SOLUTIONS GUIDE

DELL™

Hints, Notices, and Cautions

📝 **HINT:** A HINT indicates important information that helps you make better use of your computer.

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

⚠ **CAUTION: A CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.**

Abbreviations and Acronyms

For a complete listing of abbreviations and acronyms, see the Glossary in the *Tell Me How* help file (see "Accessing Help Files" on page 20 of this guide for instructions on how to open the help file).

Contents

3 Adding Parts

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Safety Instructions

Use the following safety guidelines to protect yourself and your computer. For comfort and efficiency, observe the ergonomic guidelines provided in the *Tell Me How* help file.

When Using Your Computer

⚠ CAUTION: Do not operate your computer with any cover(s) (including the computer cover, filler brackets, front-panel inserts, and so on) removed.

- To help avoid damaging your computer, be sure that the voltage selection switch is set to match the AC power available at your location:

  – 115 V/60 Hz in most of North and South America and some Far Eastern countries such as South Korea and Taiwan

  – 100 V/50 Hz in eastern Japan and 100 V/60 Hz in western Japan

  – 230 V/50 Hz in most of Europe, the Middle East, and the Far East
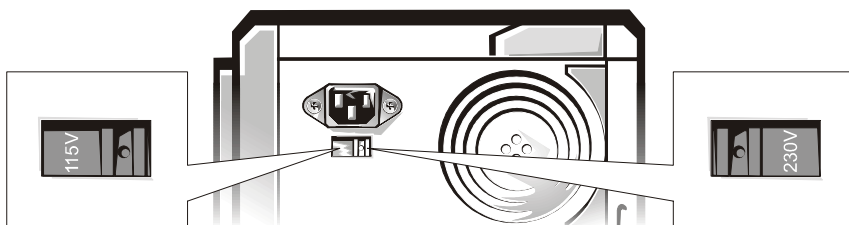
Also be sure that your monitor and attached devices are electrically rated to operate with the AC power available in your location.

- To help avoid possible damage to the system board, wait 5 seconds after turning off the computer before disconnecting or connecting a non-USB device from the computer.

- To help prevent electric shock, plug the computer and device power cables into properly grounded power sources. These cables are equipped with 3-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a 3-wire cable with properly grounded plugs.

- To help protect your computer from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply.

- Be sure that nothing rests on your computer's cables and that the cables are not located where they can be stepped on or tripped over.

- Do not spill food or liquids on your computer. If the computer gets wet, contact Dell (see page 82).

- Do not push any objects into the openings of your computer. Doing so can cause fire or electric shock by shorting out interior components.

- Keep your computer away from radiators and heat sources. Also, do not block cooling vents. Avoid placing loose papers underneath your computer; do not place your computer in a closed-in wall unit or on a bed, sofa, or rug.

When Working Inside Your Computer

Before you remove the computer cover, perform the following steps in the sequence indicated.

⬤ NOTICE: Do not attempt to service the computer yourself, except as explained in this guide and elsewhere in Dell documentation. Always follow installation and service instructions closely.

1 Turn off your computer and all devices.

2 Ground yourself by touching an unpainted metal surface at the back of the computer before touching anything inside your computer.

   While you work, periodically touch an unpainted metal surface on the computer to dissipate any static electricity that might harm internal components.

3 Disconnect any devices connected to the computer, including the monitor, from their electrical outlets to reduce the potential for personal injury or shock. Also, disconnect any telephone or telecommunication lines from the computer.

4 Disconnect the power cable to your computer, and then press the power button to ground the system board.

In addition, take note of these safety guidelines when appropriate:

- When you disconnect a cable, pull on its connector, not on the cable itself. As you pull connectors apart, keep them evenly aligned to avoid bending any pins. Also, before you connect a cable, make sure that both connectors are correctly oriented and aligned.

- Handle components and cards with care. Don't touch the components on a card. Hold a card by its edges or by its metal bracket.

⚠ CAUTION: There is a danger of a new battery exploding if it is incorrectly installed. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Protecting Against Electrostatic Discharge

To prevent static damage, discharge static electricity from your body before you touch anything inside your computer and periodically while you work inside the computer. You can do so by touching an unpainted metal surface on the back of the computer.

You can also take the following steps to prevent static damage:

- Do not remove items from their antistatic packing material until you are ready to install them in your computer. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.

- When transporting a sensitive component, first place it in an antistatic container or packaging.

SECTION 1

Setting Up

Setting Up Dellnet™ (U.S. Only)

Connecting a Printer

Turning Off the Computer

Setting Up Dellnet™ (U.S. Only)

To set up Dellnet Internet Access Service in the United States, double-click the **Dellnet Signup** icon on the Microsoft® Windows® desktop and follow the instructions that appear on the screen.

Accessing the Internet

To access the Internet after completing the Dellnet registration process, double-click the **Internet Explorer** icon on your Windows desktop. Internet Explorer automatically initiates the Internet connection through Dellnet.

Accessing Your E-Mail

To access your Dellnet e-mail, double-click the **Outlook Express** icon on your Windows desktop. Click **Send/Receive** to download your messages from the mail server. When you download your messages, they are stored on your hard drive until you delete them.

Viewing Your Account Information

If you did not record your Dellnet user name or password, access the **Dellnet Administration** tool to verify or change this information:

1   Click the **Start** button, point to **Programs**—> **Dellnet**, and then click **Dellnet Administration**.

2   Click **Next** twice.

3   Click **Connect** to connect to Dellnet.

4   When the **Dellnet Self-Administration** page appears, click **View My Account Information**.

5   Click **Next**.

6   Type your **Challenge Question** answer.

7   Click **Next**.

    Your account information appears on the screen.

8   Click **Print** to print the information or click **Main Menu** to go to the main menu.

Sending and Receiving E-Mail

- Double-click the **Outlook Express** icon to initiate a connection to the Internet through Dellnet.

- Always check the address of each recipient when sending e-mail. Otherwise, your e-mail is returned to you.

- Be sure that the person who is sending e-mail to you is typing your e-mail address correctly.

- Do not send e-mail messages larger than 2 MB.

- If you are having difficulties sending e-mail, determine whether the problem involves just one recipient or all recipients. Then contact the Dellnet technical support staff (see page 82).

Resetting E-Mail Address Settings

If your e-mail software gets corrupted, reset your account:

1 Click the **Start** button, point to **Programs**—>**Dellnet**, and then click **Dellnet Administration**.

2 Click **Next** twice.

3 Click **Connect** to connect to Dellnet.

4 When the **Dellnet Self-Administration** page appears, click **Make My Changes Take Effect**.

5 Click **Next**.

6 Enter your **Challenge Phrase** answer.

7 Click **Next**.

8 Click the **Click To Make Changes Take Effect** button.

9 Click **OK**.

Connecting a Printer

See the documentation that came with the printer for any recommended preparation procedures, such as:

- Removing the packaging

- Installing the toner or ink cartridge

- Loading paper

Then follow the instructions that came with the printer to connect it to the computer. If no information is provided, see the following sections.

Parallel Printer

1   Turn off the computer (see page 16).

⊘ NOTICE: Use only a standard IEEE parallel cable measuring 3 m (10 ft) or less to connect the printer to the computer. Use of a nonstandard cable may prevent the printer from working.

2   Attach the parallel printer cable to the parallel connector on the computer and tighten the two screws. Attach the cable to the parallel connector on the printer and snap the two clips into the two notches.

parallel connector on computer

screws (2)

parallel connector on printer

clips (2)

parallel printer cable

notches (2)
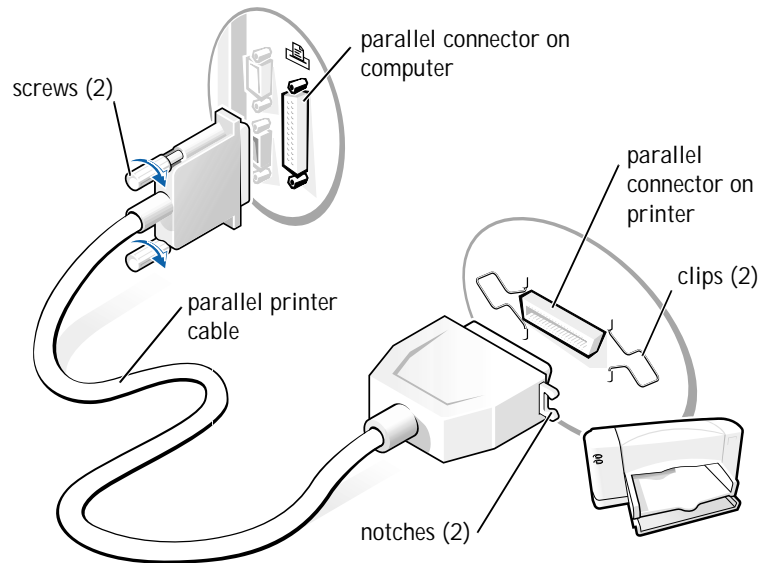
3   Turn on the printer and then turn on the computer. If the **Add New Hardware Wizard** window appears, click **Cancel**.

4   Install the printer driver if necessary (see page 15).

USB Printer

1 Install the printer driver if necessary (see page 15).

2 Attach the USB printer cable to the USB connector on the computer and the printer. The USB connectors only fit one way.

USB connector on computer

USB printer cable

USB connector on printer
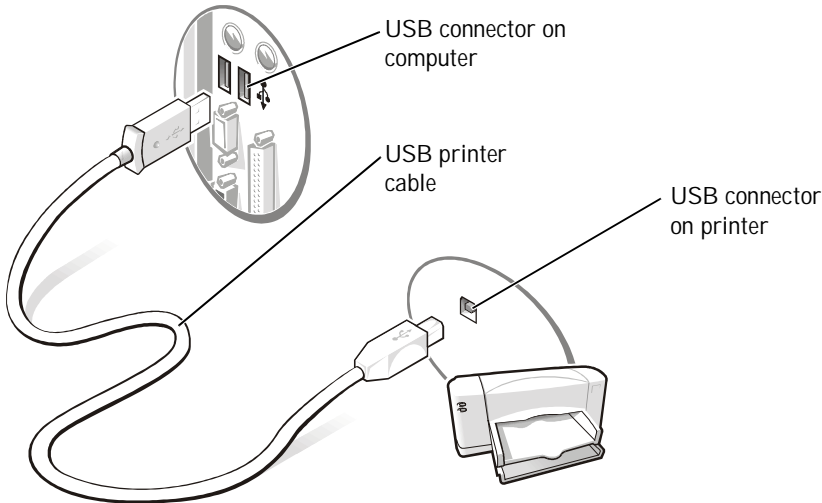
Installing the Printer Driver

If you need to install a printer driver, insert the installation CD into the CD or DVD drive. Then follow the prompts on the screen using the instructions that came with the printer.

If your printer installation CD does not automatically run, click the **Start** button on the Windows desktop, click **Run**, and type `x:\setup.exe` (where x is the letter of your CD or DVD drive [usually drive D]). Then click **OK** and follow the prompts on your screen.

If you connect an older printer and it doesn't work after you install the driver, access the system setup program (see page 78) and ensure that the parallel port is set to operate in bidirectional mode.

Turning Off the Computer

⊃ NOTICE: To prevent data loss, you must perform the Windows shutdown procedure.

Windows 98 Second Edition (SE) and Windows Millennium Edition (Me)

1 Save and exit any programs and files you have open.

2 Click the **Start** button, and then click **Shut Down**.

3 In the **Shut Down Windows** window, click **Shut down** and then click **OK**.

   The computer automatically turns off after the shutdown process finishes.

4 Turn off your monitor and any other devices connected to power.

Windows 2000

1 Save and exit any programs and files you have open.

2 Click the **Start** button, and then click **Shut Down**.

3 Click the pull-down menu under **What do you want the computer to do?**.

4 Click **Shut down** and then click **OK**.

   The computer automatically turns off after the shutdown process finishes.

5 Turn off your monitor and any other devices connected to power.

2

Solving Problems

www.dell.com | support.dell.com

Finding Solutions

Sometimes it's difficult to figure out where to go for answers. Use this chart to help you quickly find the answers to your questions.

START HERE

Is the power light on? — **NO** → See page 20.

YES ↓

Is the power light blinking? — **YES** → Press a key or move the mouse. See the **Tell Me How** help file for information on standby mode.

NO ↓

Did you hear **more than one beep** when you turned on the computer? — **YES** → Get technical assistance from Dell. See page 82.

NO ↓

Are you seeing an error message before Windows starts? — **YES** → See page 31.

NO ↓

CONTINUE →

Are you having a problem with...	▶	video or the monitor?	**YES** ▶	See page 22.
		sound or the speakers?	**YES** ▶	See page 24.
NO ▼		the printer?	**YES** ▶	See page 25.
		the modem?	**YES** ▶	See page 26.
		the mouse?	**YES** ▶	See page 27.
		the keyboard?	**YES** ▶	See page 28.
		the hard drive or a disk drive?	**YES** ▶	See page 28.
		the network adapter?	**YES** ▶	See page 31.
		the scanner?	**YES** ▶	See page 26.
		Windows error messages?	**YES** ▶	See page 31.
		a program?	**YES** ▶	See page 32.
		the Internet?	**YES** ▶	See page 33.
		your email?	**YES** ▶	See page 33.

| Are you having some other type of problem? | **YES** ▶ | See page 33. |

Accessing Help Files

TO ACCESS THE TELL ME HOW HELP FILE

1 Click the **Start** button, point to **Programs—> User's Guides**, and then click **Tell Me How**.

TO ACCESS MICROSOFT® WINDOWS® 2000 HELP

1 Click the **Start** button and then click **Help**.
2 Click the **Search** tab.
3 Type a word or phrase that describes your problem and then click **List Topics**.
4 Click the topic that describes your problem and then click **Display**.
5 Follow the instructions shown on the screen.

TO ACCESS WINDOWS ME HELP

1 Click the **Start** button and then click **Help**.
2 Type a word or phrase that describes your problem in the **Search** box and then click **Go**.
3 Click the topic that describes your problem and then click **Display**.
4 Follow the instructions shown on the screen.

Power Problems

HINT: See the *Tell Me How* help file for information on the standby mode.

CHECK THE POWER LIGHT— When the power light is lit or blinking, the computer has power. If the power light is blinking, the computer is in standby mode—press a key on the keyboard or move the mouse.

TEST THE ELECTRICAL OUTLET— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.

CHECK THE POWER CABLE CONNECTION— Be sure that the power cable is firmly inserted into the electrical outlet and the computer power connector.

CONNECT THE COMPUTER DIRECTLY TO AN ELECTRICAL OUTLET—
Bypass power protection devices, power strips, and the extension cable to verify that the computer turns on.

SWAP THE COMPUTER AND MONITOR POWER CABLES— Swap the computer and monitor power cables to determine if the power cable is defective.

CHECK FOR INTERFERENCE— Electrical appliances on the same circuit or operating near the computer can cause interference. Other causes of interference: power extension cables, keyboard and mouse extension cables, too many devices on a power strip, or multiple power strips connected to the same electrical outlet.

CHECK THE POWER PROPERTIES— See *Windows Help*.

To access *Windows Help*:
1 Click the **Start** button and then click **Help**.
2 For Windows 98 and Windows 2000, click the **Search** tab.
3 For Windows 98 and Windows 2000, type standby and then click **List Topics**. For Windows Me, type standby and then click **Go**.
4 For Windows 98 and Windows 2000, click **To change the elapsed time before your computer automatically goes on standby**. For Windows Me, click **Changing the elapsed time before computer goes on standby or hibernate**.

Start-Up Error Messages

OPERATING SYSTEM NOT FOUND— Call Dell for technical assistance (see page 82).

INSERT BOOTABLE MEDIA— The operating system is trying to boot to a nonbootable floppy disk or CD. Insert a bootable floppy disk or CD.

NON-SYSTEM DISK ERROR— There is a floppy disk in the floppy drive. Remove the floppy disk and restart the computer.

Video and Monitor Problems

If the screen is blank

CHECK THE VIDEO CABLE CONNECTION— Check for bent pins. Ensure that the video cable is connected as shown on the *START HERE* sheet for your computer.

PRESS THE MONITOR POWER BUTTON— Be sure that you firmly pressed the monitor power button.

CHECK THE POWER LIGHT— When the power light is lit or blinking, the monitor has power. If the power light is blinking, press a key on the keyboard or move the mouse.

TEST THE ELECTRICAL OUTLET— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.

SWAP THE COMPUTER AND MONITOR POWER CABLES— Swap the computer and monitor power cables to determine if the power cable is defective.

TEST THE VIDEO EXTENSION CABLE (IF USED)— If removing the video extension cable solves the problem, the cable is defective.

TEST THE MONITOR— If another monitor is available, connect it to the computer.

CHECK THE BACK PANEL LIGHTS— If all four lights below the serial port are not green, call Dell for technical assistance (see page 82).

CHECK THE POWER PROPERTIES IF THE MONITOR SCREEN
OCCASIONALLY TURNS BLANK — See *Windows Help*.

To access *Windows Help*:

1 Click the **Start** button and then click **Help**.

2 For Windows 98 and Windows 2000, click the **Search** tab.

3 For Windows 98 and Windows 2000, type standby and then click **List Topics**. For Windows Me, type standby and then click **Go**.

4 For Windows 98 and Windows 2000, click **To change the elapsed time before your computer automatically goes on standby**. For Windows Me, click **Changing the elapsed time before computer goes on standby or hibernate**.

If the screen is difficult to read

ADJUST THE CONTRAST AND BRIGHTNESS— See the monitor documentation for instructions on adjusting the contrast and brightness.

MOVE THE SUBWOOFER AWAY FROM THE MONITOR— If your speaker system includes a subwoofer, ensure that the subwoofer is at least 2 ft (60 cm) away from the monitor.

ELIMINATE POSSIBLE INTERFERENCE— Turn off nearby fans, fluorescent lights, or halogen lamps to check for interference.

ROTATE THE MONITOR TO FACE A DIFFERENT DIRECTION— Eliminate sunlight glare, which can cause poor picture quality.

DEGAUSS (DEMAGNETIZE) THE MONITOR— See the monitor documentation.

RUN THE MONITOR SELF-TEST— See the monitor documentation.

RESTORE THE RECOMMENDED SETTINGS— Restore the original resolution and refresh rate settings. See the *Tell Me How* help file for instructions.

CHECK FOR ADDITIONAL ADJUSTMENTS— See the monitor documentation for any additional adjustments that your monitor may require.

ADJUST THE WINDOWS DISPLAY SETTINGS— Click the **Start** button, point to **Settings**, and click **Control Panel**. Double-click the **Display** icon and then click the **Settings** tab. Try different settings for **Colors** and **Screen area**.

Sound and Speaker Problems

HINT: The volume control in some MP3 players overrides the Windows volume setting. If you have been listening to MP3 songs, make sure that you did not turn the player volume down or off.

VERIFY THE SPEAKER CABLE CONNECTIONS— Ensure that the speakers are connected as shown on the *START HERE* sheet for your computer and the setup diagram supplied with the speakers.

TEST THE ELECTRICAL OUTLET— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.

ENSURE THAT THE SPEAKERS ARE TURNED ON— See the setup diagram supplied with the speakers.

ADJUST THE SPEAKER CONTROLS— Adjust the volume, bass, or treble controls to eliminate distortion.

ADJUST THE WINDOWS VOLUME CONTROL— Double-click the yellow speaker icon in the lower-right corner of your screen. Be sure that the volume is turned up and that the sound is not muted.

TEST THE SPEAKERS— Plug the speaker audio cable into the headphone jack of the CD drive. Ensure that the headphone volume control is turned up. Play a music CD.

RUN THE SPEAKER SELF-TEST— Some speaker systems have a self-test button on the subwoofer. See the speaker documentation for self-test instructions.

MOVE THE SUBWOOFER AWAY FROM THE MONITOR— If your speaker system includes a subwoofer, ensure that the subwoofer is at least 2 ft (6 cm) away from the monitor.

ELIMINATE POSSIBLE INTERFERENCE— Turn off nearby fans, fluorescent lights, or halogen lamps to check for interference.

REINSTALL THE SOUND (AUDIO) DRIVER— See page 34.

Printer Problems

If you cannot print to a parallel port printer

VERIFY THE PRINTER CABLE CONNECTIONS— Ensure that the printer cable is connected as described on page 14.

TEST THE ELECTRICAL OUTLET— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.

ENSURE THAT THE PRINTER IS TURNED ON— See the documentation supplied with the printer.

VERIFY THAT THE PRINTER IS RECOGNIZED BY WINDOWS
1 Click the **Start** button, point to **Settings**, and then click **Printers**.
   If the printer is listed, right-click the printer icon, click **Properties,** and then select the **Details** tab.
2 Ensure that the **Print to the following port:** setting is **LPT1 (Printer Port)**.

REINSTALL THE PRINTER DRIVER— See page 15.

If you cannot print to a USB printer

VERIFY THE PRINTER CABLE CONNECTIONS— Ensure that the printer cable is connected as described on page 15.

TEST THE ELECTRICAL OUTLET— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.

ENSURE THAT THE PRINTER IS TURNED ON— See the documentation supplied with the printer.

VERIFY THAT THE PRINTER IS RECOGNIZED BY WINDOWS— Click the **Start** button, point to **Settings**, and then click **Printers**. If the printer is listed, right-click the printer icon, click **Properties,** and then select the **Details** tab.

REINSTALL THE PRINTER DRIVER— See page 15.

Scanner Problems

CHECK THE POWER CABLE CONNECTION— Ensure that the scanner power cable is firmly connected to a working electrical power source and that the scanner is turned on.

CHECK THE SCANNER CABLE CONNECTION— Ensure that the scanner cable is firmly connected to the computer and to the scanner.

UNLOCK THE SCANNER— Ensure that your scanner is unlocked if it has a locking tab or button.

REINSTALL THE SCANNER DRIVER— Reinstall the scanner driver. See the scanner documentation for instructions.

Modem Problems

NOTICE: Connect the modem to an analog telephone jack only. Connecting the modem to a digital telephone network damages the modem.

CHECK THE TELEPHONE JACK— Disconnect the telephone line from the modem and connect it to a telephone. Listen for a dial tone.

CONNECT THE MODEM DIRECTLY TO THE TELEPHONE WALL JACK— If you have other telephone devices sharing the line, such as an answering machine, fax machine, surge protector, or line splitter, then bypass them and connect the modem directly to the telephone wall jack with the telephone line.

CHECK THE CONNECTION— Verify that the telephone line is connected to the green jack on the modem. (The green line-in jack has either a LINE IN label or a connector-shaped icon next to it.)

CHECK THE TELEPHONE LINE— Try using a different telephone line. If you are using a line that is 10 ft (3 m) or more in length, try a shorter one.

VERIFY THAT THE MODEM IS COMMUNICATING WITH WINDOWS

1 Click the **Start** button, point to **Settings**, and click **Control Panel**.
2 In the **Control Panel**, double-click **Modems**.
  If there are multiple entries for the same modem or modems listed that are not installed, delete the entries and restart the computer.
3 Click the **Diagnostics** tab.
4 Click the COM port for your modem.
5 Click **More Info** to verify that the modem is communicating with Windows.
  If all commands receive responses, the modem is operating properly.

Mouse Problems

RECONNECT THE MOUSE CABLE

1 Press < Ctrl> < Esc> to display the **Start** menu.
2 Use the keyboard arrow keys to highlight **Shut Down** and then press the < Enter> key.
3 After the computer turns off, reconnect the mouse cable as shown on the *START HERE* sheet for your computer.
4 Start the computer.

CHECK THE MOUSE SETTINGS— Click the **Start** button, select **Control Panel**, and then double-click the **Mouse** icon. Try adjusting the settings.

Keyboard Problems

RECONNECT THE KEYBOARD CABLE— Shut down the computer (see page 16), reconnect the keyboard cable as shown on the *START HERE* sheet for your computer, and then restart the computer.

Drive Problems

If you cannot save a file to a floppy disk

ENSURE THAT WINDOWS RECOGNIZES THE DRIVE— Double-click the **My Computer** icon. If the floppy drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.

CANNOT SAVE FILES TO A FLOPPY DISK— Ensure that the floppy disk is not full or write-protected (locked). See the following illustration.

TEST THE DRIVE WITH ANOTHER FLOPPY DISK— Insert another floppy disk to eliminate the possibility that the original floppy disk is defective.

back of floppy disk

write-protected

not write-protected
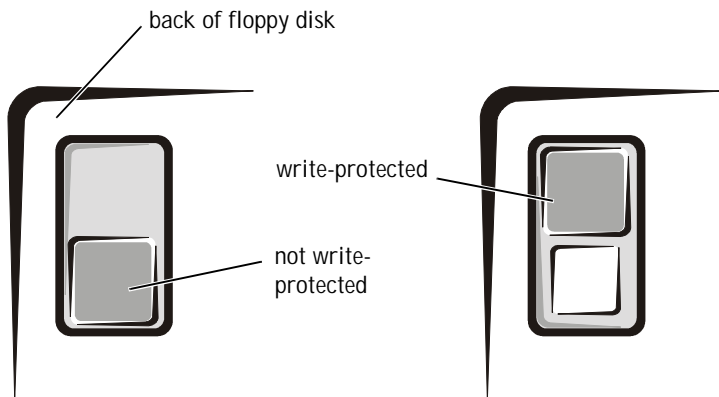
If you cannot play a music CD or install a program from a CD

ENSURE THAT WINDOWS RECOGNIZES THE DRIVE— Double-click the **My Computer** icon. If the CD drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.

TEST THE DRIVE WITH ANOTHER CD— Insert another CD to eliminate the possibility that the original CD is defective.

CLEAN THE DISC— See the *Tell Me How* help file for instructions.

ADJUST THE WINDOWS VOLUME CONTROL— Double-click the yellow speaker icon in the lower-right corner of your screen. Be sure that the volume is turned up and that the sound is not muted.

If you cannot play a DVD movie

ENSURE THAT WINDOWS RECOGNIZES THE DRIVE— Double-click the **My Computer** icon. If the DVD drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.

TEST THE DRIVE WITH ANOTHER DVD— Insert another DVD to eliminate the possibility that the original DVD is defective.

CLEAN THE DISC— See the *Tell Me How* help file for instructions.

If the CD-RW drive stops writing

TURN OFF STANDBY IN WINDOWS BEFORE WRITING TO A CD-RW DISK— See *Windows Help*.

To access *Windows Help*:
1 Click the **Start** button and then click **Help**.
2 For Windows 98 and Windows 2000, click the **Search** tab.
3 For Windows 98 and Windows 2000, type standby and then click **List Topics**. For Windows Me, type standby and then click **Go**.
4 For Windows 98 and Windows 2000, click **To change the elapsed time before your computer automatically goes on standby**. For Windows Me, click **Changing the elapsed time before computer goes on standby or hibernate**.

CHANGE THE WRITE SPEED TO A SLOWER RATE— The CD-RW drive must receive a steady stream of data when writing. If the stream is interrupted, an error occurs. Closing all programs before writing to the CD-RW may also alleviate the problem.

If you have a hard drive problem

RUN SCANDISK— Click the **Start** button, point to **Programs**—> **Accessories**—> **System Tools**, and then click **ScanDisk**.

Network Problems

CHECK THE NETWORK CABLE CONNECTOR— Ensure that the network cable connector is firmly connected to the connector on the computer and the network wall jack as shown on the *START HERE* sheet for your computer.

CHECK THE NETWORK LIGHTS ON THE BACK OF THE COMPUTER—

Green indicates that the network connection is active. If the status light is not green, try replacing the network cable.

RESTART THE COMPUTER— Try to log on to the network again.

CONTACT YOUR NETWORK ADMINISTRATOR— Verify that your network settings are correct and that the network is functioning.

Windows Error Messages

X:\ IS NOT ACCESSIBLE. THE DEVICE IS NOT READY— Insert a disk into the drive and try again.

A FILENAME CANNOT CONTAIN ANY OF THE FOLLOWING CHARACTERS: \ / : * ? " < > |— Do not use these characters in filenames.

NOT ENOUGH MEMORY OR RESOURCES. CLOSE SOME PROGRAMS AND TRY AGAIN— You have too many programs open. Close all windows and open the program that you want to use.

THE FILE BEING COPIED IS TOO LARGE FOR THE DESTINATION DRIVE— The file that you are trying to copy is too large to fit on the disk. Try using a larger capacity disk.

A REQUIRED .DLL FILE WAS NOT FOUND— The program that you are trying to open is missing an essential file. To remove and then reinstall the program:

1 Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2 Double-click the **Add/Remove Programs** icon.
3 Select the program that you want to remove.
4 Click **Add/Remove** and follow the prompts on the screen.
5 See the program documentation for installation instructions.

General Program Problems

A program crashes

SEE THE SOFTWARE DOCUMENTATION— Many software manufacturers maintain websites with information that may help you to solve the problem.

A program stops responding

PRESS <CTRL><ALT><DEL>— In the **Close Program** window, select the program that is no longer responding. Then click the **End Task** button.

A solid blue screen appears

TURN THE COMPUTER OFF— If the computer does not respond to a keystroke or a proper shutdown (see page 16), press the power button until the computer turns off. Press the power button again to restart the computer. The solid blue screen appears because you were not able to perform a proper Windows shutdown. ScanDisk will automatically run during the start-up process. Follow the instructions on the screen.

Internet Connection Problems

If you have a problem with your Dellnet account

REVIEW "SETTING UP DELLNET (U.S. ONLY)" — See page 12.

REVIEW "MODEM PROBLEMS" — See page 26.

TURN OFF CALL WAITING (CATCH-PHONE)— See your telephone directory for instructions on deactivating this feature. Then adjust the dial-up networking connection properties:

1 Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2 Double-click the **Modems** icon.
3 In the **Modems Properties** window, click the **Dialing Properties** button.
4 Ensure that **To disable call waiting, dial:** is checked and then select the proper code according to the information in your telephone directory.
5 Click the **Apply** button and then click the **OK** button.
6 Close the **Modems Properties** window.
7 Close the **Control Panel.**

E-Mail Problems

REVIEW "SENDING AND RECEIVING E-MAIL"— See page 13.

ENSURE THAT YOU ARE CONNECTED TO THE INTERNET— With the Outlook Express e-mail program open, click **File**. If **Work Offline** has a check next to it, click the check to remove it and connect to the Internet.

Resolving Other Technical Problems

GO TO THE DELL SUPPORT WEBSITE— Go to **http://support.dell.com** for help with general usage, installation, and troubleshooting questions.

E-MAIL DELL— Go to **http://support.dell.com** and then click **E-Mail Dell** in the **Communicate** list. Send an e-mail message to Dell about your problem; you can expect to receive an e-mail message from Dell within hours.

CALL DELL— If you cannot solve your problem using the Dell support website or e-mail service, call Dell for technical assistance (see page 82).

Reinstalling Drivers

⊘ NOTICE: The Dell support website, **http://support.dell.com**, and the *Dell Dimension ResourceCD* provide approved drivers for Dell computers. If you install drivers obtained from other sources, your computer might not work correctly.

Dell installed the following drivers on your computer:

- **Intel® Chip Set Update Utility Driver** — Tells the operating system how to configure certain chips on the system board.

- **Intel Ultra ATA Storage Driver** — Improves data transfers from storage devices like the hard drive.

- **Integrated Intel 10/100 Ethernet Controller Driver** — Enables the optional built-in NIC to properly communicate on a network.

- **ADI SoundMAX 2.0 Integrated Audio Driver** — Enables the optional built-in sound controller to produce sound.

- **Other Drivers** — Control the devices, such as the modem, sound, and video cards that might be installed in your computer. For information on those drivers, double-click the **Dell Documents** icon on the Windows desktop, click **System Information**, and then click **System Documentation**.

Sometimes you can fix a device problem by reinstalling its driver:

1 From the Windows desktop, insert the *Dell Dimension ResourceCD* into the CD or DVD drive.

If this is your first time using the *ResourceCD*, go to step 2. If not, go to step 5.

2 When the **ResourceCD Installation** program starts, follow the prompts on the screen.

3   When the **InstallShield Wizard Complete** window appears, remove the *ResourceCD* and click **Finish** to restart the computer.

4   When you see the Windows desktop, reinsert the *ResourceCD* into the CD or DVD drive.

5   At the **Welcome Dell System Owner** screen, click **Next**.

6   If necessary, change the language in the **Language** list in the right corner of the window.

7   Select your computer in the **System Model** list.

8   Select your operating system in the **Operating System** list.

9   Select the type of device in the **Device Type** list.

10 Select **Drivers** in the **Topic** list.

    If a particular driver is not listed, then that driver is not required by your operating system.

⊘ NOTICE: The *Dell Dimension ResourceCD* contains drivers for devices that are not part of your computer. Only reinstall the specific drivers for hardware included in your computer. Otherwise your computer might not work correctly.

11 Click the name of the driver that you want to reinstall.

Reinstalling Windows 98

⊘ NOTICE: The operating system CD provides options for reinstalling your Windows 98 Second Edition operating system. The options can potentially overwrite files installed by Dell and possibly affect programs installed on your hard drive. Therefore, Dell does not recommend that you reinstall your operating system unless instructed to do so by a Dell technical support representative.

⊘ NOTICE: To prevent conflicts with Windows 98, you must disable any virus protection software installed on your computer before you reinstall Windows 98.

1   Turn on the computer and enter the system setup program as directed by a Dell technical support representative (see page 82).

2   In the system setup program **Boot** menu, write down the boot sequence, and then change it so that the CD or DVD drive boots first, as directed by a Dell technical support representative. Then place the operating system CD in the CD or DVD drive and close the drive tray.

3   Exit the system setup program.

The computer restarts.

4   At the **Welcome** window, click **OK**.

5   Double-click **Refresh Windows OS**.

6   Click **OK**.

7   Click **OK** again.

8   Remove the operating system CD from the CD or DVD drive and click **OK** to restart your computer.

The **Getting ready to run Windows for the first time** screen appears.

9   If the mouse tutorial starts, press < Esc> to exit and then press y.

10 Click the regional setting closest to where you live and click **Next**.

11 Click your keyboard layout and click **Next**.

12 In the **User Information** window, type your name and, if applicable, company name, and then click **Next**.

The **Name** field must be completed; the **Company Name** field is optional.

The **License Agreement** window appears.

13 Click **I accept the Agreement**, and then click **Next**.

14 Type the Windows product key in the fields provided, and then click **Next**.

The product key is the bar code number found on the Microsoft Windows label, which is located on the side of your computer.

15 In the **Date/Time Properties** window, adjust the date and time properties, click **Apply**, and then click **OK**.

Windows 98 updates the system settings and restarts your computer.

16 When the **Start Wizard** appears, click **Finish**.

The **Enter Windows Password** window appears. To continue without creating a Windows user name and password, click **OK**. Otherwise, type your user name and password in the appropriate fields and then click **OK**.

17 If you created a Windows user name and password, type your password and click **OK**.

⬤ NOTICE: Make sure that you reinstall the Intel Chip Set Update Utility driver *before* you reinstall any other drivers.

18 Reinstall the appropriate drivers (see page 34).

19 Reenable your virus protection software.

20 Enter the system setup program as directed by a Dell technical support representative.

21 In the system setup program **Boot** menu, change the boot sequence back to the original boot sequence, as directed by a Dell technical support representative. Then, exit the system setup program.

Reinstalling Windows Me

⬤ NOTICE: The operating system CD provides options for reinstalling your Windows Me operating system. The options can potentially overwrite files installed by Dell and possibly affect programs installed on your hard drive. Therefore, Dell does not recommend that you reinstall your operating system unless instructed to do so by a Dell technical support representative.

⬤ NOTICE: To prevent conflicts with Windows Me, you must disable any virus protection software installed on your computer before you reinstall Windows Me.

1 Turn on the computer and enter the system setup program as directed by a Dell technical support representative (see page 82).

2 In the system setup program **Boot** menu, write down the boot sequence, and then change it so that the CD or DVD drive boots first, as directed by a Dell technical support representative. Then place the operating system CD in the CD or DVD drive and close the drive tray.

3 Exit the system setup program.

4 Select **Boot From CD-ROM**, and then press <Enter>.

   If you wait too long to make this selection, the computer automatically boots from the hard drive. If this occurs, allow the computer to boot completely, and then restart it and try again.

5 Select **Start Windows Setup from CD-ROM**, and then press <Enter>.

6　Press <Enter> again.

7　Select **Continue Setup and replace your current operating system**, and then press <Enter>.

8　Press <Enter> again.

ScanDisk automatically starts and checks your hard drive.

9　Click **Next** in the **Welcome to Windows Me** window.

10　Select the directory in which Windows resides.

If **C:\WINDOWS (recommended)** is displayed, select it, and then click **Next**.

If **C:\WINDOWS.000 (recommended)** is displayed, click **Other**, change C:\WINDOWS.000 to C:\WINDOWS, and then click **Next**.

11　Ensure that **Typical** is selected, and then click **Next**.

12　Specify a computer name, workgroup, and computer description, if desired, and then click **Next**.

13　Select a country in the **Country/Region** window, and then click **Next.**

14　Specify a time zone in the **Establish Time Zone** window, and then click **Next**.

15　Click **Finish**.

Windows Setup installs necessary files, and then restarts the computer.

16　Select **Boot From Hard Drive**, and then press <Enter>.

17　In the **User Information** window, type your name and, if applicable, company name, and then click **Next**.

The **Name** field must be completed; the **Company Name** field is optional.

The **License Agreement** window appears.

18　Click **I accept the Agreement**, and then click **Next**.

19　Type the Windows product key in the fields provided, and then click **Next**.

The product key is the bar code number found on the Microsoft Windows label, which is located on the side of your computer.

20 Click **Finish**.

Windows Setup installs additional files, and then restarts the computer.

21 Select **Boot From Hard Drive**, and then press <Enter>.

Windows Setup installs additional files, and then restarts the computer.

22 Select **Boot From Hard Drive**, and then press <Enter>.

23 Enter a password in the **Enter Network Password** window, if desired, and then click **Next**.

24 Remove the operating system CD from the CD or DVD drive.

25 Enter the system setup program as directed by a Dell technical support representative.

26 In the system setup program **Boot** menu, change the boot sequence back to the original boot sequence, as directed by a Dell technical support representative. Then, exit the system setup program.

Reinstalling Windows 2000

1 Insert the operating system CD into the CD or DVD drive.

2 Shut down the computer.

3 Start the computer.

4 Press any key when the **Press any key to boot from CD** message appears on the screen.

5 When the **Windows 2000 Setup** screen appears, ensure that the **To setup Win2000 now, press ENTER** option is highlighted. Then press <Enter>.

6 Read the information in the **License Agreement** screen, and then press <F8> to continue.

7 When the **Windows 2000 Professional Setup** screen appears, use the arrow keys to select the Windows 2000 partition option that you want. To continue, press the key specified in the partition option that you chose.

8   When the **Windows 2000 Professional Setup** screen reappears, use the arrow keys to select the type of filing system that you want Windows 2000 to use, and then press <Enter>.

9   Press <Enter> again to restart your computer.

10 Click **Next** when the **Welcome to the Windows 2000 Setup Wizard** screen appears.

11 When the **Regional Settings** screen appears, select the settings for your locale, and then click **Next**.

12 Enter your name and organization in the **Personalize Your Software** screen, and then click **Next**.

13 When prompted, enter the Windows product key, which is printed on the Microsoft label on your computer. Then click **Next**.

14 When the **Computer Name and Administrator Password** screen appears, enter a name for your computer and a password, if desired. Then click **Next**.

15 Enter the date and time in the **Date and Time Settings** screen, and then click **Next**.

    Windows 2000 now begins to install its components and configure the computer.

16 When the **Completing the Windows 2000 Setup Wizard** screen appears, remove the CD from the drive, and then click **Finish**.

    The computer automatically restarts.

SECTION 3

Adding Parts

Removing the Computer Cover

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.

⬤ NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1 Turn off the computer and devices, and disconnect them from their electrical outlets.

2 Briefly press the power button.

   Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3 Lay the computer on its right side, with the foot off the edge of the work surface.

4 Loosen the thumbscrew.

thumbscrew

latches (2)

foot
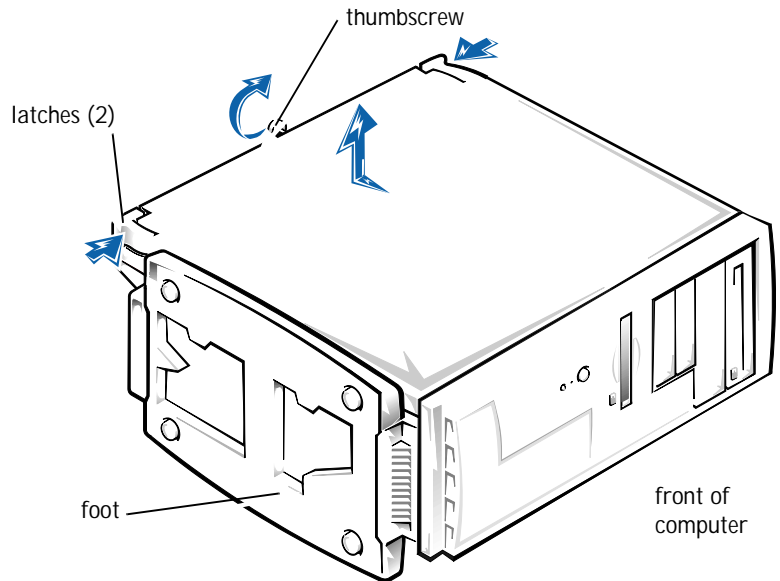
front of computer

⚠ CAUTION: To prevent cuts, keep your hands clear of the metal edges on the computer as you slide back the cover.

5   Face the front of the computer. Use your thumbs to press in both latches while pushing the cover backward. Move the cover back slightly, and then lift it straight up.

If necessary, use both hands and work one side at a time.

Looking Inside Your Computer

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.
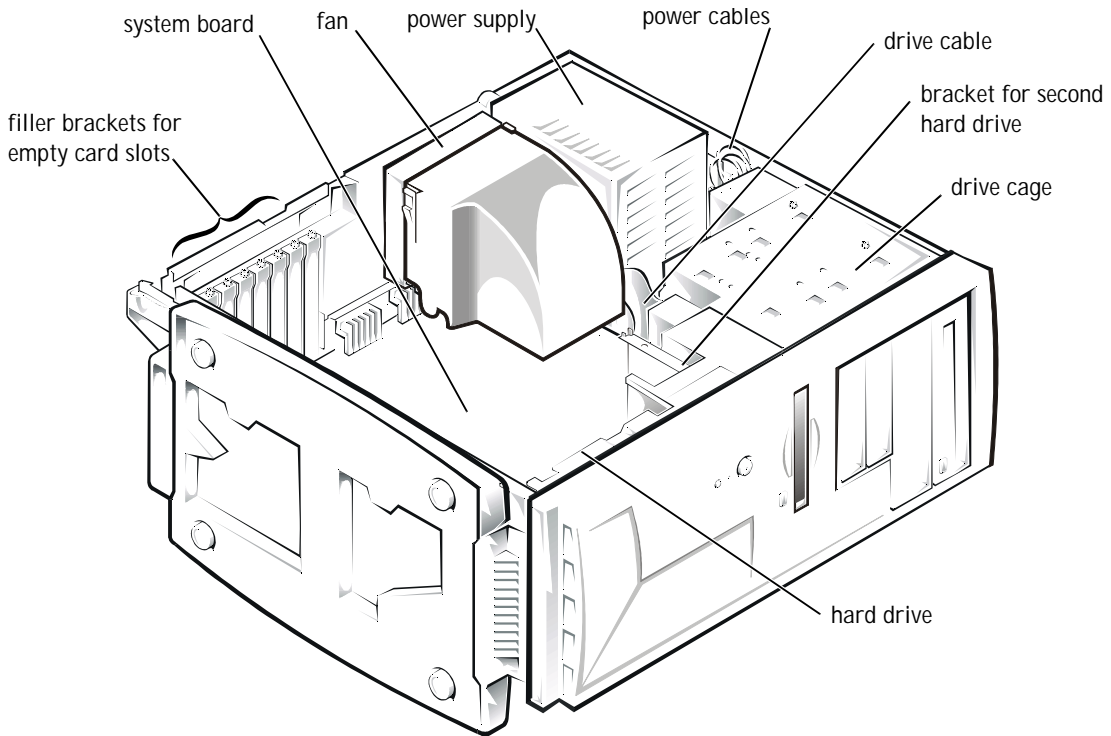
System Board

In the illustration, the text in parentheses indicates how items are identified on the system board.

fan connector (FAN 2)

microprocessor connector (CPU)

memory connectors (DIMM 1, DIMM 2)

auxiliary power connector (AUX POWER)

main power connector (POWER)

power light (STB LED)

floppy drive connector (FLOPPY)

first hard drive connector (PRI IDE)

second hard drive connector (SEC IDE)

auxiliary sound-in connector (AUX IN)*

CD drive sound connector (CD IN)*

speaker phone connector (TELEPHONY)*

PCI card connectors

AGP card connector (AGP)

control panel connector (J8C3)

configuration jumper (BIOS CONF)

battery socket (BATTERY)

speaker

* For computers with built-in sound

44 | Adding Parts

Adding Cards

⚠️ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.

Install only PCI cards in your computer. Before installing a card, make sure that a slot is available for it.

⊃ NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1 Turn off the computer and devices, and disconnect them from their electrical outlets.

2 Briefly press the power button.

Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3 Remove the computer cover (see page 42).

4 Unscrew and remove the filler bracket for the card slot you want to use.

filler bracket
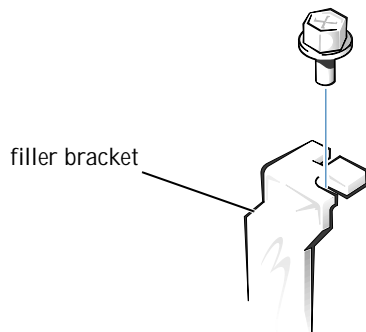
5 Align the cutout on the bottom of the card with the crossbar in the system board connector. Gently rock the card into the connector until it is fully seated.

If the card is full-length, insert the front end of the card into the corresponding card guide at the front of the computer as you insert the card into its connector.

card

card connector

system board connector

card guide
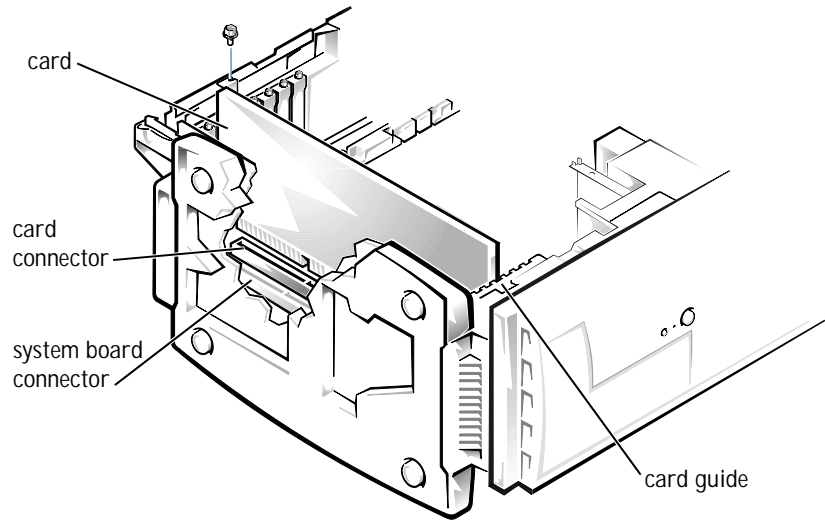
Make sure that the card is fully seated and that its bracket is within the card slot.

fully seated

not fully seated

bracket within slot

bracket caught outside of slot
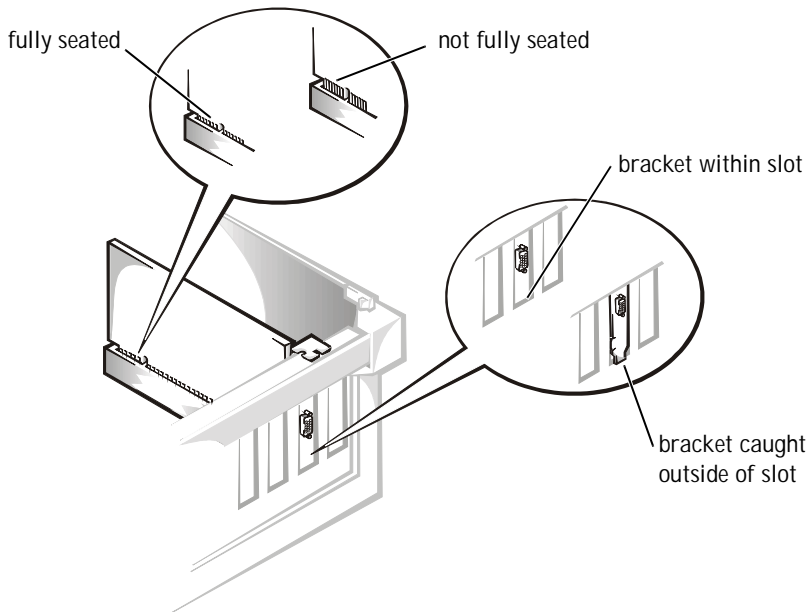
6   Secure the bracket on the end of the card with the screw you removed in step 2.

7   Connect any cables required for the card as described in the card documentation.

8   Replace the computer cover (see page 71).

NOTICE: To connect a network cable, first plug the cable in to the network jack and then plug it in to the computer.

9   Plug your computer and devices into their electrical outlets, and turn them on.

10 Install any drivers required for the card as described in the card documentation.

Removing Cards

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.

🡆 NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1 Turn off the computer and devices, and disconnect them from their electrical outlets.

2 Briefly press the power button.

Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3 Remove the computer cover (see page 42).

4 Disconnect any cables connected to the card.

5 Remove the screw from the card bracket.

6 Grasp the card by its top corners, and lift it from the system board.

7 If you are removing the card permanently, reinstall a filler bracket.

8 Replace the computer cover (see page 71).

🡆 NOTICE: To connect a network cable, first plug the cable in to the network jack and then plug it in to the computer.

9 Plug your computer and devices into their electrical outlets, and turn them on.

Adding Memory

📝 HINT: Memory purchased from Dell is covered under your computer warranty.

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.

You can increase your computer memory by installing memory modules on the system board. See page 75 for information on the type of memory supported by your computer.

🡆 NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1 Turn off the computer and devices, and disconnect them from their electrical outlets.

2   Briefly press the power button.

Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3   Remove the computer cover (see page 42).

4   Press out the securing clip at each end of the memory connector.

5   Align the notches on the bottom of the module with the crossbars in the connector.

○ NOTICE: To avoid breaking the memory module, do not press near the middle of the module.

6   Insert the module straight down into the connector, making sure that it fits into the vertical guides at each end of the connector. Press firmly on the ends until the memory module snaps into place.

If you insert the module correctly, the securing clips snap into the cutouts at each end of the module.

memory module

cutouts (2)

securing
clips (2)

notches (2)

connector

4.

5.

6.
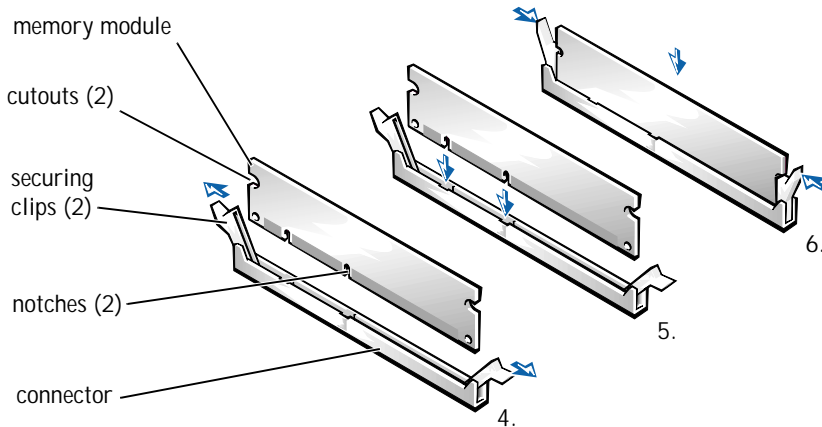
To remove a memory module, press out the securing clip at each end of the memory connector until the memory module disengages from the connector.

7 Replace the computer cover (see page 71).

📩 NOTICE: To connect a network cable, first plug the cable in to the network jack and then plug it in to the computer.

8 Plug your computer and devices into their electrical outlets, and turn them on.

Adding a Second Hard Drive

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.

Your computer includes one hard drive. To add a second hard drive, perform the following steps.

📩 NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1 Turn off the computer and devices, and disconnect them from their electrical outlets.

2 Briefly press the power button.

Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3 Remove the computer cover (see page 42).

4 Press in the tabs, and swing the front panel away from the computer.

tabs (3)

front
panel
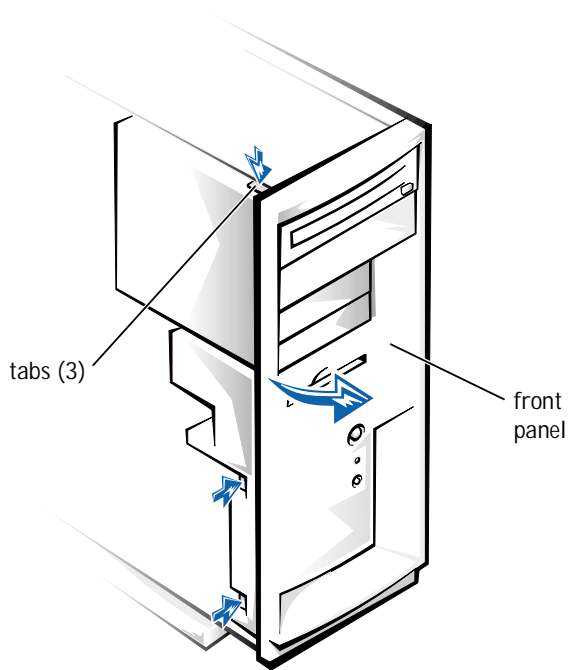
5 Remove the screws securing the drive bracket, and lift the bracket out of the computer.

drive bracket

screws (2)
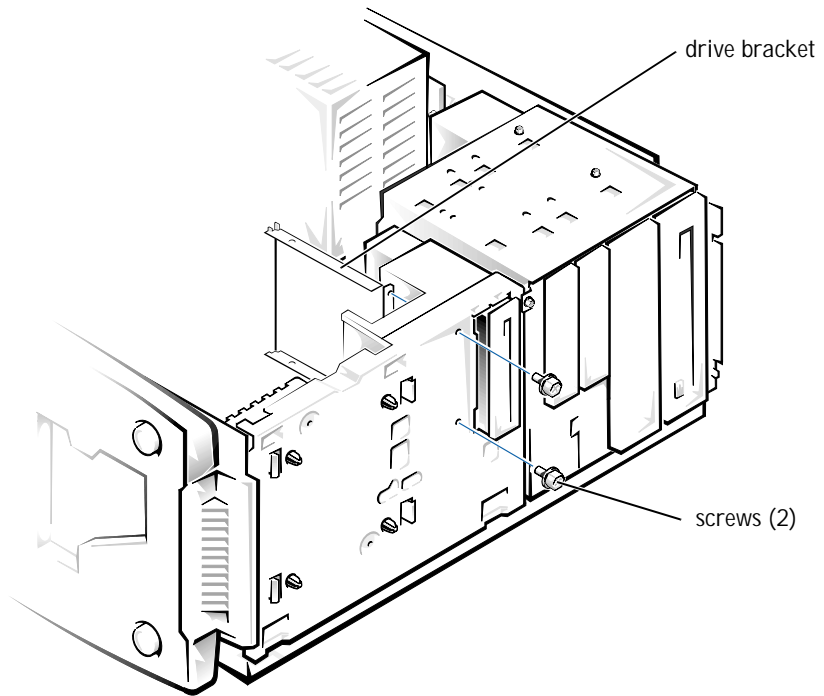
6 Orient the new drive with its circuit board facing the inside of the bracket. Align the bracket tabs with the two tab holes in the side of the drive, and rotate the drive into the bracket. Then secure the screw.

.

circuit board

screw

tab holes (2)

bracket

tabs (2)
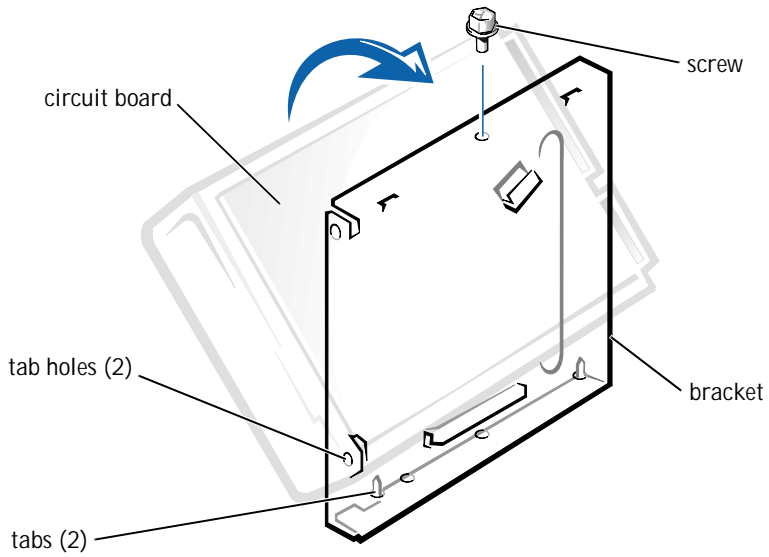
7   Align the bracket tabs with the slots in the computer, and slide the
    bracket into place. Secure the bracket with the screws you removed in
    step 5.

8   Connect a power cable to the drive.

power cable from
power supply
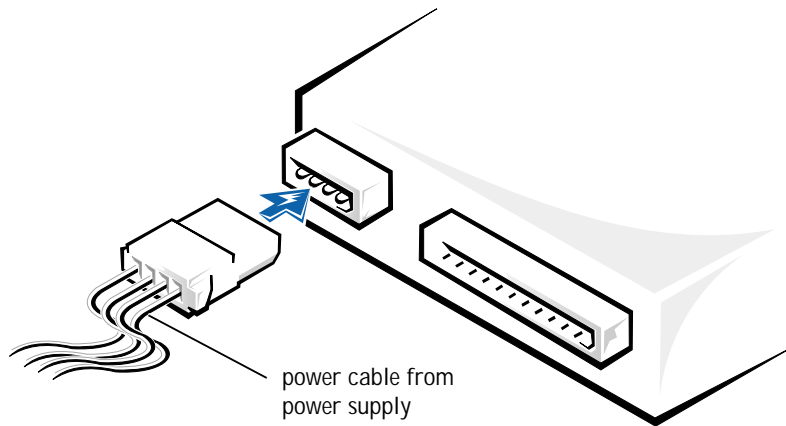
NOTICE: Match the colored strip on the cable with pin 1 on the drive.

9 Locate the extra connector on the wide cable attached to your first hard drive. Attach the connector to the new hard drive.
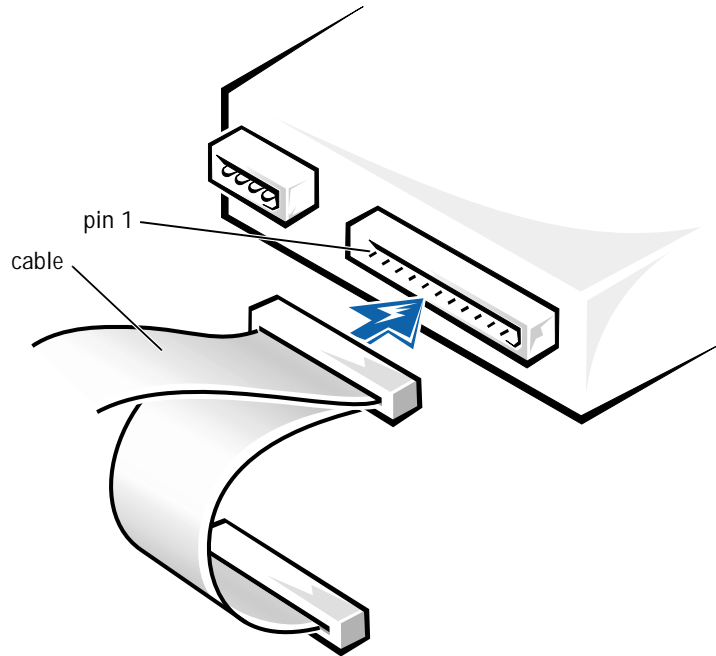
pin 1

cable

10 Insert the front panel hooks into the computer slots, and snap the front panel back onto the computer.

slots (3)

hooks (3 sets)

front panel

tabs (3)
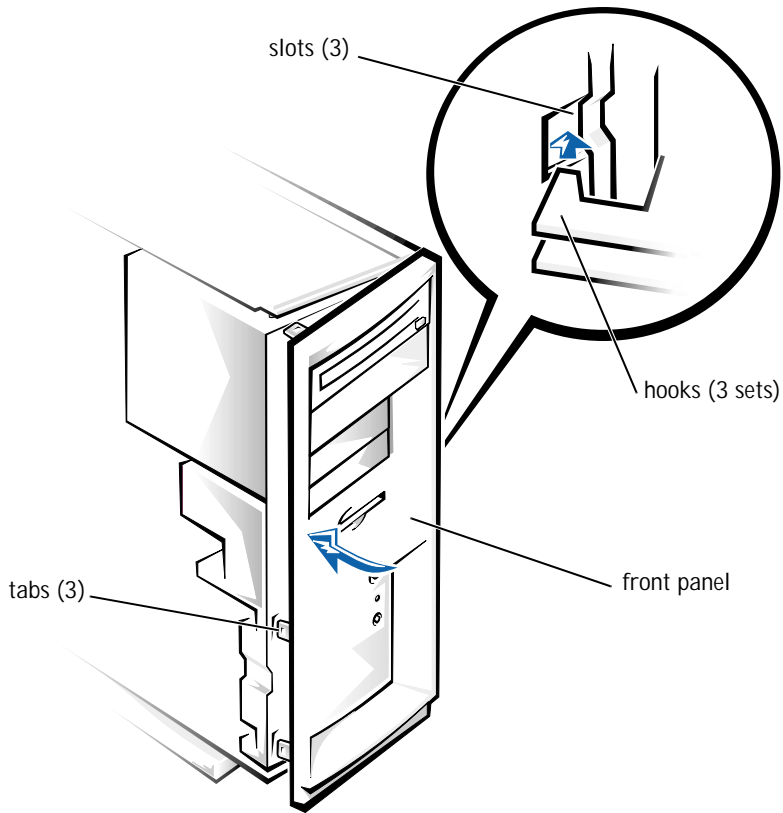
11 Replace the computer cover (see page 71).

📎 NOTICE: To connect a network cable, first plug the cable in to the network jack and then plug it in to the computer.

12 Plug your computer and devices into their electrical outlets, and turn them on.

13 See the drive documentation for instructions on installing any software required for drive operation.

Adding Other Drives

Your computer includes a floppy drive and either a CD or DVD drive. You can add drives, such as Zip drives and CD-RW drives, using the procedures in the following sections.

5.25-Inch Devices

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.

⊃ NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1   Turn off the computer and devices, and disconnect them from their electrical outlets.

2   Briefly press the power button.

    Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3   Remove the computer cover (see page 42).

4   Press in the tabs, and swing the front panel away from the computer.

tabs (3)

front
panel

5   Disconnect the two cables from the drive installed in the drive cage.
    Put a piece of tape on the wide cable connector to help you correctly
    reattach it later.

6   Remove the screw from the side of the drive cage. Pull the drive cage
    toward you to unlock it from the computer. Then lift out the drive
    cage.
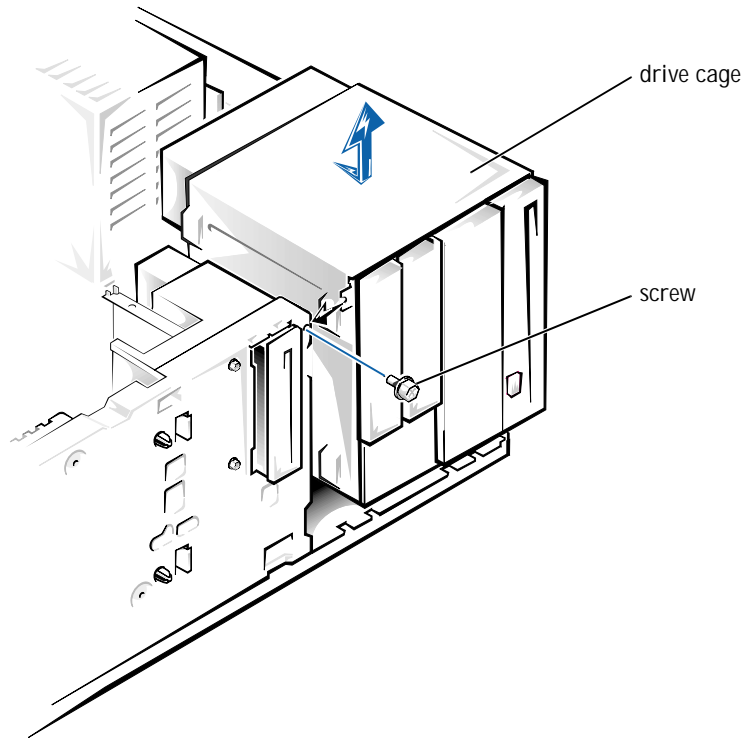
drive cage

screw

7   Press in the two tabs on the insert, and rotate the insert toward you to
    remove it.

tabs (2)

insert
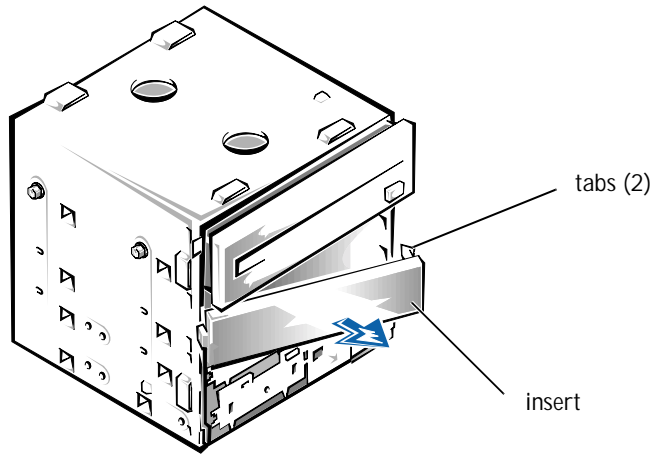
8   Slide the new drive into the bay, and secure the drive with the three screws.

screws (3)
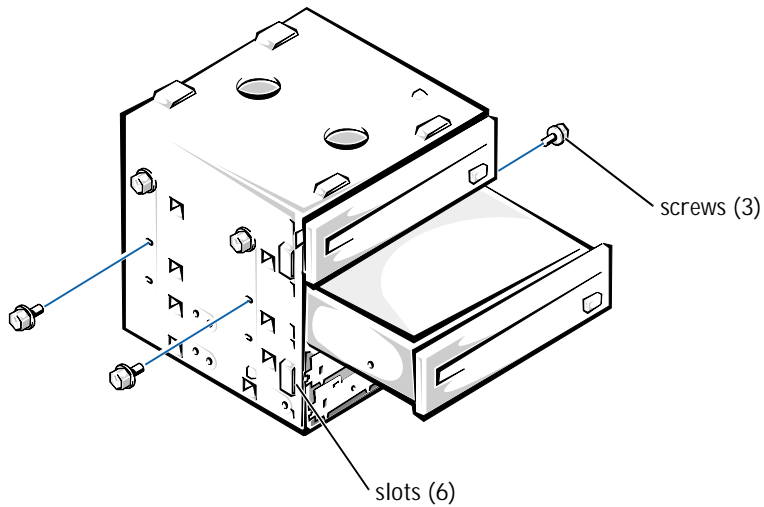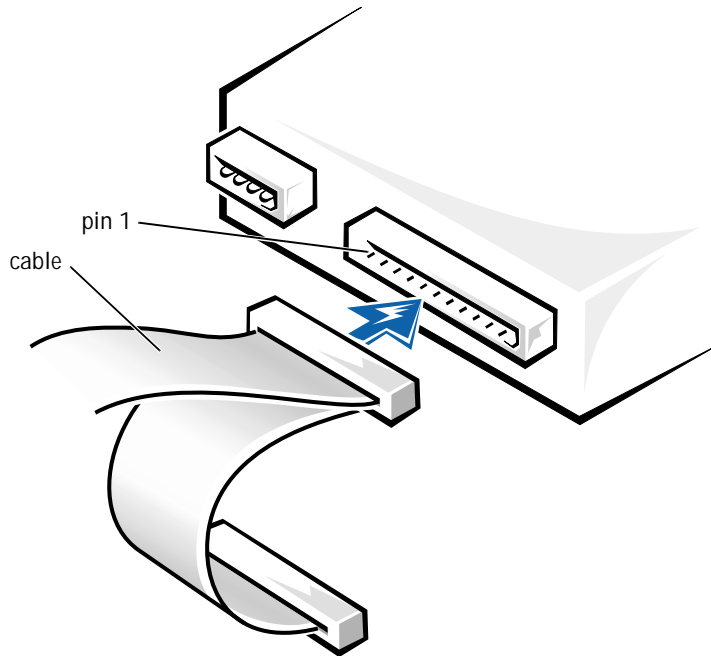
slots (6)

9   With the slots on the drive cage extending slightly beyond the front of the computer, lower the drive cage and slide it toward the back of the computer until the cage locks into place.

10 Connect a power cable to each drive.
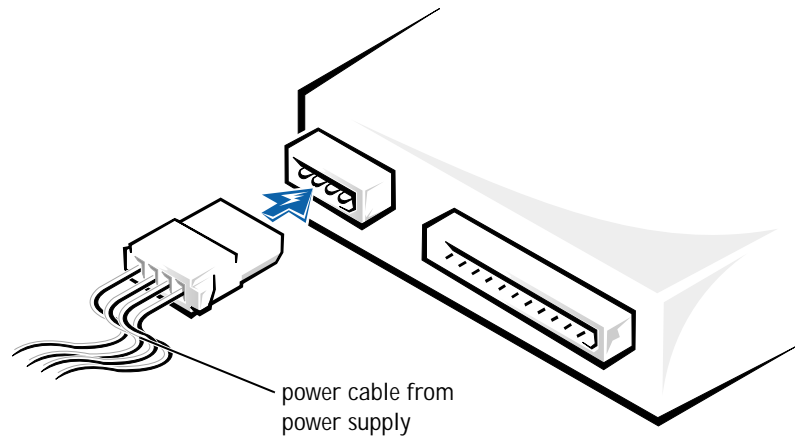
power cable from
power supply

NOTICE: When you attach the extra connector to the new drive in the following step, match the colored strip on the cable with pin 1 on the drive.

11 Remove the tape from the wide cable connector and reattach the connector to the original drive. Locate the extra connector on the cable and attach it to the new drive.

pin 1

cable

12 Insert the front panel hooks into the computer slots, and snap the front panel back onto the computer.

slots (3)

hooks (3 sets)

front panel

tabs (3)
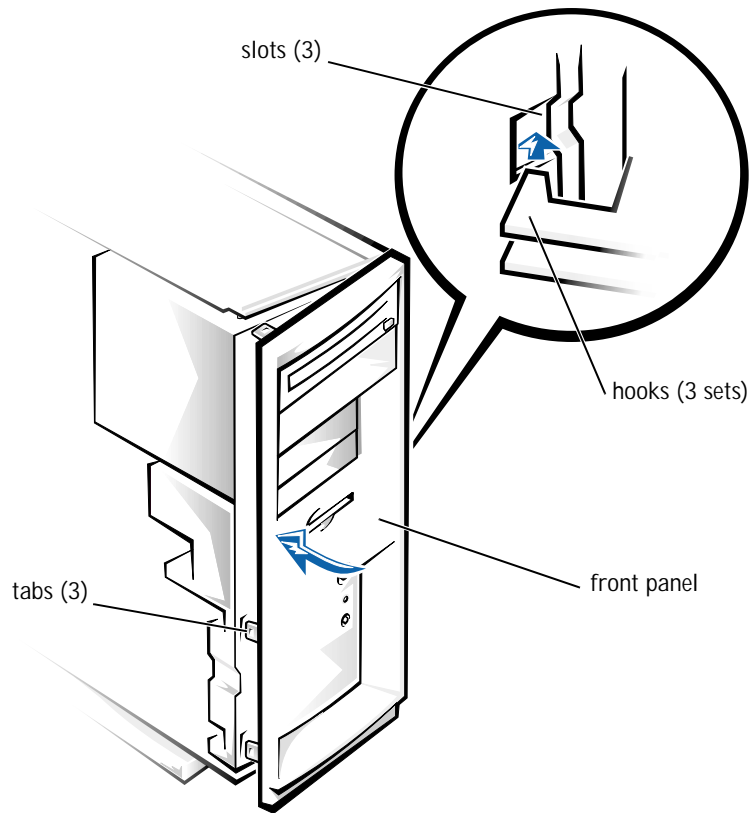
13 Replace the computer cover (see page 71).

⊃ NOTICE: To connect a network cable, first plug the cable in to the network jack and then plug it in to the computer.

14 Plug your computer and devices into their electrical outlets, and turn them on.

15 See the drive documentation for instructions on installing any software required for drive operation.

3.5-Inch Devices

🡆 NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1 Turn off the computer and devices, and disconnect them from their electrical outlets.

2 Briefly press the power button.

   Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3 Remove the computer cover (see page 42).

4 Press in the tabs, and swing the front panel away from the computer.

tabs (3)
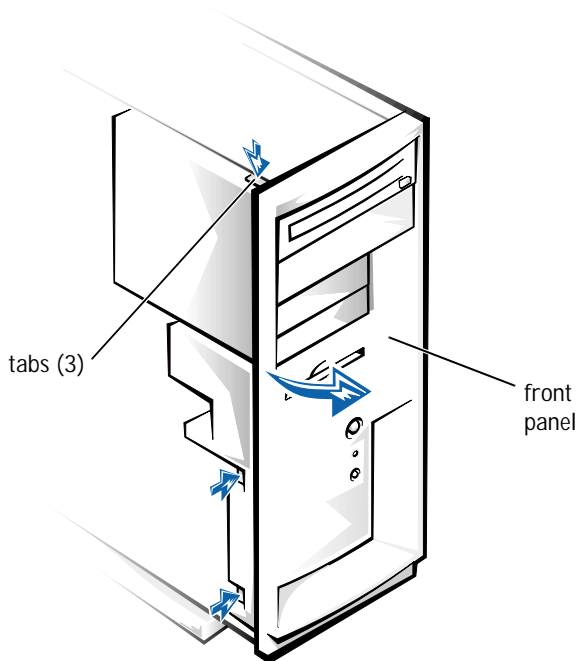
front panel

HINT: You must remove the upper insert to remove the lower insert.

5 From the back of the front panel, press the tab on the insert for the bay you plan to use.

insert

tab
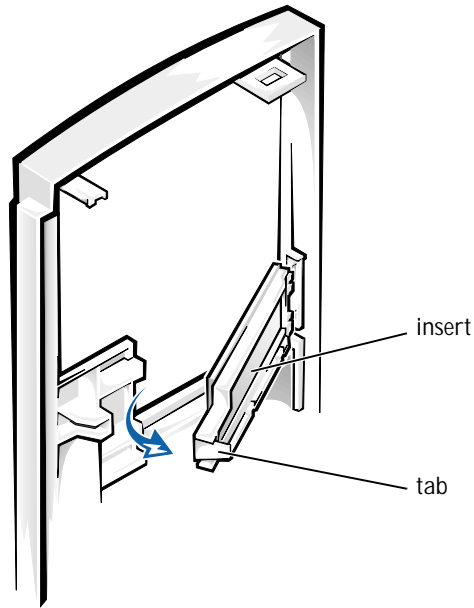
6 Disconnect the two cables from the drive installed in the drive cage. Put a piece of tape on the wide cable connector to help you correctly reattach it later.

7   Remove the screw from the side of the drive cage. Pull the drive cage toward you to unlock it from the computer. Then lift out the drive cage.

drive cage
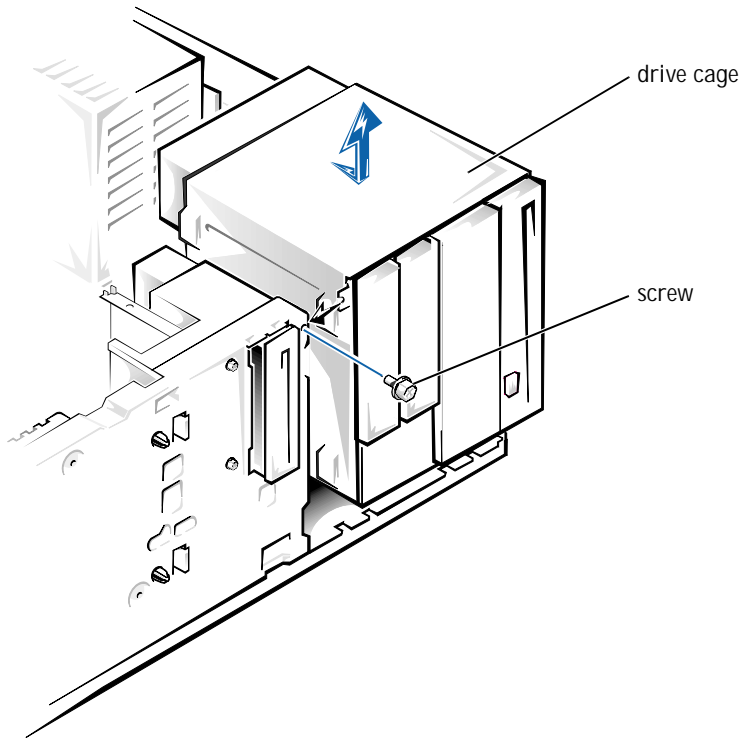
screw

8   Remove the metal plate from the selected bay by working the plate
    back and forth to break the perforations around the edges.
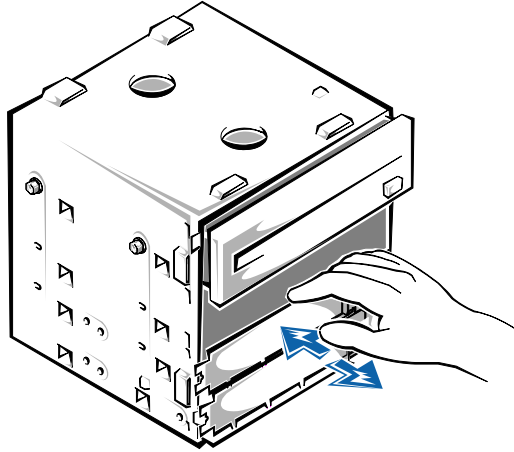
9   To install a new drive in the lower 3.5-inch bay, slide the drive into the
    bay and secure it with three screws.

slots (6)
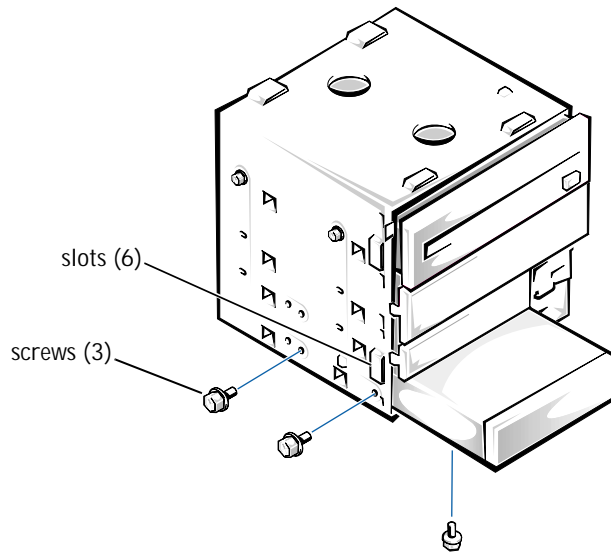
screws (3)

To install a new drive in the upper 3.5-inch bay, first remove the 1/4-inch screw and drive bracket from the drive cage. Attach the new drive to the bracket with two drive screws on the right side. Then slide the drive into the drive bay and secure it to the drive cage with one 1/4-inch screw on each side.

1/4-inch screws (2)

drive screws (2)

drive bracket
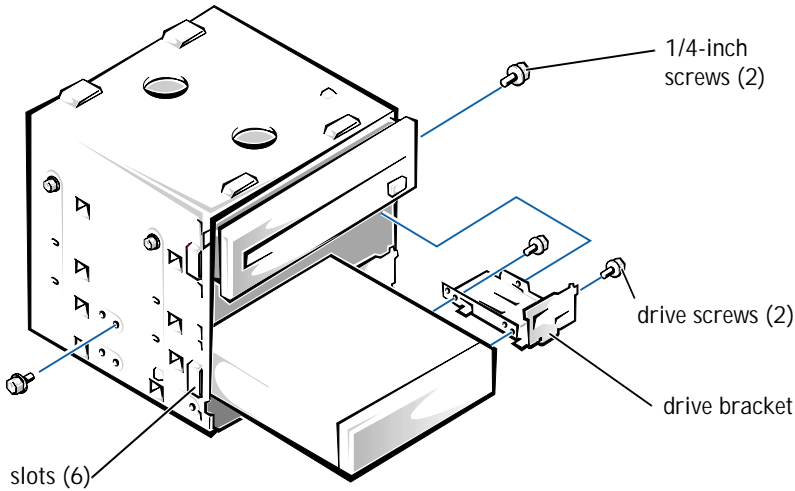
slots (6)

10   With the slots on the drive cage extending slightly beyond the front of the computer, lower the drive cage and slide it toward the back of the computer until the cage locks into place.

11   Connect a power cable to each drive.
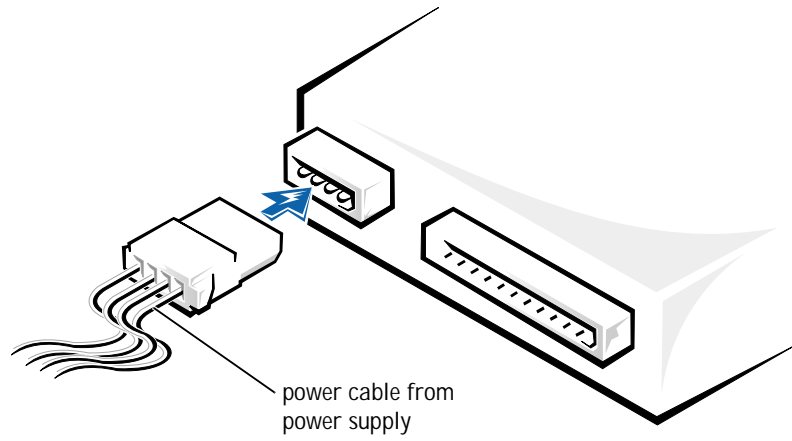
power cable from
power supply

NOTICE: When you attach the extra connector to the new drive in the following step, match the colored strip on the cable with pin 1 on the drive.

12 Remove the tape from the wide cable connector and reattach the connector to the original drive. Locate the extra connector on the cable and attach it to the new drive.

pin 1

cable

13 Insert the front panel hooks into the computer slots, and snap the front panel back onto the computer.

slots (3)

hooks (3 sets)

front panel

tabs (3)
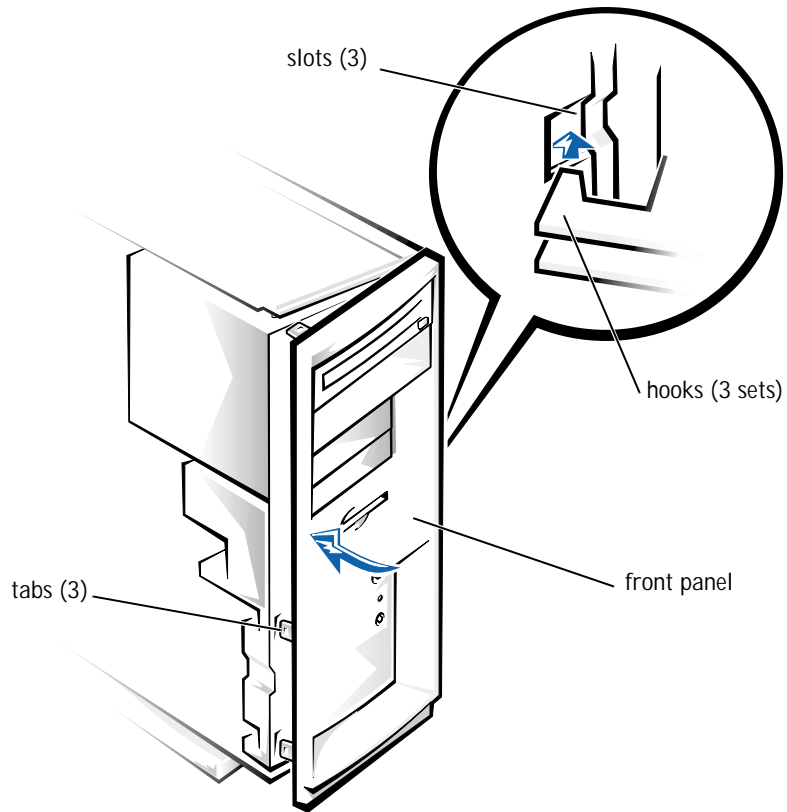
14 Replace the computer cover (see page 71).

⊘ NOTICE: To connect a network cable, first plug the cable in to the network jack and then plug it in to the computer.

15 Plug your computer and devices into their electrical outlets, and turn them on.

16 See the drive's documentation for instructions on installing any software required for drive operation.

Replacing the Computer Cover

⚠ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on page 7.

⊘ NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network jack.

1 Turn off the computer and devices, and disconnect them from their electrical outlets.

2 Briefly press the power button.

Pressing the power button when the computer is not connected to an electrical outlet discharges residual electricity and can help prevent system board damage.

3 Make sure that all cables are connected. Fold cables out of the way.

4 Make sure that no tools or extra parts (like screws) are left inside the computer.

5 From the back of the computer, slide the cover forward until it locks into place.

6 Tighten the thumbscrew on the back of the computer (see page 42).

SECTION 4

Appendix

Specifications

Standard Settings

Contacting Dell

Regulatory Information

Warranty and Return Policy Information

Specifications

Microprocessor	
Microprocessor type	Intel® Pentium® III microprocessor
L1 cache	32 KB (16-KB data cache; 16-KB instruction cache)
L2 cache	256-KB Advanced Transfer Cache that resides in the processor core. The L2 cache runs at the processor internal clock speed.
Math coprocessor	internal to microprocessor

System Information	
System chip set	Intel 815E
DMA channels	seven
Interrupt levels	15
System BIOS chip	4 Mb (512 KB)

Expansion Bus	
Bus types	PCI (version 2.2) and AGP (version 2.0)
Bus speed	AGP: 66 MHz; PCI: 33 MHz
AGP connector	one universal connector that supports AGP 2X or 4X expansion cards
AGP connector size	132 pins
AGP connector data width (maximum)	32 bits
PCI connectors	five
PCI connector size	124 pins
PCI connector data width (maximum)	32 bits

Memory	
Architecture	non-ECC PC133 SDRAM
Memory connectors	two; gold contacts
Memory capacities	64, 128, and 256 MB (non-ECC)
Minimum memory	64 MB (non-ECC)
Maximum memory	512 MB (non-ECC)
Frequency	133 MHz
Clock cycle	7.5 ns (supports 4 clocks only)
CAS latency	3
SPD revision	1.2 A
Buffering	unbuffered
Voltage	3.3 V
Data bus width	64 bits

Drives	
Externally accessible:	
Mini tower chassis	two 5.25-inch bays
	three 3.5-inch bays
Desktop chassis	two 5.25-inch bays
	two 3.5-inch bays
Internally accessible	two bays for 1-inch–high EIDE hard drives
Available devices	ATA-66 or ATA-100 Ultra DMA hard drives, CD drives, DVD drives, CD-RW drives, and Zip drives

Ports and Connectors	
Externally accessible:	
Serial	9-pin connector; 16550C-compatible
Parallel	25-hole connector (bidirectional)
Video	15-hole connector on an AGP video card

Audio[1]	three miniature jacks for line in, line out, and microphone
NIC[2]	RJ45 connector that supports 10BASE-T and 100BASE-T Ethernet standards
Keyboard	6-pin mini-DIN connector
Mouse	6-pin mini-DIN connector
MIDI/game[1]	15-pin connector
USB	two USB-compliant connectors
Internally accessible:	
Primary EIDE channel	40-pin connector on PCI local bus
Secondary EIDE channel	40-pin connector on PCI local bus
Floppy drive	34-pin connector

[1] Available in integrated audio systems only
[2] Available in integrated NIC systems only

Video

Video type	AGP 2.0 video card (4X or 2X; see manufacturer's specifications)

Audio

Audio type[1]	ADI SoundMAX 2.0 Integrated Audio Driver (ADI 1885 chip set)

[1] Available in integrated audio systems only

NIC

NIC type[2]	Integrated Intel 10/100 Ethernet Controller Driver (Intel 82562ET chip set)

[2] Available in integrated NIC systems only

Controls and Lights

Reset control	push button
Power control	push button

Power light	green
Hard-drive access light	green
Network lights (optional)	green and yellow
Diagnostic code lights	four bicolor (yellow and green) located on back panel

Power

DC power supply:	
Wattage	200 W
Heat dissipation	778 BTU (fully loaded computer without monitor)
Voltage (switch-selectable on back panel)	90 to 135 V at 60 Hz;180 to 265 V at 50 Hz; 100 V at 50 to 60 Hz for Japanese computers
Backup battery	3-V CR2032 coin cell

Physical

Mini tower chassis:	
Height x Width x Depth	43.69 x 20.32 x 44.45 cm (17.2 x 8 x 17.5 inches)
Weight	11.3 to 13.6 kg (25.0 to 30.0 lb)
Desktop chassis:	
Height x Width x Depth	16 x 42.42 x 44.45 cm (6.3 x 16.7 x 17.5 inches)
Weight	11.3 to 13.6 kg (25.0 to 30.0 lb)

Environmental

Temperature:	
Operating	10° to 35°C (50° to 95°F)[3]
Storage	−40° to 65°C (−40° to 149°F)
Relative humidity	20% to 80% (noncondensing)

Maximum vibration:

Operating	0.25 G at 3 to 200 Hz at 1/2 octave/min
Storage	0.5 G at 3 to 200 Hz at 1/2 octave/min

Maximum shock:

Operating	left side (for mini tower orientation) and bottom half-sine pulse with a change in velocity of 50.8 cm/sec (20 inches/sec)
Storage	23-G faired-square wave with a velocity change of 508 cm/sec (200 inches/sec)

Altitude:

Operating	–15.2 to 3048 m (–50 to 10,000 ft)[3]
Storage	–15.2 to 10,600 m (–50 to 35,000 ft)

[3] At 35°C (95°F), the maximum operating altitude is 914 m (3000 ft)

Standard Settings

The system setup program contains the standard settings for your computer.

⬤ NOTICE: Unless you are an expert computer user, don't change the settings for this program. Certain changes might make your computer work incorrectly.

See the following figure for an example of the **Main** screen of the program.

```
                    Dell Dimension 4100 Setup

   ▮ Main   Advanced    Security    Boot    Exit

   BIOS Version           Axx
                                          Item Specific Help
   Processor Type         Intel® Pentium® III
   Processor Speed        800 MHz
   System Bus Frequency   130 MHz

   Cache RAM              512 KB
   Service Tag            12ABC

   Total Memory           64 MB
   Memory Bank 0          64 MB [PC100]
   Memory Bank 1          Not Installed
   Processor Serial Number [Disabled]
                                          ←→   Select Menu
                                          ↑↓   Select Item
   System Time:           00:00:00        Enter Select ▶ Submenu
   System Date:           MM/DD/YR         F9   Setup Defaults
                                          F10  Save and Exit
                                          ESC  Exit
                                          F1   Help
```

Viewing Settings

1 Turn on (or restart) your computer.

2 When the blue Dell logo appears, press < Del> immediately.

   If you wait too long and the operating system logo appears, continue to
   wait until you see the Windows desktop. Then shut down your
   computer and try again.

System Setup Screens

The system setup screens are organized into the following sections:

- The menu bar at the top provides access to the main program screens:

  – **Main** provides settings for the basic computer configuration.

  – **Advanced** provides detailed settings for some computer features.

  – **Security** provides indications and settings for user and setup
    passwords.

  – **Boot** provides information about how the computer starts.

  – **Exit** provides selections for saving and loading the program
    settings.

- The left side lists configuration options and their settings for the hardware installed in your computer.

  You can change settings enclosed in brackets, but not those that are grayed out. Options identified by an arrowhead (>) provide access to submenus.

- The top-right side displays help information for a highlighted option.

- The bottom-right side lists keys and their functions for the displayed screen.

Clearing Forgotten Passwords

If you forget your user or setup password, you cannot operate your computer or change settings in the system setup program until you clear the forgotten password(s).

⊘ NOTICE: The following procedure resets all standard settings for your computer. Before proceeding, record or print (by pressing <Print Screen>) all current settings so that you can restore them when you finish this procedure.

1 Remove the computer cover (see page 42).

2 Locate jumper BIOS CONF on the system board (see page 44) and move the jumper plug so that pins 2 and 3 are jumpered.

3 Replace the computer cover (see page 71), plug your computer into an electrical outlet, and turn on the computer.

4 Press <Enter> at the **Maintenance** screen and then click **Yes** to clear all passwords.

5 Press <F10> to save your changes and exit the system setup program.

6 Remove the computer cover again.

7 Move the jumper plug so that pins 1 and 2 are jumpered (standard setting).

8 Replace the computer cover, plug your computer into an electrical outlet, and turn on the computer.

Replacing the Battery

A coin-cell battery maintains computer configuration, date, and time information. The battery can last several years.

If you have to repeatedly reset time and date information after turning on the computer, replace the battery.

⚠ CAUTION: A new battery can explode if it is incorrectly installed. Replace the 3-V CR2032 battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

1 Record all the screens in the system setup program so that you can restore the correct settings in step 6.

2 Remove the computer cover (see page 42).

➡ NOTICE: To avoid damage to the system board while you pry the battery loose, be sure to insert the plastic screwdriver between the battery and the socket (not the system board).

3 Locate the battery socket (see page 44) and pry the battery out of its socket with your fingers or with a plastic screwdriver.

4 Insert the battery into the socket with the side labeled "+" facing up.

battery

battery socket (BATTERY)
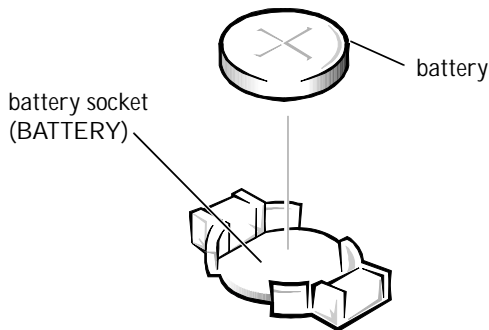
5 Replace the computer cover (see page 71), and plug your computer and devices into their electrical outlets.

6 Access the system setup program and restore the settings you recorded in step 1.

Contacting Dell

When you need to contact Dell, use the telephone numbers, codes, and electronic addresses provided in the following tables. If you need assistance in determining which codes to use, contact a local or an international operator.

Contact Numbers and Addresses

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Australia (Sydney)	Home and Small Business	1-300-65-55-33
International Access Code: **0011**	Government and Business	toll free: 1-800-633-559
Country Code: **61**	Preferred Accounts Division (PAD)	toll free: 1-800-060-889
City Code: **2**	Customer Care	toll free: 1-800-819-339
	Corporate Sales	toll free: 1-800-808-385
	Transaction Sales	toll free: 1-800-808-312
	Fax	toll free: 1-800-818-341
Austria (Vienna)	Home/Small Business Sales	01 795 67602
International Access Code: **900**	Home/Small Business Fax	01 795 67605
Country Code: **43**	Home/Small Business Customer Care	01 795 67603
City Code: **1**	Preferred Accounts/Corporate Customer Care	0660 8056
	Home/Small Business Technical Support	01 795 67604
	Preferred Accounts/Corporate Technical Support	0660 8779
	Switchboard	01 491 04 0
	Website: **http://support.euro.dell.com**	
	E-mail: tech_support_central_europe@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Belgium (Brussels)	Technical Support	02 481 92 88
International Access Code: **00**	Customer Care	02 481 91 19
Country Code: **32**	Home/Small Business Sales	toll free: 0800 16884
City Code: **2**	Corporate Sales	02 481 91 00
	Fax	02 481 92 99
	Switchboard	02 481 91 00
	Website: **http://support.euro.dell.com**	
	E-mail: tech_be@dell.com	
Brazil	Customer Support, Technical Support	0800 90 3355
International Access Code: **0021**	Sales	0800 90 3366
Country Code: **55**	Website: **http://www.dell.com/br**	
City Code: **51**		
Brunei	Customer Technical Support (Penang, Malaysia)	604 633 4966
Country Code: **673**	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales (Penang, Malaysia)	604 633 4955
Canada (North York, Ontario)	Automated Order-Status System	toll free: 1-800-433-9014
International Access Code: **011**	AutoTech (Automated technical support)	toll free: 1-800-247-9362
	Customer Care (From outside Toronto)	toll free: 1-800-387-5759
	Customer Care (From within Toronto)	416 758-2400
	Customer Technical Support	toll free: 1-800-847-4096
	Sales (Direct Sales—from outside Toronto)	toll free: 1-800-387-5752
	Sales (Direct Sales—from within Toronto)	416 758-2200
	Sales (Federal government, education, and medical)	toll free: 1-800-567-7542
	Sales (Major Accounts)	toll free: 1-800-387-5755
	TechFax	toll free: 1-800-950-1329
Chile (Santiago)	Sales, Customer Support, and Technical Support	toll free: 1230-020-4823
Country Code: **56**		
City Code: **2**		

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
China (Xiamen)	Technical Support	toll free: 800 858 2437
Country Code: **86**	Customer Experience	toll free: 800 858 2060
City Code: **592**	Home and Small Business	toll free: 800 858 2222
	Preferred Accounts Division	toll free: 800 858 2062
	Large Corporate Accounts	toll free: 800 858 2999
Czech Republic (Prague)	Technical Support	02 22 83 27 27
International Access Code: **00**	Customer Care	02 22 83 27 11
Country Code: **420**	Fax	02 22 83 27 14
City Code: **2**	TechFax	02 22 83 27 28
	Switchboard	02 22 83 27 11
	Website: **http://support.euro.dell.com**	
	E-mail: czech_dell@dell.com	
Denmark (Horsholm)	Technical Support	45170182
International Access Code: **00**	Relational Customer Care	45170184
Country Code: **45**	Home/Small Business Customer Care	32875505
	Switchboard	45170100
	Fax Technical Support (Upplands Vasby, Sweden)	46 0 859005594
	Fax Switchboard	45170117
	Website: **http://support.euro.dell.com**	
	E-mail: den_support@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
Finland (Helsinki)	Technical Support	09 253 313 60
International Access Code: **990**	Technical Support Fax	09 253 313 81
Country Code: **358**	Relational Customer Care	09 253 313 38
City Code: **9**	Home/Small Business Customer Care	09 693 791 94
	Fax	09 253 313 99
	Switchboard	09 253 313 00
	Website: **http://support.euro.dell.com**	
	E-mail: fin_support@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
France (Paris/Montpellier)	**Home and Small Business**	
International Access Code: **00**	Technical Support	0825 387 270
Country Code: **33**	Customer Care	0825 823 833
City Code: **(1) (4)**	Switchboard	0825 004 700
	Switchboard (Alternative)	04 99 75 40 00
	Sales	0825 004 700
	Fax	0825 004 701
	Website: **http://support.euro.dell.com**	
	E-mail: web_fr_tech@dell.com	
	Corporate	
	Technical Support	0825 004 719
	Customer Care	0825 338 339
	Switchboard	01 55 94 71 00
	Sales	01 55 94 71 00
	Fax	01 55 94 71 01
	Website: **http://support.euro.dell.com**	
	E-mail: web_fr_tech@dell.com	
Germany (Langen)	Technical Support	06103 766-7200
International Access Code: **00**	Home/Small Business Customer Care	0180-5-224400
Country Code: **49**	Global Segment Customer Care	06103 766-9570
City Code: **6103**	Preferred Accounts Customer Care	06103 766-9420
	Large Accounts Customer Care	06103 766-9560
	Public Accounts Customer Care	06103 766-9555
	Switchboard	06103 766-7000
	Website: **http://support.euro.dell.com**	
	E-mail: tech_support_central_europe@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Hong Kong	Technical Support	toll free: 800 96 4107
International Access Code: **001**	Customer Service (Penang, Malaysia)	604 633 4949
Country Code: **852**	Transaction Sales	toll free: 800 96 4109
	Corporate Sales	toll free: 800 96 4108
Ireland (Cherrywood)	Technical Support	0870 908 0800
International Access Code: **16**	Home User Customer Care	01 204 4095
Country Code: **353**	Small Business Customer Care	01 204 4026
City Code: **1**	Corporate Customer Care	01 204 4003
	Sales	01 286 0500
	SalesFax	01 204 0144
	Fax	0870 907 5590
	Switchboard	01 286 0500
	Website: **http://support.euro.dell.com**	
	E-mail: dell_direct_support@dell.com	
Italy (Milan)	**Home and Small Business**	
International Access Code: **00**	Technical Support	02 577 826 90
Country Code: **39**	Customer Care	02 696 821 14
City Code: **02**	Fax	02 696 821 13
	Switchboard	02 696 821 12
	Website: **http://support.euro.dell.com**	
	E-mail: web_it_tech@dell.com	
	Corporate	
	Technical Support	02 577 826 90
	Customer Care	02 577 825 55
	Fax	02 575 035 30
	Switchboard	02 577 821
	Website: **http://support.euro.dell.com**	
	E-mail: web_it_tech@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Japan (Kawasaki)	Technical Support (Server)	toll free: 0120-1984-35
International Access Code: **001**	Technical Support (Dimension™ and Inspiron™)	toll free: 0120-1982-26
Country Code: **81**	Technical Support Outside of Japan (Dimension and Inspiron)	81-44-520-1435
City Code: **44**	Technical Support (Dell Precision™, OptiPlex™ and Latitude™)	toll free: 0120-1984-33
	Technical Support Outside of Japan (Dell Precision, OptiPlex, and Latitude)	81-44-556-3894
	24-Hour Automated Order Service	044 556-3801
	Customer Care	044 556-4240
	Home and Small Business Group Sales	044 556-3344
	Business Sales Division (up to 400 employees)	044 556 1465
	Preferred Accounts Division Sales (over 400 employees)	044 556-3433
	Large Corporate Accounts Sales (over 3500 employees)	044 556-3430
	Government, Education, and Medical Sales	044 556 3345
	Dell Global Japan	044 556 3469
	Individual User	044 556 1760
	Faxbox Service	044 556-3490
	Switchboard	044 556-4300
	Website: **http://support.jp.dell.com**	
Korea (Seoul)	Technical Support	toll free: 080-200-3800
International Access Code: **001**	Sales	toll free: 080-200-3777
Country Code: **82**	Customer Service (Seoul, Korea)	2194-6220
City Code: **2**	Customer Service (Penang, Malaysia)	604 633 4949
	Fax	2194-6202
	Switchboard	2194-6000

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Latin America	Customer Technical Support (Austin, Texas, U.S.A.)	512 728-4093
	Customer Service (Austin, Texas, U.S.A.)	512 728-3619
	Fax (Technical Support and Customer Service) (Austin, Texas, U.S.A.)	512 728-3883
	Sales (Austin, Texas, U.S.A.)	512 728-4397
	SalesFax (Austin, Texas, U.S.A.)	512 728-4600
		or 512 728-3772
Luxembourg	Technical Support (Brussels, Belgium)	02 481 92 88
International Access Code: **00**	Home/Small Business Sales (Brussels, Belgium)	toll free: 080016884
Country Code: **352**	Corporate Sales (Brussels, Belgium)	02 481 91 00
	Customer Care (Brussels, Belgium)	02 481 91 19
	Fax (Brussels, Belgium)	02 481 92 99
	Switchboard (Brussels, Belgium)	02 481 91 00
	Website: **http://support.euro.dell.com**	
	E-mail: tech_be@dell.com	
Macau	Technical Support	toll free: 0800 582
Country Code: **853**	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales	toll free: 0800 581
Malaysia (Penang)	Technical Support	toll free: 1 800 888 298
International Access Code: **00**	Customer Service	04 633 4949
Country Code: **60**	Transaction Sales	toll free: 1 800 888 202
City Code: **4**	Corporate Sales	toll free: 1 800 888 213

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Mexico International Access Code: **95** Country Code: **52** City Code: **5**	Automated Order-Status System (Austin, Texas, U.S.A.)	512 728-0685
	AutoTech (Automated technical support) (Austin, Texas, U.S.A.)	512 728-0686
	Customer Technical Support	525 228-7870
	Sales	525 228-7811
		or toll free: 91-800-900-37
		or toll free: 91-800-904-49
	Customer Service	525 228-7878
	Main	525 228-7800
Netherlands (Amsterdam) International Access Code: **00** Country Code: **31** City Code: **20**	Technical Support	020 581 8838
	Customer Care	020 581 8740
	Home/Small Business Sales	toll free: 0800-0663
	Home/Small Business Sales Fax	020 682 7171
	Corporate Sales	020 581 8818
	Corporate Sales Fax	020 686 8003
	Fax	020 686 8003
	Switchboard	020 581 8818
	Website: **http://support.euro.dell.com**	
	E-mail: tech_nl@dell.com	
New Zealand International Access Code: **00** Country Code: **64**	Home and Small Business	0800 446 255
	Government and Business	0800 444 617
	Sales	0800 441 567
	Fax	0800 441 566

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Norway (Lysaker)	Technical Support	671 16882
International Access Code: **00**	Relational Customer Care	671 17514
Country Code: **47**	Home/Small Business Customer Care	23162298
	Switchboard	671 16800
	Fax Technical Support (Upplands Vasby, Sweden)	46 0 85 590 05 594
	Fax Switchboard	671 16865
	Website: **http://support.euro.dell.com**	
	E-mail: nor_support@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
Poland (Warsaw)	Technical Support	22 57 95 700
International Access Code: **011**	Customer Care	22 57 95 999
Country Code: **48**	Sales	22 57 95 999
City Code: **22**	Fax	22 57 95 998
	Switchboard	22 57 95 999
	Website: **http://support.euro.dell.com**	
	E-mail: pl_support@dell.com	
Portugal	Technical Support	35 800 834 077
International Access Code: **00**	Customer Care	800 300 415 or 35 800 834 075
Country Code: **35**	Sales	800 300 410 or 800 300 411 or 800 300 412 or
		351 214 220 710
	Fax	35 121 424 01 12
	E-mail: es_support@dell.com	
Singapore (Singapore)	Technical Support	toll free: 800 6011 051
International Access Code: **005**	Customer Service (Penang, Malaysia)	604 633 4949
Country Code: **65**	Transaction Sales	toll free: 800 6011 054
	Corporate Sales	toll free: 800 6011 053

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
South Africa (Johannesburg)	Technical Support	011 709 7710
International Access Code: **09/091**	Customer Care	011 709 7707
	Sales	011 709 7700
Country Code: **27**	Fax	011 706 0495
City Code: **11**	Switchboard	011 709 7700
	Website: **http://support.euro.dell.com**	
	E-mail: dell_za_support@dell.com	
Southeast Asian and Pacific Countries	Customer Technical Support, Customer Service, and Sales (Penang, Malaysia)	604 633 4810
Spain (Madrid)	**Home and Small Business**	
International Access Code: **00**	Technical Support	902 100 130
Country Code: **34**	Customer Care	902 118 540
City Code: **91**	Sales	902 118 541
	Switchboard	902 118 541
	Fax	902 118 539
	Website: **http://support.euro.dell.com**	
	E-mail: web_esp_tech@dell.com	
	Corporate	
	Technical Support	902 100 130
	Customer Care	902 118 546
	Switchboard	91 722 92 00
	Fax	91 722 95 83
	Website: **http://support.euro.dell.com**	
	E-mail: web_esp_tech@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Sweden (Upplands Vasby)	Technical Support	08 590 05 199
International Access Code: **00**	Relational Customer Care	08 590 05 642
Country Code: **46**	Home/Small Business Customer Care	08 587 70 527
City Code: **8**	Fax Technical Support	08 590 05 594
	Sales	08 590 05 185
	Website: **http://support.euro.dell.com**	
	E-mail: swe_support@dell.com	
	E-mail Support for Latitude and Inspiron: Swe-nbk_kats@dell.com	
	E-mail Support for OptiPlex: Swe_kats@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
Switzerland (Geneva)	Technical Support (Home and Small Business)	0844 811 411
International Access Code: **00**	Technical Support (Corporate)	0844 822 844
Country Code: **41**	Customer Care (Home and Small Business)	0848 802 202
City Code: **22**	Customer Care (Corporate)	0848 821 721
	Fax	022 799 01 90
	Switchboard	022 799 01 01
	Website: **http://support.euro.dell.com**	
	E-mail: swisstech@dell.com	
Taiwan	Technical Support	toll free: 0080 60 1255
International Access Code: **002**	Technical Support (Servers)	toll free: 0080 60 1256
Country Code: **886**	Transaction Sales	toll free: 0080 651 228 or 0800 33 556
	Corporate Sales	toll free: 0080 651 227 or 0800 33 555
Thailand	Technical Support	toll free: 0880 060 07
International Access Code: **001**	Customer Support (Penang, Malaysia)	604 633 4949
Country Code: **66**	Sales	toll free: 0880 060 09

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
U.K. (Bracknell) International Access Code: **010** Country Code: **44** City Code: **1344**	Technical Support (Corporate/Preferred Accounts/PAD [1000+ employees])	0870 908 0500
	Technical Support (Direct/PAD and General)	0870 908 0800
	Global Accounts Customer Care	01344 723186
	Home and Small Business Customer Care	0870 906 0010
	Corporate Customer Care	0870 908 0500
	Preferred Accounts (500-5000 employees) Customer Care	01344 723196
	Central Government Customer Care	01344 723193
	Local Government Customer Care	01344 723194
	Home/Small Business Sales	0870 907 4000
	Corporate/Public Sector Sales	01344 860456
	Website: **http://support.euro.dell.com**	
	E-mail: dell_direct_support@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
U.S.A. (Austin, Texas)	Automated Order-Status System	toll free: 1-800-433-9014
International Access Code: **011**	AutoTech (for portable and desktop computers)	toll free: 1-800-247-9362
Country Code: **1**	**Dell Home and Small Business Group** (for portable and desktop computers):	
	Customer Technical Support (Return Material Authorization Numbers)	toll free: 1-800-624-9896
	Customer Technical Support (Home sales purchased via **http://www.dell.com**)	toll free: 1-877-576-3355
	Customer Service (Credit Return Authorization Numbers)	toll free: 1-800-624-9897
	National Accounts (systems purchased by established Dell national accounts [have your account number handy], medical institutions, or value-added resellers [VARs]):	
	Customer Service and Technical Support (Return Material Authorization Numbers)	toll free: 1-800-822-8965
	Public Americas International (systems purchased by governmental agencies [local, state, or federal] or educational institutions):	
	Customer Service and Technical Support (Return Material Authorization Numbers)	toll free: 1-800-234-1490
	Dell Sales	toll free: 1-800-289-3355
		or toll free: 1-800-879-3355
	Spare Parts Sales	toll free: 1-800-357-3355
	DellWare™	toll free: 1-800-753-7201
	Desktop and Portable Fee-Based Technical Support	toll free: 1-800-433-9005

Returning Items for Warranty Repair or Credit

Prepare all items being returned, whether for repair or credit, as follows:

1 Call Dell to obtain an authorization number, and write it clearly and prominently on the outside of the box.

2 Include a copy of the invoice and a letter describing the reason for the return.

3 Include any accessories that belong with the item(s) being returned (power cables, CDs, guides, and so on) if the return is for credit.

4   Pack the equipment to be returned in the original (or equivalent) packing materials.

You are responsible for paying shipping expenses. You are also responsible for insuring any product returned, and you assume the risk of loss during shipment to Dell. Collect-on-delivery packages are not accepted.

Returns that are missing any of the preceding requirements will be refused at our receiving dock and returned to you.

Regulatory Information

Electromagnetic Interference (EMI) is any signal or emission, radiated in free space or conducted along power or signal leads, that endangers the functioning of a radio navigation or other safety service or seriously degrades, obstructs, or repeatedly interrupts a licensed radio communications service. Radio communications services include but are not limited to AM/FM commercial broadcast, television, cellular services, radar, air-traffic control, pager, and Personal Communication Services (PCS). These licensed services, along with unintentional radiators such as digital devices, including computer systems, contribute to the electromagnetic environment.

Electromagnetic Compatibility (EMC) is the ability of items of electronic equipment to function properly together in the electronic environment. While this computer system has been designed and determined to be compliant with regulatory agency limits for EMI, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference with radio communications services, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.

- Relocate the computer with respect to the receiver.

- Move the computer away from the receiver.

- Plug the computer into a different outlet so that the computer and the receiver are on different branch circuits.

If necessary, consult a Dell Technical Support representative or an experienced radio/television technician for additional suggestions. You may find the *FCC Interference Handbook, 1986*, to be helpful. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00450-7 or on the World Wide Web at **http://www.fcc.gov/cib/Publications/tvibook.html**.

Dell computer systems are designed, tested, and classified for their intended electromagnetic environment. These electromagnetic environment classifications generally refer to the following harmonized definitions:

- Class A is typically for business or industrial environments.
- Class B is typically for residential environments.

Information Technology Equipment (ITE), including peripherals, expansion cards, printers, input/output (I/O) devices, monitors, and so on, that are integrated into or connected to the system should match the electromagnetic environment classification of the computer system.

A Notice About Shielded Signal Cables: Use only shielded cables for connecting peripherals to any Dell device to reduce the possibility of interference with radio communications services. Using shielded cables ensures that you maintain the appropriate EMC classification for the intended environment. For parallel printers, a cable is available from Dell. If you prefer, you can order a cable from Dell on the World Wide Web at http://www.dell.com/products/dellware/index.htm.

Most Dell computer systems are classified for Class B environments. To determine the electromagnetic classification for your system or device, refer to the following sections specific for each regulatory agency. Each section provides country-specific EMC/EMI or product safety information.

FCC Notices (U.S. Only)

Most Dell computer systems are classified by the Federal Communications Commission (FCC) as Class B digital devices. However, the inclusion of certain options can change the rating of some configurations to Class A. To determine which classification applies to your computer system, examine all FCC registration labels located on the bottom or back panel of your computer, on card-mounting brackets, and on the cards themselves. If any one of the labels carries a Class A rating, your entire system is considered to be a Class A digital device. If *all* labels carry an FCC Class B rating as distinguished by either an FCC ID number or the FCC logo, (**FC**), your system is considered to be a Class B digital device.

Once you have determined your system's FCC classification, read the appropriate FCC notice. Note that FCC regulations provide that changes or modifications not expressly approved by Dell could void your authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Class A

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 manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

Class B

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 manufacturer's instruction manual, may cause interference with 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, you are 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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The following information is provided on the device or devices covered in this document in compliance with FCC regulations:

- Model number: MMS
- Company name: Dell Computer Corporation
  EMC Engineering Department
  One Dell Way
  Round Rock, Texas 78682 USA
  512-338-4400

Battery Disposal

Your computer system uses a lithium-ion battery. The lithium-ion battery is a long-life battery, and it is very possible that you will never need to replace it. However, should you need to replace it, see page 80.

Do not dispose of the battery along with household waste. Contact your local waste disposal agency for the address of the nearest battery deposit site.

NOM Information (Mexico Only)

The following information is provided on the device(s) described in this document in compliance with the requirements of the official Mexican standards (NOM):

Exporter:	Dell Computer Corporation One Dell Way Round Rock, TX 78682
Importer:	Dell Computer de México, S.A. de C.V. Paseo de la Reforma 2620 - 11° Piso Col. Lomas Altas 11950 México, D.F.
Ship to:	Dell Computer de México, S.A. de C.V. al Cuidado de Kuehne & Nagel de México S. de R.I. Avenida Soles No. 55 Col. Peñon de los Baños 15520 México, D.F.
Supply voltage:	115/230 VAC
Frequency:	60/50 Hz
Current consumption:	6.0/3.0 A

Información para NOM (únicamente para México)

La información siguiente se proporciona en el dispositivo o en los dispositivos descritos en este documento, en cumplimiento con los requisitos de la Norma Oficial Mexicana (NOM):

Exportador:	Dell Computer Corporation One Dell Way Round Rock, TX 78682
Importador:	Dell Computer de México, S.A. de C.V. Paseo de la Reforma 2620 - 11° Piso Col. Lomas Altas 11950 México, D.F.
Embarcar a:	Dell Computer de México, S.A. de C.V. al Cuidado de Kuehne & Nagel de México S. de R.I. Avenida Soles No. 55 Col. Peñon de los Baños 15520 México, D.F.
Tensión alimentación:	115/230 VAC
Frecuencia:	60/50 Hz
Consumo de corriente:	6.0/3.0 A

Warranty and Return Policy Information

Dell Computer Corporation ("Dell") manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry-standard practices. For information about the Dell warranty for your computer, see the *Tell Me How* help file. To open the file, click the **Start** button on the Windows desktop, point to **Programs—> User's Guides**, and then click **Tell Me How**.

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