

**ULTRA SCSI Hot-Swap Disk Drive
Installation and User's 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.

Second Edition (June 1999)

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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.

Handling Static Sensitive Devices

Attention: Static electricity can damage this device and your system unit. To avoid damage, keep this device in its static protective bag until you are ready to install it. To reduce the possibility of electrostatic discharge, follow the precautions listed below.

Electrostatic Discharge Protection

To prevent electrostatic discharge:

- Limit your movement. Movement can cause static electricity to build up around you.
- Handle the device carefully, holding it by its edges or its frame.
- Do not touch solder joints, pins, or exposed printed circuitry.
- Do not leave the device where others can handle and possibly damage the device.
- While the device is still in its anti-static package, touch it to an unpainted metal part of the system unit for at least two seconds. (This drains static electricity from the package and from your body.)
- Remove the device from its package and install it directly into your system unit without setting it down. If it is necessary to set the device down, place it on its static-protective package. (If your device is an adapter, place it component side up.) Do not place the device on your system unit cover or on a metal table.
- Take additional care when handling devices during cold weather as heating reduces indoor humidity and increases static electricity.

About This Book

This book provides information about the ULTRA SCSI Hot-Swap Disk Drive, installing the drive, using the hot-swap feature, and configuring information. Use this book 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 ULTRA SCSI Hot-Swap Disk Drives are 3.5" slim-high drives that support fast and wide SCSI synchronous data transfer rates up to 40MB 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 the drive:

Feature	Feature Capacity (bytes)
9.1GB ULTRA-SCSI 1" High (25mm) Disk Drive	9,100,369,920
18.2GB ULTRA-SCSI 1" High (25mm) Disk Drive	18,200,739,840

The drive meets the Small Computer System Interface (SCSI) set by the American National Standards Institute (ANSI).

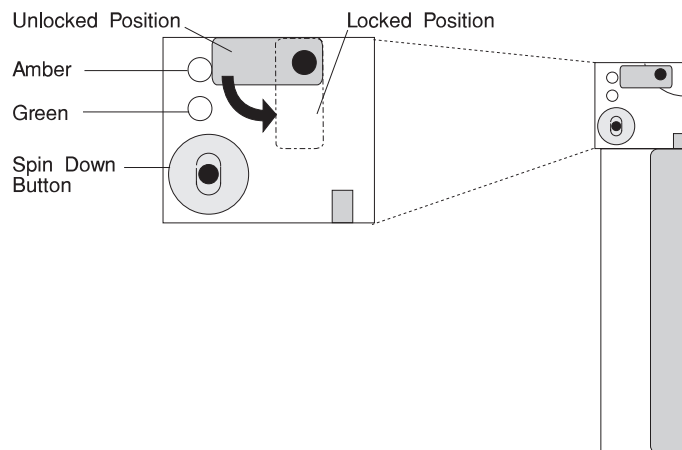
Chapter 2. Adding a Hot-Swap Disk Drive

This chapter describes how to add a disk to your system unit without turning the system unit off. The ULTRA SCSI 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 ULTRA SCSI Hot-Swap Disk Drive in your system unit according to the installation procedures provided in your system unit documentation.
Note: The SCSI address for the drive is automatically set when the drive is installed in your system. Do not attempt to set the SCSI address for the drive using jumpers.
- ___ 2. Before installing the disk drive ensure that the locking lever is in the unlocked position. (Refer to the following illustration.)
- ___ 3. Install the disk drive.
- ___ 4. 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.



- ___ 5. Follow the steps provided in your system unit documentation for configuring the drive for your system unit. See "Configuring the Drive" on page 2-3 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.
- ___ There are no loose jumpers or cables on the hot-swap carrier.
(Contact your service representative if you suspect any loose connections.)
- ___ 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 ULTRA SCSI Hot-Swap Disk Drive 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 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

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 respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Canadian Department of Communications Compliance Statement

This Class B digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

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）の基準に基づくクラス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 is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

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.

Reader's Comments — We'd Like to Hear From You

ULTRA SCSI Hot-Swap Disk Drive Installation and User's Guide

Part Number: 03N2631

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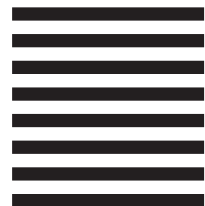
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