802.3 transceiver might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B09	Any	02G7437	Ethernet/ISO 8802.3 transceiver (formerly IEEE 802.3)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B10

There might be a thermal fuse problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B10	Any	03N6902	System board PTC (thermal fuse) **Note:** If a thermal fuse has opened, it should reset within 10 minutes after turning the power off. If the thermal fuse does not reset, a faulty device might be drawing excessive power through the fuse.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B31

The keyboard type is unknown.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B31	Any		Unknown keyboard type	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B3A

An unidentifiable backplane is tied to a SCSI RAID adapter.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B3A	Any		Unidentifiable backplane tied to a SCSI RAID adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B54

The 128-port async controller cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B54	Any	43G0936	128-port async controller cable, 0.2 m (9 in.)	
B54	Any	43G0937	128-port async controller cable, 4.6 m (15 ft)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B69

The coprocessor multiport adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B69	Any	33F8967	Coprocessor multiport adapter, model 2 (0 MB)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B71

The 8-port EIA-232-D multiport model 2 interface card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B71	Any	53F2612	8-Port EIA-232-D multiport, model 2 interface card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B72

The 8-port EIA-422-A multiport model 2 interface card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B72	Any	53F2615	8-Port EIA-422-A multiport, model 2 interface card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B73

The 6-port V.35 multiport model 2 interface card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B73	Any	72F0164	6-port V.35 multiport, model 2 interface card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B74

The 6-port V.21 multiport model 2 interface card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B74	Any	04G5500	6-Port V.21 multiport, model 2 interface card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B77

The coprocessor 1 MB memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B77	Any	53F2662	Coprocessor 1 MB memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B81

The coprocessor multiport interface cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B81	Any	40F9897	Coprocessor multiport interface cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B82

The coprocessor multiport V.35 cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

B82	Any	71F0162	Coprocessor multiport V.35 cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B83

The problem is a PCI 64-bit Fibre Channel adapter.

The FRU part number is 80P4384.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
B83	Any	71F0164	Coprocessor multiport X.21 cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code B88

The SCSI I/O controller might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

B88	Any		Generic SCSI I/O controller **Note:** 1. If the failing FRU for this FFC is PCI(x), where x is the PCI bus number, 0, 1, and so forth, see FFC 221. 2. Use the location code to identify the failing FRU. If the failing FRU is integrated on the system backplane, use FFC 221. If the failing FRU is not integrated on the system backplane, replace the FRU identified by its description that is shown with the location code for SCSI and SCSI-2 adapter. Choose the FFC for the appropriate SCSI I/O controller. 3. Check the SCSI controller fuse or PTC resistor before exchanging the system board. See the SCSI-2 Single-Ended adapter PTC Failure Isolation Procedure in the SCSI service hints. 4. Check that the SCSI disable jumper is in the enabled position. 5. Check the FRU part number of the installed external terminator. The low density FRU part number is 51G7736. The high density FRU part number is 51G7737.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C11

The 2.4 GB SCSI disk drive assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C11	Any	36G4280	2.4 GB SCSI disk drive field repair assembly **Note:** The field repair assembly includes one disk drive, the electronics backplane, and the 5-1/4 inch form-factor cage. The remaining good drive is removed from the failed disk drive assembly and installed in the field repair assembly to create a complete dual-disk drive assembly. If saving data is critical, try installing the faulty drive in place of one of the two good drives in the now-complete field repair assembly. If the faulty drive operates satisfactorily, the problem was probably in the electronics backplane.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C22

The RJ-45 to DB25 converter cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C22	Any	94H0779	RJ-45 to DB25 converter cable kit	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C24

The fiber optic cable for the PCI Fibre Channel adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C24	Any	54G3384	Fiber optic cable for PCI Fibre Channel adapter (6.7 m)	
C24	Any	55G3384	Fiber optic cable for PCI Fibre Channel adapter (12.8 m)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C33

The GPSS card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C33	Any	73H4034	GPSS card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C34

The RSS card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C34	Any	11H8490	RSS card (without memory sockets)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C35

The VOO card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C35	Any	65G4887	VOO card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C36

The attachment adapter cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C36	Any	65G4892	Attachment adapter cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C44

The VOO or RSS crossover cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C44	Any	65G4894	VOO or RSS crossover cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C45

The 12 MB VRAM memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C45	Any	65G4889	12 MB VRAM memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C46

The 16 MB VRAM memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C46	Any	65G4890	16 MB VRAM memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C47

The 16 MB DRAM memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C47	Any	65G4891	16 MB DRAM memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C48

The RSS and GPSS crossover card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C48	Any	65G4893	RSS and GPSS crossover card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C94

The 4 MB memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C94	Any	68X6356	IBM ARTIC960 4 MB memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C95

The 4-port selectable interface board might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C95	Any	87H3413	IBM ARTIC960 4-port selectable interface board	
C95	Any	87H3428	IBM ARTIC960 4-port T1/E1 interface card	
C95	Any	87H3701	IBM ARTIC960Hx DSP interface card	
C95	Any	11K0790	IBM ARTIC960 quad T1/E1 interface card	
C95	Any	51H8702	IBM ARTIC960 PCI adapter interface board	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C97

The wrap plug might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C97	Any	87H3502	IBM ARTIC960 4-port T1/E1 interface card wrap plug **Note:** A wrap plug is included with each adapter and cable.	
C97	Any	87H3311	IBM ARTIC960 4-port selectable interface board wrap plug **Note:** A wrap plug is included with each adapter and cable.	
C97	Any	5605670	ESCON wrap plug **Note:** A wrap plug is included with each adapter and cable.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code C98

The cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
C98	Any	87H3405	IBM ARTIC960 4-port selectable EIA-232 cable **Note:** A wrap plug is included with each adapter and cable.	
C98	Any	87H3396	IBM ARTIC960 4-port selectable RS-449 cable **Note:** A wrap plug is included with each adapter and cable.	
C98	Any	87H3408	IBM ARTIC960 4-port selectable X.21 cable **Note:** A wrap plug is included with each adapter and cable.	
C98	Any	87H3399	IBM ARTIC960 4-port selectable V.35 cable **Note:** A wrap plug is included with each adapter and cable.	
C98	Any	87H3402	IBM ARTIC960 4-port selectable EIA-530 cable **Note:** A wrap plug is included with each adapter and cable.	
C98	Any	87H3518	IBM ARTIC960 4-port T1 RJ-45 cable **Note:** A wrap plug is included with each adapter and cable.	
C98	Any	87H3515	IBM ARTIC960 4-port E1 RJ-45 cable **Note:** A wrap plug is included with each adapter and cable.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D01

There might be a L2 cache problem.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D01	Any	See System parts.	Generic L2 cache problem. Replace the processor card.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D06

The 64 port to 128 port converter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D06	Any	88G3650	64 Port to 128 port converter kit (four to a pack) **Note:** The converter part number is 88G3651.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D08

The fan assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D08	7134	88G5722	7134, dc fan assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D46

The cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D46	Any	6339098	Token-ring 9-pin D-shell cable, 3 m (10 ft)	

D46	Any	60G1063	Token-ring RJ-45 STP cable, 3 m (10 ft) **Note:** This cable is not used with the high-speed token-ring PCI adapter.	
D46	Any	93H8894	RJ-45 to 9-pin D-shell token-ring conversion cable **Note:** This cable is not used with the high-speed token-ring PCI adapter.	
D46	Any	OEM cable	Standard UTP RJ-45 cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D50

The problem is with an internal disk signal cable.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D50	Any		See FFC 190.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D56

The printer and terminal serial cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D56	Any	10N6535	EIA-232E printer and terminal serial cable	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D57

The 8-port multiport interface cable ISA async adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

D57	Any	07L9822	8-Port multiport interface cable ISA async adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D59

The TP PCI Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D59	Any	93H7766	TP PCI Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D60

The T2 PCI Ethernet adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D60	Any	93H1902	T2 PCI Ethernet adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D66

The machine type 7250 RSS card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D66	Any	11H4436	Machine type 7250, RSS card (with memory sockets)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D67

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D67	Any	See System parts.	8 MB, ECC, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D68

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D68	Any	See System parts.	16 MB, ECC, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D69

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D69	Any	See System parts.	32 MB, ECC, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D70

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D70	Any	See System parts.	64 MB, ECC, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D71

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D71	Any	42H2771	8 MB, ECC, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D72

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D72	Any	42H2772	16 MB, ECC, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D73

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D73	Any	42H2773	32 MB, ECC, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D74

The system memory might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

D74	Any		System memory. See the system unit service information.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D75

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D75	Any	See System parts.	8 MB, ECC, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D76

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D76	Any	See System parts.	16 MB, ECC, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D77

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
d77	Any	See System parts.	32 MB, ECC, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D78

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D78	Any	See System parts.	64 MB, ECC, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D83

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D83	Any	See System parts.	8 MB, parity, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D84

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D84	Any	See System parts.	16 MB, parity, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D85

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D85	Any	See System parts.	32 MB, parity, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D86

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D86	Any	See System parts.	64 MB, parity, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D87

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D87	Any	See System parts.	8 MB, parity, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D88

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D88	Any	See System parts.	16 MB, parity, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D89

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D89	Any	See System parts.	32 MB, parity, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D90

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D90	Any	See System parts.	64 MB, parity, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D91

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D91	Any	See System parts.	8 MB, parity, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D92

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D92	Any	See System parts.	16 MB, parity, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D93

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

D93	Any	See System parts.	32 MB, parity, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D94

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D94	Any	See System parts.	64 MB, ECC, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D95

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D95	Any	94H0029	GXT550P graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code D96

The graphics adapter might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
D96	Any	93H6267	GXT255P high-performance PCI graphics adapter	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E10

The riser card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E10		73H4532	Riser card	
E10		73H4532	Riser card	
E10		23L8117	Riser card	
E10			See FFC 227.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E11

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E11	Any	See System parts.	128 MB, ECC, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E12

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E12	Any	93H6821	128 MB, ECC, 60 nsec memory module	
E12	Any	93H6823	128 MB, ECC, 60 nsec memory module	
E12	Any	93H6822	128 MB, ECC, 60 nsec memory module	
E12	Any	93H4702	128 MB, ECC, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E13

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E13	Any		128 MB, ECC, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E14

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E14	Any		128 MB, parity, 50 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E15

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E15	Any		128 MB, parity, 60 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E16

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E16	Any		128 MB, parity, 70 nsec memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E17

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E17	Any	19H0288	Memory 16 MB memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E18

The memory module might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E18	Any	35H8751	Memory 64 MB memory module	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E19

The power supply sensor failed.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E19	Any	See System parts.	Power supply sensor failed I/O backplane	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E1A

The memory card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E1A	Any	23L7595 04N5011	4 GB memory card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E22

The video cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E22	Any		Video cable (generic)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E23

The audio cable might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E23	Any		Audio cable (generic)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E24

The resistor assembly might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E24	Any	94H0623	Resistor assembly	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E26

The power distribution card might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E26	Any	See System parts.	Power distribution card	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E29

The cache might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E29	Any	09L2105	32 MB cache (located on the LVD SCSI RAID adapter) (includes battery)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E2A

The cache might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E2A	Any	03N7031	128 MB cache, U.S. (includes battery)	
E2A	Any	19K0561	128 MB cache, Japan (includes battery)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E30

The cache battery might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E30	Any	44H8429	32 MB cache battery (located on the LVD SCSI RAID adapter)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code E3A

The cache battery might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E3A	Any	37L6903	128 MB cache battery, U.S.	
E3A	Any	00N9561	128 MB cache battery, Japan	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code Exx

A firmware checkpoint error occurred.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
E**xx**	Any		(**xx** represents any character) See the Firmware Checkpoint Three-Digit Error Code section of the service information.	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Failing function code Fxx

A firmware checkpoint error occurred.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
F**xx**	Any		(**xx** represents any character) See the Firmware Checkpoint Three-Digit Error Code section of the service information.	

Failing function code XXX

The 3-digit portion of the service request number (SRN) indicates the failing function code to service.

Use the 3-digit portion of the SRN to find the failing function code. See Failing function codes.

Failing function code XXXX

The 4-digit portion of the service request number (SRN) indicates the failing function code to service.

Use the 4-digit portion of the SRN to find the failing function code. See Failing function codes.

Failing items

Failing items provide the information necessary to fix a problem identified by a system reference code (SRC).

The failing items are listed in numerical order.

FI00015

FI00015 is not supported on these models. Continue with the next FRU in the list.

FI00017

FI00017 is not supported on these models. Continue with the next FRU in the list.

FI00020

FI00020 is not supported on these models. Continue with the next FRU in the list.

FI00021

FI00021 indicates that the combined function I/O processor (CFIOP) is the failing item.

Note the CFIOP type and see Managing PCI adapters to determine the FRU part number to replace.

FI00022

FI00022 indicates that the Licensed Internal Code for the service processor might be the failing item.

Ask your next level of support for assistance.

FI00040

FI00040 indicates that the backplane or a connection to the backplane might be failing.

See the symbolic FRU BACKPLN.

FI00047

FI00047 is not supported on these models. Continue with the next FRU in the list.

FI00050

FI00050 is not supported on these models. Continue with the next FRU in the list.

FI00055

FI00055 indicates that a primary optical link cable is the failing item.

The failing item is either the optical bus cable for the bus that you are working with or its paired bus cable on the optical link card.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00056

FI00056 indicates that any optical bus cable or a missing optical bus wrap connector is the failing item.

For cable FRU part numbers, see Planning for cables. For wrap connector FRU part numbers, see Managing PCI adapters.

FI00057

FI00057 indicates that the secondary optical link cable is the failing item.

The failing item is the optical cable that runs between the bus expansion adapter cards in two separate expansion units. Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00060

FI00060 is not supported on these models. Continue with the next FRU in the list.

FI00062

FI00062 is not supported on these models. Continue with the next FRU in the list.

FI00065

FI00065 is not supported on these models. Continue with the next FRU in the list.

FI00070

FI00070 indicates that a storage device attached to the IPL device IOP is the failing item.

Determine the IPL device that is failing by completing the following steps:

1. In the navigation area, open **Systems Management**.
2. Open **Servers**.
3. Click the server on which the logical partition is located.
4. Select the logical partition and click the **Properties** task.
5. In the Properties window, click the **Settings** tab.

Note the IPL storage device type and see Finding parts, locations, and addresses to determine the FRU part number to replace.

If the IPL storage device is not the failing item, any storage device attached to the IPL device IOP might be the failing item.

FI00072

FI00072 indicates that the load-source media is the failing item.

Complete the following steps:

1. Choose from the following options:
   - If the load source is tape, replace the tape in the alternate IPL tape unit.
   - If the load source is an optical storage unit, replace the compact disk.
   - If the load source is a hard disk drive, replace the hard disk drive.
2. If replacing the media does not work, try replacing the drive. Note the device type and see Finding parts, locations, and addresses to determine the FRU part number to replace.

FI00090

FI00090 indicates that the removable media device for an alternate IPL is the failing item.

Determine the device that is failing by performing the following steps:

1. Select function **01** (Select IPL) on the control panel and press Enter to verify that the active IPL type is D.

   Note: Use the system configuration list to identify the device.

   The possible failing devices are the following type numbers: 3490, 3570, 3590, 632x, 6382, 6383, 6386, 6387, 63A0, 7208, 9348, and 9427.
2. Use the service information for the specific removable media unit for an alternate IPL to analyze the device failure.

FI00092

FI00092 indicates that either the load source for an alternate IPL or the interface to the load source is the failing item.

Complete the following steps:

1. If the load source is an optical unit, perform function 3 to start the system again, if necessary. This will make the unit ready.
2. Locate the alternate load source device for the system.
3. Replace the device.

FI00096

FI00096 indicates that the IOP attached to the load-source device is the failing item.

Complete the following steps:

1. Verify that the IPL type is correct by performing one of the following options:
   - **If you are using a control panel:** Select function 01 on the control panel and press Enter to display the present IPL mode.
   - **If you are using the Hardware Management Console (HMC)**, perform the following steps:
     a. In the Navigation Area, open **Systems Management**.
     b. Open **Servers**.
     c. Click the server on which the logical partition is located.
     d. Open **Partitions**.
     e. Select the logical partition and click the **Properties** task.
     f. In the Properties window, click the **Settings** tab.
   - **If you are using the Systems Director Management Console (SDMC)**, complete the following steps:
     a. In the content area, select the server under **Resources**.
     b. Click **Action** > **System Configuration** > **Manage Virtual Server**.
     c. On the **General** page, select **Boot**.
2. The failing IOP might have a removable storage I/O adapter FRU. Replace the storage IOA using symbolic FRU STORIOA.
3. Locate the alternate load source for a system.
4. Replace the device.

FI00098

FI00098 indicates that the load-source disk device is the failing item.

Complete the following steps:

1. Determine the disk unit 1 type number. It is printed on a label on the front of the system frame.
2. If the system does not have a label that identifies the disk unit type, determine the part number of the disk unit by looking at a label located on the disk unit. You must remove the disk unit to see this label.
3. Replace the disk unit.
4. Locate the alternate load source device for the system.
5. Replace the device.

FI00099

FI00099 indicates that the Licensed Internal Code failed or responded in an unpredictable way.

Ask your next level of support for assistance.

FI00121

FI00121 indicates that any tape or optical storage device attached to the I/O (SCSI) bus of this IOP might be the failing item.

Use the device type to determine the part. Note the device type, and see the following Managing devices topics to determine the FRU part number to replace.

Models	Topic
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	Managing devices for the 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D.
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Managing devices for the 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D.
8233-E8B or 8236-E8C	Managing devices for the 8233-E8B or 8236-E8C.
8248-L4T, 8408-E8D, 9109-RMD	Managing devices for the 8248-L4T, 8408-E8D, 9109-RMD.
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	Managing devices for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.

FI00122

FI00122 indicates that a reserved IOA port on the IOP is the failing item.

If the IOP is type 2624, the failing item is type 6146 IOA.

Note the IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00123

FI00123 indicates that the device terminating plug might be failing.

Go to symbolic FRU DEVTERM.

FI00124

FI00124 is not supported on these models. Continue with the next FRU in the list.

FI00130

FI00130 indicates that the Licensed Internal Code for one of the IOPs or IOAs is the failing item.

Determine the IOP or IOA type and location:

1. Determine the address of the IOP or IOA card. See the System reference code format description.
2. Determine the location of the IOP or IOA card. See Part locations and location codes, and get the type from the card in that location or address.
3. Look for PTFs that are associated with the reference code and the identified hardware type, and have the customer apply them.

FI00131

FI00131 indicates that one of the IOPs or IOAs, if active, is the failing item.

Determine the IOP or IOA type and location:

1. Determine the address of the IOP or IOA card. See the System reference code format description.
2. Determine the location of the IOP or IOA card. See Part locations and location codes, and get the type from the card in that location or address.
3. Use the IOP or IOA type to determine the part to replace.

FI00132

FI00132 indicates that one of the IOAs is the failing item.

Perform the MABIP55 procedure to isolate the failing IOA.

FI00141

FI00141 indicates that the IOP for the 7208 tape drive is the failing item.

The failing IOP is the type 2621 IOP.

Note the IOP type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00142

FI00142 is not supported on these models. Continue with the next FRU in the list.

FI00180

FI00180 is not supported on these models. Continue with the next FRU in the list.

FI00185

FI00185 indicates that the 12-port ASCII workstation attachment cable is the failing item.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00187

FI00187 is not supported on these models. Continue with the next FRU in the list.

FI00189

FI00189 is not supported on these models. Continue with the next FRU in the list.

FI00200

FI00200 indicates that the ac module or the removable power cable is the failing item.

FI00204

FI00204 indicates that the bus cable between the system unit and an expansion unit or the bus cable between two expansion units is the failing item.

FI00206

FI00206 is not supported on these models. Continue with the next FRU in the list.

FI00230

FI00230 indicates that the Licensed Internal Code for the failing node is the failing item and needs to be restored.

Determine the type of node and select the Licensed Internal Code load:

- **Primary node** - AJSFDJ04
- **Secondary node** - AJSFDJ05

FI00235

FI00235 indicates that an SPCN cable that connects two frames or a frame to a node is the failing item. This failing item is applicable only if an SPCN cable is installed.

The following list shows the lengths of the possible failing items:

- SPCN cable (6 meters)
- SPCN cable (15 meters)
- SPCN cable (30 meters)
- SPCN cable (60 meters)
- Optical SPCN cable (100 meters)
- SPCN optical adapter
- SPCN port cable (frame-to-node)
- Frame-to-frame cable
- SPCN optical adapter

Note the cable type, and see the Planning for cables to determine the FRU part number to replace.

FI00236

FI00236 is not supported on these models. Continue with the next FRU in the list.

FI00237

FI00237 is not supported on these models. Continue with the next FRU in the list.

FI00238

FI00238 is not supported on these models. Continue with the next FRU in the list.

FI00239

FI00239 is not supported on these models. Continue with the next FRU in the list.

FI00240

FI00240 is not supported on these models. Continue with the next FRU in the list.

FI00244

FI00244 is not supported on these models. Continue with the next FRU in the list.

FI00245

FI00245 indicates that the card enclosure for an unknown unit type is the failing item.

See the symbolic FRU BACKPLN.

FI00246

FI00246 is not supported on these models. Continue with the next FRU in the list.

FI00248

FI00248 is not supported on these models. Continue with the next FRU in the list.

FI00253

FI00253 is not supported on these models. Continue with the next FRU in the list.

FI00255

FI00255 is not supported on these models. Continue with the next FRU in the list.

FI00256

FI00256 is not supported on these models. Continue with the next FRU in the list.

FI00300

FI00300 indicates that media is the failing item.

Use the following list to determine the service action to perform:

- If the load source is a tape, replace the tape in the alternate IPL tape unit.
- If the load source is an optical storage unit, replace the compact disc.
- If the load source is a disk drive, replace the disk drive.

FI00301

FI00301 indicates that the magnetic storage I/O processor (MSIOP) or the combined function I/O processor (CFIOP) is the failing item.

Note the IOP type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00302

FI00302 indicates that the Licensed Internal Code for the magnetic storage I/O processor (MSIOP) or the combined function I/O processor (CFIOP) is the failing item.

Ask your next level of support for assistance.

FI00310

FI00310 is not supported on these models. Continue with the next FRU in the list.

FI00315

FI00315 indicates that the installation time life of the battery power unit has been exceeded.

Check any attached units that have battery power units and perform maintenance as needed.

FI00316

FI00316 indicates that no I/O processors were found on the bus.

Verify the configuration information for the system. If a bus is configured to be empty, there is no problem.

FI00317

FI00317 indicates that the I/O processor cards at consecutive direct select addresses appear to be failing.

Check the I/O processor cards to ensure that they are properly seated in their connectors and to verify that the backplane is not damaged. The I/O processor cards or a damaged backplane could cause this problem.

FI00318

FI00318 indicates that an I/O adapter attached to an I/O processor card on the failing bus is the failing item.

Note the IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00319

FI00319 indicates that the Licensed Internal Code on an I/O processor is the failing item.

Install a PTF to correct the problem.

Ask your next level of support for assistance.

FI00320

FI00320 indicates that the display station used as the console is the failing item.

FI00360

FI00360 indicates that the IPL disk device is the failing item. Replace the disk device.

FI00380

FI00380 indicates that the workstation card might be failing.

On the bus that has the system console or the failing logical partition's console, the failing item is the first workstation IOP card or the workstation IOA card. The bus with the system console is bus 0001. For systems with multiple logical partitions, the logical partition's console is on bus 0001 and the consoles for other logical partitions are determined by the logical partition configuration.

Note the IOP or IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00500

FI00500 indicates that the I/O (SCSI) bus cable is the failing item.

See FI01140.

FI00580

FI00580 indicates that any storage device might be the failing item.

The address of the failing storage device cannot be determined.

Note the device type and see Finding parts, locations, and addresses to determine the FRU part number to replace.

FI00581

FI00581 indicates that a storage device at the address identified by the problem isolation procedures for the reference code is the failing item.

Use the service information of the I/O device to continue analyzing the problem.

Note the device type and see Finding parts, locations, and addresses to determine the FRU part number to replace.

FI00584

FI00584 indicates that any storage device might be the failing item.

The address of the failing storage device cannot be determined.

For device FRU part numbers, see Finding parts, locations, and addresses.

FI00601

FI00601 indicates that the display station is the failing item.

If a link protocol converter is used to connect the console to the system, the protocol converter is the failing item.

Refer to the display station or link protocol converter documentation for service information.

FI00602

FI00602 indicates that the cable between the workstation attachment and the device is the failing item.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00603

FI00603 indicates that the 5299 multiconnector is the failing item.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00604

FI00604 indicates that a printer is the failing item.

Use the printer device information to analyze the problem.

FI00605

FI00605 indicates that a magnetic stripe reader on a display station is the failing item.

Refer to the documentation for the display station for service information.

FI00606

FI00606 indicates that the storage media is the failing item. Replace the storage media.

FI00607

FI00607 indicates that a selector light pen attached to a display station is the failing item.

Refer to the documentation for the display station for service information.

FI00608

FI00608 indicates that the link protocol converter is the failing item.

Refer to the documentation for the link protocol converter for service information.

FI00610

FI00610 indicates that the twinaxial workstation IOP or the twinaxial workstation IOA attached to a combined function I/O processor (CFIOP), communications IOP, or combined function IOP is the failing item.

Use the workstation IOP or IOA type to determine the part.

Note the CFIOP or IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00611

FI00611 is not supported on these models. Continue with the next FRU in the list.

FI00612

FI00612 is not supported on these models. Continue with the next FRU in the list.

FI00613

FI00613 is not supported on these models. Continue with the next FRU in the list.

FI00614

FI00614 indicates that a unit reference code of FFFF was indicated when the user entered the ANZPRB (Analyze Problem) command from a workstation.

The failing items for this error can be identified by running the complete ANZPRB command. The failing items are also in the problem log when the Work with Problem (WRKPRB) command is entered.

FI00615

FI00615 indicates that the twinaxial workstation attachment cable is the failing item.

Check the twinaxial workstation attachment cable for the FRU part number.

Note the cable type, and refer to Planning for cables to determine the FRU part number to replace.

FI00616

FI00616 indicates that the 5259 migration data link is the failing item.

Replace the 5259 migration data link.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00626

FI00626 indicates that the modem on the failing port is the failing item.

Replace the modem.

FI00630

FI00630 indicates that the multiline communications IOP is the failing item.

Note the IOP type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00631

FI00631 indicates that a cable other than the cable from the workstation IOA to the first device is the failing item.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00632

FI00632 indicates that the cable from the workstation IOA to the first device is the failing item.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00700

FI00700 indicates that the remote data terminal equipment (DTE) or an attached device is the failing item.

Report this problem to the operator of the remote equipment.

FI00701

FI00701 indicates that a local communications cable is the failing item.

Use the cable to determine the part.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00702

FI00702 indicates that the local cable for the automatic call unit is the failing item.

Check the interface cable for the automatic call unit for the part number.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00703

FI00703 indicates that the automatic call unit is the failing item.

Refer to the documentation for the automatic call unit for service information.

FI00704

FI00704 indicates that the local data circuit-terminating equipment (DCE) is the failing item.

Refer to the documentation for the DCE for service information.

FI00705

FI00705 indicates that the remote data circuit-terminating equipment (DCE) is the failing item.

Report this problem to the operator of the remote equipment.

FI00708

FI00708 indicates that the local communications cable (X.21 interface) is the failing item.

Check the communications cable for the part number.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00709

FI00709 indicates that the local communications cable (V.35 interface) is the failing item.

Check the communications cable for the part number.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00710

FI00710 indicates that the local communications cable (the V.24 interface with remote power on) is the failing item.

The remote power-on feature is given support by using an available pin on the EIA-232/V.24 enhanced or EIA-232/V.24 nonenhanced cables. Check the communications cable for the part number.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00711

FI00711 indicates that the local communications cable (token-ring interface cable) is the failing item.

Note: An IBM cabling system patch cable or a comparable cable might have been supplied by the user to increase the length of this cable. Any cable attached to the token-ring interface cable might also be the failing item.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00712

FI00712 indicates that the token-ring access unit is the failing item.

Refer to the documentation for the token-ring access unit for service information.

FI00716

FI00716 indicates that the EIA-232/V.24 enhanced cable is the failing item.

Check the communications cable for the part number.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00717

FI00717 indicates that the EIA-232/V.24 non-enhanced cable is the failing item.

Check the communications cable for the part number.

FI00718

FI00718 indicates that an IOP card is the failing item.

Note the CFIOP type and see Managing PCI adapters to determine the FRU part number to replace.

FI00719

FI00719 indicates that an IOA card is the failing item.

Complete the following steps:

1. Is the IOA location information available in the service action log or management console?
   - **Yes:** Replace the IOA. Note the IOA type, and see Managing PCI adapters to determine the FRU part number to replace.
   - **No:** Continue with the next step.
2. Determine the address of the IOA card. See the System reference code format description.
3. Determine the location of the IOA card. See Part locations and location codes for the model you are working on and get the type from the card at that address.
4. Replace the IOA. Note the IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00720

FI00720 indicates that the Ethernet transceiver is the failing item.

Verify that the signal quality error switch in the transceiver that the Ethernet is attached to is set to active.

See the transceiver operator's information for the correct operation or the correct removal and replacement procedure.

FI00721

FI00721 indicates that the token-ring IOA card is the failing item.

Note the IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00722

FI00722 indicates that the cable attached to the local area network IOA is the failing item.

Replace the cable.

FI00723

FI00723 indicates that the communications two-port adapter cable for the communications IOA card is the failing item.

Replace the communications two-port adapter cable.

If this action does not correct the problem, use the IOA type to determine the part. Note the IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00725

FI00725 indicates that the Ethernet IOA card is the failing item.

Use the IOA type to determine the part. Note the IOA type and see Managing PCI adapters to determine the FRU part number to replace.

FI00726

FI00726 indicates that a communications IOA card is the failing item:

Use the IOA type to determine the part. Note the IOA type, and see Managing PCI adapters to determine the FRU part number to replace.

FI00727

FI00727 indicates that one of the IOAs attached to a combined function I/O processor (CFIOP), multiline communications IOP, or an Integrated xSeries Server (IXS) is the failing item.

Perform the MABIP55 procedure to isolate the failing IOA.

FI00728

FI00728 indicates that the local communications cable (RS449/V.36 interface) is the failing item.

Check the communications cable for the part number.

Also, note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00730

FI00730 indicates that the Licensed Internal Code module for an I/O card might be the failing item.

Ask your next level of support for assistance.

FI00731

FI00731 is not supported on these models. Continue with the next FRU in the list.

FI00732

FI00732 is not supported on these models. Continue with the next FRU in the list.

FI00733

FI00733 is not supported on these models. Continue with the next FRU in the list.

FI00734

FI00734 is not supported on these models. Continue with the next FRU in the list.

FI00735

FI00735 is not supported on these models. Continue with the next FRU in the list.

FI00741

FI00741 indicates that the telephone cable to the wall outlet is the failing item.

Check the cable for the part number.

Note the cable type, and see Planning for cables to determine the FRU part number to replace.

FI00742

FI00742 indicates that the communications coupler is the failing item.

Check the coupler for the part number.

Note the coupler type and see Planning for cables to determine the FRU part number to replace.

FI00751

FI00751 indicates that the Licensed Internal Code module is the failing item.

Ask your next level of support for assistance.

FI00810

FI00810 indicates that the magnetic tape is the failing item.

Replace the magnetic tape.

FI00830

FI00830 indicates that the external signal cable is the failing item.

See EXTSCSI for cable part numbers.

FI00832

FI00832 indicates that the external signal cable is the failing item.

See EXTSCSI for cable part numbers.

FI00841

FI00841 indicates that the terminating plug for the attached device is the failing item.

For tape devices, see FI00880.

FI00842

FI00842 indicates that the external signal cable for the attached device is the failing item.

See symbolic FRU EXTSCSI.

FI00844

FI00844 indicates that the device controller for the attached device is the failing item.

For tape devices, see FI00882.

FI00845

FI00845 indicates that the device controller for the attached device is the failing item.

See symbolic FRU EXTSCSI.

FI00850

FI00850 indicates that the interface cables attached to the tape IOP are the failing items.

FI00851

FI00851 indicates that the I/O device attached to the tape IOP is the failing item.

Use the service information of the I/O device to continue analyzing the problem.

Note the device type, and see the following Managing devices topics to determine the FRU part number to replace.

Models	Topic
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	Managing devices for the 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D.
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Managing devices for the 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D.
8233-E8B or 8236-E8C	Managing devices for the 8233-E8B or 8236-E8C.
8248-L4T, 8408-E8D, 9109-RMD	Managing devices for the 8248-L4T, 8408-E8D, 9109-RMD.
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	Managing devices for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.

FI00856

FI00856 indicates that an active tape IOP is the failing item.

Use the IOP type to determine the part.

Note the CFIOP type and see Managing PCI adapters to determine the FRU part number to replace.

FI00870

FI00870 indicates that a storage device is the failing item.

Use the device type to determine the part. If a device location is not listed in the service action log entry or in the hardware service manager (HSM), the failing device is either externally attached or the failing device might be part of an unsupported configuration. If the device is in a 3995 or 3996 optical library, see the maintenance information for the 3995 or 3996 optical library to replace the failing device.

Note: The 636x tape unit is located in the FC 5032 removable storage unit.

FI00871

FI00871 indicates that the attached tape device is the failing item.

If the device is a 3580 or 3592 external tape unit, refer to the device information to determine the part number to replace. Otherwise, see the following Managing devices topics.

Models	Topic
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	Managing devices for the 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D.
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Managing devices for the 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D.
8233-E8B or 8236-E8C	Managing devices for the 8233-E8B or 8236-E8C.
8248-L4T, 8408-E8D, 9109-RMD	Managing devices for the 8248-L4T, 8408-E8D, 9109-RMD.

Models	Topic
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	Managing devices for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.

FI00872

FI00872 indicates that the interface is the failing item.

Complete the following:

- Internal device: See FI01140.
- External device: See symbolic FRU EXTSCSI.

FI00880

FI00880 indicates that a terminating plug on the device bus to this IOP is the failing item.

Note: If the unit is a 9427, an internal terminating plug is used. See the service information for the specific device.

The following list shows the possible failing items:

- Terminating plug for 2440 Tape Unit: Part number 79X3795
- Terminating plug for 3490, 3570, 3590, and 7208 Model 342 Tape Units: Part number 61G8324
- SCSI differential terminating plug for 3995 iSeries Optical Library Dataserver: Part number 79X3795
- SCSI single-ended terminating plug for 3995 iSeries Optical Library Dataserver Models C4x: Part number 34H5608
- Terminator for 637x, 638x, and 6390 Tape Units: Terminator is part of the disk unit backplane. Use the IOA type, and see the symbolic FRU DEVTERM to determine the correct part.
- Terminating plug for 63A0 Tape Unit: See device documentation.
- Terminating plug for 7208 Model 002 tape drive: Part number 91F0721
- Terminating plug for 7208 Model 012 tape drive: Part number 46G2599
- Terminating plug for 7208 Model 222 tape drive: Part number 46G2599
- Terminating plug for 7208 Model 232 tape drive: Part number 79X3795
- Terminating plug for 7208 Model 234 tape drive: Part number 79X3795
- Terminating plug for 9348 Tape Unit: Part number 79X3795

FI00882

FI00882 indicates that the addressed unit is the failing item.

Determine the address and type of the failing unit. See the System reference code format description.

If one of the following device types is the failing item, see the service information for the device model installed on the system: 2440, 3490, 3570, 3590, 3995, 63A0, 7208, 9347, 9348, 9427.

FI00883

FI00883 indicates that an unaddressed unit might be failing.

A unit attached to the same IOP, other than the addressed unit identified by FI00882, is the failing item.

FI00884

FI00884 indicates that any unit attached to the IOP might be the failing item.

See FI00882 for the list of possible units.

FI01040

FI01040 indicates that you have an OptiConnect system, and the error is on an iSeries or System i® server that is connected to it.

FI01101

FI01101 indicates that the addressed IOA card on the I/O processor is the failing item.

Complete the following steps:

1. Determine the address of the IOA card. See the System reference code format description.
2. Determine the location of the IOA card.
3. Replace the failing device. Use the device type to determine the part.

FI01103

FI01103 indicates that an attached IOA card is the failing item.

Perform the MABIP55 procedure to isolate the failing IOA.

FI01104

FI01104 indicates that an attached IOA card is the failing item.

Perform the MABIP55 procedure to isolate the failing IOA.

FI01105

FI01105 indicates that the addressed storage device is the failing item.

Complete the following steps:

1. Is the device location information available in the service action log?
   - **No:** Continue with the next step.
   - **Yes:** Replace the failing item. See the disk unit recovery procedures.
2. Find the IOP address and the device address. See the System reference code format description.
3. To determine the location of the I/O processor card, see Part locations and location codes. Then complete the following:
   - Find the IOP card location identified by the direct select address.
   - Find the addressed storage device location identified by the device address.
4. Replace the failing device. Use the device type to determine the part.

FI01106

FI01106 indicates that a storage device other than the addressed storage device is the failing item.

Complete the following steps:

1. To find the addressed device, see FI01105. The failing item could be any device with the same IOP address and I/O (SCSI) bus number but with a different device unit number.
2. If there is no problem analysis procedure associated with the reference code being serviced, perform the IOPIP16 procedure to isolate the possible failing device.

FI01107

FI01107 indicates that any storage device attached to the I/O (SCSI) bus of this IOP might be the failing item.

Complete the following steps:

1. Find the IOP address. See the System reference code format description.
2. To determine the location of the I/O processor card, see Part locations and location codes.

   The unit reference code indicates the I/O (SCSI) bus that has the problem:

   - URC 3020, 3100 -- I/O bus 0
   - URC 3021, 3101 -- I/O bus 1
   - URC 3022, 3102 -- I/O bus 2
   - URC 3023, 3103 -- I/O bus 3
   - Any other URC -- Any I/O bus on the I/O card
3. See Part locations and location codes to find the diagram of the system unit or the expansion unit and perform the following:
   - Find the IOP card location identified by the direct select address.
   - Find all the storage devices on the same I/O (SCSI) bus.
4. Replace the failing device. Use the device type to determine the part.
5. If there is no problem analysis procedure associated with the reference code being serviced, perform the IOPIP16 procedure to isolate the possible failing device.

FI01108

FI01108 indicates that the I/O (SCSI) bus or power cable is the failing item.

See FI01140 and FI01141.

FI01109

FI01109 indicates that the backplane or a connection to the backplane might be failing.

See the symbolic FRU BACKPLN.

FI01110

FI01110 indicates that the diskette unit is the failing item.

Use the diskette device type to determine the part.

Note the device type and see Finding parts, locations, and addresses to determine the FRU part number to replace.

FI01112

FI01112 indicates that the active IOP is the failing item.

1. Find the IOP address. See the System reference code format description.
2. To determine the location of the I/O processor card, see Part locations and location codes and get the type from the card in that location or address.
3. Use the IOP type to determine the part to replace.

FI01117

FI01117 indicates that any IOA, card, cable, or device attached to the IOP might be the failing item.

1. Find the IOP address. See the System reference code format description.

2. To determine the location of the I/O processor card, see Part locations and location codes.
3. Identify the IOAs, cards, cables, and devices that are attached to the IOP found in the preceding steps.
4. Replace the IOAs, cards, cables, and devices that are attached to the IOP, one at a time, until you have corrected the problem.

FI01119

FI01119 indicates that the backplane or a connection to the backplane might be failing.

See the symbolic FRU BACKPLN.

FI01121

FI01121 is not supported on these models. Continue with the next FRU in the list.

FI01130

FI01130 indicates that the disk unit is the failing item.

Find the disk unit type number in Finding parts, locations, and addresses to determine the part number.

FI01131

FI01131 is not supported on these models. Continue with the next FRU in the list.

FI01132

FI01132 is not supported on these models. Continue with the next FRU in the list.

FI01140

FI01140 indicates that the I/O (SCSI) bus cable is the failing item.

Complete the following steps:

1. Are there external devices attached?
   - **No:** Continue with the next step.
   - **Yes:** Choose from the following options:
     - For SCSI-attached external devices, see the symbolic FRU EXTSCSI.
     - For external devices that are attached with Fibre Channel cables, see FCCABLE.
2. Find the IOP address. See the System reference code format description.
3. To determine the location of the I/O processor card, see Part locations and location codes and get the type from the card in that location or address.
4. Replace the failing item associated with the IOP address.

   Note: Any of the SCSI cables or backplanes between the IOA and the device could be the failing item.

FI01141

FI01141 indicates that a loss of power to an IOP, to an internal device, or to an external device might have occurred.

Complete the following steps:

1. Are 0000 xxxx, 1xxx xxxx, or A6xx 698x SRCs displayed on the control panel?
   - **No:** Continue with the next step.
   - **Yes:** Use the SRC displayed on the control panel to diagnose the problem.
2. Did the SRC that directed you to this FI code involve an externally attached device or an IOP with an externally attached device?

- **No:** Continue with the next step.
- **Yes:** Verify that there is no obvious problem with power to the device. If you suspect a power problem with the device, go to the service information for that external device.

3. The power supply cables or connections to internal disk units, tape units, or optical storage units might be the failing item. For part numbers, see Finding parts, locations, and addresses.

FI01201

FI01201 indicates that the disk drive is the failing item.

Use the disk unit type number to determine the part number.

Note the device type and see Finding parts, locations, and addresses to determine the FRU part number to replace.

FI01202

FI01202 indicates that the disk drive is the failing item.

See FI01201.

FI01203

FI01203 indicates that the disk drive is the failing item.

See FI01201.

FI02092

FI02092 indicates that the load source for an alternate IPL or the interface to the load source is the failing item.

See FI00092.

FI02112

FI02112 indicates that the addressed storage device is the failing item.

Complete the following steps:

1. Is the device location information available in the service action log?
   - **No:** Continue with the next step.
   - **Yes:** Replace the failing item.
2. Find the IOP address and the device address. See the System reference code format description.
3. To determine the location of the I/O processor card, see Part locations and location codes. Then complete the following:
   - Find the IOP card location identified by the direct select address.
   - Find the addressed storage device location identified by the device address.
4. Replace the failing device. Possible failing addressed devices include disk, tape, optical, device backplane, or auxiliary cache IOA. Use the device type to determine the part.

Symbolic FRUs

This information is a list of symbolic field replaceable units (FRUs).

The procedures in this topic are listed alphabetically.

ACMODUL

Your server lost power. This procedure will help you determine the source of the power loss condition that brought you here.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

If the system or expansion unit that exhibited the power loss starts normally, or stays powered on after an ac power failure, replacement of parts might not be needed. Power failures can be caused by brown outs, building or room power receptacle power loss, loose or disconnected power cords, or possible hardware conditions.

1. Is the failing unit configured with a redundant power supply option (or dual line cord feature)?
   - **No:** Continue with the next step.
   - **Yes:** A service representative must perform power isolation procedure PWR1911.
2. Are all the units powered on?
   - **Yes:** This error might have been caused by an ac power outage. If the system starts without an error, no parts need to be replaced. **This ends the procedure.**
   - **No:** On the unit that does not power on, verify that the power outlet is supplying the correct power for the unit. Also, ensure that both ends of the power cord (from the unit that does not power on) are connected correctly and securely.

     If you find a problem, correct the problem. **This ends this procedure**.

     If you cannot find the problem, continue with the next step.

     Note: In an 8233-E8B or 8236-E8C system, there are two internal ac power cables that run from the back of the drawer to the power supplies in the front. The upper ac power connector on the back of the system goes to power supply E1. The lower ac power connector on the back of the system goes to power supply E2.
3. A trained service representative must verify the voltage at the system end of the power cord with a multimeter to verify that the voltage is correct according to the following table.

Model or expansion unit	Correct voltage
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	100 - 127 V or 200 - 240 V
8233-E8B, 8236-E8C	200 - 240 V ac or 200 - 220 V dc
8248-L4T, 8408-E8D, 9109-RMD	200 - 240 V ac
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	200 - 240 V ac
5796, 7314-G30	200 - 240 V ac or 200 - 220 V dc
5802	200 - 240 V ac

   Is the voltage correct?
   - **Yes:** Continue with the next step.
   - **No:** Go to the step 5.
4. Replace the failing power supply. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Power supply 1	U*n*-E1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Power supply 2	U*n*-E2
	8233-E8B, 8236-E8C	See System parts.	Power supply 1 (ac supply)	U*n*-E1
	8233-E8B, 8236-E8C	See System parts.	Power supply 2 (ac supply)	U*n*-E2
	8233-E8B, 8236-E8C	See System parts.	Power supply 1 (dc supply)	U*n*-E1
	8233-E8B, 8236-E8C	See System parts.	Power supply 2 (dc supply)	U*n*-E2
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Power supply 1	U*n*-E1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Power supply 2	U*n*-E2
	5796, 7314-G30	42R4491	Power supply 1	U*n*-E1
	5796, 7314-G30	42R4491	Power supply 2	U*n*-E2
	5802	See System parts.	Power supply 1	U*n*-E1
	5802	See System parts.	Power supply 2	U*n*-E2

5. Complete the following steps:
   a. Disconnect the power cord from the customer's power outlet.
   b. Use a multimeter to measure the voltage at the customer's power outlet.
      Is the voltage correct?
      - **Yes:** Replace the failing power cord. **This ends the procedure.**
      - **No:** Complete the following steps:
        1) Inform the customer that the voltage at the power outlet is not correct.
        2) After the voltage at the power outlet is correct, reconnect the power cord to the power outlet. **This ends the procedure.**

ADJ_LOG

This symbolic FRU displays the logical location code of the previous failing item in the failing item list. No service action is required for this FRU.

ADJ_PHY

This symbolic FRU displays the physical location code of the previous failing item in the failing item list. No service action is required for this FRU.

AIRMOVR

A fan might be failing. Before replacing any field replaceable units (FRUs), ensure that the fans and fan trays are fully seated into the fan connectors and that all cables are seated correctly.

Replace the FRUs in order, one at a time, starting with the primary unit and then the secondary units. Use the following table to determine the failing fan and location.

Unit reference code, CCIN, or FFC	Type and model	Part number	Description	Location code
7610	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan fault	U*n*-A1
7620	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan fault	U*n*-A2
7630	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan fault	U*n*-A3
7640	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan fault	U*n*-A4
7611	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan missing	U*n*-A1
7621	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan missing	U*n*-A2
7631	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan missing	U*n*-A3
7641	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Cooling fan missing	U*n*-A4
76A0	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	PCI expansion fan fault	U*n*-C1-A1
76B0	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	PCI expansion fan fault	U*n*-C1-A2
76A1	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	PCI expansion fan missing	U*n*-C1-A1

76B1	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	PCI expansion fan missing	U*n*-C1-A2
7610	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan fault	U*n*-A1
7620	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan fault	U*n*-A2
7630	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan fault	U*n*-A3
7640	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan fault	U*n*-A4
7650	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan fault	U*n*-A5
7660	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan fault	U*n*-A6
7670	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan fault	U*n*-A7
7611	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan missing	U*n*-A1
7621	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan missing	U*n*-A2
7631	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan missing	U*n*-A3
7641	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan missing	U*n*-A4
7651	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan missing	U*n*-A5
7661	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan missing	U*n*-A6
7671	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cooling fan missing	U*n*-A7
7610	8233-E8B, 8236-E8C	See System parts.	Processor cooling fan	U*n*-A1
7620	8233-E8B, 8236-E8C	See System parts.	Processor cooling fan	U*n*-A2
7630	8233-E8B, 8236-E8C	See System parts.	Processor cooling fan	U*n*-A3
7640	8233-E8B, 8236-E8C	See System parts.	Processor cooling fan	U*n*-A4

7610	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Fan assembly	U*n*-A1
7611	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Cooling fan missing	U*n*-A1
7620	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Fan assembly	U*n*-A2
7621	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Cooling fan missing	U*n*-A2
7630	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Fan assembly	U*n*-A3
7631	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Cooling fan missing	U*n*-A3

7640	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Fan assembly	U*n*-A4
7641	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Cooling fan missing	U*n*-A4
7650	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Fan assembly	U*n*-A5
7651	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Cooling fan missing	U*n*-A5
7600	5802, 5877	See System parts.	Air-moving device (fan)	U*n*-E1-A1
7601	5802, 5877	See System parts.	Air-moving device (fan)	U*n*-E1-A2
7602	5802, 5877	See System parts.	Air-moving device (fan)	U*n*-E2-A1
7603	5802, 5877	See System parts.	Air-moving device (fan)	U*n*-E2-A2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

AJDG301

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJDGP01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJEDA00

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJEGP01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJEQU00

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJGAM01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJGDF01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJGFN00

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJGJ601

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJGJQ01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJGLD01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJGW701

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJLAF01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJLAG01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJLYC01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJLYD01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

AJSDJ01

Licensed Internal Code is the failing item. Look for PTFs associated with the reference code and have the customer apply them.

ALTMANL

A service call to the Integrated xSeries Server (IXS) might be needed to fix the problem on the IXS.

Note: An error condition is indicated by the blinking frame ID on the IXS card. When an error occurs, it can take up to 10 minutes for the frame ID to start blinking, and up to 1 minute (after the error is reset) for the frame ID to stop blinking.

Use the following table to find instructions for the reference code you are experiencing.

Table 1. IXS reference codes and instructions

Reference code	Instructions
1xxx-8910	Check the system error light (amber exclamation point) on the IXS panel. • If the system error light is on, call the customer's IXS service provider. • If the system error light is not on, see TWRCARD. **Note:** Removal of the ac line cord on the IXS unit is required to reset the flashing frame-indicating LEDs on the SPCN card.
1xxx-8920	Call the customer's IXS service provider. **Note:** Removal of the ac line cord on the IXS unit is required to reset the flashing frame-indicating LEDs on the SPCN card.

ALTPERF

The system is located at an altitude that is within the range of the system specification, but the thermal or power management firmware might reduce performance due to the altitude.

ALTTUDE

The air pressure sensor in the control (operator) panel is reporting that the system is at an altitude above 4000 meters (about 13,210 feet).

Complete the following steps:

1. Is the system in operation at an altitude above 4000 meters?

- **No:** Continue with the next step.
- **Yes:** The system is being operated outside the range of the system specifications. Move the system to an altitude lower than 4000 meters. **This ends the procedure.**

2. The system is located at an altitude below 4000 meters. Are the environmental control systems in the building in which the system is located functioning correctly?
   - **No:** Fix any problems that are found. **This ends the procedure.**
   - **Yes:** Continue with the next step.
3. Replace the control (operator) panel at location Un-D1. **This ends the procedure.**

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

AMBBACK

The ambient temperature has returned to a level that is within the operating specifications of this system. No service action is required.

AMBPERF

The ambient temperature is within the range of the system specification, but the thermal or power management firmware might reduce performance due to the current ambient temperature.

AMBTEMP

The system detected a warning or fault due to the ambient room temperature.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

1. Is the room temperature less than 35°C (95°F)?
   - **No:** Notify the customer. The customer must bring the room temperature within normal range. Continue with the next step.
   - **Yes:** Continue with the next step.
2. Are the system front and rear doors free of obstructions?
   - **No:** Notify the customer. The system must be free of obstructions for proper air flow. Continue with the next step.
   - **Yes:** Continue with the next step.
3. If applicable, do all the positions in the processor subsystem contain processors or fillers?
   - **Yes:** Continue with the next step.
   - **No:** Fill any open positions with processors or fillers. **This ends the procedure.**
4. Do all the power supply positions contain power supplies or fillers?
   - **Yes:** Continue with the next step.
   - **No:** Fill any open positions with supplies or fan books. **This ends the procedure.**
5. Are you working with reference code 11007201 or has reference code 11007201 been logged?
   - **Yes:** This indicates that the room temperature is too high. The customer must bring the room temperature to less than 35°C (95°F). If the room temperature is less than 35°C (95°F), continue with the next step.
   - **No:** Replace the FRU listed in the error log for the SRC you are working with and go to step 7.
6. Perform one of the following options:
   - **For system units:** Replace the control panel. Use the following table to determine the part number for the field replaceable unit (FRU). Then continue with the next step.

CCIN or FFC	Type and model	Part number	Description	Location code
		See System parts.	Control (operator) panel	U*n*-D1

- **For the 5802 expansion unit:** Replace the power supply at location U*n*-E1. If this does not resolve the problem, replace the power supply at location U*n*-E2. Use the following table to determine the part number for the field replaceable unit (FRU). Then continue with the next step.

CCIN or FFC	Type and model	Part number	Description	Location code
	5802	See System parts.	Power supply	U*n*-E1, U*n*-E2

7. After each FRU is replaced, is the error code that sent you to this procedure still reported?
   - **No:** The problem has been corrected. **This ends the procedure.**
   - **Yes:** Replace the next FRU in the list. If all FRUs in the list have been replaced, call your next level of support. **This ends the procedure.**

AMBTMP1

Ambient air temperature is too high for optimal performance.

Air used for cooling the unit is above the temperature at which the unit is designed to run at maximum performance. Use the following instructions to help determine the problem:

- If the room temperature is above the specified range for the unit reporting this problem, take steps to lower the room temperature.
- If the air being drawn into the unit is above the specified range, either move the unit to a place where the air is within range, or take steps to reduce the temperature of the air surrounding the unit. This can be accomplished by moving the source of the air that is too warm.
- If the temperature of the air at the unit's air intake is within the range specified, contact your next level of support.

AMBTMP2

Ambient air temperature is back within range.

Ambient air temperature entering the system unit has returned to the nominal operational range for maximum performance. This message or symbolic FRU results when the temperature of the air entering the unit was previously reported to be above the unit's specified range. This message or symbolic FRU is issued when the unit detects that the ambient air temperature has dropped to within the specified range for maximum performance. No action is necessary.

ANYBRDG

Find the location of the card that is reporting the problem and its corresponding PCI bridge set. Any cable, card, or card enclosure (not necessarily the card that reported the problem) connected to the PCI bridge set might be causing the problem.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

ANYBUS

Any cable, card, or card enclosure might be causing an IOP-detected bus error, although the IOP that is reporting the problem might not be causing the problem.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

ANYFC

Any IOA, hub, gateway, or device that is attached to the same Fibre Channel interface might be failing.

ANYPROC

The failing component is one of the system processors.

For each unit, starting with the primary unit and then the secondary units, use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8233-E8B, 8236-E8C	See System parts.	3.1 GHz POWER7® 6-core processor card	U*n*-P1-C*x*
	8233-E8B, 8236-E8C	See System parts.	3.3 GHz POWER7 8-core processor card	U*n*-P1-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

AS4NTDD

The Windows server application processor device driver might be causing the problem.

Contact your next level of support for assistance.

AUXCBL

Replace the SCSI cable that connects the auxiliary cache I/O adapter to the storage I/O adapter.

1. Are you working on a 571F/575B combination storage and auxiliary cache IOA card set (uses two card slot locations)?

   Yes: This symbolic FRU does not apply. The SCSI cable is not a FRU on this card set. Go to the next item in the failing item list. **This ends the procedure.**

   No: Continue with the next step.
2. Find the location of the auxiliary cache I/O adapter:
   a. Determine the address of the auxiliary cache I/O adapter. See the System reference code format description.
   b. Determine the location of the auxiliary cache I/O adapter. See Part locations and location codes for the model on which you are working.
3. Replace the SCSI cable that connects the auxiliary cache I/O adapter to the storage I/O adapter. See Finding parts, locations, and addresses for cable part number information.

Note: To replace the SCSI cable concurrently, you must use concurrent maintenance to power off the auxiliary cache I/O adapter. Replace the cable and then use concurrent maintenance to power on the auxiliary cache I/O adapter. **Do not replace the cable when both adapters are powered on.**

AUXIOA

Replace the auxiliary I/O adapter.

Complete the following steps:

1. Is the location information available in the service action log?
   - **Yes:** Use the location information found in the service action log to replace the auxiliary I/O adapter. **This ends the procedure**.
   - **No:** Continue with the next step.
2. Complete the following steps:
   a. Determine the address of the auxiliary cache I/O adapter. See the System reference code format description.
   b. Use the address to find the location. See Part locations and location codes.

BACKPLN

A backplane or a connection to the backplane might be failing.

Note: Before replacing any parts, verify the connections to the backplane.

Complete the following steps:

1. Were you sent here by a power reference code (1xxxxxxx)?
   - **No:** Continue with the next step.
   - **Yes:** Go to SYSBKPL. **This ends the procedure.**
2. Determine the location of the device by performing the following steps:
   a. Use the location information in the error log if it is available. If no location information for the device is available, use the location information for the I/O adapter instead.
   b. If no location information is available for either the device or the I/O adapter, find the address of the device or I/O adapter (see the System reference code format description). Use the address to find the location. See Part locations and location codes.
   c. Use the location code to determine in which unit the device, cable, and the connected backplane are located. Any backplane connecting the device or I/O adapter might be the cause of the problem. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	• System midplane • I/O backplane	• U*n*-P1 • U*n*-P2
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

This ends the procedure.

BATCHGR

A battery power unit charger is the failing item.

Replace the battery power unit charger. See the following table to determine the part number for the field replaceable unit (FRU).

Note: When a part number is displayed on the control panel of a system or expansion unit, replace that part first.

CCIN or FFC	Type and model	Part number	Description	Location code
	5074, 5079	97H7316	Battery power unit charger	U*n*-A01

BATRY

A battery is the failing item.

Replace the battery. See the following table to determine the part number for the field replaceable unit (FRU).

Note: When a part number is displayed on the control panel of a system or expansion unit, replace that part first.

CCIN or FFC	Type and model	Part number	Description	Location code
	5074, 5079	97H7318	Battery pack	U*n*-T0*n*

BPC

One of the BPCs failed to reach standby.

Use the following table to perform the appropriate action for the SRC that occurred.

SRC	Replace this FRU	Locations information
1xxx8740	BPC A (lower BPC)	Part locations and location codes
1xxx8741	BPC B (upper BPC)	

This ends the procedure.

BPCHANG

The system is stopped on one of the base system integrated controller checkpoints.

If the system hangs on one of the base system integrated controller checkpoints, perform the following steps:

1. Remove the ac cord, and then reattach it to the system.
2. Watch the control panel display. If 01 appears in the upper-left corner of the display, power on the system.

If the system continues to hang on a base system controller checkpoint, replace the backplane in the system unit that contains integrated I/O controllers. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

BRDGSET

The multiadapter bridge hardware is having a problem with one or more PCI cards or adapters in the PCI bridge set, but the exact card or adapter cannot be identified.

The problem might be with a card, a card slot, or an embedded adapter. The PCI bridge set is indicated by the direct select address (DSA) in word 7 of the reference code. This symbolic FRU only appears in the serviceable event user interface when the Licensed Internal Code could not determine which PCI bridge set has the problem.

1. Are you working from a serviceable event user interface of an operating system, service processor, or the management console that is giving you a card position or list of card positions for this FRU?
   - **Yes:** Go to step 5. **Note:** When there is a list of locations in this FRU's location code, the card locations will be separated by commas. A range of card positions will show the starting card position, a colon, and the ending card position.
   - **No:** Complete the following steps:
     a. Determine the location of the cards in the group using the DSA. Record the DSA (word 7 of the reference code) from the user interface you are using.
     b. Locate the cards specified in the DSA by performing isolation procedure MABIP53. Return here and continue with the next step after locating the cards.
2. Did isolation procedure MABIP53 identify a single card location?
   - **Yes:** This is the location of the failing item. Go to step 5.
   - **No:** Complete the following (see the table below):
     a. Remove all of the adapter and IOP cards in the locations that are identified in the given range of card slots. Do not remove any FRUs with embedded adapters, only FRUs in PCI card slots.
     b. Replace each card one at a time. **Note:** For IBM i adapters controlled by IOPs, replace the IOP before any of the adapters. Power on the unit after you replace each card until either the problem reappears or you have replaced each card. Then continue with the next step.
3. Did the problem reappear?
   - **Yes:** The last card that you replaced before the problem reappeared is the failing item. **This ends the procedure.**
   - **No:** Continue with the next step.
4. Did isolation procedure MABIP53 identify a FRU with embedded adapters?
   - **Yes:** The problem is in the FRU with the embedded adapter. Continue with the next step and replace that FRU using the following table.

- **No:** The problem might be intermittent. Contact your next level of support. **This ends the procedure.**

5. For each unit, starting with the primary unit and then the secondary units, use the following table to locate and replace the failing items.

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane, PCI bridge set 1	U*n*-P2
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane, PCI bridge set 2	U*n*-P2, U*n*-P2-C1, U*n*-P2-C2, U*n*-P2-C3, U*n*-P2-C4
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane, PCI bridge set 3	U*n*-P2, U*n*-P2-C5, U*n*-P2-C6
	5796, 7314-G30	See System parts.	I/O backplane, PCI bridge set 1	U*n*-P1, U*n*-P1-C1, U*n*-P1-C2, U*n*-P1-C3
	5796, 7314-G30	See System parts.	I/O backplane, PCI bridge set 2	U*n*-P1, U*n*-P1-C4, U*n*-P1-C5, U*n*-P1-C6

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

BRDGST1

The multiadapter bridge hardware is having a problem with one or more PCI cards or adapters in the first PCI bridge set in the enclosure, but the exact card or adapter cannot be identified.

The problem can be with a card, a card slot, or an embedded adapter. The PCI bridge set is indicated by the direct select address (DSA) in word 7 of the reference code.

1. Are you working from a serviceable event user interface of an operating system, service processor, or management console that is giving you a card position or list of card positions for this FRU?
   - **Yes:** The positions given are the locations of the failing components. When there is a list of locations in this FRU's location code, the card locations will be separated by commas. A range of card positions will show the starting card position, a colon, and the ending card position. Go to step 5.

- **No:** Complete the following steps:
  a. Determine the location of the cards in the group using the DSA. Record the DSA, which is word 7 of the reference code, from the user interface you are using.
  b. Locate the cards specified in the DSA by performing isolation procedure MABIP53. Return here and continue with the next step after locating the cards.

2. Were you able to identify a single card position by performing MABIP53?
   - **Yes:** This is the location of the failing item. Go to step 5.
   - **No:** Continue with the next step.
3. Complete the following, referring to the removal and replacement procedures for each FRU location you determined:
   a. Remove all of the adapter and IOP cards in the locations that are identified in the given range of card slots. Do not remove any FRUs with embedded adapters, only FRUs in PCI card slots.
   b. Replace each card one at a time. **Note:** For IBM i adapters controlled by IOPs, replace the IOP before any of the adapters. Power on the unit after you replace each card until either the problem reappears or you have replaced each card.
   c. Did the problem reappear?
      - **Yes:** The last card that you replaced before the problem appeared again is the failing item. **This ends the procedure.**
      - **No:** Continue with the next step.
4. Did you identify a FRU with embedded adapters when performing isolation procedure MABIP53?
   - **Yes:** The problem is in the FRU with the embedded adapter. Continue with the next step and replace that FRU.
   - **No:** The problem might be intermittent. Contact your next level of support. **This ends the procedure.**
5. For each unit, starting with the primary unit and then the secondary units, use the following table to locate and replace the failing items.

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane, PCI bridge set 1	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane, PCI bridge set 1	U*n*-P1, U*n*-P1-C1, U*n*-P1-C2, U*n*-P1-C3

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

BRDGST2

PCI I/O card group in the second PCI bridge set (middle adapter card range when there are three PCI bridge sets and high adapter card range when there are two PCI bridge sets), IOAs and IOPs.

The multiadapter bridge hardware is having a problem with one or more PCI cards or adapters in the second PCI bridge set in the enclosure, but the exact card or adapter cannot be identified. The problem can be with a card, a card slot, or an embedded adapter. The PCI bridge set is indicated by the direct select address (DSA) in word 7 of the reference code.

1. Are you working from a serviceable event user interface of an operating system, service processor, or management console that is giving you a card position or list of card positions for this FRU?
   - **Yes:** The positions given are the locations of the failing components. When there is a list of locations in this FRU's location code, the card locations will be separated by commas. A range of card positions will show the starting card position, a colon, and the ending card position. Go to step 5.
   - **No:** Complete the following steps:
     a. Determine the location of the cards in the group using the DSA. Record the DSA, which is word 7 of the reference code, from the user interface you are using.
     b. Locate the cards specified in the DSA by performing isolation procedure MABIP53. Return here and continue with the next step after locating the cards.
2. Were you able to identify a single card position by performing MABIP53?
   - **Yes:** This is the location of the failing item. Go to step 5.
   - **No:** Continue with the next step.
3. Complete the following, referring to the remove and replace procedures for each FRU location you determined:
   a. Remove all of the adapter and IOP cards in the locations that are identified in the given range of card slots. Do not remove any FRUs with embedded adapters, only FRUs in PCI card slots.
   b. Replace each card one at a time.

      Note: For IBM i adapters controlled by IOPs, replace the IOP before any of the adapters. Power on the unit after you replace each card until either the problem reappears or you have replaced each card.
   c. Did the problem reappear?
      - **Yes:** The last card that you replaced before the problem appeared again is the failing item. **This ends the procedure.**
      - **No:** Continue with the next step.
4. Did you identify a FRU with embedded adapters when performing isolation procedure MABIP53?
   - **Yes:** The problem is in the FRU with the embedded adapter. Continue with the next step and replace that FRU.
   - **No:** The problem might be intermittent. Contact your next level of support. **This ends the procedure.**
5. For each unit, starting with the primary unit and then the secondary units, use the links in the table below to locate and replace the failing items.

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane, PCI bridge set 2	U*n*-P2, U*n*-P2-C1, U*n*-P2-C2, U*n*-P2-C3, U*n*-P2-C4
	5796, 7314-G30	See System parts.	I/O backplane, PCI bridge set 2	U*n*-P1, U*n*-P1-C4, U*n*-P1-C5, U*n*-P1-C6

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

BRDGST3

PCI I/O card group in the third PCI bridge set (highest adapter card range), IOAs and IOPs.

The multiadapter bridge hardware is having a problem with one or more PCI cards or adapters in the third PCI bridge set in the enclosure, but the exact card or adapter cannot be identified. The problem can be with a card, a card slot, or an embedded adapter. The PCI bridge set is indicated by the direct select address (DSA) in word 7 of the reference code.

1. Are you working from a serviceable event user interface of an operating system, service processor, or management console that is giving you a card position or list of card positions for this FRU?
   - **Yes:** The positions given are the locations of the failing components. When there is a list of locations in this FRU's location code, the card locations will be separated by commas. A range of card positions will show the starting card position, a colon, and the ending card position. Go to step 5.
   - **No:** Complete the following steps:
     a. Determine the location of the cards in the group using the DSA. Record the DSA, which is word 7 of the reference code, from the user interface you are using.
     b. Locate the cards specified in the DSA by performing isolation procedure MABIP53. Return here and continue with the next step after locating the cards.
2. Were you able to identify a single card position by performing MABIP53?
   - **Yes:** This is the location of the failing item. Go to step 5.
   - **No:** Continue with the next step.
3. Complete the following, referring to the remove and replace procedures for each FRU location you determined:
   a. Remove all of the adapter and IOP cards in the locations that are identified in the given range of card slots. Do not remove any FRUs with embedded adapters, only FRUs in PCI card slots.
   b. Replace each card one at a time. **Note:** For IBM i adapters controlled by IOPs, replace the IOP before any of the adapters.

      Power on the unit after you replace each card until either the problem reappears or you have replaced each card.
   c. Did the problem reappear?
      - **Yes:** The last card that you replaced before the problem appeared again is the failing item. **This ends the procedure.**
      - **No:** Continue with the next step.
4. Did you identify a FRU with embedded adapters when performing MABIP53?
   - **Yes:** The problem is in the FRU with the embedded adapter. Continue with the next step and replace that FRU.
   - **No:** The problem might be intermittent. Contact your next level of support. **This ends the procedure.**
5. For each unit, starting with the primary unit and then the secondary units, replace the failing items listed in the following table.

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane, PCI bridge set 3	U*n*-P2, U*n*-P2-C5, U*n*-P2-C6

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

BSTWRPL

This symbolic FRU is no longer supported.

BUSVPD

This is the VPD (vital product data) for a PCI bus at the multiadapter bridge end of the primary PCI bus.

1. Are you working from the serviceable event view and a card location is listed with this failing item?
   - **Yes:** Then the error is at that card location. Continue with the next step.
   - **No:** Complete the following steps:
     a. Record the bus number value (BBBB) from word 7 of the reference code (see Analyzing a RIO/HSL/12X or PCI bus reference code for help in determining the bus number).
     b. Search for the bus number in the management console's or operating system's resource and configuration interfaces, or in the system configuration listing, to determine which unit contains the failing item. Record the frame or unit type and then continue with the next step.
2. Use the following table to determine the appropriate service action.

Frame or unit that contains the failing item	Go to this symbolic FRU
System units	SYSBKPL
Expansion units	BACKPLN

CABLEH

There might be a problem with the cabling between the system controllers and the BPHs.

Attention:

- Before replacing any cables, ensure that the cables are properly routed and securely plugged.
- If you are servicing a BPC and get a 1xxx 8720 or 8721 SRC for any BPC, ignore the error until you have the BPC powered on again.

For 9119-FHB:

1. Is the SRC 1xxx 8720 or 8721?
   - **Yes:** Continue with the next step.
   - **No:** Go to step 3.
2. For SRC 1xxx 8720 or 8721, perform the following steps:
   - Ensure that the following Ethernet connections are cabled correctly:

– On the system controller at location U*n*-P1-C2: ent0 is connected to J05 on BPH-A, and ent1 is connected to J05 on BPH-B. If a problem is found, correct it. **This ends the procedure.**
– On the system controller at location U*n*-P1-C5: ent0 is connected to J06 on BPH-A, and ent1 is connected to J06 on BPH-B. If a problem is found, correct it. **This ends the procedure.**

Communications problems will result if cabling is mixed during repair or installation.

Next, you will be measuring voltages on the BPRs. If the SRC is 1xxx8720, you should measure the voltage on BPR-A (front). If the SRC is 1xxx8721, you should measure the voltage on BPR-B (rear). The test points are on the left side of BPR-1 and BPR-2.

Using the labeled test points on the face of the BPR, measure the voltages between the following phases:

- Phase A and phase B
- Phase B and phase C
- Phase C and phase A

Are all of the meter readings greater than 180 V ac?

- **Yes:** Go to step 4.
- **No:** Inform the customer that power voltage at the input to the BPR is either missing or too low and needs to be corrected. **This ends the procedure.**

3. Is the SRC 1xxx 8724 or 8725?
   - **No**: Go to step 4.
   - **Yes**: SPCN is reporting a mismatch between the machine type/model/serial number (MTMS) of the frame and the MTMS stored in a BPC. Perform the following steps:
     a. Verify that the Ethernet cabling going to and from both BPCs is correct (see step 2 above for instructions on checking the connections between the system controllers and the BPHs. If there is more than one frame, verify that the Ethernet cabling between the frames is correct. If a problem is found, correct it. **This ends the procedure.**
     b. Verify that the IP addresses shown on the management console are correct. If a problem is found, correct it. **This ends the procedure.**
     c. If all of the Ethernet cables are connected correctly, continue to the next FRU in the FRU list. **This ends the procedure.**
4. Use the following table to perform the appropriate action for the SRC with which you are working.

SRC	Action	Locations information
1xxx1D04	Replace the cables between the front light strip and the service processors. **This ends the procedure.**	Part locations and location codes
1xxx1D05	Replace the cables between the rear light strip and the service processors. **This ends the procedure.**	
1xxx8731, 1xxx8732, 1xxx8733, 1xxx8734	Verify that the cabling between the BPA, BPCs, BPH, and the system controllers is correct. If a problem is found, correct it. **This ends the procedure.**	Part locations and location codes

For 9125-F2C:

1. Is the SRC 1xxx 8720 or 8721?
   - **Yes:** Continue with the next step.
   - **No:** Go to step 3.
2. For SRC 1xxx 8720 or 8721, perform the following steps:

- Ensure all hub A (BPHA P2-C1-Txx) Ethernet cables are plugged into U*n*-C147-T2 or U*n*-C148-T2 on the DCCAs. If a problem is found, correct it. **This ends the procedure.**
- Ensure all hub B (BPHB P1-C1-Txx) Ethernet cables are plugged into U*n*-C147-T3 or U*n*-C148-T3 on the DCCAs. If a problem is found, correct it. **This ends the procedure.**

Communications problems will result if cabling is mixed during repair or installation.

3. Is the SRC 1xxx 8724 or 8725?
   - **No**: Go to step 4.
   - **Yes**: SPCN is reporting a mismatch between the machine type/model/serial number (MTMS) of the frame and the MTMS stored in a BPC. Perform the following steps:
     a. Verify that the Ethernet cabling going to and from both BPCs is correct (see step 2 above for instructions on checking the connections between the system controllers and the BPHs. If there is more than one frame, verify that the Ethernet cabling between the frames is correct. If a problem is found, correct it. **This ends the procedure.**
     b. Verify that the IP addresses shown on the management console are correct. If a problem is found, correct it. **This ends the procedure.**
     c. If all of the Ethernet cables are connected correctly, continue to the next FRU in the FRU list. **This ends the procedure.**
4. Use the following table to perform the appropriate action for the SRC with which you are working.

SRC	Action	Locations information
1xxx8731, 1xxx8732, 1xxx8733, 1xxx8734	Verify that the cabling between the BPA, BPCs, BPH, and the DCCAs is correct. If a problem is found, correct it. **This ends the procedure.**	Part locations and location codes

CACHBAT

The cache battery pack might be failing.

1. Use the cache battery pack location information in the service action log (SAL) if it is available. If the location is not available, use the address of the storage IOA. See the System reference code format description to find the location code for the storage IOA.

   Using the location code, see Part locations and location codes to identify the storage IOA.
2. Use Table 2 on page 232 below to determine the service action. If more than one location code is listed in the table for the cache battery pack, and the location of the cache battery pack is not available in the SAL, continue with step 3 to identify the location.

   Note: The 571F/575B combination storage and auxiliary cache IOA card set uses two card slot locations. The battery pack is located on the 575B side of the card set, regardless of the location found in the previous steps. The 572F/575C combination storage and auxiliary cache IOA card set also uses two card slot locations. The battery pack is located on the 575C side of the card set, regardless of the location found in the previous steps.

Table 2. Cache battery service information

Type and model	Part number	Description	Location code	Replacement procedure
All	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Storage I/O adapter card	U*n*-P*x*-C*x*	For SCSI adapters, see Replacing SCSI RAID disk-controller cache battery packs. For SAS adapters, see Maintaining the rechargeable battery on the 57B7, 57CF, 574E, and 572F/575C SAS adapters.
8202-E4B, 8205-E6B	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Embedded storage controller on I/O backplane	U*n*-P1-C14-E1 **Note:** The system must be powered off to replace the cache batteries. If only one cache battery needs to be replaced, work with IBM support and the customer to determine if both cache batteries should be replaced at the same time to avoid additional maintenance down time.	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.
8202-E4B, 8205-E6B	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Feature storage controller card plugged into I/O backplane	U*n*-P1-C19-E1 **Note:** The system must be powered off to replace the cache batteries. If only one cache battery needs to be replaced, work with IBM support and the customer to determine if both cache batteries should be replaced at the same time to avoid additional maintenance down time.	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.
8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Embedded storage controller on I/O backplane	U*n*-P1-C14-E1	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.

Table 2. Cache battery service information (continued)

Type and model	Part number	Description	Location code	Replacement procedure
8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Feature storage controller card plugged into I/O backplane	U*n*-P1-C19-E1	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.
8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Embedded storage controller on I/O backplane	U*n*-P1-C13-E1	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.
8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Feature storage controller card plugged into I/O backplane	U*n*-P1-C18-E1	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.
8231-E2B	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Embedded storage controller on I/O backplane	U*n*-P1-C13-E1 **Note:** The system must be powered off to replace the cache batteries. If only one cache battery needs to be replaced, work with IBM support and the customer to determine if both cache batteries should be replaced at the same time to avoid additional maintenance down time.	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.

Table 2. Cache battery service information (continued)

Type and model	Part number	Description	Location code	Replacement procedure
8231-E2B	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Feature storage controller card plugged into I/O backplane	U*n*-P1-C18-E1 **Note:** The system must be powered off to replace the cache batteries. If only one cache battery needs to be replaced, work with IBM support and the customer to determine if both cache batteries should be replaced at the same time to avoid additional maintenance down time.	For SCSI and SAS adapters, see SAS RAID enablement and cache battery pack.
8233-E8B, 8236-E8C	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Embedded storage controller on I/O backplane	U*n*-P1-C10-E1	See Maintaining the rechargeable battery on the 57B7, 57CF, 574E, and 572F/575C SAS adapters.
8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	Using the type number of the storage IOA at the location you found, see PCI adapter information by feature type to determine the part number.	Embedded storage controller on I/O backplane	• U*n*-P2-C9-C1-E1 • U*n*-P2-C9-C1-E2	See Maintaining the rechargeable battery on the 57B7, 57CF, 574E, and 572F/575C SAS adapters.

3. Perform the following actions to determine the location of the cache battery pack:
   a. Record the resource name from the product activity log (PAL) or SAL entry for this error.
   b. From the **Start a Service Tool** display, select **Hardware service manager** > **Locate resource by resource name**.
   c. Enter the resource name of the storage IOA that you recorded from the PAL or SAL entry.
   d. Select **Display detail**.
   e. The PCI bus number is shown in decimal.
   f. Use Table 3 to determine the location of the cache battery pack. Then use Table 2 on page 232 to determine the service action.

Table 3. Determining the cache battery location

Type and model	PCI bus number (decimal)	Location code
8202-E4B, 8205-E6B	512	U*n*-P1-C14-E1
8202-E4B, 8205-E6B	514	U*n*-P1-C19-E1
8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	10	U*n*-P1-C14-E1

Table 3. Determining the cache battery location (continued)

Type and model	PCI bus number (decimal)	Location code
8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	12	U*n*-P1-C19-E1
8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	10	U*n*-P1-C13-E1
8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	12	U*n*-P1-C18-E1
8231-E2B	512	U*n*-P1-C13-E1
8231-E2B	514	U*n*-P1-C18-E1
8248-L4T, 8408-E8D, 9109-RMD	520	U*n*-P2-C9-C1-E1
8248-L4T, 8408-E8D, 9109-RMD	521	U*n*-P2-C9-C1-E2
9117-MMB, 9179-MHB	526, 590, 654, or 718	U*n*-P2-C9-C1-E2
9117-MMB, 9179-MHB	527, 591, 655, or 719	U*n*-P2-C9-C1-E1
8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	521, 585, 649, or 713	U*n*-P2-C9-C1-E2
8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	520, 584, 648, or 712	U*n*-P2-C9-C1-E1

This ends the procedure.

CACHE

This symbolic FRU is no longer supported.

CAPACTY

The failing component is the VPD card.

After the part has been replaced and before powering on the system, make sure the system's Vital Product Data (VPD) is restored (see Setting the system identifiers, or see Programming vital product data). The system will not complete an IPL unless the VPD information is programed correctly.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	VPD card	U*n*-P1-C20
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	VPD card	U*n*-P1-C19
	8233-E8B, 8236-E8C	See System parts.	VPD card	U*n*-P1-C9
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	VPD card	U*n*-P2-C7

	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	VPD card (on the primary unit or any of the secondary units)	U*n*-P2-C7

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

CARDFLT

Use this information to perform the appropriate action for the SRC you are working with.

1. Is the failing system a 9119-FHB?

No: Continue with the next FRU in the failing item list. **This ends the procedure**

Yes: Use the following table to find the appropriate action for the SRC you are working with.

Table 1. 9119-FHB

SRC	Replace this FRU	Locations information
1xxx1D00	1. System controller at U*n*-P1-C2 2. System controller at U*n*-P1-C5	Part locations and location codes
1xxx1D01	1. System controller at U*n*-P1-C5 2. System controller at U*n*-P1-C2	
1xxx1D02	1. Clock card at U*n*-P1-C3 2. Clock card at U*n*-P1-C4	
1xxx1D03	1. Clock card at U*n*-P1-C4 2. Clock card at U*n*-P1-C3	
1xxx1D10	1. The node controller at U*n*-P*m*-C42 in the book specified by the location code reported with the SRC. 2. The other node controller at U*n*-P*m*-C43 in the book specified by the location code reported with the SRC.	
1xxx1D11	1. The node controller at U*n*-P*m*-C43 in the book specified by the location code reported with the SRC. 2. The other node controller at U*n*-P*m*-C42 in the book specified by the location code reported with the SRC.	
1xxx1D12	The I/O hub card at U*n*-P*m*-C44 in the book specified by the location code reported with the error.	

1xxx1D13	The I/O hub card at U*n*-P*m*-C41 in the book specified by the location code reported with the error.	
1xxx1D14	The I/O hub card at U*n*-P*m*-C40 in the book specified by the location code reported with the error.	
1xxx1D15	The I/O hub card at U*n*-P*m*-C39 in the book specified by the location code reported with the error.	
1xxx5000	The system controller at U*n*-P1-C2	
1xxx5001	The system controller at U*n*-P1-C5	
1xxx8400	Replace the primary system controller.	
1xxx8409	Replace the primary system controller.	
1xxx8410 through 1xxx8417	Replace the primary system controller.	
1xxx8420 through 1xxx8427	Replace the primary system controller.	
1xxx8470 through 1xxx8477	Replace the primary system controller.	
1xxx8710 through 1xxx871F	Replace the primary system controller.	
1xxx8720, 1xxx8721	Replace the secondary system controller.	
1xxx8724, 1xxx8725	Replace the secondary system controller.	
1xxx8735	Replace the secondary system controller.	

This ends the procedure.

CARDTMP

The cryptographic adapter has detected a voltage or temperature change in its physical operating environment.

Correct the voltage or temperature condition. Vary off the cryptographic device description associated with the device resource on the adapter resource and vary it back on.

CBLALL

An SPCN cable might be the failing item.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

When there is a location and part number displayed on the control panel of a system or expansion unit, replace that FRU first.

Complete the following steps to determine the part number of the failing part.

1. Is the reference code 1*xxx*1502, 1*xxx*1512, 1*xxx*1522, or 1*xxx*1532?
   - **No:** Continue with the next step.
   - **Yes:** Replace the items in the following table one at a time.

CCIN or FFC	Type and model	Part number	Description	Location code
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1
	5796, 7314-G30	42R4491	Power supply	U*n*-E*x*

   For all other units,
   – SPCN cables
   – Power distribution card

   This ends the procedure.
2. Is the reference code 1*xxx*2612, 1*xxx*9012, 1*xxx*9013, 1*xxx*90F0, 1*xxx*9135, or 1*xxx*C62E?
   - **No:** Continue with the next step.
   - **Yes:** The failing item is the SPCN frame-to-frame cable or adapter. The following list shows the possible failing items, and the cable or adapter lengths when appropriate.

     Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
1463		09P1251	SPCN cable (2 meters)	
1464		22R5219	SPCN cable (6 meters)	
1465		22R5221	SPCN cable (15 meters)	
1466		22R5222	SPCN cable 30.0 meters	
		21F9360	SPCN cable 60.0 meters	
0369		41U0128	SPCN optical cable (100.0 meters)	
1468		41U0129	Optical SPCN cable (250 meters)	
		39J3865	SPCN optical adapter	

     This ends the procedure.
3. Is the reference code 1*xxx*2613?
   - **No:** Continue with the next step.
   - **Yes:** If there are two power supplies in the system, verify that both power supplies are plugged into the same line voltage (either 110V ac or 220V ac, or -48V dc if your system is configured to operate with this voltage). If this is not the case, correct it.

     This error code can also be posted if the power supply cannot support the hardware in the system. If there is only one power supply, and it is plugged into 110V ac, inform the customer that the power supply must be plugged into 220V ac. If the customer does not have two power supplies, the other option is to install the second power supply. **This ends the procedure.**
4. Is the reference code 1*xxx*5010?
   - **No:** Continue with the next step.
   - **Yes:** The firmware is reporting that the SPCN ports are not present. Replace the following FRUs one at a time until the problem is resolved.

a. The cable from the SPCN ports on the back of the system (U*n*-P1-T3 and U*n*-P1-T4) to the system backplane.
b. The system backplane at location U*n*-P1.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	SPCN port to backplane cable	
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	System backplane	U*n*-P1

This ends the procedure.

5. Is the reference code 1*xxx*6003?
   - **No:** Continue with the next step.
   - **Yes:** The failing item is the 12X cable attached to the I/O backplane in the 5802 expansion unit. Replace the 12X cable going to the I/O backplane at location U*n*-P1. If this does not resolve the problem, replace the I/O backplane at location U*n*-P1.

     Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	5802	See Planning for cables.	12X cable	
	5802	See System parts.	I/O backplane	U*n*-P1

This ends the procedure.

6. Is the reference code 1*xxx*9133?
   - **No:** Go to step 9.
   - **Yes:** Continue with the next step.
7. Verify that the expansion units are cabled correctly with both RIO/HSL cables and power network connections and that they are powered on and not indicating an error condition. Resolve any problems you discover. Does the SRC persist?
   - **No: This ends the procedure.**
   - **Yes:** Continue with the next step.
8. There might be a problem in the power network connection. Check the error log for another 1*xxxxxxx* SRC that was logged around the same time as the 1*xxx*9133 SRC. Is such an SRC present?
   - **No:** Contact your next level of support. **This ends the procedure.**
   - **Yes:** Return to Starting a repair action and service the 1*xxxxxxx* SRC to resolve this problem. **This ends the procedure.**
9. Is the SRC 1*xxx*9137 or 1*xxx*9138?
   - **No:** Return to Starting a repair action. **This ends the procedure.**
   - **Yes:** Continue with the next step.

     Note: If you are performing maintenance on your system and as a result are now experiencing a 1*xxx*9137 or 1*xxx*9138 reference code, ensure your maintenance actions did not cause the reference codes before replacing any additional parts. Ignore the 1*xxx*9137 or 1*xxx*9138 reference codes if you are doing concurrent maintenance on the affected expansion unit, RIO/HSL loop, or 12X HCA loop associated with the affected expansion unit, cable, or adapter.
10. Visually verify the following items:

- RIO/HSL or 12X HCA loop cables are connected and seated correctly.
- All connected expansion units are powered on and not indicating an error condition.

  Note: If a problem is found during any of these checks, resolve that problem. If your system is still producing an SRC, continue with the next step.

11. If your system produced SRC 1*xxx*9138, you have a faulty location code or vital product data. Contact your next level of support. If your system produced SRC 1*xxx*9137, check the error log for RIO or HSL SRC B700698*x* or 12X HCA loop SRCs B70069E*x* or B70069F*x* logged around the same time as SRC 1*xxx*9137. Did your system produce SRC B700698*x*, B70069E*x*, or B70069F*x*?
    - **No:** Go to the next step.
    - **Yes:** Return to Starting a repair action and resolve SRC B700698*x*, B70069E*x*, or B70069F*x* to solve the problem.
12. The SPCN firmware found more I/O resources than were found on the RIO/HSL loops and 12X HCA loops. This does not indicate an SPCN failure, even though the SRC was logged by the SPCN firmware; it indicates a problem in a RIO, HSL, or 12X HCA loop.

    A drawer's serial number should have been reported with the 1*xxx*9137 SRC. Locate this drawer, the RIO/HSL or 12X HCA cables going to it, and the bus adapter in the system unit drawer to which those cables are attached.

    Replace the following parts, one a time, until the problem is resolved:

    a. The RIO/HSL or 12X HCA cables going to the drawer.
    b. The RIO/HSL or 12X HCA adapter in the system drawer.
    c. The RIO/HSL or 12X HCA adapter in the I/O drawer.

    Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8233-E8B, 8236-E8C	See description	RIO, HSL, or 12X HCA loop cables. Refer to Planning for cables for cable FRU part numbers.	U*n*-P1-C*x*-T*y*
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See description	RIO, HSL, or 12X HCA loop cables. Refer to Planning for cables for cable FRU part numbers.	U*n*-P1-C*x*-T*y*
	8233-E8B, 8236-E8C	See System parts.	RIO/HSL-2 adapter	U*n*-P1-C8 or U*n*-P1-C9
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	RIO/HSL-2 adapter	U*n*-P1-C2 or U*n*-P1-C3
	8233-E8B, 8236-E8C	See System parts.	Dual-port 12X Host Channel Attachment adapter	U*n*-P1-C8 or U*n*-P1-C9

	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Dual-port 12X Host Channel Attachment adapter	U*n*-P1-C2 or U*n*-P1-C3
	5796, 7314-G30	10N8782	Dual-port 12X HCA	U*n*-P1-C7

Is the problem resolved?

- **No:** Contact your next level of support. **This ends the procedure.**
- **Yes: This ends the procedure.**

CBLCONT

This symbolic FRU is used to show additional locations for the endpoints of cables.

This FRU appears in the serviceable event user interface of an operating system, service processor, or the management console, and is associated with the cable FRU that precedes it in the list. The location code associated with this FRU is the location of another end of the same cable. Cable FRUs are shown in the display by listing the cable's part number or symbolic FRU first with the location code of one end of the cable. Each additional cable endpoint is represented as a "CBLCONT" FRU with a location code for another endpoint.

Note: If question marks (???) appear at the end of the location code, the port could not be determined. Use the location code associated with the other end of the cable. If question marks appear for both port locations, use the isolation procedures suggested in the service information for this SRC.

CDAWKLD

Too many communications lines are in use.

CDTRAY

This symbolic FRU is not supported.

CHECK

Look here for information about the CHECK symbolic FRU.

If the attached device is an external device, perform the following steps before exchanging any parts:

1. Ensure that the device is powered on.
2. Is there a SCSI interface between the IOP/IOA and the device?
   - **No:** Continue with the next step.
   - **Yes:** Complete the following steps:
     a. If an interposer is required, make sure that it is connected between the I/O processor and the SCSI cable.
     b. Ensure that the SCSI cable is seated correctly, and that there are no bent or damaged pins on the SCSI cable.
     c. Ensure that a terminating plug is attached to the device end of the SCSI cable.
     d. Continue with the next step.
3. Is there a Fibre Channel interface between the IOP/IOA and the device?
   - **No:** Continue with the next step.

- **Yes:** Complete the following steps:
  a. Verify that any hub or gateway devices are powered on.
  b. Verify that the Fibre Channel cable is correctly connected to the ports.
  c. If a cleaning kit is available, clean the Fibre Channel cable connectors.
  d. Continue with the next step.

4. Is there a SAS interface between the IOA and the device?
   - **No:** Continue with the next step.
   - **Yes:** Complete the following steps:
     a. Verify that the SAS cable is correctly connected to the ports.
     b. Continue with the next step.
5. Is there a USB interface between the IOA and the device?
   - **No:** Continue with the next step.
   - **Yes:** Complete the following steps:
     a. Verify that the USB cable is correctly connected to the ports.
     b. Continue with the next step.
6. Perform the verification procedures which are located in the service information for the system unit to see if the problem was corrected.

This ends the procedure.

CLCKMOD

The logic oscillator is failing.

For each unit, starting with the primary unit and then the secondary units, use the table below to determine which FRU to replace.

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

CLNTSRC

The SRC in the error log is not recognized by the error analysis diagnostic component.

Unrecognized SRCs can occur when features or device types are installed that are newer than the level of diagnostic code in the version and release of the operating system or firmware that is running. Look up the SRC in the documentation for the version of the operating system or firmware you are running. If you do not find it, look in the documentation for a newer release of the operating system or firmware and follow the service actions listed there.

If you cannot find the SRC documented, contact your next level of support for assistance.

CLRNVRM

A problem might exist with the service processor nonvolatile random access memory (NVRAM).

Complete the following steps:

1. Is your system managed by a management console?
   - **No:** Continue with the next step.
   - **Yes:** Continue with step 3.
2. Complete the following steps:
   a. Power off the system.
   b. Using ASMI, select **System Service Aids** > **Factory Configuration**.
   c. Select **Continue** to clear the configuration.

   Note: Clearing the configuration causes the loss of all the configured system settings (such as the management console access and ASMI passwords, time of day, network configuration, hardware deconfiguration policies, and so on) that you might have set by using the user interfaces. Also, partition-related information and platform error logs are lost, and the service processor is reset. Before continuing with this operation, make sure that you manually record all settings that you need to preserve.

   Ensure that the connection to HMC1 or HMC2 that is not being used to access the ASMI is disconnected from the network. Follow the instructions in the system service publications to configure the network interfaces after the reset.

   This ends the procedure.
3. Your system is managed by the management console. Do not replace the battery. Instead, clear the NVRAM by removing the battery for 5 minutes and then reinstalling it.

   Note: Clearing the configuration causes the loss of all the configured system settings (such as the management console access and ASMI passwords, time of day, network configuration, hardware deconfiguration policies, and so on) that you might have set by using the user interfaces. Also, partition-related information and platform error logs are lost, and the service processor is reset. Before continuing with this operation, make sure that you manually record all settings that you need to preserve. Ensure that the connection to HMC1 or HMC2 that is not being used to access the ASMI is disconnected from the network. Follow the instructions in the system service publications to configure the network interfaces after the reset.

   This ends the procedure.

CMPRES1

The compressed device and the compression IOA are not compatible.

CNVTCRD

The card that converts SATA to IDE might be failing. This procedure will help you determine the failing part.

Use the following table to determine the part number for the field replaceable unit (FRU).

This ends the procedure.

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Media backplane	U*n*-P2
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Storage backplane	U*n*-P3
	8233-E8B, 8236-E8C	See System parts.	Media backplane	U*n*-P2
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Media backplane	U*n*-P2-C9

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

CRYPBAT

The batteries for the cryptographic adapter need to be replaced.

Attention: If you remove any of the batteries without first backing up the power with a fresh battery, the data in the card's protected memory could be lost, which would render the cryptographic adapter useless and require its replacement. Because the 4758-023 adapter contains 4 batteries, and the battery replacement kit contains only 2 batteries, *do not* attempt to remove or replace batteries unless you have two battery replacement kits. All other cryptographic adapters contain only 2 batteries, and therefore require only one battery replacement kit.

1. Use the following table to determine the battery kit (FRU) required.

CCIN or FFC	Type and model	Part number	Description	Location code
4758-001	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	09J8199	PCI cryptographic coprocessor battery kit	U*n*-P2-C*x*

4758-023	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	09J8199	PCI cryptographic coprocessor battery kit	U*n*-P2-C*x*
4764-001	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	41V1061	PCI cryptographic coprocessor battery kit	U*n*-P1-C*x*
4764-001	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	41V1061	PCI cryptographic coprocessor battery kit	U*n*-P2-C*x*

This ends the procedure.

CRYPTLP

Cryptographic adapter Licensed Internal Code problem.

The Licensed Internal Code for the cryptographic adapter does not ship with the system.

For systems with Licensed Internal Code V5R4M5 or earlier it is contained within the licensed program 5733-CY1 Cryptographic Device Manager. For systems with Licensed Internal Code V6R1M0 or later it is contained within the licensed program 5733-CY2 Cryptographic Device Manager.

Perform one of the following options:

- **If the SRC is B0136615**, ensure that this licensed program is loaded on the system. If it is not, vary off the cryptographic adapter, apply the licensed program to the system, and then vary on the cryptographic adapter. The vary-on process might take up to 15 minutes.
- **If the SRC is B0136619**, vary off the cryptographic adapter, apply the most recent version of the licensed program to the system, and then vary on the cryptographic adapter. The vary-on process might take up to 15 minutes.

This ends the procedure.

CTLPNCD

This symbolic FRU is not supported on the system. Continue with the next FRU in the failing item list.

CTLPNL

A control panel or display panel might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	Control panel	U*n*-D1
2B68	8248-L4T, 8408-E8D, 9109-RMD,	See System parts.	Control panel	U*n*-D1
28D4	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Control panel	U*n*-D1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

CTPLPDU

The MAXFRAME value in CRTLINETH command is too large.

The configuration parameter that was identified as a possible problem can be verified by displaying the local area network line description with the DSPLIND command.

Vary off the line. Use the CHGLINETH command to reduce the MAXFRAME value. Then vary the line back on.

CTPNADR

The ADPTADR value in CRTLINETH command is specified incorrectly.

The configuration parameter that was identified as a possible problem can be verified by displaying the local area network line description with the DSPLIND command.

Vary off the line. Use the CHGLINETH command to change the ADPTADR value to *ADPT. Then vary the line back on.

DCA

A DCA needs to be replaced.

Determine which DCA to replace, and then follow the link to locations information to find the appropriate removal information.

Table 4. 9119-FHB

SRC	FRU to replace	Locations information
1xxx8710	DCA 1 in processor book U*n*-P2-E2	Part locations and location codes
1xxx8711	DCA 2 in processor book U*n*-P2-E1	
1xxx8712	DCA 1 in processor book U*n*-P6-E2	
1xxx8713	DCA 2 in processor book U*n*-P6-E1	
1xxx8714	DCA 1 in processor book U*n*-P3-E2	

Table 4. 9119-FHB (continued)

SRC	FRU to replace	Locations information
1xxx8715	DCA 2 in processor book U*n*-P3-E1	
1xxx8716	DCA 1 in processor book U*n*-P7-E2	
1xxx8717	DCA 2 in processor book U*n*-P7-E1	
1xxx8718	DCA 1 in processor book U*n*-P4-E2	
1xxx8719	DCA 2 in processor book U*n*-P4-E1	
1xxx871A	DCA 1 in processor book U*n*-P8-E2	
1xxx871B	DCA 2 in processor book U*n*-P8-E1	
1xxx871C	DCA 1 in processor book U*n*-P5-E2	
1xxx871D	DCA 2 in processor book U*n*-P5-E1	
1xxx871E	DCA 1 in processor book U*n*-P9-E2	
1xxx871F	DCA 2 in processor book U*n*-P9-E1	

Table 5. 9125-F2C

SRC	FRU to replace	Locations information
1xxx8710	DCCA at location U*n*-C147	Part locations and location codes
1xxx8711	DCCA at location U*n*-C148	

If the problem persists, check cable routing and connections.

DEVBPLN

A device backplane might be failing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Complete the following steps:

1. Does the SRC that sent you here begin with 506x, or are you working with an attached 5786 or 5787 disk expansion unit?
   - **No**: Continue with the next step.
   - **Yes**: Replace the SCSI interface card of the 5786, 5787 disk expansion unit. See the table at the end of this procedure for location and part number information. If this does not fix the problem, continue replacing the other failing items in the failing item list. If the other failing items do not fix the problem, replace the disk expansion unit chassis.
2. Does the SRC that sent you here begin with a 509A or are you working with an attached 5886 disk expansion unit?
   - **No**: Continue with the next step.
   - **Yes**: Replace the midplane of the 5886 disk expansion unit. See the table at the end of this procedure for location and part number information.
3. Does the SRC that sent you here begin with a 509D or are you working with an attached 5720 or 7214-1U2 expansion unit?
   - **No**: Continue with the next step.
   - **Yes**: This failing item is not applicable. Continue with the next item in the failing item list.
4. Does the SRC that sent you here begin with a 50AD or are you working with an attached 5724 expansion unit?

- **No**: Continue with the next step.
- **Yes**: This failing item is not applicable. Continue with the next item in the failing item list.

5. Does the SRC that sent you here begin with a 50B1 or are you working with an attached 5887 disk expansion unit?
   - **No**: Continue with the next step.
   - **Yes**: Replace the midplane of the 5887 disk expansion unit. See the table at the end of this procedure for location and part number information.
6. Does the SRC that sent you here begin with a 57C3 or are you working with an attached EDR1 PCIe storage enclosure?
   - **No**: Continue with the next step.
   - **Yes**: Replace the midplane of the EDR1 PCIe storage enclosure. See the table at the end of this procedure for location and part number information.
7. Replace the device backplane. See the following table for location and part number information.

CCIN or FFC	Type and model	Part number	Description	Location code
	5786, 5787	See System parts.	Device backplane	U*n*-P2
	5802, 5877	See System parts.	Device backplane	U*n*-P3
	5803, 5873	See System parts.	Device backplane	U*n*-P3
	5886	42R7898	5886 SAS expansion unit midplane	U*n*-P1
	5887	See System parts.	5887 SAS expansion unit midplane	U*n*-P1
	EDR1	See System parts.	EDR1 PCIe storage enclosure midplane	U*n*-P1
2A39, 2A16	8233-E8B, 8236-E8C	See System parts.	Device backplane	U*n*-P2
2BBE	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Device backplane	U*n*-P2-C9

8. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
506D	5786, 5787	12R9040	SCSI interface card 1 (upper left), SCSI repeater card assembly, dual	U*n*-C2
506E	5786, 5787	12R9042	SCSI interface card 1 (upper left, SCSI repeater card assembly, single)	U*n*-C2
506D	5786, 5787	12R9040	SCSI interface card 2 (upper right), SCSI repeater card assembly, dual	U*n*-C3

506E	5786, 5787	12R9042	SCSI interface card 2 (upper right), SCSI repeater card assembly, single	U*n*-C3
506D	5786, 5787	12R9040	SCSI interface card 3 (lower left), SCSI repeater card assembly, dual	U*n*-C4
506E	5786, 5787	12R9042	SCSI interface card 3 (lower left), SCSI repeater card assembly, single	U*n*-C4
506D	5786, 5787	12R9040	SCSI interface card 4 (lower right), SCSI repeater card assembly, dual	U*n*-C5
506E	5786, 5787	12R9042	SCSI interface card 4 (lower right), SCSI repeater card assembly, single	U*n*-C5
	5886	42R7898	5886 SAS expansion unit midplane	U*n*-P1
	5887	See System parts.	5887 SAS expansion unit midplane	U*n*-P1
	EDR1	See System parts.	EDR1 PCIe storage enclosure midplane	U*n*-P1

DEVICE

The addressed storage device is the failing item.

Complete the following.

1. Is the device location information available in the service action log (SAL)?
   - **No:** Continue with the next step.
   - **Yes:** Replace the failing item.
2. Find the IOP address and the device address (see the System reference code format description.
3. To determine the location of the I/O processor card, see Part locations and location codes and find the diagram of the system unit or the expansion unit. Then, find:
   - The IOP card location identified by the direct select address.
   - The addressed storage device location identified by the device address.
4. Replace the failing device. Use the device type to help determine the part number.

This ends the procedure.

DEVTERM

The device terminating plug might be failing.

Complete the following steps:

1. Find the IOA type:

a. Find the IOA location information in the service action log if it is available. If the location is not available, find the address of the IOA. See the System reference code format description. Use the address to find the location. See Part locations and location codes.
b. Find the IOA card in the system and read the type number of the card at that location.

2. Use the information in the following table to determine the failing terminating plug.

Storage IOA type	Action
5702/571A	Use part number 23R5841.
All others	The terminator is integrated into the backplane and not a separate failing item.

3. Replace the failing item. Note: If the terminating plug is located on a backplane, go to symbolic FRU BACKPLN. Follow the procedure until the terminating plug is accessible and then remove or replace the plug.

This ends the procedure.

DIMM 0

Use this topic to view the locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on the 2890 and 2892 Integrated xSeries Server (IXS) cards.

In the following two figures, the first DIMM from the top of the IXS card (DIMM 0) is the failing item. To determine the part number, go to symbolic FRU MEMORY. **This ends the procedure.**

Figure 1. Locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2890 Integrated xSeries Server (IXS) card.

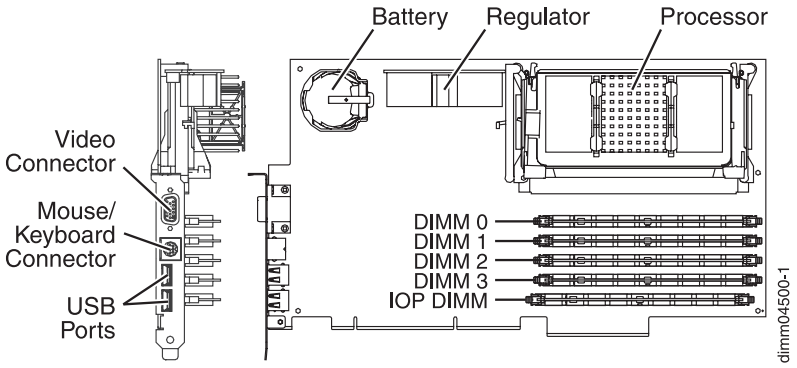


Figure 2. Locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2892 Integrated xSeries Server (IXS) card.

DIMM 1

Use this topic to view the locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on the 2890 and 2892 Integrated xSeries Server (IXS) cards.

In the following two figures, the second DIMM from the top of the IXS card (DIMM 1) is the failing item. To determine the part number, go to symbolic FRU MEMORY. **This ends the procedure.**

Figure 1. Locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2890 Integrated xSeries Server (IXS) card.

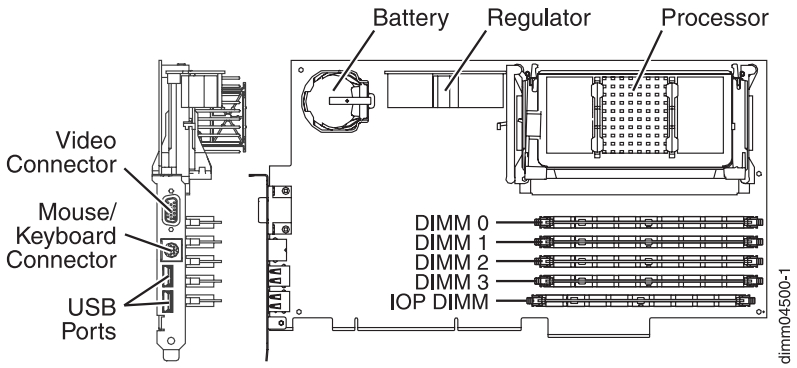


Figure 2. Locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2892 Integrated xSeries Server (IXS) card.

DIMM 2

Use this topic to view the locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on the 2890 and 2892 Integrated xSeries Server (IXS) card.

In the following two figures, the third DIMM from the top (DIMM 2) of the IXS card is the failing item. To determine the part number, go to symbolic FRU MEMORY. **This ends the procedure.**

Figure 1. Locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2890 Integrated xSeries Server (IXS) card.

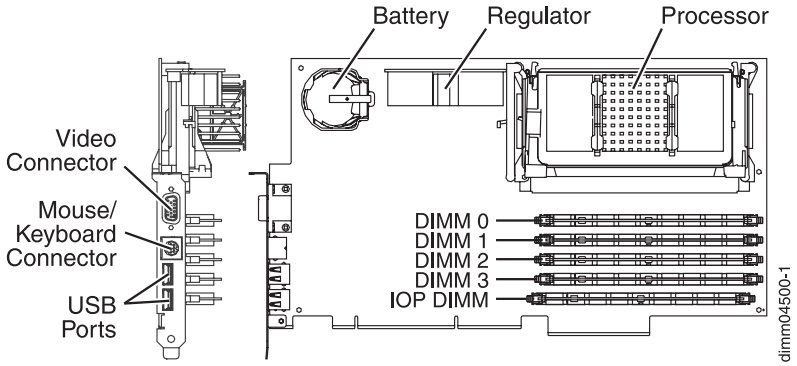


Figure 2. Locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2892 Integrated xSeries Server (IXS) card.

DIMM2_3

Use this topic to view the locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on 2892 Integrated xSeries Server (IXS) card.

The third or fourth DIMM from the top (DIMM 2 or DIMM 3) of the IXS card is the failing item. To determine the part number, go to symbolic FRU MEMORY. **This ends the procedure.**

Figure 1. Locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on 2892 Integrated xSeries Server (IXS) card.

DIMM 3

Use this topic to view the locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on the 2890 and 2892 Integrated xSeries Server (IXS) cards.

In the following two figures, the **fourth** DIMM from the top (DIMM 3) of the IXS card is the failing item. To determine the part number, go to symbolic FRU MEMORY.

Figure 1. Locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on 2890 Integrated xSeries Server (IXS) card

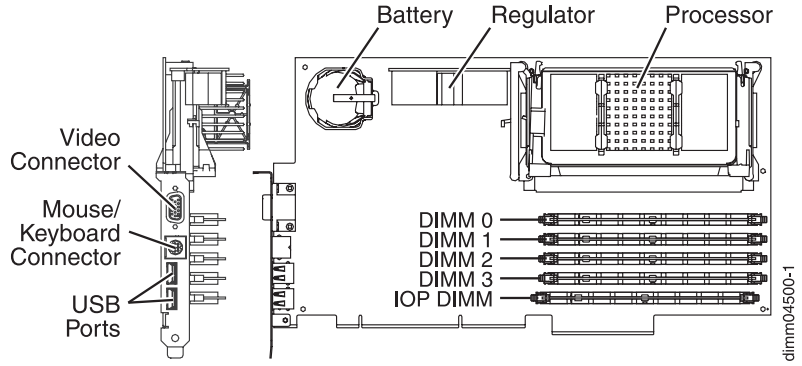


Figure 2. Locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on 2892 Integrated xSeries Server (IXS) card

DIMM0_1

Use this topic to view the locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2892 Integrated xSeries Server (IXS) card.

The first or second DIMM from the top (DIMM 0 or DIMM 1) of the IXS card is the failing item. To determine the part number, go to symbolic FRU MEMORY. **This ends the procedure.**

Figure 1. Locations of DIMM 0, DIMM 1, DIMM 2, and DIMM 3 on 2892 Integrated xSeries Server (IXS) card.

DISKDRV

This symbolic FRU indicates that the disk drive or solid state drive part number could not be determined.

Complete the following steps:

1. Is the device location information available in the serviceable event view?
   - **No**: Continue with the next step.
   - **Yes**: Replace the failing item. Either remove the drive to determine the part number or use the CCIN of the drive and see System parts to find the part number. To replace the failing item, see Disk drive. **This ends the procedure.**
2. Find the direct select address and the device address. See the System reference code format description.
3. See Part locations and location codes and find the diagram of the system unit or expansion unit. Use the direct select address and the device address to find the location of the disk unit.
4. Is the SRC reported on the control panel?
   - **No**: Continue with the next step.

- **Yes**: See the System reference code format description. The two rightmost characters of word 2 define the SRC format. Use the correct SRC format to locate the function that contains the characters *tttt lmmm*, where:
  - *tttt* = Type number
  - *l* = Level
  - *mmm* = Model

  Then go to step 6.

5. Replace the failing item. Either remove the drive to determine the part number or use the CCIN of the drive and see System parts to find the part number. To replace the failing item, see Disk drive. **This ends the procedure.**
6. Replace the failing item. Use the type (CCIN) of the drive and see System parts to find the part number. If you do not know the type, remove the disk unit to determine the part number. To replace the failing item, see Disk drive. **This ends the procedure.**

DISKFAN

A fan in an expansion unit might be failing.

Perform one of the following options:

- If the SRC that sent you here is 506**x**7611 or 506**x**7614, replace the 5786, 5787, 7031-D24, or 7031-T24 fan located in U*n*-A1. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 506**x**7621 or 506**x**7624, replace the 5786, 5787, 7031-D24, or 7031-T24 fan located in U*n*-A2. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 506**x**7631 or 506**x**7634, replace the 5786, 5787, 7031-D24, or 7031-T24 fan located in U*n*-A3. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 506**x**15**xx**, replace the 5786, 5787, 7031-D24, or 7031-T24 fans located in U*n* -A1, U*n*-A2, and U*n*-A3 one at a time until the problem is resolved. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 509A7613, 509A7614, 509A7623 or 509A7624, replace the 5886 power supply (internal fan) located in U*n*-E1. See the table below to find the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-E2. **This ends the procedure.**
- If the SRC that sent you here is 509A7633, 509A7634, 509A7643, or 509A7644, replace the 5886 power supply (internal fan) located in U*n*-E2. See the table below to find the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-E1. **This ends the procedure.**
- If the SRC that sent you here is 509D7614, replace the 5720 or 7214-1U2 fan located in U*n*-A1. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 50AD7614, replace the 5724 fan located in U*n*-A1. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 50B176**x**4, where **x** is 1 - 8, replace the 5887 power supply (internal fan) located in U*n*-P1-E1. See the table below to find the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-P1-E2. **This ends the procedure.**
- If the SRC that sent you here is 50B176**x**4, where **x** is 9, A, B, C, D, E, F, or 0, replace the 5887 power supply (internal fan) located in U*n*-P1-E2. See the table below to find the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-P1-E1. **This ends the procedure.**

- If the SRC that sent you here is 57C37614, replace the EDR1 power supply (internal fan) located in U*n*-P1-E1. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 57C37664, replace the EDR1 power supply (internal fan) located in U*n*-P1-E2. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 57C376**x**4, where x is 2 through 5, replace the EDR1 fan assembly located in U*n*-P1-C1-A1. See the table below to find the part number and location of the item to replace. **This ends the procedure.**
- If the SRC that sent you here is 57C376**x**4, where x is 7, 8, 9, or A, replace the EDR1 fan assembly located in U*n*-P1-C2-A1. See the table below to find the part number and location of the item to replace. **This ends the procedure.**

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	5720, 5724, or 7214-1U2	See System parts.	Fan	U*n*-A1
	5786, 5787, 7031-D24, or 7031-T24	See System parts.	Fan 1	U*n*-A1
	5786, 5787, 7031-D24, or 7031-T24	See System parts.	Fan 2	U*n*-A2
	5786, 5787, 7031-D24, or 7031-T24	See System parts.	Fan 3	U*n*-A3
	5886	See System parts.	Power supply (internal fan)	U*n*-E1
	5886	See System parts.	Power supply (internal fan)	U*n*-E2
	5887	See System parts.	Power supply (internal fan)	U*n*-P1-E1
	5887	See System parts.	Power supply (internal fan)	U*n*-P1-E2
	EDR1	See System parts.	Power supply (internal fan)	U*n*-P1-E1
	EDR1	See System parts.	Power supply (internal fan)	U*n*-P1-E2
	EDR1	See System parts.	Fan assembly	U*n*-P1-C1-A1
	EDR1	See System parts.	Fan assembly	U*n*-P1-C2-A1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

DISKIMG

There might be a problem with the Network Server Description (NWSD).

First, vary off and then vary back on the NWSD. If this action does not correct the problem, delete and re-create the NWSD, or call your next level of support.

DISKPWR

A power supply in an expansion unit might be failing.

Perform one of the following options:

- If the system reference code (SRC) that sent you here is 506*x*1511 or 506*x*1515, replace the 5786, 5787, 7031-D24, or 7031-T24 expansion unit power supply located in U*n*-E1. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-E2. **This ends the procedure.**
- If the SRC that sent you here is 506*x*1521 or 506*x*1525, replace the 5786, 5787, 7031-D24, or 7031-T24 expansion unit power supply located in U*n*-E2. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-E1. **This ends the procedure.**
- If the SRC that sent you here is 509A1511 or 509A1515, replace the 5886 power supply located in U*n*-E1. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-E2. **This ends the procedure.**
- If the SRC that sent you here is 509A1521 or 509A1525, replace the 5886 power supply located in U*n*-E2. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-E1. **This ends the procedure.**
- If the SRC that sent you here is 50B11511 or 50B11515, replace the 5887 power supply located in U*n*-P1-E1. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-P1-E2. **This ends the procedure.**
- If the SRC that sent you here is 50B11521 or 50B11525, replace the 5887 power supply located in U*n*-P1-E2. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-P1-E1. **This ends the procedure.**
- If the SRC that sent you here is 509D1511 or 509D1515, replace the 5720 or 7214-1U2 power supply located in U*n*-E1. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-E2. **This ends the procedure.**
- If the SRC that sent you here is 50AD*xxxx* or you are working with an attached 5724 expansion unit, this failing item is not applicable. Continue with the next item in the failing item list. **This ends the procedure.**
- If the SRC that sent you here is 57C31511 or 57C31515, replace the EDR1 power supply located in U*n*-P1-E1. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-P1-E2. **This ends the procedure.**
- If the SRC that sent you here is 57C31521 or 57C31525, replace the EDR1 power supply located in U*n*-P1-E2. See the following table for the part number and location of the item to replace. If this does not fix the problem, replace the power supply located in U*n*-P1-E1. **This ends the procedure.**

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	5786, 5787, 7031-D24, 7031-T24	See System parts.	Power supply 1 (left)	U*n*-E1
	5786, 5787, 7031-D24, 7031-T24	See System parts.	Power supply 2 (right)	U*n*-E2
	5886	See System parts.	Power supply 1 (left)	U*n*-E1
	5886	See System parts.	Power supply 2 (right)	U*n*-E2
	5887	See System parts.	Power supply 1 (left)	U*n*-P1-E1
	5887	See System parts.	Power supply 2 (right)	U*n*-P1-E2
	5720, 7214-1U2	95P3651	Power supply	U*n*-E*x*

	EDR1	See System parts.	Power supply 1 (left)	U*n*-P1-E1
	EDR1	See System parts.	Power supply 2 (right)	U*n*-P1-E2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

DISKTRY

This symbolic FRU is no longer supported.

DSKUNIT

DSKUNIT is similar to the symbolic FRU DISKDRV.

See symbolic FRU DISKDRV.

DPAC

The two-port adapter cable is the failing item.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	21F9345	Two-port adapter cable	U*n*-P1-C*x*-T*y*
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	21F9345	Two-port adapter cable	U*n*-P2-C*x*-T*y*

DRVSWCH

The address switches on an optical disk drive in the optical library need to be checked and verified.

See 3995 Publications and Documentation for more information.

DRWRPWR

The expansion drawer does not have power.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Attention: Verify that the green AC input LED or DC input LED is on solid, and the green DC output LED is blinking.

Note: The following table provides information about power supply LEDs.

LED	Description
The AC input LED or DC input LED	This LED is green and is on (lit) if the AC or DC input voltage is present and off (not lit) if the AC input voltage is not present. For normal system operation, this LED is on solid.
The DC output LED	This LED is green and is on solid if the power supply output voltages are correct. If the power supply control voltage is present and the power supply outputs are not powered on, the power supply is in standby and the DC output LED flashes at a rate of 1-3 times per second. The DC output LED is off if both the power supply control voltage and the output voltages are bad. For normal system operation, this LED is on solid.
The identify LED	The identify LED is amber and will be turned on and off at a 4 second rate, 10 seconds after the application of input power to the supply, if serial communication isn't established with the service processor. For normal system operation, this LED is off.

1. Is the reference code 1*xxx*7401, 1*xxx*7402, 1*xxx*7403, or 1*xxx*7404?
   - **No:** Continue with the next step.
   - **Yes:** Complete the following steps:
     a. Ensure that the power cables to the power supply are properly connected and seated. If an additional power supply was recently plugged in, verify that the DC output LED is on for 30 seconds before you unplug this power supply. The green DC output LED on the power supply is turned on when power is correctly connected to the power supply.
     b. Replace the power supply while the unit is not powered on and the LEDs are off. **This ends the procedure.**
2. Are all the units powered on?
   - **Yes:** This error might be caused by an AC power outage. If the system starts without an error, no parts need to be replaced. **This ends the procedure.**
   - **No:** On the unit that does not power on, verify that the power outlet is supplying the correct power for the unit. Also, ensure that both ends of the power cord (from the unit that does not power on) are connected correctly and securely.

     If you find a problem, correct the problem. **This ends the procedure.**

     If you cannot find the problem, continue with the next step.
3. A trained service representative must verify the voltage at the system end of the power cord with a multimeter to verify that the voltage is from 100 to 127 V AC or 200 to 240 V AC.

   Is the voltage correct?
   - **Yes:** Replace the FSP card. **This ends the procedure.**
   - **No:** Continue with the next step.
4. Complete the following steps:
   a. Disconnect the power cord from the customer's power outlet.
   b. Use a multimeter to measure the voltage at the customer's power outlet.

      Is the voltage correct?
      - **Yes:** Replace the failing power cord. **This ends the procedure.**

- **No:** Complete the following steps:
  1) Inform the customer that the voltage at the power outlet is not correct.
  2) After the voltage at the power outlet is correct, reconnect the power cord to the power outlet. **This ends the procedure.**

EACODE

An error occurred in the error analysis Licensed Internal Code.

Contact your next level of support for assistance.

EXTREMD

An external removable media storage device might be failing.

1. Perform symbolic FRU CHECK before removing or replacing parts. Return here if no problems are identified.
2. Use the device type and see the appropriate service documentation for that device. This documentation will help you determine the part numbers and replacement procedures to use during this repair action.
3. If you are unable to locate the documentation for the specific device, contact your next level of support for assistance.

This ends the procedure.

EXTSCSI

The external signal cable might be failing.

Complete the following steps:

1. Is more than one device attached?
   - **No:** Continue with the next step.
   - **Yes:** See the device documentation for information about setting the device address. **This ends the procedure.**
2. Is the attached device in the system unit?
   - **No:** Continue with the next step.
   - **Yes:** Use symbolic FRU BACKPLN to determine which signal cables to replace. **This ends the procedure.**
3. Is the attached device a 358x device?
   - **No:** Continue with the next step.
   - **Yes:** For specific 358x attachment cable information, refer to the specific device and model service documentation, or contact your next level of support. **This ends the procedure.**
4. Find the IOA type:
   a. Find the IOA location.
   b. Use the location information of the IOA in the service action log if it is available. If the location is not available, find the address. See the System reference code format description. Use the address to find the location. See Part locations and location codes.
   c. Find the IOA card in the system and read the type number of the card at that location.
5. Find the IOA type, the attached device, the cable length, and the cable part number in the following list.
6. Verify that the part number in the list is the same as the part number on the cable.
7. For external devices that are not found in the following list, use the device type and see the appropriate service documentation for that device. The service documentation for that device will

help you determine the FRU part numbers and replacement procedures you are to use during this repair action. If you are unable to locate the documentation for your specific device, contact your next level of support for assistance.

Table 6. External device and part numbers

IOP or IOA Type	Device	Lengths	Part Number
2782, 5702, 5703, 571A	7206/VX2, 7207/122, 7208/345, 7210/020, 7210/025	1.5 meters	19P4508, or 19P4506 with 19P0482 interposer cable. For other device types, see the device documentation to determine cable part numbers.
2782, 5702, 5703, 571A	7206/VX2, 7207/122, 7208/345, 7210/020, 7210/025	2.5 meters	19P0279, or 35L1307 with 19P0482 interposer cable. For other device types, see the device documentation to determine cable part numbers.
2782, 5702, 5703, 571A	7206/VX2, 7208/345	4.5 meters	19P0050 For other device types, see the device documentation to determine cable part numbers.
2782, 5702, 5703, 571A	7206/VX2, 7208/345	10 meters	19P0048 For other device types, see the device documentation to determine cable part numbers.
571B, 571F	5786 or 5787 expansion unit	1 meter	36R2585
571B, 571F	5786 or 5787 expansion unit	3 meters	36R2576
571B, 571F	5786 or 5787 expansion unit	5 meters	36R2577
571B, 571F	5786 or 5787 expansion unit	10 meters	36R2578
571B, 571F	5786 or 5787 expansion unit	20 meters	36R2579

Notes:

- All cables for the 9427 tape library must include an interposer (part 05H3834) on the device end of the cable.
- All cables for the 3996 and 399F attachment are the responsibility of the external device service.
- For specific 358X attachment cable information, see the specific device and model service documentation, or contact your next level of support.

This ends the procedure.

FCCABLE

The Fibre Channel cable might be failing.

Use the part number on the cable to determine the part number to replace.

FCCODE

An error has been detected in the Fibre Channel gateway device licensed internal code.

See the gateway device service documentation for possible corrective actions.

FCDEV

The attached Fibre Channel device or Fiber Channel gateway device is the failing item.

Is there a Fibre Channel gateway device between the Fiber Channel I/O adapter and the device?

- **No:** See the attached device service documentation to determine the parts to replace. **This ends the procedure.**
- **Yes:** See symbolic FRU FCGATE. **This ends the procedure.**

FCGATE

The Fibre Channel gateway device is the failing item.

Use the gateway device service documentation to determine the parts to replace.

FCINTF

An error has been detected on the Fibre Channel interface.

The failure might be any component between and including the Fibre Channel IOA and the storage device. To continue diagnosis, use existing Fibre Channel service procedures or contact your next level of support.

FCIOA

The Fibre Channel I/O adapter is the failing item.

If the attached device is owned by a Virtual I/O Server partition see Troubleshooting the Virtual I/O Server to determine the parts to replace. Otherwise, replace the Fibre Channel I/O adapter using the I/O adapter location information in the service action log if it is available. If the location is not available, find the address of the I/O adapter, see the System reference code format description. Use the address to find the location. See Part locations and location codes. If an I/O Processor SRC sent you here, replace the Fibre Channel I/O adapter associated with the I/O processor that logged the SRC.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2787		80P6417	Fibre Channel IOA (for disk drive attachment only)	U*n*-P*x*-C*y*
280D		03N5014	4 Gbps Fibre Channel (1 Port) adapter	U*n*-P*x*-C*y*
280E		03N5016	PCI-X Fibre Channel disk controller	U*n*-P*x*-C*y*
5704		80P6416	Fibre Channel IOA (for removable media attachment only)	U*n*-P*x*-C*y*
576B		32N1294	4 Gbps Fibre Channel (2 Port) adapter	U*n*-P*x*-C*y*

CCIN or FFC	Type and model	Part number	Description	Location code
5774		10N7255	Gigabit PCI Express Dual Port Fibre Channel adapter	U*n*-P*x*-C*y*
577D		10N9824	8 Gigabit PCI Express Dual Port Fibre Channel adapter	U*n*-P*x*-C*y*
57FC		To determine the FRU part number, remove the adapter from the system.	Fibre Channel IOA	U*n*-P*x*-C*y*

FCPORT

The Fibre Channel IOA port might be the failing item.

Complete the following steps:

1. If the system has logical partitions, perform this procedure from the logical partition that reported the problem. To determine whether the system has logical partitions, go to Determining if the system has logical partitions before continuing with this procedure.
2. Access SST/DST by performing one of the following options:
   - If you can enter a command at the console, access system service tools (SST).
   - If you cannot enter a command at the console, perform an IPL to DST. See Performing an IPL to dedicated service tools.
   - If you cannot perform a type A or B IPL, perform a type D IPL from removable media.
3. Is a Fibre Channel IOA URC (last four digits of SRC) 3120 or 3121 logged or been logged within 5 minutes of the SRC that sent you to this symbolic FRU?
   - **Yes:** Continue with the next step.
   - **No:** The Fibre Channel IOA port has not failed. See the next FRU in the FRU list. **This ends the procedure.**
4. Did you perform a D IPL to get to DST?
   - **Yes:** Continue with the next step.
   - **No:** Continue with step 6.

   This ends the procedure.
5. Use the product activity log to get the resource name for the 3120 or 3121 SRC. See Using the product activity log. Using the resource name, perform the following steps in DST/SST:
   a. Click **Start a service tool** > **Hardware service manager** > **System bus resources**.
   b. If the resource is an I/O processor, use "Resources associated with IOP" to find and display detail for the Fibre Channel I/O adapter. If the resource is a Fibre Channel I/O adapter, use "Resources associated with the IOP for all type 2847 I/O processors" to find and display the Fibre Channel I/O adapter.
   c. Select the **Display additional port information** function key on the Auxiliary Storage Hardware Resource Detail display.

   Does the Port status field indicate that the port is active?

   Note: If 3120 is logged, check to see if port 0 is active. If 3121 is logged, check to see if port 1 is active.
   - **Yes:** Continue with step 7.
   - **No:** Continue with step 9.

6. Use the service action log to get the resource name for the 3120 SRC. See Searching the service action log. Using the resource name, perform the following steps in DST/SST:
   a. Click **Start a service tool** > **Hardware service manager** > **Locate resource by resource name**.
   b. Enter the resource name.
   c. Click the **Display detail** option for the Fibre Channel I/O adapter on the Logical Hardware Resources display.
   d. Click the **Display additional port information** function key on the Auxiliary Storage Hardware Resource Detail display.

      Does the Port status field indicate that the port is "active"? **Note:** If 3120 is logged, check to see if port 0 is active. If 3121 is logged, check to see if port 1 is active.
      - **Yes:** Continue with the next step.
      - **No:** Go to step 9.
7. The port is now active. Has a 1750/2105/2107 3002 SRC occurred around the time the problem was first reported?
   - **Yes:** Continue with the next step.
   - **No:** No further service actions are required. **This ends the procedure.**
8. A 1750/2105/2107 3002 has occurred, and the link has gone from not active to active. The Fibre Channel IOA port is functional. Choose from the following options:
   - If the disk units that reported the 1750/2105/2107 3002 SRC are usable, no further service actions are required. **This ends the procedure.**
   - If the disk units that reported the 1750/2105/2107 3002 SRC are not usable, go back to the 1750/2105/2107 3002 FRU list and work with a FRU other than FCPORT. **This ends the procedure.**
9. Clean the Fibre Channel IOA wrap plug using the cleaning kit. Follow the instructions in the *Fiber Optic Cleaning Procedures*, order number SY27-2604. If the wrap plug has been lost, order and clean a new one.
10. Complete the following steps:
    a. Install the wrap plug on the Fibre Channel IOA.
    b. After the wrap plug has been installed, wait 5 seconds.
    c. Choose from the following options:
       - If you are on the Additional Port Information display, use the **Refresh** function key.
       - If you are not already on the Additional Port Information display, use the instructions from step 6

    Is the port status now "active"?
    - **Yes:** Continue with the next step.
    - **No:** Replace the Fibre Channel IOA. See symbolic FRU FCIOA for further instructions and the FRU part number. **This ends the procedure.**
11. Ask the customer whether the Fibre Channel IOA will attach devices now or whether the Fibre Channel IOA is to be used at a later time.

Is the Fibre Channel IOA intended to attach devices at this time?
- **No:** The wrap plug remain installed on the Fibre Channel IOA when it is not in use. No further service actions are required. **This ends the procedure.**
- **Yes:** Complete the following steps:
  1. Unplug the wrap plug from the Fibre Channel IOA and wait until the port status becomes "Not active" using the Refresh function key on the Additional Port Information display. The failure has been isolated to the first link, which includes any of the cables or junctions between the Fibre Channel IOA port and the first Fibre Channel hub, switch, gateway, or device.
  2. Use existing Fibre Channel service procedures to continue diagnosis of this first link until the port status becomes active, or contact your next level of support. **This ends the procedure.**

FEATCRD

The system could not read the VPD of a feature enablement, carrier or extender FRU.

Use the table below to determine the location and part number of the item to replace.

CCIN	Type and model	Part number	Description	Location code
2BE1	8202-E4B, 8205-E6B	See System parts.	RAID enablement card	U*n*-P1-C13
2BCF	8202-E4B, 8205-E6B	See System parts.	Cache battery card	U*n*-P1-C14
2BD9	8202-E4B, 8205-E6B	See System parts.	RAID and cache storage controller	U*n*-P1-C19
2BE0	8202-E4B, 8205-E6B	See System parts.	RAID storage controller (split disk drive function)	U*n*-P1-C19
2BCF	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	Cache battery card	U*n*-P1-C14
2B4C	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	RAID and cache storage controller	U*n*-P1-C19
2B4F	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	RAID storage controller (split disk drive function)	U*n*-P1-C19
2BE1	8231-E2B	See System parts.	RAID enablement card	U*n*-P1-C12
2BCF	8231-E2B	See System parts.	Cache battery card	U*n*-P1-C13
2BD9	8231-E2B	See System parts.	RAID and cache storage controller	U*n*-P1-C18
2BCF	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Cache battery card	U*n*-P1-C13
2B4C	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	RAID and cache storage controller	U*n*-P1-C18
2BC2	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	RAID or dual path enablement and battery card	U*n*-P2-C9-C1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

FRPORT

The 12X adapter or controller on one end of the link might be the failing item.

If you were sent to this procedure as a result of a B700 6985 SRC, and this is the only FRU in the FRU list, the following conditions have occurred:

- The system cannot see any I/O expansion units on a 12X loop
- At least one cable is attached to a port on that loop

In this case, go to Reference codes and look up SRC B700 6985 and work from the full FRU list provided there.

Note: The other end of the link might be given in the symbolic FRU TOPORT.

Complete the following steps to find the failing 12X adapter:

1. Record the bus number (BBBB) in word 7 of the reference code. See Analyzing a 12X or PCI bus reference code.
2. Use one of the following procedures to find the failing 12X adapter:
   - Finding the failing 12X adapter using IBM i operating system
   - Finding the failing 12X adapter using AIX® or Linux
   - Finding the failing 12X adapter using the HMC

Finding the failing 12X adapter by using IBM i operating system

1. Sign on to SST or DST if you have not already done so.
2. Select **Start a service tool** > **Hardware service manager** > **Logical hardware resources** > **High-speed link (HSL) resources**.
3. Select **Include non-reporting resources** then click **Display detail** for the 12X loop that you want to examine. The loop number is the number from word 7 of the reference code above.
4. The display that appears shows the port status of the Network Interface Controller (NIC) for the loop that you selected. Record the resource name, type-model, and serial number.
5. If the status of the "Leading port to next resource" is **operational**, select **Follow Leading Port**. Repeat this action until the status changes to **failed**. Does the resource name ever match the one recorded in the previous step?
   - **Yes:** You have traveled around the loop and did not find a failed link. **This ends the procedure.**
   - **No:** Continue with the next step.
6. When the status is **failed**, you have found the **from** port.
7. Record the following information of this resource:
   a. Resource name, card type and model, and part number
   b. Link status of each port (make sure to note if a port is designated as internal)
8. Select **Cancel** to return to the Work with High-speed link (HSL) resources display.
9. For the loop with the failure, select **Resources associated with loop**.
10. For the 12X I/O bridge with the resource name that you recorded, select **Associated packaging resources**.
11. Select **Display detail** and record the location for the first failing resource.
12. Replace this FRU using the table below to determine the failing FRU part number. **This ends the procedure.**

Finding the failing 12X adapter by using AIX or Linux

1. Determine on which 12X loop the failing adapter is located. Refer to Converting the loop number to 12X port location labels.
2. Identify each unit in the loop by following the cable.
3. Power down the system and remove all expansion units in the loop that starts and ends at the ports given in the previous step.

4. Power on the system to partition standby and check for the same SRC that sent you here. Did the SRC recur?
   - **No:** Power down the system and add the next unit in the original loop. Repeat this step.
   - **Yes:** If there are no expansion units in the loop, replace the controller on the system unit. Otherwise, the 12X adapter in the last I/O unit added is possibly the failing item. Use the table below to determine the part number for the field replaceable unit (FRU). **This ends the procedure.**

Finding the failing 12X adapter by using the management console

1. If you are using the Hardware Management Console, perform the following steps:
   a. From the HMC, expand **Systems Management** > **Servers**.
   b. Select the server on which you are working, expand **Hardware Information**, and click **View RIO-12X Topology**.
   c. In the Current Topology area, scroll down until you find data for the 12X loop number with which you are working.

   If you are using the Systems Director Management Console (SDMC), perform the following steps:
   a. From the SDMC, select the server on the **Resources** page.
   b. Click **Actions** > **Hardware Information** > **View Hardware Topology**.
   c. Click **Actions**, and select **Hardware Information** to view the RIO-12X topology.
   d. Scroll down until you find data for the 12X loop number with which you are working.
2. Each line in that 12X loop represents a 12X adapter or controller. Find the first one with a "Leading Port Status" of **failed**. Replace the failing adapter or controller. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BDA	8202-E4B, 8205-E6B	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C8
2BDA	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	12X adapter	U*n*-P1-C1, U*n*-P1-C8
2BDB	8231-E2B	See System parts.	4X adapter	U*n*-P1-C1, U*n*-P1-C7
2B4D	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	12X adapter	U*n*-P1-C8
1817	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C8
52B4	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C7
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2B62	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Midplane	U*n*-P1

CCIN or FFC	Type and model	Part number	Description	Location code
2BBD	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Midplane	U*n*-P1
2BC3	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Dual-port 12X adapter	U*n*-P1-C2, U*n*-P1-C3
295B	9119-FHB	See System parts.	12X adapter	U*n*-P*y*-C39, U*n*-P*y*-C40, U*n*-P*y*-C41, U*n*-P*y*-C44 **Note:** y = 2 - 9
520A	5796	See System parts.	Dual-port 12X interposer or riser	U*n*-P1-C7
520B	5796	See System parts.	Dual-port 12X interposer or riser	U*n*-P1-C7
520C	5796	See System parts.	I/O backplane	U*n*-P1
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
	5802, 5877	See System parts.	12X cables	U*n*-P1-T*y*
	5803, 5873	See System parts.	12X cables	U*n*-P1-T*y*, U*n*-P2-T*y*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

FWADIPL

Look here for information about FWADIPL symbolic FRU.

Complete the following steps:

1. Contact your network administrator to verify that the bootp server is correctly configured for this client.
2. Check the network connection. If the network connections are OK, retry the operation. If there is no network connection, contact the network administrator.
3. If there are no problems with the bootp server or the network connections, replace the adapter from which you are trying to boot. See Managing PCI adapters for the adapter FRU part number.

This ends the procedure.

FWCD1

Look here for information about FWCD1 symbolic FRU.

Complete the following procedure.

1. If the problem persists, the CD in the USB CDROM drive might not be readable. Remove the CD and insert another CD.
2. If the problem persists after replacing the CD, replace the USB CDROM drive.
3. Replace the USB adapter to which the drive is attached. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
28EF	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	80P2994	2 Port USB PCI adapter	U*n*-P1-C*x*
28EF	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	80P2994	2 Port USB PCI adapter	U*n*-P2-C*x*

This ends the procedure.

FWCD2

Look here for information about FWCD2 symbolic FRU.

Complete the following procedure.

1. Check for server firmware updates. Apply if available.
2. If the problem persists, replace the USB CD-ROM drive.

   See the following Managing devices topics for device FRU part numbers information for your system:

Models	Topic
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	Managing devices for the 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D.
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Managing devices for the 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D.
8233-E8B or 8236-E8C	Managing devices for the 8233-E8B or 8236-E8C.
8248-L4T, 8408-E8D, 9109-RMD	Managing devices for the 8248-L4T, 8408-E8D, 9109-RMD.
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	Managing devices for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.

3. Replace the USB adapter to which the drive is attached. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
28EF	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	80P2994	2 Port USB PCI adapter	U*n*-P1-C*x*
28EF	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	80P2994	2 Port USB PCI adapter	U*n*-P2-C*x*

This ends the procedure.

FWCONS

The console display might be failing.

1. If your server has an attached console, but the console display is not working, see the documentation for the display or try substituting a known good display for the one that is failing.
2. If you can see selection screens on the terminals, press the appropriate key on the input device within 60 seconds. If the console does not respond to the keystroke:
   a. If you are selecting the console with a keyboard attached to the system, replace the keyboard, see the service documentation for the system unit for keyboard part numbers. If the keyboard does not fix the problem, replace the service processor. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane (integrated service processor card)	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1

   If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

   b. If you are selecting the console with an ASCII terminal, suspect the terminal. Use the problem determination procedures for the terminal.

Note: The ASCII terminal settings should be:

- 19,200 baud
- No parity
- 8 data bits
- 1 stop bit

This ends the procedure.

FWENET

This symbolic can help determine a problem with an Ethernet adapter.

Complete the following.

1. Verify that the MAC address is properly programmed in the adapter's EPROM.
2. Replace the adapter specified by the location code. See Managing PCI adapters for PCI adapter FRU part numbers.

This ends the procedure.

FWFLASH

Symbolic FRU FWFLASH indicates that you might need to reload the server's firmware.

Complete the following steps:

1. Reboot the server or partition.
2. Reflash the server firmware. See Updates.
3. Reboot the failing partition.

This ends the procedure.

FWFWPBL

There might be a platform firmware problem.

Complete the following steps:

1. Check for platform firmware updates. See Updates.
2. Contact service support.

This ends the procedure.

FWHANG

Symbolic FRU FWHANG is not supported at this time.

FWHOST

Symbolic FRU FWHOST can help in the event that your server appears hung while booting.

If the system is not connected to an active network or if the target server is inaccessible (this can also result from incorrect IP parameters being supplied), the system will still attempt to boot and, because timeout durations are necessarily long to accommodate retries, the system might appear to be hung.

Complete the following steps:

1. Restart the system and access the SMS utilities.
2. In the utilities menus, check the following items:
   - Is the intended boot device correctly specified in the boot list?

- Are the IP parameters correct?
- Verify the network connection (the network could be down).
- Have the network administrator verify the server configuration for this client.
- Attempt to "ping" the target server using the SMS Ping utility.

This ends the procedure.

FWIDE1

The media or device might be failing.

Complete the following steps:

1. Replace the media in the device specified by the location code.
2. Replace the device specified by the location code.

   See the following Managing devices topics for device FRU part numbers information for your system:

Models	Topic
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	Managing devices for the 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D.
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Managing devices for the 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D.
8233-E8B or 8236-E8C	Managing devices for the 8233-E8B or 8236-E8C.
8248-L4T, 8408-E8D, 9109-RMD	Managing devices for the 8248-L4T, 8408-E8D, 9109-RMD.
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	Managing devices for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.

This ends the procedure.

FWIDE2

The cables, media or device might be failing.

Complete the following steps:

1. Verify that the signal and power cables are properly attached to the device specified by the location code. After they have been verified and repaired if necessary, retry the operation.
2. If the problem persists, the media in the device might not be readable. Remove the media and try another copy.
3. Replace the device specified by the location code.

   See the following Managing devices topics for device FRU part numbers information for your system:

Models	Topic
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	Managing devices for the 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D.
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	Managing devices for the 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D.
8233-E8B or 8236-E8C	Managing devices for the 8233-E8B or 8236-E8C.
8248-L4T, 8408-E8D, 9109-RMD	Managing devices for the 8248-L4T, 8408-E8D, 9109-RMD.

Models	Topic
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	Managing devices for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.

This ends the procedure.

FWIPIPL

Network address problem.

Complete the following steps:

1. Contact your network administrator to verify that the network addresses on the server and gateway are correct.
2. Use the System Management Services menu to correct the network addresses on the server if necessary.

This ends the procedure.

FWLPAR

Look here for information about FWLPAR symbolic FRU.

Perform one of the following options:

- If a location code was reported with the error, probing failed for the PCI slot connector.
  1. Check for platform firmware updates. Apply the update if there is one available.
  2. Check for adapter firmware updates, apply if available. If there are no updates available, replace the adapter. See Managing PCI adapters for PCI adapter FRU part numbers. If this does not resolve the problem, replace the I/O backplane on which the slot connector is located. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1

	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See Finding parts, locations, and addresses	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

- If no location code was reported with the error, The connector was not found:
  1. Check for platform firmware updates, apply if available.
  2. If no updates are available, contact your next level of support.

This ends the procedure.

FWMBOOT

Look here for information about FWMBOOT symbolic FRU.

This checkpoint appears on the operator panel when partition firmware has entered the boot devices menu in the SMS because the multi-boot flag was turned on.

The firmware is waiting for input from the user. If the firmware console is not open, the user cannot see the boot devices menu. In this case, the user might mistakenly assume that the system is hung. System firmware only progresses past this point when the user provides the required input.

FWNIM

Look here for information about FWNIM symbolic FRU.

If this error occurs during the installation of the AIX operating system using a process called a NIM push, the *set_bootlist* attribute might not have been set correctly on the NIM master.

See the appropriate **AIX 5.x Installation Guide and Reference** for the release level of the AIX operating system that is being installed for more information.

If this error occurs at any other time, check for platform firmware updates and apply them. If there are no platform firmware updates available, contact your next level of support. **This ends the procedure.**

FWNVR1

Look here for information about FWNVR1 symbolic FRU.

An error reported against the nonvolatile random access memory (NVRAM) might be caused by low battery voltage and (more rarely) power outages that occur during normal system usage.

With the exception of the BA170000 error, these errors are warnings that the NVRAM data content had to be reestablished and do not require a FRU replacement unless the error is persistent. When one of these errors occurs, system customization information (the boot list, for example) has been lost, and the system might need to be re-configured.

If the error is persistent, replace the service processor. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane (integrated service processor card)	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

FWNVR2

Look here for information about FWNVR2 symbolic FRU.

If the error is persistent, replace the service processor. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane (integrated service processor card)	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

FWNVR3

Look here for information about FWNVR3 symbolic FRU.

Execution of a command line within the nonvolatile random access memory (NVRAM) configuration variable **nvramrc(script)** resulted in a "throw" being executed.

This script can be modified by the system firmware SMS utilities, the operating system, PCI adapter ROM code or utility, or an operator (using the open firmware script editing command *nvedit*).

It might not be possible to resolve the problem without a detailed analysis of the NVRAM script, the current system configuration, and the device tree contents.

1. This problem can be caused by a SCSI adapter whose SCSI bus ID has changed from the default setting and the adapter no longer appears in the system. This can be caused either by removing a SCSI adapter, or a problem with a SCSI adapter.
   a. On the SMS main menu, select **option 5,** Change SCSI settings.
   b. On the SCSI utilities menu, select **option 2,** Change SCSI ID.
      1) Verify the list of SCSI controllers/adapters. If the list is not correct, suspect a problem with adapters that are installed but not listed.
      2) Select the option to **"Save"** the configuration information.
      3) Restart the system.
   c. If the problem persists, boot the operating system and verify the SCSI bus IDs of the SCSI controllers, and correct if necessary.
   d. Restart the system.
2. Contact your service support representative for further assistance.

This ends the procedure.

FWPCI1

Look here for information about FWPCI1 symbolic FRU.

Perform one of the following options:

- If the location code identifies a slot:
  1. Check for adapter firmware updates. Apply the update if one is available.
  2. Replace the adapter. See Managing PCI adapters for PCI adapter FRU part numbers.
  3. Check for platform firmware updates. Apply the update if one is available.
- If the location code identifies an I/O backplane:
  1. Check for platform firmware updates. Apply the update if one is available.
  2. Replace the I/O backplane (system backplane on certain systems). Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

3. Call service support.

This ends the procedure.

FWPCI2

Look here for information about FWPCI2 symbolic FRU.

If you receive FWPCI2 symbolic FRU perform the following procedure.

1. If the location code identifies a slot:
   a. Check for adapter firmware updates. Apply the update if one is available.
   b. Check the cabling to the adapter (in particular, the adapters that have serial ports). Serial ports might require null modems or special cabling configurations to avoid connecting driver outputs together. This might create a PCI power problem and force the adapter to be unconfigured.
   c. Use the hot plug service aid to re-seat the adapter specified by the location code. If re-seating the adapter fixes the problem, perform the repair checkout procedure. If the problem is not resolved, go to the next step.
   d. Use the hot plug task to move the adapter to another slot (behind another PCI bridge). PCI adapter placement identifies the PCI Host Bridges (PHB) and associated slots.
2. If the adapter is successfully re-configured in the new slot (behind another PCI host bridge), the slot in which the adapter was originally plugged is bad. Replace the I/O backplane (system backplane on certain systems) assembly that contains the slot in which the adapter was plugged, use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

3. Replace the adapter if the adapter does not successfully re-configure into the new slot. **This ends the procedure.**

FWPCI3

Look here for information about FWPCI3 symbolic FRU.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

If you receive symbolic FRU FWPCI3, do one of the following procedures.

1. If the location code identifies a PCI card slot:
   a. Check the cabling to the adapter (in particular, the adapters that have system ports). System ports might require null modems or special cabling configurations to avoid connecting driver outputs together. This might create a PCI power problem and force the adapter to be de-configured.
   b. Move the adapter to another slot (behind another PCI bridge). PCI adapter placement identifies the PCI Host Bridges (PHB) and associated slots.
   c. Check for adapter firmware updates. Apply the update if one is available.
   d. Replace the adapter. See Managing PCI adapters for PCI adapter FRU part numbers.
   e. Check for platform firmware updates. Apply the update if one is available.
   f. Replace the I/O backplane (system backplane on certain systems), use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

2. If the location identifies an I/O backplane:
   a. Check for platform firmware updates. Apply the update if one is available.
   b. Replace the I/O backplane (system backplane on certain systems), use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1

	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

This ends the procedure.

FWPCI4

Look here for information about FWPCI4 symbolic FRU.

If you receive the FWPCI4 symbolic FRU, perform the following.

1. If a location code is associated with the checkpoint, replace the adapter identified by the location code.
2. If no location code is specified, go to PFW1542: I/O problem isolation procedure.

This ends the procedure.

FWPCI5

Look here for information about FWPCI5 symbolic FRU.

If you receive symbolic FRU FWPCI5, perform the following procedure:

1. Is a location code associated with the checkpoint?
   - **No:** Go to PFW1548: Memory and processor subsystem problem isolation procedure. **This ends the procedure.**
   - **Yes:** Continue with the next step.
2. Replace the following, one at a time, until the problem is resolved:
   a. The FRU identified by the location code, see the system unit service information for the FRU part numbers.
   b. I/O backplane, use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1

	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

FWPCI6

Look here for information about FWPCI6 symbolic FRU.

The last character of the progress code (checkpoint) in which the system is hanging indicates which PCI slot the system was probing at the time the hang occurred. For example, E251 indicates PCI slot 1, E252 indicates slot 2, and so on.

For the PCI slot identified by the progress code, perform the following procedure:

1. Power down the system.
2. Reseat the adapter in the specified slot, then power up the system. Does the problem occur again?
   - **Yes:** Go to the next step.
   - **No:** This ends the procedure.
3. Power down the system and remove the adapter from the specified slot, then power on the system. Does the problem occur again?
   - **No:** Replace the adapter that you removed. See Managing PCI adapters for PCI adapter FRU part numbers.
   - **Yes:** Replace the backplane that contains the PCI adapter slots. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1

	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

FWPTR

Values normally found in nonvolatile storage that point to the location of an operating system were not found.

This can happen for two reasons: either your operating system doesn't support storing the values, or some events occurred that caused the system to lose non-volatile storage information (drainage or replacement of the battery). If you are running the AIX operating system, this information can be reconstructed by running the bootlist command specifying the device that the operating system is installed on. Please see your AIX operating system documentation for the syntax and usage of the bootlist command.

To boot the operating system so that the above-mentioned values can be reconstructed, power the system down and power it back up again. This should cause the system to look for the operating system in the device contained in the custom boot list or in the default boot list, depending on the condition of the system. If this is not successful, modify the boot sequence (also known as the boot list) to include devices that are known to contain a copy of the operating system. This can be accomplished by using the System Management Services menus. For example, select a hard disk known to have a copy of the operating system as the first and only device in the boot sequence (boot list) and boot the system.

This ends the procedure.

FWPWD

Look here for information about FWPWD symbolic FRU.

You should be able to see the system prompt on the hardware console.

If your server has an attached console, but the console display is not functioning correctly, see the documentation for the display. If you cannot adjust the display, replace the display with one that is known to be functional.

This ends the procedure.

FWRIPL

The FWRIPL procedures can help if a system or a partition will not boot.

If a supported adapter is installed, perform the following steps:

1. Replace the adapter. For adapter FRU part numbers, see Managing PCI adapters.
2. Replace the I/O backplane (system backplane on certain systems) in the unit in which the adapter is plugged. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the system backplane	See System parts.	System backplane	U*n*-P1
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D with failing slot on the PCI riser card feature (if installed)	See System parts.	PCI riser card	U*n*-P1-C1
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

   If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

If there are no supported LAN adapters installed in a full system partition, install one and reboot the system. If a supported LAN adapter is not assigned to the partition in a server running multiple partitions, deactivate the partition, assign a supported LAN adapter to the partition, then reactivate the partition.

This ends the procedure.

FWSCSI2

Look here for information about FWSCSI2 symbolic FRU.

Complete the following steps before replacing any system components:

1. Ensure that the controller and each device on the SCSI bus is assigned a unique SCSI ID.
2. Ensure that the SCSI bus is properly terminated.
3. Ensure that the SCSI signal and power cables are securely connected and are not damaged.

The location code information is required to identify the ID of SCSI device failures as well as to indicate the location of the controller to which the device is attached. Check the system error logs to determine the location code information associated with the error code.

1. Replace the media (if it is a device with removable media).
2. Replace the SCSI device. See Finding parts, locations, and addresses for SCSI device FRU part numbers.

This ends the procedure.

FWSCSI3

Look here for information about FWSCSI3 symbolic FRU.

Complete the following steps before replacing any system components:

1. Ensure that the controller and each device on the SCSI bus is assigned a unique SCSI ID.
2. Ensure that the SCSI bus is properly terminated.
3. Ensure that the SCSI signal and power cables are securely connected and are not damaged.

The location code information is required to identify the ID of SCSI device failures as well as to indicate the location of the controller to which the device is attached. Check the system error logs to determine the location code information associated with the error code.

1. Replace the SCSI device. See Finding parts, locations, and addresses for SCSI device FRU part numbers.

This ends the procedure.

FWSCSI4

Look here for information about FWSCSI4 symbolic FRU.

Complete the following steps before replacing any system components:

1. Ensure that the controller and each device on the SCSI bus is assigned a unique SCSI ID.
2. Ensure that the SCSI bus is properly terminated.
3. Ensure that the SCSI signal and power cables are securely connected and are not damaged.

The location code information is required to identify the ID of SCSI device failures as well as to indicate the location of the controller to which the device is attached. Check the system error logs to determine the location code information associated with the error code.

1. Replace the media (if a device with removable media).
2. Replace the SCSI device. See Finding parts, locations, and addresses for SCSI device FRU part numbers.

This ends the procedure.

FWSCSIH

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

FWVTHMC

Look here for information about FWVTHMC symbolic FRU.

If you received symbolic FRU FWVTHMC, perform the following procedure:

1. The partition firmware is waiting for a virtual terminal to be opened on the management console. Open a virtual terminal.
2. If a virtual terminal is open, the user might have entered a CTRL-S key sequence to stop the scrolling of data off the screen. If this is the case, enter a CTRL-Q key sequence to resume scrolling.
3. Check the Ethernet connection between the management console and the managed system.
4. Reboot the management console.
5. There might be a hardware problem with the management console. For the Hardware Management Console (HMC), see Hardware Management Console models 7042-CR4, 7042-C06, and 7042-C07 service. For the IBM Systems Director Management Console (SDMC), see Systems Director Management Console service.
6. There might be a hardware problem with the service processor in the managed system. Check the service action event log for error codes that indicate a problem with the Ethernet ports on the service processor. Take the appropriate actions based on the error codes that you find.

This ends the procedure.

HBAINIT

A System x or BladeCenter iSCSI initiator adapter might be the failing item. Contact your next level of support.

HBATARG

The iSCSI target adapter might be the failing item. Contact your next level of support.

HCA

The failing component is the 12X host channel adapter (HCA).

Do you have a location code for this FRU?

- **No:** Go to SICNTRL to determine the location of the HCA and replace it.
- **Yes:** Replace the 12X HCA.

  Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description
1817	8233-E8B, 8236-E8C	See System parts.	12X adapter
295B	9119-FHB	See System parts.	12X adapter
2BC3	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	12X adapter
2BDA	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	12X adapter
2BDB	8231-E2B	See System parts.	4X adapter
2B4D	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	12X adapter
52B4	8233-E8B, 8236-E8C	See System parts.	12X adapter

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

HEA

The failing component is the Host Ethernet Adapter (HEA).

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN	Type and Model	Part number	Description	Location code
1818	8233-E8B, 8236-E8C	See System parts.	Dual 1 Gb HEA	U*n*-P1-C6
1819	8233-E8B, 8236-E8C	See System parts.	Quad 1 Gb HEA	U*n*-P1-C6
1830	8233-E8B, 8236-E8C	See System parts.	Dual 10 Gb HEA	U*n*-P1-C6
2BC4	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	4 x 1 GbE HEA	U*n*-P2-C8
2BC5	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	10 Gb Cu HEA	U*n*-P2-C8
2BDC	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Optical - 2 x 1 GbE and 2 x 10 GbE HEA	U*n*-P2-C8
266D	8202-E4B, 8205-E6B	See System parts.	Quad 1 Gb copper HEA adapter	U*n*-P1-C3
266D	8231-E2B	See System parts.	Quad 1 Gb copper HEA adapter	U*n*-P1-C2
266E	8202-E4B, 8205-E6B	See System parts.	Dual 10 Gb fiber HEA adapter	U*n*-P1-C3
266E	8231-E2B	See System parts.	Dual 10 Gb fiber HEA adapter	U*n*-P1-C2
266F	8202-E4B, 8205-E6B	See System parts.	Dual 10 Gb copper twinax HEA adapter	U*n*-P1-C3
266F	8231-E2B	See System parts.	Dual 10 Gb copper twinax HEA adapter	U*n*-P1-C2
2BC6	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	TwinAx - 2 x 1 GbE and 2 x 10 GbE HEA	U*n*-P2-C8

Note: If you replace all of the FRUs in the FRU list, but the problem still exists, contact your next level of support. You might be directed to replace additional FRUs. "Additional FRUs" has more information about FRUs on specific models. Use this section when you are directed by your next level of support.

Additional FRUs

For the model or unit type you are working on, there might be additional FRUs which were not listed in the FRU list of the error. Under the direction of your next level of support, you can try replacing the additional FRUs.

1. In the following table, locate the unit types on which you are working. Exchange the FRU indicated.

Table 7. Additional FRU parts

CCIN or FFC	Type and model	Part number	Description	Location code
28A5	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2BFB, 2BFC	8202-E4B, 8205-E6B, 8231-E2B	See System parts.	System backplane	U*n*-P1

2. Did the exchange correct the error?
   - **Yes:** The FRU you just exchanged was the failing item.

     This ends the procedure.
   - **No:** Contact your next level of support.

     This ends the procedure.

HMCLIC

Firmware on the management console must be replaced.

To replace the Hardware Management Console (HMC) firmware, see Hardware Management Console models 7042-CR4, 7042-C06, and 7042-C07 service. To replace the Systems Director Management Console (SDMC) firmware, see Systems Director Management Console service.

HMCMTWK

Multiple connections to peer management consoles have been lost.

1. Complete the following from the management console that is reporting the connection errors:
   a. **Hardware Management Console (HMC):** In the navigation area, click **HMC Management**. In the right pane, click **View Network Topology**.

      Systems Director Management Console (SDMC): On the Resources page, select the server. Click **Actions** > **Topology Perspectives** > **Network** > **Basic**.
   b. Are the peer management consoles with the missing connection present in the topology?
      - **No:** Continue with the next step.
      - **Yes:** The problem was temporary and has resolved itself. **This ends the procedure.**
2. Is the management console that reported the connection errors also reporting a hardware error with a network adapter?
   - **No:** Continue with the next step.

- **Yes:** Service this network adapter error. **This ends the procedure.**

3. Verify that each peer management console with a missing connection is powered on and that its Ethernet connections are secure and functioning. Does the problem persist?
   - **No: This ends the procedure.**
   - **Yes:** Continue with the next step.
4. Have the customer verify that their network is operating properly. If the problem still persists, contact your next level of support.

This ends the procedure.

HMCNTWK

A connection to a peer management console (indicated in the location code) has been lost.

1. Complete the following from the management console that is reporting the connection error:
   a. **Hardware Management Console (HMC):** In the navigation area, click **HMC Management**. In the right pane, click **View Network Topology**.

      Systems Director Management Console (SDMC): On the Resources page, select the server. Click **Actions** > **Topology Perspectives** > **Network** > **Basic**.
   b. Is the peer management console with the missing connection present in the topology?
      - **No:** Continue with the next step.
      - **Yes:** The problem was temporary and has resolved itself. **This ends the procedure.**
2. Verify that the peer management console with the missing connection is powered on and that its Ethernet connections are secure and functioning. Does the problem persist?
   - **No: This ends the procedure.**
   - **Yes:** Continue with the next step.
3. Is either the management console that reported the problem or the peer management console with the missing connection reporting a hardware error with a network adapter?
   - **No:** Continue with the next step.
   - **Yes:** Service this network adapter error. **This ends the procedure.**
4. Have the customer verify that their network is operating properly. If the problem still persists, contact your next level of support.

This ends the procedure.

HSL1

This is a standard copper HSL/RIO cable at both ends.

Diagnostic code cannot determine the length of the cable. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL1_UN

This is a standard copper HSL/RIO cable at the end where an error was detected.

Diagnostic code cannot determine the length of the cable, or the type of connector at the other end. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

Diagnostic code cannot determine the length of the cable. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_01

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The 01 value indicates the cable is 1 meter long. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_03

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The 03 value indicates the cable is 3 meters long. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_08

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The 08 value indicates the cable is 8 meters long. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_10

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The 10 value indicates the cable is 10 meters long. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_15

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The 15 value indicates the cable is 15 meters long. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_17

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The 17 value indicates that the cable is 1.75 meters long. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_25

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The 25 value indicates that the cable is 2.5 meters long. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL2_xx

This is an HSL2/RIO-G copper HSL/RIO cable at both ends.

The xx value indicates the cable length in meters. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL_I2

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

HSL_I3

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

HSL_I4

The failing item is an HSL-2/RIO-2 interposer card on a 7040-61D expansion unit.

This interposer card is for copper HSL-2 or RIO-2 cable connectors (black) on the expansion unit backplane in location -P1-(Riser) or -P2-(Riser). Diagnostic code will attempt to include the card's location with the FRU in the serviceable event view. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL_I5

The failing item is a 12X interposer (riser) card on a 7314-G30 expansion unit or a 5796 expansion unit.

This interposer (riser) card is for 12X cable connectors on the expansion unit backplane in location Un-P1-C7. The diagnostic code will attempt to include the card's location code with the FRU in the serviceable event view. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL_I

This is an HSL/RIO interposer card for copper HSL2/RIO-G (black) connections or optical HSL/RIO connections.

Diagnostic code cannot determine the type of interposer card. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL_IB

This is a 12X cable (green connectors).

Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL_Ix

This is an HSL/RIO interposer card for copper HSL2/RIO-G (black) connections or optical HSL/RIO connections.

The "x" value indicates the type of interposer card. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSL_LNK

The failing component is the 12X connection.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Note: If question marks (???) appear at the end of the location code, the port could not be determined. Use the location code associated with the other end of the cable. If question marks appear for both port locations, use the isolation procedures suggested in the reference code information for this SRC.

1. Choose from the following options:
   - If you were sent to this procedure from another symbolic field replaceable unit (FRU), locate that FRU in Table 1 to see the description of the 12X FRU. Then continue with the next step for more information about the FRU.
   - If you are working with this symbolic FRU in the FRU list, the failing component is a 12X connection. Diagnostic code could not determine what kind of hardware was involved. The 12X hardware can be any of the following items:
     – Cable
     – Embedded 12X link in a FRU (a backplane, for example)
     – 12X interposer card

     The 12X link is on or between the other FRU or FRUs listed for the reference code. Continue with the next step.

Table 8. HSL_LNK service information

FRU	Description
HSL_IB	This is a 12X cable (green connectors)
HSL_I5	This is a 12X interposer or riser card on an I/O enclosure that attaches with 12X cables.

Table 8. HSL_LNK service information (continued)

FRU	Description
INT_12X	This is an internal 12X connection in an enclosure. Some units have internal 12X connections to or from 12X adapters in the unit. The internal connection might be contained in a single FRU that has multiple 12X adapters or the internal connection might be part of a FRU to FRU connection in the unit where each FRU has one or more 12X adapters. For the location code of this FRU in a serviceable event error log, diagnostic firmware will provide as much information about the location of the 12X connection as possible for the error.

2. Choose from the following options:
   - If you are working from the serviceable event view, the location code or FRU description in the view will help determine the actual 12X hardware to replace. Continue with the next step.
   - If you are not working from the serviceable event view, or the view does not have a location code or better FRU description, determine the location code of other FRUs in the FRU list for the error. Then continue with the next step.
3. Use the location code and the information from the preceding table to determine the machine type, model, or unit feature involved in the error. If necessary, use the location code for other FRUs listed in the FRU list for this error to determine the failing 12X connection and any related FRUs that are part of that connection. Use the following table to determine the part number for the FRU.

Table 9. 12X FRU parts

CCIN or FFC	Type and model	Part number	Description	Location code
2BDA	8202-E4B, 8205-E6B	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C8
2BDA	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	12X adapter	U*n*-P1-C1, U*n*-P1-C8
2BDB	8231-E2B	See System parts.	4X adapter	U*n*-P1-C1, U*n*-P1-C7
2B4D	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	12X adapter	U*n*-P1-C8
	8233-E8B, 8236-E8C	See Table 10 on page 291.	12X cables	U*n*-P1-C*x*-T*y*
1817	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C8
52B4	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C7
28A5	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See Table 10 on page 291.	12X cables	U*n*-P1-C*x*-T*y*
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2

Table 9. 12X FRU parts (continued)

CCIN or FFC	Type and model	Part number	Description	Location code
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2B62	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Midplane	U*n*-P1
2BBD	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	System backplane	U*n*-P1
2BC3	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C3
295B	9119-FHB	See System parts.	12X adapter	U*n*-P*y*-C39, U*n*-P*y*-C40, U*n*-P*y*-C41, U*n*-P*y*-C44 **Note:** y = 2 - 9
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
520A	5796, 7314-G30	See System parts.	Riser	U*n*-P1-C7
520B	5796, 7314-G30	See System parts.	Riser	U*n*-P1-C7
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

Use the following table to determine FRU part numbers for 12X cables. To locate part numbers for any cables that are not listed here, see System parts.

Table 10. Cable part numbers

Description	Part number
12X cable (0.6 meters) (1861)	See System parts.
12X cable (1.5 meters) (1862)	See System parts.
12X cable (2.5 meters) (1863)	See System parts.
12X cable (3.0 meters) (1865)	See System parts.
12X cable (8.0 meters) (1864)	See System parts.

Note: If you replace all of the FRUs in the FRU list, but the problem still exists, contact your next level of support. You might be directed to replace additional 12X FRUs. “Additional 12X FRUs” on page 292 has more information about 12X FRUs on specific models and I/O enclosures. Use this section when you are directed by your next level of support.

Additional 12X FRUs

The following are 12X FRUs by model or unit type. For the model or unit type you are working on, there might be additional 12X FRUs which were not listed in the FRU list of the error. Under the direction of your next level of support, you can try replacing the additional FRUs.

1. In the following table, locate the unit types on which you are working. Exchange the indicated 12X loop connections (external or embedded) or 12X interposer card.

Table 11. 12X FRU parts

CCIN or FFC	Type and model	Part number	Description	Location code
520A	5796, 7314-G30	See System parts.	Riser	U*n*-P1-C7
520B	5796, 7314-G30	See System parts.	Riser	U*n*-P1-C7

2. Did the replace correct the error?
   - **Yes:** The FRU you just replaced was the failing item.

     This ends the procedure.
   - **No:** Contact your next level of support.

     This ends the procedure.

HSL_OPT

This is an optical HSL/RIO cable.

When connecting or disconnecting these cables, use the optical cleaning kit described in OPT_CLN. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSLH

This is a hybrid HSL/RIO to HSL2/RIO-G copper cable.

One end of the cable has an HSL/RIO yellow connector and the other end has an HSL2/RIO-G black connector. Diagnostic code cannot determine the length of the cable. Diagnostic code will attempt to determine the location codes of cable ports at each end of the cable. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSLH_06

This is a hybrid HSL/RIO to HSL2/RIO-G copper cable.

One end of the cable has an HSL/RIO yellow connector and the other end has an HSL2/RIO-G black connector. The "06" value indicates the length of the cable is 6 meters. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSLH_15

This is a hybrid HSL/RIO to HSL2/RIO-G copper cable.

One end of the cable has an HSL/RIO yellow connector and the other end has an HSL2/RIO-G black connector. The "15" value indicates the length of the cable is 15 meters. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

HSLH_xx

This is a hybrid HSL/RIO to HSL2/RIO-G copper cable.

One end of the cable has an HSL/RIO yellow connector and the other end has an HSL2/RIO-G black connector. The "xx" value indicates the length of the cable in meters. Go to HSL_LNK and follow the appropriate instructions.

This ends the procedure.

I2CBUS

A fault was detected on the I2C bus.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

1. Is the reference code of the form 1xxx314x?
   - **Yes:** Continue with the next step.
   - **No:** Use the following table to determine the FRU to replace. If there are multiple FRUs listed in one row, replace those FRUs one at a time in the order shown.

Reference code	Type and model or feature code	Part number	Description	Location code
3100, 3105	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts	Primary service processor card	U*n*-P1-C1
3100, 3101, 3118, 310A, or 310B	5796, 7314-G30	See System parts	1. SPCN card 2. I/O backplane 3. Dual-port 12X Channel Attach adapter	1. U*n*-P1-C8 2. U*n*-P1 3. U*n*-P1-C7
3102, 3103, 3104, 3114, 3121, 3122, 3123, 3124	5796, 7314-G30	See System parts	1. I/O backplane 2. SPCN card 3. Dual-port 12X Channel Attach adapter	1. U*n*-P1 2. U*n*-P1-C8 3. U*n*-P1-C7
3105, 3125	5796, 7314-G30	See System parts	1. Dual-port 12X Channel Attach adapter 2. I/O backplane 3. SPCN card	1. U*n*-P1-C7 2. U*n*-P1 3. U*n*-P1-C8
3106, 3115	5796, 7314-G30	See System parts	1. Power supply 2. SPCN card 3. I/O backplane	1. U*n*-E1 2. U*n*-P1-C8 3. U*n*-P1

Reference code	Type and model or feature code	Part number	Description	Location code
3114, 3116	8233-E8B, 8236-E8C	See System parts	System backplane	U*n*-P1
3114	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts	1. I/O backplane 2. Primary service processor card	1. U*n*-P2 2. U*n*-P1-C1

This ends the procedure.

2. Is the reference code 1xxx3140?
   - **No:** Continue with the next step.
   - **Yes:** Replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
3. Is the reference code 1xxx3141?
   - **No:** Continue with the next step.
   - **Yes:** If this is your first time here, replace the SAS conduit card in the 5802 expansion unit at location U*n*-P5. If this is your second time here, replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
4. Is the reference code 1xxx3142?
   - **No:** Continue with the next step.
   - **Yes:** If this is your first time here, replace the disk drive backplane in the 5802 expansion unit at location U*n*-P3. If this is your second time here, replace the SAS conduit card in the 5802 expansion unit at location U*n*-P4. **This ends the procedure.**
5. Is the reference code 1xxx3143?
   - **No:** Continue with the next step.
   - **Yes:** If this is your first time here, replace the I/O backplane in the 5802 expansion unit at location U*n*-P1. If this is your second time here, replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
6. Is the reference code 1xxx3145?
   - **No:** Continue with the next step.
   - **Yes:** Replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
7. Is the reference code 1xxx3146?
   - **No:** Continue with the next step.
   - **Yes:** Replace the fan in the 5802 expansion unit at location U*n*-E1-A1. If this is your second time here, replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
8. Is the reference code 1xxx3147?
   - **No:** Continue with the next step.
   - **Yes:** Replace the fan in the 5802 expansion unit at location U*n*-E1-A2. If this is your second time here, replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
9. Is the reference code 1xxx3148?
   - **No:** Continue with the next step.
   - **Yes:** Replace port card 1 in the 5802 expansion unit at location U*n*-P3-C1. If this is your second time here, replace these parts in the 5802 expansion unit in the following order:
     a. Midplane at location U*n*-P5.
     b. SAS conduit at location U*n*-P4.

c. Disk drive backplane at location U*n*-P3.

This ends the procedure.

10. Is the reference code 1xxx3149?
    - **No:** Continue with the next step.
    - **Yes:** Replace port card 2 in the 5802 expansion unit at location U*n*-P3-C2. If this is your second time here, replace these parts in the 5802 expansion unit in the following order:
      a. Midplane at location U*n*-P5.
      b. SAS conduit at location U*n*-P4.
      c. Disk drive backplane at location U*n*-P3.

      This ends the procedure.
11. Is the reference code 1xxx314A?
    - **No:** Continue with the next step.
    - **Yes:** Replace port card 3 in the 5802 expansion unit at location U*n*-P3-C3. If this is your second time here, replace these parts in the 5802 expansion unit in the following order:
      a. Midplane at location U*n*-P5.
      b. SAS conduit at location U*n*-P4.
      c. Disk drive backplane at location U*n*-P3.

      This ends the procedure.
12. Is the reference code 1xxx314B?
    - **No:** Continue with the next step.
    - **Yes:** Replace port card 4 in the 5802 expansion unit at location U*n*-P3-C4. If this is your second time here, replace these parts in the 5802 expansion unit in the following order:
      a. Midplane at location U*n*-P5.
      b. SAS conduit at location U*n*-P4.
      c. Disk drive backplane at location U*n*-P3.

      This ends the procedure.
13. Is the reference code 1xxx3155?
    - **No:** Continue with the next step.
    - **Yes:** If this is your first time here, replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
14. Is the reference code 1xxx3156?
    - **No:** Continue with the next step.
    - **Yes:** If this is your first time here, replace the fan in the 5802 expansion unit at location U*n*-E2-A1. If this is your second time here, replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**
15. Is the reference code 1xxx3157?
    - **No:** Return to the procedure or symbolic FRU that sent you here.
    - **Yes:** If this is your first time here, replace the fan in the 5802 expansion unit at location U*n*-E2-A2. If this is your second time here, replace the midplane in the 5802 expansion unit at location U*n*-P5. **This ends the procedure.**

IDPART

The configuration ID is incorrect.

Is the reference code 1xxx 840D or 840E?

- **Yes:** Go to PWR1917.

- **No:** The reference code has changed. Return to Starting a service call.

IH_HUB

The I/O hub might be the failing item.

Replace the system backplane at location U*n*-P1.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

INT_12X

The internal connection between two embedded 12X adapters might be failing.

There is no 12X cable for this 12X internal port. The internal connection location is identified by this FRU in the error log. Replace that FRU if it has not already been replaced.

This ends the procedure.

IO_DEV

A storage device is the failing item.

Complete the following steps:

1. Is device location information available in the serviceable event view for this FRU?
   - **Yes:** Continue with the next step.
   - **No:** If the adapter controlling this device is listed in the FRU list then use that location code and continue with the next step. Otherwise work with the customer or your next level of support to determine the location of the device or its adapter by using SRC information, failing resource information, device tree or error message information. Then continue with the next step.
2. Use the following table to replace the failing item.

   Note: The location listed might be a logical path instead of the physical device location. The known device logical location codes are handled in the locations information for each unit type.

CCIN	Description	Type and model	Part number
6607	4 GB disk drive		44L0061
6713	9 GB disk drive		44L0062
6714	Disk unit and carrier		44L0063
6717	Disk unit and carrier		97H7332
6718	Disk unit and carrier		04N2737
6719	Disk unit and carrier		04N4638
	Tape drive, 4 MM 80/160 GB		23R5638
	73 GB disk drive		10N7200 10N7230
	146 GB disk drive		10N7204 10N7232

CCIN	Description	Type and model	Part number
	300 GB disk drive		10N7208 10N7234
	73.4 GB 15,000 rpm ultra3 SCSI disk drive and carrier		03N6345 03N5280
	73.4 GB 15,000 rpm ultra3 SCSI disk drive and carrier		80P3163
	146.8 GB 10,000 rpm SCSI disk drive and carrier		03N6330
	36.4 GB 15,000 rpm ultra3 SCSI disk drive and carrier		03N6340 03N5275
	36.4 GB 15,000 rpm ultra3 SCSI disk drive and carrier		80P3159
	73.4 GB 10,000 rpm 80-pin SCSI disk drive and carrier		03N5260 03N6325
	18.2 GB 10,000 rpm SCSI disk drive and carrier **Note:** The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.		00P3829 00P3064
	36.4 GB 10,000 rpm SCSI disk drive and carrier		00P3831
	36.4 GB 10,000 rpm SCSI disk drive and carrier		00P3068
	36.4 GB 10,000 rpm SCSI disk drive and carrier **Note:** The FRU part numbers are interchangeable. Order the FRU part number that matches the FRU part number you are replacing.		00P3831 00P3068
	70 GB disk drive		97P2991
	146 GB disk drive		03N5285
	146.8 GB 15,000 rpm ultra320 SCSI disk drive		03N6350
	146.8 GB 10,000 rpm ultra320 SCSI disk drive		03N5265
	300 GB disk drive, SCSI		03N5270
	300 GB 10,000 rpm ultra320 SCSI disk drive, 1 inch		03N6335
	300 GB 10,000 rpm ultra320 SCSI disk drive and carrier		03N5270
	600 GB SAS interface small form factor 10,000 rpm disk drive		See System parts.
	177 GB SAS solid state drive		See System parts.

IO_HUB

The failing component is the RIO/HSL hub on the IPL path.

Use the following table to determine the part number for the field replaceable unit (FRU).

Type and model	Part number	Description	Location code
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane (primary unit)	U*n*-P2
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane (secondary units)	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

IOA

The I/O adapter might be failing.

Go to FI00719 to determine the field replaceable unit (FRU) part number.

This ends the procedure.

IOACNFG

There is an IOA configuration problem.

Too many communications lines or IOAs are configured using the same IOP.

IOADPTR

The failing component is the adapter in the location specified in the SRC.

1. Are you working from the serviceable event view and is there a card location listed with this FRU?
   - **Yes:** Use Table 1 to replace the adapter identified by this location code. **This ends the procedure.**
   - **No:** Determine the location of the adapter by working with the customer or your next level of support. If you cannot determine the location of the failing adapter by using SRC or resource information or the device tree, determine the adapter type from the SRC, SRC description, failing resources, or error message you are working with. Make a list of all the adapter locations of that type assigned to the partition. Continue with the next step.
2. Have you identified a single FRU location?
   - **Yes:** Use Table 1 to replace the FRU you have identified. **This ends the procedure.**
   - **No:** Continue with the next step.

3. Using the location codes you have identified, determine which system unit and expansion units have PCI adapters of this type assigned to the partition you are working with. Starting with the expansion units first, remove all of the PCI adapters of this type from one of the units (use Table 1 to guide you to the correct locations information).

   Attention:

   - Remove the PCI adapters from the system unit only after you have tried all of the expansion units first.
   - Do **not** remove any FRUs with embedded adapters, only FRUs in PCI card slots.

   Continue with the next step.
4. Reinstall one of the adapters and power on the unit. Continue with the next step.
5. Does the problem recur?
   - **Yes:** The adapter you just reinstalled is the failing item and needs to be replaced (use Table 1 to guide you to the correct locations information). **This ends the procedure.**
   - **No:** Continue with the next step.
6. Have you reinstalled all of the adapters on the unit you're currently working with?
   - **Yes:** Continue with the next step.
   - **No:** Return to step 4 and reinstall the next adapter on this unit.
7. Are there any units (including the system unit) on which you have not yet removed and reinstalled the PCI adapters?
   - **No:** Continue with the next step.
   - **Yes:** Return to step 3 and work with another unit.
8. See Card positions to determine whether the system unit or any of the expansion units have an embedded adapter of the type you are working with. Is there such an embedded adapter?
   - **No:** The problem might be intermittent. Contact your next level of support. **This ends the procedure.**
   - **Yes:** The FRU with the embedded adapter is the failing item and needs to be replaced. Use Table 1 to replace the FRU at the location specified in the card position table. Repeat this step for each expansion unit with an embedded adapter assigned to the partition, and then for the system unit. **This ends the procedure.**

Table 12. Failing items for symbolic FRU IOADPTR

FRU name (replace FRUs in order, one at a time, starting with the primary unit and then the secondary units if applicable)	**Type and model**	**Location**
PCI adapter in slot 1	8202-E4B, 8205-E6B	U*n*-P1-C4
PCI adapter in slot 2	8202-E4B, 8205-E6B	U*n*-P1-C5
PCI adapter in slot 3	8202-E4B, 8205-E6B	U*n*-P1-C6
PCI adapter in slot 4	8202-E4B, 8205-E6B	U*n*-P1-C7
PCI expansion feature (riser) - PCI adapter in slot 5	8202-E4B, 8205-E6B	U*n*-P1-C1-C1
PCI expansion feature (riser) - PCI adapter in slot 6	8202-E4B, 8205-E6B	U*n*-P1-C1-C2
PCI expansion feature (riser) - PCI adapter in slot 7	8202-E4B, 8205-E6B	U*n*-P1-C1-C3
PCI expansion feature (riser) - PCI adapter in slot 8	8202-E4B, 8205-E6B	U*n*-P1-C1-C4
Host Ethernet adapter card	8202-E4B, 8205-E6B	U*n*-P1-C3

Table 12. Failing items for symbolic FRU IOADPTR (continued)

FRU name (replace FRUs in order, one at a time, starting with the primary unit and then the secondary units if applicable)	Type and model	Location
Embedded Ethernet adapter	8202-E4B, 8205-E6B	U*n*-P1
Embedded USB controller	8202-E4B, 8205-E6B	U*n*-P1
System backplane	8202-E4B, 8205-E6B	U*n*-P1
PCI adapter in slot 1	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C2
PCI adapter in slot 2	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C3
PCI adapter in slot 3	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C4
PCI adapter in slot 4	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C5
PCI adapter in slot 5	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C6
PCI adapter in slot 6	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C7
PCI expansion feature (riser) - PCI adapter in slot 7	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C1-C1
PCI expansion feature (riser) - PCI adapter in slot 8	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C1-C2
PCI expansion feature (riser) - PCI adapter in slot 9	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C1-C3
PCI expansion feature (riser) - PCI adapter in slot 10	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1-C1-C4
Embedded Ethernet adapter	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1
Embedded USB controller	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1
System backplane	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	U*n*-P1
PCI adapter in slot 1	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	U*n*-P1-C2
PCI adapter in slot 2	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	U*n*-P1-C3
PCI adapter in slot 3	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	U*n*-P1-C4
PCI adapter in slot 4	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	U*n*-P1-C5
PCI adapter in slot 5	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	U*n*-P1-C6
PCI adapter in slot 6	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	U*n*-P1-C7
System backplane, embedded USB controller, and embedded Ethernet adapter	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	U*n*-P1

Table 12. Failing items for symbolic FRU IOADPTR (continued)

FRU name (replace FRUs in order, one at a time, starting with the primary unit and then the secondary units if applicable)	Type and model	Location
PCI adapter in slot 1	8231-E2B	U*n*-P1-C3
PCI adapter in slot 2	8231-E2B	U*n*-P1-C4
PCI adapter in slot 3	8231-E2B	U*n*-P1-C5
PCI adapter in slot 4	8231-E2B	U*n*-P1-C6
System backplane, embedded USB controller, and embedded Ethernet adapter	8231-E2B	U*n*-P1
Host Ethernet adapter card	8231-E2B	U*n*-P1-C2
PCI adapter in slot 1	8233-E8B, 8236-E8C	U*n*-P1-C1
PCI adapter in slot 2	8233-E8B, 8236-E8C	U*n*-P1-C2
PCI adapter in slot 3	8233-E8B, 8236-E8C	U*n*-P1-C3
PCI adapter in slot 4	8233-E8B, 8236-E8C	U*n*-P1-C4
PCI adapter in slot 5	8233-E8B, 8236-E8C	U*n*-P1-C5
Embedded Ethernet adapter	8233-E8B, 8236-E8C	U*n*-P1
Embedded USB controller	8233-E8B, 8236-E8C	U*n*-P1
System backplane	8233-E8B, 8236-E8C	U*n*-P1
PCI adapter in slot 1	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2-C1
PCI adapter in slot 2	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2-C2
PCI adapter in slot 3	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2-C3
PCI adapter in slot 4	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2-C4
PCI adapter in slot 5	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2-C5
PCI adapter in slot 6	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2-C6
I/O backplane, embedded media device controller, embedded serial controller	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2
Integrated multifunction card	8248-L4T, 8408-E8D, 9109-RMD	U*n*-P2-C8
PCI adapter in slot 1	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2-C1
PCI adapter in slot 2	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2-C2
PCI adapter in slot 3	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2-C3
PCI adapter in slot 4	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2-C4
PCI adapter in slot 5	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2-C5

Table 12. Failing items for symbolic FRU IOADPTR (continued)

FRU name (replace FRUs in order, one at a time, starting with the primary unit and then the secondary units if applicable)	Type and model	Location
PCI adapter in slot 6	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2-C6
I/O backplane, embedded USB controller, and embedded Ethernet adapter	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2
Host Ethernet adapter card	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	U*n*-P2-C8
PCI adapter in slot 1	5796, 7314-G30	U*n*-P1-C1
PCI adapter in slot 2	5796, 7314-G30	U*n*-P1-C2
PCI adapter in slot 3	5796, 7314-G30	U*n*-P1-C3
PCI adapter in slot 4	5796, 7314-G30	U*n*-P1-C4
PCI adapter in slot 5	5796, 7314-G30	U*n*-P1-C5
PCI adapter in slot 6	5796, 7314-G30	U*n*-P1-C6
I/O backplane	5796, 7314-G30	U*n*-P1
I/O adapter	5802, 5877	U*n*-P1-C*x*
I/O adapter	5803, 5873	U*n*-P1-C*x*, U*n*-P2-C*x*

For PCI adapter FRU part numbers, see Managing PCI adapters. For embedded controller FRU part numbers, see System parts.

IOBRDG

The failing component is the RIO/HSL I/O bridge on the IPL path.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	For each unit, starting with the primary unit and then the secondary units, replace the I/O backplane	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

IOP

Symbolic FRU IOP is not supported on these models. Continue with the next FRU in the list.

LBSADP1

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

LBSADP2

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

LBSADP3

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

LBSADP4

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

LBSADP5

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

LBUSADP

This symbolic FRU is not supported on the system.

Continue with the next FRU in the failing item list.

LDSWTCH

Verify that the system's top cover is installed correctly and the thumbscrews holding it down are tight.

The system will not power on if the top cover is not installed correctly. If the top cover is removed while the system is powered on, the system will power off automatically.

LIB3494

The 3494 tape library might be failing.

Refer to the IBM 3494 maintenance information to determine the parts to replace.

LICCODE

This symbolic FRU helps determine the preferred method of updating server firmware or Licensed Internal Code.

Note: In this procedure, server firmware is synonymous with Licensed Internal Code.

1. Check the level of the firmware on which the server is running. For information about checking firmware levels, see Viewing existing firmware levels.

   Is the server firmware at the latest available level?

   - **No:** Continue with the next step.
   - **Yes: This ends the procedure.**

2. Is this the first time you are trying to update the server firmware while working on this problem?
   - **No:** Choose from the following options:
     - If you are a customer, contact your next level of support.
     - If you are a service provider, use a USB flash drive to update the server firmware. See Installing firmware using the USB port on the service processor on a system that is not managed by a management console. If a USB flash drive is not available, go to symbolic FRU SVCPROC to update the server firmware by replacing the service processor. **This ends the procedure.**
   - **Yes:** Continue with the next step.

3. Is the system managed by a Hardware Management Console (HMC) or IBM Systems Director Management Console (SDMC)?
   - **No:** Go to step 5.
   - **Yes:** Continue with the next step.

4. For HMC, see Managed system updates. For SDMC, see Updating the SDMC. **This ends the procedure.**

5. Is the operating system running or is Integrated Virtualization Manager (IVM) available?
   - **No:** Continue with the next step.
   - **Yes:** Go to step 8.

6. Attempt to perform a system IPL from the side of the service processor from which you are currently booting, and start the operating system or IVM.

   Note: For information about how to see from which side of the service processor you are booting, and to find out how to switch to the other side if necessary, see Working with the temporary and permanent side of the service processor.

   Were you successful?

   - **No:** Continue with the next step.
   - **Yes:** Go to step 8.

7. Attempt to boot the system from the other side of the service processor, and start the operating system or IVM. Were you successful?
   - **No:** Choose from the following options:
     - If you are a customer, contact your next level of support.
     - If you are a service provider, use a USB flash drive to update the server firmware. See Installing firmware using the USB port on the service processor on a system that is not managed by a management console. If a USB flash drive is not available, go to symbolic FRU SVCPROC to update the server firmware by replacing the service processor. **This ends the procedure.**
   - **Yes:** Go to step 8.

8. Use the following table to determine the action to take.

Type of partition on which you are working	Action
Integrated Virtualization Manager (IVM) managed system	Update the server firmware. See Installing firmware using the USB port on the service processor on a system that is not managed by a management console.
AIX or Linux operating system	Update the server firmware. See Getting server firmware fixes through AIX or Linux without a management console.
IBM i operating system	Update the server firmware. See Getting server firmware fixes through IBM i for a system not managed by a management console.

If you are still unable to update the server firmware, contact your next level of support.

Attention: Be aware that a newer level of server firmware might already have been downloaded before this problem occurred or when the problem was reported.

This ends the procedure.

LITSTRP

Look here for information about LITSTRP symbolic FRU.

Use the following table to perform the appropriate action for the SRC you are working with.

SRC	Replace this FRU	Locations information
1xxx1D04	Light strip (front)	Part locations and location codes
1xxx1D05	Light strip (back)	

LNUXOVR

The number of processor cores used by general-purpose workloads has exceeded the number of entitled general-purpose processor cores.

For more information about processor core compliance, see Power® Integrated Facility for Linux (IFL).

LOADCY1

A cryptographic adapter Licensed Internal Code problem occurred.

The Licensed Internal Code for the cryptographic adapter does not ship with the system. The licensed program 5733-CY1 Cryptographic Device Manager contains the Licensed Internal Code for the cryptographic adapter.

- If the SRC is B0136615, perform the following steps:
  1. Vary off the cryptographic adapter.
  2. Apply the licensed program to the system.
  3. Vary on the cryptographic adapter.

     Note: The vary on might take up to 15 minutes.

  This ends the procedure.
- If the SRC is B0136619, perform the following steps:
  1. Vary off the cryptographic adapter.
  2. Apply the most recent version of the licensed program to the system.

3. Vary on the cryptographic adapter.

   Note: The vary on might take up to 15 minutes.

This ends the procedure.

LOC_SYS

A problem has occurred on the local (this) system with HSL OptiConnect.

The service action log (SAL) code will attempt to identify the HSL/RIO loop number as a portion of the FRU's part description for this symbolic FRU. Search the SAL of this system for hardware and Licensed Internal Code problems. Correct any problems that you find with License Internal Code or Network Interface Controller (NIC) / RIO controller hardware.

This ends the procedure.

LPARCFG

There is a configuration problem with the system or a logical partition.

Perform any actions listed in the "Description/Action" column in the unit reference code table for the reference code.

Have the customer check processor and memory allocations of the system or to the partition. The customer must ensure that there are enough functioning processor and memory resources in the system for all the partitions. Processor or memory resources that failed during the system IPL could have caused the IPL problem in the partition.

Have the customer check the bus and I/O processor allocations for the partition. The customer must ensure that the partition has load source and console I/O resources.

Have the customer check the IPL mode of the system or failing partition.

For further assistance, the customer should contact their software service provider, or see Logical partitioning for additional support.

This ends the procedure.

LPARSUP

There is either an IPL problem, a main storage dump problem, or a software error with a partition.

Perform any actions listed in the Description/Action column in the SRC table.

During the IPL or main storage dump of a partition, a complex problem was detected. The serviceable event view on the management console has to be searched or the SRC history list on the management console for the partition with the problem has to be analyzed in sequence. If the partition is a "Guest" partition, the SRC history list of the "Hosting" partition must be analyzed.

Contact your next level of hardware support.

LSERROR

An error occurred when the platform Licensed Internal Code attempted to locate the partition's load source.

Choose from the following options:

- If the load source is a tape or optical device, replace the media. If replacing the media does not work, look in the serviceable event view for other errors.
- If the load source is a disk drive, perform a D-mode IPL. Correct any errors found.

This ends the procedure.

MA_BRDG

The problem is the multiadapter bridge hardware on a system bus.

Complete the following steps:

1. Is the location information for this failing component available in the problem view you are working with of the serviceable event user interface of an operating system, service processor, or management console?
   - **No:** Record the bus number value, BBBB, in word 7 of the reference code and continue with the next step.
   - **Yes:** Use this location information and continue with the next step.
2. The failing component is the FRU that contains the multiadapter bridge. Use the following table to identify the name of the FRU that is indicated by the location in the user interface you are working with, or by using the bus number you obtained previously in this procedure to replace the FRU.

CCIN or FFC	Type and model	Part number	Description	Location code
2BFB, 2BFC	8202-E4B, 8205-E6B, 8231-E2B	See System parts.	System backplane	U*n*-P1
2B4B	8202-E4C, 8231-E1C	See System parts.	System backplane	U*n*-P1
2B2D	8202-E4D, 8231-E1D, 8268-E1D	See System parts.	System backplane	U*n*-P1
2B4A	8205-E6C, 8231-E2C	See System parts.	System backplane	U*n*-P1
2B2C	8205-E6D, 8231-E2D	See System parts.	System backplane	U*n*-P1
28A5	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2E00	9125-F2C	See System parts.	System backplane	U*n*-P1
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

MABRCFG

The multiadapter bridge hardware detected a configuration problem.

In some cases, the user interface view of the serviceable event will list more than one card position for this FRU's location. The problem might be with any one of the FRUs in those locations. When there is a list of locations in this FRU's location code, the card locations will be separated by commas. A range of card positions will show the starting card position, a colon, and the ending card position.

1. Are you working from the service event user interface from an operating system, service processor, or management console, and is a card position listed with this failing item?
   - **Yes:** The listed card positions are where the error is located. Continue with the next step.
   - **No:** Go to MABIP53 to determine the card location where the multiadapter bridge configuration error exists. Return here after locating the card, and continue with the next step.
2. Use the following table to determine the corrective action.

Table 13. Multi-adapter bridge errors

Problem or message (these appear in uppercase in the console)	**Meaning or corrective action**
Multi-adapter bridge has no IOP for the I/O adapters.	1. System code detected one or more I/O adapters under the multiadapter bridge specified in the DSA, but no I/O processor to control them. The I/O adapters are not available to the system. The problem view lists the card locations controlled by the multiadapter bridge. If you do not have the card locations listed in the problem view, find them by continuing with the next step. Otherwise, go to step 3. 2. To locate the I/O adapters, search for the card locations controlled by the multiadapter bridge. The multiadapter bridge number is in the DSA (go to DSA translation. To determine all the card locations controlled by the multiadapter bridge, see Card positions. 3. To make the I/O adapters available to the system, install an I/O processor in a card slot controlled by the multiadapter bridge or move the I/O adapters to a multiadapter bridge with an I/O processor. When adding an IOP, place it in a card position that is ahead of the IOAs according to the "IOA Assignment Rules" table located in the Part locations and location codes.
Card type not supported in this slot.	System code detected a card type that is not supported in the multiadapter bridge card location in which it is installed. Move the card to a location that will support that card type (check the installation instructions for the card to determine which card locations can support it). For reference codes where word 1 is B6006964 and word 4 is xxxx2015, if the SAL does not show a card position for this error, the card position can be determined by creating a direct select address (DSA) from information in the reference code. To create the DSA, use the first 5 digits of word 7 and the 6th digit of word 5 followed by two zeros. Using this DSA, go to MABIP53 to determine the position of the card that is not supported in that slot.

Table 13. Multi-adapter bridge errors (continued)

Problem or message (these appear in uppercase in the console)	**Meaning or corrective action**
I/O processor removed from multiadapter bridge card slot.	System code detected that an I/O processor card was located in that card location on the previous IPL. The I/O processor is no longer installed in that location.
I/O adapter unavailable due to moved I/O processor card.	System code detected that the I/O processor which controlled the I/O adapter card specified in the DSA has been moved since the last IPL. The I/O adapter card is unavailable to the system.
IOA removed from multiadapter bridge slot.	System code detected that the card location specified in the DSA had an I/O adapter installed on the previous IPL. The I/O adapter is no longer installed in that card location.
I/O adapter replaced by I/O processor card.	System code detected that the card location specified in the DSA had an I/O adapter installed on the previous IPL. The I/O adapter has been replaced by an I/O processor.
Multi-adapter bridge configuration change or error.	System code has detected a change in the multiadapter bridge configuration or a configuration error since the last IPL.
PCI I/O processor rejected assignment or removal of an IOA.	The I/O processor's (IOP) Licensed Internal Code has rejected the assignment of an I/O adapter (IOA) to that IOP, or the IOP's Licensed Internal Code has rejected the removal of an IOA that the IOP owns. Word 5 of the reference code is the direct select address (DSA) of the IOP. Word 7 of is the DSA of the IOA. To find the IOP and IOA, go to MABIP53 using the DSA. Use hardware service manager (HSM) concurrent maintenance functions to assign or remove the IOA. Assignment failures can result from either of the following conditions: • The IOP is already at its capacity to accept IOA assignments. • The IOA is not a type supported by the IOP. Corrective action: • Add another IOP for Licensed Internal Code to assign the IOA to if necessary. • Reassign the IOA to another IOP using concurrent maintenance. Removal failures: • This is a Licensed Internal Code problem and should be reported. • Call your next level of support.
The partition that owns the card position does not support IOPs.	An IOP card was found in a PCI bridge set that is allocated to a partition that does not support IOPs. The IOP will not be supported in this card position.

This ends the procedure.

MAILBOX

Connection monitoring errors have been detected, indicating mailbox failures.

1. Are there any B1xxxxxx or B7xxxxxx SRCs from the system?
   - **No:** Continue with the next step.
   - **Yes:** Follow the service action for the first SRC that is listed. **This ends the procedure.**
2. There might be firmware fixes for this problem. Load and apply any platform firmware fixes or new levels of firmware using symbolic FRU LICCODE. Does the problem persist after updating the firmware?
   - **No: This ends the procedure.**
   - **Yes:** Continue to the next FRU in the list. **This ends the procedure.**

MASBUS

The multiadapter bridge detected a problem with a connection to a PCI adapter that it controls either in a physical card location or embedded in a FRU.

The problem is either in the bus between the multiadapter bridge and the adapter, or with the card slot. The card location might or might not have an installed card.

1. Are you working from the serviceable event view and a card location is listed with this FRU?
   - **No:** Record the bus number value, BBBB, in word 7 of the reference code. Word 7 of the reference code allows you to determine the correct bus number, bus type, multiadapter bridge number, multiadapter bridge function number, and logical card number from the Direct Select Address (DSA). See DSA translation. Continue with the next step.
   - **Yes:** Then the listed card location is where the error is located. Continue with the next step.
2. The failing component is the FRU that contains the physical or embedded card slot that is controlled by the multiadapter bridge. Identify the system model, I/O unit, or machine type that is indicated by the location in the serviceable event view, or by using the bus number.

   Use the following table to determine the part number for the field replaceable unit (FRU).

Table 14. Failing component service information for MASBUS

CCIN or FFC	Type and model	Part number	Description	Location code
2BFB, 2BFC	8202-E4B, 8205-E6B, 8231-E2B	See System parts.	System backplane	U*n*-P1
2B4B	8202-E4C, 8231-E1C	See System parts.	System backplane	U*n*-P1
2B2D	8202-E4D, 8231-E1D, 8268-E1D	See System parts.	System backplane	U*n*-P1
2B4A	8205-E6C, 8231-E2C	See System parts.	System backplane	U*n*-P1
2B2C	8205-E6D, 8231-E2D	See System parts.	System backplane	U*n*-P1
28A5	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2E00	9125-F2C	See System parts.	System backplane	U*n*-P1
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1

Table 14. Failing component service information for MASBUS (continued)

CCIN or FFC	Type and model	Part number	Description	Location code
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

MEDIA

The drive or media might be dirty, or the media might be defective.

1. Is the drive in a 3995 or 3996 optical library?
   - **Yes:** Try a different media. **This ends the procedure.**
   - **No:** Continue with the next step.
2. If the drive is a 6330 DVD-RAM, clean the drive. The part number for the DVD cleaning kit is 19P0489.
3. If it is a tape media, clean the recording head in the tape unit. If there is a cleaning cartridge supported for the tape drive, clean the drive with the cleaning cartridge. If the cleaning LED remains on or the cleaning cartridge is ejected immediately, replace the cleaning cartridge and clean the tape drive again.
4. Attempt the failing operation again. Does the operation complete successfully?
   - **No:** Clean the drive three times and replace the media. **This ends the procedure.**
   - **Yes:** The problem has been corrected. **This ends the procedure.**

MEMBRD

The failing component is the board that the memory DIMMs plug into.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Memory card	U*n*-P1-C15, U*n*-P1-C16, U*n*-P1-C17, or U*n*-P1-C18
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Memory card	U*n*-P1-C14, U*n*-P1-C15, U*n*-P1-C16, or U*n*-P1-C17
	8233-E8B, 8236-E8C	See System parts.	Processor card	U*n*-P1-C*x*
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	System processor assembly	U*n*-P3

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

MEMCTLR

The failing component is one of the memory controllers.

For each unit, starting with the primary unit and then the secondary units, use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Memory card	U*n*-P1-C15, U*n*-P1-C16, U*n*-P1-C17, or U*n*-P1-C18
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Memory card	U*n*-P1-C14, U*n*-P1-C15, U*n*-P1-C16, or U*n*-P1-C17
	8233-E8B, 8236-E8C	See System parts.	Processor card	U*n*-P1-C*x*
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	System processor assembly	U*n*-P3

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

MEMDIMM

The failing component is one of the memory DIMMs.

Replace the memory DIMM for each processor card (starting with processor card 1) on each unit (on multiple-drawer servers, start with the primary unit and then the secondary units).

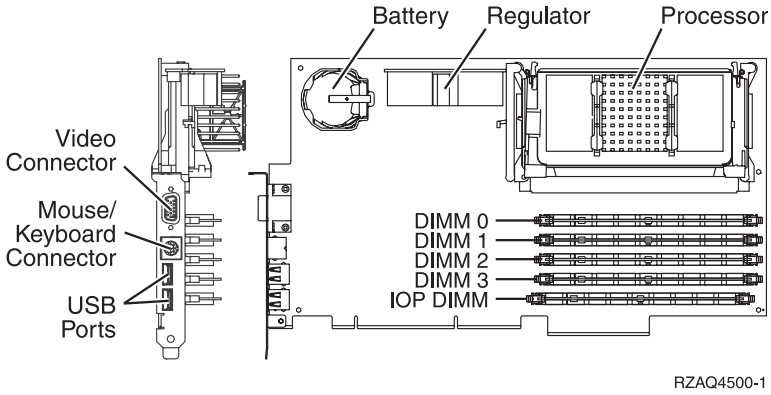
If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

MEMORY

Use this topic to view memory and location information for the 2890 and 2892 Integrated xSeries Server (IXS) cards.

Memory for 2890 Integrated xSeries Server (IXS) card

Figure 1. Locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on 2890 Integrated xSeries Server (IXS) card.



One of the Pentium memory modules (DIMM 0, DIMM 1, DIMM 2, or DIMM 3) might be the failing item (see Finding parts, locations, and addresses).

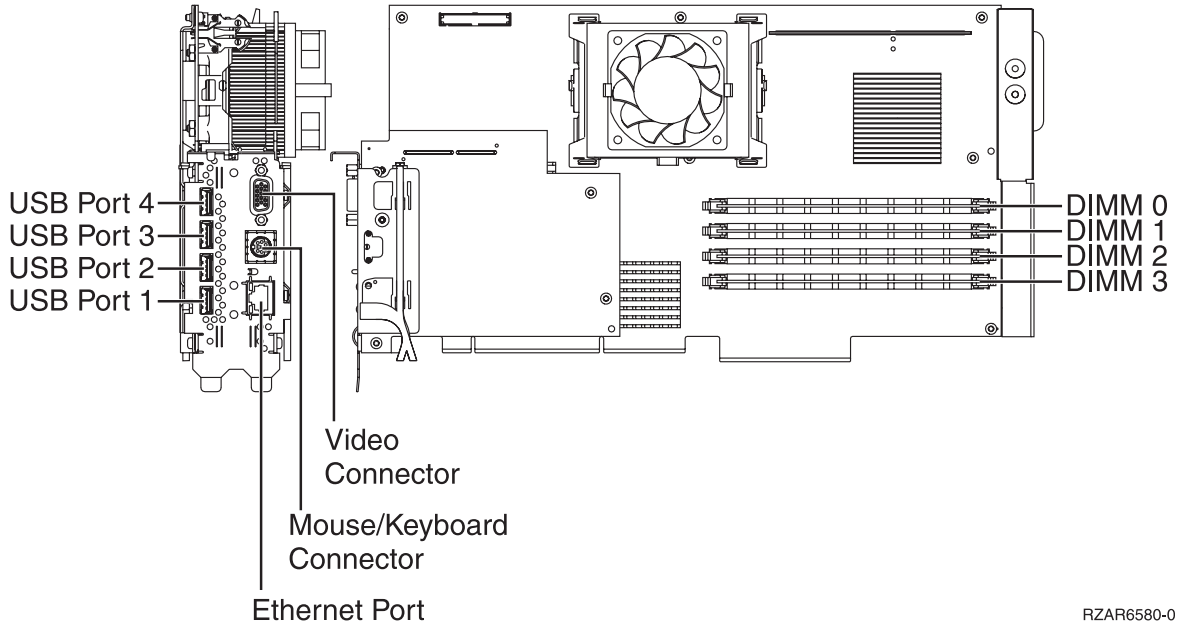
Feature	Size
2795/2895	128 MB
2796/2896	256 MB
2797/2897	1 GB

Notes:

1. At least 1 Pentium memory module is required in positions DIMM 0, DIMM 1, DIMM 2 or DIMM 3.
2. An IXS adapter card IOP (see Finding parts, locations, and addresses) is required in the IOP DIMM position. This IOP memory module is not interchangeable with the Pentium memory modules in positions DIMM 0, DIMM 1, DIMM 2 or DIMM 3.

Memory for 2892 Integrated xSeries Server (IXS) card

Figure 2. Locations of DIMM 0, DIMM 1, DIMM 2 and DIMM 3 on 2892 Integrated xSeries Server (IXS) card



One of the Pentium memory modules (DIMM 0, DIMM 1, DIMM 2, or DIMM 3) might be the failing item (see Finding parts, locations, and addresses).

Feature	Size
0426/0446	512 MB
0427/0447	1 GB

Note: At least **two** Pentium memory modules are required in positions DIMM 0 and DIMM 1, or positions DIMM 2 and DIMM 3.

MESSAGE

Messages provided with this symbolic FRU's description appear in the service action log (SAL).

If the word MESSAGE is listed in the SAL as a part number, the description field provides information regarding proper handling of the error.

This ends the procedure.

MOVEIOA

An incorrect hardware configuration was detected.

The I/O adapter used by a guest partition is on the same PCI bridge set as an I/O processor in another partition. Guest partition data might be lost if any of the following occur:

- A primary partition type D IPL is performed.
- The I/O adapter is moved to an IBM i partition.
- An error causes the logical partition (LPAR) configuration to not be used.

To correct the hardware configuration, either the I/O adapter or the I/O processor must be moved to a new card location.

MSG0001

Resolve all B6006906 (or B7006906) errors before this one.

MSG0002

For HSL-1 I/O expansion units the problem might be that the RIO/HSL adapter got out of sync with the system.

Before exchanging FRUs, attempt to recover the I/O expansion unit by powering off and powering on the expansion unit. If the problem persists, replace parts.

MSG0003

Replace the FRUs one at a time.

MSG0005

The operating system that controls these card locations does not support I/O processors.

NETSERV

The Integrated xSeries Server (IXS) might be the failing item.

Call your Integrated xSeries Server (IXS) service provider.

NEXTLVL

Contact your next level of support.

NO_PNUM

Diagnostic firmware could not determine a part number for the FRU.

To determine the part number, replace procedure, and other service information, perform the following steps:

1. Record the location of the FRU from the user interface with which you are working.
2. Go to Part locations and location codes.
3. Use the location information to identify the name of the part in the "Locations" information.
4. Go to the Finding parts, locations, and addresses and determine the Field Replaceable Unit (FRU) part number for the part.

This ends the procedure.

NODECR

There is a problem with the node controller in a 9119-FHB processor book.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

1. Is the SRC 1xxx1D10?
   - **No**: Continue with the next step.
   - **Yes**: Replace the node controller at location U*n*-P*m*-C42 in the book specified by the location code that was reported with the error.

2. Is the SRC 1xxx1D11?
   - **No**: Return to the error log and look for another 1xxx yyyy SRC and follow the action for that SRC.
   - **Yes**: Replace the node controller at location U*n*-P*m*-C43 in the book specified by the location code that was reported with the error.

NODEPL

The system processor backplane might be failing.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Midplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

NOFRUS

No failing items are identified for the reference code.

NSCABLE

The cable between the Integrated xSeries adapter (IXA) card and the RS-485 port on the Integrated xSeries Server (IXS) is the failing item.

See Planning for cables.

NTDEVDR

The Windows server device driver might be causing the problem.

Contact your next level of support for assistance.

NTLANDD

The Windows server virtual LAN device driver might be causing the problem.

Contact your next level of support for assistance.

NTOPSYS

The Windows server operating system might be causing the problem.

Contact your next level of support for assistance.

NTUSER

Windows server user problem.

This problem might be caused by:

- User-initiated action
- A Windows user application
- No keyboard or mouse attached to the Integrated xSeries Server (IXS)

Contact your next level of support for assistance.

NTVSCSI

The Windows server virtual SCSI device driver might be causing the problem.

Contact your next level of support for assistance.

OPT_CLN

The Fiber Channel connections need to be cleaned.

Use the fiber optic cleaning kit (part number 46G6844) and the fiber optic cleaning procedures in "SY27-2604 Fiber Optic Cleaning Procedures" for all Fiber Channel connections such as those used in optical high speed link (HSL) connections or Fibre Channel attached devices.

OPTLCBL

The cabling for an optical disk drive in the optical library needs to be checked.

The cabling might be incorrectly installed, or it might be defective.

For more information, see 3995 Publications and Documentation.

OPTLDRV

An optical disk drive in the optical library is failing.

For more information, see 3995 Publications and Documentation.

OPUSER

The failing item indicates that the operator of the system console or the control panel performed an incorrect action.

For more information, see 3995 Publications and Documentation.

OSLIC

An operating system has experienced a fatal error.

If the SRC that sent you here is of the form B6xx xxxx, check for an IBM i PTF to correct the problem. If the SRC that sent you here is of the form BAxx xxxx, check for an AIX or Linux code patch to correct the problem.

If you need help, or if this does not correct the problem, contact your next level of support.

OSTERM

The operating system in a partition has terminated abnormally.

Use the management console to look for a partition that has failed. It should have the same SRC in the SRC display history for the failed partition. Use the SRC given in this error to resolve the problem.

Note: This error has not been automatically sent to your service provider.

If problems continue, call your next level of support.

PCI_IOV

The single root I/O virtualization (SR-IOV) adapter might be failing.

To determine the location of the SR-IOV adapter, complete the following steps:

1. Is a location code available in the serviceable event view for this failing item?

   Yes: Go to step 3.

   No: Continue to the next step.
2. To determine the location of the failing item, complete the following steps:
   a. Record the Dynamic Reconfiguration Connector (DRC) index, which is word 4 of the reference code.
   b. The DRC index is of the form xxxx*yyyy*, where *yyyy* is the hexadecimal bus number. Go to Card Positions and use the hexadecimal bus number to find the location of the failing item. Then continue with the next step.
3. Is the system managed by a management console?

   Yes: Use the management console to replace the failing item at the location identified in this procedure.

   No: Use the following table to identify the description, part number, and location of the failing item to be replaced. Replace the failing item by using the replacement procedures found in the location information.

Table 15. Failing items for symbolic FRU PCI_IOV

Type and Model	Location code	Description	Part number	Location information
9117-MMD or 9179-MHD	U*n*-P2-C1 through U*n*-P2-C6	PCIe adapter	Remove the adapter to determine the part number or use the CCIN of the adapter and go to Managing PCI adapters for the 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD to determine the part number.	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD locations.

Table 15. Failing items for symbolic FRU PCI_IOV (continued)

Type and Model	Location code	Description	Part number	Location information
9117-MMD or 9179-MHD	U*n*-P2-C8	Integrated multifunction card	Remove the adapter to determine the part number.	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD locations.

This ends the procedure.

PCIEAD1

The failing item is the enclosure Redundant Array of Independent Disks (RAID) module.

Complete the following steps:

1. Do you have a location code for this FRU in the serviceable event view?
   - **Yes:** Continue with the next step.
   - **No:** Contact your next level of support. **This ends the procedure.**
2. To locate the enclosure RAID module, use the location code in the serviceable event view and perform MABIP56 if you have not already done so. Did performing the procedure resolve the problem?
   - **Yes: This ends the procedure.**
   - **No:** The failing item is the enclosure RAID module. Continue with the next step.
3. Replace the enclosure RAID module at the location identified in MABIP56.

   If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your PCIe storage enclosure to find additional location codes, part numbers, or replacement procedures.

   This ends the procedure.

PCIEBUS

The field-replaceable unit that contains the PCIe bus might be the failing item.

Use the following table to determine the failing item to replace. If replacing the failing item does not resolve the problem, contact your next level of support.

CCIN or FFC	Type and model	Part number	Description	Location code
2B4B	8202-E4C, 8231-E1C	See System parts.	System backplane	U*n*-P1
2B2D	8202-E4D, 8231-E1D, 8268-E1D	See System parts.	System backplane	U*n*-P1
2B4A	8205-E6C, 8231-E2C	See System parts.	System backplane	U*n*-P1
2B2C	8205-E6D, 8231-E2D	See System parts.	System backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

PCIECB1

The failing item is the PCI Express (PCIe) cable that connects the system to an external enclosure.

Complete the following steps:

1. Do you have a location code for this FRU in the serviceable event view?

- **Yes:** Continue with the next step.
- **No:** Contact your next level of support. **This ends the procedure.**

2. Use the location code in the serviceable event view to find the location where the cable attaches to the system and then replace the cable.

   If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

   This ends the procedure.

PCIEFW1

Use this procedure to update the adapter firmware on an enclosure RAID module.

Complete the following steps:

1. Is a location code in the form U*n*-P*x*-C*y*-T*z*-L1 available in the serviceable event view for a field-replaceable unit (FRU) that is associated with the reference code you are working on?
   - **Yes:** Check for adapter firmware updates for the adapter at location U*n*-P*x*-C*y*-T*z*-L1. Apply the update if one is available. **This ends the procedure**.
   - **No:** Continue with the next step.
2. Is a location code available in the serviceable event view for a FRU that might be hosting multiple enclosure RAID modules, such as an I/O backplane?
   - **Yes:** Check for adapter firmware updates for the enclosure RAID modules that are hosted by the FRU at the location found in the serviceable event view. Apply updates if they are available. **This ends the procedure**.
   - **No:** Contact your next level of support. **This ends the procedure**.

PCIEHB1

The failing component is the hub card.

1. Do you have a location code for this FRU in the serviceable event view?
   - **Yes:** Continue with the next step.
   - **No:** Contact your next level of support. **This ends the procedure.**
2. Use the following table to determine the replacement FRU part number for the FRU location that you identified previously in this procedure.

CCIN	Type and model	Part number	Description	Location code
2C1E	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	GX++ PCIe 2x8 card	U*n*-P1-C1, U*n*-P1-C8
2C1F	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	GX++ PCIe x8 card	U*n*-P1-C1, U*n*-P1-C8
2B94	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	GX++ PCIe x8 card	U*n*-P1-C2, U*n*-P1-C3

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

PCIERE1

Use this procedure to reseat the PCI Express (PCIe) cable and enclosure RAID module.

Complete the following steps:

1. Is a location code in the form U*n*-P*x*-C*y*-T*z*-L1 available in the serviceable event view for a field-replaceable unit (FRU) that is associated with the reference code you are working on?
   - **Yes:** Go to step 3.
   - **No:** Continue with the next step.
2. Is a location code available in the serviceable event view for a FRU that might be hosting multiple enclosure RAID modules, such as an I/O backplane?
   - **Yes:** Perform steps 3 and 4 for each logical location code in the form U*n*-P*x*-C*y*-T*z*-L1 under the provided location code.
   - **No:** Contact your next level of support. **This ends the procedure.**
3. To locate the adapter, use the location code in the serviceable event view and perform MABIP56 if you have not already done so. Were you able to find the physical location code for the adapter by using this procedure?
   - **Yes:** Continue with the next step.
   - **No:** Contact your next level of support. **This ends the procedure.**
4. Disconnect and reconnect the PCIe cable and reseat the enclosure RAID module that the adapter is located on.

   If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your PCIe storage enclosure to find additional location codes, part numbers, or replacement procedures.

   This ends the procedure.

PCIE_SW

The field-replaceable unit that contains the PCIe switch might be the failing item.

Use the following table to determine the failing item.

CCIN or FFC	Type and model	Part number	Description	Location code
2B4B	8202-E4C, 8231-E1C	See System parts.	System backplane	U*n*-P1
2B2D	8202-E4D, 8231-E1D, 8268-E1D	See System parts.	System backplane	U*n*-P1
2B4A	8205-E6C, 8231-E2C	See System parts.	System backplane	U*n*-P1
2B2C	8205-E6D, 8231-E2D	See System parts.	System backplane	U*n*-P1
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

PGDPART

Look here for information about PGDPART symbolic FRU.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

1. Power off the server. For information about how to power off the server, see the service information for the server on which you are working.
2. Verify that the service processor card, if present, is connected and seated correctly. See TWRCARD.
3. Verify that the power supplies are connected and seated properly. See PWRSPLY.
4. Power on the server.
5. Is there a reference code 1xxx2600?
   - **No: Go to the next step.**
   - **Yes:** Replace the following FRUs one at a time (as appropriate for the server). See the following tables for FRUs for the server on which you are working.
     - SPCN card, service processor card, or system backplane
     - Power supplies
     - Memory DIMMs
     - Processor cards
     - Backplane

     Use the following table to determine the part number for the field-replaceable unit (FRU).

     8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane	U*n*-P1

8233-E8B, 8236-E8C

CCIN or FFC	Type and model	Part number	Description	Location code
	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
	8233-E8B, 8236-E8C	See System parts.	Power supplies, ac	U*n*-E*x*
	8233-E8B, 8236-E8C	See System parts.	Power supplies, dc	U*n*-E*x*
	8233-E8B, 8236-E8C	See System parts.	Memory DIMM	U*n*-P1-C*x*-C*y*
	8233-E8B, 8236-E8C	See System parts.	Processor card	U*n*-P1-C*x*

8248-L4T, 8408-E8D, 9109-RMD

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Service processor card	U*n*-P1-C1

	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Power supplies	U*n*-E*x*
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Memory DIMM	U*n*-P3-C*x*-C*y*, where *x* = 1 through 4 and 6 through 9 and *y* =1 through 8
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Processor card	U*n*-P3
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Midplane	U*n*-P1

8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD

CCIN or FFC	Type and model	Part number	Description	Location code
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Power supplies	U*n*-E*x*
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Memory DIMM	U*n*-P3-C*x*
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Processor card	U*n*-P3
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2

	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Midplane	U*n*-P1

5796, 7314-G30

CCIN or FFC	Type and model	Part number	Description	Location code
	5796, 7314-G30	10N8867	SPCN Card	U*n*-P1-C8
	5796, 7314-G30	42R4491	Power supplies	U*n*-E*x*
	5796, 7314-G30	See System parts.	I/O drawer backplane	U*n*-P1

6. Is there a reference code 1xxx 2602?
   - **No: Go to the next step.**
   - **Yes:** Replace the following FRUs one at a time:
     - Service processor card
     - Voltage regulators
     - Backplane

       Use the following tables to determine the part number for the field replaceable unit (FRU).

       5796, 7314-G30

CCIN or FFC	Type and model	Part number	Description	Location code
	5796, 7314-G30	42R4491	Power supplies	U*n*-E*x*
	5796, 7314-G30	10N8867	SPCN Card	U*n*-P1-C8
	5796, 7314-G30	See System parts.	I/O drawer backplane	U*n*-P1

7. Is there a reference code 2603?
   - **No: This ends the procedure.**
   - **Yes:** Replace the following FRUs one at a time (as appropriate for the server). See the following tables for FRUs for the server on which you are working.
     - Service processor card
     - Power supplies
     - Backplane

       Use the following tables to determine the part number for the field replaceable unit (FRU).

       8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane (the service processor is part of the system backplane)	U*n*-P1

	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Power supplies	U*n*-E*x*

8248-L4T, 8408-E8D, 9109-RMD

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Service processor card	U*n*-P1-C1
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Power supplies	U*n*-E*x*

5796, 7314-G30

CCIN or FFC	Type and model	Part number	Description	Location code
	5796, 7314-G30	10N8867	SPCN Card	U*n*-P1-C8
	5796, 7314-G30	42R4491	Power supplies	U*n*-E*x*
	5796, 7314-G30	See System parts.	I/O drawer backplane	U*n*-P1

PIOCARD

The hardware that controls PCI adapters and PCI card slots detected an error.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

The failing component is the adapter in the location specified by the direct select address (DSA) in the reference code. When possible, the diagnostic code will determine the FRU location for the serviceable event view.

1. Are you working from the serviceable event view and a PCI adapter or IOP card location is listed with this FRU?
   - **No:** Complete the following steps:
     a. Record the DSA, which is word 7 of the reference code.
     b. Locate the card specified in the DSA by performing the MABIP53 isolation procedure. Use the MABIP53 procedure to determine a card position when no location is given for a PCI adapter or IOP card FRU. Return here after locating the FRU and continue with the next step.
   - **Yes:** The error is located at the listed PCI adapter or IOP card location. Go to step5.
2. Did you identify a single FRU location by using the MABIP53 isolation procedure?
   - **No:** Continue with the next step.
   - **Yes:** This is the location of the failing item. Go to step 5.
3. Complete the following steps for each FRU location that you determined in the previous step:
   a. Remove all of the adapter or IOP cards in the locations that are identified in the given range of PCI adapter or IOP card slots. Do not remove any FRUs with embedded adapters, only FRUs in PCI adapter or IOP card slots.
   b. Replace each card one at a time.

      Note: For IBM i adapters controlled by IOPs, replace the IOP before any of the adapters.

Power on the unit after you replace each card until either the problem reappears or you have replaced each card.

c. Did the problem reappear?
   - **No:** Continue with the next step.
   - **Yes:** The last card that you replaced before the problem appeared again is the failing item. Replace the PCI adapter or IOP card. **This ends the procedure.**

4. Did you identify a FRU with embedded adapters (for example a system backplane or an I/O backplane) when performing the MABIP53 isolation procedure?
   - **No:** The problem might be intermittent. Contact your next level of support. **This ends the procedure.**
   - **Yes:** The problem is in the FRU with the embedded adapter. Continue with the next step and replace that FRU.
5. Use the table below to locate the failing items.

   Note: For multiple-drawer servers, each unit, starting with the primary unit and then the secondary units, use the following table to determine the part number for the field replaceable unit (FRU).

Table 16. Failing items for symbolic FRU PIOCARD

CCIN or FFC	Type and model	Part number	Description	Location code
2BFB, 2BFC	8202-E4B, 8205-E6B	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*
2BDD, 2BE6	8202-E4B, 8205-E6B	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C1-C*x*
2B4B	8202-E4C, 8231-E1C	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*

Table 16. Failing items for symbolic FRU PIOCARD (continued)

2B2D	8202-E4D, 8231-E1D, 8268-E1D	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*
2B4A	8205-E6C, 8231-E2C	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*
2B2C	8205-E6D, 8231-E2D	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*
2BE6	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C1-C*x*
2BFB, 2BFC	8231-E2B	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*

Table 16. Failing items for symbolic FRU PIOCARD (continued)

28A5	8233-E8B, 8236-E8C	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*
2B65	8248-L4T, 8408-E8D, 9109-RMD	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of an I/O backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P2-C*x*
2BB9	9117-MMB, 9179-MHB	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of an I/O backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P2-C*x*
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of an I/O backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P2-C*x*
2E00	9125-F2C	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of a system backplane, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*

Table 16. Failing items for symbolic FRU PIOCARD (continued)

50A2	5802, 5877	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of an I/O expansion drawer, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*
50A2	5803, 5873	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of an I/O expansion drawer, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*, U*n*-P2-C*x*
520C	5796, 7314-G30	See description	PCI adapter. If you have detected a failing PCI adapter in a PCI slot of an I/O expansion drawer, see Card positions to help identify the PCI slot that holds the failing adapter. Replace the PCI adapter that is in the failing slot.	U*n*-P1-C*x*

This ends the procedure.

PLDUMP

A platform dump occurred.

1. Find the SRC that occurred with the platform dump.
   a. On the command line, enter the Start System Service Tools command STRSST. If you cannot get to SST, use function 21 to get to the dedicated service tools (DST). Go to Dedicated service tools in the Service functions section of the system's service information.
   b. On the **Start Service Tools Sign On** display, type in a user ID with QSRV authority and password.
   c. Select **Start a service tool** > **Main storage dump manager** > **Work with copies of main storage dumps**.
   d. Display the platform dump summary for the time that the platform dump occurred.
   e. The SRC is the value in the "SRC word 1" field of the Platform Dump Summary screen.
2. Use the SRC from the Platform Dump Summary screen and find the SRC in the service action log. See Searching the service action log. Using the service action log is also available in the service

information for the system unit. Search for an entry in the service action log (SAL) that matches the time, reference code, or resource of the reported problem. The SRC occurred at or before the time that the platform dump occurred.

3. Did you find the SRC in the service action log?
   - **Yes:** Use the SRC to service the system. **This ends the procedure.**
   - **No:** The dump should be sent back to development for analysis, if it has not already been sent. **This ends the procedure.**

PLUS

The list of possible failing items that are displayed online is not complete.

There is not enough space to display all of the failing items. See the complete list of possible failing items in the appropriate unit reference code table in Reference codes.

PPCIMIN

The affected component is a primary PCI bus in an I/O unit.

Use symbolic FRU PRI_PCI to determine the FRUs and service information.

This ends the procedure.

PPCISYS

The failing component is the primary PCI bus in a system unit.

Use symbolic FRU PRI_PCI to determine the FRUs and service information.

This ends the procedure.

PPCITWR

The failing component is the primary PCI bus under an HSL I/O bridge or RIO adapter in an I/O unit.

Use symbolic FRU PRI_PCI to determine the FRUs and service information.

PRI_PCI

This symbolic FRU represents the PCI bus generated under a 12X adapter I/O bridge.

This bus can be in a system unit or I/O unit, and on some units this bus connects two FRUs.

1. Are you working from the serviceable event view and a card location is listed with this failing item?
   - **No:** Record the bus number value, BBBB, in word 7 of the reference code. Word 7 of the reference code allows you to determine the correct bus number, bus type, multiadapter bridge number, multiadapter bridge function number, and logical card number from the Direct Select Address (DSA). See DSA translation. Continue with the next step.
   - **Yes:** The listed card location is where the error is located. Continue with the next step.
2. Use the following table to determine the appropriate action.

Type and model	Part number	Description	Location code
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	• I/O backplane • Device backplane (for PCI from U*n*-P2 to the embedded storage controller on U*n*-P2-C9)	• U*n*-P2 • U*n*-P2-C9
5796, 7314-G30	See System parts.	There are two potential failing items. Perform SIADPCD. If the problem persists after powering on the frame or unit, perform TWRPLNR. **Attention:** To prevent system VPD problems, do not replace both FRUs at the same time.	U*n*-P1
5802, 5877	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

PRIMIOA

Replace the storage I/O adapter to which the auxiliary cache I/O adapter is connected.

1. Find the location of the auxiliary cache I/O adapter:
   a. Determine the address of the auxiliary cache I/O adapter. See the System reference code format description.
   b. Determine the location of the auxiliary cache I/O adapter. See Part locations and location codes.
2. Are you working on a 571F/575B combination storage and auxiliary cache IOA card set (uses two card slot locations)?
   - **Yes:** Replace the entire card set. **This ends the procedure.**
   - **No:** Continue with the next step.
3. Trace the SCSI cable from the auxiliary cache I/O adapter to the storage I/O adapter. This is the storage I/O adapter that you should replace.
4. Replace the storage I/O adapter that you just identified.

This ends the procedure.

PSI_LNK

The path to the service processor might be the failing item.

1. Are there any B1xxxxxx system reference codes in the serviceable event view that were logged at approximately the same time as this error?
   - **Yes:** Close this problem and resolve the B1xxxxxx system reference codes. **This ends the procedure.**
   - **No:** Continue with the next step.
2. Use the following table to determine the failing items. Replace the failing items in the order they are listed until the problem is resolved. If this does not resolve the problem, contact your next level of support. **This ends the procedure.**

Type and model	Failing items
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	BACKPLN ANYPROC
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	BACKPLN ANYPROC
8233-E8B, 8236-E8C	SYSBKPL ANYPROC
8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	SVCPROC BACKPLN ANYPROC
9119-FHB	SVCPROC BACKPLN ANYPROC
9125-F2C	1. Replace the DCCAs at locations U*n*-P1-C147 and U*n*-P1-C148, one at a time. 2. Replace the system backplane at location U*n*-P1.

PTFSRCH

Licensed Internal Code is the failing item.

Look for fixes (PTFs) associated with the reference code and have the customer apply them.

PTNNTWK

One or more connections to a partition have been lost.

1. Is the management console reporting any other reference codes that indicate a loss of communication with other partitions?
   - **No:** Choose from the following options:
     - If the partition is running IBM i, go to step 2.
     - If the partition is running AIX or Linux, go to step 3.
   - **Yes:** Resolve the first of these reference codes. **This ends the procedure.**
2. Open a 5250 console to the partition. There should be seven jobs running:
   - 4 of these jobs start with QCST*
   - 2 of these jobs start with QYUS*
   - 1 of these jobs start with QSVRM*

   Are all seven of these jobs running?
   - **Yes:** Go to step 4.

- **No:** End all of those jobs that are still running and then issue the following command:

  ```
  SBMJOB CMD(CALL PGM(QSYS/QCSTCTSRCD)) JOBD(QSYS/QCSTSRCD)
  PRTDEV(*JOBD) OUTQ(*JOBD)
   USER(*JOBD) PRTTXT(*JOBD) RTGDTA(RUNPTY50)
  ```

  This ends the procedure.

3. Complete the following steps:
   a. Open a virtual terminal console to the partition.
   b. Verify that Service Resource Manager (SRM) is running properly by entering the following command:

      ```
      lssrc -a |grep ServiceRM
      ```

      If the state given for SRM is inactive, SRM is not running and needs to be restarted. If the state given is active, go to step 4.
4. Has the partition logged any LAN adapter or other LAN reference codes?
   - **No:** Work with the customer to find and resolve any network problems between the management console and the partition. **This ends the procedure.**
   - **Yes:** Resolve these reference codes. **This ends the procedure.**

PWRCBL

The failing item is the SPCN frame-to-frame cable or adapter.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
1464, 6008	Any	22R5219	SPCN cable (6 meters)	
1465, 6007	Any	22R5221	SPCN cable (15 meters)	
1466, 6029	Any	22R5222	SPCN cable (30 meters)	
0369	Any	41U0128	Optical SPCN cable (100 meters)	
	Any	39J3865	SPCN optical adapter	

PWROC

This is not a valid symbolic FRU for this machine type.

PWRSPLY

A power supply might be the failing item.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Attention: In a system with redundant power supplies, verify that the green "AC input good" and green "DC good" LEDs on the power supply that is not being replaced are on solid before starting to replace the failing power supply.

Attention: When replacing a redundant power supply, a 1xxx1504, 1xxx1514, 1xxx1524, or 1xxx1534 reference code might surface in the error log. If you just removed and replaced the power supply in the location associated with this reference code, and the power supply became ready (ac power good LED is illuminated) after the install, disregard this reference code. If you had not previously removed and replaced a power supply, the power supply did not become ready after installation, or there are repeated fan fault errors after the power supply replacement, continue to follow this procedure.

Note: The following table provides information about power supply LEDs.

LED	Description
AC input good	This LED is green and will be on (lit) if the ac input voltage is present and off (not lit) if the ac input voltage is not present. For normal system operation, this LED will be on solid.
DC good	This LED is green and will be on solid if the power supply output voltages are correct. If the power supply control voltage is present and the power supply outputs are not powered up, the power supply is in standby and the dc good LED will blink at a rate of 1-3 times per second. The dc good LED will be off if both the power supply control voltage and the output voltages are bad. For normal system operation, this LED will be on solid.
Identify	The identify LED is amber and will be toggled on and off at a 4 second rate, 10 seconds after the application of input power to the supply, if serial communication isn't established with the service processor. For normal system operation, this LED will be off.

1. Is the reference code 1xxx15xx 1xxx60x6, or 1xxx71xx?
   - **No:** Continue with the next step.
   - **Yes:** Complete the following steps:
     a. Find the unit reference code in the following table to determine the FRU part number and location for the failing power supply.
     b. Ensure that the power cables to the power supply are properly connected and seated. The green Power Good LED on the power supply will illuminate when power is correctly connected to the power supply.
     c. Is the reference code 1xxx1510 or 1xxx1520 and is the failing unit configured with a redundant power supply option (or dual line cord feature)?
        – **Yes:** Before replacing any parts, perform isolation procedure PWR1911.
        – **No:** Continue with step 1.d.
     d. Replace the failing power supply (see the following table to determine which power supply to replace and its location).

        Attention: For reference codes 1xxx1510 and 1xxx1520 before replacing any parts on a dual line cord system, perform isolation procedure PWR1911. Before replacing parts on a single line cord system, check the ac jumper to the power supply.
     e. Complete the following steps if the new power supply does not fix the problem:
        1) Reinstall the original power supply.
        2) Try the new power supply in each of the other positions listed in the table.
        3) If the problem still is not fixed, reinstall the original power supply and go to the next FRU in the list.
        4) For reference codes 1xxx1510 and 1xxx1520 if a problem persists after replacing the power supply, replace the power distribution backplane, contact your next level of support.

f. Use the following table to determine the part number for the field replaceable unit (FRU).

Unit reference code	Type-model or feature code	Part number	Description	Location code
1510, 1511, 1512, 1513, 1514, 7110	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Power supply, ac	U*n*-E1
1520, 1521, 1522, 1523, 1524, 7120	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Power supply, ac	U*n*-E2
1510, 1511, 1512, 1513, 1514, 7110	8233-E8B, 8236-E8C	See System parts.	Power supply, ac	U*n*-E1
1520, 1521, 1522, 1523, 1524, 7120	8233-E8B, 8236-E8C	See System parts.	Power supply, ac	U*n*-E2
1510, 1511, 1512, 1513, 1514, 7110	8233-E8B, 8236-E8C	See System parts.	Power supply, dc	U*n*-E1
1520, 1521, 1522, 1523, 1524, 7120	8233-E8B, 8236-E8C	See System parts.	Power supply, dc	U*n*-E2
1510, 1511, 1512, 1513	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Power supply	U*n*-E1
1520, 1521, 1522, 1523	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Power supply	U*n*-E2
1510, 1511, 1512, 1513, 1514, 7110	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Power supply	U*n*-E1
1520, 1521, 1522, 1523, 1524, 7120	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Power supply	U*n*-E2
1510, 1511, 1512, 1513, 1514, 1516, 1517	5796, 7314-G30	42R4491	Power supply	U*n*-E1
1520, 1521, 1522, 1523, 1524, 1526, 1527	5796, 7314-G30	42R4491	Power supply	U*n*-E2
1507, 1510, 1511, 1512, 6006	5802, 5877	See System parts.	Power supply (OCA), ac	U*n*-E1
1517, 1520, 1521, 1522, 6016	5802, 5877	See System parts.	Power supply (OCA), ac	U*n*-E2

This ends the procedure.

2. Is the reference code 1xxx2600, 1xxx2601, 1xxx2603, 1xxx2605, or 1xxx2606?
   - **No:** Continue with the next step.

- **Yes:** Complete the following steps:
  a. Find the unit reference code in the following table to determine the FRU part number and location for the failing power supply.
  b. Replace the failing power supply.
  c. Complete the following steps if the new power supply does not fix the problem:
     1) Reinstall the original power supply.
     2) Try the new power supply in each of the other positions listed in the table.
     3) If the problem still is not fixed, reinstall the original power supply and go to the next FRU in the list.

  Use the following table to determine the part number for the field replaceable unit (FRU).

Unit reference code	Type-model or feature code	Part number	Description	Location code
2600, 2601, 2603, 2605, or 2606	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Power supply	U*n*-E1 or U*n*-E2
2600, 2601, 2603, 2605, or 2606	5796, 7314-G30	42R4491	Power supply	U*n*-E1 or U*n*-E2

  This ends the procedure.

3. Is the reference code 1xxx1601, 1xxx1602, 1xxx8455, or 1xxx8456?
   - **No:** Continue with the next step.
   - **Yes:** One of the power supplies might be missing. Use the following table to determine the location of the power supply and the service action to perform.

Reference code	Missing power supply	Service action
1xxx1601	U*n*-E1	If the power supply is missing, install it. If the power supply is installed, ensure that the power cables to the power supply are properly connected and seated. The green power good LED on the power supply will illuminate when the power is correctly connected to the power supply. If the power cables to the power supply are properly connected and seated, and the green power good LED is on, but the SRC is still being logged, replace the power supply specified by the location code. **This ends the procedure.**

Reference code	Missing power supply	Service action
1xxx1602	U*n*-E2	If the power supply is missing, install it. If the power supply is installed, ensure that the power cables to the power supply are properly connected and seated. The green power good LED on the power supply will illuminate when the power is correctly connected to the power supply. If the power cables to the power supply are properly connected and seated, and the green power good LED is on, but the SRC is still being logged, replace the power supply specified by the location code. **This ends the procedure.**
1xxx8455	U*n*-E1	Install the missing power supply. **This ends the procedure.**
1xxx8456	U*n*-E2	Install the missing power supply. **This ends the procedure.**

4. Is the reference code 1xxx16F1?
   - **No:** Continue with the next step.
   - **Yes:** Both of the power supplies might be missing. If the power supplies are missing, install them. If the power supplies are installed, ensure that the power cables to the power supplies are properly connected and seated. The green power good LED on the power supply will illuminate when the power is correctly connected to the power supply. If the power cables to the power supplies are properly connected and seated, and the green power good LED is on, but the SRC is still being logged, replace both power supplies. **This ends the procedure.**
5. Is the reference code 1xxx2614?
   - **No:** Continue with the next step.
   - **Yes:** The power supplies are not the same type. One is an ac power supply and the other is a dc power supply. If the system or rack is powered by ac power, replace the dc power supply with an ac power supply. If the system or rack is powered by dc power, replace the ac power supply with a dc power supply. **This ends the procedure.**
6. Is the reference code 1xxx2615?
   - **No:** Continue with the next step.
   - **Yes:** The system requires 1925 watt power supplies. Replace the power supplies with 1925 watt power supplies. **This ends the procedure.**
7. Is the reference code 1xxx314x, 1xxx3156, or 1xxx3157?
   - **No:** Continue with the next step.
   - **Yes:** Replace the power supply (DCA) at location U*n*-E1 in the 5802 expansion unit. If that does not resolve the problem, replace the power supply (DCA) at location U*n*-E2 in the 5802 expansion unit. **This ends the procedure.**
8. Is the reference code 1xxx3154 or 1xxx3155?
   - **No:** Return to Starting a repair action. **This ends the procedure.**
   - **Yes:** Replace the power supply (DCA) at location U*n*-E2 in the 5802 expansion unit. If that does not resolve the problem, replace the power supply (DCA) at location U*n*-E1 in the 5802 expansion unit. **This ends the procedure.**

PWRVPD

Use ASMI to set the configuration ID and MTMS value.

To perform this operation, verify that the following prerequisites have been met:

- The server must be powered on to firmware standby or firmware running state.
- The expansion unit must be correctly installed in the system configuration and have ac power.
- Your authority level must be one of the following levels:
  - Administrator
  - Authorized service provider

1. Login in to the Advanced System Management Interface (ASMI).
2. Expand **System Configuration**.
3. Select **Configure I/O Enclosures**.
4. Select **Clear inactive enclosures**.
5. If you were directed here from a FRU replacement procedure, the FRU that was replaced contained non-volatile storage where information about the expansion unit's machine type-model-serial (MTMS) was stored. It is necessary to restore the expansion unit's MTMS now. It might also be necessary to set or change the expansion unit's configuration ID (power control network identifier).

   The non-volatile storage in which the expansion unit's MTMS value is stored in a new replacement FRU is uninitialized. When power is first applied, the system detects the uninitialized value and assigns an obvious, temporary unique value of the form TMP **x.xxx.xxxxxxx**, where **x** can be any character 0-9 and A-Z. As a result, the initial location code of the expansion unit is set to UTMP **x.xxx.xxxxxxx**. To perform power off procedures or to change settings for an expansion unit that contains uninitialized non-volatile storage, you must first use the new UTMP **x.xxx.xxxxxxx** location code (see the list below) when selecting the expansion unit in the ASMI menus.

   Note:

   a. Do not remove the ac power cord after powering off the expansion unit.
   b. If the expansion unit does not does not immediately appear on the service utility used to power off the expansion unit, refresh the utility periodically for up to 10 minutes until it does. If it still does not appear, return to step 1 and repeat this procedure.
   c. If you were directed here from a replacement procedure, remember to use the new UTMP **x.xxx.xxxxxxx** location code when selecting the expansion unit to power off.
   d. If you were instructed by the procedure that sent you here when you were powering off the expansion unit to use panel function 69 to power on the expansion unit, perform panel function 69 now (with the control panel set to manual mode) from the system unit control panel (even though the expansion unit is already on).
6. From the ASMI utility, expand **System Configuration**.
7. Select **Configure I/O Enclosures**.
8. Compare the power control network identifier value shown for the expansion unit you are working with to the power control network identifier (configuration ID) values in the following list. Compare the type-model and serial number values shown for the expansion unit you are working with to the type, model, and serial values on the label on the expansion unit. If any changes must be made, go to step 9. Otherwise go to step 21.

   Note: Serial numbers are case sensitive. (All alpha characters contained in the serial number must be entered as a capital letter.)

   - 8D for the 7314-G30 expansion units.
9. If the server is powered on to firmware running state, go to the next step. If the server is powered on to firmware standby state go to step 11.
10. See the following note, then see Powering off an expansion unit. Then continue with step 11.

Note:

a. Do not disconnect the ac power cables after powering off the expansion unit.
b. If the expansion unit does not immediately appear on the service utility used to power off the expansion unit, refresh the utility periodically for up to 10 minutes until it does. If it still does not appear, go step 1 and repeat this procedure.
c. Remember to use the new UTMP *x.xxx.xxxxxxx* location code when selecting the expansion unit to power off if you were directed here from a replacement procedure.
d. If you were instructed by the procedure that sent you here when you were powering off the expansion unit to use panel function 69 to power on the expansion unit, perform panel function 69 now (with the control panel set to manual mode) from the system unit control panel (even though the expansion unit is already on).

11. From the ASMI utility, expand **System Configuration**.
12. Select **Configure I/O Enclosure**.
13. Select the expansion unit with which you are working.
14. Select **Change settings**.
15. If in step 8 you determined that the power control network identifier value is not correct, enter the correct value now.
16. If in step 8 you determined that the type-model and serial number values are not correct, enter the correct values now.

    Note: Serial numbers are case sensitive. (All alpha characters contained in the serial number must be entered as a capital letter.)
17. Click **Save settings** to complete the operation
18. Verify that the values you just entered are reflected in the power control network identifier, type-model, serial number, and location code columns for the expansion unit with which you are working. Do not use the browser back button to do this. Rather, expand **System Configuration**. Then select **Configure I/O Enclosures**.

    Note: Serial numbers are case sensitive. All alpha characters contained in the serial number must be entered as a capital letter.
19. If the server is powered on to firmware standby state and you entered a new power control network identifier in step 15, the expansion unit will power off and back on automatically. If this is the case, go to step 21. Otherwise go to the next step.
20. Power on the expansion unit.
    - If the system is not managed by a management console, disconnect all ac power to the expansion unit by disconnecting the ac cables from the power supplies on the expansion unit. Wait for the display panel to go off, and then reconnect the ac power cables. The expansion unit will power on automatically.
    - If the system is managed by a management console, power on the expansion unit by using the Power On/Off unit utility. If the values you just entered are not immediately reflected in the location code of the expansion unit in the Power On/Off unit utility, restart the utility periodically for up to 10 minutes until the values you entered are reflected. For information about powering on an expansion unit, see Powering on an expansion unit. Then continue with the next step.
21. Log off and close ASMI.
22. Return to the procedure that sent you here.

QDCCRLS

Licensed Internal Code is the failing item.

Look for PTFs associated with the reference code and have the customer apply them.

QSYSOPR

Look here for information about QSYSOPR symbolic FRU.

Look in the System Operator message queue for a message with the same date and time as the problem. Perform any actions defined in the message.

REFER

Look here for information about REFER symbolic FRU.

If the first 4 characters of the SRC are 3995, see 3995 Publications and Documentation. If the first 4 characters of the SRC are 3996, see the 3996 Maintenance Information included with the 3996 Optical Library.

REM_NIC

Look here for information about REM_NIC symbolic FRU.

One end of the failed link is a system unit other than the one reporting this error.

In a cluster, all system units should send a warning to the other system units in the cluster when they are about to perform a controlled power down. This error could occur when a system unit leaves the cluster without issuing any warning to other system units. If the system unit is not reporting due to a failed cable or HSL hardware, replacing the FRUs in this error log entry will correct the problem.

However, the system unit might have been powered down immediately, or powered down because of an error. If this is the case, service any errors in the other system unit, or power the other system unit back on. When the other system unit reports in, the loop will be complete and this error can be closed.

This ends the procedure.

REM_SYS

Look here for information about REM_SYS symbolic FRU.

A problem has occurred in a remote system that is in an HSL OptiConnect loop.

If the value of the first half of word 7 in the reference code is greater than or equal to 0680, this value is the hexadecimal RIO/HSL loop number. The service action log (SAL) code will attempt to identify the RIO/HSL loop number of the local system and the serial number of the remote system as a portion of the part description for this symbolic FRU. If the SAL could not identify the serial number of the remote system, check all the systems which are connected to the local RIO/HSL loop identified in the reference code or the SAL. Search the SAL of the remote systems for hardware and Licensed Internal Code problems. Correct any problems you find with Licensed Internal Code or Network Interface Controller (NIC) / RIO controller hardware.

This ends the procedure.

ROUTER

Any network switch that iSCSI data might pass through between the IBM i iSCSI target adapter and a System x or BladeCenter iSCSI initiator adapter might be the failing item.

SASCABL

The SAS device cable might be failing.

If the device is an internal device (not in an external disk expansion unit), there is no cable. Continue with the next failing item in the failing item list. **This ends the procedure**.

If the device is in an external expansion unit, ensure the cables are connected correctly. If they are not connected correctly, fix the cable connection problem. If they are already connected correctly, replace the cables. See "Serial attached SCSI cable planning," in Planning for cables for cable FRU part numbers.

Note: Power off the system, partition, or card slot before connecting and disconnecting cables, as appropriate, to prevent hardware damage.
This ends the procedure.

SASEXP

The expander or ESM (Enclosure Services Manager) might be failing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Complete the following steps:

1. Does the SRC that sent you here begin with 509A, 50B1, or 57C3?
   - **No:** Go to step step 3.
   - **Yes:** Continue with the next step.
2. Find the resource name that this error was logged against. This can be obtained from the service action log (see Searching the service action log). Then, using the resource name, perform the following steps:
   a. Access SST or DST.
   b. Select **Start a Service Tool**.
   c. Select **Hardware Service Manager**.
   d. Select **Locate resource by resource name**.
   e. Enter the resource name that this error was logged against.
   f. Select the **Associated packaging resources option for the expander**.
   g. Select the **Display detail for the expander/ESM** option to display its location code.

   Replace the expander/ESM at the location displayed. For information on how to match location code to physical location and removal and replacement procedure, see Part locations and location codes.

CCIN or FFC	Type and model	Part number	Description	Location code
509A	5886	See System parts.	Enclosure Services Manager (ESM)	U*n*-C1, U*n*-C2
50B1	5887	See System parts.	Enclosure Services Manager (ESM)	U*n*-P1-C1, U*n*-P1-C2
57C3	EDR1	See System parts.	Enclosure RAID module assembly	U*n*-P1-C1, U*n*-P1-C2

   This ends the procedure.
3. Is the device an internal device (not in an external expansion unit)?
   - **No:** Replace the expanders/ESMs in the external expansion unit one at a time until the problem is resolved. **This ends the procedure**.

CCIN or FFC	Type and model	Part number	Description	Location code

509D	5720, 7214-1U2	See System parts.	Electronics tray, also known as the Enclosure Services Manager (ESM)	U*n*-P1
50AD	5724	See System parts.	Electronics tray, also known as the Enclosure Services Manager (ESM)	U*n*-P1
509A	5886	See System parts.	Enclosure Services Manager (ESM)	U*n*-C1, U*n*-C2
50B1	5887	See System parts.	Enclosure Services Manager (ESM)	U*n*-P1-C1, U*n*-P1-C2
57C3	EDR1	See System parts.	Enclosure RAID module assembly	U*n*-P1-C1, U*n*-P1-C2

- **Yes:** The expander is integrated into the device backplane.

  If you have not replaced the device backplane, replace it. Use the following table to determine the part number for the field replaceable unit (FRU). If you have already replaced the device backplane, continue with the next failing item in the failing item list. **This ends the procedure.**

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	Disk drive backplane	U*n*-P2
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	Disk drive backplane	U*n*-P3
	8233-E8B, 8236-E8C	See System parts.	Media and disk drive backplane	U*n*-P2
	8233-E8B, 8236-E8C	See System parts.	Media and disk drive backplane with port expander	U*n*-P2
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Removable media enclosure assembly (includes the media backplane)	U*n*-P2-C9
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Disk drive backplane	U*n*-P2-C9

SI_CARD

The failing component is the 12X adapter card in the system unit.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	GX dual-port 12X HCA	U*n*-P1-C*x*
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	GX dual-port 12X HCA	U*n*-P1-C*x*
	8233-E8B, 8236-E8C	See System parts.	RIO-2/HSL-2 adapter	U*n*-P1-C*x*
	8233-E8B, 8236-E8C	See System parts.	GX dual-port 12X HCA	U*n*-P1-C*x*
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	RIO-2/HSL-2 adapter	U*n*-P2-C*x*
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	GX dual-port 12X HCA	U*n*-P2-C*x*
	9119-FHB	See System parts.	GX dual-port 12X HCA	U*n*-P*m*-C44, U*n*-P*m*-C41, U*n*-P*m*-C40, U*n*-P*m*-C39

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

SI_PHB

The HSL I/O bridge/RIO adapter hardware in a system or I/O unit is failing.

Follow this procedure to identify the failing component to replace.

1. Are you working from the serviceable event view and a card location is listed with this FRU?
   - **Yes:** Then the listed card location is where the error is located. Continue with the next step.
   - **No:** Record the bus number value, BBBB, in word 7 of the reference code. Word 7 of the reference code allows you to determine the correct bus number, bus type, multiadapter bridge number, multiadapter bridge function number, and logical card number from the direct select address (DSA). See Analyzing a RIO/HSL/12X or PCI bus reference code. Search for the decimal bus number, using one of the following, to determine which frame or I/O unit contains the failing item.

– The management console's system configuration user interface (if a management console is controlling the system)
– IBM i Hardware Service Manager (HSM)
– Hardware Service Manager (HSM)
– The system configuration listing

Record the unit type or feature and continue with the next step.

2. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	See System parts.	System backplane	U*n*-P1
	8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2
	5796, 7314-G30	10N8782	RIO/HSL adapter	U*n*-P1-C7

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

SIADPCD

The failing component is the I/O bridge card or a 12X adapter card in an I/O unit.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1
520A or 520B	5796, 7314-G30	See System parts.	Riser	U*n*-P1-C7

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

SICNTRL

The failing component is the HSL, 4X, or 12X controller.

1. Do you have a location code for this FRU in the serviceable event view?

- **No:** Contact your next level of support. **This ends the procedure.**
- **Yes:** Continue with the next step.

2. Use the following table to find the replacement FRU part number for the FRU location identified previously in this procedure.

CCIN	Type and model	Part number	Description	Location code
2BDD, 2BE6	8202-E4B, 8205-E6B	See System parts.	PCIe expansion riser	U*n*-P1-C1
2BDA	8202-E4B, 8205-E6B	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C8
2BE6	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	PCIe expansion riser	U*n*-P1-C1
2BDA	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	12X adapter	U*n*-P1-C1, U*n*-P1-C8
2BDB	8231-E2B	See System parts.	4X adapter	U*n*-P1-C1, U*n*-P1-C7
2B4D	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	12X adapter	U*n*-P1-C8
1817	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C8
52B4	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C7
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2B62	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Midplane	U*n*-P1
2BBD	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	System backplane	U*n*-P1
2BC3	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C3
295B	9119-FHB	See System parts.	12X adapter	U*n*-P*y*-C39, U*n*-P*y*-C40, U*n*-P*y*-C41, U*n*-P*y*-C44 **Note:** y = 2 - 9
2E00	9125-F2C	See System parts.	System backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

SIIOADP

The I/O hub or I/O bridge might be failing.

1. Is a location for this FRU given in the serviceable event view?
   - **Yes:** Use that location and Table 26 on page 349 to find and replace the failing part. **This ends the procedure.**
   - **No:** Continue with the next step. **Note:** In most circumstances, the SRC logged by the system firmware includes a FRU list. In very few circumstances (as in the following examples), the failure requires immediate system termination.

     Example: Symptoms

     ```
     1  B7006981  12X (bridge) bus adapter failure SRC
     2  XXXXXX62  SRC Format 62
     3  00010002  Component ID field must be an exact match
     4  14993203  Code Model and PRC must be an exact match
     5  FRUCALLO  Decode this when the SRC is 6906 or 6907
     6  FRUCALLO  Decode this when the SRC is 6981
     7  00000000
     ```

     Example: SRC 6981

     ```
     1 B7006981
     2 00000062
     3 00010002
     4 14993203
     6 00044000
     7 00000000
     ```

     When immediate termination occurs, the SRC does not provide a FRU information. The following steps describe how to determine the FRU.
2. Is the system a 9125-F2C?
   - **Yes:** Use Table 26 on page 349 to find and replace the failing part. **This ends the procedure.**
   - **No:** Continue with the next step.
3. Isolate the 12X adapter FRU indicated by the data in word 5 (when the SRC is 6906 or 6907) or word 6 (when the SRC is 6981) of the SRC by completing the following steps:
   a. Use the following example as a guide to locate and record the following binary values from word 5 or word 6 of the SRC:
      - 12X hub ID
      - 12X loop position

      Example: Decoding FRU 00044000

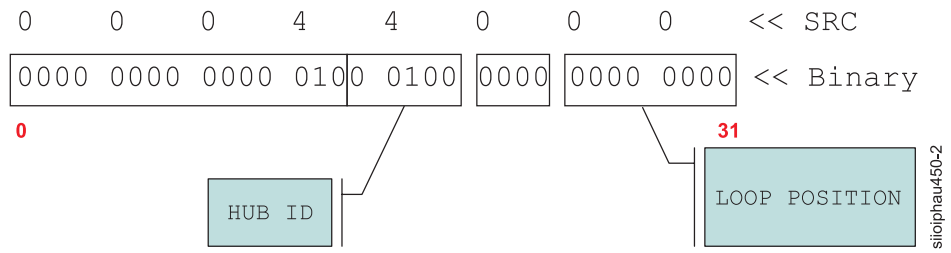


Figure 3. Decoding FRU 00044000

b. Convert the binary values for the 12X hub ID and the 12X loop position to decimal. Record these values for later use.

4. To isolate the failing 12X adapter, you will walk the cabling for the specified 12X loop from the leading port to the trailing port. To determine the 12X loop number and 12X port location code for the leading port, perform the following steps:
   a. Make sure you have the decimal value for the 12X hub ID and the loop number at hand, then continue with the next step.
   b. Compare the values from the previous step to the loop location information table for your server below. Record the values for the 12X loop number and the 12X port location code. Then continue with the next step.

Table 17. 8202-E4B, 8205-E6B SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
1	0781/1921	U*n*-P1-C2
2	0782/1922	U*n*-P1-C8

Table 18. 8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
1	0781/1921	U*n*-P1-C1
2	0782/1922	U*n*-P1-C8

Table 19. 8231-E2B SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
1	0781/1921	U*n*-P1-C1
2	0782/1922	U*n*-P1-C7

Table 20. 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
1	0781/1921	U*n*-P1-C1
2	0782/1922	U*n*-P1-C8

Table 21. 8233-E8B, 8236-E8C SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
1	0781/1921	U*n*-P1-C8-T1
2	0782/1922	U*n*-P1-C7-T1

Table 22. 8248-L4T, 8408-E8D, 9109-RMD SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
1	0785/1925	U*n*-P1-C2-T1
2	0787/1927	U*n*-P1-C3-T1

Table 23. 9117-MMB, 9179-MHB SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
2	0782/1922	U*n*-P1-C2-T1
3	0783/1923	U*n*-P1-C3-T1

Table 24. 8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
2	0783/1923	U*n*-P1-C2-T1
3	0786/1926	U*n*-P1-C3-T1

Table 25. 9119-FHB SIIOADP 12X loop location information

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
0	0780/1920	U*n*-P9-C44
1	0781/1921	U*n*-P7-C44
2	0782/1922	U*n*-P9-C41
3	0783/1923	U*n*-P7-C41
4	0784/1924	U*n*-P9-C39
5	0785/1925	U*n*-P7-C39
6	0786/1926	U*n*-P9-C40
7	0787/1927	U*n*-P7-C40
8	0788/1928	U*n*-P5-C44
9	0789/1929	U*n*-P8-C44
10	078A/1930	U*n*-P5-C41
11	078B/1931	U*n*-P8-C41
12	078C/1932	U*n*-P5-C39
13	078D/1933	U*n*-P8-C39
14	078E/1934	U*n*-P5-C40
15	078F/1935	U*n*-P8-C40
16	0790/1936	U*n*-P6-C44

Table 25. 9119-FHB SIIOADP 12X loop location information (continued)

Hub (decimal)	Loop number (hex / dec)	Location code for leading port of the loop
17	0791/1937	U*n*-P3-C44
18	0792/1938	U*n*-P6-C41
19	0793/1939	U*n*-P3-C41
20	0794/1940	U*n*-P6-C39
21	0795/1941	U*n*-P3-C39
22	0796/1942	U*n*-P6-C40
23	0797/1943	U*n*-P3-C40
24	0798/1944	U*n*-P2-C44
25	0799/1945	U*n*-P4-C44
26	079A/1946	U*n*-P2-C41
27	079B/1947	U*n*-P4-C41
28	079C/1948	U*n*-P2-C39
29	079D/1949	U*n*-P4-C39
30	079E/1950	U*n*-P2-C40
31	079F/1951	U*n*-P4-C40

5. Isolate the failing 12X adapter by walking the cabling for the specified 12X loop from the **leading** port to the **trailing** port. Complete the following steps:
   a. Begin walking the cabling by starting at the 12X loop number and 12X port location code that you recorded in step 4.b.
   b. Starting with 0 (zero) for the first 12X adapter on the loop, follow the loop cabling and count each 12X adapter in the order it is cabled. For example, the first 12X adapter is 0, the next is 1, the next is 2, and so on.
   c. Continue this process until you count up to the decimal value of the 12X loop position. The 12X adapter that corresponds to the value of the 12X loop position is the failing 12X adapter.

   Note: Concurrent maintenance requires that you make a change to the previous procedure for counting the 12X adapters on the loop. If concurrent maintenance was performed to attach one or more additional 12X adapters to this loop and the server has not performed an IPL after the adapters were added, **exclude the added 12X adapters as you make the initial count**. If the 12X loop position exceeds the number of 12X adapters, continue by counting the added 12X adapters in the order they were added to the loop.
6. Replace the failing 12X adapter. To determine the FRU part number and the FRU location, use the following table to find and replace the failing part. **This ends the procedure.**

Table 26. SIIOADP FRU part numbers

CCIN or FFC	Type and model	Part number	Description	Location code
2BFB, 2BFC	8202-E4B, 8205-E6B	See System parts.	System backplane	U*n*-P1
2BDD, 2BE6	8202-E4B, 8205-E6B	See System parts.	PCIe expansion riser	U*n*-P1-C1
2BDA	8202-E4B, 8205-E6B	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C8
2B4B	8202-E4C, 8231-E1C	See System parts.	System backplane	U*n*-P1
2B2D	8202-E4D, 8231-E1D, 8268-E1D	See System parts.	System backplane	U*n*-P1
2B4A	8205-E6C, 8231-E2C	See System parts.	System backplane	U*n*-P1

Table 26. SIIOADP FRU part numbers (continued)

2B2C	8205-E6D, 8231-E2D	See System parts.	System backplane	U*n*-P1
2BE6	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	PCIe expansion riser	U*n*-P1-C1
2BDA	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	12X adapter	U*n*-P1-C1, U*n*-P1-C8
2BFB, 2BFC	8231-E2B	See System parts.	System backplane	U*n*-P1
2BDB	8231-E2B	See System parts.	4X adapter	U*n*-P1-C1, U*n*-P1-C7
2B4D	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	12X adapter	U*n*-P1-C8
28A5	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
1817	8233-E8B, 8236-E8C	See System parts.	GX+ 12X adapter	U*n*-P1-C8
52B4	8233-E8B, 8236-E8C	See System parts.	GX++ 12X adapter	U*n*-P1-C7
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2BC3	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C3
295B	9119-FHB	See System parts.	12X adapter	U*n*-P*y*-C39, U*n*-P*y*-C40, U*n*-P*y*-C41, U*n*-P*y*-C44
2E00	9125-F2C	See System parts.	System backplane	U*n*-P1
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1
50AA	5802, 5877	See System parts.	Midplane	U*n*-P5
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
50A8	5803, 5873	See System parts.	Midplane	U*n*-P5
520A	5796, 7314-G30	See System parts.	Riser	U*n*-P1-C7
520B	5796, 7314-G30	See System parts.	Riser	U*n*-P1-C7
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

SIRGCBL

This symbolic FRU is not supported on the system. Continue with the next FRU in the failing item list.

SIRGCFG

An invalid configuration was detected on an HSL/RIO loop during the IPL.

The four rightmost characters of word 4 in the reference code represent the Program Return Code (PRC), which describes the problem detected. The four leftmost digits of word 7 represent the loop number in hexadecimal format. Convert the loop number to decimal format before comparing it to loop numbers shown in serviceable event views and service tools.

To determine the problem, find the PRC in the table below.

Note: The FRU description in the serviceable event view might already contain a message that identifies the problem.

Table 27. Correcting an invalid configuration on an HSL/RIO loop

PRC	Problem identified	Corrective action
xxxx 0008	System serial number not set	Set the serial number on the system unit. See Accessing the Advanced System Management Interface. If the problem persists contact your next level of support.
xxxx 3200	Clustered systems on loop with SPD migrated expansion unit	Migration expansion units are not supported; remove them.
xxxx 3201	Clustered systems on multiple HSL/RIO loops	Ensure all clustered systems are on the same HSL/RIO loop.
xxxx 3202	Multiple SPD migrated expansion units detected	Migration expansion units are not supported; remove them.
xxxx 3207	SPD migrated expansion unit not on first HSL/RIO loop	Migration expansion units are not supported; remove them.
xxxx 3212	NIC/RIO controller level does not support OptiConnect	The NIC/RIO controller hardware component does not support HSL OptiConnect. The FRU that contains the NIC/RIO controller component must be upgraded to a level that supports HSL OptiConnect. Examine the service action log (SAL) of the system on this loop for the same error. The SAL will indicate the correct FRU to replace. Use the service tools and information for that system to correct the problem and close the problem on this system.
xxxx 3218	An HSL or RIO loop was detected on the system, but none of the resources on the loop are assigned to the logical partition. HSL and RIO loops are not supported in this version of the operating system.	No service action is required. This PRC is logged for information only.

Table 27. Correcting an invalid configuration on an HSL/RIO loop (continued)

PRC	Problem identified	Corrective action
xxxx 3219	An HSL or RIO loop was detected on the system and some of the resources on the loop are assigned to the logical partition. HSL and RIO loops are not supported in this version of the operating system.	The logical partition cannot power on with some of the resources on the HSL or RIO loop assigned to the logical partition. Assign the resources on the HSL or RIO loop to a different logical partition.

This ends the procedure.

SIRSTAT

A status indication for a RIO/HSL loop is identified in the reference code.

Use the table below to determine whether the status indication requires a service action. Record the rightmost 4 characters of word 4 of the reference code. These characters are the program return code (PRC), which indicates the RIO/HSL status. The leftmost 4 characters of word 7 indicate the RIO/HSL loop number (in hexadecimal format).

Table 28. Status indicated by the PRC

PRC	Indicated status
3204	A RIO error was detected, indicating that a RIO link failed. 1. To diagnose the error read through the transport manager flight recorder. 2. Check the failing link. If the link shows not to have failed, check the devices connected to either end of the link.
3205	During the IPL, Licensed Internal Code determined that the loop was not complete. • This is expected if there are no I/O units on the loop. • This error can also occur when an I/O unit, shared I/O unit, or another system on the loop did not complete powering on by the time this system's Licensed Internal Code checked the loop for completeness. As a result, you might see this error in the serviceable event view you are working with. • When you find the same reference code logged from the same IPL against the same resource with a PRC of 3206 or 3208, the problem no longer exists. This can happen because the error was recovered when RIO/HSL hardware came on line, was properly configured, or the diagnostic code determined that there was not a problem based on the combination of machine types, features, configuration, and topology. In this case, the problem entry can be closed. • In IBM i, this error might also appear in the serviceable event view if any I/O units were removed from the loop without deleting the RIO/HSL I/O bridge resources of those units from hardware service manager (HSM). The service procedure identified with the reference code that sent you here will help you determine whether the loop is functioning correctly or if service is required. • This error might also be caused by a problem in a rack, frame, or unit connected to the RIO/HSL loop if the problem prevents the unit from powering on or being detected by Licensed Internal Code. Follow the service procedures for this reference code. When necessary, you might be directed to work on other reference codes before returning to this procedure.
3206	During normal operation a RIO/HSL loop recovered its redundant path. The loop is now complete.
3208	During normal operation a RIO/HSL I/O bridge recovered a failed link on the loop.
3209	Recoverable CRC (cyclical redundancy check) errors have occurred on the loop. This error requires service action. A RIO/HSL cable or connection must be replaced. Replace only the cable that appears in the FRU list of this reference code. If the serviceable event view entry does not list any cable FRUs, replace the failing items listed in the serviceable event view entry by following the normal service procedures for those FRUs. This will be the case when the RIO/HSL connection is embedded.

Table 28. Status indicated by the PRC (continued)

PRC	Indicated status
320A	This is an informational event which gets logged during the system IPL after a node or adapter concurrent maintenance action or after an I/O drawer has been added. This log contains topology and trace information that might be useful in determining which bus numbers where assigned to I/O enclosures. No service action is required.
3210	A RIO/HSL link switched to a slower speed. The link is designed to run at a faster speed based on the link's hardware and Licensed Internal Code levels at both ends. If there is a FRU list in the serviceable event view, use it to complete the repair action.

SLOTERR

The multiadapter bridge detected a problem with a card location that it controls.

The problem is in the controls for the card slot. The card location might or might not have an installed card. If there is a card installed in that location, it might be the source of the problem. In some cases, the user interface view of the servicable event will list more than one card position for this FRU's location. The problem might be with any one of the FRU's in those locations. When there is a list of locations in this FRU's location code, the card locations will be separated by commas. A range of card positions will show the starting card position, a colon, and the ending card position.

Note: 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.

1. Is there a single card position listed in the serviceable event user interface of an operating system, service processor, or the management console for this failing item?
   - **No:** Continue with the next step.
   - **Yes:** Go to step 5.
2. Is there a range of card positions (PCI bridge set) listed in the problem view for this failing item?
   - **No:** Continue with the next step.
   - **Yes:** Licensed Internal Code could not identify the slot with the error. Perform MABIP50 to determine the card position with the failure.

     This ends the procedure.
3. Record the direct select address (DSA), which is word 7 of the reference code from the problem view display.
4. Examine the multiadapter bridge function number in the DSA. See DSA translation.

   Is the multiadapter bridge function number less than or equal to 7?
   - **Yes:** Go to procedure MABIP53 to locate the card, and then continue with the next step.
   - **No:** Licensed Internal Code could not identify the slot with the error. Perform MABIP50 to determine the card position with the failure.

     This ends the procedure.
5. Does the reference code that sent you here appear more than once, or does another reference code with this symbolic FRU appear from the same IPL and against the same resource?
   - **Yes:** The failure is at the multiadapter bridge. Do not use this symbolic FRU; instead, go to the next failing item in the list.

     This ends the procedure.
   - **No:** Locate the message in the following table to determine the problem and necessary corrective action.

Table 29. Card slot errors

Problem or message	Meaning or corrective action
Slot unavailable due to 64-bit card in adjacent slot.	The card location specified in the DSA is unavailable for the card installed there. Do not use that card location. The card location with a multiadapter bridge function number one less than the multiadapter bridge function number in the DSA has a 64-bit card installed. The 64-bit card is using the 32-bit PCI bus of the card location specified in the DSA. To determine the multiadapter bridge function numbers and the card locations they specify, see DSA translation.
LED control failure, do not use slot.	System code has detected a problem with the controls for the LED at the card location specified by the DSA. Do not use that card location.
Power control failure, do not use slot.	System code has detected a problem with the power controls at the card location specified by the DSA. Do not use that card location.
Multi-adapter bridge card slot error, do not use card slot.	System code has detected a problem with the controls at the card location specified by the DSA. Do not use that card location.

This ends the procedure.

SLOTUSE

The card in the given slot is not available for use.

1. Is the SRC B2002250 or B2002300?
   - **No:** Continue with step 3.
   - **Yes:** The first two characters in word 4 of the reference code will identify the platform Licensed Internal Code component that has control of the slot. Continue with the next step.
2. What is the value of the first two characters of word 4 of the reference code?
   - **81:** The concurrent maintenance component has control of the slot. The concurrent maintenance procedure must complete before the partition will be able to perform an IPL. **This ends the procedure.**
   - **02** or **03:** The component that has control of the slot is management console service or management console configuration. Make sure that management console functions are not using the slot. **This ends the procedure.**
   - **Other:** Contact your next level of support. **This ends the procedure.**
3. Is the SRC B2002475?
   - **No:** Contact your next level of support. **This ends the procedure.**
   - **Yes:** Continue with the next step.
4. Look in the serviceable event view for part numbers and location codes associated with the card slot.

   Note: There will not be a part number if the card slot is empty.
   If the reference code is on the control panel, look in the FRU section of the reference code for the location of the card slot. Check the server to see if a card is physically present in the card slot. Is a card physically present?
   - **No:** Use symbolic FRU LPARCFG to reconfigure the card slot so that it is not a required resource to perform a partition IPL. **This ends the procedure.**
   - **Yes:** Replace the failing card. **This ends the procedure.**

SNSDATA

Look here for information about SNSDATA symbolic FRU.

This is a portion of the SCSI sense data associated with the unit reference code (URC); it is not a failing item in and of itself. This data is referenced by certain failure isolation procedures within 3995 Publications and Documentation and the 3996 Maintenance Information included with the 3996 Optical Library.

SPBUS

The path to the service processor might be the failing item.

Look in the serviceable event view. Fix all B700 697x errors that occurred at approximately the same time. One of them will implicate the hardware that communicates with the service processor.

SPNETWK

A connection between a management console and a service processor has been lost.

The location code will identify the unit to which contact was lost.

1. Is the system receiving power?
   - **No:** Take the necessary action to restore power to the system. **This ends the procedure.**
   - **Yes:** Continue with the next step.
2. Verify the network connection between the service processor and the management console. See the table below for location information.

FRU name (check in order, one at a time)	Location
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D service processor to management console Ethernet cable	U*n*-P1-T5 or U*n*-P1-T6
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D service processor to management console Ethernet cable	U*n*-P1-T3 or U*n*-P1-T4
8233-E8B, 8236-E8C service processor to management console Ethernet cable	U*n*-P1-T7
8248-L4T, 8408-E8D, 9109-RMD service processor to management console Ethernet cable	U*n*-P1-C1-T2
8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD service processor to management console Ethernet cable	U*n*-P1-C1-T6
9119-FHB HMC 1 to BPH A	U*n*-P1-C4-J01
9119-FHB BPH A to system controller 0	U*n*-P1-C4-J05 to U*n*-P1-C2-J4
9119-FHB BPH A to system controller 1	U*n*-P1-C4-J06 to U*n*-P1-C5-J4
9119-FHB HMC 2 to BPH B	U*n*-P2-C4-J01
9119-FHB BPH B to system controller 0	U*n*-P2-C4-J05 to U*n*-P1-C2-J3
9119-FHB BPH B to system controller 1	U*n*-P2-C4-J06 to U*n*-P1-C5-J3
9125-F2C HMC1 to DCCA 0	HMC1 to U*n*-P1-C147-T2
9125-F2C HMC2 to DCCA 0	HMC2 to U*n*-P1-C147-T3
9125-F2C HMC1 to DCCA 1	HMC1 to U*n*-P1-C148-T2
9125-F2C HMC2 to DCCA 1	HMC2 to U*n*-P1-C148-T3
9125-F2C HMC1 port 2 to BPH A	HMC1 port 2 to U*n*-P2-C1-T19

FRU name (check in order, one at a time)	Location
9125-F2C HMC2 port 2 to BPH A	HMC2 port 2 to U*n*-P2-C1-T36
9125-F2C HMC1 port 1 to BPH B	HMC1 port 1 to U*n*-P1-C1-T19
9125-F2C HMC1 port 2 to BPH B	HMC1 port 2 to U*n*-P1-C1-T36

3. Does the problem persist?
   - **No: This ends the procedure.**
   - **Yes:** Continue with the next step.
4. Shut down the operating system for the server in preparation to reboot the server. Reapply the power and boot the server. Does the problem persist?
   - **No: This ends the procedure.**
   - **Yes:** Continue with the next step.
5. Use SVCPROC to replace the service processor. If the problem persists, contact your next level of support. **This ends the procedure.**

SPNLCRD

This symbolic FRU is no longer supported.

SRCTB1X

There is a failure detected by the power subsystem.

The complete FRU part number, procedure ID, or symbolic FRU could not be determined by the power subsystem firmware. This FRU in the serviceable event view might have a partial or complete location code that will assist you in the repair action. Go to Reference codes and look up the SRC.

Read the SRC description and perform any actions indicated.

STGCART

The USB removable storage cartridge might be failing.

Complete the following steps:

1. Is a location code available in the serviceable event view for this field-replaceable unit (FRU)?
   - **Yes:** Determine the location of the port by removing -L*x* from the location code. Replace the USB removable storage cartridge at the port location. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**
   - **No:** Continue with the next step.
2. Is "STGDOCK" one of the failing items listed in the serviceable event view for this error, and is a location available for that failing item?
   - **Yes:** Determine the location of the port by removing -L*x* from the location code. Replace the USB removable storage cartridge at the port location. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**
   - **No:** Contact your next level of support. **This ends the procedure.**

STGDOCK

The USB docking station might be failing.

Complete the following steps:

1. Is a location code available in the serviceable event view for this field-replaceable unit (FRU)?

   Yes: Determine the location of the port by removing -L*x* from the location code. Replace the USB docking station at the port location. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

   No: Continue with the next step.
2. Use the USB_DEV Symbolic FRU to determine the location of the USB port that the external USB docking station is attached to. Replace the USB docking station at the port location. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

STORIOA

This symbolic FRU indicates that the storage I/O adapter part number could not be determined.

Use the I/O adapter location information in the serviceable event view if it is available. If the location is not available, find the address of the I/O adapter. See the System reference code format description. Use the address to find the location. See Addresses. For part number information, see PCI adapter information by feature type. To replace the failing item, see PCI adapter.

SVCDOCS

Look here for information about SVCDOCS symbolic FRU.

This symbolic FRU means that the service action is to read the description of the system reference code (SRC) and perform any actions indicated there. If you have already read and performed the actions in the description, go to the next failing item in the failing item list.

If you cannot return to the SRC description, go to Reference codes and look up the SRC.

Read the SRC description and perform any actions indicated.

SVCPROC

The service processor might be failing.

Use the table below to determine the FRU part number for the service processor. Some units have the service processor built into the system backplane.

Note: After you replace the part and before attempting to power on the server, set the configuration ID for the SPCN. Otherwise, the server will not perform an IPL. For information about setting the configuration ID, see PWR1917.

If the server is a multiple-drawer 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD, or 9119-FHB server and the SRC is a B1*xx* SRC, use the last byte in word 3 of the primary SRC to determine which service processor card to replace:

- If the last byte is a 10, replace the primary service processor card.
- If the last byte is a 20, replace the secondary service processor card.

If you don't have access to word 3 of the primary SRC, you can also determine which service processor card to replace by using either of the following methods:

- If you have access to the Advanced System Management Interface (ASMI), log on and display the details of the service processor error log. Using the Platform Event Log id (shown in the first table of each detail of the log), look at the first byte.
  - If the first byte is a 50, replace the primary service processor card.

  - If the first byte is a 51, replace the secondary service processor card.
- If you have access to a management console, log in as PE user. Display the event details for the corresponding service processor system. Look at the field Platform log ID, which contains a decimal value that you need to convert to a hexadecimal value.
  - If the first byte is a 50, replace the primary service processor card.
  - If the first byte is a 51, replace the secondary service processor card.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane (service processor is part of the system backplane)	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1
	9119-FHB	See System parts.	Service processor card	U*n*-P1-C2 or U*n*-P1-C5

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

SYSBKP2

The failing component is the system backplane.

After you have replaced the part, set the enclosure serial number before powering up, otherwise the machine will not perform an IPL. See the system unit service information for more information regarding setting the enclosure serial number.

Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1

	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	System backplane	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

SYSBKPL

The backplane might be failing.

The failing component is the system backplane or I/O backplane.

Note: After you have replaced a system backplane or I/O backplane, make sure to set the enclosure serial number before powering up, otherwise the machine will not perform an IPL. For more information, see Setting the system enclosure type.

Complete the following steps:

1. Is the system reference code (SRC) 11002634, and is the system an 8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, or 9179-MHD?
   - **No:** Continue with the next step.
   - **Yes:** Replace the system processor assembly at location U*n*-P3. If the server is a multiple-drawer server, use the last byte of word 2 of the SRC to identify the drawer in which the failing item is located. **This ends the procedure.**
2. Is the server a multiple-drawer server, and is the SRC B1*xxxxxx*?
   - **No:** Continue with the next step.
   - **Yes:** Use the last byte in word 3 of the primary SRC to determine which backplane to replace:
     – If the last byte is a 10, replace the primary unit I/O backplane.
     – If the last byte is a 20, replace the secondary unit 1 I/O backplane.

     Note: If you don't have access to word 3 of the primary SRC, you can also determine which backplane to replace by using either of the following methods:
     – If you have access to the Advanced System Management Interface (ASMI), log on and display the details of the service processor error log. Using the Platform Event Log id (shown in the first table of each detail of the log), look at the first byte.
       - If the first byte is a 50, replace the primary unit I/O backplane.
       - If the first byte is a 51, replace the secondary unit 1 I/O backplane.
     – If you have access to a management console, log in as PE user. Display the event details for the corresponding service processor system. Look at the field Platform log ID, which contains a decimal value that you need to convert to a hexadecimal value.
       - If the first byte is a 50, replace the primary unit I/O backplane.
       - If the first byte is a 51, replace the secondary unit 1 I/O backplane.

     Continue with the next step.

3. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane **Note:** If the SRC reported is 11002611, go to PWR1918 to complete the service action.	U*n*-P1
	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	I/O backplane	U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

SYSBP

SYSBP symbolic FRU is not supported on these models. Continue with the next FRU in the list.

SYSNTWK

There has been a network adapter failure on this management console.

1. Check the amber port LEDs. Are all of the amber LEDs blinking?
   - **Yes:** One of the ports is not properly configured. For the Hardware Management Console, go to Configuring the HMC. For the IBM Systems Director Management Console (SDMC), go to Configuring network. **This ends the procedure.**
   - **No:** The port with the unlit amber LED is experiencing the problem. Continue with the next step.
2. Ensure that the port is properly defined.
3. Run PC Doctor diagnostics to determine which resource is failing, and then replace that failing resource. For Hardware Management Console (HMC) diagnostic and parts information, see Hardware Management Console models 7042-CR4, 7042-C06, and 7042-C07 service. For the Systems Director Management Console (SDMC) diagnostic and parts information, see Systems Director Management Console service.

This ends the procedure.

TAPCLN

Clean the tape unit.

TAPCNFG

Look here for information about TAPCNFG symbolic FRU.

One of the following configuration problems was detected:

- Tape and disk devices are attached to an I/O processor or IOA that does not support tape and disk devices at the same time.
- An unsupported device type or model is attached.

Correct the configuration problem before exchanging any parts.

TOD

The battery for the time-of-day battery is low or failing.

See symbolic FRU TOD_BAT.

TOD_BAT

The battery for the time-of-day battery is low or failing.

Use the table below to find the service information for the specified FRU.

For B1xx SRCs:

To determine which time-of-day (TOD) battery to replace on a 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD, use the last byte in word 3 of the primary SRC.

- If the last byte is a 10, replace the TOD battery on the primary service processor in a 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.
- If the last byte is a 20, replace the TOD battery on the secondary service processor in a 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.
- If the last byte is a 30, use one of the following methods to determine which TOD battery you need to replace:
  - If you have access to the Advanced System Management Interface (ASMI), log on and display the details of the service processor error log. Using the Platform Event Log id (shown in the first table of each detail of the log), look at the first byte.
    - If the first byte is a 50, replace the TOD battery on the primary service processor in a 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.
    - If the first byte is a 51, replace the TOD battery on the secondary service processor in a 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.
  - If you have access to a management console, log in as PE user. Display the event details for the corresponding service processor system. Look at the field Platform log ID, which contains a decimal value that you need to convert to a hexadecimal value.
    - If the first byte of the hexadecimal value is a 50, replace the TOD battery on the primary unit service processor in a 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.
    - If the first byte of the hexadecimal value is a 51, replace the TOD battery on the secondary service processor in a 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD.

  Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System unit time-of-day (TOD) battery	U*n*-P1-E1

	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Primary service processor time-of-day (TOD) battery	U*n*-P1-C1-E1
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Secondary service processor time-of-day (TOD) battery	U*n*-P1-C1-E1

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

TOPORT

The 12X adapter or controller on one end of the link might be the failing item.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

If you were sent to this procedure as a result of a B700 6985 SRC, and this is the only FRU in the FRU list, the following conditions have occurred:

- The system cannot see any I/O expansion units on a 12X loop
- At least one cable is attached to a port on that loop

In this case, go to Reference codes and look up SRC B700 6985 and work from the full FRU list provided there.

Note: The other end of the link might be given in the symbolic FRU FRPORT.

Complete the following steps to find the failing 12X adapter:

1. Record the bus number (BBBB) in word 7 of the reference code. See Analyzing a 12X or PCI bus reference code.
2. Use one of the following procedures to find the failing 12X adapter:
   - Finding the failing 12X adapter using IBM i operating system
   - Finding the failing 12X adapter using AIX or Linux
   - Finding the failing 12X adapter using the HMC

Finding the failing 12X adapter by using IBM i operating system

1. Sign on to SST or DST if you have not already done so.
2. Select **Start a service tool** > **Hardware service manager** > **Logical hardware resources** > **High-speed link (HSL) resources**.
3. Select **Include non-reporting resources** then click **Display detail** for the 12X loop that you want to examine. The loop number is the number from word 7 of the reference code above.

4. The display that appears shows the port status of the Network Interface Controller (NIC) for the loop that you selected. Record the resource name, type-model, and serial number.
5. If the status of the "Leading port to next resource" is **operational**, select **Follow Leading Port**. Repeat this action until the status changes to **failed**. Does the resource name ever match the one recorded in the previous step?
   - **Yes:** You have traveled around the loop and did not find a failed link. **This ends the procedure.**
   - **No:** Continue with the next step.
6. When the status is **failed**, you have found the **from** port. Since you are looking for "TOPORT", select **Follow Leading Port** one more time, which moves to the **to** port.
7. Record the following information of this resource:
   a. Resource name, card type and model, and part number
   b. Link status of each port (make sure to note if a port is designated as internal)
8. Select **Cancel** to return to the Work with High-speed link (HSL) resources display.
9. For the loop with the failure, select **Resources associated with loop**.
10. For the 12X I/O bridge with the resource name that you recorded, select **Associated packaging resources.**
11. Select **Display detail** and record the location for the first failing resource.
12. Replace this FRU using the table below to determine the failing FRU part number. **This ends the procedure.**

Finding the failing 12X adapter by using AIX or Linux

1. Determine on which 12X loop the failing adapter is located. Refer to Converting the loop number to 12X port location labels.
2. Identify each unit in the loop by following the cable.
3. Power down the system and remove all expansion units in the loop that starts and ends at the ports given in the previous step.
4. Power on the system to partition standby and check for the same SRC that sent you here. Did the SRC reoccur?
   - **No:** Power down the system and add the next unit in the original loop. Repeat this step.
   - **Yes:** If there are no expansion units in the loop, replace the controller on the system unit. Otherwise, the 12X adapter in the last I/O unit added is possibly the failing item. Use the table below to determine the part number for the field replaceable unit (FRU). **This ends the procedure.**

Finding the failing 12X adapter by using the management console

1. If you are using the Hardware Management Console, perform the following steps:
   a. From the HMC, expand **Systems Management** > **Servers**.
   b. Select the server on which you are working, expand **Hardware Information**, and click **View RIO-12X Topology**.
   c. In the Current Topology area, scroll down until you find data for the 12X loop number with which you are working.

   If you are using the Systems Director Management Console (SDMC), perform the following steps:
   a. From the SDMC, select the server on the **Resources** page.
   b. Click **Actions** > **Hardware Information** > **View Hardware Topology**.
   c. Click **Actions**, and select **Hardware Information** to view the RIO-12X topology.
   d. Scroll down until you find data for the 12X loop number with which you are working.
2. Each line in that 12X loop represents a 12X adapter or controller. Find the first one with a "Trailing Port Status" of **failed**. Replace the failing adapter or controller. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
2BDA	8202-E4B, 8205-E6B	See System parts.	12X adapter	U*n*-P1-C2, U*n*-P1-C8
2BDA	8202-E4C, 8202-E4D, 8205-E6C, 8205-E6D	See System parts.	12X adapter	U*n*-P1-C1, U*n*-P1-C8
2BDB	8231-E2B	See System parts.	4X adapter	U*n*-P1-C1, U*n*-P1-C7
2B4D	8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	12X adapter	U*n*-P1-C8
1817	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C8
52B4	8233-E8B, 8236-E8C	See System parts.	12X adapter	U*n*-P1-C7
2B65	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	I/O backplane	U*n*-P2
2BB9	9117-MMB, 9179-MHB	See System parts.	I/O backplane	U*n*-P2
2B59	8412-EAD, 9117-MMC, 9117-MMD, 9179-MHC, or 9179-MHD	See System parts.	I/O backplane	U*n*-P2
2B62	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Midplane	U*n*-P1
2BBD	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Midplane	U*n*-P1
2BC3	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Dual-port 12X adapter	U*n*-P1-C2, U*n*-P1-C3
295B	9119-FHB	See System parts.	12X adapter	U*n*-P*y*-C39, U*n*-P*y*-C40, U*n*-P*y*-C41, U*n*-P*y*-C44 **Note:** y = 2 - 9
520A	5796	See System parts.	Dual-port 12X interposer or riser	U*n*-P1-C7
520B	5796	See System parts.	Dual-port 12X interposer or riser	U*n*-P1-C7
520C	5796	See System parts.	I/O backplane	U*n*-P1
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
	5802, 5877	See System parts.	12X cables	U*n*-P1-T*y*
	5803, 5873	See System parts.	12X cables	U*n*-P1-T*y*, U*n*-P2-T*y*

This ends the procedure.

TPMD_OV

The thermal power management firmware has detected that the system is operating without power supply redundancy.

The maximum power limit for the operational power supply has been reached and action has been taken to reduce power consumption. A power-related SRC might or might not have been logged.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Complete the following steps.

1. Check the error log for power-related SRCs (1xxx yyyy). Did you find a power-related SRC?
   - **No:** Continue with the next step.
   - **Yes:** Resolve the problem using the power-related SRC. **This ends the procedure.**
2. Replace the power supply. If there are two power supplies, check the LEDs on the power supplies (see PWRSPLY for descriptions of the LEDs and their meaning). If the LEDs indicate that one of the power supplies is failing, replace it first. If the LEDs do not indicate a failure, replace the power supplies one at a time. Did replacing power supplies resolve the problem?
   - **No:** Continue with the next step.
   - **Yes: This ends the procedure.**
3. Replace the TPMD card. **This ends the procedure.**

TWRBKPL

The failing item is the backplane in an expansion unit.

1. Are you working from the serviceable event view and a card location is listed with this failing item?
   - **Yes:** Then the listed card location is where the error is located. Continue with the next step.
   - **No:** Record the bus number value, BBBB, in word 7 of the reference code (see DSA translation). Search for the bus number in the management console's or operating system's resource and configuration interfaces or the system configuration listing to determine which unit contains the failing item. Continue with the next step.
2. The failing item is built into the I/O backplane of the I/O unit. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
50A2	5802, 5877	See System parts.	I/O backplane	U*n*-P1
50A2	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2
520C	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

   If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

TWRCARD

An SPCN card might be failing.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

The SPCN card can be on either an adapter style card or integrated on the system backplane or an I/O backplane in an attached I/O expansion unit.

Complete the following steps to service this FRU:

1. Is the system reference code (SRC) 1xxx00AD?
   - **No:** Continue to the next step.
   - **Yes:** The 1xxx00AD SRC might be caused by the service processor being intentionally reset. An intentional reset is caused by an action such as a pin hole reset, ASMI menu selection, or part replacement. An intentional reset requires no service action. If your system produced the 1xxx00AD SRC and an intentional reset was not the cause, use the following table to determine the part number of the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8233-E8B, 8236-E8C	See System parts.	I/O backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1
	9125-F2C	See System parts.	1. DCCAs (replace one at a time) 2. System backplane	1. U*n*-P1-C147, U*n*-P1-C148 2. U*n*-P1

2. Is the system reference code (SRC) 1xxx5000?
   - **No:** Continue to the next step.
   - **Yes:**
     – For SRC 1xxx5000, perform one of the following options:
       - For models 8233-E8B and 8236-E8C, replace the system backplane. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8233-E8B, 8236-E8C	See System parts.	System backplane	U*n*-P1

       - For models 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD, replace the service processor card in the top drawer of a multiple-drawer system. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1

– For SRC 1xxx5001:
  - For models 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD, replace the service processor card in the second drawer of a multiple-drawer system. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1

3. Verify that all cables are seated correctly.
4. Examine the location code of this FRU in the serviceable event view you are working with to determine the unit's type and model. Is the failing SPCN component in the system unit?
   - **No:** Go to step 6.
   - **Yes:**
     – For models 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D, the SPCN component is part of the system backplane. Replace the system backplane. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	See System parts.	System backplane	U*n*-P1

– For models 8248-L4T, 8408-E8D, 9109-RMD, replace the service processor card. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Service processor card	U*n*-P1-C1

– For models 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD, replace the service processor card in the top drawer of a multiple-drawer system. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code

	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1

5. Does the reference code still occur?
   - **No: This ends the procedure.**
   - **Yes:**
     - For a model 8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D, contact your next level of support. **This ends the procedure.**
     - On a model 8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD, replace the midplane. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Midplane	U*n*-P1

6. The failing SPCN component is in an I/O expansion drawer. Use the following table to determine the part number for the field-replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	5796, 7314-G30	41L6022	SPCN card	U*n*-P1-C8
	1519	42R4468	Integrated xSeries adapter	
	5802, 5877	See System parts.	The SPCN components are part of the EMC card. Replace the EMC card.	U*n*-P2

This ends the procedure.

TWRPLNR

This symbolic FRU represents the backplane in an I/O expansion unit.

1. Are you working from the serviceable event view and a card location is listed with this failing item, or do you already know the unit or feature type where the failure is?
   - **Yes:** The listed card location is where the error is located. Continue with the next step.
   - **No:** Record the bus number value, BBBB, in word 7 of the reference code. Word 7 of the reference code allows you to determine the correct bus number, bus type, multiadapter bridge number, multiadapter bridge function number, and logical card number from the Direct Select Address (DSA). See DSA translation. Continue with the next step.
2. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1
	5802, 5877	See System parts.	I/O backplane	U*n*-P1
	5803, 5873	See System parts.	I/O backplane	U*n*-P1, U*n*-P2

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

This ends the procedure.

UC235

The problem might be that the card (a resource) was removed from the card enclosure without updating the system configuration records.

Note: If the system has OptiConnect, verify that the remote system was powered on at the time of the failure.

To update the system configuration records select **Hardware System Manager** > **Logical Hardware Resources** > **System Bus Resources** > **Non-reporting Resources** > **Remove**.

This ends the procedure.

UC236

The problem might be that the card (a resource) is not correctly plugged into the card enclosure.

Use the location information associated with this failing component in the service action log entry and verify that the card is installed properly.

UG3LB

Communications problem analysis has completed successfully.

The results have been recorded in the problem log. You can keep this information for future reference, or you can delete the problem record using the delete problem (DLTPRB) command. The problem record can also be deleted by selecting option 4 from the work with problem display for the problem.

If you choose to keep the problem information, you can run the procedure again by selecting option 8 to work with the problem.

This ends the procedure.

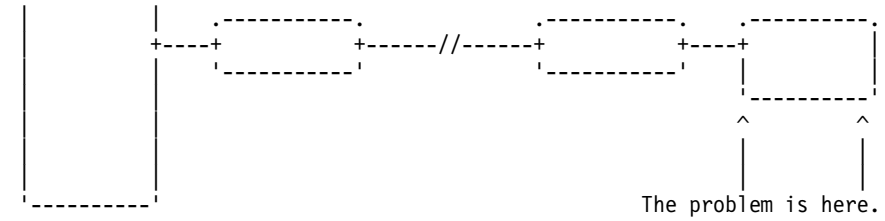
UG3AS

An error has been detected in the licensed internal code.

Contact your next level of support for possible corrective actions.

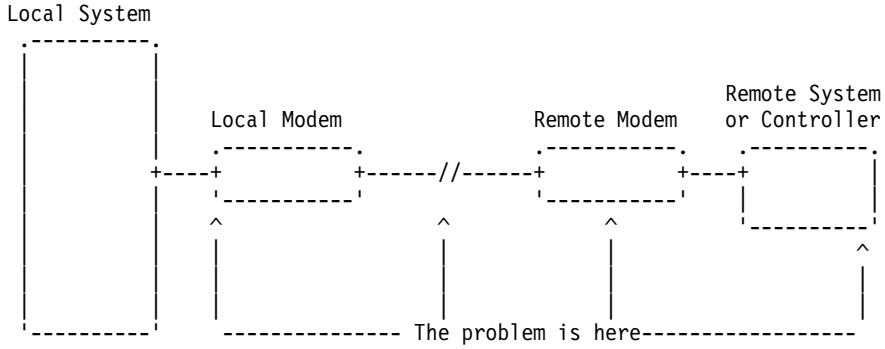
UJ0E2

The problem has been isolated to the remote data terminal equipment.



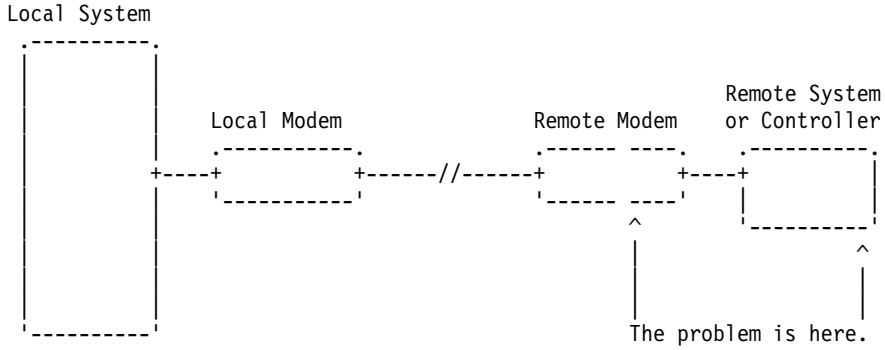
UJ0E3

The problem has been isolated to the local modem or the hardware that links to the remote end.



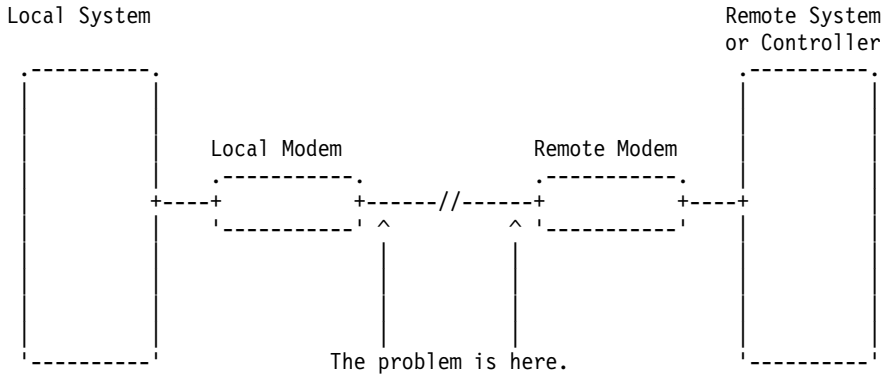
UJ0E6

The problem has been isolated to the remote modem, or the remote system or controller.



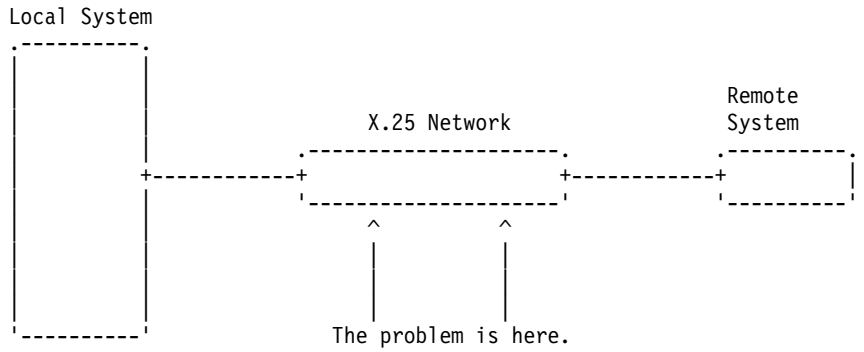
UJ0E7

The problem has been isolated to the telephone line equipment that links the local and the remote equipment.



UJ0E9

The problem has been isolated to the X.25 network.



UJ6P3

An error occurred in the Facsimile Support/400 licensed program.

Please contact your next level of support for possible corrective actions.

Find additional information on Facsimile Support for iSeries in the Facsimile Support for AS/400 User's Guide.

UJ9GC

The configuration for the wireless network has been identified as a cause of the problem.

The following parameters must be the same for the entire network:

- Frequency
- Data rate
- Radio system identifier

The configuration for one or more of the following will need to be changed:

- IBM i line description
- Access points
- Remote devices

UJA32

The communication line or the automatic call unit is already being used.

Complete the following actions:

1. Use the documentation that came with your automatic call unit to verify that the unit is configured correctly.
2. Make sure that the telephone line attached to your automatic call unit is not being used by another job.

This ends the procedure.

UJA33

The problem can be caused by too many active lines using the same input/output processor (IOP) or by setting the line speed too high.

Complete the following to find which active lines use the same IOP, and to correct the problem:

1. Vary off the failing line using the VRYCFG command.
2. Vary the line on again, with the reset option of the VRYCFG command set to **Yes**. The active lines that use the IOP will be displayed with their line speeds.

3. Determine whether there are too many lines using the IOP, or whether the line speeds are too high.
4. Correct the configuration as needed.

This ends the procedure.

UJA34

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The line configuration parameter that was identified as a possible problem can be changed by using the WRKLIND command. Determine whether the suspected configuration parameter is wrong and change if necessary.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJA35

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the synchronous data link control (SDLC) controller description with the DSPCTLD command.

The controller description was created by the CRTCTLAPPC, CRTCTLFNC, CRTCTLHOST, or CRTCTLRWS command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJA36

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the X.25 line description with the DSPLIND command.

The line description was created by the CRTLINX25 command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJB35

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the binary synchronous line description with the DSPLIND command.

The line description was created by the CRTLINBSC command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJB36

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the binary synchronous control unit description with the DSPCTLD command.

The controller description was created by the CRTCTLBSC command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJB37

A configuration problem occurred.

The problem might be caused by too many jobs running at the same time.

To display all active jobs, and the system resources being used by the jobs, use the display active job command (WRKACTJOB).

To display how the system is being used and how the system memory is allocated, use the display system status command (WRKSYSSTS).

You might need to cancel some jobs or wait until some jobs complete before you run your communications job.

This ends the procedure.

UJC35

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the IDLC line description with the DSPLINID command.

The line description was created by the CRTLINASC command. You might need to review the CRTLINASC command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you see this temporary change.

UJC36

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the asynchronous control unit description with the DSPCTLD command.

The control unit description was created by the CRTCTLASC command. You might need to review the CRTCTLASC command information to determine whether the suspected configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you see this temporary change.

UJC37

A configuration problem occurred.

Verify that the configuration parameters for your asynchronous equipment are correct by performing the following actions:

- Display the line description with the DSPLIND command (created by the CRTLINASC command).
- Display the controller description with the DSPCTLD command (created by the CRTCTLASC command).
- Display the remote device description with the DSPDEVD command (created by the CRTDEVASC command).

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct.

Report this problem to your service representative if you use this temporary change.

This ends the procedure.

UJC38

The communications line or the automatic call unit is already being used.

Complete the following actions:

- Use the documentation that came with your automatic call unit to verify that the unit is configured correctly.
- Make sure that the telephone line attached to your automatic call unit is not being used by another job.

This ends the procedure.

UJE31

There might be a problem with the Token-Ring Network Manager program.

Contact the token-ring administrator responsible for your network.

UJE32

There might be a problem with the Token-Ring Network Management function.

Contact the token-ring administrator responsible for your network.

UJE33

The token-ring adapter returned status information because it has received a beacon frame from the token-ring network.

The line is still operational; however, if this problem occurs often it could be because of electrical noise on the network. To learn more about electrical requirements and noise problem considerations, see Site preparation and physical planning.

UJE34

The error message might have been logged from a temporary error that is not caused by equipment failure.

This type of error message sometimes contains information about system performance. See the original system message for cause and recovery information about the error.

UJE35

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the local area network line description with the DSPLIND command.

The line description was created by the CRTLINTRN, CRTLINETH, or CRTLINDDI command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily resolved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJE36

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the local area network control unit description with the DSPCTLD command.

The controller description was created by the CRTCTLAPPC, CRTCTLHOST, or CRTCTLRWS command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJE37

The problem might be at the remote site.

Complete the following steps:

1. Ask the remote site operator to verify the following items:
   - The remote equipment is powered on and ready.
   - The configuration values are correct.
   - The local area network cables are securely connected and are not damaged.
2. If the problem continues, run all available diagnostic tests on the remote equipment and perform the repair action specified.

This ends the procedure.

UJE38

Too many jobs are running that use the communications controller.

Before you can run your communications job, you must perform one or more of the following actions:

- End any diagnostic program that might be running, such as the Communications Trace Program.
- Vary off a line that is using the controller.
- Lower the speed of a line that uses the controller.

Complete the following steps to determine which lines are using the controller:

1. Vary off the failing line using the VRYCFG command.
2. Vary the line on again, with the reset option of the VRYCFG command set to **Yes**. The names of the lines using the controller will be displayed.

This ends the procedure.

UJE39

The problem might be at the remote site.

Complete the following steps:

1. Ask the remote site operator to verify the following items:
   - The remote equipment is powered on and ready.
   - The configuration values are correct.

2. If the problem continues, run all available diagnostic tests on the remote equipment and perform the repair action specified.

This ends the procedure.

UJE40

The problem might be at the remote site or on the network media.

Complete the following steps:

1. Ask the remote site operator to verify the following items:
   - The remote equipment is powered on and ready.
   - The configuration values are correct.
   - The local area network cables are securely connected and are not damaged.
2. If the problem continues, run all available diagnostic tests on the remote equipment and perform the repair action specified.

This ends the procedure.

UJJ35

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the X.25 line description with the DSPLIND command.

The line description was created by the CRTLINX25 command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJJ36

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the X.25 control unit description with the DSPCTLD command.

The controller description was created by the CRTCTLAPPC, CRTCTLFNC, CRTCTLHOST, CRTCTLRWS, or CRTCTLASC command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UJJ37

The error message might have been logged from a temporary error that is not caused by equipment failure.

This type of error message sometimes contains information about system performance. See the original system message for cause and recovery information about the error.

UJJ38

A user specified X.25 facility, such as packet size, window size, reverse charging, or closed user group, might not have been correctly assigned.

UJJ39

Look here for information about UJJ39 symbolic FRU.

Refer to the "Configure your iSeries server for communications" information.

UJP37

A configuration problem occurred.

The problem might be caused by one of the following items:

- Too many active lines are using the same I/O processor (IOP).
- The line speeds are set too high.

To find the lines using the same IOP, perform the following steps:

1. Vary off the failing line (VRYCFG command).
2. Vary the line back on, with the reset option of the VRYCFG command set to Yes.
3. The active lines using that IOP will be displayed with their line speeds. Determine whether there are too many lines using the IOP, or whether the line speeds are set too high. Correct the configuration as needed.

This ends the procedure.

UKN572F

A storage adapter might be failing.

The system could not determine the part number of the 572F storage adapter. The type and model of the system unit or expansion unit can be used to determine the part number. Using the resource name logged with this error and hardware service manager, determine the physical location of the solid state drive. Then use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
572F	5791, 5794, 5797, and 5798 expansion units	44V7627	572F storage adapter	U*n*-P*x*-C*x*
572F	All other system units and expansion units	44V8622	572F storage adapter	U*n*-P*x*-C*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

UKN58B0

A 69 GB solid state drive might be failing.

The system could not determine whether the solid state drive is a 2.5 inch 69 GB solid state drive or a 3.5 inch 69 GB solid state drive. The type and model of the system unit or expansion unit can be used to determine the part number. Using the resource name logged with this error and hardware service manager, determine the physical location of the solid state drive. Then use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
58B0	8233-E8B and 8236-E8C system units with device backplane type/feature 2A16 or 2A39	44V6821	2.5 inch 69 GB solid state drive	U*n*-P*x*-D*x*
58B0	All other system units and expansion units	44V6819	3.5 inch 69 GB solid state drive	U*n*-P*x*-D*x*

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

ULNZ3

The problem might be a communications line problem.

When a workstation is attached to the system through modems, it might fail or lose communication with the system for various lengths of time. This is due to a communications line problem. Refer to the modem service information to determine how to test the modems and verify that the communications line between the modems is working correctly.

ULNZ4

Independent workstation and SDLC support.

The system considers an independent workstation to be an attached remote system when it is attached using PC Support asynchronous communications on an ASCII workstation controller. See the *ASCII Work Station Reference*, SA41-3130-00 information for instructions on how to verify that the remote system (independent workstation) that is attached to the failing port is a supported device. See the device hardware maintenance and service information for instructions on how to verify that the device is working correctly.

UNM31

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the ISDN network interface description with the DSPNWIISDN command.

The line description was created by the CRTNWIISDN command. You might need to review the appropriate command information to determine whether the configuration parameter is wrong.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UNM32

The licensed internal code of the communications I/O card cannot obtain a necessary resource because of a heavy workload.

This can be caused by too many configured stations, too many users, maximum inbound or outbound data sizes, as well as other considerations.

Try to reduce the total workload on the communications I/O controller card by performing one of the following options:

- Change the communications configuration
- Vary off any unused lines
- End any service functions that are not needed

UNM35

There could be a problem at the remote U interface, between the NT1 node and the Integrated Services Digital Network (ISDN).

This interface is a 2-wire connection between the NT1 node and the ISDN. Contact your ISDN provider and have them verify the proper operation of the interface.

UNM36

There might be a problem in the Integrated Services Digital Network (ISDN).

Contact your ISDN service provider and report the problem

UNM38

The required program temporary fix (PTF) is not installed.

To use the specified network type, you must first install a PTF. If the PTF has not been previously installed, install it and try the operation again.

UNP20

The internal code of the I/O card that detected the error might be defective.

Complete the following steps:

1. Replace the suspected card.
2. If the failure occurs again, contact your next level of support and report the problem.

This ends the procedure.

UNU01

Electrical noise in the local environment can cause performance degradation or loss of an ISDN communications link.

Motors, electrical devices, power cables, communications cables, radio transmitters, and magnetic devices can cause noise or electrical interference.

Complete the following steps:

1. Inspect ISDN cables or wiring located near a source of possible noise or electrical interference.
2. Inspect ISDN cables for damage, incorrect connections, or loose connections.
3. Consult your local ISDN network provider or service representative for assistance in correcting the problem.

This ends the procedure.

UNU02

The problem might be at the remote location.

Complete the following steps:

1. Have the remote site operator verify that the remote equipment is powered on and ready, and that the remote configuration values are correct and compatible with the local configuration.
2. If the problem continues, determine whether data is being transferred over the remote ISDN interface. This can be done by either using a communications trace (STRSST), or attaching a protocol analyzer to the line.
   - If a line trace reveals that no data is being transferred, run hardware and diagnostic tests on the remote equipment.
   - If data is crossing the ISDN interface, analyze the failing protocol procedures to determine which configuration parameters to change. Consult your service representative for help with this analysis.

This ends the procedure.

UNU31

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the IDLC line description with the DSPLINIDLC command.

The line description was created by the CRTLINIDLC command. You might need to review the appropriate command information to determine whether the configuration parameter is incorrect.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UNU32

A configuration parameter might be incorrect.

To determine the configuration parameter that was identified as a possible problem, search for the error in the service action log and display the failing item information for the error. The failing item description associated with this symbolic FRU identifies the parameter that might be the problem.

The configuration parameter that was identified as a possible problem can be verified by displaying the IDLC controller description with the DSPCTLD command.

The controller description was created by the CRTCTLHOST, CRTCTLAPPC, or CRTCTLRWS command. You might need to review the appropriate command information to determine whether the configuration parameter is incorrect.

Some software problems can be temporarily solved by changing the configuration parameter, even if the original value was correct. Report this problem to your service representative if you use this temporary change.

UPLF1

The system might not have been able to complete the Advanced Peer-to-Peer Networking (APPN) session initiation due to the number of jobs that were active when the timeout occurred.

The timeout condition could have been caused by a system performance problem. System performance could be impacted by the capacity of the system. System performance can also be impacted by processing requests from other systems in the network.

UPLF2

A request was sent to one or more systems in the network, but the local system did not receive the response in the allotted time.

The timeout might be caused by a network performance problem. Possible causes for network performance problems are:

- Network congestion
- Capacity of some systems in the network exceeded
- Software problem in one or more systems might have caused the requests to be lost

Contact the remote operators to determine whether any software problems related to Advanced Peer-to-Peer Networking (APPN) have been reported. Take any steps necessary to correct the problem.

This ends the procedure.

UPLF3

A timeout condition might have occurred because the system was not able to activate a switched link to a remote control point.

A possible cause is that a message was issued to the QSYSOPR message queue that pertains to the controller description selected by Advanced Peer-to-Peer Networking (APPN). However, no response to the message was provided.

This timeout also might have occurred because a previous session initiation request for the same local location, remote location, and mode name failed during the switched link activation.

This ends the procedure.

UPLF4

The session initiation attempt might have failed because of a route selection problem.

Advanced Peer-to-Peer Networking (APPN) transmission groups and nodes with acceptable class-of-service characteristics might need to be activated in the intermediate routing portion of the network.

If the operating systems involved are IBM i operating systems, this might require varying on line descriptions and controller descriptions in the network. It might also indicate that one or more communication lines between some of the systems in the network are not operating.

This ends the procedure.

UPLF5

The session initiation attempt might have failed because of a route selection problem.

The available nodes and transmission groups in the Advanced Peer-to-Peer Networking (APPN) topology might be unacceptable for the class-of-service being requested. A possible solution is to select a different class-of-service for the session initiation request so that the existing network topology is considered acceptable.

The class-of-service used for the session initiation requests in an IBM i operating system is specified in the mode description. Have the user select a mode description that specifies an acceptable class-of-service, or change the mode description so that it specifies an acceptable class-of-service.

This ends the procedure.

UPLF6

The session initiation attempt might have failed because of a route selection problem.

Transmission groups and nodes with acceptable class-of-service characteristics might need to be defined in the intermediate routing portion of the network. It is suggested that the correct documentation be referenced to determine how to define nodes and transmission groups with acceptable class-of-service characteristics.

This ends the procedure.

UPSUNIT

The uninterruptible power supply (UPS) might be the failing component.

Complete the following steps:

1. Is the problem that the system has a UPS reference code, but the UPS does not have a fault code?
   - **Yes:** Continue with the next step.
   - **No:** Go to step 3.
2. Remove the UPS signal cable from the system connector. Does the system report a UPS reference code now?
   - **No:** Continue with the next step.
   - **Yes:** Replace the following, one at a time, until the problem is resolved. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FCC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1

CCIN or FCC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card (SPCN function for the system unit)	U*n*-P1-C1
	UPS		Remote power controller (RPC)	

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

3. Complete the following steps:
   a. Verify the UPS signal cable, between the UPS and the system, is connected and seated properly.
   b. Have the customer call the UPS provider for service if a problem is found.
   c. Call service support if the problem is not resolved after the UPS is verified as working correctly.

This ends the procedure.

USB_CBL

The USB cable or the USB connection between the I/O adapter (IOA) and the device might be failing.

Complete the following steps:

1. Is a location code available in the serviceable event view for this field-replaceable unit (FRU)?

   Yes: Determine the location of the port by removing -L*x* from the location code. Replace any USB cables or extension cables at the port location. If there are no USB cables or extension cables, replace any hardware that connects the IOA to the device. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

   No: Continue with the next step.

2. Use the USB_DEV symbolic FRU to determine the location of the USB port that the external USB docking station is attached to. Replace any USB cables or extension cables at the port location. If there are no USB cables or extension cables, replace any hardware that connects the IOA to the device. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

USB_DEV

The USB device might be failing.

Complete the following steps:

1. Does the location in the service action log for this field-replaceable unit end with -C*x* or -D*x*?

   Yes: Replace the USB device at the location indicated. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

No: Continue with the next step.

2. Was the serviceable event logged by the adapter resource?

   Yes: Use the USBPORT symbolic FRU to determine the location of the USB port that the device is attached to. Replace the device at the port location. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

   No: Continue with the next step.

3. Find the product activity log for the system reference code (SRC) by completing the following steps:
   a. Select System Service Tools (SST).

      If you cannot get to SST, select DST.

      Note: Do not perform an IPL of the system to get to DST.
   b. In the Service Tools display, select **Start a service tool**.
   c. In the Start a Service Tool display, select **Product activity log**.
   d. In the Product Activity Log display, select **Analyze log**.
   e. In the Select Subsystem Data display, select **All Logs**.

      Note: If the SRC you are using occurred more than 24 hours ago, change the from and to dates and times from the 24-hour default.
   f. Use the defaults on the Select Analysis Report Options display by pressing Enter.
   g. Find the entry in the product activity log that matches the SRC.
4. Select the **Display Detail Report** on the Resource display.
5. Press F6 (Hexadecimal report) to display the hexadecimal information of the product activity log.
6. Look for the first occurrence of `0A77` in the hexadecimal data between offset 00019E and the end of the hexadecimal data.
7. Record the hexadecimal digit that immediately follows the 0A77 digits. This is the logical USB port number.
8. Use the following table to determine the physical USB port location. Replace the device at the port location. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Type and model	Logical USB port number	Physical USB port location
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	1	U*n*-P1-T5
	2	U*n*-P1-T6
	3	U*n*-D1-T1
	4	U*n*-P1-D2
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	1	U*n*-P1-T7
	2	U*n*-P1-T8
	3	U*n*-D1-T1
	4	U*n*-P1-D2
8233-E8B, 8236-E8C	1	U*n*-P1-T3
	2	U*n*-P1-T4
	3	U*n*-D1-T1

Type and model	Logical USB port number	Physical USB port location
9117-MMB, 9117-MMC, 9179-MHB, 9179-MHC	1	U*n*-P2-C8-T5
	2	U*n*-P2-C8-T6
	3	U*n*-D1-T1

This ends the procedure.

USB_IOA

The USB I/O adapter (IOA) might be failing.

Complete the following steps:

1. Is the IOA location available in the service action log?

   Yes: Replace the USB IOA at the location indicated. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

   No: Continue with the next step.

2. Record the first 4 characters of word 7 in the service action log. This is the bus number. Go to Card positions and use the bus number to determine the IOA location.

   Replace the USB IOA at the location indicated. For more information, see Part locations and location codes.

   Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

USBPORT

There is a problem associated with the USB port.

Complete the following steps:

1. Is a location code available in the serviceable event view for this field-replaceable unit (FRU)?

   Yes: Move or replace USB devices at the location indicated. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system. **This ends the procedure.**

   No: Continue with the next step.

2. Was the serviceable event logged by the adapter resource?

   Yes: Continue with the next step.

   No: Contact your next level of support. **This ends the procedure.**

3. Find the product activity log for the system reference code (SRC) by completing the following steps:
   a. Select System Service Tools (SST).

      If you cannot get to SST, select DST.

      Note: Do not perform an IPL of the system to get to DST.

   b. In the Service Tools display, select **Start a service tool**.
   c. In the Start a Service Tool display, select **Product activity log**.
   d. In the Product Activity Log display, select **Analyze log**.
   e. In the Select Subsystem Data display, select **All Logs**.

Note: If the SRC you are using occurred more than 24 hours ago, change the from and to dates and times from the 24-hour default.

f. Use the defaults on the Select Analysis Report Options display by pressing Enter.

g. Find the entry in the product activity log that matches the SRC.

4. Select **Display Detail Report** on the Resource display.
5. Press F6 (Hexadecimal report) to display the hexadecimal information of the product activity log.
6. Look for the first occurrence of `D7C1E3C8` in the hexadecimal data between offset 000180 and the end of the hexadecimal data. `D7C1E3C8` will be displayed as PATH in the EBCDIC text column.
7. Record the 2 hexadecimal digits that immediately follow the D7C1E3C8 digits. This is the logical USB port number.
8. Use the following table to determine the physical USB port location. Move or replace USB devices at the location indicated. For more information, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

Type and model	Logical USB port number	Physical USB port location
8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D	01	U*n*-P1-T5
	02	U*n*-P1-T6
	03	U*n*-D1-T1
	04	U*n*-P1-D2
8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D	01	U*n*-P1-T7
	02	U*n*-P1-T8
	03	U*n*-D1-T1
	04	U*n*-P1-D2
8233-E8B, 8236-E8C	01	U*n*-P1-T3
	02	U*n*-P1-T4
	03	U*n*-D1-T1
9117-MMB, 9117-MMC, 9179-MHB, 9179-MHC	01	U*n*-P2-C8-T5
	02	U*n*-P2-C8-T6
	03	U*n*-D1-T1

This ends the procedure.

USER

A system operator error or user error occurred.

See the system operator information.

UX201

The printer definition table might be causing the problem.

See the original system message for cause and recovery information about the error.

UX202

A problem was detected while downloading a device Licensed Internal Code change to the device.

See the original system message for cause and recovery information about the error.

UY1Z1

There might be a cable problem.

Problems that are associated with noise might cause a workstation to fail or lose communication with the system for various lengths of time. A motor or any device that is a source of electrical radiation might cause noise or electrical interference. The following are common causes for noise problems:

- The cables are located near a source of electrical interference.
- The cables are loose, damaged, or not correctly connected.

UY1Z2

This error might occur if you attempted to activate more workstations than the amount allowed.

Perform one of the following to correct the problem:

- Turn off the power for the workstation that caused the error, or connect the workstation to a different controller.
- Turn off the power for a different workstation that is connected to the same workstation controller.

See the local workstation diagrams for the physical location of workstations.

This ends the procedure.

UY1Z3

This error might be caused by a workstation that is connected to the port.

1. Complete the following steps:
   a. Turn off the power for one workstation on the port
   b. Check if the other workstations operate correctly.
   c. Repeat this for each workstation on the port.
   d. The workstation that causes the problem is the one that is turned off when the others are working correctly.
   e. If you did not find the problem, continue with the next step.
2. Complete the following steps:
   a. Turn off the power for all workstations on the port.
   b. Turn on one workstation to check if it works when all other workstations are turned off.
   c. Repeat this for each workstation on the port. The workstation that causes the problem is the one that works when all other workstations are turned off.

This ends the procedure.

UY1Z4

An error occurred with the pass-through command between the workstation controller and the workstation.

A failure in the Licensed Internal Code in either the workstation or the workstation controller causes this type of error.

UY1Z5

The communication between the workstation controller and a workstation was interrupted during an active session.

Possible causes include:

- The power for the workstation was turned off and then turned on.
- A temporary loss of power to the workstation occurred.

VIOSLOG

Correct any serviceable events in the Virtual I/O Server (VIOS) logical partition that is hosting the I/O devices that reported the problem. If the problem in the client logical partition persists, continue with the next failing item in the failing item list.

VIRTDRV

A virtual device problem was detected in the guest partition. Resolve any storage errors that are reported in the serviceable event view of the host partition.

VPDPART

Look here for information about VPDPART symbolic FRU.

If you need additional information for failing part numbers, location codes, or removal and replacement procedures, see Part locations and location codes. Select your machine type and model number to find additional location codes, part numbers, or replacement procedures for your system.

1. Is the reference code 1xxx8402?
   - **No:** Continue with the next step.
   - **Yes:** Prior to exchanging any parts, verify that the processors cards are installed. If you are in test mode and have removed all of the processor cards, disregard this reference code. Otherwise, verify that the processor cards are installed correctly. If the processor cards are installed correctly, replace the service processor card (in certain systems, the service processor function is built into the system backplane). Use the following table to determine the part number for the field replaceable unit (FRU).

     Note: If the reference code is associated with an I/O expansion unit, replace the I/O backplane in the I/O expansion unit.

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1
	9119-FHB	See System parts.	System controllers	U*n*-P1-C2, U*n*-P1-C5

	9125-F2C	See System parts.	DCCAs	U*n*-P1-C147, U*n*-P1-C148
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

This ends the procedure.

2. Is the reference code 1xxx8409?
   - **No:** Continue with the next step.
   - **Yes:** No processor cards or memory DIMMs are installed. If you are in test mode and have removed all of the processor cards or memory DIMMs, disregard this reference code. Otherwise, correct the processor cards:
     - **8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D:** If the processor modules and memory DIMMs are installed correctly, replace both processor modules. If that does not correct the problem, replace all of the memory cards. See System parts. to determine the part number for the field replaceable unit. **This ends the procedure.**
     - **8233-E8B, 8236-E8C:** If the processor cards and memory DIMMs are installed correctly, replace all processor cards. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
     - **9119-FHB:** Replace the processor book that reported the SRC. **This ends the procedure.**
     - **9125-F2C:** Replace the system board at location U*n*-P1. **This ends the procedure.**
3. Is the error related to a processor book in a 9119-FHB?
   - **No:** Continue with the next step.
   - **Yes:** Use the reference code in the following table to find the FRU.

Reference code	Action
1xxx84x0 (where x is not equal to 0)	Replace the node book at location U*n*-P9. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
1xxx84x1	Replace the node book at location U*n*-P5. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
1xxx84x2	Replace the node book at location U*n*-P6. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
1xxx84x3	Replace the node book at location U*n*-P2. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
1xxx84x4	Replace the node book at location U*n*-P7. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
1xxx84x5	Replace the node book at location U*n*-P8. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
1xxx84x6	Replace the node book at location U*n*-P3. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**
1xxx84x7	Replace the node book at location U*n*-P4. See System parts to determine the part number for the field replaceable unit. **This ends the procedure.**

4. Is the reference code 1xxx8413, 1xxx8414, 1xxx8415, or 1xxx8416?
   - **No:** Continue with the next step.

- **Yes:** Use the reference code in the following table to find the FRU.
  - **8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D:**

Reference code	Action
1xxx8413	Replace processor module 1 at location U*n*-P1-C11. See System parts to determine the part number for the field replaceable unit.
1xxx8414	Replace processor module 2 at location U*n*-P1-C10. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

  - **8231-E2B:**

Reference code	Action
1xxx8413	Replace processor module 1 at location U*n*-P1-C10. See System parts to determine the part number for the field replaceable unit.
1xxx8414	Replace processor module 2 at location U*n*-P1-C9. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

  - **8233-E8B and 8236-E8C:**

Reference code	Action
1xxx8413	Replace processor card 1. See System parts to determine the part number for the field replaceable unit.
1xxx8414	Replace processor card 2. See System parts to determine the part number for the field replaceable unit.
1xxx8415	Replace processor card 3. See System parts to determine the part number for the field replaceable unit.
1xxx8416	Replace processor card 4. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

  - **8248-L4T, 8408-E8D, 9109-RMD:**

Reference code	Action
1xxx8413	Replace system processor module 1 at location U*n*-P3-C12. See System parts to determine the part number for the field replaceable unit.
1xxx8414	Replace system processor module 2 at location U*n*-P3-C17. See System parts to determine the part number for the field replaceable unit.
1xxx8415	Replace system processor module 3 at location U*n*-P3-C13 See System parts to determine the part number for the field replaceable unit.
1xxx8416	Replace system processor module 4 at location U*n*-P3-C16. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

– **8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD:**

Reference code	Action
1xxx8413	Replace the processor card at location U*n*-P3. See System parts to determine the part number for the field replaceable unit.
1xxx8414	Replace the processor card at location U*n*-P3. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

5. Is the reference code 1xxx8423?
   - **No:** Continue with the next step.
   - **Yes:** Use the reference code in the following table to find the FRU part number.
     – **8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8268-E1D:**

Reference code	Action
1xxx8423	Replace processor module 1 at location U*n*-P1-C11. If this replacement does not fix the problem, replace the system backplane at location U*n*-P1. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

– **8231-E2B:**

Reference code	Action
1xxx8423	Replace processor module 1 at location U*n*-P1-C10. If this replacement does not fix the problem, replace the system backplane at location U*n*-P1. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

– **8233-E8B and 8236-E8C:**

Reference code	Action
1xxx8423	Replace processor card 1. If this replacement does not fix the problem, replace the system backplane. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

– **8248-L4T, 8408-E8D, 9109-RMD:**

Reference code	Action
1xxx8423	Replace the system processor assembly at location U*n*-P3. If this replacement does not fix the problem, replace the midplane at location U*n*-P1. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

– **8412-EAD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD:**

Reference code	Action
1xxx8423	Replace processor card 1. If this replacement does not fix the problem, replace the midplane. See System parts to determine the part number for the field replaceable unit.

This ends the procedure.

6. Is the reference code 1xxx8442, 1xxx8443, or 1xxx8444?
   - **No:** Continue with the next step.
   - **Yes:** Use the reference code in the following table to find the FRU part number.

Reference code	Action
1xxx8442	An attempt was made to enable the enhanced cache option, but one or more processor cards in the system is not capable of supporting the enhanced cache option. Use the serviceable event view to determine which processors are not capable of supporting the enhanced cache option. Replace the processor cards identified in the serviceable event view with processor cards that are capable of supporting the enhanced cache option.
1xxx8443	A drawer was added to a system that has the enhanced cache option enabled, but it is not capable of supporting the enhanced cache option. Replace the processor card with a card that is capable of supporting the enhanced cache option.
1xxx8444	An enhanced cache option register failed. Look for a registry failure in the serviceable event view and follow the service actions for that error to resolve the problem.

7. Is the reference code 1xxx84A1?
   - **No:** Continue with the next step.
   - **Yes:** The power distribution backplane VPD is not valid. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8202-E4B, 8202-E4C, 8202-E4D, 8205-E6B, 8205-E6C, 8205-E6D, 8231-E2B, 8231-E1C, 8231-E1D, 8231-E2C, 8231-E2D, 8233-E8B, 8236-E8C, 8268-E1D	See System parts.	System backplane	U*n*-P1
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1
	9119-FHB	See System parts.	System controllers	U*n*-P1-C2, U*n*-P1-C5
	5796, 7314-G30	See System parts.	I/O backplane	U*n*-P1

This ends the procedure.

8. Is the reference code 1xxx84A3?
   - **No:** Continue with the next step.
   - **Yes:** The wrong service processor card is installed or the VPD is not correct. Replace the service processor card in the failing drawer. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8248-L4T, 8408-E8D, 8412-EAD, 9109-RMD, 9117-MMB, 9117-MMC, 9117-MMD, 9179-MHB, 9179-MHC, 9179-MHD	See System parts.	Service processor card	U*n*-P1-C1

   This ends the procedure.
9. Is the reference code 1xxx8410, 1xxx8420, 1xxx8470, 1xxx84C0, 1xxx84D0, 1xxx84E0, or 1xxx84F0?
   - **No:** Continue with the next step.
   - **Yes:** Replace the system board, U*n*-P1. **This ends the procedure.**
10. Is the reference code 1xxx911C?
    - **No:** Continue with the next step.
    - **Yes:** Two of the drawers in the multiple drawer server have the same VPD information. Reset the system unique identifier in one of the drawers to resolve the problem. **This ends the procedure.**
11. Is the reference code 1xxx1507, 1xxx1517, or 1xxx6000?
    - **Yes:** Replace the midplane at location U*n*-P5 in the 5802 expansion unit. **This ends the procedure**.
    - **No:** Continue to the next step.
12. Is the reference code 1xxx6001?
    - **Yes:** Replace the SAS conduit at location U*n*-P4 in the 5802 expansion unit. **This ends the procedure**.
    - **No:** Continue to the next step.
13. Is the reference code 1xxx6002?
    - **Yes:** Replace the disk drive backplane at location U*n*-P3 in the 5802 expansion unit. **This ends the procedure**.
    - **No:** Continue to the next step.
14. Is the reference code 1xxx6004?
    - **Yes:** Replace the I/O backplane at location U*n*-P1 in the 5802 expansion unit. **This ends the procedure**.
    - **No:** Continue to the next step.
15. Is the reference code 1xxx6009?
    - **Yes:** Replace port card 1 at location U*n*-P3-C1 in the 5802 expansion unit. **This ends the procedure**.
    - **No:** Continue to the next step.
16. Is the reference code 1xxx600A?
    - **Yes:** Replace port card 2 at location U*n*-P3-C2 in the 5802 expansion unit. **This ends the procedure**.
    - **No:** Continue to the next step.
17. Is the reference code 1xxx600B?

- **Yes:** Replace port card 3 at location U*n*-P3-C3 in the 5802 expansion unit. **This ends the procedure**.
- **No:** Continue to the next step.

18. Is the reference code 1xxx600C?
    - **Yes:** Replace port card 4 at location U*n*-P3-C4 in the 5802 expansion unit. **This ends the procedure**.
    - **No:** Return to Starting a service call and look for a 1xxxyyyy SRC. Follow the actions for that SRC. **This ends the procedure**.

VRMOD

The system detected a voltage problem.

Complete the following to service this FRU:

1. Power off the system.
2. Unplug the AC.
3. Reseat the VRMs. Refer to Part locations and location codes for voltage regulator modules. Does that resolve the problem?
    - **Yes: This ends the procedure.**
    - **No:** Continue with the next step.
4. Replace the VRMs. Use the following table to determine the part number for the field replaceable unit (FRU).

CCIN or FFC	Type and model	Part number	Description	Location code
	8233-E8B, 8236-E8C	46K4705	Processor card POWER7 processor voltage regulator	U*n*-P1-C13-C1, U*n*-P1-C14-C1, U*n*-P1-C15-C1, U*n*-P1-C16-C1
	8233-E8B, 8236-E8C	46K4706	Processor card memory voltage regulator	U*n*-P1-C13-C10, U*n*-P1-C14-C10, U*n*-P1-C15-C10, U*n*-P1-C16-C10
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Processor card voltage regulator	U*n*-P3-C11, U*n*-P3-C14, U*n*-P3-C15, U*n*-P3-C18
	8248-L4T, 8408-E8D, 9109-RMD	See System parts.	Processor card memory voltage regulator	U*n*-P3-C10
	9117-MMB, 9117-MMC, 9179-MHB, or 9179-MHC (two processor system unit)	See System parts.	Processor card regulator	U*n*-P3-C5, U*n*-P3-C14, U*n*-P3-C16, U*n*-P3-C21, U*n*-P3-C23, U*n*-P3-C24, U*n*-P3-C26
	8412-EAD, 9117-MMD, 9179-MHC (four-processor system unit), or 9179-MHD	See System parts.	Processor card regulator	U*n*-P3-C5, U*n*-P3-C6, U*n*-P3-C15, U*n*-P3-C17, U*n*-P3-C22, U*n*-P3-C25, U*n*-P3-C26, U*n*-P3-C29

This ends the procedure.

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Electronic emission notices

When attaching a monitor to the equipment, you must use the designated monitor cable and any interference suppression devices supplied with the monitor.

Class A Notices

The following Class A statements apply to the IBM servers that contain the POWER7 processor and its features unless designated as electromagnetic compatibility (EMC) Class B in the feature information.

Federal Communications Commission (FCC) statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada Compliance Statement

This Class A digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

European Community Compliance Statement

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

European Community contact:
IBM Deutschland GmbH
Technical Regulations, Department M372
IBM-Allee 1, 71139 Ehningen, Germany
Tele: +49 7032 15 2941
email: lugi@de.ibm.com

Warning: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Statement - Japan

この装置は、クラスA 情報技術装置です。この装置を家庭環境で使用すると電波妨害
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ることがあります。 VCCI－A

The following is a summary of the VCCI Japanese statement in the box above:

This is a Class A product based on the standard of the VCCI Council. If this equipment is used in a domestic environment, radio interference may occur, in which case, the user may be required to take corrective actions.

Japanese Electronics and Information Technology Industries Association (JEITA) Confirmed Harmonics Guideline (products less than or equal to 20 A per phase)

高調波ガイドライン適合品

Japanese Electronics and Information Technology Industries Association (JEITA) Confirmed Harmonics Guideline with Modifications (products greater than 20 A per phase)

高調波ガイドライン準用品

Electromagnetic Interference (EMI) Statement - People's Republic of China

声 明

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该产品可能会造成无线电干扰。
在这种情况下，可能需要用户对其
干扰采取切实可行的措施。

Declaration: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may need to perform practical action.

Electromagnetic Interference (EMI) Statement - Taiwan

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

The following is a summary of the EMI Taiwan statement above.

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user will be required to take adequate measures.

IBM Taiwan Contact Information:

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台灣國際商業機器股份有限公司
台北市松仁路7號3樓
電話：0800-016-888

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Germany Compliance Statement

Deutschsprachiger EU Hinweis: Hinweis für Geräte der Klasse A EU-Richtlinie zur Elektromagnetischen Verträglichkeit

Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie 2004/108/EG zur Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten und hält die Grenzwerte der EN 55022 Klasse A ein.

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Deutschland: Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Geräten

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Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen.

Verantwortlich für die Einhaltung der EMV Vorschriften ist der Hersteller:
International Business Machines Corp.
New Orchard Road
Armonk, New York 10504
Tel: 914-499-1900

Der verantwortliche Ansprechpartner des Herstellers in der EU ist:
IBM Deutschland GmbH
Technical Regulations, Abteilung M372
IBM-Allee 1, 71139 Ehningen, Germany
Tel: +49 7032 15 2941
email: lugi@de.ibm.com

Generelle Informationen:

Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse A.

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Class B Notices

The following Class B statements apply to features designated as electromagnetic compatibility (EMC) Class B in the feature installation information.

Federal Communications Commission (FCC) statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an IBM-authorized dealer or service representative for help.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM-authorized dealers. IBM is not responsible for any radio or television interference caused by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Community Compliance Statement

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This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication equipment.

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高調波ガイドライン適合品

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Deutschland: Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Geräten

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Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) (bzw. der EMC EG Richtlinie 2004/108/EG) für Geräte der Klasse B

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Verantwortlich für die Einhaltung der EMV Vorschriften ist der Hersteller:
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