



SCSI-2 Fast/Wide Hot-Swap Disk Drive Installation Guide

Note

Before you install this product and use this information, be sure to read the product warranties and notices information included with the system unit into which you are installing the product.

First Edition (November 1996)

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Safety Information

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on 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.

Before installing or removing signal cables, ensure that the power cables for the system unit and all attached devices are unplugged.

When adding or removing any additional devices to or from the system, ensure that the power cables for those devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

Use one hand, when possible, to connect or disconnect signal cables to prevent a possible shock from touching two surfaces with different electrical potentials.

During an electrical storm, do not connect cables for display stations, printers, telephones, or station protectors for communication lines.

About This Book

This book provides information about the SCSI-2 Fast/Wide Hot-Swap Disk Drives, installing the drive using the hot-swap feature, and configuration information. Use this book together with your specific system unit and operating system documentation.

Related Publications

Refer to your system unit and operating system documentation for information specific to your hardware and software configuration.

ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.

Trademarks and Acknowledgments

AIX is a registered trademark of International Business Machines Corporation

Chapter 1. Overview

The SCSI-2 Fast/Wide Hot-Swap Disk Drives are 3.5" slim-high drives that support fast and wide SCSI synchronous data transfer rates up to 20 MB per second. The hot-swap carrier is used in systems in which disk drives can be removed or inserted without turning off the system unit.

The following table lists the feature capacity of each drive:

<i>Table 1-1. Feature Capacity</i>	
Feature	Feature Capacity (bytes)
1.1 GB SCSI-2 Fast/Wide disk drive	1,126,337,536
2.2 GB SCSI-2 Fast/Wide disk drive	2,255,098,368
4.5 GB SCSI-2 Fast/Wide disk drive	4,512,701,440
9.1 GB SCSI-2 Fast/Wide disk drive	9,100,369,920

The drives meet the Small Computer System Interface-2 (SCSI-2) set by the American National Standards Institute (ANSI).

Chapter 2. Handling Precautions

The SCSI-2 Fast/Wide Hot-Swap Disk Drive is a sensitive electronic device and must be handled with care. Static electricity can damage the drive. Do not take the drive out of its static-protective bag until you are ready to install it in your system unit.

When you handle the drive and other electronic components, observe the following precautions:

- Do not drop the drive or subject it to excessive shock.
- Do not expose the drive to temperatures lower than -40°C (-40°F) or higher than 65°C (149°F).
- Limit your movement. Movement can increase static electricity on you and around you.
- Handle the drive, adapters, and memory module kits carefully and hold by the edges.
- Do not touch any exposed circuitry.
- Prevent others from touching the option.
- When you remove the drive from its static-protective bag to install it, touch the bag to a metal expansion slot screw or other unpainted metal surface on your system unit for at least 2 seconds to drain static electricity from the package and from your body.
- When possible, remove the drive from the bag and install it directly into your system unit without putting the drive down. If you must put the drive down, put a static-protective bag, such as the one it came in, on a smooth, level surface and place the drive, component side up, on the bag. If you do not have a static-protective bag, place the drive on a piece of paper.
- Do not place the drive on the system unit cover or on any other metal surface.

Failure to observe these precautions can cause product failure or damage and might invalidate any warranties.

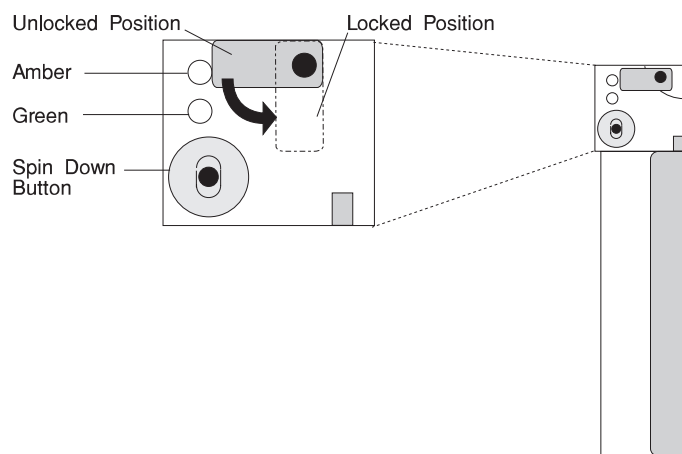
Chapter 3. Adding a Disk Drive Using the Hot Swap Feature

This chapter describes how to add a disk to your system unit without turning the system unit off. The SCSI-2 Fast/Wide Hot-Swap Disk Drive is supported on several operating systems. Instructions for configuring the drive on an AIX system are provided in this chapter. If you use another operating system, refer to your operating system documentation for information about configuring a hot-swap disk.

Installing the Drive

To install the drive:

- ___ 1. Install the SCSI-2 Fast/Wide Hot-Swap Disk Drive in your system unit according to the installation procedures provided in your system unit documentation.
- ___ 2. Rotate the locking lever on the drive 90° counter-clockwise to lock the drive in place. The solid green status light should be on. If the green status light is blinking, there is a problem with the drive and you should contact your service representative for assistance.



- ___ 3. Follow the steps provided in your system unit documentation for configuring the drive for your system unit. See "Configuring the Drive" on page 3-2 for instructions for configuring the drive on an AIX system.

If you have any problems with the drive after you install it, check that:

- ___ The drive's solid green LED is on
- ___ The drive's solid amber LED is on
- ___ The cables are installed correctly on the hot-swap carrier
- ___ There are no loose jumpers or cables
- ___ The drive is inserted into an active bay for the SCSI adapter you are using

If the problem still exists, run diagnostics.

Running Diagnostics

Refer to your operating system or system unit documentation for information about running diagnostics.

You can also run diagnostics to test the drive and reduce the possibility of:

- Unpredictable SCSI errors
- System hangs
- System damage (to a device, backplane, or adapter)

Configuring the Drive

See the instructions provided in your operating system documentation for configuring the drive. To configure the drive on an AIX system:

___ 1. Log in as **root** at the system prompt, then press Enter.

___ 2. Type:

```
cfgmgr -v
```

at the system prompt, then press Enter. The solid amber status light should be on. If it is not on, this suggests a device error. Run diagnostics to determine the reason for the device error.

Verifying the Drive Configuration

See the instructions provided in your operating system documentation for verifying the drive configuration. To verify the drive configuration on an AIX system:

- ___ 1. Type:
 smit
 at the system prompt, then press Enter.
- ___ 2. Select **Devices**.
- ___ 3. Select **Fixed Disk**.
- ___ 4. Select **List all Defined Disks**.
- ___ 5. Verify that the disk you installed is *Available*.
- ___ 6. If the disk drive has no data, see "Adding a Physical Volume to a Volume Group" in the *System Management Guide: Operating System and Devices*.
 If the disk drive contains data, see "Importing or Exporting a Volume Group" in the *System Management Guide: Operating System and Devices*.

Appendix A. Communications Statements

The following statement applies to this product. The statement for other products intended for use with this product appears in their accompanying documentation.

Federal Communications Commission (FCC) Statement

Note: The &typemod. 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 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 authorized dealers. Neither the provider nor the manufacturer are 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.

Responsible Party:

International Business Machines Corporation
New Orchard Road
Armonk, New York 10504
Telephone: (919) 543-2193



Tested to Comply
With FCC Standards

FOR HOME OR OFFICE USE

European Union (EU) Statement

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. The manufacturer cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of option cards supplied by third parties. Consult with your dealer or sales representative for details on your specific hardware.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22 / 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 devices.

International Electrotechnical Commission (IEC) Statement

This product has been designed and built to comply with IEC Standard 950.

United Kingdom Telecommunications Safety Requirements

This equipment is manufactured to the International Safety Standard EN60950 and as such is approved in the UK under the General Approval Number NS/G/1234/J/100003 for indirect connection to the public telecommunication network.

The network adapter interfaces housed within this equipment are approved separately, each one having its own independent approval number. These interface adapters, supplied by the manufacturer, do not use or contain excessive voltages. An excessive voltage is one which exceeds 70.7 V peak ac or 120 V dc. They interface with this equipment using Safe Extra Low Voltages only. In order to

maintain the separate (independent) approval of the manufacturer's adapters, it is essential that other optional cards, not supplied by the manufacturer, do not use main voltages or any other excessive voltages. Seek advice from a competent engineer before installing other adapters not supplied by the manufacturer.

Avis de conformité aux normes du ministère des Communications du Canada

Cet appareil numérique de la classe B est conform à la norme NMB-003 du Canada.

Canadian Department of Communications Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

VCCI Statement

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づきクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

The following is a summary of the VCCI Japanese statement in the box above.

This product is a Class B Information Technology Equipment and conforms to the standards set by the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). This product is aimed to be used in a domestic environment. When used near a radio or TV receiver, it may become the cause of radio interference. Read the instructions for correct handling.

Radio Protection for Germany

Dieses Gerät ist berechtigt in Übereinstimmung mit dem deutschen EMVG vom 9.Nov.92 das EG-Konformitätszeichen zu führen.

Der Aussteller der Konformitätserklärung ist die IBM Germany.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse B.



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on recycled paper containing 10%
recovered post-consumer fiber.

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