

Dell™ Dimension™ 8100

# SOLUTIONS GUIDE

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## 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. To open the file, click the **Start** button on the Windows desktop, point to **Programs—> User's Guides**, and then click **TellMe How**.

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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, the power voltage is automatically sensed to match the AC power available at your location. If your computer does not automatically sense the power voltage, please set it to the proper voltage for your location.

Also be sure that your monitor and attached devices are electrically rated to operate with the AC power available in your location.

- To avoid shorting out your computer when disconnecting a network cable, first unplug the cable from the NIC on the back of your computer, and then from the network jack on the wall. When reconnecting a network cable to your computer, first plug the cable into the network jack, and then into the NIC.
- 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.
- 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 68).

- 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

Connecting a Printer

Turning Off the Computer

1

## 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

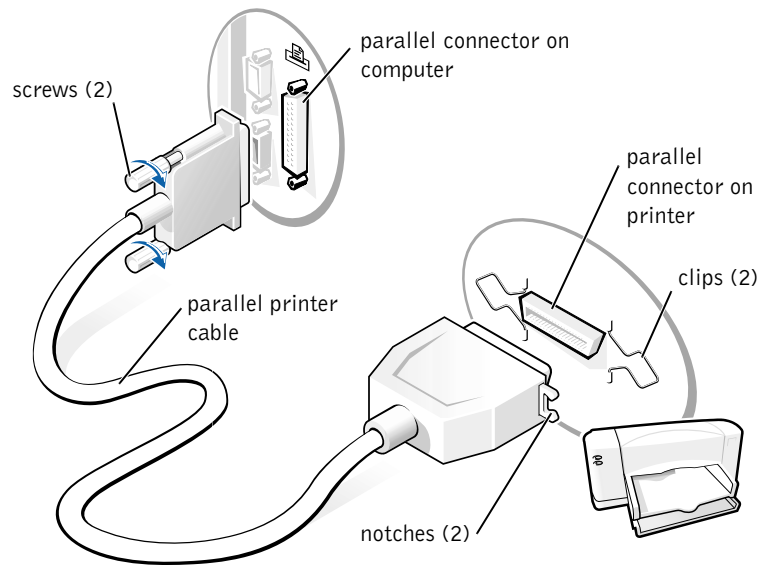
Then follow the instructions that came with the printer to connect it to the computer. If no information is provided, see the following sections.

### Parallel Printer

1 Turn off the computer (see page 14).

➔ **NOTICE:** Use only a standard IEEE 1284 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.

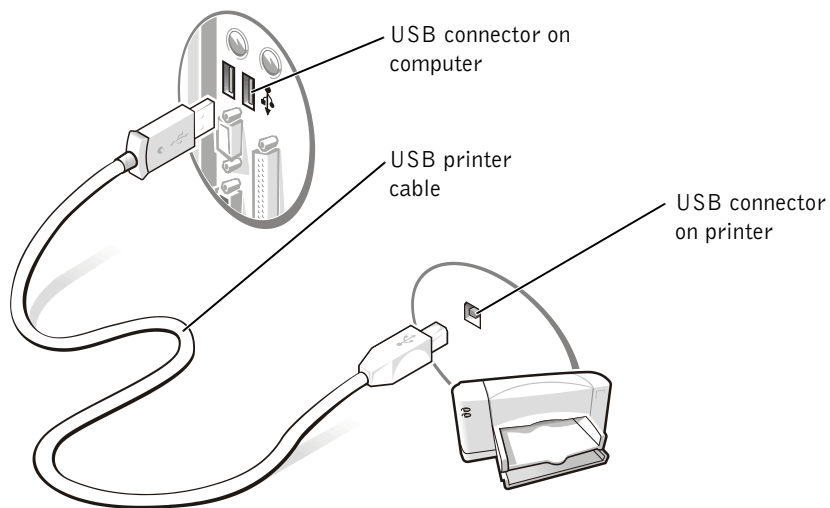


- 3 Turn on the printer and then turn on the computer. If the **Add New Hardware Wizard** window appears, click **Cancel**.
- 4 Install the printer driver if necessary (see page 13).

## USB Printer

- 1 Install the printer driver if necessary (see page 13).
- 2 Attach the USB printer cable to the USB connector on the computer and the printer. The USB connectors only fit one way.


 **HINT:** You can connect USB devices while the computer is turned on.



## 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.

 **HINT:** Dell installs drivers for some new printers. Click the **Start** button, point to **Settings**, and then click **Printers**. If your printer is listed in the **Printers** window, the printer is ready to use.

If you connect an older printer and it doesn't work after you install the driver, access the system setup program (see page 64) 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 Microsoft® 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.

## SECTION 2

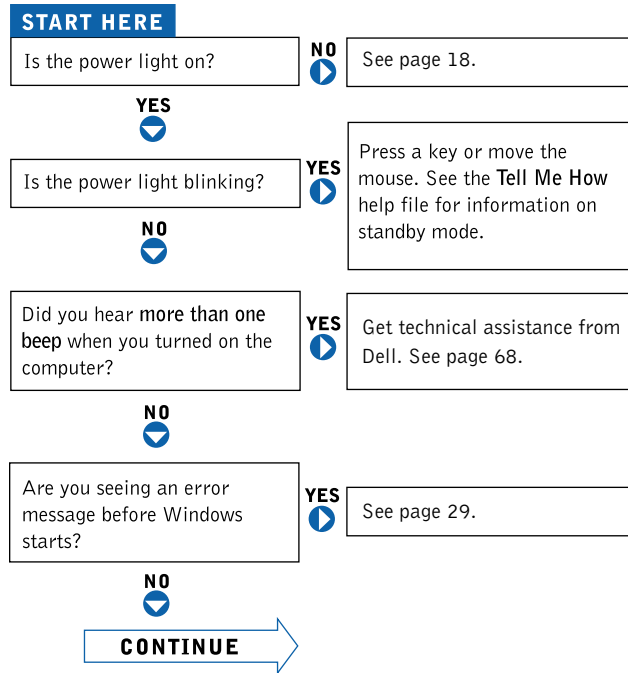
# Solving Problems

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Finding Solutions  
Help Files  
Power Problems  
Start-Up Error Messages  
Video and Monitor Problems  
Sound and Speaker Problems  
Printer Problems  
Scanner Problems  
Modem Problems  
Mouse Problems  
Keyboard Problems  
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Resolving Other Technical Problems  
Reinstalling Drivers and Utilities  
Reinstalling Windows 98  
Reinstalling Windows Me  
Reinstalling Windows 2000

## 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.



<p>Are you having a problem with...</p> <p><b>NO</b></p>	▶	video or the monitor?	<b>YES</b>	▶	See page 20.
		sound or the speakers?	<b>YES</b>	▶	See page 22.
		the printer?	<b>YES</b>	▶	See page 23.
		the modem?	<b>YES</b>	▶	See page 24.
		the mouse?	<b>YES</b>	▶	See page 25.
		the keyboard?	<b>YES</b>	▶	See page 26.
		the hard drive or a disk drive?	<b>YES</b>	▶	See page 26.
		the network adapter?	<b>YES</b>	▶	See page 28.
		the scanner?	<b>YES</b>	▶	See page 24.
		Windows error messages?	<b>YES</b>	▶	See page 29.
		a program?	<b>YES</b>	▶	See page 30.
		the Internet?	<b>YES</b>	▶	See page 30.
		your email?	<b>YES</b>	▶	See page 31.
	<p>Are you having some other type of problem?</p>	<b>YES</b>	▶		See page 31.



## Help Files

### ACCESS THE TELL ME HOW HELP FILE

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

### 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.

### ACCESS WINDOWS MILLENNIUM EDITION (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.



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

## Power Problems

**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 68).

**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.



**HINT:** See the monitor documentation for fault indications and troubleshooting procedures specific to your monitor.

## Video and Monitor Problems

### If the screen is blank

**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 68).

**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 monitor documentation 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**.





**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.

## Sound and Speaker Problems

**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 32.

# 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 12.

**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 13.

## If you cannot print to a USB printer

**VERIFY THE PRINTER CABLE CONNECTIONS**— Ensure that the printer cable is connected as described on page 13.

**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 13.

## 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.

**CONNECT THE MOUSE BEFORE YOU TURN ON THE COMPUTER**—If you connect the mouse after you power on the computer, the mouse will not work. Follow these steps to restore mouse functionality:

- 1 With the computer on, remove the power cable from the back of the computer.
- 2 Reconnect the mouse as shown on the *START HERE* sheet for your computer.
- 3 Reconnect the power cable.
- 4 Turn on the computer.

## Keyboard Problems

**RECONNECT THE KEYBOARD CABLE**— Shut down the computer (see page 14), reconnect the keyboard cable as shown on the *START HERE* sheet for your computer, and then restart the computer.

## Drive Problems

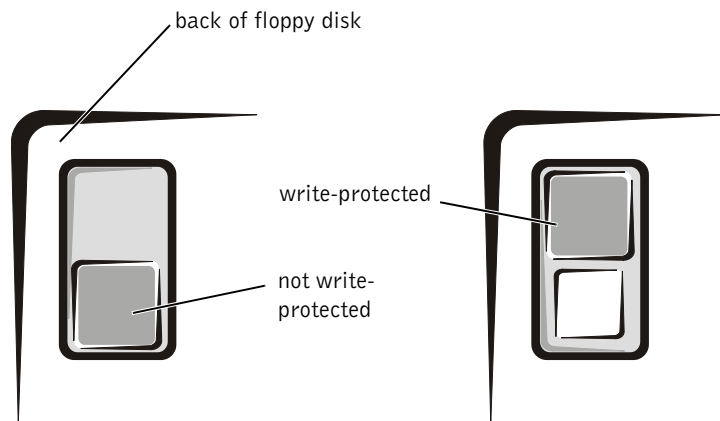
### If you cannot save a file to a floppy disk

**HINT:** For information on saving files to a floppy disk, see the *Tell Me How* help file.

**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.




## 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.


 **HINT:** High-speed CD drive vibration is normal and may cause noise. This does not indicate a defect in the drive or the CD.

## 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.

 **HINT:** Because of different worldwide file types, not all DVD titles work in all DVD drives.

## 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 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 copying the file to 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 14), 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

**REVIEW "MODEM PROBLEMS"**— See page 24.

**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

**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 68).

## Reinstalling Drivers and Utilities

➔ **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 3Com® controller driver – Enables the built-in 3Com NIC to properly communicate on a network.
- 3Com diagnostics driver – Enables diagnostics to run on the computer and diagnose any problems.
- Dell utilities – Includes Autoshutdown, Asset, and Autopower utilities.
- 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, click the **Start** button, point to **Programs**—> **User's Guides**, and click the appropriate guide from the list.

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 64).
  - 2 In the system setup program **Boot** menu, change the boot sequence 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 32).
- 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 so that the floppy drive boots first, 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 64).
  - 2 In the system setup program **Boot** menu, change the boot sequence 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 so that the floppy drive boots first, 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

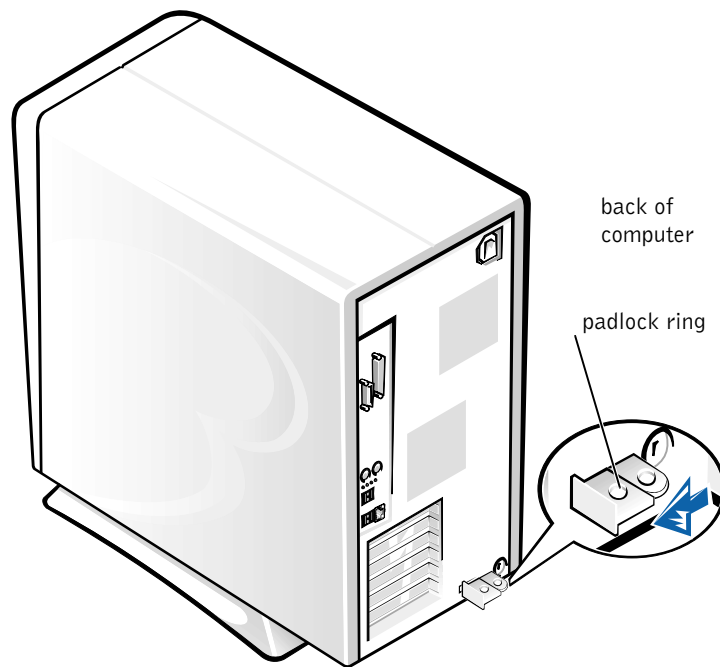
- Removing the Computer Cover
- Looking Inside Your Computer
- Rotating the Power Supply
- Removing and Replacing the Front Panel
- Adding Cards
- Removing Cards
- Removing and Replacing the AGP Card
- Adding Memory
- Adding or Replacing Other Drives
- Replacing the Computer Cover

## Removing the Computer Cover

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

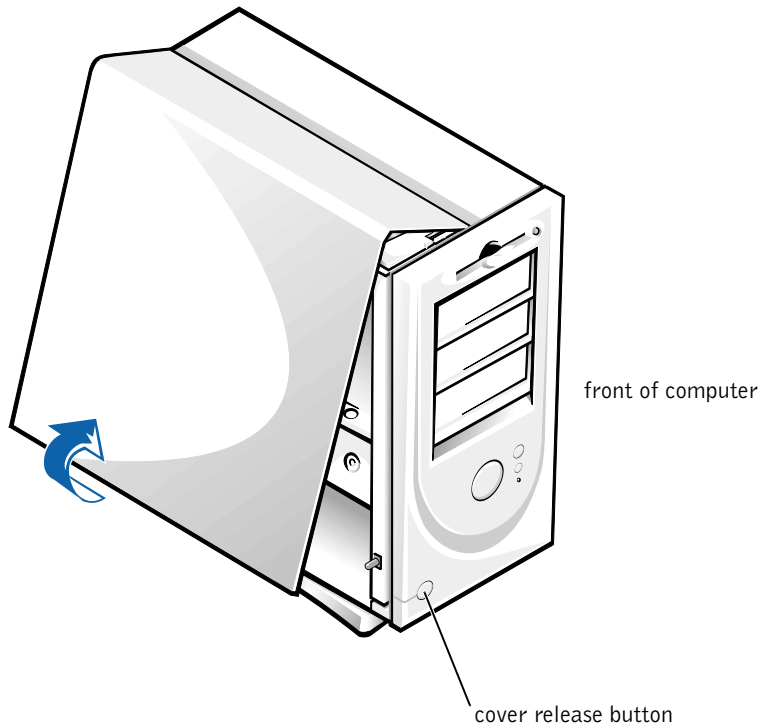
**➡ NOTICE:** The system board continues to receive a small amount of power when the computer is turned off and attached to an electrical outlet. To avoid damaging the system board, disconnect the power cable from the electrical outlet and from the back of the computer, and then press the power button before you remove the computer cover.

- 1 Turn off the computer and devices, and disconnect them from their electrical outlets.
- 2 If a padlock is installed, remove it from the padlock ring on the back panel.
- 3 Face the back of the computer and slide the outer padlock ring to the left to unlock the cover release mechanism.



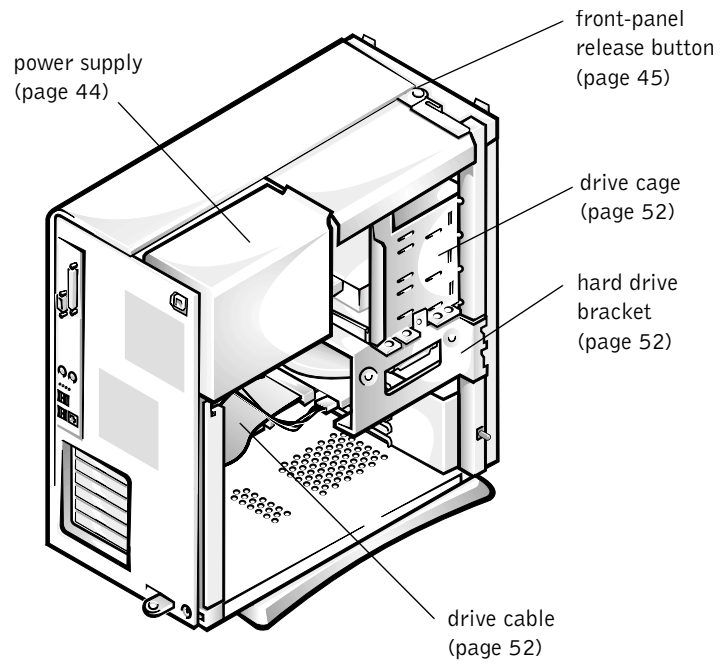
**⚠ CAUTION:** To prevent cuts, keep your hands clear of the metal edges on the computer as you slide back the cover.

- 4 Press the cover release button (located at the bottom-left corner of the front panel).



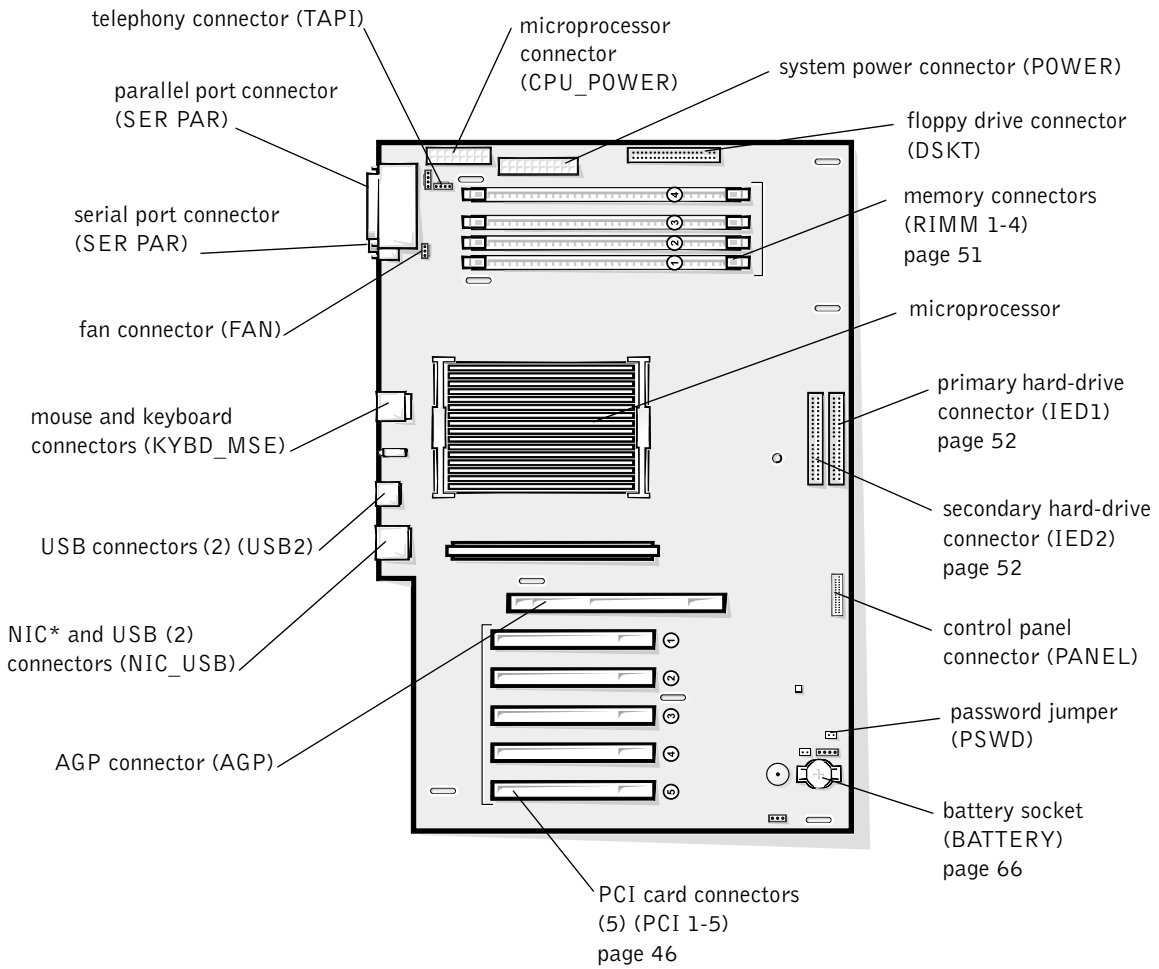
- 5 Rotate the bottom of the cover outward, away from the computer.
- 6 Lift the cover away from the computer.
- 7 Turn the computer on its right side before you begin working inside the computer.

## Looking Inside Your Computer



## System Board

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



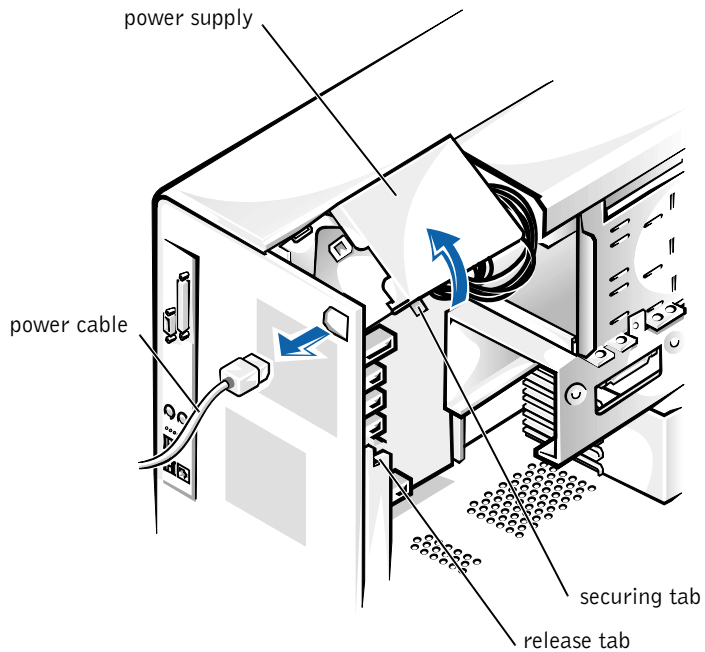
\*For systems with integrated network capabilities

## Rotating the Power Supply

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

To access some of the components on the system board, you may need to rotate the system power supply out of the way:

- 1 Turn off the computer and devices, disconnect them from their electrical outlets, and wait at least 5 seconds. Press and release the power button to drain the power from the computer, and then remove the computer cover (see page 40).
- 2 Make sure that the power cable is disconnected from the power receptacle on the back of the power supply.
- 3 Free the power supply from the securing tab by pressing the release tab. Then rotate the power supply upward until it locks in its extended position.



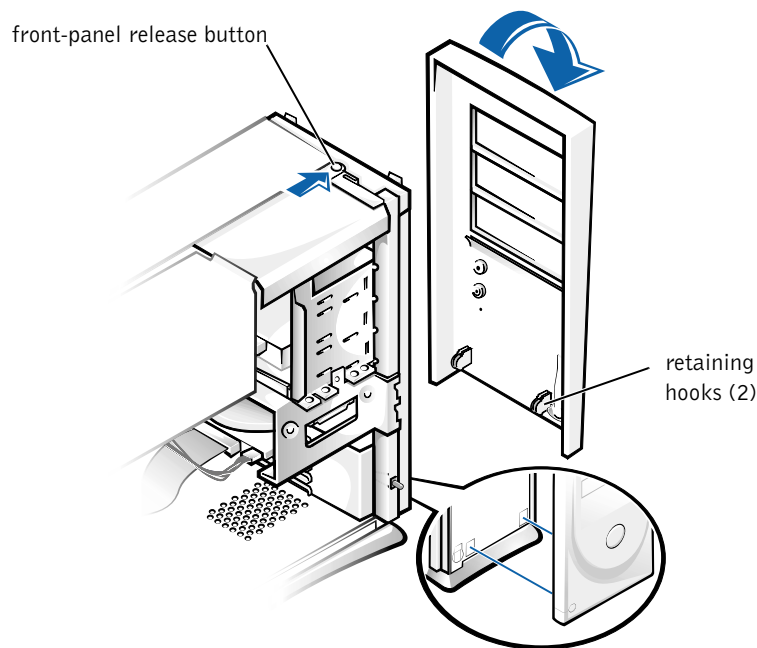
- 4 Press and release the power button to drain the power from the computer.

When you have finished accessing components on the system board, rotate the power supply back to its original position until the release tab snaps into the securing tab.

## Removing and Replacing the Front Panel

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

To remove the front panel, you first must remove the computer cover (see page 40). With the cover removed, release the front panel by pressing the green front-panel release button.



While pressing the front-panel release button, rotate the top of the panel outward, away from the computer. Lift the panel away from the computer.

To replace the front panel, fit the two retaining hooks into the recessed slots at the bottom of the computer (see the preceding illustration), and then rotate the top of the panel toward the computer until the tabs snap into the slots on the panel.

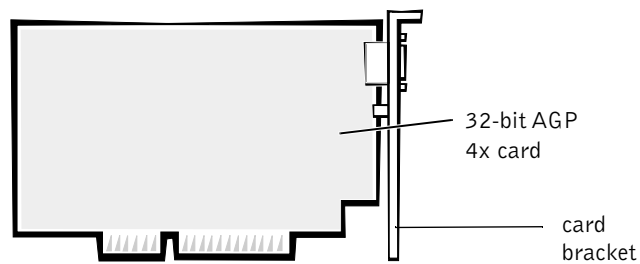
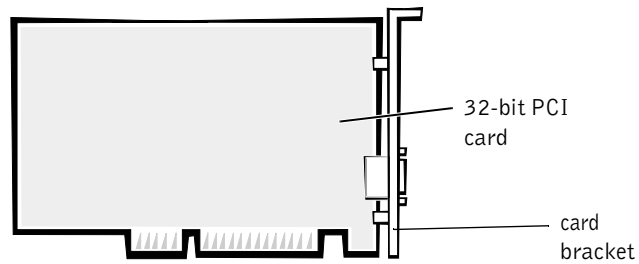
## Adding Cards

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

The computer has the following slots for the following cards (see page 43):

- Up to five 33-MHz 32-bit PCI cards.
- One 32-bit AGP card. The slot supports AGP 4x or 2x modes operating at 1.5-V.

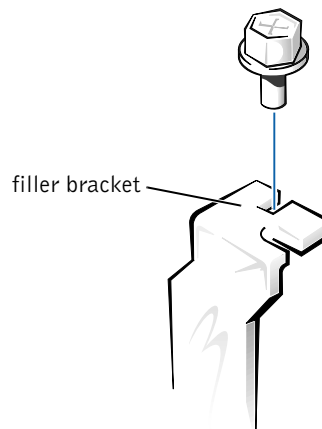
**⚠ CAUTION:** Before connecting a peripheral to the computer or adding a component to the system board, verify that the standby power LED on the system board (see page 43) is off.



## Installing a Card

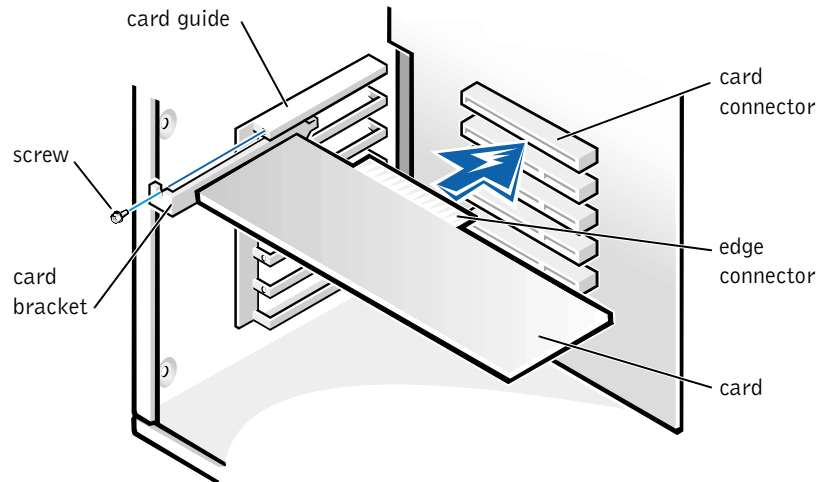
- 1 Turn off the computer and devices, disconnect them from their electrical outlets, and wait at least 5 seconds. Press and release the power button to drain the power from the computer, and then remove the computer cover (see page 40).
- 2 Prepare the card for installation.  
See the documentation that came with the card for information on configuring the card, making internal connections, or otherwise customizing it for your computer.
- 3 Remove the screw that secures the slot filler bracket to the computer, and remove the bracket from the computer.

Save the screw to use when installing the card later in this procedure.



**⚠ CAUTION:** Some network cards automatically start up the computer when they are connected. To guard against electrical shock, be sure to unplug your computer from its electrical outlet before installing any cards. Verify that the standby power LED on the system board (see page 43) is off.

- 4 Insert the card's edge connector into the card connector.  
If the card is full-length, insert the card bracket into the card guide as you lower the card toward its connector on the system board. Insert the card firmly into the card connector on the system board.




- 5 Secure the card bracket to the computer with the screw you removed in step 4.
- 6 Connect any cables that should be attached to the card.  
See the documentation that came with the card for information about the card's cable connections.
- 7 Replace the computer cover (see page 57), reconnect the computer and devices to their electrical outlets, and turn them on.
- 8 If you installed a sound card, enter the system setup program (see page 64), select **Integrated Devices** and change the setting for **Sound** to **Off**.

## Removing Cards

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

- 1 Turn off the computer and devices, disconnect them from their electrical outlets, and press and release the power button to drain the power from the computer. Wait at least 5 seconds, and then remove the computer cover (see page 40).
- 2 If necessary, disconnect any cables connected to the card.
- 3 Remove the screw that secures the card bracket to the computer.
- 4 Grasp the card by its top corners, and ease it out of its connector.
- 5 If you are removing the card permanently, install a filler bracket in the empty card-slot opening, using the screw you removed in step 3.
- 6 Replace the computer cover, reconnect the computer and devices to their electrical outlets, and turn them on.
- 7 If you removed a sound card, enter the system setup program (see page 64), select **Integrated Devices**, and change the setting for **Sound** to **On**.

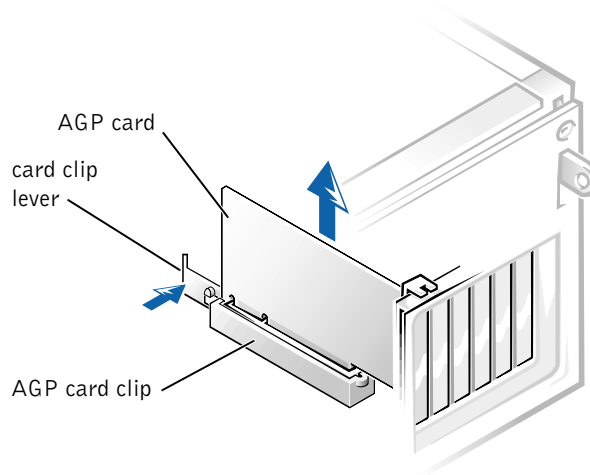
 **HINT:** Installing filler brackets over empty card-slot openings is necessary to maintain FCC certification of the computer. The brackets also keep dust and dirt out of your computer.

## Removing and Replacing the AGP Card

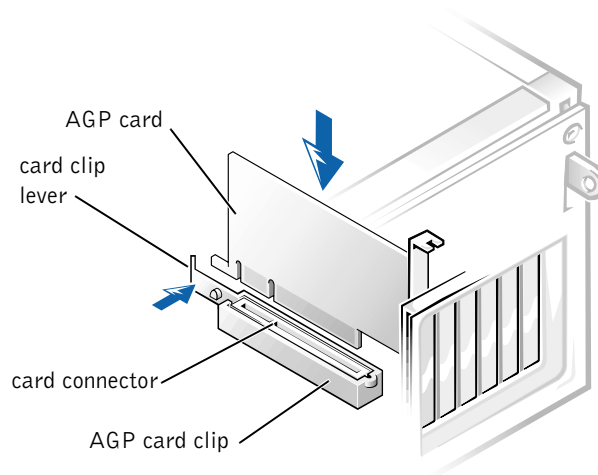
 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions on page 7.

- 1 Turn off the computer and devices, disconnect them from their electrical outlets, and press and release the power button to drain the power from the computer. Wait at least 5 seconds, and then remove the computer cover (see page 40).

- 2 Press the lever on the left side of the AGP card clip to release the card from the card connector.




- 3 To replace the AGP card, gently press it down into the card connector until it clicks into place. Press the card clip lever while inserting the card into the connector.




## Adding Memory

 **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 61 for information on the type of memory supported by your computer.

 **NOTICE:** If you upgrade the memory, the RIMMs must be upgraded in matched pairs of identical MB capacity in both sockets 1 and 2 or sockets 3 and 4.

 **NOTICE:** Be sure to install RIMMs in the first two sockets nearest the processor before installing RIMMs in the outer two sockets.


**1** Remove the computer cover (see page 40).

**2** Rotate the power supply.

Free the power supply from the securing tab by pressing the release tab. Then rotate the power supply upward until it locks in its extended position.

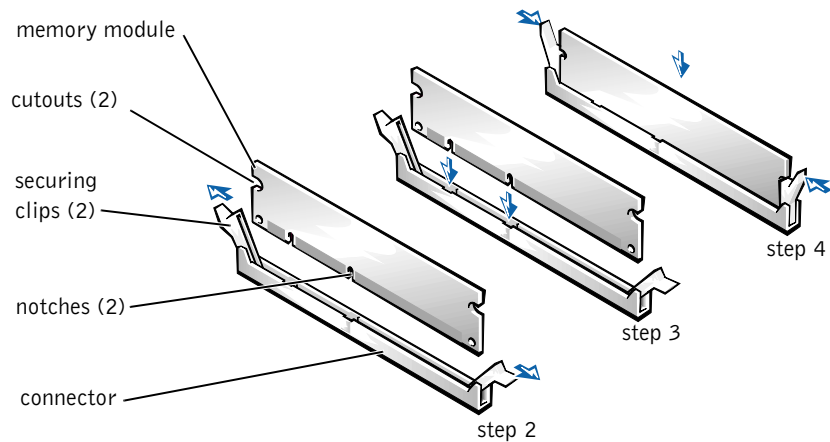
**3** Press out the securing clip at each end of the memory connector.

**4** 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.

- 5 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.



**HINT:** If you remove a memory module (RIMM), you must install another module in the empty socket before turning on the computer.

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.

## Adding or Replacing Other Drives

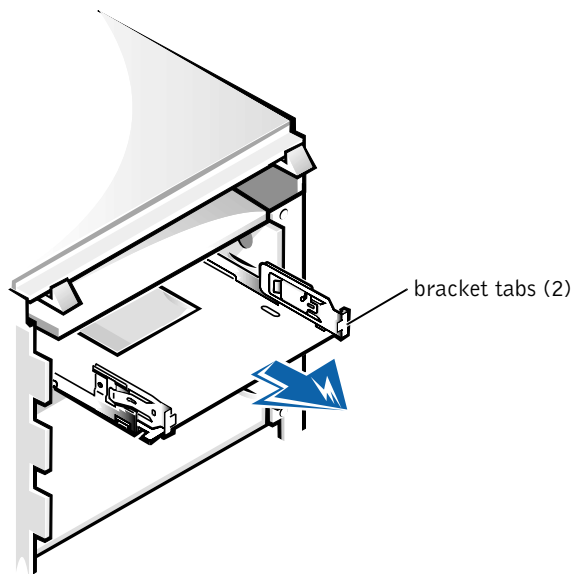
**CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions on page 7.

Your computer includes a floppy drive and either a CD or DVD drive. You can add drives, including Zip drives, SuperDisk LS-120 drives, CD-RW drives, and additional CD drives, using the following procedure:

- 1 Remove the computer cover (see page 40).
- 2 Rotate the power supply away from the system board (see page 44).
- 3 Remove the front panel (see page 45).

- 4 Remove the drive bracket from the computer drive bay you want to use.

Squeeze together the bracket tabs that extend from each side of the drive bracket, and pull the bracket out of the bay.



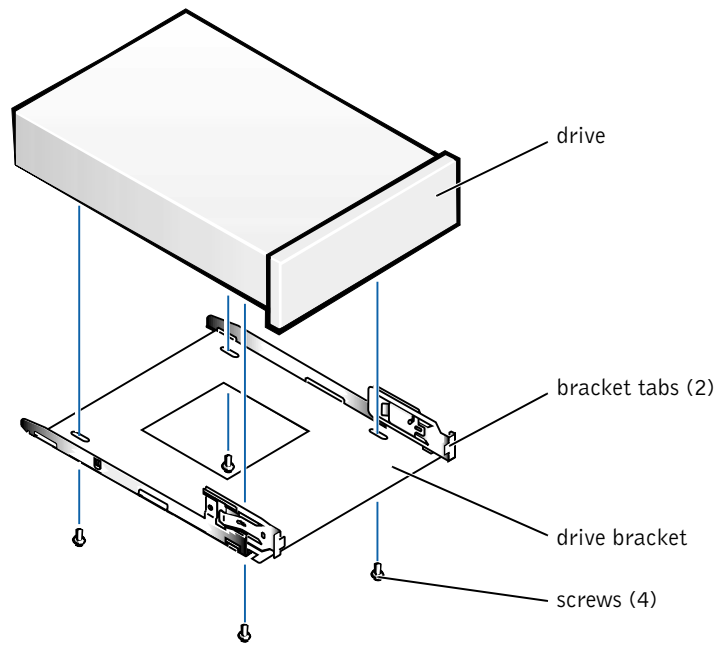
If you are replacing a drive already installed in the bay, disconnect the power and interface cables from the back of the drive before removing the bracket from the bay. Turn the drive/bracket assembly upside down, and remove the four screws that secure the drive to the bracket.

- 5 Unpack the drive and prepare it for installation.

See the documentation that came with the drive to verify that the drive is configured for your computer. Change any settings necessary for your configuration.

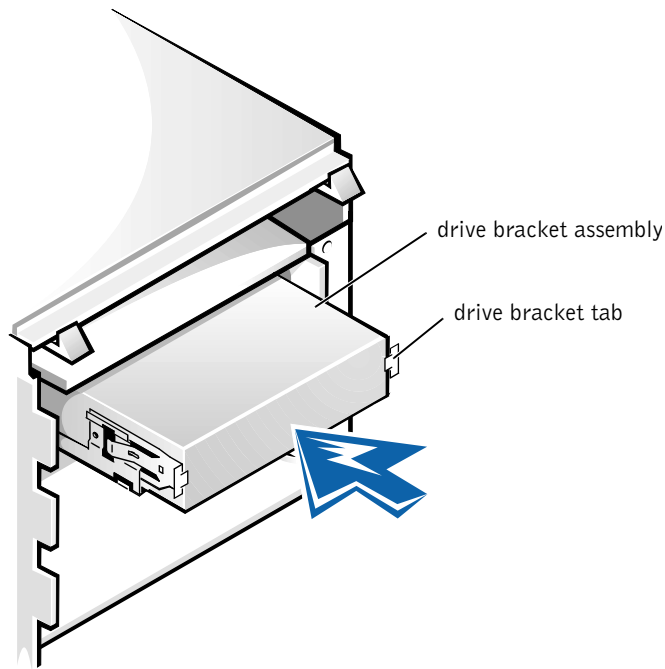
**6** Attach the new drive to the drive bracket.

Turn the drive upside down, and fit the bracket on the drive so that the screw holes align. To ensure proper installation, all screw holes should be aligned and the tabs on the front of the bracket should be flush with the front of the drive.



To further ensure proper positioning of the drive in the computer, insert and tighten all four screws *in the order in which the holes are numbered* (the holes are marked "1" through "4").

- 7 Slide the new drive/bracket assembly into the drive bay until both drive bracket tabs snap securely into place.

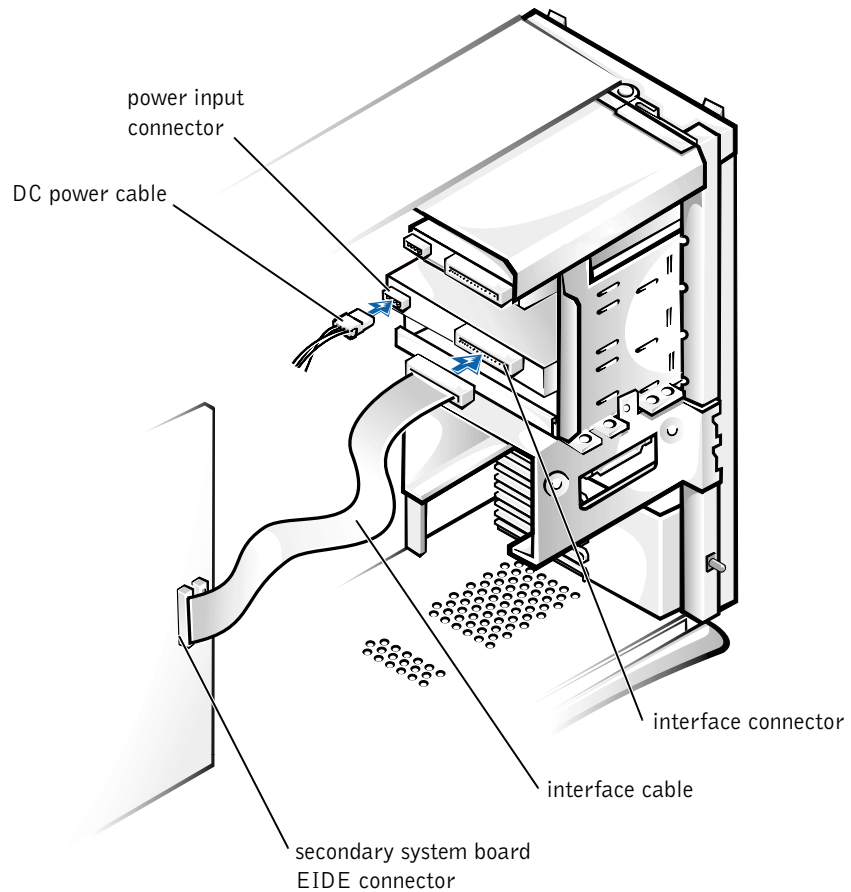


➔ **NOTICE:** To avoid possible damage when you perform the following step, you must match the colored strip on the interface cable with pin 1 on both the drive and system board connectors.

- 8 Connect the interface cable for the drive.

If you are installing an EIDE device, make sure that the interface cable is properly connected to the EIDE connector on the system board.

- 9 Connect a DC power cable to the power input connector on the back of the drive.




- 10 Make sure that all cables are firmly connected. Fold cables out of the way to provide airflow for the fan and cooling vents.
- 11 If the computer drive bay was previously empty, remove the corresponding insert from the front panel.

Hold the front panel with the outside facing you. Press the ends of the insert with your thumbs until the insert snaps free of the front panel.

- 12 Replace the front panel (see page 45).
- 13 Replace the computer cover (see page 57), reconnect the computer and devices to their electrical outlets, and turn them on.
- 14 If the drive you installed is a hard drive, enter the system setup program (see page 64), and update the drive settings.  
After you update the drive settings, exit the system setup program and restart the computer.
- 15 If the device you installed is a hard drive, partition and logically format the drive before proceeding to the next step.  
See the operating system's documentation for instructions.
- 16 Test the drive to verify that it is operating properly.
  - If the drive you installed is a hard drive, run the Dell Diagnostics to test the drive.
  - For other types of drives, see the drive's documentation for information on testing the drive.
- 17 If the drive you installed is the primary hard drive, install the operating system on the drive.  
See the operating system's documentation for instructions.

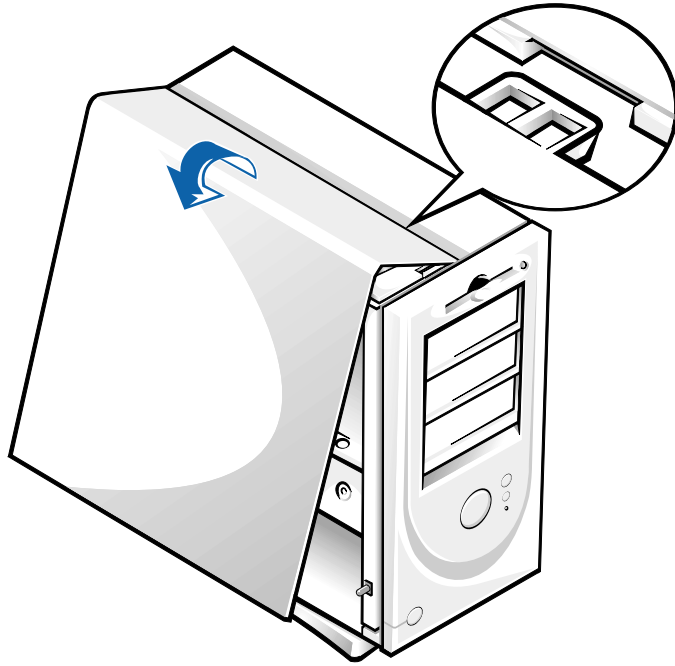
 **HINT:** Tape drives sold by Dell come with operating software and documentation. After you install a tape drive, see the documentation that came with the drive for instructions on installing and using the tape drive software.

## Replacing the Computer Cover

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

- 1 Make sure that all cables are connected. Fold cables out of the way. Make sure that the cables are not routed over the drive cage—they will prevent the cover from closing properly.
- 2 Make sure that no tools or extra parts (like screws) are left inside the computer.
- 3 Hold the cover at a slight angle. While aligning the top of the cover with the top of the computer, insert the three hooks on the cover into the three recessed slots on the computer.

- 4 Rotate the cover downward toward the bottom of the computer. With both hands, press against the bottom edge of the cover to make sure that the securing hooks at the bottom of the cover click into place.



- 5 Slide the two parts of the padlock ring together to lock the cover release mechanism.

## SECTION 4

# Appendix

Specifications  
Standard Settings  
Dell Technical Support Policy (U.S. Only)  
Contacting Dell  
Regulatory Information  
Warranty and Return Policy Information

## Specifications

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### Microprocessor

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Microprocessor type	Intel® Pentium® 4 microprocessor. Design provides for future Dell-supported upgrades. A slower compatibility speed can be set through the system setup program.
Internal cache	8 KB first-level
L2 cache	integrated 256-KB at full microprocessor speed
Math coprocessor	internal to Pentium 4 microprocessor

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### System Information

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System chip set	Intel 850
Data bus width	64 bits
Address bus width	32 bits
DMA channels	eight
Interrupt levels	15
System BIOS chip	4 Mb
System Clock	100; 400 MHz data rate

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### Expansion Bus

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Bus types	PCI and AGP
Bus speed	PCI: 33 MHz; AGP: 66 MHz
AGP connector	one
AGP connector size	172 pins
AGP connector data width (maximum)	32 bits
AGP bus protocols	4x/2x modes at 1.5 V
PCI connectors	five
PCI connector size	120 pins

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**Expansion Bus** *(continued)*

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PCI connector data width (maximum)	32 bits
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**Memory**

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Architecture	RDRAM
RIMM sockets	four
RIMM capacities	64-, 128-, 256-, and 512-MB RDRAM
Standard RAM	128 MB (minimum)
Maximum RAM	2 GB
BIOS address	F8000h

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**Drives**

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Externally accessible	three 5.25-inch bays for diskette, tape, or CD drives; one 3.5-inch bay for a floppy drive
Internally accessible	two 3.5-inch bays: one for a 1-inch-high hard drive and one for a 1.6-inch-high hard drive

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**Ports and Connectors**

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Externally accessible:

Serial (DTE)	one 9-pin connector; 16550-compatible
Parallel	one 25-hole connector (bidirectional)
Video	one 15-hole connector (on video card)
NIC*	RJ45 connector
PS/2-style keyboard	6-pin mini-DIN
PS/2-compatible mouse	6-pin mini-DIN
USB	four USB-compliant connectors

Internally accessible:

Primary EIDE hard drive	40-pin connector on PCI local bus
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\* For systems with built-in network capabilities.

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**Ports and Connectors** *(continued)*


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Secondary EIDE hard drive	40-pin connector on PCI local bus
Floppy drive	34-pin connector
CD drive audio interface	4-pin connector
Remote Wakeup	3-pin connector
Fan	3-pin connector
Telephony	4-pin connector

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**Video**


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Video type	AGP 4X or PCI video card (see manufacturer's specifications)
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**NIC\***


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NIC	RJ45 connector
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**Controls and Lights**


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E-Support	push button
Power control	push button
Power lights	green LED; blinking green in sleep state; dual-color LED on front panel—green for power, yellow for diagnostics
Hard-drive access light	green LED
Link integrity and speed indicator*	green LED for 10-Mb operation; orange LED for 100-Mb operation
Activity light*	yellow LED

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\* For systems with built-in network capabilities.

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**Power**

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DC power supply:

Wattage	250 W
Heat dissipation	913 BTUs (fully loaded computer without monitor)
Voltage (auto-sensing)	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

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**Physical**

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Height x Width x Depth	44.53 x 20.57 x 43.75 cm (17.532 x 8.1 x 17.225 inches)
Weight	15 kg (33.0 lbs) or more, depending on options installed

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**Environmental**

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Temperature:

Operating	10° to 35°C (50° to 95°F)
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 0.5 octave/min
Storage	0.5 G at 3 to 200 Hz at 1 octave/min

Maximum shock:

Operating	bottom half-sine pulse with a change in velocity of 20 inches/sec (50.8 cm/sec)
Storage	27-G faired-square wave with a velocity change of 200 inches/sec (508 cm/sec)

Altitude:

Operating	-16 to 3048 m (-50 to 10,000 ft)
Storage	-16 to 10,600 m (-50 to 35,000 ft)



**HINT:** The Xs in the figure will be replaced by information that is specific to your computer.

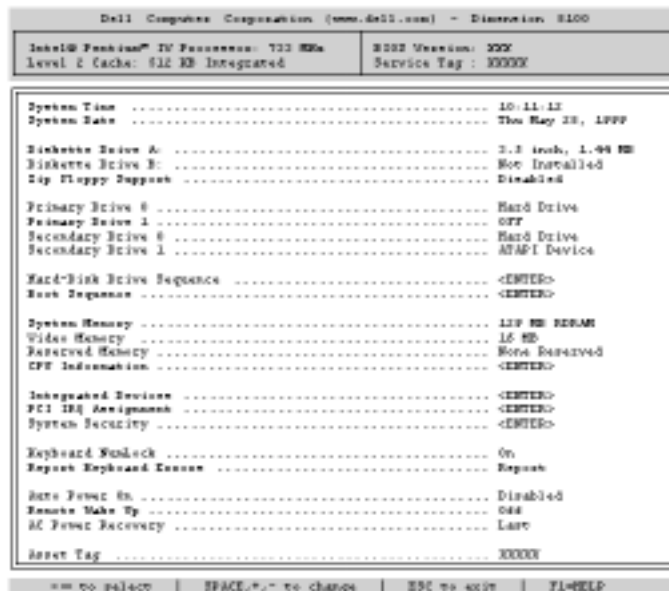
## Standard Settings

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:



### Viewing Settings

- 1 Turn on (or restart) your computer.
- 2 When the blue Dell logo appears, press <F2> 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 display the current configuration information for your computer. Information on the screen is divided into five areas:


- Title – The area at the top of all system setup screens that displays your computer’s model number.
- Computer data – Two boxes below the title that display the system processor, L2 cache, service tag, and the version number of the BIOS.
- Options – A scrollable box listing options that define the configuration of your computer (including installed hardware, power conservation, and security features).

Fields to the right of the listed options contain settings or values. The settings and values that you can change are brighter on the screen. All other settings and values are set by the computer and cannot be changed. When <Enter> appears to the right of an option, press <Enter> to access a pop-up menu of additional options.

- Key functions – A line of boxes across the bottom of all system setup screens that lists keys and their functions within the system setup program.
- Help – Press <F1> for information on the option that is selected (highlighted).

## 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 all current settings so that you can restore them when you finish this procedure.

- 1 Remove the computer cover (see page 40).
- 2 Locate jumper PSWD on the system board (see page 43) and move the jumper plug so that pins 1 and 2 are jumpered.
- 3 Replace the computer cover (see page 57), 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.

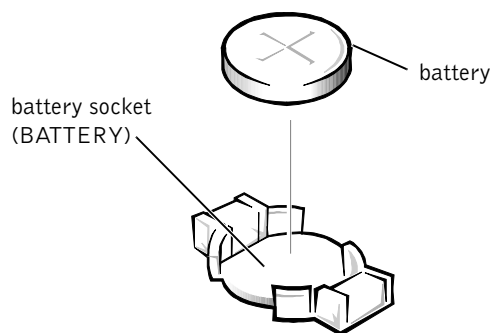
## Replacing the Battery

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 40).
- ➡ **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 43) 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.



- 5 Replace the computer cover (see page 57) 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.

## Dell Technical Support Policy (U.S. Only)

Technician-assisted technical support requires the cooperation and participation of the customer in the troubleshooting process and provides for restoration of the operating system, application software, and hardware drivers to the original default configuration as shipped from Dell, as well as the verification of appropriate functionality of the computer and all Dell-installed hardware. In addition to this technician-assisted technical support, online technical support is available at [support.dell.com](http://support.dell.com). Additional technical support options may be available for purchase.

Dell provides limited technical support for the computer and any "Dell-installed" software and peripherals<sup>1</sup>. Support for third-party software and peripherals is provided by the original manufacturer, including those purchased and/or installed through Dell Software & Peripherals (DellWare™), Readyware, and Custom Factory Integration (DellPlus™)<sup>2</sup>.

- <sup>1</sup> Repair services are provided pursuant to the terms and conditions of your limited warranty and any optional support service contract purchased with the computer.
- <sup>2</sup> All Dell-standard components included in a Custom Factory Integration (CFI) project are covered by the standard Dell limited warranty for your computer. However, Dell also extends a parts replacement program to cover all nonstandard, third-party hardware components integrated through CFI for the duration of the computer's service contract.

### Definition of "Dell-Installed" Software and Peripherals


Dell-installed software includes the operating system and some of the application software that is preinstalled on the computer during the manufacturing process (Microsoft Office, Norton Antivirus, and so on).

Dell-installed peripherals include any internal expansion cards, or Dell-branded modular bay or PC Card accessories. In addition, any Dell-branded monitors, keyboards, mice, speakers, microphones for telephonic modems, docking stations/port replicators, networking products, and all associated cabling are included.

## Definition of "Third-Party" Software and Peripherals

Third-party software and peripherals include any peripheral, accessory, or application software sold by Dell not under the Dell brand (printers, scanners, cameras, games, and so on). Support for all third-party software and peripherals is provided by the original manufacturer of the product.

## Contacting Dell

 **HINT:** Toll-free numbers are for use within the country for which they are listed.

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.

See “Dell Technical Support Policy” on page 67 for a description of the hardware and software support provided by Dell.

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
Antigua and Barbuda	General Support	1-800-805-5924
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

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
<b>Austria (Vienna)</b>	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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:tech_support_central_europe@dell.com">tech_support_central_europe@dell.com</a>	
<b>Barbados</b>	General Support	1-800-534-3066
<b>Belgium (Brussels)</b>	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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:tech_be@dell.com">tech_be@dell.com</a>	
	E-mail for French Speaking Customers: <a href="http://support.euro.dell.com/be/fr/emaildell/">http://support.euro.dell.com/be/fr/emaildell/</a>	
<b>Bermuda</b>	General Support	1-800-342-0671
<b>Brazil</b>	Customer Support, Technical Support	0800 90 3355
International Access Code: 0021	Tech Support Fax	55 51 481 5470
Country Code: 55	Sales	0800 90 3366
City Code: 51	Website: <a href="http://www.dell.com/br">http://www.dell.com/br</a>	
<b>Brunei</b>	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

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
Canada (North York, Ontario) International Access Code: 011	Automated Order-Status System	toll free: 1-800-433-9014
	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	
Cayman Islands	General Support	1-800-805-7541
Chile (Santiago) Country Code: 56 City Code: 2	Sales, Customer Support, and Technical Support	toll free: 1230-020-4823
China (Xiamen) Country Code: 86 City Code: 592	Home and Small Business Technical Support	toll free: 800 858 2437
	Corporate Accounts Technical Support	toll free: 800 858 2333
	Customer Experience	toll free: 800 858 2060
	Home and Small Business	toll free: 800 858 2222
	Preferred Accounts Division	toll free: 800 858 2062
	Large Corporate Accounts North	toll free: 800 858 2999
	Large Corporate Accounts East	toll free: 800 858 2020
	Large Corporate Accounts South	toll free: 800 858 2355
	Large Corporate Accounts GCP	toll free: 800 858 2055
Large Corporate Accounts HK	toll free: 800 964108	
Large Corporate Accounts GCP HK	toll free: 800 907308	
Colombia	General Support	980-9-15-3978
Costa Rica	General Support	0800-012-0435

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:czech_dell@dell.com">czech_dell@dell.com</a>	
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:den_support@dell.com">den_support@dell.com</a>	
	E-mail Support for Servers: <a href="mailto:Nordic_server_support@dell.com">Nordic_server_support@dell.com</a>	
Dominican Republic	General Support	1-800-148-0530
El Salvador	General Support	01-899-753-0777
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:fin_support@dell.com">fin_support@dell.com</a>	

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
<b>France (Paris/Montpellier)</b>	<b>Home and Small Business</b>	
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
	Fax (Alternative)	04 99 75 40 01
	Website: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="http://support.euro.dell.com/fr/fr/emaildell/">http://support.euro.dell.com/fr/fr/emaildell/</a>	
	<b>Corporate</b>	
	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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="http://support.euro.dell.com/fr/fr/emaildell/">http://support.euro.dell.com/fr/fr/emaildell/</a>	
<b>Germany (Langen)</b>	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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:tech_support_central_europe@dell.com">tech_support_central_europe@dell.com</a>	
<b>Guatemala</b>	General Support	1-800-999-0136

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
<b>Hong Kong</b>	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
<b>Ireland (Cherrywood)</b>	Technical Support	1850 543 543
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	01 279 5011
	Sales	01 204 4444
	SalesFax	01 204 0144
	Fax	204 5960
	Switchboard	01 204 4444
	Website: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:dell_direct_support@dell.com">dell_direct_support@dell.com</a>	
<b>Italy (Milan)</b>	<b>Home and Small Business</b>	
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="http://support.euro.dell.com/it/it/emaildell/">http://support.euro.dell.com/it/it/emaildell/</a>	
	<b>Corporate</b>	
	Technical Support	02 577 826 90
	Customer Care	02 577 825 55
	Fax	02 575 035 30
	Switchboard	02 577 821
	Website: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="http://support.euro.dell.com/it/it/emaildell/">http://support.euro.dell.com/it/it/emaildell/</a>	
<b>Jamaica</b>	General Support	1-800-682-3639

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
Japan (Kawasaki) International Access Code: 001 Country Code: 81 City Code: 44	Technical Support (Server)	toll free: 0120-1984-35
	Technical Support Outside of Japan (Server)	81-44-556-4152
	Technical Support (Dimension™ and Inspiron™)	toll free: 0120-1982-26
	Technical Support Outside of Japan (Dimension and Inspiron)	81-44-520-1435
	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
	Business Sales Division (up to 400 employees)	044 556 3494
	Preferred Accounts Division Sales (over 400 employees)	044 556-3433
	Large Corporate Accounts Sales (over 3500 employees)	044 556-3440
	Public Sales (Government Agencies, Educational Institutions, and Medical Institutions)	044 556 3440
	Global Segment Japan	044 556 3469
	Individual User	044 556 1657
Faxbox Service	044 556-3490	
Switchboard	044 556-4300	
Website: <a href="http://support.jp.dell.com">http://support.jp.dell.com</a>		
Korea (Seoul) International Access Code: 001 Country Code: 82 City Code: 2	Technical Support	toll free: 080-200-3800
	Sales	toll free: 080-200-3600
	Customer Service (Seoul, Korea)	toll free: 080-200-3800
	Customer Service (Penang, Malaysia)	604 633 4949
	Fax	2194-6202
Switchboard	2194-6000	

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
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 International Access Code: 00 Country Code: 352	Technical Support (Brussels, Belgium)	02 481 92 88
	Home/Small Business Sales (Brussels, Belgium)	toll free: 080016884
	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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a> E-mail: tech_be@dell.com	
Macau Country Code: 853	Technical Support	toll free: 0800 582
	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales	toll free: 0800 581
Malaysia (Penang) International Access Code: 00 Country Code: 60 City Code: 4	Technical Support	toll free: 1 800 888 298
	Customer Service	04 633 4949
	Transaction Sales	toll free: 1 800 888 202
	Corporate Sales	toll free: 1 800 888 213

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
<b>Mexico</b> International Access Code: 00 Country Code: 52	Customer Technical Support  Sales  Customer Service  Main	001-877-384-8979 or 001-877-269-3383 50-81-8800 or 01-800-888-3355 001-877-384-8979 or 001-877-269-3383 50-81-8800 or 01-800-888-3355
<b>Netherlands Antilles</b>	General Support	001-800-882-1519
<b>Netherlands (Amsterdam)</b> International Access Code: 00 Country Code: 31 City Code: 20	Technical Support Customer Care Home/Small Business Sales Home/Small Business Sales Fax Corporate Sales Corporate Sales Fax Fax Switchboard Website: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a> E-mail: <a href="mailto:tech_nl@dell.com">tech_nl@dell.com</a>	020 581 8838 020 581 8740 toll free: 0800-0663 020 682 7171 020 581 8818 020 686 8003 020 686 8003 020 581 8818
<b>New Zealand</b> International Access Code: 00 Country Code: 64	Home and Small Business Government and Business Sales Fax	0800 446 255 0800 444 617 0800 441 567 0800 441 566
<b>Nicaragua</b>	General Support	001-800-220-1006

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:nor_support@dell.com">nor_support@dell.com</a>	
	E-mail Support for Servers: <a href="mailto:Nordic_server_support@dell.com">Nordic_server_support@dell.com</a>	
<b>Panama</b>	General Support	001-800-507-0962
<b>Peru</b>	General Support	0800-50-669
<b>Poland (Warsaw)</b>	Customer Service Phone	57 95 700
International Access Code: 011	Customer Care	57 95 999
Country Code: 48	Sales	57 95 999
City Code: 22	Customer Service Fax	57 95 806
	Reception Desk Fax	57 95 998
	Switchboard	57 95 999
	Website: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:pl_support@dell.com">pl_support@dell.com</a>	
<b>Portugal</b>	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: <a href="http://support.euro.dell.com/es/es/emaildell/">http://support.euro.dell.com/es/es/emaildell/</a>	
<b>Puerto Rico</b>	General Support	1-800-805-7545

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
St. Lucia	General Support	1-800-882-1521
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
South Africa (Johannesburg)	Technical Support	011 709 7710
International Access Code: 09/091	Customer Care	011 709 7707
Country Code: 27	Sales	011 709 7700
City Code: 11	Fax	011 706 0495
	Switchboard	011 709 7700
	Website: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:dell_za_support@dell.com">dell_za_support@dell.com</a>	
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="http://support.euro.dell.com/es/es/emaildell/">http://support.euro.dell.com/es/es/emaildell/</a>	
	<b>Corporate</b>	
	Technical Support	902 100 130
	Customer Care	902 118 546
	Switchboard	91 722 92 00
	Fax	91 722 95 83
	Website: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="http://support.euro.dell.com/es/es/emaildell/">http://support.euro.dell.com/es/es/emaildell/</a>	

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:swe_support@dell.com">swe_support@dell.com</a>	
	E-mail Support for Latitude and Inspiron: <a href="mailto:Swe-nbk_kats@dell.com">Swe-nbk_kats@dell.com</a>	
	E-mail Support for OptiPlex: <a href="mailto:Swe_kats@dell.com">Swe_kats@dell.com</a>	
	E-mail Support for Servers: <a href="mailto:Nordic_server_support@dell.com">Nordic_server_support@dell.com</a>	
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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:swisstech@dell.com">swisstech@dell.com</a>	
	E-mail for French Speaking HSB and Corporate Customers: <a href="http://support.euro.dell.com/ch/fr/emaildell/">http://support.euro.dell.com/ch/fr/emaildell/</a>	
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

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
<b>Thailand</b>	Technical Support	toll free: 0880 060 07
International Access Code: <b>001</b>	Customer Service (Penang, Malaysia)	604 633 4949
Country Code: <b>66</b>	Sales	toll free: 0880 060 09
<b>Trinidad/Tobago</b>	General Support	1-800-805-8035
<b>U.K. (Bracknell)</b>	Technical Support (Corporate/Preferred Accounts/PAD [1000+ employees])	0870 908 0500
International Access Code: <b>010</b>	Technical Support (Direct/PAD and General)	0870 908 0800
Country Code: <b>44</b>	Global Accounts Customer Care	01344 723186
City Code: <b>1344</b>	Home and Small Business Customer Care	0870 906 0010
	Corporate Customer Care	01344 72 3185
	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: <a href="http://support.euro.dell.com">http://support.euro.dell.com</a>	
	E-mail: <a href="mailto:dell_direct_support@dell.com">dell_direct_support@dell.com</a>	

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
U.S.A. (Austin, Texas)	Automated Order-Status System	toll free: 1-800-433-9014
International Access Code: 011 Country Code: 1	AutoTech (for portable and desktop computers)	toll free: 1-800-247-9362
	<b>Dell Home and Small Business Group</b> (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 <a href="http://www.dell.com">http://www.dell.com</a> )	toll free: 1-877-576-3355
	Customer Service (Credit Return Authorization Numbers)	toll free: 1-800-624-9897
	<b>National Accounts</b> (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
	<b>Public Americas International</b> (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
	Sales (Catalogs)	toll free: 1-800-426-5150
	Fax	toll free: 1-800-727-8320
	TechFax	toll free: 1-800-950-1329
	Dell Services for the Deaf, Hard-of-Hearing, or Speech-Impaired	toll free: 1-877-DELLITY (1-877-335-5889)
	Switchboard	512 338-4400
	DellNet™ Technical Support	toll free: 1-877-Dellnet (1-877-335-5638)

<b>Country (City) International Access Code Country Code City Code</b>	<b>Department Name or Service Area, Website and E-mail Address</b>	<b>Area Codes, Local Numbers, and Toll Free Numbers</b>
US Virgin Islands	General Support	1-877-673-3355
Venezuela	General Support	8001-3605

### 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 computers, 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 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 computers 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 devices, expansion cards, printers, input/output (I/O) devices, monitors, and so on, that are integrated into or connected to the computer should match the electromagnetic environment classification of the computer.



**NOTICE:** A Notice About Shielded Signal Cables: Use only shielded cables for connecting devices 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 computers are classified for Class B environments. To determine the electromagnetic classification for your computer 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 computers 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, 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 computer 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, (FCC), your computer is considered to be a Class B digital device.

Once you have determined your computer'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: MMP
- Company name:

Dell Computer Corporation  
One Dell Way  
Round Rock, Texas 78682 USA

### **Battery Disposal**

Your computer 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 66.

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 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 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



**HINT:** Warranty information in some regions is provided on a separate paper document that comes with your computer.

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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