DELL™

EIDE HARD-DISK DRIVE UPDATE

Notes, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, cautions, and warnings, and they are used as follows:

NOTE: A NOTE indicates important information that helps you make better use of your computer system.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates the potential for bodily harm and tells you how to avoid the problem.

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Dell™ PowerEdge™ 1300 Systems EIDE Hard-Disk Drive Update

This document updates information contained in your *Dell PowerEdge 1300 Systems Installation and Troubleshooting Guide*. It describes how to install and use the enhanced integrated drive electronics (EIDE) hard-disk drives supported by your system and provides an EIDE-related update to your System Setup program information.

The integrated EIDE controller in the PowerEdge 1300 supports up to two optional 1-inch or 1.6-inch EIDE hard-disk drives. These drives can be installed vertically in the removable hard-disk drive cage located below the external drive bays at the front of the computer.

NOTE: Alternatively, the drive cage provides space for up to four 1-inch small computer system interface (SCSI) drives or a mix of up to two 1.6-inch and up to two 1-inch SCSI drives. Your Installation and Troubleshooting Guide describes how to install and use SCSI devices.

EIDE hard-disk drives attach to the integrated EIDE controller through the 40-pin IDE1 connector on the system board.

Installing an EIDE Drive

This section includes information on addressing, installing, partitioning, and formatting EIDE hard-disk drives.

EIDE Drive Addressing

All EIDE devices should be configured for the cable select jumper position, which assigns master and slave status to devices by their position on the EIDE cable. When two EIDE devices are connected to a single EIDE cable and are configured for the cable select jumper position, the device attached to the last connector on the interface cable is the master or boot device (drive 0) and the device attached to the middle connector on the interface cable is the slave device (drive 1). Refer to the drive documentation in your upgrade kit for information on setting devices to the cable select jumper position.

With the two EIDE interface connectors on the system board, your system can support up to four EIDE devices. EIDE hard-disk drives should be connected to the EIDE interface connector labeled "IDE1." (EIDE tape drives and CD-ROM drives should be connected to the EIDE interface connector labeled "IDE2.")

Installing a Drive

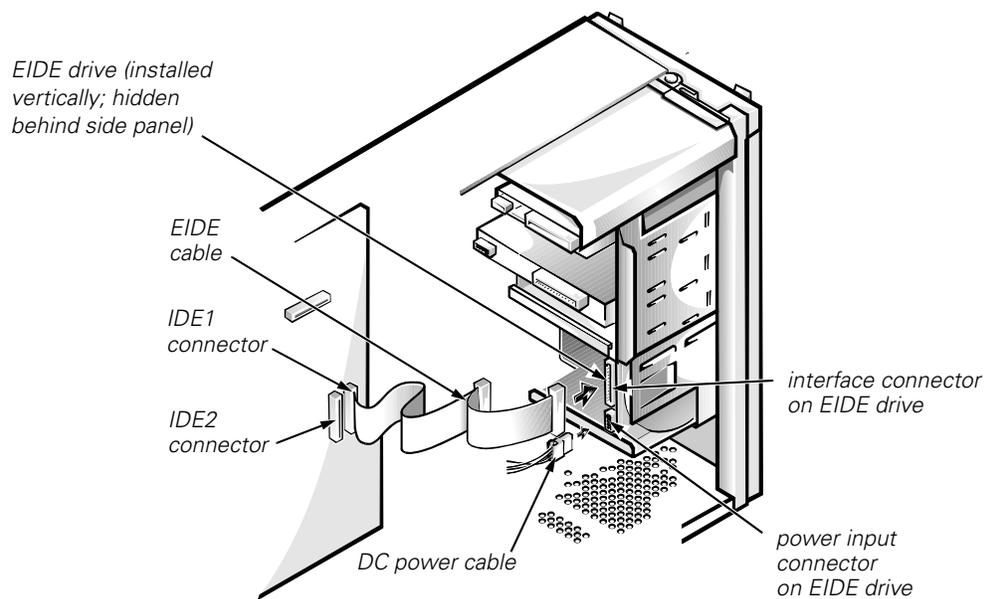To install an EIDE hard-disk drive, perform the following steps:

1. Complete the steps in "Installing a Hard-Disk Drive in the Internal Hard-Disk Drive Cage" in your *Installation and Troubleshooting Guide*.

2. Connect a DC power cable to the power input connector on the back of the drive (see the following illustration).

   Check all connectors to be certain that they are properly cabled and firmly seated.

3. Connect one of the device connectors on the EIDE cable to the 40-pin interface connector on the back of the hard-disk drive (see the following illustration).

   ⚠ **CAUTION: You must match the colored strip on the EIDE cable with pin 1 on the interface connector to avoid possible damage to your system.**

EIDE drive (installed vertically; hidden behind side panel)

EIDE cable

IDE1 connector

IDE2 connector

interface connector on EIDE drive

DC power cable

power input connector on EIDE drive

Attaching Hard-Disk Drive Cables

4. If the other end of the EIDE cable is not already connected, connect it to the IDE1 connector on the system board.

   ⚠ **CAUTION: You must match the colored strip on the EIDE cable with pin 1 on the IDE1 connector to avoid possible damage to your system.**

To locate the IDE1 connector, see the "System Board Features" illustration in your *Installation and Troubleshooting Guide.*

5. Replace the front bezel according to the instructions in "Removing and Replacing the Front Bezel" in your *Installation and Troubleshooting Guide*.

6. Replace the computer cover. Then reconnect your computer and peripherals to their power sources, and turn them on.

    NOTE: After you remove and replace the cover, the chassis intrusion detector will cause the following message to be displayed at the next system start-up:

    ```
    ALERT! Cover was previously removed.
    ```

7. Insert a bootable diskette (such as the *Dell Diagnostics Diskette*) into drive A.

    NOTES: For more information on performing steps 8 and 9, see the appropriate categories in "Using the System Setup Program" in your Dell PowerEdge 1300 Systems User's Guide.

    If a setup password has been assigned by someone else, contact your network administrator.

8. Enter the System Setup program, and update the appropriate **Drive** category (**Drive 0** or **Drive 1**) under **IDE Drives: Primary**.

9. While in the System Setup program, reset the chassis intrusion detector by changing **Chassis Intrusion** to **Not Detected**.

    After you update the System Setup settings, reboot the system.

10. Partition and logically format your drive, as described in the next subsection, *before* proceeding to the next step.

11. Test the hard-disk drive by running the **Hard-Disk Drives (Non-SCSI) Test Group** in the Dell Diagnostics.

    See "Running the Dell Diagnostics" in your *Installation and Troubleshooting Guide* for information on running the diagnostics and troubleshooting any problems that may occur.

12. Install your operating system on the hard-disk drive.

    Refer to the documentation that came with your operating system.

Partitioning and Logically Formatting Your EIDE Hard-Disk Drive

EIDE hard-disk drives must be physically formatted, partitioned, and logically formatted before they can be used to store data. Every hard-disk drive from Dell is physically formatted before it is sent to you.

NOTE: When using the Microsoft® Windows NT® operating system with the file allocation table (FAT) 16 file system, the primary partition for each hard-disk drive can be

no larger than 2 gigabytes (GB). Extended partitions can be larger than 2 GB, but each logical drive within an extended partition must be no larger than 2 GB.

To partition and logically format your hard-disk drive, use the program(s) offered by your operating system.

System Setup Program Update

The **Power Management** option in the System Setup program works with most EIDE hard-disk drives as well as with monitors. For most systems, enabling **Power Management** at any level (**Maximum**, **Regular**, or **Minimum**) causes EIDE hard-disk drives to switch to low-power mode after about 20 minutes of system inactivity.

*NOTE: Not all EIDE hard-disk drives support this feature. Enabling this feature for drives that do not support it may cause the EIDE drive to become inoperable until the computer is restarted and **Power Management** is disabled.*

In low-power mode, the disks inside the drive stop spinning. They remain idle until the next drive access, which causes them to start spinning again. (Because the disks take a few seconds to regain full speed, you may notice a slight delay when you access the hard-disk drive the next time.)

When **Power Management** is **Disabled** (the default), the disks spin constantly as long as the system is turned on.