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Dell™ Inspiron™ 2500

Solutions Guide

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 potential for property damage, personal injury, or death.

Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see the *Tell Me How* help file. To access the help file, see page 30.

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Contents

Safety and EMC Instructions: Portable Computers

The following information defines the meaning of *additional* symbols used *only* in the Safety and Electromagnetic Compatibility (EMC) Instructions.

	Risk of explosion		Aircraft
	Risk of fire		Use of this feature may be prohibited on aircraft
	Risk of electric shock		

Safety Instructions

General

- Do not attempt to service the computer yourself unless you are an authorized service technician. Always follow installation instructions closely.

- If you use an extension power cable with your AC adapter, ensure that the total ampere rating of the products plugged in to the extension power cable does not exceed the ampere rating of the extension cable.

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

- Place the AC adapter in a ventilated area, such as a desk top or on the floor, when you use it to run the computer or to charge the battery. Do not cover the AC adapter with papers or other items that will reduce cooling; also, do not use the AC adapter inside a carrying case.

- Do not allow your portable computer to operate with the base resting directly on exposed skin for extended periods of time. The surface temperature of the base will rise during normal operation (particularly when AC power is present). Allowing sustained contact with exposed skin can cause discomfort or, eventually, a burn.

- Do not use your computer in a wet environment, for example, near a bath tub, sink, or swimming pool or in a wet basement.

- If your computer includes an integrated or optional (PC Card) modem, disconnect the modem cable if an electrical storm is approaching to avoid the remote risk of electric shock from lightning via the telephone line.

- To help avoid the potential hazard of electric shock, do not connect or disconnect any cables or perform maintenance or reconfiguration of this product during an electrical storm. Do not use your computer during an electrical storm unless all cables have been disconnected and the computer is operating on battery power.

- If your computer includes a modem, the cable used with the modem should be manufactured with a minimum wire size of 26 American wire gauge (AWG) and an FCC-compliant RJ-11 modular plug.

- PC Cards may become very warm during normal operation. Use care when removing PC Cards after their continuous operation.

- Before you clean your computer, remove power. Clean your computer with a soft cloth dampened with water. Do not use liquid or aerosol cleaners, which may contain flammable substances.

⚠ Power (Safety Instructions, *continued*)

- Use only the Dell-provided AC adapter approved for use with this computer. Use of another AC adapter may cause a fire or explosion.

- Before you connect the computer to an electrical outlet, check the AC adapter voltage rating to ensure that the required voltage and frequency match the available power source.

- To remove power from the computer, turn it off, remove the battery pack, and disconnect the AC adapter from the electrical outlet.

- To help prevent electric shock, plug the AC adapter and peripheral power cables into properly grounded power sources. These power cables may be equipped with three-prong plugs to provide an earth grounding connection. Do not use adapter plugs or remove the grounding prong from the power cable plug. If you use a power extension cable, use the appropriate type, two-prong or three-prong, to mate with the AC adapter power cable.

- Be sure that nothing rests on your AC adapter's power cable and that the cable is not located where it can be tripped over or stepped on.

- If you are using a multiple-outlet power strip, use caution when plugging the AC adapter's power cable into the power strip. Some power strips may allow you to insert the plug incorrectly. Incorrect insertion of the power plug could result in permanent damage to your computer, as well as risk of electric shock and/or fire. Ensure that the ground prong of the power plug is inserted into the mating ground contact of the power strip.

⚠ Battery (Safety Instructions, *continued*)

- Use only Dell battery modules that are approved for use with this computer. Use of other types may increase the risk of fire or explosion.

- Do not carry a battery pack in your pocket, purse, or other container where metal objects (such as car keys or paper clips) could short-circuit the battery terminals. The resulting excessive current flow can cause extremely high temperatures and may result in damage to the battery pack or cause fire or burns.

- The battery poses a burn hazard if you handle it improperly. Do not disassemble it. Handle a damaged or leaking battery pack with extreme care. If the battery is damaged, electrolyte may leak from the cells and may cause personal injury.

- Keep the battert away from children.

- Do not store or leave your computer or battery pack near a heat source such as a radiator, fireplace, stove, electric heater, or other heat-generating appliance or otherwise expose it to temperatures in excess of 60ºC (140ºF). When heated to excessive temperatures, battery cells could explode or vent, posing a risk of fire.

- Do not dispose of your computer's battery in a fire or with normal household waste. Battery cells may explode. Discard a used battery according to the manufacturer's instructions or contact your local waste disposal agency for disposal instructions. Dispose of a spent or damaged battery promptly.

⚠️ Air Travel (Safety Instructions, *continued*)

- Certain Federal Aviation Administration regulations and/or airline-specific restrictions may apply to the operation of your Dell™ computer while you are on board an aircraft. For example, such regulations/restrictions may prohibit the use of any personal electronic device (PED) that has the capacity for intentional transmission of radio frequency or other electromagnetic signals while on an aircraft.

  – In order to best comply with all such restrictions, if your Dell portable computer is equipped with Dell TrueMobile™ or some other wireless communication device, please disable this device before you board the aircraft and follow all instructions provided by airline personnel with regard to such device.

  – Additionally, the use of any PED, such as a portable computer, may be prohibited in aircraft during certain critical phases of flight, for example, takeoff and landing. Some airlines may further define the critical flight phase as any time the aircraft is below 3050 m (10,000 ft). Please follow the airline's specific instructions as to when the use of a PED is allowed.

EMC Instructions

- Use shielded signal cables to ensure 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 at its world-wide website at **http://www.dell.com**.

- Static electricity can harm electronic components inside your computer. To prevent static damage, discharge static electricity from your body before you touch any of your computer's electronic components, such as a memory module. You can do so by touching an unpainted metal surface on the computer's input/output panel.

When Using Your Computer

Observe the following safe-handling guidelines to prevent damage to your computer:

- When setting up the computer for work, place it on a level surface.

- When traveling, do not check the computer as baggage. You can put your computer through an X-ray security machine, but never put your computer through a metal detector. If you have the computer checked by hand, be sure to have a charged battery available in case you are asked to turn on the computer.

- When traveling with the hard drive removed from the computer, wrap the drive in a nonconducting material, such as cloth or paper. If you have the drive checked by hand, be ready to install the drive in the computer. You can put the hard drive through an X-ray security machine, but never put the drive through a metal detector.

- When traveling, do not place the computer in overhead storage compartments where it could slide around. Do not drop your computer or subject it to other mechanical shocks.

- Protect your computer, battery, and hard drive from environmental hazards such as dirt, dust, food, liquids, temperature extremes, and overexposure to sunlight.

- When you move your computer between environments with very different temperature and/or humidity ranges, condensation may form on or within the computer. To avoid damaging the computer, allow sufficient time for the moisture to evaporate before using the computer.

  NOTICE: When taking the computer from low-temperature conditions into a warmer environment or from high-temperature conditions into a cooler environment, allow the computer to acclimate to room temperature before turning on power.

- When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Also, before you connect a cable make sure both connectors are correctly oriented and aligned.

- Handle components with care. Hold a component such as a memory module by its edges, not its pins.

- When preparing to remove a memory module from the system board or disconnect a peripheral device from the computer, turn off the computer, disconnect the AC adapter cable, and then wait 5 seconds before proceeding to help avoid possible damage to the system board.

- Clean the display with a soft, clean cloth and commercial window cleaner that does not contain wax or abrasives. Apply the cleaner to the cloth; then stroke the cloth across the display in one direction, moving from the top of the display to the bottom. If the display contains grease or some other contaminant, use isopropyl alcohol instead of commercial window cleaner.

- If your computer gets wet or is damaged, follow the procedures described in "If Your Computer Gets Wet" (see page48). If, after following these procedures, you confirm that your computer is not operating properly, contact Dell. (See page85 for the appropriate telephone number.)

Ergonomic Computing Habits

⚠ CAUTION: Improper or prolonged keyboard use may result in injury.

⚠ CAUTION: Viewing the display or external monitor screen for extended periods of time may result in eye strain.

For comfort and efficiency, observe the following ergonomic guidelines when setting up and using your computer:

- Position your computer directly in front of you as you work.

- Adjust the tilt of the computer's display, its contrast and/or brightness settings, and the lighting around you (such as overhead lights, desk lamps, and the curtains or blinds on nearby windows) to minimize reflections and glare on the display.

- When using an external monitor with your computer, set the monitor at a comfortable viewing distance (usually 510 to 610 millimeters [20to 24 inches] from your eyes). Make sure the monitor screen is at eye level or slightly lower when you are sitting in front of the monitor.

- Use a chair that provides good lower-back support.

- Keep your forearms horizontal with your wrists in a neutral, comfortable position while using the keyboard, touch pad, track stick, or external mouse.

- Always use the palm rest with the keyboard, touch pad, or track stick. Leave space to rest your hands when using an external mouse.

- Let your upper arms hang naturally at your sides.

- Sit erect with your feet resting on the floor and your thighs level.

- When sitting, make sure the weight of your legs is on your feet and not on the front of your chair seat. Adjust your chair's height or use a footrest, if necessary, to maintain proper posture.

- Vary your work activities. Try to organize your work so that you do not have to type for extended periods of time. When you stop typing, try to do things that use both hands.

wrists relaxed and flat

computer positioned directly in front of user

arms at desk level
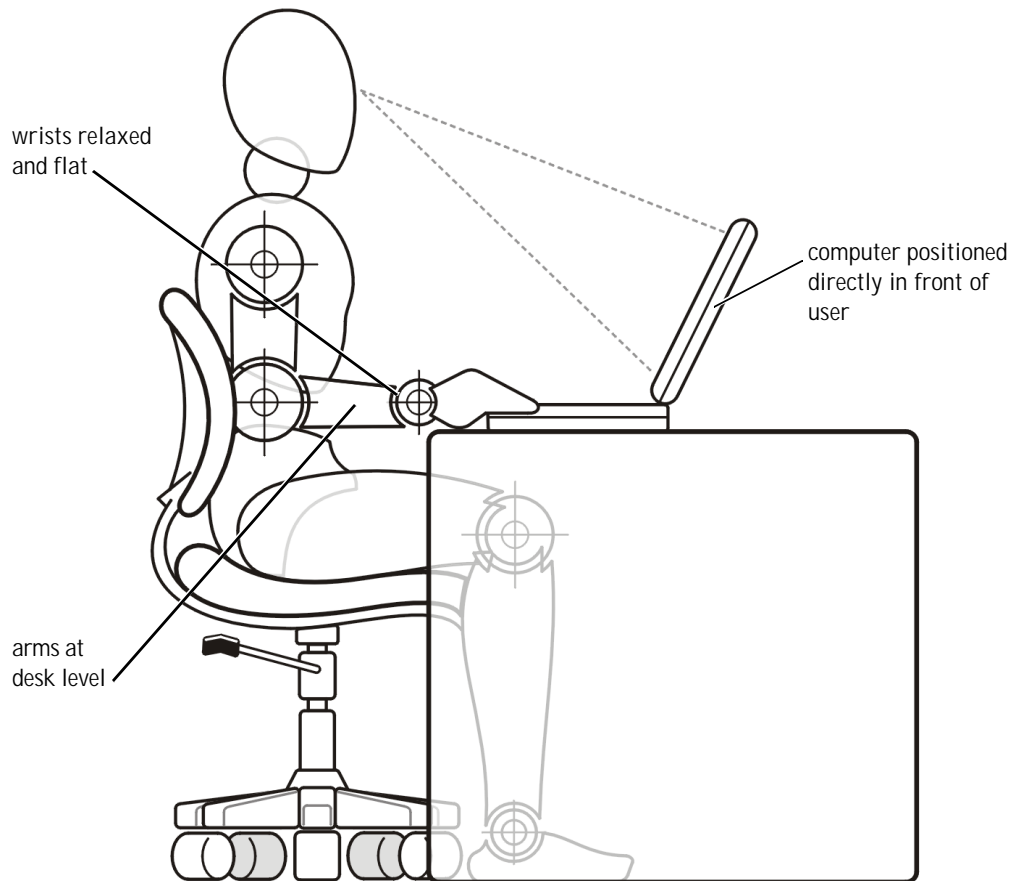
When Removing or Installing Memory Modules

Before removing or installing memory modules, perform the following steps in the sequence indicated.

NOTICE: The only time you should ever access the inside of your computer is when you are installing memory modules.

NOTICE: Wait 5 seconds after turning off the computer before disconnecting a peripheral device or removing a memory module to help prevent possible damage to the system board .

1 Turn off your computer and any attached peripherals.

2 Disconnect your computer and peripherals from electrical outlets to reduce the potential for personal injury or shock. Also, disconnect any telephone or telecommunication lines from the computer.

3 Remove the battery from the battery compartment.

4 Ground yourself by touching the unpainted metal surface of the I/O panel on the back of the computer.

   While you work, periodically touch the I/O panel to dissipate any static electricity that might harm internal components.

Protecting Against Electrostatic Discharge

Static electricity can harm electronic components inside your computer. To prevent static damage, discharge static electricity from your body before you touch any of your computer's electronic components, such as a memory module. You can do so by touching an unpainted metal surface on the computer's I/O panel.

As you continue to work inside the computer, periodically touch an I/O connector to remove any static charge your body may have accumulated.

You can also take the following steps to prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until you are ready to install the component. 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.

- Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads and workbench pads.

The following notice may appear throughout this document to remind you of these precautions:

NOTICE: See "Protecting Against Electrostatic Discharge" in the safety instructions at the front of this guide.

SECTION 1

Setting Up

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 24).

NOTICE: Use only a standard IEEE parallel cable measuring 3 m (10ft) 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.

screws (2)

parallel connector on
computer

parallel
connector on
printer

clips (2)

parallel printer
cable

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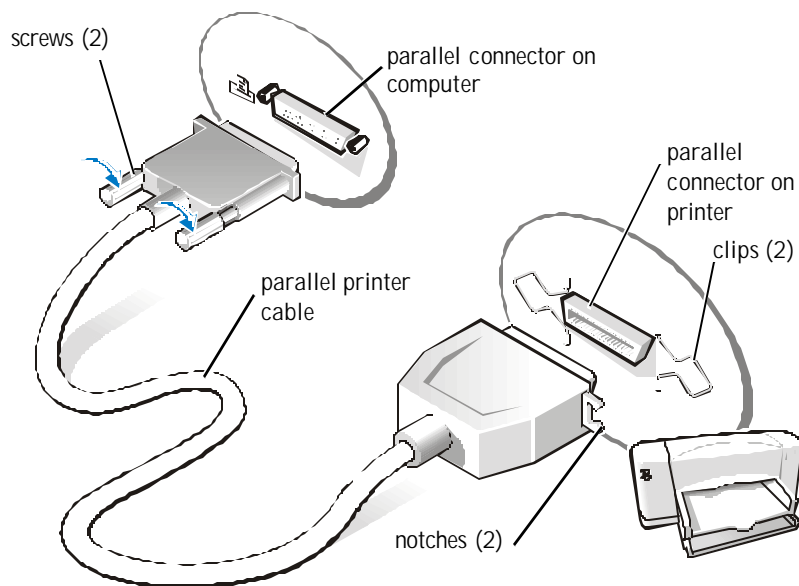
3   Turn on the printer and then turn on the computer. If the **Add New
    Hardware Wizard** window appears, click **Cancel**.

4   Install the printer driver if necessary (see page 22).

USB Printer

1   Install the printer driver if necessary (see page 22).

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

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

USB connector on
back of computer

USB connector on
printer

USB printer
cable
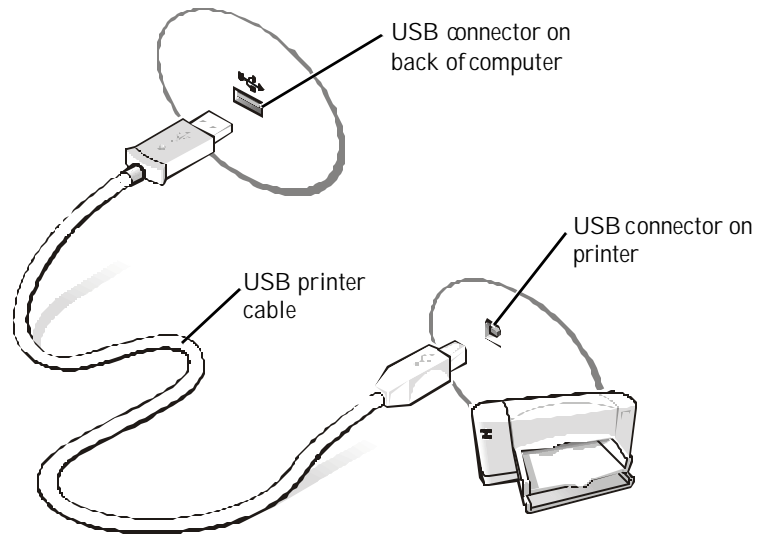
Installing the Printer Driver

To determine whether your printer driver is installed on a computer running
the Microsoft® Windows® XP operating system, click the **Start** button,
click **Control Panel,** click **Printers and Other Hardware**, and then click
View installed printers or fax printers. If your computer runs either
Microsoft Windows 2000 or Windows Millennium Edition (Me), click the
Start button, point to **Settings**, and then click **Printers**. If your printer
model is listed in the **Printers** window, the printer is ready to use.

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 and use the
instructions that came with the printer.

If your printer installation CD does not automatically run, click the **Start** button, click **Run**, and type `x:\setup.exe` (where *x* is the letter of your CD or DVD drive [usually drive D]). Then click **OK** and follow the prompts on your screen. If your printer installation CD still does not run, check the documentation that came with your printer for instructions on how to start the printer installation CD.

Transferring Information to a New Computer (Windows® XP Only)

Windows XP provides a **Files and Settings Transfer Wizard** to move data, such as e-mails, window sizes, toolbar settings, and Internet bookmarks, from one computer to another. First you collect the data from the source computer, and then you import the data to the new computer.

If the source computer uses another Windows operating system, you can launch the wizard from the Windows XP operating system CD or from a floppy disk created on a computer that is running Windows XP. You can transfer the data to the new computer over a network or serial connection, or you can store it on a removable medium, such as a floppy disk, a Zip disk, or a writable CD.

1. On the computer running Windows XP, click **Start**, point to **All Programs—> Accessories—> System Tools**, and then click **Files and Settings Transfer Wizard**.

2. On the welcome screen, click **Next**.

3. On the **Which computer is this?** screen, select **New Computer**, and then click **Next**.

4. Follow the instructions on the screen.

Setting Up a Home and Office Network (Windows XP Only)

Windows XP provides a **Network Setup Wizard** to guide you through the process of sharing files, printers, or an Internet connection between computers in a home or small office.

1. Click the **Start** button, point to **All Programs—>Accessories—>Communications**, and then click **Network Setup Wizard**.

2. On the welcome screen, click **Next**.

3. Click **checklist for creating a network**

4. Complete the checklist and required preparations, and then return to the **Network Setup Wizard**

5. Follow the instructions on the screen.

Turning Off the Computer

NOTICE: To prevent data loss, you must turn off your computer through the **Start** menu rather than by pressing the power button.

Windows XP

1. Save and close any open files and exit any open programs.

2. Click the **Start** button and then click **Turn off Computer**.

3. Click **Turn off**.

The computer automatically turns off after the shutdown process finishes.

Windows Me and Windows 2000

1. Save and close any open files and exit any open programs.

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.

Using the Media Bay

The media bay supports a variety of devices such as a floppy drive, an internal Zip drive, or a Dell TravelLite™ module.

Swapping Devices

1 Save and close any open files, exit any open programs, and shut down the computer (see page 24).

2 Close the display and turn the computer over.

3 Slide and hold the latch release, and pull the device out of the media bay.

NOTICE: To prevent damage, place devices in a travel case when they are not inserted into the computer. Store devices in a dry, safe place, and avoid placing heavy objects on top of them.

bottom of computer

device   latch release
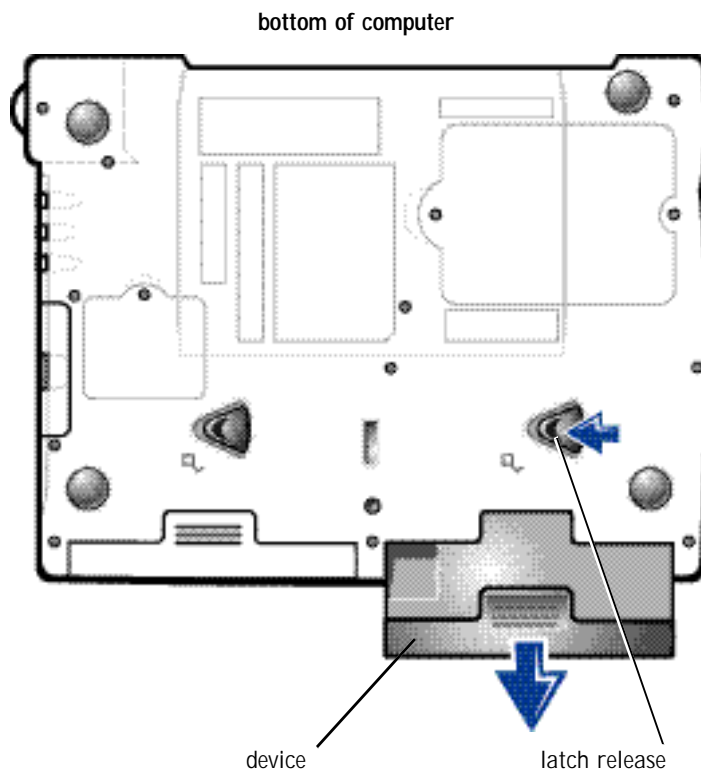
NOTICE: Insert devices before you dock and turn on the computer.

4 Insert the new device into the bay, and push it until you hear a click.

5 Turn on the computer.

SECTION 2

Solving Problems

Finding Solutions

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

START HERE

Is the power light on? — **NO** → See page31.

YES ↓

Is the power light blinking? — **YES** → Press the power button to resume from standby mode. See the *Tell Me How* help file for more information on standby mode.

NO ↓

Did you hear more than one beep when you turned on the computer? — **YES** → Get technical assistance from Dell. See page85.

NO ↓

Are you seeing an error message before Windows® starts? — **YES** → See page44.

NO ↓

CONTINUE ⇒

Are you having a problem with...	▶	video or the display?	**YES** ▶	See page 32.
		sound or the speakers?	**YES** ▶	See page 34.
NO ▼		the printer?	**YES** ▶	See page 35.
		the modem?	**YES** ▶	See page 38.
		the scanner?	**YES** ▶	See page 40.
		the touch pad?	**YES** ▶	See page 40.
		the external keyboard?	**YES** ▶	See page 40.
		unexpected characters?	**YES** ▶	See page 41.
		the hard drive or a disk drive?	**YES** ▶	See page 41.
		the network adapter?	**YES** ▶	See page 44.
		Windows error messages?	**YES** ▶	See page 44.
		a program?	**YES** ▶	See page 45.
		the Internet?	**YES** ▶	See page 46.
		your e-mail?	**YES** ▶	See page 48.
Are you having some other type of problem?	**YES** ▶	See page 50.		

Accessing Help

Microsoft® Windows® XP

 1 Click the **Start** button and click **Help and Support**.
 2 Click **User and system guides** and click **User's guides**
 3 Click **Tell Me How**.

Windows Millennium Edition (Me) and Windows 2000

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

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

 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.

 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.

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 the power button to resume from standby mode. If the power light is off, press the power button.

CHECK THE BATTERY— If you are using a battery to power your computer, the battery charge may be depleted. Connect the computer to an electrical outlet, using the AC adapter, and turn on the computer.

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

CHECK THE AC ADAPTER— Be sure that the power cable is firmly inserted into the electrical outlet and the green light on the AC adapter is on.

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.

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

CHECK THE POWER PROPERTIES— See the *Tell Me How* help or search for the keyword *standby* in the Help and Support Center *(Help* in Windows Me and Windows 2000). To access help, see page 30.

RESEAT THE MEMORY MODULES— If the computer power light turns on but the display remains blank, you may need to reseat the memory modules (see page 69).

Start-Up Error Messages

OPERATING SYSTEM NOT FOUND— Contact Dell for technical assistance (see page 85).

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— A floppy disk is in the floppy drive. Remove the floppy disk and restart the computer.

Video and Display Problems

If the display is blank

CHECK THE POWER LIGHT— When the power light is blinking, the computer has power. If the power light is blinking, the computer is in standby mode—press the power button to exit standby mode. If the power light is off, press the power button.

CHECK THE BATTERY— If you are using a battery to power your computer, the battery charge may be depleted. Connect the computer to an electrical outlet using the AC adapter, and turn on the computer.

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

CHECK THE AC ADAPTER— Be sure that the power cable is firmly inserted into the electrical outlet and the green light on the AC adapter is on.

CHECK THE POWER PROPERTIES— Search for the keyword *standby* in the Help and Support Center (*Help* in Windows Me and Windows 2000). To access help, see page 30.

If the display is difficult to read

ADJUST THE BRIGHTNESS— See the *Tell Me How* help file (see page30) for instructions on adjusting the brightness.

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

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

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

RESTORE THE RECOMMENDED SETTINGS— Restore the original resolution and refresh rate settings. See the *Tell Me How* help file for instructions on changing the resolution. To access the help file, see page30.

ADJUST WINDOWS DISPLAY SETTINGS

Windows XP
1 Click t he **Start** button and then click **Control Panel**.
2 Click **Appearance and Themes**.
3 Click t he area you want to change or click the **Display** icon.
4 Try different settings for **Colors** and **Screen area**.

Windows Me and Windows 2000
1 Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2 Double-click the **Display** icon and then click the **Settings** tab.
3 Try different settings for **Colors** and **Screen area**.

Sound and Speaker Problems

Integrated Speakers

ADJUST THE WINDOWS VOLUME CONTROL— In Windows XP, click the speaker icon in the lower-right corner of your screen. In Windows Me and Windows 2000, double-click the 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.

CHECK THE VOLUME CONTROL BUTTONS— Press both volume control buttons simultaneously or press <Fn><End> to disable (mute) or reenable the integrated speakers.

REINSTALL THE SOUND (AUDIO) DRIVER— See page 50.

External Speakers

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

ADJUST THE SPEAKER CONTROLS— If your speakers have volume controls, adjust the volume, bass, or treble to eliminate distortion.

VERIFY THE SPEAKER CABLE CONNECTIONS— Ensure that the speakers are connected as shown on 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.

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.

ADJUST THE WINDOWS VOLUME CONTROL— In Windows XP, click the speaker icon in the lower-right corner of your screen. In Windows Me and Windows 2000, double-click the 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 connector on the side of the computer. 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.

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

REINSTALL THE SOUND (AUDIO) DRIVER— See page50.

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 page20.

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

Windows XP

1 Click the **Start** button.

2 Click **Control Panel**

3 Click **Printers and Other Hardware**.

4 Click **View installed printers or fax printers**. If the printer model is listed, right-click the printer icon.

5 Click **Properties,** and then select the **Ports** tab. Ensure that the **Print to the following port(s):** setting is **LPT1 (Printer Port)**.

Windows Me and Windows 2000

1 Click the **Start** button, point to **Settings**, and then click **Printers**.

If the printer model is listed, right-click the printer icon.

2 Click **Properties,** and then select the **Details** tab in Windows Me and the **Ports** tab in Windows 2000. Ensure that the **Print to the following port (s):** setting is **LPT1 (Printer Port)**.

REINSTALL THE PRINTER DRIVER— See page22.

If you cannot print to a USB printer

VERIFY THE PRINTER CABLE CONNECTIONS—Ensure that the printer cable is connected as described on page21.

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.

Windows XP

1 Click the **Start** button.

2 Click **Control Panel**.

3 Click **Printers and Other Hardware**.

4 Click **View installed printers or fax printers**. If the printer model is listed, right-click the printer name.

5 Click **Properties,** and then select the **Ports** tab. Ensure that the **Print to the following port(s):** setting is **USB**.

Windows Me and Windows 2000

1 Click the **Start** button, point to **Settings**, and then click **Printers**.

If the printer model is listed, right-click the printer icon.

2 Click **Properties,** and then select the **Details** tab in Windows Me and the **Port** tab in Windows 2000. Ensure that the **Print to the following port (s):** setting is **USB**.

REINSTALL THE PRINTER DRIVER— See page 22.

Modem Problems

NOTICE: Connect the modem to an analog telephone wall 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 modem.

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

VERIFY THAT THE MODEM IS COMMUNICATING WITH WINDOWS

Windows XP

1 Click the **Start** button.

2 Click **Control Panel**.

3 Click **Network and Internet Connections**.

4 Click **Internet Options**

5 Click **Network Diagnostics** and perform the connectivity test.

Windows Me

1 Click the **Start** button, point to **Settings**, and then click **Control Panel**

2 In the **Control Panel** window, double-click **Modems**.

   If multiple entries appear for the same modem, or if modems are 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.

Windows 2000

1 Click the **Start** button, point to **Settings**, and then click **Control Panel**.

2 Double-click **Phone and Modems**.

   If multiple entries for the same modem or modems are listed but not installed, delete the entries, restart the computer, and repeat steps 1 and 2.

3 Click the **Modems** tab.

4 Click the COM port for your modem.

5 Click **Properties**, click the **Diagnostics** tab, and then click **Query Modem** to verify that the modem is communicating with Windows.

If all the commands receive responses, the modem is operating properly.

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— See the scanner documentation for instructions.

Touch Pad Problems

CHECK THE TOUCH PAD SETTINGS

Windows XP
1 Click the **Start** button, click **Control Panel, and** click **Printers and Other Hardware**.
2 Click **Mouse**.
  Try adjusting the settings.

Windows Me and Windows 2000
1 Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2 Double-click the **Mouse** icon.
  Try adjusting the settings.

External Keyboard Problems

DISCONNECT THE KEYBOARD CABLE— Shut down the computer (see page 24). Disconnect the keyboard cable and check the cable connector for bent or broken pins.

Unexpected Characters

DISABLE THE NUMERIC KEYPAD— Press the <Num Lk> key to disable the numeric keypad. Verify that the numbers lock light is not lit.

Drive Problems

If you cannot save a file to a floppy disk

ENSURE THAT WINDOWS RECOGNIZES THE DRIVE— In Windows XP, click the **Start** button and then click **My Computer**. In Windows Me and Windows 2000, double-click the **My Computer** icon on the Windows desktop. If the floppy drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.

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

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

back of floppy disk

write-protected

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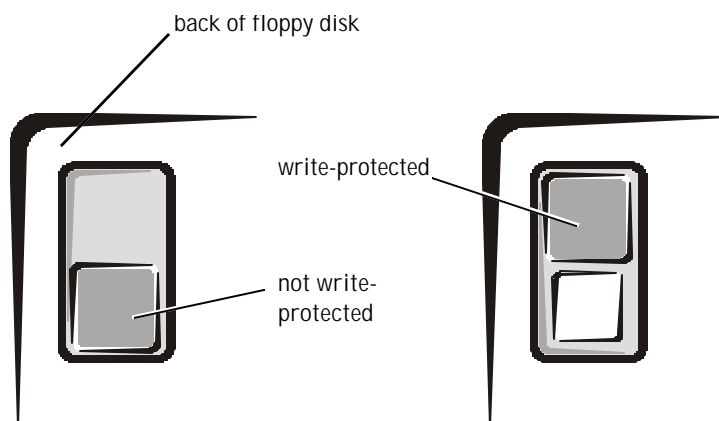
HINT: High-speed CD drive vibration is normal and may cause noise. This noise does not indicate a defect in the drive or the CD.

If you cannot play a music CD or install a program from a CD

ENSURE THAT WINDOWS RECOGNIZES THE DRIVE—In Windows XP, click the **Start** button and then click **My Computer**. In Windows Me and Windows 2000, double-click the **My Computer** icon on the Windows desktop. 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. To access the help file, see page30.

ADJUST THE WINDOWS VOLUME CONTROL— In Windows XP, click the gray speaker icon in the lower-right corner of the screen. In Windows Me and Windows 2000, double-click the yellow speaker icon in the lower-right corner of your screen. Be sure that the volume is turned up and that the sound is not muted.

If you cannot play a DVD movie

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

ENSURE THAT WINDOWS RECOGNIZES THE DRIVE—In Windows XP, click the **Start** button and click **My Computer**. In Windows Me and Windows 2000, double-click the **My Computer** icon on the Windows desktop. 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. To access the help file, see page30.

If the CD-RW drive stops writing

DISABLE STANDBY MODE IN WINDOWS BEFORE WRITING TO A CD-RW DISK — See the *Tell Me How* help file or search for the keyword *standby* in the Help and Support Center *(Help* in Windows Me and Windows 2000*)*. To access help, see page 30.

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

Windows XP and Windows 2000

1 In Windows XP, click the **Start** button and then click **My Computer**. In Windows 2000, double-click the **My Computer** icon on the Windows desktop.
2 Right-click on the drive letter (local disk) that you want to scan for errors, and then click **Properties**.
3 Click the **Tools** tab.
4 Under **Error-checking**, click **Check Now**.
5 Click **Start.**

Windows Me

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

CHECK FOR INTERRUPT REQUEST CONFLICTS — See page 54.

Network Problems

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

CHECK THE NETWORK LIGHTS ON THE NETWORK CONNECTOR— Green indicates that the network connection is active. If the status light is not green, try replacing the network cable. Amber indicates that the network adapter driver is loaded and the adapter is detecting activity.

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.

CHECK FOR INTERRUPT REQUESTS CONFLICTS— See page 54.

Microsoft® 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, or the disk is too full. Try copying the file to a different disk or use 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.

Windows XP

1 Click the **Start** button.

2 Click **Control Panel**.

3 Click **Add or Remove Programs**, select the program you want to remove, and click the **Change or Remove Program** icon.

See the program documentation for installation instructions.

Windows Me and Windows 2000

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** (click **Change/Remove** in Windows 2000) and follow the prompts on the screen.

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

END THE PROGRAM

1 Press and hold < Ctrl> < Shift> < Esc> .

2 *In Windows XP and Windows 2000*, click the **Applications** tab, and then select the program that is no longer responding. *In Windows Me*, select the program that is no longer responding.

3 Click the **End Task** button.

A program error causes the system to lock up

TURN THE COMPUTER OFF — If your computer locks up and you are unable to get a response by pressing a key on your keyboard or your touch pad, press and hold the power button for at least 6 seconds until the computer turns off. Then press the power button again to turn on the computer. You might lose data if you are unable to perform a Microsoft Windows shutdown.

A solid blue screen appears

TURN THE COMPUTER OFF — If the computer does not respond to a keystroke or a proper shutdown (see page 24), 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 automatically runs during the start-up process. Follow the instructions on the screen.

A program is designed for an earlier version of the Windows operating systems

RUN THE PROGRAM COMPATIBILITY WIZARD — Windows XP provides a Program Compatibility Wizard that configures a program to run in an environment more similar to the environment of earlier versions of the Windows operating systems.

1 Click **Start**, point to **All Programs —> Accessories**, and then click **Program Compatibility Wizard**.

2 On the welcome screen, click **Next**.

Follow the instructions on the screen.

Internet Connection Problems

REVIEW "MODEM PROBLEMS" — See page 38.

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.

CONTACT YOUR INTERNET SERVICE PROVIDER— Contact your Internet service provider for assistance.

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

Windows XP

1 Click the **Start** button and then click **Control Panel.**

2 Click **Printers and Other Hardware** and then click **Phone and Modem Options**.

3 Click to highlight your type of connection in the displayed list.

4 Click the Dialing Rules tab and click the Edit button.

5 Click to place a check mark in the To disable call waiting box.

6 Select the disable code (for example, ***70**) from the drop-down menu.

7 Click Apply and then click OK.

Windows Me

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 **Dialing Properties**.

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 **Apply** and then click **OK**.

6 Close the **Modems Properties** window.

7 Close the Control Panel**.**

Windows 2000

1 Click the **Start** button, point to **Settings**, and then click **Control Panel**.

2 Double-click the **Phone and Modems Options** icon.

3 In the **Locations** window, select the location for which you want to disable call waiting, and then click **Edit**.

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 **Apply** and then click **OK**.

6 Close the **Phone and Modems Options** 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 mark next to it, click the check mark to remove it and connect to the Internet.

BE SURE THAT YOU HAVE SUBSCRIBED TO AN INTERNET SERVICE PROVIDER—Contact an Internet service provider to subscribe.

CONTACT YOUR INTERNET SERVICE PROVIDER—Contact your Internet service provider for assistance.

If Your Computer Gets Wet

⚠ CAUTION: Perform this procedure only after you are certain that it is safe to do so. If the computer is connected to an electrical outlet, Dell recommends that you turn off AC power at the circuit breaker before attempting to remove the power cables from the electrical outlet. Use the utmost caution when removing wet cables from a live power source.

1 Turn off the computer (see page 24), disconnect the AC adapter from the computer, and disconnect the AC adapter from the electrical outlet.

2 Turn off any attached external devices, and disconnect them from their power sources and then from the computer.

3 Ground yourself by touching one of the metal connectors on the back of the computer.

4 Remove the media bay device (see page 24) and any installed PC Cards, and put them in a safe place to dry.

5 Remove the battery.

6 Wipe off the battery and put it in a safe place to dry.

7 Remove the hard drive (see page 72).

8 Remove the memory modules (see page 69).

9   Open the display and place the computer right-side up across two books or similar props to let air circulate all around it. Let the computer dry for at least 24hours in a dry area at room temperature.

🚫 NOTICE: Do not use artificial means, such as a hair dryer or a fan, to speed up the drying process.

⚠ CAUTION: To help prevent electrical shock, verify that the computer is thoroughly dry before continuing with the remainder of this procedure.

10 Ground yourself by touching one of the metal connectors on the back of the computer.

11 Replace the memory modules, the memory module cover, and the screw (see page69).

12 Replace the hard drive (see page72).

13 Replace the media bay device (see page24) and any PC Cards you removed.

14 Replace the battery.

15 Turn on the computer and verify that it is working properly.

If the computer does not start, or if you cannot identify the damaged components, contact Dell for technical assistance (see page85).

If You Drop or Damage Your Computer

1   Save and close any open files, exit any open programs, and shut down the computer (see page24).

2   Disconnect the AC adapter from the computer, and disconnect the AC adapter from the electrical outlet.

3   Turn off any attached external devices, and disconnect them from their power sources and then from the computer.

4   Remove and reinstall the battery.

5   Turn on the computer.

If the computer does not turn on, or if you cannot identify the damaged components, call Dell for technical assistance (see page85).

Resolving Other Technical Problems

GO TO THE DELL SUPPORT WEBSITE — Go to **support.dell.com** for help with general usage, installation, and troubleshooting questions. See "Dell Technical Support Policy (U.S. Only)" on page 84 for a description of the hardware and software support provided by Dell.

E-MAIL DELL — Go to the "Welcome" page at **support.dell.com** and then click **E-Mail Dell** under the **Communicate** heading. Send an e-mail message to Dell about your problem; you can expect to receive an e-mail message from Dell within hours. See "Dell Technical Support Policy (U.S. Only)" on page 84 for a description of the hardware and software support provided by Dell.

CONTACT DELL — If you cannot solve your problem using the Dell support website or e-mail service, contact Dell for technical assistance (see page 85). See "Dell Technical Support Policy (U.S. Only)" on page 84 for a description of the hardware and software support provided by Dell.

Reinstalling Drivers and Utilities

The Dell *Drivers and Utilities* CD for your computer contains drivers for operating systems that may not be on your computer. Verify that the driver you are loading is under your operating system subdirectory.

To reinstall drivers for optional devices, such as wireless communications, DVD drives, and Zip drives, see the software CD and documentation that came with those devices.

You can also access and download new drivers, system tools, and documentation from Dell's technical support page at **support.dell.com**. For more information on using the operating system installed on your computer by Dell, see the operating system user's guide that came with your computer.

To install a driver or utility from your *Drivers and Utilities* CD:

1 Save your work in all open programs.

2 Insert your *Drivers and Utilities* CD into the CD or DVD drive.

   In most cases, the CD should start running automatically. If it does not, start Microsoft® Windows® Explorer, click your CD drive directory to display the CD contents, and then double-click the **autocd.exe** file. If a welcome screen appears, click **Next**. The first time that you run the CD, it might prompt you to install some setup files. Click **OK** and follow the instructions on the screen to continue.

3 From the **Language** pull-down menu in the toolbar, select your preferred language for the driver or utility (if available).

   A welcome screen appears.

4 Click **Next**.

5 Under **Search Criteria**, select the appropriate categories from the **System Model**, **Operating System**, **Device Type**, and **Topic** pull-down menus.

   A link or links appear(s) for the specific drivers or utilities used by your computer.

6 Click the link of a specific driver or utility to display information about the driver or utility that you want to install.

7 Click the **Install** button (if present) to begin installing the driver or utility. At the welcome screen, follow the screen prompts to complete the installation.

   If no **Install** button is present, automatic installation is not an option. For installation instructions, either see the appropriate instructions in the following subsections, or click the **Extract** button, follow the extracting instructions, and read the readme file.

   If instructed to navigate to the driver files, click the CD directory on the driver information window to display the files associated with that driver.

Reinstalling the Modem or Network Adapter Driver (Optional)

If you ordered the internal modem, reinstall the modem driver.

If you ordered the combination modem/network adapter, reinstall both the modem driver and the network adapter driver.

Windows XP

1 Save and close any open files, exit any open programs, and insert your *Drivers and Utilities* CD into the CD or DVD drive.

2 Click the **Start** button, and click **Control Panel**.

3 Under **Pick a category**, click **Performance and Maintenance**.

4 Under **or pick a Control Panel icon**, click **System**.

5 Click the **Hardware** tab.

6 Click **Device Manager**.

   • *If you are installing a modem driver*, click **Modem** and then click the appropriate modem.

   • *If you are installing a network adapter*, click **Network adapters** and then click **3Com 3C920 Integrated Fast Ethernet Controller**.

7 Click **Action**, and then click **Update Driver**.

8 Select **Install from a list or specific location (Advanced)**, and then click **Next**.

9 Verify that **Search removable media** is selected, and then click **Next**.

10 When the name of the appropriate driver appears, click **Next**.

11 Click **Finish** and restart your computer.

Windows Me

1 Save and close any open files, exit any open programs, and insert the *Drivers and Utilities* CD into the CD or DVD drive.

2 Click the **Start** button, point to Settings, and then click **Control Panel**.

3 Double-click the **System** icon.

4 Click the **Device Manager** tab.

   • *If you are installing a modem driver*, click **Modem** and then click the appropriate modem.

HINT: To see the **System** icon, you may need to click **View all control panel options** at the left side of the window.

- *If you are installing a network adapter driver*, click **Network adapters** and then click **3Com 3C920 Integrated Fast Ethernet Controller**.

5 Click **Properties** and then click the **Driver** tab.

6 Click **Update Drive**r.

7 Verify that **Automatic search for a better driver (Recommended)** is selected, and then click **Next**.

8 Click **Finish**, and then click **Yes** to restart the computer.

Windows 2000

1 Save and close any open files, exit any open programs, and insert your *Drivers and Utilities* CD into the CD or DVD drive.

2 Click the **Start** button, point to **Settings**, and then click **Control Panel**.

3 Double-click the **System** icon.

4 Click the **Hardware** tab.

5 Click **Device Manager.**

- *If you are installing a modem driver*, click **Modem** and then click the appropriate modem.

- *If you are installing a network adapter*, click **Network adapters** and then click **3Com 3C920 Integrated Fast Ethernet Controller**.

6 Click **Action**, and then click **Properties**.

7 Click the **Driver** tab, click **Update driver**, and then click **Next**.

8 Verify that **Search for a suitable driver for my device (Recommended)** is selected, and then click **Next**.

9 Verify that **CD-ROM drives** is selected, and then click **Next**.

10 When the name of the appropriate driver appears, click **Next**.

11 Click **Finish** and restart your computer.

Using the Windows XP Device Driver Rollback

The Windows XP Device Driver Rollback can replace a device driver with the previously installed version if you install a new device driver that causes system instability. If you cannot reinstall your previous driver with the Driver Rollback process, then use System Restore (see page57) to attempt to return your operating system to its previous operating state before the new device driver installation:

1 Click the **Start** button, and then right-click **My Computer**.

2 Click **Properties**.

3 Click the **Hardware** tab, and then click **Device Manager**.

4 In the **Device Manager** window, right-click the device for which the new driver was installed and then click **Properties**.

5 Click the **Drivers** tab.

6 Click **Roll Back Driver**.

Resolving Software and Hardware Incompatibilities

Windows XP, Windows Me, and Windows 2000 IRQ conflicts occur if a device either is not detected during the operating system setup or is detected but incorrectly configured. See the following subsection that corresponds to your operating system to check for IRQ conflicts on your computer.

Windows XP

1 Click the **Start** button, and then click **Control Panel**.

2 Click **Performance and Maintenance**, and then click **System**.

3 Click the **Hardware** tab, and then click the **Device Manager** button.

4 In the **Device Manager** list, check for conflicts with the other devices.

Conflicts are indicated by a yellow exclamation point (!) beside the conflicting device or a red X if the device has been disabled.

5   Double-click any conflicting device listed to bring up the **Properties** window so that you can determine what needs to be reconfigured or removed from the Device Manager.

6   Resolve these conflicts before checking specific devices.

7   Double-click the malfunctioning device type in the **Device Manager** list.

8   Double-click the icon for the specific device in the expanded list.

    The **Properties** window appears.

    If an IRQ conflict exists, the **Device status** area in the **Properties** window reports what other devices are sharing the device's IRQ.

9   Resolve any IRQ conflicts.

You can also use the Windows XP Hardware Troubleshooter. To use the troubleshooter, click the **Start** button and click **Help and Support**. Type hardware troubleshooter in the **Search** field, and then click the arrow to start the search. Click **Hardware Troubleshooter** in the **Search Results** list. In the **Hardware Troubleshooter** list, click **I need to resolve a hardware conflict on my computer**, and then click **Next**.

Windows Me

1   Click the **Start** button, point to **Settings**, and click **Control Panel**.

2   Double-click the **System** icon.

3   Click the **Device Manager** tab.

4   In the **Device Manager** list, check for conflicts with the other devices.

    Conflicts are indicated by a yellow exclamation point (!) beside the conflicting device or a red X if the device has been disabled.

5   Double-click any conflicting device listed to bring up the **Properties** window so that you can determine what needs to be reconfigured or removed from the Device Manager.

6   Resolve these conflicts before checking specific devices.

7   Double-click the malfunctioning device type in the **Device Manager** list.

8 Double-click the icon for the specific device in the expanded list.

The **Properties** window appears.

If an IRQ conflict exists, the **Device status** area in the **Properties** window reports what other devices are sharing the device's IRQ.

9 Resolve any IRQ conflicts.

You can also use the Windows Me Hardware Troubleshooter. To use the Hardware Troubleshooter, click the **Start** button and click **Help**. Click **Troubleshooting** in the **What would you like help with?** list, click **Hardware & system device problems**, click **Hardware, memory, & others**, and then click **Hardware Troubleshooter**. In the **Hardware Troubleshooter** list, click **I need to resolve a hardware conflict on my computer**, and then click **Next**.

Windows 2000

1 Click the **Start** button, point to **Settings**, and click **Control Panel**.

2 Double-click the **System** icon.

3 Click the **Hardware** tab.

4 Click **Device Manager**.

5 Click **View**, and then click **Resources by connection**.

6 Double-click **Interrupt request (IRQ)** to view the IRQ assignments.

Conflicts are indicated by a yellow exclamation point (!) beside the conflicting device or a red X if the device has been disabled.

7 Double-click any conflicting device listed to bring up the **Properties** window so you can determine what needs to be reconfigured or removed from the **Device Manager**. Resolve these conflicts before checking specific devices.

8 Double-click the malfunctioning device type in the **Device Manager** list.

9 Double-click the icon for the specific device in the expanded list.

The **Properties** window appears.

If an IRQ conflict exists, the **Device status** area in the **Properties** window reports what other devices are sharing the device's IRQ.

10 Resolve the IRQ conflicts.

You can also use the Windows 2000 Hardware Troubleshooter. To use the Hardware Troubleshooter, click the **Start** button and click **Help**. Click **Troubleshooting and Maintenance** on the **Contents** tab, click **Windows 2000 troubleshooters**, and then click **Hardware**. In the **Hardware Troubleshooter** list, click **I need to resolve a hardware conflict on my computer**, and then click **Next**.

Using System Restore

Windows XP and Windows Me provide a System Restore feature that allows you to return your computer to an earlier operating state if changes to the computer's hardware or software (including new hardware or program installations), or other system settings, have left the computer in an undesirable operating state. You can also undo the last "System Restore."

System Restore automatically creates system checkpoints. You can also manually create your own checkpoints by creating Restore Points. To limit the amount of hard disk space used, older restore points are automatically purged.

To resolve an operating system problem, you can use System Restore from Safe Mode or Normal Mode to return your computer to an earlier operating state.

System Restore does not cause you to lose personal files stored in the **My Documents** folder, data files, or e-mail messages after restoring the computer to an earlier operating state. If you restore the computer to an operating state that excused before you installed a program, the program's data files won't be lost, but you will have to reinstall the actual program again.

🔵 NOTICE: It is important to make regular backups of your data files. System Restore does not monitor changes to or recover your data files. If the original data on the hard disk is accidentally erased or overwritten, or if it becomes inaccessible because of a hard disk malfunction, use your backup files to recover the lost or damaged data.

System Restore is enabled on your new computer. However, if you reinstall Windows XP or Windows Me with less than 200 MB of free hard-disk space available, System Restore is automatically disabled. Before you see if System Restore, see the following subsections to confirm that it is enabled.

Windows XP

1 Click the **Start** button and then click **Control Panel**.

2 Click the **Performance and Maintenance**.

3 Click **System**.

4 Click the **System Restore** tab.

5 Make sure that **Turn off System Restore** is not checked.

Windows Me

1 Click the **Start** button, point to **Settings**, and then click **Control Panel**.

2 Double-click the **System** icon.

3 Click the **Performance** tab.

4 Click **File System**.

5 Click the **Troubleshooting** tab, and make sure that **Disable System Restore** is not checked.

Before proceeding with any System Restore function, Dell recommends that you thoroughly read Microsoft's information about using System Restore. To access this information:

1 Click the **Start** button, point to **All Programs** (point to **Programs** in Windows Me) —>**Accessories** —> **System Tools,** and then click **System Restore**.

2 Click **Help** in the upper-right corner of the **Welcome to System Restore** screen.

Creating a Restore Point

Using the System Restore Wizard

In Windows XP you can either use the System Restore Wizard or manually create the restore points. To use the System Restore Wizard, click the **Start** button, click **Help and Support**, click **System Restore,** and then follow the instructions on the **System Restore Wizard** window. You can also create and name a restore point if you are logged on as the computer administrator or a user with administrator rights.

Manually Creating the Restore Points

1   Click **Start**, point to **All Programs** (point to **Programs** in Windows Me)
    —>**Accessories** —>**System Tools**, and then click **System Restore**.

2   Click **Create a restore point**.

3   Click **Next**.

4   Type a name for the new restore point in the **Restore point description**
    field.

    The present date and time are automatically added to the description
    of the new restore point.

5   Click **Create** (click **Next** in Windows Me).

6   Click **OK** (click **Close** in Windows Me)**.**

Restoring the Computer to an Earlier Operating State

If problems occur after you install a device driver, first try using Device
Driver Rollback (see page 54). If that is unsuccessful, then use System
Restore.

🔴 NOTICE: Before restoring the computer to an earlier operating state, save
and close all open files and exit all open programs. Do not alter, open, or delete
any files or programs until the system restoration is complete.

1   Click the **Start** button, point to **All Programs** (point to **Programs** in
    Windows Me) —>**Accessories**—>**System Tools**, and then click
    System Restore.

2   Be sure **Restore my computer to an earlier time** is selected and click
    Next.

3   Click a calendar date to which you want to restore your computer.

    The **Select a Restore Point** (**Choose a Restore Point** in Windows Me)
    screen provides a calender that allows you to see and select restore
    points. All calender dates with available restore points appear in bold.

4   Select a restore point and click **Next**.

    If a calender date has only one restore point, then that restore point is
    automatically selected. If two or more restore points are available, click
    the restore point that you want to use.

⊘ NOTICE: Save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

5 Click **Next** (click **OK** in Windows Me).

   In Windows XP, the **Restoration Complete** screen appears after System Restore completes collecting data, and then the computer automatically restarts.

   In Windows Me, the **Restoration in Progress** screen appears, and then the computer automatically restarts.

6 After the computer restarts, click **OK**.

   To change the restore point, you can either repeat the steps using a different restore point, or you can undo the restoration.

Undoing the Last System Restore

⊘ NOTICE: Save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

1 Click **Start**, point to **All Programs** (point to **Programs** in Windows Me) —>**Accessories**—>**System Tools**, and then click **System Restore**.

2 Click **Undo my last restoration** and click **Next**.

⊘ NOTICE: Save and close all open files and close all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

3 Click **Next** (click **OK** in Windows Me).

4 The **System Restore** (**Undoing Last Restoration** in Windows Me) screen appears, and then the computer automatically restarts.

5 After the computer restarts, click **OK**.

Reinstalling Windows XP

Before reinstalling the Windows XP operating system to correct a problem, try correcting the problem by using Windows System Restore (see page 57).

NOTICE: The operating system CD provides options for reinstalling the Windows XP 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.

1   Insert the *Operating System* CD into the CD or DVD drive.

2   Shut down the computer (see page 24) and then turn on the computer.

3   Press any key when the `Press any key to boot from CD` message appears on the screen.

4   When the **Windows XP Setup** screen appears, press <Enter> to select **To set up Windows now**.

5   Read the information in the **License Agreement** window, and then press <F8> on your keyboard to agree with the license information.

6   If your computer already has Windows XP installed and you want to recover your current Windows XP data, type R to select the repair option, and then go to step 15.

    If you want to install a new copy of Windows XP, press <Esc> to select the fresh copy option, and then press <Enter> on the next screen to select the highlighted partition (recommended). Then follow the instructions on the screen.

7   The **Windows XP Setup** screen appears and Windows XP begins to copy files and install the device drivers. The computer automatically restarts multiple times before it requires additional input.

8   When the **Welcome to Microsoft Windows** screen appears, click the green arrow icon at the bottom of the screen to continue. Follow the instructions on the screen to finish the installation.

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

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

11 If you are reinstalling Windows XP Home Edition, enter a name for
    your computer when the **Computer Name** window appears, and then
    click **Next**.

    If you are reinstalling Windows XP Professional, enter a name for your
    computer and a password when the **Computer Name and
    Administrator Password** windows appears, and then click **Next**.

12 If you have a modem installed, the **Modem Dialing Information**
    screen appears. Enter the requested information, and then click **Next**.

13 Enter the date and time in the **Date and Time Settings** window, and
    then click **Next**.

14 If your computer has a network adapter, select the appropriate network
    settings. If your computer does not have a network adapter, you do not
    see this option.

    Windows XP begins to install its components and configure the
    computer. The computer automatically restarts.

15 When the **Welcome to Microsoft** screen appears, click the green arrow
    icon at the bottom of the screen to continue. Follow the instructions
    on the screen to finish the installation.

16 Remove the CD from the drive.

17 Reinstall the appropriate drivers (see page 50).

18 Reenable the virus protection software.

Reinstalling Windows Me

Before reinstalling the Windows Me operating system to correct a problem,
try correcting the problem by using Windows System Restore (see page 57).

NOTICE: The *Operating System* CD provides options for reinstalling the
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.

1 Turn on the computer, and enter the System Setup program as
   directed by a Dell technical support representative.

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   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** window 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 then click
    Next.

11 Click the graphic that matches your keyboard layout, and then 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 computer.

15 When the **Start Wizard** window 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**.

16 If the **Date/Time Properties** window appears, adjust the date and time properties, click **Apply**, and then click **OK**.

Windows updates the system settings and restarts your computer.

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

18 Reinstall the appropriate drivers (see page 50).

19 Reenable your virus protection software.

Reinstalling Windows 2000

NOTICE: The operating system CD provides options for reinstalling the Windows 2000 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.

1 Insert the *Operating System* CD into the CD or DVD drive.

2 Shut down the computer (see page 24).

3 Turn on 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** window appears, ensure that the **To setup Win2000 now, press ENTER** option is highlighted. Then press <Enter>.

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

7 When the **Windows 2000 Professional Setup** window appears, press 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** window reappears, press the arrow keys to select the type of file 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** window appears.

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

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

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

16   When the **Completing the Windows 2000 Setup Wizard** window appears, remove the CD from the drive, and then click **Finish**. The computer automatically restarts.

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

Enabling Hibernate Support

1   Click the **Start** button, point to **Settings**, and click **Control Panel**.

1   Double-click the **Power Management** icon.

2   Click the **Hibernate** tab.

3   Ensure that **Enable hibernate support** is selected, and click **Apply**.

4   Click **OK** to close Control Panel.

SECTION 3

Adding Parts

Replacing the Palm Rest Inserts

Adding Memory

Replacing a Hard Drive

Replacing the Palm Rest Inserts

1 Save and close any open files, exit any open programs, and shut down the computer (see page24) .

2 Keep the display open, and tilt the computer back so that you can access the bottom of the computer.

3 Slide and hold the latch release on the left side, and remove any device installed in the media bay.

4 Slide and hold the latch release on the right side, and remove any battery installed in the battery bay.

5 Locate the indentation under each palm rest insert, place your thumbs on the indentation, and gently push to release the palm rest inserts.

bottom of computer
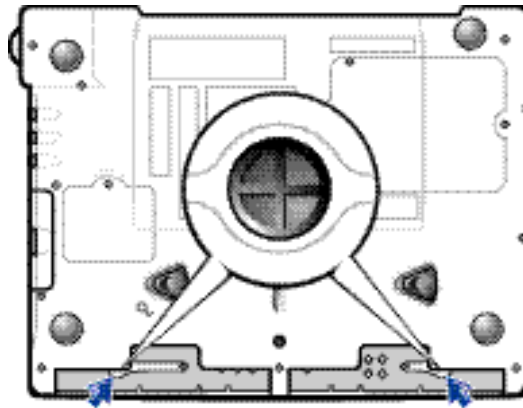
6 Remove the palm rest inserts.

7 To replace the palm rest inserts, align the tabs on the edge of the palm rest inserts with the slots on the computer and then press down until you hear a click.

Repeat the process on each side.

palm rest insert
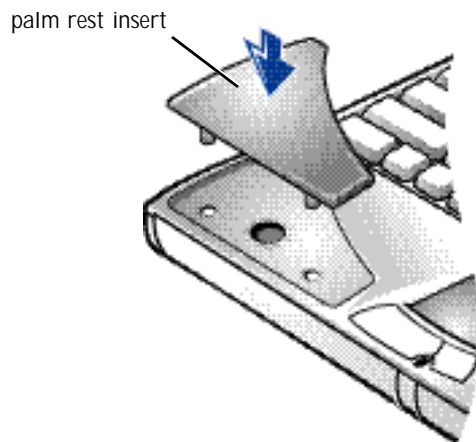
Adding Memory

You can increase computer memory by installing memory modules on the system board. See page 76 for information on the type of memory supported by your computer.

Your computer has two memory module connectors. All Dell memory modules designed for your computer can be installed in either connector.

⚠ CAUTION: Before working inside your computer, read the safety instructions at the front of this guide.

● NOTICE: Do not install or remove a memory module when the computer is turned on, in standby mode, or in hibernate mode.

1 Save and close any open files, exit any open programs, and shut down the computer (see page 24).

2 Remove the battery, if installed, and disconnect external devices.

3 Disconnect the AC adapter cable from the computer.

4 Ground yourself by touching a metal connector on the back of the computer.

5 Turn the computer over, remove the screw located next to the K/M icon, and lift up the memory module cover.

HINT: Memory modules purchased from Dell are covered under your computer warranty.

screw

memory module cover
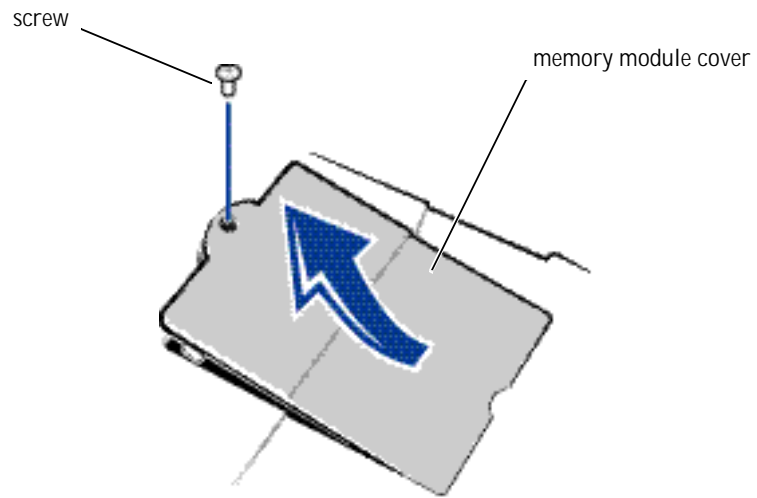
NOTICE: To prevent damage to the computer, do not use tools to spread the inner metal tabs of the socket when you are installing or removing a memory module.

6   If you are replacing a memory module, you must remove the existing module:

   a   Use your fingernails to carefully spread apart the inner metal tabs of the memory module connector.

      The module should pop up.

   b   Lift the memory module away from the connector.

securing clip
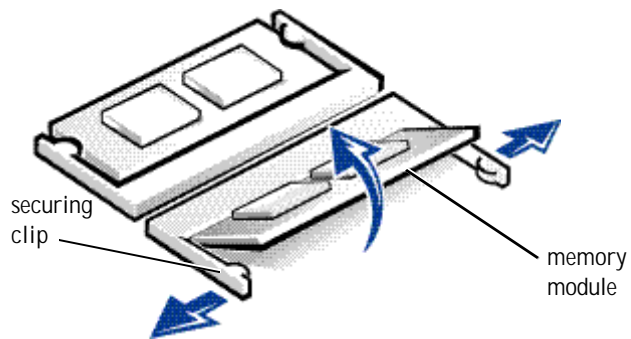
memory module

7   Install the memory module:

   a   Align the notch in the module with the slot in the center of the connector.

   b   Slide the edge of the module firmly into the connector, and rotate the module down until you hear a click.
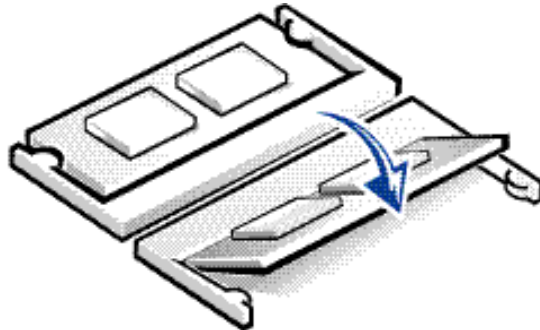
NOTICE: If you need to install memory modules in both connectors, install a memory module in the connector labeled "DIMM1" before you install a module in the connector labeled "DIMM2."

8   Replace the cover and screw.

screw

memory module cover

9 Insert the battery into the battery bay, or connect the AC adapter to your computer and an electrical outlet.

10 Turn on the computer.

As the computer boots, it will detect the additional memory and automatically update the system configuration information.

Replacing a Hard Drive

NOTICE: Hard drives are extremely fragile and must be handled carefully. Even a slight bump can damage the drive.

CAUTION: If you remove the hard drive from the computer when the drive is hot, *do not touch* the metal housing of the hard drive.

NOTICE: To prevent data loss, turn off your computer (see page24) before removing or installing a hard drive. Do not remove the hard drive while the computer is in standby mode or hibernate mode, or if the power light is lit.

1 Save and close any open files, exit any open programs, and shut down the computer (see page24).

2 Remove all installed batteries, and disconnect the AC adapter cable and any external devices from the computer.

3 Turn the computer over, and remove the hard drive screw.

HINT: Dell does not guarantee compatibility or provide support for hard drives from sources other than Dell.

HINT: You need the *Operating System* CD to install the Windows operating system. You also need the *Drivers and Utilities* CD to install the drivers and utilities on the new hard drive.

bottom of computer

hard drive

screw
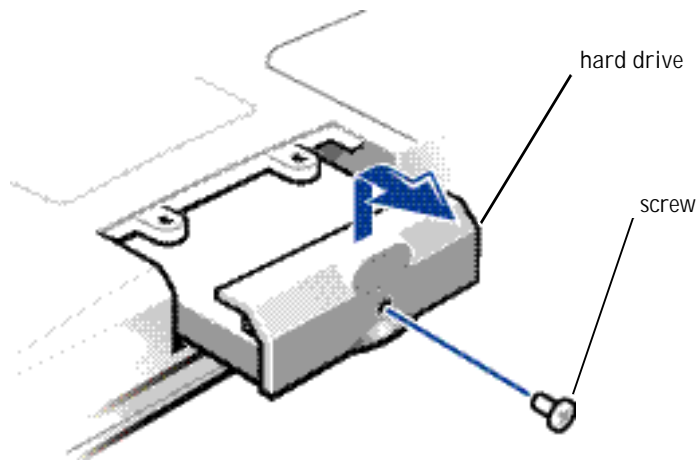
⊘ NOTICE: When the hard drive is not in the computer, protect the drive from exposure to static electricity by storing it in protective antistatic packaging.

4 Lift up the hard drive cover until you hear a click.

5 Slide the hard drive out of the computer.

6 Remove the new drive from its packaging.

  Save the original packaging to use when storing or shipping the hard drive.

⊘ NOTICE: Do not force the drive into the computer. If you experience some resistance, use firm and even pressure to slide the drive into place.

7 Slide the new drive into the computer:

  a   Lift up the hard drive cover until you hear a click.

  b   Push the hard drive until it is fully seated in the bay.

  c   Press the hard drive cover down.

8 Replace and tighten the screw you removed in step 3.

9 Install the Dell-provided operating system (see page 60).

10 Install the Dell-provided drivers and utilities (see page 50).

Returning a Hard Drive to Dell

Return your old hard drive to Dell in its original or comparable foam packaging. Otherwise, the hard drive may be damaged in transit.

hard drive
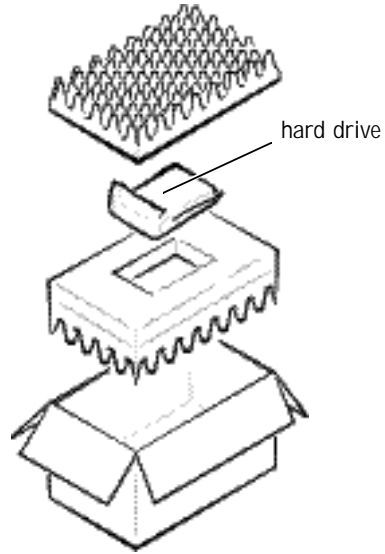
4

Appendix

Specifications

Standard Settings

Dell Technical Support Policy (U.S. Only)

Contacting Dell

Regulatory Information

Warranty and Return Policy Information

www.dell.com | support.dell.com

Specifications

Microprocessor	
Microprocessor type	Intel® Mobile Pentium® III or Mobile Celeron™
L1 cache	32 KB (internal)
L2 cache	256 KB or 128 KB
Math coprocessor	internal to microprocessor

System Information	
System chip set	Intel 815EM
Data bus width	64 bits
DRAM bus width	64 bits
Microprocessor address bus width	32 bits
Flash EPROM	2 MB
Graphics bus width	integrated Intel 3D AGP Graphics

PC Card	
CardBus controller	O2Micro OZ6933 CardBus controller
PC Card connectors	two (supports two Type I or Type II cards or one TypeIII card)
Cards supported	3.3 V and 5 V
PC Card connector size	68 pins
Data width (maximum)	PCMCIA: 16 bits CardBus: 32 bits

Memory	
Architecture	SDRAM
Memory module socket	two user-accessible SODIMM sockets
Memory module capacities	32-, 64-, 128-, and 256-MB 3.3-V SDRAM SODIMMS

Memory *(continued)*	
Standard memory	64 MB (non-ECC)
Maximum memory	512 MB (non-ECC)
Memory clock speed	100 MHz
Memory access time	CL2 (*NOTE: CL2 indicates a CAS latency of two clocks.*)

Ports and Connectors	
Serial	9-pin connector, RS232; 16550-compatible, 16-byte buffer connector
Parallel	unidirectional (standard AT), bidirectional, or ECP connector
Video	VGA connector
Audio	stereo (line-in) mini connector; microphone mini connector; headphone/speakers (line-out) mini connector
PS/2 keyboard/mouse	6-pin mini-DIN connector
USB	two USB-compliant connectors
Modem/network adapter	optional factory-configurable RJ-11/RJ-45 port for mini-PCI modem/network adapter

Video	
Video type	128-bit hardware-accelerated video support
Data bus	integrated Intel 3D AGP Graphics
Video controller	integrated graphics (Intel 815EM)
Display cache	optional factory-configurable 4-MB display cache card
LCD interface	LVDS

Audio	
Audio controller	AC97 link audio
Stereo conversion	16-bit (analog-to-digital and digital-to-analog)
Interfaces:	
Internal	PCI bus/AC 97
External	stereo (line-in), microphone, headphones/speaker (line-out)

Display	
Type	128-bit hardware-accelerated video support
Response time (typical)	50 ms
Operating angle	0° (closed) to 180°
Dot pitch	0.20 mm
Panel (typical)	1.3 W
Backlight	3.4 W using battery; 4.9 W using AC adapter
Controls	brightness can be controlled through key combinations

Keyboard	
Number of keys	87 (U.S., Canada, and locations that use traditional Chinese); 88 (Europe); 90 (Japan)
Key travel	2.7 ± 0.3 to 0.4 mm (0.11 ± 0.016 inch)
Key spacing	19.05 ± 0.3 mm (0.75 inch ± 0.012 inch)
Layout	QWERTY/AZERTY/Kanji

Touch Pad	
Interface	PS/2 compatible
X/Y position resolution (graphicstable mode)	240 cpi

Touch Pad *(continued)*	
Size:	
Thickness	2.00 mm (0.08 inch) at highest component
Width	64.88 mm (2.55 inch)
Height	48.88-mm (1.92-inch) rectangle with 0.5-mm (0.02-inch) tabs
Weight	6.5 g (0.23 ounce) ± 0.5 g (0.001 ounce)
Power:	
Supply voltage	5 V ± 0.5 VDC
Supply current	25 mA (maximum operating current)
ESD	in accordance with IEC-801-2

Modem	
Data/fax modem	optional 56K, V.90 Mini PCI card modem
Data/fax network adapter	optional 10/100 LAN + 56K, V.90 Mini PCI card modem

Battery	
Type	4-cell and 8-cell lithium ion
Dimensions:	
Depth	88.5 mm (3.48 inches)
Height	21.5 mm (0.83 inch)
Width	139.0 mm (5.47 inches)
Weight	8 cell; 0.39 kg (0.87 lb)
Voltage	14.8 VDC

Battery *(continued)*

Charge time (approximate):

Computer on	2.5 hours
Computer off	1 hour
Battery life	approximately 1.5 hours minimum with 4-cell battery and 3 hours minimum with 8-cell standard battery

Life span (approximate)	400 discharge/charge cycles

Temperature range:

Operating	0° to 45°C (32° to 113°F)
Storage	–20° to 60°C (–4° to 140°F)

AC Adapter

Input voltage	90 to 135 VAC and 164 to 264 VAC
Input current (maximum)	1.5 A
Input frequency	40 to 63 Hz
Output current	4.5 A (maximum 4-second pulse); 3.5A (continuous)
Rated output voltage	20 VDC

Dimensions:

Height	27.94 mm (1.1 inches)
Width	58.42 mm (2.3 inches)
Depth	133.85 mm (5.25 inches)

Weight (with cables)	0.4 kg (0.9 lb)

Temperature range:

Operating	0° to 40°C (32° to 104°F)
Storage	–4° to 65°C (24.8° to 149°F)

Environmental	
Temperature range:	
Operating	0° to 35°C (32° to 95°F)
Storage	–4° to 65°C (24.8° to 149°F)
Relative humidity (maximum):	
Operating	10% to 90% (noncondensing)
Storage	5% to 95% (noncondensing)
Maximum vibration:	
Operating	0.9 GRMS using a random-vibration spectrum that simulates user environment
Storage	1.3 GRMS using a random-vibration spectrum that simulates air/truck shipment
Maximum shock:	
Operating	152.4 cm/sec (60 inches/sec) (equal to a half-sine pulse width of 2 ms)
Storage	2.03 m/sec (80 inches/sec) (less than or equal to a pulse width of 2 ms)
Altitude (maximum):	
Operating	–15.2 to 3048 m (–50 to 10,000 ft)
Storage	–15.2 to 10,668 m (–50 to 35,000 ft)

Fixed Optical Drives	
Supported drives	12.5-mm drives: CD, CD-RW, and DVD

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.

System Setup Screens

The system setup screens are organized into the following sections:

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

  - **Main** provides settings for the basic computer configuration.
  - **System Devices** provides detailed settings for some computer features.
  - **Security** provides indications and settings for user and setup passwords.
  - **Boot** provides information about how the computer starts.
  - **Exit** provides selections for saving and loading the program settings.

✏️ HINT: To see information about a specific item, highlight the item and refer to the **ItemSpecific** help area on the screen.

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

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

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

```
                   PhoenixBIOS Setup Utility

  Main        System Devices     Security     Boot        Exit

 ┌─────────────────────────────────────────────┬──────────────────────────┐
 │                                             │    Item Specific Help    │
 │ System Time:              [00:06:57]        │                          │
 │ System Date:              [11/09/99]        │  <Tab>, <Shift-Tab>, or  │
 │                                             │  <Enter> selects field.  │
 │ Floppy Drive:             1.44 MB 3 1/2"    │  Select appropriate field│
 │ Hard Disk                 [20004 MB]        │  [HH:MM:SS] and enter    │
 │ S/N:                      10WWEP            │  value in 24-hour format.│
 │                                             │                          │
 │ Quiet Boot:               [Enabled]         │                          │
 │ Video Display Device      [Simul Mode]      │                          │
 │                                             │                          │
 │ System Memory:            640 KB            │                          │
 │ Extended Memory:          126 MB            │                          │
 │ Display Cache Memory      4 MB              │                          │
 │                                             │                          │
 │ Service Tag Number:       1A2B3C4           │                          │
 │ Visit our WebSite         http://www.dell.com                          │
 ├─────────────────────────────────────────────┴──────────────────────────┤
 │ F1   Help    ↓↑ Select Item   F5/F6  Change Values    F9   Setup Defaults│
 │ ESC  Exit    ↔Select Menu     Enter  Select  ➤ Sub-Menu  F10  Save and Exit│
 └─────────────────────────────────────────────────────────────────────────┘
```

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.

HINT: In Windows Me
and Windows 2000, you
must press <F2> to enter
the system setup program.

HINT: External USB
keyboards function only
when Windows is running.

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**. Additional technical support options may be available for purchase.

Dell provides limited technical support for the computer and any "Dell-installed" software and peripherals[1]. 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™)[2].

[1] Repair services are provided pursuant to the terms and conditions of your limited warranty and any optional support service contract purchased with the computer.

[2] 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 module 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

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

Contact Numbers and Addresses

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
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	tollfree:1-800-633-559
Country Code: **61**	Preferred Accounts Division (PAD)	tollfree:1-800-060-889
City Code: **2**	Customer Care	tollfree:1-800-819-339
	Corporate Sales	tollfree:1-800-808-385
	Transaction Sales	tollfree:1-800-808-312
	Fax	tollfree:1-800-818-341

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Austria (Vienna)	Home/Small Business Sales	0179567602
International Access Code: **900**	Home/Small Business Fax	0179567605
Country Code: **43**	Home/Small Business Customer Care	0179567603
City Code: **1**	Preferred Accounts/Corporate Customer Care	06608056
	Home/Small Business Technical Support	0179567604
	Preferred Accounts/Corporate Technical Support	06608779
	Switchboard	01491040
	Website: **http://support.euro.dell.com**	
	E-mail: tech_support_central_europe@dell.com	
Barbados	General Support	1-800-534-3066
Belgium (Brussels)	Technical Support	024819288
International Access Code: **00**	Customer Care	024819119
Country Code: **32**	Home/Small Business Sales	toll free:080016884
City Code: **2**	Corporate Sales	024819100
	Fax	024819299
	Switchboard	024819100
	Website: **http://support.euro.dell.com**	
	E-mail: tech_be@dell.com	
	E-mail for French Speaking Customers: http://support.euro.dell.com/be/fr/emaildell/	
Bermuda	General Support	1-800-342-0671
Brazil	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: **http://www.dell.com/br**	
Brunei	Customer Technical Support (Penang, Malaysia)	604 633 4966
Country Code: **673**	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales (Penang, Malaysia)	604 633 4955

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Canada (North York, Ontario)	Automated Order-Status System	tollfree:1-800-433-9014
International Access Code: **011**	AutoTech (Automated technical support)	tollfree:1-800-247-9362
	Customer Care (From outside Toronto)	tollfree:1-800-387-5759
	Customer Care (From within Toronto)	416758-2400
	Customer Technical Support	tollfree:1-800-847-4096
	Sales (Direct Sales—from outside Toronto)	tollfree:1-800-387-5752
	Sales (Direct Sales—from within Toronto)	416 758-2200
	Sales (Federal government, education, and medical)	tollfree:1-800-567-7542
	Sales (Major Accounts)	tollfree:1-800-387-5755
	TechFax	tollfree: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	tollfree:1230-020-4823
China (Xiamen)	Home and Small Business Technical Support	tollfree:8008582437
Country Code: **86**	Corporate Accounts Technical Support	tollfree:800 858 2333
City Code: **592**	Customer Experience	tollfree:8008582060
	Home and Small Business	tollfree:8008582222
	Preferred Accounts Division	tollfree:8008582062
	Large Corporate Accounts North	tollfree:8008582999
	Large Corporate Accounts East	tollfree:8008582020
	Large Corporate Accounts South	tollfree:8008582355
	Large Corporate Accounts GCP	tollfree:8008582055
	Large Corporate Accounts HK	toll free:800964108
	Large Corporate Accounts GCP HK	toll free:800907308
Colombia	General Support	980-9-15-3978
Costa Rica	General Support	0800-012-0435

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Czech Republic (Prague)	Technical Support	02 22 83 27 27
International Access Code: **00**	Customer Care	02 22 83 27 11
Country Code: **420**	Fax	02 22 83 27 14
City Code: **2**	TechFax	02 22 83 27 28
	Switchboard	02 22 83 27 11
	Website: **http://support.euro.dell.com**	
	E-mail: czech_dell@dell.com	
Denmark (Horsholm)	Technical Support	45170182
International Access Code: **00**	Relational Customer Care	45170184
Country Code: **45**	Home/Small Business Customer Care	32875505
	Switchboard	45170100
	Fax Technical Support (Upplands Vasby, Sweden)	46 0 859005594
	Fax Switchboard	45170117
	Website: **http://support.euro.dell.com**	
	E-mail: den_support@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
Dominican Republic	General Support	1-800-148-0530
El Salvador	General Support	01-899-753-0777
Finland (Helsinki)	Technical Support	0925331360
International Access Code: **990**	Technical Support Fax	0925331381
Country Code: **358**	Relational Customer Care	0925331338
City Code: **9**	Home/Small Business Customer Care	0969379194
	Fax	0925331399
	Switchboard	0925331300
	Website: **http://support.euro.dell.com**	
	E-mail: fin_support@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
France (Paris/Montpellier)	**Home and Small Business**	
International Access Code: **00**	Technical Support	0825387270
Country Code: **33**	Customer Care	0825823833
City Code: **(1) (4)**	Switchboard	0825004700
	Switchboard (Alternative)	0499754000
	Sales	0825004700
	Fax	0825 004701
	Fax (Alternative)	04 99 75 40 01
	Website: **http://support.euro.dell.com**	
	E-mail: http://support.euro.dell.com/fr/fr/emaildell/	
	Corporate	
	Technical Support	0825004719
	Customer Care	0825338339
	Switchboard	0155947100
	Sales	0155947100
	Fax	0155947101
	Website: **http://support.euro.dell.com**	
	E-mail: http://support.euro.dell.com/fr/fr/emaildell/	
Germany (Langen)	Technical Support	06103766-7200
International Access Code: **00**	Home/Small Business Customer Care	0180-5-224400
Country Code: **49**	Global Segment Customer Care	06103766-9570
City Code: **6103**	Preferred Accounts Customer Care	06103766-9420
	Large Accounts Customer Care	06103766-9560
	Public Accounts Customer Care	06103766-9555
	Switchboard	06103766-7000
	Website: **http://support.euro.dell.com**	
	E-mail: tech_support_central_europe@dell.com	
Guatemala	General Support	1-800-999-0136

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Hong Kong	Technical Support	toll free:800964107
International Access Code: **001**	Customer Service (Penang, Malaysia)	604 6334949
Country Code: **852**	Transaction Sales	toll free:800964109
	Corporate Sales	toll free:800964108
Ireland (Cherrywood)	Technical Support	1850 543 543
International Access Code: **16**	Home User Customer Care	01 204 4095
Country Code: **353**	Small Business Customer Care	012044026
City Code: **1**	Corporate Customer Care	01 279 5011
	Sales	01 204 4444
	SalesFax	012040144
	Fax	204 5960
	Switchboard	012044444
	Website: **http://support.euro.dell.com**	
	E-mail: dell_direct_support@dell.com	
Italy (Milan)	**Home and Small Business**	
International Access Code: **00**	Technical Support	0257782690
Country Code: **39**	Customer Care	0269682114
City Code: **02**	Fax	0269682113
	Switchboard	0269682112
	Website: **http://support.euro.dell.com**	
	E-mail: http://support.euro.dell.com/it/it/emaildell/	
	Corporate	
	Technical Support	0257782690
	Customer Care	0257782555
	Fax	0257503530
	Switchboard	02577821
	Website: **http://support.euro.dell.com**	
	E-mail: http://support.euro.dell.com/it/it/emaildell/	
Jamaica	General Support	1-800-682-3639

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Japan (Kawasaki)	Technical Support (Server)	tollfree:0120-1984-35
International Access Code: **001**	Technical Support Outside of Japan (Server)	81-44-556-4152
Country Code: **81**	Technical Support (Dimension™ and Inspiron™)	tollfree:0120-1982-26
City Code: **44**	Technical Support Outside of Japan (Dimension and Inspiron)	81-44-520-1435
	Technical Support (Dell Precision™, OptiPlex™ and Latitude™)	tollfree:0120-1984-33
	Technical Support Outside of Japan (Dell Precision, OptiPlex, and Latitude)	81-44-556-3894
	24-Hour Automated Order Service	044556-3801
	Customer Care	044556-4240
	Business Sales Division (up to 400 employees)	044 556 3494
	Preferred Accounts Division Sales (over 400 employees)	044556-3433
	Large Corporate Accounts Sales (over 3500 employees)	044556-3440
	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	044556-3490
	Switchboard	044556-4300
	Website: **http://support.jp.dell.com**	
Korea (Seoul)	Technical Support	tollfree:080-200-3800
International Access Code: **001**	Sales	tollfree:080-200-3600
Country Code: **82**	Customer Service (Seoul, Korea)	toll free: 080-200-3800
City Code: **2**	Customer Service (Penang, Malaysia)	604 633 4949
	Fax	2194-6202
	Switchboard	2194-6000

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Latin America	Customer Technical Support (Austin, Texas, U.S.A.)	512728-4093
	Customer Service (Austin, Texas, U.S.A.)	512728-3619
	Fax (Technical Support and Customer Service) (Austin, Texas, U.S.A.)	512728-3883
	Sales (Austin, Texas, U.S.A.)	512728-4397
	SalesFax (Austin, Texas, U.S.A.)	512728-4600
		or 512728-3772
Luxembourg	Technical Support (Brussels, Belgium)	024819288
International Access Code: **00**	Home/Small Business Sales (Brussels, Belgium)	toll free:080016884
Country Code: **352**	Corporate Sales (Brussels, Belgium)	024819100
	Customer Care (Brussels, Belgium)	024819119
	Fax (Brussels, Belgium)	024819299
	Switchboard (Brussels, Belgium)	024819100
	Website: **http://support.euro.dell.com**	
	E-mail: tech_be@dell.com	
Macau	Technical Support	toll free:0800582
Country Code: **853**	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales	toll free:0800581
Malaysia (Penang)	Technical Support	tollfree:1800888298
International Access Code: **00**	Customer Service	04633 4949
Country Code: **60**	Transaction Sales	tollfree:1800888202
City Code: **4**	Corporate Sales	tollfree:1800888213

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Mexico	Customer Technical Support	001-877-384-8979
		or 001-877-269-3383
International Access Code: **00**		
Country Code: **52**	Sales	50-81-8800
		or 01-800-888-3355
	Customer Service	001-877-384-8979
		or 001-877-269-3383
	Main	50-81-8800
		or 01-800-888-3355
Netherlands Antilles	General Support	001-800-882-1519
Netherlands (Amsterdam)	Technical Support	020581 8838
International Access Code: **00**	Customer Care	0205818740
Country Code: **31**	Home/Small Business Sales	tollfree:0800-0663
City Code: **20**	Home/Small Business Sales Fax	0206827171
	Corporate Sales	0205818818
	Corporate Sales Fax	0206868003
	Fax	0206868003
	Switchboard	0205818818
	Website: **http://support.euro.dell.com**	
	E-mail: tech_nl@dell.com	
New Zealand	Home and Small Business	0800446255
International Access Code: **00**	Government and Business	0800444617
Country Code: **64**	Sales	0800441567
	Fax	0800441566
Nicaragua	General Support	001-800-220-1006

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Norway (Lysaker)	Technical Support	67116882
International Access Code: **00**	Relational Customer Care	67117514
Country Code: **47**	Home/Small Business Customer Care	23162298
	Switchboard	67116800
	Fax Technical Support (Upplands Vasby, Sweden)	46 0 85 59005594
	Fax Switchboard	67116865
	Website: **http://support.euro.dell.com**	
	E-mail: nor_support@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
Panama	General Support	001-800-507-0962
Peru	General Support	0800-50-669
Poland (Warsaw)	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: **http://support.euro.dell.com**	
	E-mail: pl_support@dell.com	
Portugal	Technical Support	35800834077
International Access Code: **00**	Customer Care	800 300 415 or 35800834075
Country Code: **35**	Sales	800300410 or 800300411 or 800300412 or
		351 214 220 710
	Fax	351214240112
	E-mail: http://support.euro.dell.com/es/es/emaildell/	
Puerto Rico	General Support	1-800-805-7545

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
St. Lucia	General Support	1-800-882-1521
Singapore (Singapore)	Technical Support	tollfree:8006011051
International Access Code: **005**	Customer Service (Penang, Malaysia)	604633 4949
Country Code: **65**	Transaction Sales	tollfree:8006011054
	Corporate Sales	tollfree:8006011053
South Africa (Johannesburg)	Technical Support	0117097710
International Access Code: **09/091**	Customer Care	0117097707
	Sales	0117097700
Country Code: **27**	Fax	0117060495
City Code: **11**	Switchboard	0117097700
	Website: **http://support.euro.dell.com**	
	E-mail: dell_za_support@dell.com	
Southeast Asian and Pacific Countries	Customer Technical Support, Customer Service, and Sales (Penang, Malaysia)	6046334810
Spain (Madrid)	**Home and Small Business**	
International Access Code: **00**	Technical Support	902100130
Country Code: **34**	Customer Care	902118540
City Code: **91**	Sales	902118541
	Switchboard	902118541
	Fax	902118539
	Website: **http://support.euro.dell.com**	
	E-mail: http://support.euro.dell.com/es/es/emaildell/	
	Corporate	
	Technical Support	902100130
	Customer Care	902118546
	Switchboard	917229200
	Fax	917229583
	Website: **http://support.euro.dell.com**	
	E-mail: http://support.euro.dell.com/es/es/emaildell/	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Sweden (Upplands Vasby)	Technical Support	0859005199
International Access Code: **00**	Relational Customer Care	0859005642
Country Code: **46**	Home/Small Business Customer Care	0858770527
City Code: **8**	Fax Technical Support	0859005594
	Sales	0859005185
	Website: **http://support.euro.dell.com**	
	E-mail: swe_support@dell.com	
	E-mail Support for Latitude and Inspiron: Swe-nbk_kats@dell.com	
	E-mail Support for OptiPlex: Swe_kats@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
Switzerland (Geneva)	Technical Support (Home and Small Business)	0844811411
International Access Code: **00**	Technical Support (Corporate)	0844822844
Country Code: **41**	Customer Care (Home and Small Business)	0848802202
City Code: **22**	Customer Care (Corporate)	0848821721
	Fax	0227990190
	Switchboard	0227990101
	Website: **http://support.euro.dell.com**	
	E-mail: swisstech@dell.com	
	E-mail for French Speaking HSB and Corporate Customers: http://support.euro.dell.com/ch/fr/emaildell/	
Taiwan	Technical Support	tollfree:0080601255
International Access Code: **002**	Technical Support (Servers)	tollfree:0080601256
Country Code: **886**	Transaction Sales	tollfree:0080651228 or 080033556
	Corporate Sales	tollfree:0080651227 or 080033555

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
Thailand	Technical Support	toll free:088006007
International Access Code: **001**	Customer Service (Penang, Malaysia)	604 633 4949
Country Code: **66**	Sales	toll free:088006009
Trinidad/Tobago	General Support	1-800-805-8035
U.K. (Bracknell)	Technical Support (Corporate/Preferred Accounts/PAD [1000+ employees])	08709080500
International Access Code: **010**	Technical Support (Direct/PAD and General)	08709080800
Country Code: **44**	Global Accounts Customer Care	01344723186
City Code: **1344**	Home and Small Business Customer Care	0870 906 0010
	Corporate Customer Care	0134472 3185
	Preferred Accounts (500-5000 employees) Customer Care	01344723196
	Central Government Customer Care	01344723193
	Local Government Customer Care	01344723194
	Home/Small Business Sales	08709074000
	Corporate/Public Sector Sales	01344860456
	Website: **http://support.euro.dell.com**	
	E-mail: dell_direct_support@dell.com	

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-mail Address	Area Codes, Local Numbers, and Toll Free Numbers
U.S.A. (Austin, Texas)	Automated Order-Status System	tollfree:1-800-433-9014
International Access Code: **011**	AutoTech (for portable and desktop computers)	tollfree:1-800-247-9362
Country Code: **1**	**Dell Home and Small Business Group** (for portable and desktop computers):	
	Customer Technical Support (Return Material Authorization Numbers)	tollfree:1-800-624-9896
	Customer Technical Support (Home sales purchased via **http://www.dell.com**)	tollfree:1-877-576-3355
	Customer Service (Credit Return Authorization Numbers)	tollfree:1-800-624-9897
	National Accounts (systems purchased by established Dell national accounts [have your account number handy], medical institutions, or value-added resellers [VARs]):	
	Customer Service and Technical Support (Return Material Authorization Numbers)	tollfree:1-800-822-8965
	Public Americas International (systems purchased by governmental agencies [local, state, or federal] or educational institutions):	
	Customer Service and Technical Support (Return Material Authorization Numbers)	tollfree:1-800-234-1490
	Dell Sales	tollfree:1-800-289-3355
		or tollfree:1-800-879-3355
	Spare Parts Sales	tollfree:1-800-357-3355
	DellWare™	tollfree:1-800-753-7201
	Desktop and Portable Fee-Based Technical Support	tollfree:1-800-433-9005
	Sales (Catalogs)	toll free: 1-800-426-5150
	Fax	tollfree:1-800-727-8320
	TechFax	tollfree:1-800-950-1329
	Dell Services for the Deaf, Hard-of-Hearing, or Speech-Impaired	tollfree:1-877-DELLTTY (1-877-335-5889)
	Switchboard	512338-4400
	Dellnet Technical Support	tollfree:1-877-Dellnet (1-877-335-5638)

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

Returning Items for Warranty Repair or Credit

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.

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.

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://accessories.us.dell.com/.

- Most Dell computers are classified for Class B environments. However, the inclusion of certain options can change the rating of some configurations to Class A. 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.

Additional regulatory information regarding your computer can be found in the *Tell Me How* help file. To access the help file, see page 30.

FCC Notices (U.S. Only)

Most Dell computers are classified by the Federal Communications Commission (FCC) as Class B digital devices. 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, (**FC**), 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: PP02L

- Company name:
  Dell Computer Corporation
  One Dell Way
  Round Rock, Texas 78682 USA

Modem Regulatory Information

This equipment complies with Part 68 of the FCC rules. On the bottom of your computer is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for your equipment. If requested, you must provide this information to the telephone company.

The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most areas, the sum of all the RENs on your telephone line should be less than five to ensure proper service from the telephone company. To be certain of the number of devices that you may connect to a line, as determined by the total RENs, contact your local telephone company.

The registration jack Universal Service Order Code (USOC) used by this equipment is RJ-11C. An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack that is Part 68 compliant.

This equipment cannot be used on public coin-phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

There are no user serviceable parts on the modem contained in your computer.

If your telephone equipment causes harm to the telephone network, the telephone company will notify you in advance that service may be temporarily discontinued. If advance notice is not practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If you experience trouble with this telephone equipment, refer to the chapter titled "Getting Help" in your computer's troubleshooting documentation or, for some computers, the section titled "Contacting Dell" in your computer's online guide to find the appropriate telephone number for obtaining customer assistance. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, identification of the business, other entity, or individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.

Battery Disposal

Your computer uses an lithium-ion battery and a coin-cell battery. For instructions about replacing the lithium-ion battery in your computer, refer to the *Tell Me How* help file. To access the help file, see page 30.

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, the procedure must be performed by an authorized service technician.

The coin-cell 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, the procedure must be performed by an authorized service technician.

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

NOM Information (Mexico Only)

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

Exporter:	Dell Computer Corporation
	One Dell Way
	Round Rock, TX 78682
Importer:	Dell Computer de México,
	S.A.de C.V.
	Paseo de la Reforma 2620 - 11° Piso
	Col. Lomas Altas
	11950 México, D.F.
Ship to:	Dell Computer de México,
	S.A.de C.V. al Cuidado deKuehne & Nagel de MéxicoS. de R.I.
	Avenida Soles No. 55
	Col. Peñon de los Baños
	15520 México, D.F.
Supply voltage:	115–240 VAC
Frequency:	50–60 Hz
Current consumption:	1.5 A
Output voltage:	20 VDC
Output current:	3.5 A

Información para NOM (únicamente para México)

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

Exportador:	Dell Computer Corporation
	One Dell Way
	Round Rock, TX 78682
Importador:	Dell Computer de México,
	S.A.de C.V.
	Paseo de la Reforma 2620 - 11° Piso
	Col. Lomas Altas
	11950 México, D.F
Embarcar a:	Dell Computer de México, S.A.de C.V. al Cuidado deKuehne & Nagel de MéxicoS. de R.I.
	Avenida Soles No. 55
	Col. Peñon de los Baños
	15520 México, D.F.
Tensión alimentación:	100–240 VAC
Frecuencia:	50–60 Hz
Consumo de corriente:	1.5 A
Voltaje de salida:	20 VDC
Corriente de salida:	3.5 A

Warranty and Return Policy Information

The following sections describe the limited warranty for your computer, the manufacturer guarantee for Latin America and the Caribbean, and the return policy for the U.S. and Canada.

One-Year Limited Warranty (U.S. Only)

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. Dell warrants that the hardware products it manufactures will be free from defects in materials and workmanship. The limited warranty term is one year beginning on the date of invoice, as further described in the following text.

Damage due to shipping the products to you is covered under this limited warranty. Otherwise, this limited warranty does not cover damage due to external causes, including accident, abuse, misuse, problems with electrical power, servicing not authorized by Dell, usage not in accordance with product instructions, failure to perform required preventive maintenance, and problems caused by use of parts and components not supplied by Dell.

This limited warranty does not cover any items that are in one or more of the following categories: software; external devices (except as specifically noted); accessories or parts added to a Dell system after the system is shipped from Dell; accessories or parts added to a Dell system through Dell's system integration department; accessories or parts that are not installed in the Dell factory; or DellWare™ products. Monitors, keyboards, and mice that are Dell-branded or that are included on Dell's standard price list are covered under this limited warranty; all other monitors, keyboards, and mice (including those sold through the DellWare program) are not covered.

Dell will repair or replace products covered under this limited warranty that are returned to Dell's facility. To request warranty service, you must contact Dell's Customer Technical Support within the limited warranty period. See "Contacting Dell" on page85 to find the appropriate contact information for obtaining customer assistance. If warranty service is required, Dell will issue a Return Material Authorization Number. You must ship the products back to Dell in their original or equivalent packaging, prepay shipping charges, and insure the shipment or accept the risk of loss or damage during shipment. Dell will ship the repaired or replacement products to you (freight prepaid) if you use an address in the continental U.S., where applicable. Shipments to other locations will be made freight collect.

NOTE: Before you ship the product(s) to Dell, back up the data on the hard drive(s) and any other storage device(s) in the product(s). Remove any removable media, such as floppy disks, CDs, or PC Cards.

Dell owns all parts removed from repaired products. Dell uses new and reconditioned parts made by various manufacturers in performing warranty repairs and building replacement products. If Dell repairs or replaces a product, its warranty term is not extended.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE (OR JURISDICTION TO JURISDICTION). DELL'S RESPONSIBILITY FOR MALFUNCTIONS AND DEFECTS IN HARDWARE IS LIMITED TO REPAIR AND REPLACEMENT AS SET FORTH IN THIS LIMITED WARRANTY STATEMENT. ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER SUCH PERIOD.

SOME STATES (OR JURISDICTIONS) DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE PRECEDING LIMITATION MAY NOT APPLY TO YOU.

DELL DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY STATEMENT OR LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION ANY LIABILITY FOR PRODUCTS NOT BEING AVAILABLE FOR USE OR FOR LOST DATA OR SOFTWARE.

SOME STATES (OR JURISDICTIONS) DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE PRECEDING EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

These provisions apply to Dell's one-year limited warranty only. For provisions of any service contract covering your system, refer to your invoice or the separate service contract that you will receive.

If Dell elects to exchange a product or portion of a product, the exchange will be made in accordance with Dell's Exchange Policy in effect on the date of the exchange. In any instance in which Dell issues a Return Material Authorization Number, Dell must receive the product(s) for repair prior to the expiration of the warranty period in order for the repair(s) to be covered by the limited warranty.

One-Year Limited Warranty (Canada Only)

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. Dell warrants that the hardware products it manufactures will be free from defects in materials and workmanship. The limited warranty term is one year beginning on the date of invoice, as further described in the following text.

Damage due to shipping the products to you is covered under this limited warranty. Otherwise, this limited warranty does not cover damage due to external causes, including accident, abuse, misuse, problems with electrical power, servicing not authorized by Dell, usage not in accordance with product instructions, failure to perform required preventive maintenance, and problems caused by use of parts and components not supplied by Dell.

This limited warranty does not cover any items that are in one or more of the following categories: software; external devices (except as specifically noted); accessories or parts added to a Dell system after the system is shipped from Dell; accessories or parts added to a Dell system through Dell's system integration department; accessories or parts that are not installed in the Dell factory; or DellWare products. Monitors, keyboards, and mice that are Dell-branded or that are included on Dell's standard price list are covered under this limited warranty; all other monitors, keyboards, and mice (including those sold through the DellWare program) are not covered.

Dell will repair or replace products covered under this limited warranty that are returned to Dell's facility. To request warranty service, you must contact Dell's Customer Technical Support within the warranty period. See "Contacting Dell" on page 85 to find the appropriate contact information for obtaining customer assistance. If warranty service is required, Dell will issue a Return Material Authorization Number. You must ship the products back to Dell in their original or equivalent packaging, prepay shipping charges, and insure the shipment or accept the risk of loss or damage during shipment. Dell will ship the repaired or replacement products to you (freight prepaid) if you use an address in Canada, where applicable. Shipments to other locations will be made freight collect.

NOTE: Before you ship the product(s) to Dell, back up the data on the hard drive(s) and any other storage device(s) in the product(s). Remove any removable media, such as floppy disks, CDs, or PC Cards.

Dell owns all parts removed from repaired products. Dell uses new and reconditioned parts made by various manufacturers in performing warranty repairs and building replacement products. If Dell repairs or replaces a product, its warranty term is not extended.

DELL MAKES NO EXPRESS WARRANTIES OR CONDITIONS BEYOND THOSE STATED IN THIS LIMITED WARRANTY STATEMENT. DELL DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES (OR JURISDICTIONS) DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES OR CONDITIONS, SO THIS LIMITATION MAY NOT APPLY TO YOU.

DELL'S RESPONSIBILITY FOR MALFUNCTIONS AND DEFECTS IN HARDWARE IS LIMITED TO REPAIR AND REPLACEMENT AS SET FORTH IN THIS LIMITED WARRANTY STATEMENT. THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE (OR JURISDICTION TO JURISDICTION).

DELL DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY STATEMENT OR LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION ANY LIABILITY FOR PRODUCTS NOT BEING AVAILABLE FOR USE OR FOR LOST DATA OR SOFTWARE.

SOME STATES (OR JURISDICTIONS) DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE PRECEDING EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

These provisions apply to Dell's one-year limited warranty only. For provisions of any service contract covering your system, refer to your invoice or the separate service contract that you will receive.

If Dell elects to exchange a product or portion of a product, the exchange will be made in accordance with Dell's Exchange Policy in effect on the date of the exchange. In any instance in which Dell issues a Return Material Authorization Number, Dell must receive the product(s) for repair prior to the expiration of the warranty period in order for the repair(s) to be covered by the limited warranty.

One-Year End-User Manufacturer Guarantee (Latin America and the Caribbean Only)

Guarantee

Dell Computer Corporation ("Dell") warrants to the end user in accordance with the following provisions that its branded hardware products, purchased by the end user from a Dell company or an authorized Dell distributor in Latin America or the Caribbean, will be free from defects in materials, workmanship, and design affecting normal use, for a period of one year from the original purchase date. Products for which proper claims are made will, at Dell's option, be repaired or replaced at Dell's expense. Dell owns all parts removed from repaired products. Dell uses new and reconditioned parts made by various manufacturers in performing repairs and building replacement products.

Exclusions

This Guarantee does not apply to defects resulting from: improper or inadequate installation, use, or maintenance; actions or modifications by unauthorized third parties or the end user; accidental or willful damage; or normal wear and tear.

Making a Claim

Claims must be made in Latin America or the Caribbean by contacting the Dell point of sale within the guarantee period. The end user must always supply proof of purchase, indicating name and address of the seller, date of purchase, model and serial number, name and address of the customer, and details of symptoms and configuration at the time of malfunction, including peripherals and software used. Otherwise, Dell may refuse the guarantee claim. Upon diagnosis of a warranted defect, Dell will make arrangements and pay for ground freight and insurance to and from Dell's repair/replacement center. The end user must ensure that the defective product is available for collection properly packed in original or equally protective packaging together with the details listed above and the return number provided to the end user by Dell.

Limitation and Statutory Rights

Dell makes no other warranty, guarantee or like statement other than as explicitly stated above, and this Guarantee is given in place of all other guarantees whatsoever, to the fullest extent permitted by law. In the absence of applicable legislation, this Guarantee will be the end user's sole and exclusive remedy against Dell or any of its affiliates, and neither Dell nor any of its affiliates shall be liable for loss of profit or contracts, or any other indirect or consequential loss arising from negligence, breach of contract, or howsoever.

This Guarantee does not impair or affect mandatory statutory rights of the end user against and/or any rights resulting from other contracts concluded by the end user with Dell and/or any other seller.

Dell World Trade LP
One Dell Way, Round Rock, TX 78682, USA

Dell Computadores do Brasil Ltda (CNPJ No. 72.381.189/0001-10)/
Dell Commercial do Brasil Ltda (CNPJ No. 03 405 822/0001-40)
Avenida Industrial Belgraf, 400
92990-000 - Eldorado do Sul – RS - Brasil

Dell Computer de Chile Ltda
Coyancura 2283, Piso 3- Of.302,
Providencia, Santiago - Chile

Dell Computer de Colombia Corporation
Carrera 7 #115-33 Oficina 603
Bogota, Colombia

Dell Computer de Mexico SA de CV
Paseo de la Reforma 2620 - 11° Piso
Col. Lomas Altas
11950 México, D.F.

"Total Satisfaction" Return Policy (U.S. and Canada Only)

If you are an end-user customer who bought new products directly from a Dell company, you may return them to Dell within 30 days of the date of invoice for a refund or credit of the product purchase price. If you are an end-user customer who bought reconditioned or refurbished products from a Dell company, you may return them to Dell within 14 days of the date of invoice for a refund or credit of the product purchase price. In either case, the refund or credit will not include any shipping and handling charges shown on your invoice. If you are an organization that bought the products under a written agreement with Dell, the agreement may contain different terms for the return of products than specified by this policy.

To return products, you must call Dell Customer Service to receive a Credit Return Authorization Number. See "Contacting Dell" on page 85 to find the appropriate contact information for obtaining customer assistance. If warranty service is required, Dell will issue a Return Material Authorization Number. To expedite the processing of your refund or credit, Dell expects you to return the products to Dell in their original packaging within five days of the date that Dell issues the Credit Return Authorization Number. You must also prepay shipping charges and insure the shipment or accept the risk of loss or damage during shipment. You may return software for refund or credit only if the sealed package containing the floppy disk(s) or CD(s) is unopened. Returned products must be in as-new condition, and all of the manuals, floppy disk(s), CD(s), power cables, and other items included with a product must be returned with it. For customers who want to return, for refund or credit only, either applications software or an operating system that has been installed by Dell, the whole system must be returned, along with any media and documentation that may have been included in the original shipment.

This "Total Satisfaction" Return Policy does not apply to DellWare products, which may be returned under DellWare's then-current return policy. In addition, reconditioned parts purchased through Dell Spare Parts Sales in Canada are nonreturnable.

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