Dell[™] Inspiron[™] 1150

Owner's Manual

Model PP08L



www.dell.com | support.dell.com

Notes, Notices, and Cautions



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

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

A 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 *Dell Inspiron Help* file. To access the help file, see page 16.

If you purchased a Dell[™] n Series computer, any references in this document to Microsoft[®] Windows[®] operating systems are not applicable.

Model PP08

February 2004 P/N M3887 Rev. A00

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CAUTION: Safety Instructions

Use the following safety guidelines to help ensure your own personal safety and to help protect your computer and working environment from potential damage.

SAFETY: General

- Do not attempt to service the computer yourself unless you are a trained 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.
- Do not store your computer in a low-airflow environment, such as a carrying case or a closed briefcase, while the computer is turned on. Restricting airflow can damage the computer or cause a fire.
- Keep your computer away from radiators and heat sources. Also, do not block cooling vents. Avoid placing loose
 papers underneath your computer; do not place your computer in a closed-in wall unit or on a bed, sofa, or rug.
- 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.
- The AC adapter may become hot during normal operation of your computer. Use care when handling the adapter during or immediately after operation.
- 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.
- Before you open the memory module cover or modem/Mini PCI card cover on the bottom of your computer, disconnect all cables from their electrical outlets and disconnect the telephone cable.
- If your computer has both a *modem* RJ-11 connector and a *network* RJ-45 connector, which look alike, make sure you insert the telephone cable into the RJ-11 connector, not the RJ-45 connector.
- PC Cards may become very warm during normal operation. Use care when removing PC Cards after their continuous operation.
- Before you clean your computer, disconnect the computer from the electrical outlet. Clean your computer with a
 soft cloth dampened with water. Do not use liquid or aerosol cleaners, which may contain flammable substances.

SAFETY: Power

- 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 the computer from all power sources, turn the computer off, disconnect the AC adapter from the electrical outlet, and remove any battery installed in the battery bay or module bay.
- To help prevent electric shock, plug the AC adapter and device power cables into properly grounded power sources. These power cables may be equipped with 3-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, 2-prong or 3-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.

SAFETY: Battery

- 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 battery 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 60°C (140°F). 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.

SAFETY: Air Travel

- 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.

SAFETY: EMC Instructions

Use shielded signal cables to ensure that you maintain the appropriate electromagnetic compatibility (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 worldwide website at **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.

WARNING: Handling the cord on this product, or cords associated with accessories sold with this product, will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. Wash your hands after handling the cord.

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.



- 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 device from the computer, turn off the computer, disconnect the AC adapter cable, remove any battery installed in the battery bay, 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 water. Apply the water to the cloth; then stroke the cloth across the display in one direction, moving from the top of the display to the bottom. Remove moisture from the display quickly and keep the display dry. Long-term exposure to moisture can damage the display. *Do not* use a commercial window cleaner to clean your display.
- If your computer gets wet or is damaged, follow the procedures described in "If Your Computer Gets Wet" on
 page 67 or "If You Drop or Damage Your Computer" on page 68. If, after following these procedures, you confirm
 that your computer is not operating properly, contact Dell (see page 102 for the appropriate contact information).

SAFETY: Ergonomic Computing Habits

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

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

For comfort and efficiency, observe the ergonomic guidelines in the *Dell Inspiron Help* file when setting up and using your computer. To access the help file, see page 16.

This portable computer is not designed for continuous operation as office equipment. For extended use in an office, it is recommended that you connect an external keyboard.

SAFETY: When Working Inside Your Computer

Before removing or installing memory modules, Mini PCI cards, or modems, 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, a Mini PCI card, a modem, a CD or DVD drive, or a keyboard.

NOTICE: Wait 5 seconds after turning off the computer before disconnecting a device or removing a memory module, Mini PCI card, modem, CD or DVD drive, or keyboard to help prevent possible damage to the system board.

- 1 Shut down your computer and turn off any attached devices.
- 2 Disconnect your computer and devices 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 main battery from the battery bay.
- 4 Ground yourself by touching any unpainted metal surface on the back of the computer.
- 5 While you work, periodically touch the unpainted metal surface to dissipate any static electricity that might harm internal components.

SAFETY: 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 any unpainted metal surface on the back of the computer.

As you continue to work inside the computer, periodically touch any unpainted metal surface on the back of the computer 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.

SAFETY: Battery Disposal



Your computer uses an lithium-ion battery and a reserve battery. For instructions about replacing the lithium-ion battery in your computer, refer to "Removing a Battery" on page 39. The reserve 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.

Finding Information

What Are You Looking For? Find It Here • How to access tutorials and other how to information Dell Solution Center • How to get a copy of my invoice Dell Solution Center • How to extend my warranty On your Windows desktop • How to access Dell Support on my Microsoft[®] On your Windows desktop Windows[®] desktop (U.S. only) Additional documentation, tools, troubleshooting information, and links to online support resources

- A diagnostic program for my computer
- Drivers for my computer
- My computer documentation
- My device documentation

Drivers and Utilities CD (also known as the ResourceCD)

Documentation and drivers are already installed on your computer. You can use the CD to reinstall drivers, run the Dell Diagnostics, or access your documentation.



Readme files may be included on your CD to provide last-minute updates about technical changes to your computer or advanced technical-reference material for technicians or experienced users.

- · How to set up a printer
- Additional information about setting up my computer
- · How to troubleshoot and solve problems
- · How to remove and install parts
- Technical specifications
- How to contact Dell

Owner's Manual



NOTE: This document is available as a PDF at **support.dell.com**.

What Are You Looking For?

· How to set up my computer

Find It Here



- Tips on using Microsoft[®] Windows[®]
- · How to play CDs and DVDs
- · How to use standby mode and hibernate mode
- How to change my display resolution
- · How to clean my computer
- Service Tag and Express Service Code
- Microsoft Windows License Label

Dell Inspiron Help File

Click the Start button and click Help and Support.
 Click User and system guides and click User's guides.
 Click Dell Inspiron Help.

Service Tag and Microsoft Windows License

These labels are located on the bottom of your computer.

• Use the Service Tag to identify your computer when you use **support.dell.com** or contact technical support.



- Enter the Express Service Code to direct your call when contacting technical support. The Express Service Code is not available in all countries.
- Use the number on the Microsoft Windows License Label if you reinstall your operating system.

| What Are You Looking For? | Find It Here |
|---|--|
| Latest drivers for my computer Answers to technical service and support questions Online discussions with other users and technical | Dell Support Website — support.dell.com NOTE: Select the appropriate region on the support.dell.com welcome page. |
| support • Documentation for my computer | The Dell Support website provides several online tools, including: Solutions — Troubleshooting hints and tips, articles from technicians, and online courses Community — Online discussion with other Dell customers Upgrades — Upgrade information for components, such as memory, the hard drive, and the operating system Customer Care — Contact information, order status, warranty, and repair information Downloads — Drivers, patches, and software updates Reference — Computer documentation, product specifications, and white papers |
| How to use Windows XP Documentation for my computer Documentation for devices (such as a modem) | Windows Help and Support Center 1 Click the Start button and click Help and Support. 2 Type a word or phrase that describes your problem and click the arrow icon. 3 Click the topic that describes your problem. 4 Follow the instructions on the screen. |
| How to reinstall my operating system | Operating System CDThe operating system is already installed on your computer. To reinstall your operating system, use the Operating System CD. See your Owner's Manual for reinstallation instructions.After you reinstall your operating system, use the Drivers and Utilities CD to reinstall drivers for the devices that came with your computer.Vour operating system product key label is located on your computer. |

A Tour of Your Computer

Front View





DISPLAY — For more information about your display, see "Using the Display" in the *Dell Inspiron Help* file. To access the help file, see page 16.

KEYBOARD STATUS LIGHTS



The green lights located above the keyboard indicate the following:

| Ø | Turns on when the numeric keypad is enabled. |
|---|--|
| A | Turns on when Caps Lock is enabled. |
| Ð | Turns on when the scroll lock function is enabled. |

KEYBOARD — The keyboard includes a numeric keypad as well as the Microsoft[®] Windows[®] logo key. For information on supported keyboard shortcuts, see page 42.

SPEAKERS — To adjust the volume of the integrated speakers, press the volume-control keyboard shortcuts. For more information, see page 43.

DEVICE STATUS LIGHTS





If the computer is connected to an electrical outlet, the 👖 light operates as follows:

– Solid green: The battery is charging.

If the computer is running on a battery, the $[\frac{1}{7}]$ light operates as follows:

- Off: The battery is adequately charged (or the computer is turned off).
- Flashing orange: The battery charge is low.
- Solid orange: The battery charge is critically low.

TOUCH PAD BUTTONS — Touch pad buttons provide the functionality of a mouse. See page 44 for more information.

TOUCH PAD — The touch pad and touch pad buttons provide the functionality of a mouse. See page 44 for more information.

POWER BUTTON — Press the power button to turn on the computer or to enter or exit a power management mode. For more information, see "Power Management" in the *Dell Inspiron Help* file. To access the help file, see page 16.

NOTICE: To avoid losing data, save and close any open files and exit any open programs before you shut down the computer (see page 35).

If the computer stops responding, press and hold the power button until the computer turns off completely (which may take several seconds).

DELL™ ACCESSDIRECT™ BUTTON — Press this button to launch a frequently used program, such as support and educational tools. You can reprogram the button to launch a program of your choice. For more information, see page 41.

Left Side View



PC CARD SLOT — Supports one PC Card, such as a modem or network adapter. For more information, see "Using PC Cards" in the *Dell Inspiron Help* file. To access the help file, see page 16.

AUDIO CONNECTORS



Attach headphones or speakers to the \bigcap connector.

CD OR DVD DRIVE — Accommodates a CD drive, DVD drive, CD-RW drive, or CD-RW/DVD combo drive.

Right Side View



BATTERY/BATTERY BAY — When a battery is installed, you can use the computer without connecting the computer to an electrical outlet. See page 37.

MODEM CONNECTOR



Connect the telephone line to the modem connector.

For information on using the modem, see the online modem documentation supplied with your computer.

AIR VENTS — The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating.



NOTE: The fan may run constantly, and fan speed may vary depending on usage. Fan noise is normal and does not indicate a problem with the fan or the computer.

A CAUTION: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire.

SECURITY CABLE SLOT — Lets you attach a commercially available antitheft device to the computer. For more information, see the instructions included with the device.



NOTICE: Before you buy an antitheft device, ensure that it will work with the security cable slot.



Back View



AIR VENTS — The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating.



NOTE: The fan may run constantly, and fan speed may vary depending on usage. Fan noise is normal and does not indicate a problem with the fan or the computer.



A CAUTION: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire.

AC ADAPTER CONNECTOR — Attach an AC adapter to the computer.





NOTE: Use only the AC adapter that came with your computer.

The AC adapter converts AC power to the DC power required by the computer. You can connect the AC adapter with your computer turned either on or off.



A CAUTION: The AC adapter works with electrical outlets worldwide. However, power connectors and power strips vary among countries. Using an incompatible cable or improperly connecting the cable to the power strip or electrical outlet may cause fire or equipment damage.



A CAUTION: 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.



NOTICE: When you disconnect the AC adapter cable from the computer, grasp the connector, not the cable itself, and pull firmly but gently to avoid damaging the cable.

USB CONNECTORS



Connects USB devices, such as a mouse, keyboard, or printer.

VIDEO CONNECTOR



Connects an external monitor. For more information, see "Using the Display" in the *Dell Inspiron Help* file. To access the help file, see page 16.

NETWORK CONNECTOR



Connects the computer to a network. The lights next to the connector indicate activity for both wired and wireless network communications.

For information on using the network adapter, see the online network-adapter documentation supplied with your computer.

NOTICE: The network connector is slightly larger than the modem connector. To avoid damaging the computer, do not plug a telephone line into the network connector.

Bottom View



MODEM/MINI PCI CARD COVER — Covers the compartment that contains the modem and Mini PCI card. See page 82.

BATTERY/BATTERY BAY — When a battery is installed, you can use the computer without connecting the computer to an electrical outlet. See page 37.

AIR VENTS — The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating.



NOTE: The fan may run constantly, and fan speed may vary depending on usage. Fan noise is normal and does not indicate a problem with the fan or the computer.

CAUTION: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire.

BATTERY LATCH RELEASE — Releases the battery. See page 39 for instructions.

MEMORY MODULE COVER — Covers the compartment that contains the memory module(s) and the CD or DVD drive latch release. See page 80.

HARD DRIVE — Stores software and data.

Setting Up Your Computer

Connecting to the Internet

NOTE: ISPs and ISP offerings vary by country.

To connect to the Internet, you need a modem or network connection and an Internet service provider (ISP), such as AOL or MSN. Your ISP will offer one or more of the following Internet connection options:

- Dial-up connections that provide Internet access through a phone line. Dial-up connections are considerably slower than DSL and cable modem connections.
- DSL connections that provide high-speed Internet access through your existing phone line. With a DSL connection, you can access the Internet and use your phone on the same line simultaneously.
- Cable modem connections that provide high-speed Internet access through your local cable TV line.

If you are using a dial-up connection, connect a telephone line to the modem connector on your computer and to the telephone wall jack before you set up your Internet connection. If you are using a DSL or cable modem connection, contact your ISP for setup instructions.

Setting Up Your Internet Connection

To set up an AOL or MSN connection:

- 1 Save and close any open files, and exit any open programs.
- 2 Double-click the MSN Explorer or AOL icon on the Microsoft[®] Windows[®] desktop.
- **3** Follow the instructions on the screen to complete the setup.

If you do not have an **MSN Explorer** or **AOL** icon on your desktop or if you want to set up an Internet connection with a different ISP:

- 1 Save and close any open files, and exit any open programs.
- 2 Click the Start button and click Internet Explorer:

The New Connection Wizard appears.

3 Click Connect to the Internet.

- In the next window, click the appropriate option: 4
 - If you do not have an ISP and want to select one, click Choose from a list of Internet ٠ service providers (ISPs).
 - ٠ If you have already obtained setup information from your ISP but you did not receive a setup CD, click Set up my connection manually.
 - If you have a CD, click Use the CD I got from an ISP.
- Click Next. 5

If you selected **Set up my connection manually**, continue to step 6. Otherwise, follow the instructions on the screen to complete the setup.

- NOTE: If you do not know which type of connection to select, contact your ISP.
- 6 Click the appropriate option under **How do you want to connect to the Internet**?, and then click Next.
- 7 Use the setup information provided by your ISP to complete the setup.

If you are having problems connecting to the Internet, see "Modem and Internet Connection Problems." If you cannot connect to the Internet but have successfully connected in the past, the ISP might have a service outage. Contact your ISP to check the service status, or try connecting again later.

Modem and Internet Connection Problems





Source: Modem and network connectors look similar. Do not plug a telephone line into the network connector.



NOTE: If you can connect to your Internet service provider (ISP), your modem is functioning properly. If you are sure that your modem is working properly and you still experience problems, contact your ISP.

CHECK THE TELEPHONE WALL JACK — Disconnect the telephone line from the modem and connect it to a telephone. Listen for a dial tone. Ensure that you have touchtone telephone service. Try connecting the modem to a different telephone wall jack.

Slow connection speeds can be caused by telephone noise as well as by telephone line or network conditions. Contact your telephone company or network administrator for more information.

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 use the telephone line to connect the modem directly to the telephone wall jack.

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.

IRREGULAR DIAL TONE — If you have voice mail service, you might hear an irregular dial tone when you have messages. Contact your telephone company for instructions on restoring a dial tone.

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

- 1 Click the Start button and click Control Panel.
- 2 Click **Printers and Other Hardware**, click **Phone and Modem Options**, click the **Dialing Rules** tab, and then click **Edit...**.
- 3 In the **Edit Location** window, ensure that **To disable call waiting**, **dial**: is checked, and then select the proper code as listed in your telephone directory.
- 4 Click Apply and click OK.
- 5 Close the Phone and Modems Options window.
- 6 Close the Control Panel window.

VERIFY THAT THE MODEM IS COMMUNICATING WITH WINDOWS -

- 1 Click the Start button and click Control Panel.
- 2 Click Printers and Other Hardware and click Phone and Modem Options.
- 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 commands receive responses, the modem is operating properly.

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.

Transferring Information to a New Computer

The Microsoft[®] Windows[®] XP operating system provides a Files and Settings Transfer wizard to move data from the source computer to the new computer. You can move data such as:

- E-mails
- Toolbar settings

- Window sizes
- Internet bookmarks

You can transfer the data to the new computer over a network connection, or you can store it on a removable medium, such as a writable CD or floppy disk.

To prepare the new computer for the file transfer:

- 1 Click the Start button, point to All Programs→ Accessories→ System Tools, and then click Files and Settings Transfer Wizard.
- 2 When the Files and Settings Transfer Wizard welcome screen appears, click Next.
- 3 On the Which computer is this? screen, click New Computer and click Next.
- 4 On the **Do you have a Windows XP CD**? screen, click **I will use the wizard from the Windows XP CD** and click Next.
- 5 When the **Now go to your old computer** screen appears, go to your old or source computer. Do not click **Next** at this time.

To copy data from the old computer:

- 1 On the old computer, insert the Windows XP *Operating System* CD.
- 2 On the Welcome to Microsoft Windows XP screen, click Perform additional tasks.
- 3 Under What do you want to do?, click Transfer files and settings.
- 4 On the Files and Settings Transfer Wizard welcome screen, click Next.
- 5 On the Which computer is this? screen, click Old Computer and click Next.
- 6 On the Select a transfer method screen, click the transfer method you prefer.
- 7 On the **What do you want to transfer?** screen, select the items you want to transfer and click **Next**.

After the information has been copied, the **Completing the Collection Phase** screen appears.

8 Click Finish.

To transfer data to the new computer:

- 1 On the Now go to your old computer screen on the new computer, click Next.
- 2 On the **Where are the files and settings?** screen, select the method you chose for transferring your settings and files and click **Next**.

The wizard reads the collected files and settings and applies them to your new computer.

When all of the settings and files have been applied, the **Finished** screen appears.

3 Click **Finished** and restart the new computer.

Setting Up a Printer

NOTICE: Complete the operating system setup before you connect a printer to the computer. See the documentation that came with the printer for setup information, including how to:

- Obtain and install updated drivers.
- Connect the printer to the computer.
- Load paper and install the toner or ink cartridge.
- Contact the printer manufacturer for technical assistance.

Printer Cable

Your printer may not come with a printer cable, so if you purchase a cable separately, ensure that it is compatible with your printer. If you purchased a printer cable at the same time you purchased your computer, the cable may arrive in the computer box.

Connecting a USB Printer

- **NOTE:** You can connect USB devices while the computer is turned on.
- 1 Complete the operating system setup if you have not already done so.
- 2 Install the printer driver if necessary. See the documentation that came with your printer.
- **3** Attach the USB printer cable to the USB connectors on the computer and the printer. The USB connectors fit only one way.



Printer Problems

CHECK THE PRINTER CABLE CONNECTIONS — Ensure that the printer cable is properly connected to the computer (see page 33).

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 WINDOWS[®] RECOGNIZES THE PRINTER —

- 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 click the **Ports** tab. Ensure that the **Print to the following port(s)**: setting is **USB 001** (Printer Port).

REINSTALL THE PRINTER DRIVER — See page 69.

Power Protection Devices

Several devices are available to protect against power fluctuations and failures:

- Surge protectors ٠
- Line conditioners
- Uninterruptible power supplies (UPS) ٠

Surge Protectors

Surge protectors and power strips equipped with surge protection help to prevent damage to your computer from voltage spikes that can occur during electrical storms or following power interruptions. The level of protection is usually commensurate with the cost of the surge protector. Some surge protector manufacturers include warranty coverage for certain types of damage. Carefully read the device warranty when choosing a surge protector. A device with a higher joule rating offers more protection. Compare joule ratings to determine the relative effectiveness of different devices.



NOTICE: Most surge protectors do not protect against power fluctuations or power interruptions caused by nearby lightning strikes. When lightning occurs in your area, disconnect the telephone line from the telephone wall jack and disconnect your computer from the electrical outlet.

Many surge protectors have a telephone jack for modem protection. See the surge protector documentation for modem connection instructions.



NOTICE: Not all surge protectors offer network adapter protection. Disconnect the network cable from the network wall jack during electrical storms.

Line Conditioners

NOTICE: Line conditioners do not protect against power interruptions.

Line conditioners are designed to maintain AC voltage at a fairly constant level.

Uninterruptible Power Supplies

SNOTICE: Loss of power while data is being saved to the hard drive may result in data loss or file damage.



NOTE: To ensure maximum battery operating time, connect only your computer to a UPS. Connect other devices, such as a printer, to a separate power strip that provides surge protection.

A UPS protects against power fluctuations and interruptions. UPS devices contain a battery that provides temporary power to connected devices when AC power is interrupted. The battery charges while AC power is available. See the UPS manufacturer documentation for information on battery operating time and to ensure that the device is approved by Underwriters Laboratories (UL).

Turning Off Your Computer

NOTICE: To avoid losing data, save and close any open files and exit any open programs before you shut down the computer.

NOTE: As an alternative to turning off your computer, you can set your computer to enter standby or hibernate mode. For more information, see the Dell Inspiron Help file. To access the help file, see page 16.

Save and close any open files, exit any open programs, click the **Start** button, and then click 1 **Turn Off Computer**

2 In the **Turn off computer** window, click **Turn off**.

The computer turns off after the shutdown process finishes.
Using a Battery

Battery Performance



NOTE: Batteries for portable computers are covered only during the initial one-year period of the limited warranty for your computer. For more information about the Dell warranty for your computer, see page 121.

Use a battery to power the computer when it is not connected to an electrical outlet. One battery is supplied as standard equipment in the battery bay.

Battery operating time varies depending on operating conditions. Operating time may be significantly reduced when you perform operations including, but not limited to, the following:

NOTE: It is recommended that you connect your computer to an electrical outlet when writing to a CD.

- Using optical drives, especially DVD and CD-RW drives.
- Using wireless communications devices, PC Cards, or USB devices. ٠
- ٠ Using high-brightness display settings.
- Using 3D screen savers or other power-intensive programs such as 3D games and engineering programs.
- Running the computer in maximum performance mode. See "Power Management" in the *Dell Inspiron Help* file for more information. To access the help file, see page 16.

You can set power management options to alert you when the battery charge is low.

A CAUTION: Using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell. The lithium-ion battery is designed to work with your Dell[™] computer. Do not use a battery from other computers with your computer.

A CAUTION: Do not dispose of batteries with household waste. When your battery no longer holds a charge, call your local waste disposal or environmental agency for advice on disposing of a lithium-ion battery. See "SAFETY: Battery Disposal" on page 13.



A CAUTION: Misuse of the battery may increase the risk of fire or chemical burn. Do not puncture, incinerate, disassemble, or expose the battery to temperatures above 65°C (149°F). Keep the battery away from children. Handle damaged or leaking batteries with extreme care. Damaged batteries may leak and cause personal injury or equipment damage.

Checking the Battery Charge

The Microsoft[®] Windows[®] power meter window and ^[a] icon, the battery charge gauge, and the low-battery warning provide information on the battery charge.

Power Meter

The Windows power meter indicates the remaining battery charge. To check the power meter, double-click the 📓 icon on the taskbar. For more information on the Power Meter tab, see "Power Management" in the *Dell Inspiron Help* file. To access the help file, see page 16.

Low-Battery Warning

NOTICE: To avoid losing or corrupting data, save your work immediately after a low-battery warning. Then connect the computer to an electrical outlet. If the battery runs completely out of power, hibernate mode begins automatically.

A pop-up window warns you when the battery charge is approximately 90 percent depleted. For more information on low-battery alarms, see "Power Management" in the *Dell Inspiron Help* file. To access the help file, see page 16.

Charging the Battery

NOTE: The AC adapter charges a completely discharged battery in approximately 3 hours with the computer turned off. Charge time is significantly longer if the computer is on and running at high processor speeds and system activity levels. Running the computer at high system activity levels for extended periods of time may prevent the battery from charging.

When you connect the computer to an electrical outlet or install a battery while the computer is connected to an electrical outlet, the computer checks the battery charge and temperature. If necessary, the AC adapter then charges the battery and maintains the battery charge.

If the battery is hot from being used in your computer or being in a hot environment, the battery may not charge when you connect the computer to an electrical outlet.

The battery is too hot to start charging if the [7] light flashes alternately green and orange. Disconnect the computer from the electrical outlet and allow the computer and the battery to cool to room temperature. Then connect the computer to an electrical outlet to continue charging the battery.



NOTE: You can leave the battery in the computer as long as you like. The battery internal circuitry prevents the battery from overcharging.

For more information on resolving problems with a battery, see "Power Management" in the *Dell Inspiron Help* file. To access the help file, see page 16.

Removing a Battery

A CAUTION: Before performing these procedures, disconnect the modem from the telephone wall jack.

- 1 Ensure that the computer is turned off or connected to an electrical outlet.
- Slide and hold the battery latch. 2
- Remove the battery. 3



Installing a Battery

Slide the battery into the battery bay until the latch clicks.

Storing a Battery

Remove the battery when you store your computer for an extended period of time. A battery discharges during prolonged storage. After a long storage period, recharge the battery fully before you use it.

Battery and Power Problems



NOTE: See the *Dell Inspiron Help* file for information on standby mode. To access the help file, see page 16.

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 exit standby mode. If the light is off, press the power button to turn on the computer or exit a power management mode. If the computer does not turn on, press and hold the power button for several seconds.

CHARGE THE BATTERY — The battery charge may be depleted.

- 1 Reinstall the battery.
- 2 Use the AC adapter to connect the computer to an electrical outlet.
- 3 Turn on the computer.

CHECK THE BATTERY STATUS LIGHT — If the battery status light flashes orange or is a steady orange, the battery charge is low or depleted. Connect the computer to an electrical outlet.

If the battery status light flashes green and orange, the battery is too hot to charge. Turn off the computer (see page 35), disconnect the computer from the electrical outlet, and then let the battery and computer cool to room temperature.

If the battery status light rapidly flashes orange, the battery may be defective. Contact Dell (see page 102).

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 — Check the AC adapter cable connections. If the AC adapter has a light, ensure that the light 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.

ELIMINATE POSSIBLE INTERFERENCE — Turn off nearby fans, fluorescent lights, halogen lamps, or other appliances.

ADJUST THE POWER PROPERTIES — See the *Dell Inspiron Help* file or search for the keyword *standby* in the Help and Support Center. To access help, see page 16.

RESEAT THE MEMORY MODULES — If the computer power light turns on but the display remains blank, reseat the memory modules (see page 80).

If the battery is not charging

SHUT DOWN THE COMPUTER — Charge time is significantly longer if the computer is on and running at high processor speeds and system activity levels. Running the computer at high system activity levels for extended periods of time may prevent the battery from charging.

If battery life is short

SEE "BATTERY PERFORMANCE" ON PAGE 37 — Operating time may be significantly reduced under certain conditions.

OPTIMIZE PROCESSOR PERFORMANCE AND POWER CONSUMPTION — See page 100.

Using the Keyboard and Touch Pad

Dell[™] AccessDirect[™] Button

Press this button to launch a frequently used program, such as support and educational tools or your default Internet browser.

Reprogramming the Button

To change the reprogrammable button settings or to find information on using the button:

- $1 \quad Click \ the \ Start \ button \rightarrow Control \ Panel \rightarrow Printers \ and \ Other \ Hardware \rightarrow Keyboard \ icon.$
- 2 Click the **AccessDirect** tab.
- 3 Click the **Help** button and follow the instructions on the screen.

Numeric Keypad



The numeric keypad functions like the numeric keypad on an external keyboard. Each key on the keypad has multiple functions. The keypad numbers and symbols are marked in blue on the right of the keypad keys.

To enable the keypad, press < Fn > < F11 > . The \bigcirc light indicates that the keypad is active. To use the numeric function when the keypad is enabled, press < Fn > and the desired key. To disable the keypad, press < Fn > < F11 > again.

Keyboard Shortcuts

System Functions

| < Ctrl> < Shift> < Esc> | Opens the Task Manager window | |
|----------------------------------|---|--|
| < Fn> < F11> | Enables and disables the numeric keypad | |
| <fn><f12></f12></fn> | Enables and disables the scroll lock | |
| CD or DVD Tray | | |
| < Fn> < F10> | Ejects the tray out of the drive. | |
| Display Functions | | |
| < Fn> < F8> | Switches the video image to the next display option. The options include the integrated display, an external monitor, and both displays simultaneously. | |
| | If you are playing a DVD or watching a streaming video, $<\!Fn\!>\!<\!F8\!>$ is disabled. | |
| <fn> and up-arrow key</fn> | Increases brightness on the integrated display only (not on an external monitor). | |
| <fn> and down-arrow key</fn> | Decreases brightness on the integrated display only (not on an external monitor). | |
| Power Management | | |
| <fn><esc></esc></fn> | Activates a power management mode. You can reprogram this keyboard shortcut to activate a different | |

| netivates a power management mode. Tou can |
|--|
| reprogram this keyboard shortcut to activate a different |
| power management mode using the Advanced tab in the |
| Power Options Properties window. See "Power |
| Management" in the <i>Dell Inspiron Help</i> file for more |
| information. To access the help file, see page 16. |
| |

Speaker Functions

| < Fn> < PageUp> | Increases the volume of the integrated speakers and external speakers, if attached |
|-----------------|--|
| < Fn> < PageDn> | Decreases the volume of the integrated speakers and external speakers, if attached |
| < Fn> < End> | Enables and disables the integrated speakers and external speakers, if attached |

Microsoft[®] Windows[®] Logo Key Functions

| Windows logo key and <m></m> | Minimizes all open windows |
|--|---|
| Windows logo key and <shift><m></m></shift> | Maximizes all windows |
| Windows logo key and < e> | Runs Windows Explorer |
| Windows logo key and <r></r> | Opens the Run dialog box |
| Windows logo key and < f> | Opens the Search Results dialog box |
| Windows logo key and < Ctrl> < f> | Opens the Search Results-Computer dialog box (if the computer is connected to a network) |
| Windows logo key and < Pause> | Opens the System Properties dialog box |

To adjust keyboard operation, such as the character repeat rate, click the **Start** button \rightarrow **Control Panel** \rightarrow **Printers and Other Hardware** \rightarrow **Keyboard**. Follow the instructions on the screen.

Touch Pad

The touch pad detects the pressure and movement of your finger to allow you to move the cursor on the display. Use the touch pad and touch pad buttons as you would use a mouse.



- To move the cursor, lightly slide your finger over the touch pad.
- To select an object, lightly tap once on the surface of the touch pad or use your thumb to press the left touch-pad button.
- To select and move (or drag) an object, position the cursor on the object and tap down-updown on the touch pad. On the second down motion, leave your finger on the touch pad and move the selected object by sliding your finger over the surface.
- To double-click an object, position the cursor on the object and tap twice on the touch pad or use your thumb to press the left touch-pad button twice.

Customizing the Touch Pad

You can use the Mouse Properties window to disable the touch pad or adjust its settings.

- 1 Click the Start button, click Control Panel, and then click Printers and Other Hardware.
- 2 Click Mouse.
- 3 In the **Mouse Properties** window, click the **Device Settings** tab.

To disable the touch pad or mouse, highlight the device and click **Disable**.

To change the touch pad or mouse settings, highlight the device, click **Settings**, select the desired setting(s), and then click **Apply**.

4 Click **OK** to save the settings and close the window, and then click **OK** again to exit the **Mouse Properties** window.

Touch Pad or Mouse Problems

CHECK THE TOUCH PAD SETTINGS -

1 Click the Start button, click Control Panel, and then click Printers and Other Hardware.

2 Click Mouse.

3 Try adjusting the settings.

CHECK THE MOUSE CABLE — Shut down the computer (see page 35). Disconnect the mouse cable and check it for damage. Firmly reconnect the cable.

If you are using a mouse extension cable, disconnect it and connect the mouse directly to the computer.

To verify that the problem is with the mouse, check the touch pad —

1 Shut down the computer (see page 35).

2 Disconnect the mouse.

3 Turn on the computer.

4 At the Windows desktop, use the touch pad to move the cursor around, select an icon, and open it.

If the touch pad operates correctly, the mouse may be defective.

REINSTALL THE TOUCH PAD DRIVER — See page 69.

External Keyboard Problems

NOTE: When you attach an external keyboard, the integrated keyboard remains fully functional.

CHECK THE KEYBOARD CABLE — Shut down the computer (see page 35). Disconnect the keyboard cable and check it for damage. Firmly reconnect the cable.

If you are using a keyboard extension cable, disconnect it and connect the keyboard directly to the computer.

CHECK THE EXTERNAL KEYBOARD -

- 1 Shut down the computer (see page 35), wait 1 minute, and turn it on again.
- 2 Verify that the numbers, capitals, and scroll lock lights on the keyboard blink during the boot routine.
- 3 From the Windows[®] desktop, click the **Start** button, point to **All Programs**, point to **Accessories**, and click **Notepad**.
- 4 Type some characters on the external keyboard and verify that they appear on the display.

If you cannot verify these steps, you may have a defective external keyboard.

To verify that the problem is with the external keyboard, check the integrated keyboard —

- 1 Shut down the computer (see page 35).
- 2 Disconnect the external keyboard.

- 3 Turn on the computer.
- 4 From the Windows desktop, click the **Start** button, point to **All Programs**, point to **Accessories**, and click **Notepad**.
- 5 Type some characters on the external keyboard and verify that they appear on the display.

If the characters appear now but did not with the external keyboard, you may have a defective external keyboard. Contact Dell (see page 102).

Unexpected Characters

DISABLE THE NUMERIC KEYPAD — Press < Fn> < F11> to disable the numeric keypad if numbers are displayed instead of letters. Verify that the numbers lock light is not lit.

Using CDs, DVDs, and Other Multimedia

Using CDs and DVDs

For information about using CDs and DVDs in your computer, see the *Dell Inspiron Help* file. To access the help file, see page 16.

CD or DVD Problems

If you cannot play a CD, CD-RW, or DVD

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

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

ENSURE THAT WINDOWS[®] **RECOGNIZES THE DRIVE** — Click the **Start** button and click **My Computer**. If the 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. Insert a bootable disk and restart the computer. Verify that the \bigcirc light is blinking, indicating normal operation.

TRY ANOTHER DISC — Insert another disc to eliminate the possibility that the original disc is defective.

ENSURE THAT THE CD IS SNAPPED TO THE SPINDLE ON THE CD DRIVE TRAY

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

CLEAN THE DRIVE OR DISC — See "Cleaning Your Computer" in the *Dell Inspiron Help* file for instructions. To access the help file, see page 16.

If you cannot eject the CD, CD-RW, or DVD drive tray

- 1 Ensure that the computer is shut down and turned off (see page 35).
- 2 Straighten a paper clip and insert one end into the eject hole at the front of the drive; push firmly until the tray is partially ejected.
- 3 Gently pull out the tray until it stops.

If you hear an unfamiliar scraping or grinding sound

- Ensure that the sound is not caused by the program that is running.
- Ensure that the disk or disc is inserted properly.

If the CD-RW drive stops writing

DISABLE STANDBY MODE IN WINDOWS BEFORE WRITING TO A CD-RW — Search for the keyword *standby* in the Help and Support Center. To access help, see page 16.

CHANGE THE WRITE SPEED TO A SLOWER RATE — See the help files for your CD creation software.

EXIT ALL OTHER OPEN PROGRAMS — Exiting all other open programs before writing to the CD-RW may alleviate the problem.

Sound and Speaker Problems

If you have a problem with integrated speakers

ADJUST THE WINDOWS[®] **VOLUME CONTROL** — Double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted. Adjust the volume controls to eliminate distortion.

ADJUST THE VOLUME USING KEYBOARD SHORTCUTS — Press < Fn> < End> to disable (mute) or reenable the integrated speakers.

REINSTALL THE SOUND (AUDIO) DRIVER — See page 69.

If you have a problem with external speakers

NOTE: 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.

CHECK THE SPEAKER CABLE CONNECTIONS — See 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 WINDOWS VOLUME CONTROL — Double-click the speaker icon in the lower-right corner of your screen. Ensure that the volume is turned up and that the sound is not muted. Adjust the volume controls to eliminate distortion.

TEST THE SPEAKERS — Plug the speaker audio cable into the line-out connector on 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 page 69.

Copying CDs and DVDs

NOTE: Ensure that you follow all copyright laws when you create CDs.

This section applies only to computers that have a CD-R, CD-RW, DVD+RW, DVD+R, or DVD/CD-RW combo drive.

The following instructions show how to make an exact copy of a CD or DVD. You can also use Sonic RecordNow for other purposes, including creating CDs from audio files on your computer and creating MP3 CDs. For instructions, see the Sonic RecordNow documentation that came with your computer. Open Sonic RecordNow, click the question mark icon in the upper-right corner of the window, and then click **RecordNow Help** or **RecordNow Tutorial**.

How to Copy a CD or DVD

NOTE: If you have a DVD/CD-RW combo drive and you experience recording problems, check for available software patches at the Sonic support website at **support.sonic.com**.

NOTE: Most commercial DVDs have copyright protection and cannot be copied using Sonic RecordNow.

- 1 Click the **Start** button, point to **All Programs**→ **Sonic**→ **RecordNow!**→ **RecordNow!**
- 2 Click either the audio tab or the data tab, depending on the kind of CD you are planning to copy.
- 3 Click Exact Copy.
- 4 To copy the CD or DVD:
 - *If you have one CD or DVD drive*, ensure that the settings are correct and click **Copy**. The computer reads your source CD or DVD and copies it to a temporary folder on your computer hard drive.

When prompted, insert a blank CD or DVD into the CD or DVD drive and click OK.

• *If you have two CD or DVD drives*, select the drive into which you have inserted your source CD or DVD and click **Copy**. The computer copies the data on the CD or DVD to the blank CD or DVD.

Once you have finished copying the source CD or DVD, the CD or DVD that you have created automatically ejects.

Using Blank CD-Rs and CD-RWs

Your CD-RW drive can write to two different types of recording media—CD-Rs and CD-RWs. Use blank CD-Rs to record music or permanently store data files. After creating a CD-R, you cannot write to that CD-R again without changing your method of recording (see the Sonic documentation for more information). Use blank CD-RWs to write to CDs or to erase, rewrite, or update data on CDs.

Helpful Tips

- Use Microsoft[®] Windows[®] Explorer to drag and drop files to a CD-R or CD-RW only after you start Sonic RecordNow and open a RecordNow project.
- You must use CD-Rs to burn music CDs that you want to play in regular stereos. CD-RWs do not play in most home or car stereos.
- You cannot create audio DVDs with Sonic RecordNow.
- Music MP3 files can be played only on MP3 players or on computers that have MP3 software installed.
- Do not burn a blank CD-R or CD-RW to its maximum capacity; for example, do not copy a 650-MB file to a 650-MB blank CD. The CD-RW drive needs 1 or 2 MB of the blank CD to finalize the recording.
- Use a blank CD-RW to practice CD recording until you are familiar with CD recording techniques. If you make a mistake, you can erase the data on the CD-RW and try again. You can also use blank CD-RWs to test music file projects before you record the project permanently to a blank CD-R.
- See the Sonic support website at **support.sonic.com** for additional information.

Setting Up a Home and Office Network

Connecting to a Network Adapter

Before you connect your computer to a network, the computer must have a network adapter installed and a network cable connected to it.

To connect a network cable:

- 1 Connect the network cable to the network adapter connector on your computer.
- **NOTE:** Insert the cable until it clicks into place, and then gently pull it to ensure that it is secure.
- 2 Connect the other end of the network cable to a network connection device, such as a network wall jack.



NOTE: Do not use a network cable with a telephone wall jack.

Network Setup Wizard

The Microsoft[®] Windows[®] XP operating system 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.

- NOTE: Selecting the connection method This computer connects directly to the Internet enables the integrated firewall provided with Windows XP.
- Complete the checklist and required preparations, and return to the Network Setup Wizard. 4
- **5** Follow the instructions on the screen.

Network Problems

NOTE: A green or blinking link light could also indicate the presence of an active wireless network link in the area.

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.

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.

REPLACE THE NETWORK CABLE — Try using a different cable. If there is more than one available network connector, try plugging the cable into a different connector.

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.

Connecting to a Wireless Local Area Network



NOTE: These networking instructions do not apply to Bluetooth[™] or cellular products.

Determining Your Network Type



NOTE: Most wireless networks are of the infrastructure type.

Wireless networks fall into two categories—infrastructure networks and ad-hoc networks. An infrastructure network uses routers or access points to connect several computers. An ad-hoc network does not use routers or access points and consists of computers that broadcast to one another.



Connecting to a Wireless Network in Microsoft[®] Windows[®] XP

Your wireless network card requires specific software and drivers in order to connect to a network. The software is already installed. If the software is removed or corrupted, follow the instructions included in the user's guide for your wireless network card. The user's guide is located on your *Drivers and Utilities* CD (that came with your computer) in the "User's Guides-Network User's Guides" category. The user's guide is also available on the Dell Support website at **support.dell.com**.

- 1 Click the Start button, click Control Panel, and then click Switch to Classic View.
- 2 Double-click Network Connections.
- 3 Click Wireless Network Connection. The Wireless Network Connection icon is highlighted.
- 4 Under Network Tasks in the left-hand pane, click Change settings of this connection. The Wireless Network Connection Properties window appears.
- 5 Click the Wireless Networks tab.

NOTE: The names of wireless networks that your computer can detect are listed under **Available Networks**.

| Wireless Network Connection Prope | rties ? 🗙 |
|---|---------------|
| General Wireless Networks Advanced | |
| Use Windows to configure my wireless network | rork settings |
| Available networks: | |
| To connect to an available network, click Co | mgure. |
| i wireless | Configure |
| A WaveLAW Network | Refresh |
| below: | Move up |
| | Move down |
| Add Remove Property | 65 |
| Learn about setting up wireless network configuration. | Advanced |
| | Cancel |

6 Click Add.

The Wireless network properties window appears.

| Association Authentication | | |
|--|--------------------------------|---------|
| Network name (SSID): Wireless network key | windess | |
| This network requires a key | y for the following: | |
| Network Authentication: | Open | ¥ |
| Data encryption: | Disabled | * |
| Network key: | | |
| Confirm network key: | | |
| Key index (advanced): | 1 🚖 | |
| The key is provided for | me automatically | |
| This is a computer-to-com access points are not use | puter (ad hoc) network; # d | ineless |

- **NOTE:** If you are using a WPA-protected network, and the **Association** tab does not give you the option to select WPA, download the WPA wireless security update from the Microsoft support site.
- 7 Enter the name of your network in the Network name (SSID) field.
- 8 If you do not need to configure security settings, go to step 9.

If you choose to configure security settings (optional), go to "Configuring Security Settings (Optional)" on page 55.

9 Click OK.

Your new network name appears in the **Preferred networks** field, and your network setup is complete.

| + Wirel | ess Network Conr | nection P | roperti | ies | ?× |
|-------------------------|--|--------------|------------|---------------------|-------|
| General | Wireless Networks | Advanced | | | |
| Use Avala | Windows to configure able networks: | my wireless | network | k settings | _ |
| To co | meet to an available | network, cli | ck Confi | gure. | _ |
| 4 L | wineless WaveLAN Network | | < 11 > | Configur Refresh | |
| Prefe Autor belov | red networks: natically connect to av v: | ailable netv | rorks in t | he order list | ed |
| x | WEBBOS | | - 11 | Move u | P |
| | | | | Move do | wn |
| | Add Remov | e P | operties | | |
| Learn | about <u>setting up wirek</u> <u>uration.</u> | sss network | | Advan | ced |
| | | | ОК | | ancel |

Configuring Security Settings (Optional)

Choose one of the following connection options based on the security settings for your network:

- · Connecting to a Network with Wired Equivalent Protocol (WEP) Security Requirements
- Connecting to a Network with Wi-Fi Protected Access (WPA) Security Requirements
- **NOTE:** Network security settings are unique to your network. Dell cannot provide this information.

Connecting to a Network With Wired Equivalent Protocol (WEP) Security Requirements

- 1 In the **Preferred networks** field, click the name of your wireless network.
- 2 Click Properties.
- 3 From the Network Authentication drop-down menu, select Open.

Earlier versions of Dell[™] wireless network software may not contain the drop-down menu. If you are using an earlier version, click to check the **Data encryption (WEP enabled)** check box and go to step 5.

| Aumenacadon | | |
|--|-----------------------------------|-------|
| Network name (SSID): | wireless | |
| Wireless network key | | |
| This network requires a key | y for the following: | |
| Network Authentication: | Open | ~ |
| Data encryption: | WEP | ~ |
| Network key: | ••••• | |
| Confirm network key: | ••••• | |
| Key index (advanced): | 1 | |
| The key is provided for | me automatically | |
| This is a computer-to-com access points are not use | puter (ad hoc) network; wire d | less |
| | | Cance |

- From the **Data encryption** drop-down menu, select **WEP**. 4
- 5 If the wireless network does not require a network key, such as a password, go to step 9.
- 6 Click to uncheck the **The key is provided for me automatically** check box.
- 7 Enter the WEP network key in the Network key field.
- Enter the WEP network key again in the **Confirm network key** field. 8
- **NOTE:** Your computer can take up to 1 minute to connect to the network. 19
- 9 Click OK.

Your network setup is complete.

Connecting to a Network With Wi-Fi Protected Access (WPA) Security Requirements

The following instructions are basic steps for connecting to a WPA network. If your network requires a user name, password, or domain settings, consult the setup instructions in the user's guide for your wireless network card.



NOTE: WPA protocols require that you know the network authentication and data encryption settings for your wireless network. In addition, your WPA-protected network may require special settings such as a network key, user name, password, and domain name.

- 1 In the **Preferred networks** field, click the name of your wireless network.
- 2 Click Properties.
- **3** From the **Network Authentication** drop-down menu, select your network authentication type.

If you are using a WPA-protected network, and the **Association** tab does not give you the option to select WPA, download the WPA wireless security update from the Microsoft support site.

| etwork name (SSID); | wreless | |
|----------------------------|-----------------------|---|
| Wireless network key | | |
| This network requires a ke | ty for the following: | |
| Network Authentication: | WPA/PSK | ¥ |
| Data encryption: | AES | * |
| Network key: | ••••• | |
| Confirm network key: | ****** | |
| Key index (advanced): | 1 | |
| The key is provided for | me automatically | |

- 4 From the **Data encryption** drop-down menu, select your data encryption type.
- 5 If your wireless network requires a key, enter it in the Network key field.

NOTE: Your computer can take up to 1 minute to connect to the network.

6 Click OK.

Your network setup is complete.

Solving Problems

Dell Diagnostics

🗥 CAUTION: Before you begin any of the procedures in this section, follow the safety instructions at the front of this document (see page 9).

When to Use the Dell Diagnostics

If you experience a problem with your computer, perform the checks in "Solving Problems" and run the Dell Diagnostics before you contact Dell for technical assistance.



■ NOTICE: The Dell Diagnostics works only on Dell[™] computers.

The Dell Diagnostics is located on a hidden diagnostic utility partition on your hard drive.



NOTE: If your computer cannot display a screen image, contact Dell.

- 1 Shut down the computer.
- 2 If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.
- 3 Connect the computer to an electrical outlet.
- 4 Turn on the computer. When the DELLTM logo appears, press < F12> immediately.



NOTE: If you cannot see anything on your display, hold down <Fn> and press the computer's power button to begin the Dell Diagnostics. The computer automatically runs the Pre-boot System Assessment.



NOTE: If you see a message stating that no diagnostics utility partition has been found, run the Dell Diagnostics from your Drivers and Utilities CD.

If you wait too long and the Microsoft[®] Windows[®] logo appears, continue to wait until you see the Windows desktop. Then shut down your computer through the Start menu and try again.

5 When the boot device list appears, highlight **Diagnostics** and press < Enter>.

The computer runs the Pre-boot System Assessment, a series of initial tests of your system board, keyboard, hard drive, and display.

- During the assessment, answer any questions that appear.
- If a failure is detected, the computer stops and beeps. To stop the assessment and restart the computer, press < n>; to continue to the next test, press < y>; to retest the component that failed, press < r>.
- If failures are detected during the Pre-boot System Assessment, write down the error code(s) and contact Dell before continuing on to the Dell Diagnostics.

If the Pre-boot System Assessment completes successfully, you receive the message Booting Dell Diagnostic Utility Partition. Press any key to continue.

- 6 Press any key to start the Dell Diagnostics from the diagnostics utility partition on your hard drive.
- 7 When the Dell Diagnostics Main Menu appears, select the test you want to run.

Dell Diagnostics Main Menu

1 After the Dell Diagnostics loads and the **Main Menu** screen appears, click the button for the option you want.

| Option | Function |
|---------------|---|
| Express Test | Performs a quick test of devices. This test typically takes 10 to 20 minutes and requires no interaction on your part. Run Express Test first to increase the possibility of tracing the problem quickly. |
| Extended Test | Performs a thorough check of devices. This test typically takes an hour or more and requires you to answer questions periodically. |
| Custom Test | Tests a specific device. You can customize the tests you want to run. |
| Symptom Tree | Lists the most common symptoms encountered and allows you to select a test based on the symptom of the problem you are having. |

2 If a problem is encountered during a test, a message appears with an error code and a description of the problem. Write down the error code and problem description and follow the instructions on the screen.

If you cannot resolve the error condition, contact Dell.



| Tab | Function |
|---------------|---|
| Results | Displays the results of the test and any error conditions encountered. |
| Errors | Displays error conditions encountered, error codes, and the problem description. |
| Help | Describes the test and may indicate requirements for running the test. |
| Configuration | Displays your hardware configuration for the selected device. |
| | The Dell Diagnostics obtains configuration information for all devices from system setup, memory, and various internal tests, and it displays the information in the device list in the left pane of the screen. The device list may not display the names of all the components installed on your computer or all devices attached to your computer. |
| Parameters | Allows you to customize the test by changing the test settings. |

3 If you run a test from the **Custom Test** or **Symptom Tree** option, click the applicable tab described in the following table for more information.

4 When the tests are complete, close the test screen to return to the **Main Menu** screen. To exit the Dell Diagnostics and restart the computer, close the **Main Menu** screen.

Error Messages

If the message is not listed, see the documentation for the operating system or the program that was running at the time the message appeared.

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

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

INVALID CONFIGURATION INFORMATION-PLEASE RUN SYSTEM SETUP PROGRAM — The system configuration information does not match the hardware configuration. This message is most likely to occur after a memory module is installed. Correct the appropriate options in the system setup program. See "Using the System Setup Program" on page 98.

KEYBOARD CLOCK LINE FAILURE — For external keyboards, check the cable connection. Run the Keyboard Controller test as described in "Dell Diagnostics."

KEYBOARD CONTROLLER FAILURE — For external keyboards, check the cable connection. Restart the computer, and avoid touching the keyboard or the mouse during the boot routine. Run the Keyboard Controller test as described in "Dell Diagnostics" (see page 59).

KEYBOARD DATA LINE FAILURE — For external keyboards, check the cable connection. Run the Keyboard Controller test as described in "Dell Diagnostics" (see page 59).

KEYBOARD STUCK KEY FAILURE — For external keyboards or keypads, check the cable connection. Restart the computer, and avoid touching the keyboard or keys during the boot routine. Run the Stuck Key test as described in "Dell Diagnostics" (see page 59).

Video and Display Problems

If the display is blank



NOTE: If you are using a program that requires a higher resolution than your computer supports, it is recommended that you attach an external monitor to your computer.

CHECK THE () LIGHT — When the () light is blinking, the computer has power.

- If the () light is blinking, the computer is in standby mode—press the power button to exit standby mode.
- If the () light is off, press the power button.
- If the (') light is on, your power management settings may have caused the display to turn off. Try pressing any key or move the cursor to exit standby mode.

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 — Check the AC adapter cable connections. If the AC adapter has a light, ensure that it 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. To access the help file, see page 16.

ADJUST THE POWER PROPERTIES — Search for the keyword *standby* in the Windows Help and Support Center. To access the help file, see page 16.

SWITCH THE VIDEO IMAGE — If your computer is attached to an external monitor, press < Fn> < F8> to switch the video image to the display. **NOTE:** If you are playing a DVD or watching a streaming video, < Fn> < F8> is disabled.

If the display is difficult to read

ADJUST THE BRIGHTNESS — See the *Dell Inspiron Help* file for instructions on adjusting the brightness. To access the help file, see page 16.

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

ELIMINATE POSSIBLE INTERFERENCE — Turn off nearby fans, fluorescent lights, halogen lamps, or other appliances.

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

ADJUST THE WINDOWS DISPLAY SETTINGS -

- 1 Click the Start button and click Control Panel.
- 2 Click Appearance and Themes.
- 3 Click the area you want to change or click the **Display** icon.
- 4 Try different settings for Color quality and Screen resolution.

SEE "ERROR MESSAGES" — If an error message appears, see page 61.

If only part of the display is readable

CONNECT AN EXTERNAL MONITOR -

1 Turn off your computer and connect an external monitor to the computer.

2 Turn on the computer and the monitor, and adjust the monitor brightness and contrast controls.

If the external monitor works, the computer display or video controller may be defective. Contact Dell (see page 102).

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.

Drive Problems

NOTE: For information on saving files to a floppy disk, see the *Dell Inspiron Help* file. To access the help file, see page 16.

If you cannot save a file to a floppy drive

ENSURE THAT WINDOWS[®] RECOGNIZES THE DRIVE — Click the **Start** button and click **My Computer** If the 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. Insert a bootable disk and restart the computer. Verify that the D light is blinking, indicating normal operation. **ENSURE THAT THE DISK IS NOT WRITE-PROTECTED** — You cannot save data to a write-protected disk. See the following figure.



TRY ANOTHER FLOPPY DISK — Insert another disk to eliminate the possibility that the original disk is defective.

RECONNECT THE DRIVE -

1 Save and close any open files, exit any open programs, and shut down the computer.

2 Disconnect and reconnect the drive.

3 Turn on the computer.

CLEAN THE DRIVE — See "Cleaning Your Computer" in the *Dell Inspiron Help* file for instructions. To access the help file, see page 16.

If you have problems with a hard drive

ALLOW THE COMPUTER TO COOL BEFORE TURNING IT ON — A hot hard drive may prevent the operating system from starting. Try allowing the computer to return to room temperature before turning it on.

CHECK THE DRIVE FOR ERRORS -

1 *C*lick the **Start** button and click **My Computer**.

2 Right-click 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.

PC Card Problems

CHECK THE PC CARD — Ensure that the PC Card is properly inserted into the connector.

ENSURE THAT THE CARD IS RECOGNIZED BY WINDOWS[®] — Double-click the **Safely Remove Hardware** icon in the Windows taskbar. Ensure that the card is listed.

```
IF YOU HAVE PROBLEMS WITH A DELL-PROVIDED PC CARD — Contact Dell (see page 102).
```

IF YOU HAVE PROBLEMS WITH A PC CARD NOT PROVIDED BY DELL — Contact the PC Card manufacturer.

General Program Problems

NOTE: Software usually includes installation instructions in its documentation or on a floppy disk or CD.

A program crashes

SEE THE SOFTWARE DOCUMENTATION — Many software manufacturers maintain websites with information that may help you solve the problem. Ensure that you properly installed and configured the program. Reinstall the program if necessary.

A program stops responding

END THE PROGRAM -

1 Simultaneously press < Ctrl> < Shift> < Esc>.

2 Click the Applications tab, and then select the program that is no longer responding.

3 Click End Task.

Error messages appear

REVIEW "ERROR MESSAGES" ON PAGE 61 — Look up the message and take the appropriate action. See the software documentation.

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 101 for a description of the hardware and software support provided by Dell.

E-MAIL DELL — Go to support.dell.com and then click E-Mail Dell in the Communicate list. Send an e-mail message to Dell about your problem; you can expect to receive an e-mail message from Dell within hours. See "Dell Technical Support Policy (U.S. Only)" on page 101 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, call Dell for technical assistance (see page 102). See "Dell Technical Support Policy (U.S. Only)" on page 101 for a description of the hardware and software support provided by Dell.

If Your Computer Gets Wet

- A 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, it is recommended 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 Shut down the computer (see page 35), disconnect the AC adapter from the computer, and then 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.
 - Ground yourself by touching one of the metal connectors on the back of the computer. 3
 - Remove any installed PC Cards, and put them in a safe place to dry. 4
 - Remove the battery. 5
 - Wipe off the battery and put it in a safe place to dry. 6
 - 7 Wipe off the display.
 - Remove the hard drive (see page 78). 8
 - 9 Remove the memory module(s) (see page 80).
- 10 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 24 hours in a dry area at room temperature.



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

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

- **11** Ground yourself by touching one of the metal connectors on the back of the computer.
- 12 Replace the memory module(s), the memory module cover, and the screw(s).
- **13** Replace the hard drive.
- 14 Replace any PC Cards you removed.
- **15** Replace the battery.
- 16 Turn on the computer and verify that it is working properly.

NOTE: For information on your warranty coverage, see page 121 or the separate paper warranty document that shipped with your computer.

If the computer does not start, or if you cannot identify the damaged components, contact Dell (see page 102).

If You Drop or Damage Your Computer

- 1 Save and close any open files, exit any open programs, and shut down the computer (see page 35).
- 2 Disconnect the AC adapter from the computer and 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.

NOTE: For information on your warranty coverage, see page 121 or the separate paper warranty document that shipped with your computer.

If the computer does not start, or if you cannot identify the damaged components, contact Dell (see page 102).

Drivers

What Is a Driver?

A driver is a program that controls a device such as a printer, mouse, or keyboard. All devices require a driver program.

A driver acts like a translator between the device and the programs that use the device. Each device has its own set of specialized commands that only its driver recognizes.

Many drivers such as the keyboard driver come with your Microsoft[®] Windows[®] operating system. You may need to install drivers if:

- You upgrade your operating system.
- You reinstall your operating system.
- You connect or install a new device.

If you experience a problem with any device, perform the steps in the following sections to identify whether the driver is the source of your problem and to update the driver, if necessary.

Identifying Drivers

- 1 Click the **Start** button and click **Control Panel**.
- 2 In the Control Panel window, under Pick a Category, click Performance and Maintenance.
- 3 In the **Performance and Maintenance** window, click **System**.
- 4 In the System Properties screen, click the Hardware tab.
- 5 Click Device Manager.
- 6 In the **Device Manager** window, scroll down the list to see if any device has an exclamation point (a yellow circle with a [!]) on the device icon.

If an exclamation point is next to the device name, you may need to reinstall the driver or install a new driver.

Reinstalling Drivers

■ NOTICE: The Dell Support website and your *Drivers and Utilities* CD provide approved drivers for Dell[™] computers. If you install drivers obtained from other sources, your computer might not work correctly.

Using Windows XP Device Driver Rollback

If a problem occurs on your computer after you install or update a driver, use Windows XP Device Driver Rollback to replace the driver with the previously installed version.

To use Device Driver Rollback:

- 1 Click the Start button and click Control Panel.
- 2 In the Control Panel window, under Pick a Category, click Performance and Maintenance.
- 3 In the **Performance and Maintenance** window, click **System**.
- 4 In the System Properties screen, click the Hardware tab.
- 5 Click Device Manager.
- 6 In the **Device Manager** window, right-click the device for which the new driver was installed, and then click **Properties**.
- 7 Click the **Drivers** tab.
- 8 Click Roll Back Driver.

If Device Driver Rollback does not resolve the problem, then use System Restore (see page 71) to return your operating system to the operating state it was in before you installed the new driver.

Using the Drivers and Utilities CD

If using Device Driver Rollback or System Restore (see page 71) does not resolve the problem, then reinstall the driver from the *Drivers and Utilities* CD.

- 1 Save and close any open files, and exit any open programs.
- 2 Insert the *Drivers and Utilities* CD.

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

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

A welcome screen appears.

4 Click **Next**. The CD automatically scans your hardware to detect drivers and utilities used by your computer.

After the CD completes the hardware scan, you can also detect other drivers and utilities. Under **Search Criteria**, select the appropriate categories from the **System Model**, **Operating System**, and **Topic** drop-down menus.

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

- 5 Click the link of a specific driver or utility to display information about the driver or utility that you want to install.
- 6 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 **Extract**, 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.

Manually Reinstalling Drivers for Windows XP

- 1 After extracting the driver files to your hard drive as described in the previous section, click the **Start** button and right-click **My Computer**.
- 2 Click Properties.
- 3 Click the Hardware tab and click Device Manager.

- 4 Double-click the type of device for which you are installing the driver (for example, **Modems** or **Infrared devices**).
- 5 Double-click the name of the device for which you are installing the driver.
- 6 Click the **Driver** tab and click **Update Driver**
- 7 Click Install from a list or specific location (Advanced) and click Next.
- 8 Click Browse, and browse to the location to which you previously extracted the driver files.
- 9 When the name of the appropriate driver appears, click Next.
- 10 Click **Finish** and restart your computer.

Resolving Software and Hardware Incompatibilities

To use the Windows XP Hardware Troubleshooter:

- 1 Click the **Start** button and click **Help and Support**.
- 2 Type hardware troubleshooter in the Search field and click the arrow to start the search.
- 3 Click Hardware Troubleshooter in the Search Results list.
- 4 In the Hardware Troubleshooter list, click I need to resolve a hardware conflict on my computer, and click Next.

Using System Restore

The Microsoft[®] Windows[®] XP operating system provides System Restore to allow you to return your computer to an earlier operating state (without affecting data files) if changes to the hardware, software, or other system settings have left the computer in an undesirable operating state. See the Help and Support Center for information on using System Restore. To access help, see page 17.

NOTICE: Make regular backups of your data files. System Restore does not monitor your data files or recover them.

Creating a Restore Point

- 1 Click the Start button and click Help and Support.
- 2 Click System Restore.
- **3** Follow the instructions on the screen.

Restoring the Computer to an Earlier Operating State

If problems occur after you install a device driver, use Device Driver Rollback (see page 69) to resolve the problem. If that is unsuccessful, then use System Restore.

- NOTICE: Before you restore the computer to an earlier operating state, 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.
- 1 Click the Start button, point to All Programs→ Accessories→ System Tools, and then click System Restore.
- 2 Ensure that **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** screen provides a calendar that allows you to see and select restore points. All calendar dates with available restore points appear in **bold**.

4 Select a restore point and click Next.

If a calendar 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 prefer.

5 Click Next.

The **Restoration Complete** screen appears after System Restore finishes collecting data and then the computer 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: Before you undo the last system restore, 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.

- 1 Click the **Start** button, point to **All Programs**→ **Accessories**→ **System Tools**, and then click **System Restore**.
- 2 Click Undo my last restoration and click Next.
- 3 Click Next.

The System Restore screen appears and the computer restarts.

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

Enabling System Restore

If you reinstall Windows XP with less than 200 MB of free hard-disk space available, System Restore is automatically disabled. To see if System Restore is enabled:

- 1 Click the **Start** button and click **Control Panel**.
- 2 Click Performance and Maintenance.
- 3 Click System.
- 4 Click the System Restore tab.
- 5 Ensure that **Turn off System Restore** is unchecked.

Reinstalling Microsoft[®] Windows[®] XP

Before You Reinstall

If you are reinstalling the Windows XP operating system to correct a problem with a newly installed driver, use Windows XP Device Driver Rollback (see page 69) to replace the device driver with the previously installed version.

If Device Driver Rollback does not resolve the problem, then use System Restore (see page 71) to return your operating system to the operating state it was in before you installed the new device driver.

Reinstalling Windows XP

To reinstall Windows XP, perform the steps in the following sections in the order in which they are listed.

The reinstallation process can take 1 to 2 hours to complete. After the reinstallation is complete, you need to reinstall the device drivers, virus protection program, and other software.

NOTICE: The *Operating System* CD provides options for reinstalling Windows XP. The options can overwrite files and possibly affect programs installed on your hard drive. Therefore, do not reinstall Windows XP unless instructed to do so by a Dell technical support representative.

NOTICE: To prevent conflicts with Windows XP, disable any virus protection software installed on your computer before you reinstall Windows XP. See the documentation that came with the software for instructions.

Preparing to Boot From the Operating System CD

- 1 Insert the *Operating System* CD.
- 2 Exit any program or utility that might run after you insert the CD.
- 3 Shut down (see page 35) and restart the computer.
- 4 Press < F12> immediately after the DELL[™] logo appears.

If the operating system logo appears, wait until you see the Windows desktop, and then shut down the computer and try again.

- 5 Use the arrow keys to select **CD-ROM** and press < Enter>.
- 6 When the Press any key to boot from CD message appears on the screen, press any key.

Starting Windows XP Setup

- 1 When the Windows XP Setup screen appears, press < Enter> to select To set up Windows now.
- 2 Read the information in the Microsoft Windows Licensing Agreement screen, and then press < F8> to accept the license agreement.
- 3 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 remove the CD from the drive.
- 4 If you want to install a new copy of Windows XP, press < Esc> to select the fresh copy option.
- 5 Press < Enter> to select the highlighted partition (recommended), and then follow the instructions on the screen.

NOTE: The time required to complete the setup depends on the size of the hard drive and the speed of your computer.

The Windows XP Setup screen appears, and the operating system begins to copy files and install the devices. The computer restarts multiple times.

Completing the GUI Setup

- **NOTICE:** When the computer restarts, do not press a key when the following message appears: Press any key to boot from the CD.
- 1 When the **Regional and Language Options** screen appears, select the settings for your location and click Next.
- 2 Enter your name and organization (optional) in the **Personalize Your Software** screen and click Next.
- 3 If you are reinstalling Windows XP Home Edition, at the What's your computer's name window, enter a name for your computer (or accept the name provided) and click Next.

If you are reinstalling Windows XP Professional, at the Computer Name and Administrator **Password** window, enter a name for your computer (or accept the one provided) and a password, and then click Next.

- 4 If you have a modem installed, enter the requested information and click **Next** when the Modem Dialing Information screen appears.
- 5 Enter the date, time, and time zone in the **Date and Time Settings** window and click **Next**.
- 6 If your computer has a network adapter, click **Typical** in the **Networking Settings** screen and click Next.

If your computer does not have a network adapter, this option does not appear.

7 If you are reinstalling Windows XP Professional, you may be prompted to provide further network information regarding your network configuration, such as the domain name or workgroup name. If you are unsure of your settings, accept the default selections.

Windows XP installs the operating system components, configures the computer, and then restarts the computer.

Completing the Operating System Setup

NOTICE: When the computer restarts, do not press a key when the following message appears: Press any key to boot from the CD.

- 1 When the **Welcome to Microsoft** screen appears, click **Next**.
- 2 When the How will this computer connect to the Internet? message appears, click Skip.
- 3 When the **Ready to register with Microsoft**? screen appears, click **No, not at this time** and click **Next**.

When the Who will use this computer? screen appears, you can enter up to five users.

- 4 Click Next.
- 5 Click **Finish** to complete the setup and remove the CD from the drive.

Reinstalling Drivers and Software

- 1 Reinstall the appropriate drivers (see page 69).
- **2** Reinstall your virus protection software. See the documentation that came with the software for instructions.
- **3** Reinstall your other software programs. See the documentation that came with the software for instructions.

Adding and Replacing Parts

Before You Begin

This section provides procedures for removing and installing the components in your computer. Unless otherwise noted, each procedure assumes that the following conditions exist:

- You have performed the steps in "Shutting Down Your Computer."
- You have read the safety information at the front of this document (see page 9).

Recommended Tools

The procedures in this document may require the following tools:

- Small flat-blade screwdriver
- Phillips screwdriver .
- Small plastic scribe
- Flash BIOS update program floppy disk or CD

Shutting Down Your Computer

Use the following safety guidelines to help protect your computer from potential damage and to ensure your own personal safety.

 ${
m
m
m A}$ CAUTION: Before you begin any of the procedures in this section, follow the safety instructions at the front of this document (see page 9).



NOTICE: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell is not covered by your warranty.

card. Hold a card by its edges or by its metal mounting bracket. Hold a component such as a processor by its edges, not by its pins.



NOTICE: When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. Some cables have a connector with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.



NOTICE: To avoid damaging the computer, perform the following steps before you begin working inside the computer.

- 4 Ensure that the work surface is flat and clean to prevent the computer cover from being scratched.
- **5** Shut down the computer.
- 6 Ensure that the computer and any attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your computer, press and hold the power button for 4 seconds.
- 7 If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.
- NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.
- 8 Disconnect any telephone or telecommunication lines from the computer.
- 9 Disconnect your computer and all attached devices from their electrical outlets, and then press the power button to ground the system board.
- NOTICE: To connect a network cable, first plug the cable into the network wall jack and then plug it into the computer.
- **10** Remove any installed PC Cards from the PC Card slot.
- 11 Close the display and turn the computer upside down on a flat work surface.
- NOTICE: To avoid damaging the system board, you must remove the main battery before you service the computer.
- 12 Slide and hold the battery-bay latch release on the bottom of the computer, and then remove the battery from the bay.
- **13** Remove any installed modules.
- 14 Remove the hard drive.

Hard Drive

NOTE: You need the *Operating System* CD to install the Microsoft[®] Windows[®] operating system. You also need the Drivers and Utilities CD for your computer to install the drivers and utilities on the new hard 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, shut down your computer (see page 35) before removing the hard drive. Do not remove the hard drive while the computer is on, in standby mode, or in hibernate mode.



NOTICE: Hard drives are extremely fragile; even a slight bump can damage the drive.



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

To replace the hard drive in the hard drive bay:

- 1 Complete the instructions in "Before You Begin" on page 77.
- 2 Turn the computer over, and remove the hard drive screws.



NOTICE: When the hard drive is not in the computer, store it in protective antistatic packaging. See
 "SAFETY: Protecting Against Electrostatic Discharge" on page 12.

- 3 Slide the hard drive out of the computer.
- 4 Remove the new drive from its packaging.

Save the original packaging for storing or shipping the hard drive.

NOTICE: Use firm and even pressure to slide the drive into place. If you use excessive force, you may damage the connector.

- 5 Insert the drive into the bay, and push the hard drive until it is fully seated in the bay.
- **6** Replace and tighten the screws.
- 7 Use the *Operating System* CD to install the operating system for your computer (see page 73).
- 8 Use the *Drivers and Utilities* CD to install the drivers and utilities for your computer (see page 69).

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.



Memory

You can increase your computer memory by installing memory modules on the system board. See page 92 for information on the memory supported by your computer. Install only memory modules that are intended for your computer.

- 1 Complete the instructions in "Before You Begin" on page 77.
- 2 Turn the computer over, loosen the captive screw in the memory module cover, and lift the cover away from the computer.



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

- **3** If you are replacing a memory module, remove the existing module:
 - a Use your fingertips to carefully spread apart the securing clips on each end of the memory module connector until the module pops up.
 - **b** Remove the module from the connector.



4 Ground yourself and install the new memory module:



NOTE: If the memory module is not installed properly, the computer may not boot properly. No error message indicates this failure.

- a Align the notch in the module edge connector with the tab in the connector slot.
- **b** Slide the module firmly into the slot at a 45-degree angle, and rotate the module down until it clicks into place. If you do not feel the click, remove the module and reinstall it.



- 5 Replace the cover.
- NOTICE: If the memory module cover is difficult to close, remove the module and reinstall it. Forcing the cover to close may damage your computer.
- **6** Insert the battery into the battery bay, or connect the AC adapter to your computer and an electrical outlet.
- 7 Turn on the computer.

As the computer boots, it detects the additional memory and automatically updates the system configuration information.

To confirm the amount of memory installed in the computer, click the **Start** button, click **Help and Support**, and then click **Computer Information**.

Modem and Mini PCI Card

- 1 Complete the instructions in "Before You Begin" on page 77.
- **2** Turn the computer over, loosen the captive screw on the modem/Mini PCI card cover, and lift the cover away from the computer.



- **3** Continue to the appropriate section:
 - To add a modem, see the following section, "Adding a Modem."
 - To add a Mini PCI card, see page 84.

Replacing the Modem

- **1** Remove the existing modem:
 - a Remove the screws securing the modem to the system board, and set them aside.
 - **b** Pull straight up on the attached pull-tab to lift the modem out of its connector on the system board and disconnect the modem cable.



2 Connect the modem cable to the modem.

WINTICE: The cable connectors are keyed for correct insertion; do not force the connections.

- 3 Align the modem with the screw holes, and press the modem into the connector on the system board.
- 4 Install the screws to secure the modem to the system board.
- Replace the cover. 5

Adding a Mini PCI Card

 Λ CAUTION: FCC rules strictly prohibit users from installing 5 GHz (802.11a, 802.11a/b, 802.11a/b/g) Wireless LAN Mini PCI cards. Under no circumstances should the user install such a device. Only trained Dell service personnel are authorized to install a 5 GHz Wireless LAN Mini PCI card.

If you are removing and/or installing a 2.4 GHz (802.11b, 802.11b/g) Mini PCI Card, please follow the instructions noted below. Only products approved for use in your portable computer may be installed. Approved Mini PCI Cards may be purchased only from Dell.



NOTE: 2.4 GHz Wireless LAN PC Cards may be removed and installed by the user.

If you ordered a Mini PCI card with your computer, the card is already installed.

- 1 If a Mini PCI card is not already installed, go to step 2. If you are replacing a Mini PCI card, remove the existing card:
 - a Disconnect the Mini PCI card from any attached cables.
 - **b** Release the Mini PCI card by spreading the metal securing tabs until the card pops up slightly.
 - c Lift the Mini PCI card out of its connector.



NOTICE: To avoid damaging the Mini PCI card, never place cables on top of or under the card.
 NOTICE: The connectors are keyed to ensure correct insertion. If you feel resistance, check the connectors and realign the card.

2 Align the Mini PCI card with the connector at a 45-degree angle, and press the Mini PCI card into the connector until it clicks.



- 3 Connect the antenna cables to the Mini PCI card.
- 4 Replace the cover.

CD or DVD Drive

- 1 Complete the instructions in "Before You Begin" on page 77.
- 2 Turn the computer over, loosen the captive screw in the memory module cover, and lift the cover away from the computer.



3 Remove the screw labeled "O" next to the memory module cover.



- **4** Press the lever next to the memory module connectors in the direction of the arrow on the lever (towards the drive) to release the drive.
- 5 Pull the drive out of the bay.

- 6 Slide the new drive into the bay until the drive is fully seated.
- 7 Replace the screw that you removed in step 3.
- 8 Replace the memory module cover and screw.

Keyboard

- 1 Complete the instructions in "Before You Begin" on page 77.
- **2** Use a small flat-blade screwdriver or plastic scribe to lift the notched right edge of the hinge cover, and pry the cover loose from the hinges and bottom case.



- 3 Lift the hinge cover up and away from the hinges and bottom case.
- 4 Remove the four keyboard screws.
- **NOTICE:** The keycaps on the keyboard are fragile, easily dislodged, and time-consuming to replace. Be careful when removing and handling the keyboard.
- 5 Lift the keyboard out of the bottom case, and rest it on the display hinges so that the keyboard connector is exposed.
- **6** Pull up on the keyboard connector to disconnect it from the interface connector on the system board.



- 7 Remove the keyboard from the bottom case.
 - **NOTICE:** To avoid damage to the connector pins, press the keyboard connector evenly into the interface connector on the system board, and do not reverse the keyboard connector.
- 8 Connect the keyboard connector of the replacement keyboard to the interface connector on the system board.



9 Insert the four securing tabs on the keyboard into their respective slots in the palm rest, and lower the keyboard into the bottom case.

Ensure that all four securing tabs are engaged before trying to completely seat the keyboard.

- **10** Replace the four keyboard screws.
- **11** Replace the hinge cover.

9

Appendix

Specifications

NOTE: Power management features limit the processor speed when the computer is running on battery power, to maintain system cooling requirements, and/or to maintain system power requirements.

| Microprocessor | |
|----------------------------------|---|
| Microprocessor | Mobile Intel [®] Pentium [®] 4 processor or Intel Celeron [®] processor |
| L1 cache | 8 KB (internal) |
| L2 cache | 512 KB (Intel Pentium 4); 128 KB (Intel Celeron) |
| External bus frequency | 400/533 MHz |
| System Information | |
| System chip set | Intel 852GMV |
| Data bus width | 64 bits |
| DRAM bus width | 64 bits |
| Microprocessor address bus width | 32 bits |
| PC Card | |
| CardBus controller | TI PCI1510 |
| PC Card connector | supports one Type I or Type II 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 | |
|---------------------------------|--|
| Memory module connector | 2 user-accessible SODIMM sockets |
| Memory module capacities | 64, 128, 256, and 512 MB |
| Memory type | 2.5-V SODIMM |
| Standard memory | 128 MB |
| Maximum memory | 1 GB |
| Memory access time: clock speed | 266 MHz |
| Ports and Connectors | |
| Video | 15-hole connector |
| Audio | microphone connector, stereo headphone/speakers connector |
| USB (2) | 4-pin USB 2.0-compliant connector |
| Modem | RJ-11 connector |
| Ethernet LAN | RJ-45 connector (optional in some countries) |
| Communications | |
| Modem: | |
| Туре | v.92 56K MDC |
| Controller | softmodem |
| Interface | internal AC'97 bus |
| Network adapter | 10/100 Ethernet LAN on system board |

| Video | |
|----------------------------|---|
| Video type | direct AGP integrated graphics |
| Host interface | integrated direct AGP |
| Video controller | Intel UMA integrated |
| Video memory | 1 MB with Intel DVMT up to 32 MB (with 128 MB of system memory) or 64 MB (with 256 MB or more of system memory) |
| LCD interface | SPWG-B |
| Audio | |
| Audio type | AC'97 (soft audio) |
| Audio controller | Sigmatel 9750 |
| Stereo conversion | 18-bit (analog-to-digital) and 20-bit (digital- to-analog) |
| Interfaces: | |
| Internal | PCI bus /AC'97 |
| External | microphone-in connector, stereo headphones/speakers connector |
| Speaker | two 8-ohm speakers |
| Internal speaker amplifier | 1.0-W channel into 8 ohms |
| Volume controls | keyboard shortcuts, program menus |

| Display | |
|--------------------------------|--|
| Type (active-matrix TFT) | XGA |
| Dimensions: | 14.1 inch or 15 inch |
| Height: | |
| 14.1 inch | 214.3 mm (8.4 inches) |
| 15 inch | 228.1 mm (8.99 inches) |
| Width: | |
| 14.1 inch | 285.7 mm (11.2 inches) |
| 15 inch | 304.1 mm (11.97 inches) |
| Diagonal: | |
| 14.1 inch | 359.16 mm (14.1 inches) |
| 15 inch | 382.4 mm (15.1 inches) |
| Maximum resolutions | 1024 x 768 at 16.8 million colors |
| Response time (typical) | 20-ms rise (maximum), |
| | 30-ms fall (maximum) |
| Refresh rate | 60 Hz |
| Operating angle | 0° (closed) to 180° |
| Viewing angles: | |
| Horizontal | $\pm 40^{\circ}$ |
| Vertical | + 10°/-30° |
| Pixel pitch | 0.28 x 0.28 mm |
| Power consumption: | |
| Panel with backlight (typical) | 5.2 W |
| Controls | brightness can be controlled through keyboard shortcuts |

| Keyboard | |
|--|---|
| Number of keys | 85 (U.S. and Canada); 86 (Europe); 90 (Japan) |
| Key travel | $2.7~mm\pm0.3~(0.11~inch\pm0.016~inch)$ |
| Key spacing | 19.05 mm \pm 0.3 mm (0.75 inch \pm 0.012 inch) |
| Layout | QWERTY/AZERTY/Kanji |
| Touch Pad | |
| X/Y position resolution (graphics table mode) | 240 срі |
| Size: | |
| Width | 64.88-mm (2.55-inch) sensor-active area |
| Height | 48.88-mm (1.92-inch) rectangle |
| Battery (8-cell) | |
| Туре | 8-cell (65WHr) "smart" lithium ion |
| Dimensions: | |
| Depth | 122.5 mm (4.8 inches) |
| Height | 19.2 mm (0.76 inch) |
| Width | 147.5 mm (5.8 inches) |
| Weight | 0.470 kg (1.03 lb) |
| Voltage | 14.8 VDC |
| Capacity | 4300 mAH |
| Operating life | can be significantly reduced under certain power-intensive conditions |
| | See page 37 for more information on battery life. |
| Life span (approximate) | 300 discharge/charge cycles |
| Temperature range: | |
| Charge/Discharge | 0° to 35°C (32° to 95°F) |
| Storage | -40° to 65° C (-40° to 149° F) |

| Battery (12-cell) | |
|-------------------------|---|
| Туре | 12-cell (96Whr) "smart" lithium ion |
| Dimensions: | |
| Depth | 122.5 mm (4.8 inches) |
| Height | 19.2 mm (0.76 inch) |
| Width | 147.5 mm (5.8 inches) |
| Weight | 0.615 kg (1.35 lb) |
| Voltage | 14.8 VDC |
| Capacity | 6450 mAH |
| Operating life | can be significantly reduced under certain power-intensive conditions |
| | See page 37 for more information on battery life. |
| Life span (approximate) | 300 discharge/charge cycles |
| Temperature range: | |
| Charge/Discharge | 0° to 35°C (32° to 95°F) |
| Storage | -40° to $65^\circ C$ (-40° to 149°F) |
| AC Adapter | |
| Input voltage | 100 to 240 VAC |
| Input current (maximum) | 1.5 A |
| Input frequency | 50 to 60 Hz |
| Output current | 5.62 A (maximum at 4-second pulse); |
| | 4.62 A (continuous) |
| Output power | 90 W standard |
| Rated output voltage | 19.5 VDC |
| Dimensions: | |
| Height | 34.2 mm (1.35 inches) |
| Width | 60.9 mm (2.4 inches) |
| Depth | 153.4 mm (6.04 inches) |
| Weight (with cables) | 0.46 kg (1.0 lb) |
| Temperature range: | |

| AC Adapter | |
|--|---|
| Operating | 0° to 35°C (32° to 95°F) |
| Storage | –40° to 65°C (–40° to 149°F) |
| Physical | |
| Height | |
| 14.1-inch display | 44.5-47.95 mm (1.75 inches-1.89 inches) |
| 15-inch display | 46.5-48.3 mm (1.83 inches-1.90 inches) |
| Width | |
| 14.1-inch display | 329 mm (12.9 inches) |
| 15-inch display | 335 mm (13.1 inches) |
| Depth | |
| 14.1-inch display | 275 mm (10.8 inches) |
| 15-inch display | 275 mm (10.8 inches) |
| Weight: | |
| With CD drive, 8-cell battery, and 14.1-inch display | 3.3 kg (7.17 lb) |
| With CD drive, 12-cell battery, and 14.1-inch display | 3.4 kg (7.57 lb) |
| With CD drive, 8-cell battery, and 15-inch display | 3.5 kg (7.66 lb) |
| With CD drive, 12-cell battery, and 15-inch display | 3.7 kg (8.07 lb) |
| Environmental | |
| Torrest and the second se | |

| Temperature range: | |
|------------------------------|---|
| Operating | 0° to $35^\circ C$ (32° to $95^\circ F)$ |
| Storage | –40° to 65°C (–40° to 149°F) |
| Relative humidity (maximum): | |
| Operating | 10% to 90% (noncondensing) |
| Storage | 5% to 95% (noncondensing) |
| Maximum vibration: | |
| Operating | 0.6 GRMS |
| Storage | 1.3 GRMS |
| | |

| Environmental (continued) | |
|--|--------------------------------------|
| Maximum shock (measured with the hard drive in head-parked position and 2-ms half-sine pulse): | |
| Operating | 122 G |
| Storage | 163 G |
| 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) |

Using the System Setup Program

Overview



NOTE: Your operating system may automatically configure most of the options available in the system setup program, thus overriding options that you set through the system setup program. For more information on configuring features for your operating system, see the Help and Support Center. To access help, see page 17.

The system setup screens display the current setup information and settings for your computer, such as:

- System configuration
- Boot order
- Boot (start-up) configuration and docking-device configuration settings
- Basic device configuration settings
- System security and hard-drive password settings

NOTICE: Unless you are an expert computer user or are directed to do so by Dell technical support, do not change the settings for the system setup program. Certain changes might make your computer work incorrectly.

Viewing the System Setup Screens

- 1 Turn on (or restart) your computer.
- 2 When the DELL[™] logo appears, press < F2> immediately. If you wait too long and the Windows logo appears, continue to wait until you see the Windows desktop. Then shut down your computer (see page 35) and try again.

System Setup Screens

NOTE: For information about a specific item on a system setup screen, highlight the item and see the Help area on the screen.

On each screen, the system setup options are listed at the left. To the right of each option is the setting or value for that option. You can change settings that appear as white type on the screen. Options or values that you cannot change (because they are determined by the computer) appear less bright.

The upper-right corner of the screen displays help information for the currently highlighted option; the lower-right corner displays information about the computer. System setup key functions are listed across the bottom of the screen.

Commonly Used Options

Certain options require that you reboot the computer for new settings to take effect.

Changing the Boot Sequence

The *boot sequence*, or *boot order*, tells the computer where to look to find the software needed to start the operating system. You can control the boot sequence and enable/disable devices using the Boot Order page of the system setup program.



NOTE: To change the boot sequence on a one-time-only basis, see page 100.

The **Boot Order** page displays a general list of the bootable devices that may be installed in your computer, including but not limited to the following:

- Diskette Drive ٠
- **Modular bay HDD**
- Internal HDD •
- CD/DVD/CD-RW drive

During the boot routine, the computer starts at the top of the list and scans each enabled device for the operating system start-up files. When the computer finds the files, it stops searching and starts the operating system.

To control the boot devices, select (highlight) a device by pressing the up-arrow or down-arrow key, and then enable or disable the device or change its order in the list.

- To enable or disable a device, highlight the item. Enabled items appear as white and display an arrow to the left; disabled items appear blue or dimmed without a triangle.
- Press the left- or right-arrow key to change the option. ٠
- ٠ To reorder a device in the list, highlight the device and then press < u > or < d > (not casesensitive) to move the highlighted device up or down.

Boot sequence changes take effect as soon as you save the changes and exit the system setup program.

Performing a One-Time Boot

You can set a one-time-only boot sequence without entering the system setup program. (You can also use this procedure to boot the Dell Diagnostics on the diagnostics utility partition on your hard drive.)

- 1 Turn off the computer.
- 2 If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.
- **3** Connect the computer to an electrical outlet.
- 4 Turn on the computer. When the DELL logo appears, press < F12> immediately. If you wait too long and the Windows logo appears, continue to wait until you see the Windows desktop. Then shut down your computer and try again.
- 5 When the boot device list appears, highlight the device from which you want to boot and press < Enter>.

The computer boots to the selected device.

The next time you reboot the computer, the previous boot order is restored.

System and Battery Performance Optimization

System Performance Overview

System performance may be reduced under specific conditions to prevent automatic system shutdown and potential data loss. Conditions under which performance is reduced include:

PROCESSOR GETS HOT — Performance is reduced when system temperature exceeds established thermal parameters. This performance reduction helps to regulate the system and surface temperatures, which prevents the computer from shutting down due to excessive processor temperatures.

AC ADAPTER THROUGHPUT — Performance is reduced when the computer is running on AC power and power consumption exceeds the established parameters of the AC Adapter. This performance reduction ensures that the system does not try to consume more power than the AC adapter can provide.

BATTERY CAPACITY — Performance is reduced when the computer is running on battery power and power consumption exceeds the battery's rated capacity or exceeds allowable safe discharge levels, or when the battery surface temperature exceeds 60°C.

Optimizing Power Consumption and Battery Charge Time

The AC adapter charges a completely discharged battery in approximately 3 hours with the computer turned off. Charge time is significantly longer if the computer is on and running at high processor speeds and system activity levels. If you run your computer at high system activity levels for extended periods of time and your battery is not charging, try running your system in Low Power Mode. Low Power Mode can improve battery charge time and battery life. Depending on system activity levels, system performance may be reduced. To set Low Power Mode:

NOTE: You can also click the power meter icon on the taskbar.

- 1 Click the Start button→ Control Panel→ Performance and Maintenance→ Power Options.
- 2 Click the **Power Schemes** tab.
- 3 In the **Power schemes** drop-down menu, click **Low Power Mode**.

For more information on power management, see the *Dell Inspiron Help* file. To access the help file, see page 16.

Variable Speed Fan

The computer uses a variable speed fan to prevent the computer from overheating. The fan runs constantly, and fan speed may vary depending on usage. Fan noise is normal and does not indicate a problem with the fan or the computer.

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, software programs, 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 peripherals¹. Support for third-party software and peripherals is provided by the original manufacturer, including those purchased and/or installed through Dell Software and Peripherals, Readyware, and Custom Factory Integration².

- *I* 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 software program that is installed 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 software program 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

To contact Dell electronically, you can access the following websites:

- www.dell.com
- support.dell.com (technical support)
- **premiersupport.dell.com** (technical support for educational, government, healthcare, and medium/large business customers, including Premier, Platinum, and Gold customers)

For specific web addresses for your country, find the appropriate country section in the table below. **NOTE:** Toll-free numbers are for use within the country for which they are listed.

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

| 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 |
|--|--|--|
| Anguilla | General Support | toll-free: 800-335-0031 |
| Antigua and Barbuda | General Support | 1-800-805-5924 |
| Argentina (Buenos Aires) | Website: www.dell.com.ar | |
| International Access Code: 00 | Tech Support and Customer Care | toll-free: 0-800-444-0733 |
| Country Code: 54 | Sales | 0-810-444-3355 |
| City Code: 11 | Tech Support Fax | 11 4515 7139 |
| | Customer Care Fax | 11 4515 7138 |
| Aruba | General Support | toll-free: 800-1578 |

| Country (City) International Access Code Country Code City Code | Department Name or Service Area, Website and E-Mail Address | Area Codes, Local Numbers, and Toll-Free Numbers |
|--|--|--|
| Australia (Sydney) | E-mail (Australia): au_tech_support@dell.com | |
| International Access Code: 0011 | E-mail (New Zealand): nz_tech_support@dell.com | |
| Country Code: 61 | Home and Small Business | 1-300-65-55-33 |
| City Code: 2 | Government and Business | toll-free: 1-800-633-559 |
| | Preferred Accounts Division (PAD) | toll-free: 1-800-060-889 |
| | Customer Care | toll-free: 1-800-819-339 |
| | Corporate Sales | toll-free: 1-800-808-385 |
| | Transaction Sales | toll-free: 1-800-808-312 |
| | Fax | toll-free: 1-800-818-341 |
| Austria (Vienna) | Website: support.euro.dell.com | |
| International Access Code: 900 | E-mail: tech_support_central_europe@dell.com | |
| Country Code: 43 | Home/Small Business Sales | 0820 240 530 00 |
| City Code: 1 | Home/Small Business Fax | 0820 240 530 49 |
| | Home/Small Business Customer Care | 0820 240 530 14 |
| | Preferred Accounts/Corporate Customer Care | 0820 240 530 16 |
| | Home/Small Business Technical Support | 0820 240 530 14 |
| | Preferred Accounts/Corporate Technical Support | 0660 8779 |
| | Switchboard | 0820 240 530 00 |
| Bahamas | General Support | toll-free: 1-866-278-6818 |
| Barbados | General Support | 1-800-534-3066 |
| Belgium (Brussels) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: tech_be@dell.com | |
| Country Code: 32 | E-mail for French Speaking Customers: <pre>support.euro.dell.com/be/fr/emaildell/</pre> | |
| | Technical Support | 02 481 92 88 |
| | Customer Care | 02 481 91 19 |
| | Corporate Sales | 02 481 91 00 |
| | Fax | 02 481 92 99 |
| | Switchboard | 02 481 91 00 |
| Bermuda | General Support | 1-800-342-0671 |
| Bolivia | General Support | toll-free: 800-10-0238 |

| 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 |
|--|--|--|
| Brazil | Website: www.dell.com/br | |
| International Access Code: 00 | Customer Support, Technical Support | 0800 90 3355 |
| Country Code: 55 | Tech Support Fax | 51 481 5470 |
| City Code: 51 | Customer Care Fax | 51 481 5480 |
| | Sales | 0800 90 3390 |
| British Virgin Islands | General Support | toll-free: 1-866-278-6820 |
| Brunei | Customer Technical Support (Penang, Malaysia) | 604 633 4966 |
| Country Code: 673 | Customer Service (Penang, Malaysia) | 604 633 4949 |
| | Transaction Sales (Penang, Malaysia) | 604 633 4955 |
| Canada (North York, Ontario) | Online Order Status: www.dell.ca/ostatus | |
| International Access Code: 011 | AutoTech (automated technical support) | toll-free: 1-800-247-9362 |
| | TechFax | toll-free: 1-800-950-1329 |
| | Customer Care (Home Sales/Small Business) | toll-free: 1-800-847-4096 |
| | Customer Care (med./large business, government) | toll-free: 1-800-326-9463 |
| | Technical Support (Home Sales/Small Business) | toll-free: 1-800-847-4096 |
| | Technical Support (med./large bus., government) | toll-free: 1-800-387-5757 |
| | Sales (Home Sales/Small Business) | toll-free: 1-800-387-5752 |
| | Sales (med./large bus., government) | toll-free: 1-800-387-5755 |
| | Spare Parts Sales & Extended Service Sales | 1 866 440 3355 |
| Cayman Islands | General Support | 1-800-805-7541 |
| Chile (Santiago) | Sales, Customer Support, and Technical Support | toll-free: 1230-020-4823 |
| Country Code: 56 | | |
| City Code: 2 | | |

| Country (City) International Access Code Country Code City Code | Department Name or Service Area, Website and E-Mail Address | Area Codes, Local Numbers, and Toll-Free Numbers |
|--|--|--|
| China (Xiamen) | Tech Support website: support.ap.dell.com/china | |
| Country Code: 86 | Tech Support E-mail: cn_support@dell.com | |
| City Code: 592 | Tech Support Fax | 818 1350 |
| | Home and Small Business Technical Support | toll-free: 800 858 2437 |
| | Corporate Accounts Technical Support | toll-free: 800 858 2333 |
| | Customer Experience | toll-free: 800 858 2060 |
| | Home and Small Business | toll-free: 800 858 2222 |
| | Preferred Accounts Division | toll-free: 800 858 2557 |
| | Large Corporate Accounts GCP | toll-free: 800 858 2055 |
| | Large Corporate Accounts Key Accounts | toll-free: 800 858 2628 |
| | Large Corporate Accounts North | toll-free: 800 858 2999 |
| | Large Corporate Accounts North Government and Education | toll-free: 800 858 2955 |
| | Large Corporate Accounts East | toll-free: 800 858 2020 |
| | Large Corporate Accounts East Government and Education | toll-free: 800 858 2669 |
| | Large Corporate Accounts Queue Team | toll-free: 800 858 2222 |
| | Large Corporate Accounts South | toll-free: 800 858 2355 |
| | Large Corporate Accounts West | toll-free: 800 858 2811 |
| | Large Corporate Accounts Spare Parts | toll-free: 800 858 2621 |
| Colombia | General Support | 980-9-15-3978 |
| Costa Rica | General Support | 0800-012-0435 |
| Czech Republic (Prague) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: czech_dell@dell.com | |
| Country Code: 420 | Technical Support | 02 2186 27 27 |
| City Code: 2 | Customer Care | 02 2186 27 11 |
| | Fax | 02 2186 27 14 |
| | TechFax | 02 2186 27 28 |
| | Switchboard | 02 2186 27 11 |

| 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 |
|--|--|--|
| Denmark (Copenhagen) | Website: support.euro.dell.com | |
| International Access Code: 00 Country Code: 45 | E-mail Support (portable computers): den_nbk_support@dell.com | |
| | E-mail Support (desktop computers): den_support@dell.com | |
| | E-mail Support (servers): Nordic_server_support@dell.com | |
| | Technical Support | 7023 0182 |
| | Customer Care (Relational) | 7023 0184 |
| | Home/Small Business Customer Care | 3287 5505 |
| | Switchboard (Relational) | 3287 1200 |
| | Fax Switchboard (Relational) | 3287 1201 |
| | Switchboard (Home/Small Business) | 3287 5000 |
| | Fax Switchboard (Home/Small Business) | 3287 5001 |
| Dominica | General Support | toll-free: 1-866-278-6821 |
| Dominican Republic | General Support | 1-800-148-0530 |
| Ecuador | General Support | toll-free: 999-119 |
| El Salvador | General Support | 01-899-753-0777 |
| Finland (Helsinki) | Website: support.euro.dell.com | |
| International Access Code: 990 | E-mail: fin_support@dell.com | |
| Country Code: 358 | E-mail Support (servers): | |
| City Code: 9 | Nordic_support@dell.com | |
| | Technical Support | 09 253 313 60 |
| | Technical Support Fax | 09 253 313 81 |
| | Relational Customer Care | 09 253 313 38 |
| | Home/Small Business Customer Care | 09 693 791 94 |
| | Fax | 09 253 313 99 |
| | Switchboard | 09 253 313 00 |

| 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) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: support.euro.dell.com/fr/fr/emaildell / | |
| Country Code: 33 | Home and Small Business | |
| City Codes: (1) (4) | Technical Support | 0825 387 270 |
| | Customer Care | 0825 823 833 |
| | Switchboard | 0825 004 700 |
| | Switchboard (calls from outside of France) | 04 99 75 40 00 |
| | Sales | 0825 004 700 |
| | Fax | 0825 004 701 |
| | Fax (calls from outside of France) | 04 99 75 40 01 |
| | Corporate | |
| | Technical Support | 0825 004 719 |
| | Customer Care | 0825 338 339 |
| | Switchboard | 01 55 94 71 00 |
| | Sales | 01 55 94 71 00 |
| | Fax | 01 55 94 71 01 |
| Germany (Langen) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: tech_support_central_europe@dell.com | |
| Country Code: 49 | Technical Support | 06103 766-7200 |
| City Code: 6103 | Home/Small Business Customer Care | 0180-5-224400 |
| | Global Segment Customer Care | 06103 766-9570 |
| | Preferred Accounts Customer Care | 06103 766-9420 |
| | Large Accounts Customer Care | 06103 766-9560 |
| | Public Accounts Customer Care | 06103 766-9555 |
| | Switchboard | 06103 766-7000 |

| 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 |
|--|--|--|
| Greece | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: support.euro.dell.com/gr/en/emaildell/ | |
| Country Code: 30 | Technical Support | 080044149518 |
| | Gold Technical Support | 08844140083 |
| | Switchboard | 2108129800 |
| | Sales | 2108129800 |
| | Fax | 2108129812 |
| Grenada | General Support | toll-free: 1-866-540-3355 |
| Guatemala | General Support | 1-800-999-0136 |
| Guyana | General Support | toll-free: 1-877-270-4609 |
| Hong Kong | Website: support.ap.dell.com | |
| International Access Code: 001 | E-mail: ap_support@dell.com | |
| Country Code: 852 | Technical Support (Dimension [™] and Inspiron [™]) | 2969 3189 |
| | Technical Support (OptiPlex™, Latitude™, and Dell Precision™) | 2969 3191 |
| | Technical Support (PowerApp™, PowerEdge™, PowerConnect™, and PowerVault™) | 2969 3196 |
| | Gold Queue EEC Hotline | 2969 3187 |
| | Customer Advocacy | 3416 0910 |
| | Large Corporate Accounts | 3416 0907 |
| | Global Customer Programs | 3416 0908 |
| | Medium Business Division | 3416 0912 |
| | Home and Small Business Division | 2969 3105 |
| India | Technical Support | 1600 33 8045 |
| | Sales | 1600 33 8044 |
| 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 |
|--|--|--|
| Ireland (Cherrywood) | Website: support.euro.dell.com | |
| International Access Code: 16 | E-mail: dell_direct_support@dell.com | |
| Country Code: 353 | Technical Support | 1850 543 543 |
| City Code: 1 | U.K. Technical Support (dial within U.K. only) | 0870 908 0800 |
| | Home User Customer Care | 01 204 4014 |
| | Small Business Customer Care | 01 204 4014 |
| | U.K. Customer Care (dial within U.K. only) | 0870 906 0010 |
| | Corporate Customer Care | 1850 200 982 |
| | Corporate Customer Care (dial within U.K. only) | 0870 907 4499 |
| | Ireland Sales | 01 204 4444 |
| | U.K. Sales (dial within U.K. only) | 0870 907 4000 |
| | Fax/SalesFax | 01 204 0103 |
| | Switchboard | 01 204 4444 |
| Italy (Milan) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: support.euro.dell.com/it/it/emaildell/ | |
| Country Code: 39 | Home and Small Business | |
| City Code: 02 | Technical Support | 02 577 826 90 |
| | Customer Care | 02 696 821 14 |
| | Fax | 02 696 821 13 |
| | Switchboard | 02 696 821 12 |
| | Corporate | |
| | Technical Support | 02 577 826 90 |
| | Customer Care | 02 577 825 55 |
| | Fax | 02 575 035 30 |
| | Switchboard | 02 577 821 |
| Jamaica | General Support (dial from within Jamaica only) | 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) | Website: support.jp.dell.com | |
| International Access Code: 001 | Technical Support (servers) | toll-free: 0120-198-498 |
| Country Code: 81 | Technical Support outside of Japan (servers) | 81-44-556-4162 |
| City Code: 44 | Technical Support (Dimension ^{TM} and Inspiron ^{TM}) | toll-free: 0120-198-226 |
| | Technical Support outside of Japan (Dimension and Inspiron) | 81-44-520-1435 |
| | Technical Support (Dell Precision TM , OptiPlex TM , and Latitude TM) | toll-free:0120-198-433 |
| | Technical Support outside of Japan (Dell Precision, OptiPlex, and Latitude) | 81-44-556-3894 |
| | Technical Support (Axim™) | toll-free: 0120-981-690 |
| | Technical Support outside of Japan (Axim) | 81-44-556-3468 |
| | Faxbox Service | 044-556-3490 |
| | 24-Hour Automated Order Service | 044-556-3801 |
| | Customer Care | 044-556-4240 |
| | Business Sales Division (up to 400 employees) | 044-556-1465 |
| | Preferred Accounts Division Sales (over 400 employees) | 044-556-3433 |
| | Large Corporate Accounts Sales (over 3500 employees) | 044-556-3430 |
| | Public Sales (government agencies, educational institutions, and medical institutions) | 044-556-1469 |
| | Global Segment Japan | 044-556-3469 |
| | Individual User | 044-556-1760 |
| | Switchboard | 044-556-4300 |
| Korea (Seoul) | Technical Support | toll-free: 080-200-3800 |
| International Access Code: 001 | Sales | toll-free: 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.) | 512 728-4093 |
| | Customer Service (Austin, Texas, U.S.A.) | 512 728-3619 |
| | Fax (Technical Support and Customer Service) (Austin, Texas, U.S.A.) | 512 728-3883 |
| | Sales (Austin, Texas, U.S.A.) | 512 728-4397 |
| | SalesFax (Austin, Texas, U.S.A.) | 512 728-4600 |
| | | or 512 728-3772 |
| Luxembourg | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: tech_be@dell.com | |
| Country Code: 352 | Technical Support (Brussels, Belgium) | 3420808075 |
| | Home/Small Business Sales (Brussels, Belgium) | toll-free: 080016884 |
| | Corporate Sales (Brussels, Belgium) | 02 481 91 00 |
| | Customer Care (Brussels, Belgium) | 02 481 91 19 |
| | Fax (Brussels, Belgium) | 02 481 92 99 |
| | Switchboard (Brussels, Belgium) | 02 481 91 00 |
| Macao | Technical Support | toll-free: 0800 582 |
| Country Code: 853 | Customer Service (Penang, Malaysia) | 604 633 4949 |
| | Transaction Sales | toll-free: 0800 581 |
| Malaysia (Penang) | Technical Support | toll-free: 1 800 888 298 |
| International Access Code: 00 | Customer Service | 04 633 4949 |
| Country Code: 60 | Transaction Sales | toll-free: 1 800 888 202 |
| City Code: 4 | Corporate Sales | toll-free: 1 800 888 213 |
| Mexico | Customer Technical Support | 001-877-384-8979 |
| International Access Code: 00 | | or 001-877-269-3383 |
| 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 |
| Montserrat | General Support | toll-free: 1-866-278-6822 |

| 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 |
|--|--|--|
| Netherlands Antilles | General Support | 001-800-882-1519 |
| Netherlands (Amsterdam) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail (Technical Support): | |
| Country Code: 31 | (Enterprise): nl_server_support@dell.com | |
| City Code: 20 | (Latitude): nl_latitude_support@dell.com | |
| | (Inspiron): nl_inspiron_support@dell.com | |
| | (Dimension): nl_dimension_support@dell.com | |
| | (OptiPlex): nl_optiplex_support@dell.com | |
| | (Dell Precision): nl_workstation_support@dell.com | |
| | Technical Support | 020 674 45 00 |
| | Technical Support Fax | 020 674 47 66 |
| | Home/Small Business Customer Care | 020 674 42 00 |
| | Relational Customer Care | 020 674 4325 |
| | Home/Small Business Sales | 020 674 55 00 |
| | Relational Sales | 020 674 50 00 |
| | Home/Small Business Sales Fax | 020 674 47 75 |
| | Relational Sales Fax | 020 674 47 50 |
| | Switchboard | 020 674 50 00 |
| | Switchboard Fax | 020 674 47 50 |
| New Zealand | E-mail (New Zealand): nz_tech_support@dell.com | |
| International Access Code: 00 | E-mail (Australia): au_tech_support@dell.com | |
| Country Code: 64 | Home and Small Business | 0800 446 255 |
| | Government and Business | 0800 444 617 |
| | Sales | 0800 441 567 |
| | Fax | 0800 441 566 |
| Nicaragua | General Support | 001-800-220-1006 |

| Country (City) International Access Code Country Code | Department Name or Service Area, Website and E-Mail Address | Area Codes, Local Numbers, and Toll-Free Numbers |
|---|--|--|
| City Code | | |
| Norway (Lysaker) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail Support (portable computers): | |
| Country Code: 47 | nor_nbk_support@dell.com | |
| | E-mail Support (desktop computers): | |
| | nor_support@dell.com | |
| | E-mail Support (servers): | |
| | nordic_server_support@dell.com | |
| | Technical Support | 671 16882 |
| | Relational Customer Care | 671 17514 |
| | Home/Small Business Customer Care | 23162298 |
| | Switchboard | 671 16800 |
| | Fax Switchboard | 671 16865 |
| Panama | General Support | 001-800-507-0962 |
| Peru | General Support | 0800-50-669 |
| Poland (Warsaw) | Website: support.euro.dell.com | |
| International Access Code: 011 | E-mail: pl_support_tech@dell.com | |
| Country Code: 48 | Customer Service Phone | 57 95 700 |
| City Code: 22 | Customer Care | 57 95 999 |
| | Sales | 57 95 999 |
| | Customer Service Fax | 57 95 806 |
| | Reception Desk Fax | 57 95 998 |
| | Switchboard | 57 95 999 |
| Portugal | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: support.euro.dell.com/pt/en/emaildell / | |
| Country Code: 351 | Technical Support | 707200149 |
| | Customer Care | 800 300 413 |
| | Sales | 800 300 410 or 800 300 411 or 800 300 412 or 21 422 07 10 |
| | Fax | 21 424 01 12 |
| Puerto Rico | General Support | 1-800-805-7545 |
| St. Kitts and Nevis | General Support | toll-free: 1-877-441-4731 |

| 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 |
| St. Vincent and the Grenadines | General Support | toll-free: 1-877-270-4609 |
| Singapore (Singapore) | Technical Support | toll-free: 800 6011 051 |
| International Access Code: 005 | Customer Service (Penang, Malaysia) | 604 633 4949 |
| Country Code: 65 | Transaction Sales | toll-free: 800 6011 054 |
| | Corporate Sales | toll-free: 800 6011 053 |
| South Africa (Johannesburg) | Website: support.euro.dell.com | |
| International Access Code: | E-mail: dell_za_support@dell.com | |
| 09/091 | Technical Support | 011 709 7710 |
| Country Code: 27 | Customer Care | 011 709 7707 |
| City Code: 11 | Sales | 011 709 7700 |
| | Fax | 011 706 0495 |
| | Switchboard | 011 709 7700 |
| Southeast Asian and Pacific Countries | Customer Technical Support, Customer Service, and Sales (Penang, Malaysia) | 604 633 4810 |
| Spain (Madrid) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: support.euro.dell.com/es/es/emaildell / | |
| Country Code: 34 | Home and Small Business | |
| City Code: 91 | Technical Support | 902 100 130 |
| | Customer Care | 902 118 540 |
| | Sales | 902 118 541 |
| | Switchboard | 902 118 541 |
| | Fax | 902 118 539 |
| | Corporate | |
| | Technical Support | 902 100 130 |
| | Customer Care | 902 118 546 |
| | Switchboard | 91 722 92 00 |
| | Fax | 91 722 95 83 |

| 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) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: swe_support@dell.com | |
| Country Code: 46 City Code: 8 | E-mail Support for Latitude and Inspiron: Swe-nbk_kats@dell.com | |
| , see the second s | E-mail Support for OptiPlex: Swe_kats@dell.com | |
| | E-mail Support for Servers: Nordic_server_support@dell.com | |
| | Technical Support | 08 590 05 199 |
| | Relational Customer Care | 08 590 05 642 |
| | Home/Small Business Customer Care | 08 587 70 527 |
| | Employee Purchase Program (EPP) Support | 20 140 14 44 |
| | Fax Technical Support | 08 590 05 594 |
| | Sales | 08 590 05 185 |
| Switzerland (Geneva) | Website: support.euro.dell.com | |
| International Access Code: 00 | E-mail: swisstech@dell.com | |
| Country Code: 41 City Code: 22 | E-mail for French-speaking HSB and Corporate Customers: support.euro.dell.com/ch/fr/emaildell / | |
| 3 | Technical Support (Home and Small Business) | 0844 811 411 |
| | Technical Support (Corporate) | 0844 822 844 |
| | Customer Care (Home and Small Business) | 0848 802 202 |
| | Customer Care (Corporate) | 0848 821 721 |
| | Fax | 022 799 01 90 |
| | Switchboard | 022 799 01 01 |
| Taiwan International Access Code: 002 | Technical Support (portable and desktop computers) | toll-free: 00801 86 1011 |
| Country Code: 886 | Technical Support (servers) | toll-free: 0080 60 1256 |
| | Transaction Sales | toll-free: 0080 651 228 |
| | Corporate Sales | toll-free: 0080 651 227 |
| Thailand | Technical Support | toll-free: 0880 060 07 |
| International Access Code: 001 | Customer Service (Penang, Malaysia) | 604 633 4949 |
| Country Code: 66 | Sales | toll-free: 0880 060 09 |
| Trinidad/Tobago | General Support | 1-800-805-8035 |

| 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 |
|--|---|--|
| Turks and Caicos Islands | General Support | toll-free: 1-866-540-3355 |
| U.K. (Bracknell) | Website: support.euro.dell.com | |
| International Access Code: 00 | Customer Care website: support.euro.dell.com/uk/en/H | ECare/Form/Home.asp |
| Country Code: 44 | | |
| City Code: 1344 | E-mail: dell_direct_support@dell.com | |
| | Technical Support (Corporate/Preferred Accounts/PAD [1000+ employees]) | 0870 908 0500 |
| | Technical Support (direct/PAD and general) | 0870 908 0800 |
| | Global Accounts Customer Care | 01344 373 186 |
| | Home and Small Business Customer Care | 0870 906 0010 |
| | Corporate Customer Care | 01344 373 185 |
| | Preferred Accounts (500–5000 employees) Customer Care | 0870 906 0010 |
| | Central Government Customer Care | 01344 373 193 |
| | Local Government & Education Customer Care | 01344 373 199 |
| | Health Customer Care | 01344 373 194 |
| | Home and Small Business Sales | 0870 907 4000 |
| | Corporate/Public Sector Sales | 01344 860 456 |
| | Home and Small Business Fax | 0870 907 4006 |
| Uruguay | General Support | toll-free: 000-413-598-2521 |

| 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 Service | toll-free: 1-800-433-9014 |
| International Access Code: 011 | AutoTech (portable and desktop computers) | toll-free: 1-800-247-9362 |
| Country Code: 1 | Consumer (Home and Home Office) | |
| | Technical Support | toll-free: 1-800-624-9896 |
| | Customer Service | toll-free: 1-800-624-9897 |
| | DellNet [™] Service and Support | toll-free: 1-877-Dellnet |
| | | (1-877-335-5638) |
| | Employee Purchase Program (EPP) Customers | toll-free: 1-800-695-8133 |
| | Financial Services website: www.dellfinancialservices.com | 1 |
| | Financial Services (lease/loans) | toll-free: 1-877-577-3355 |
| | Financial Services (Dell Preferred Accounts [DPA]) | toll-free: 1-800-283-2210 |
| | Business | |
| | Customer Service and Technical Support | toll-free: 1-800-822-8965 |
| | Employee Purchase Program (EPP) Customers | toll-free: 1-800-695-8133 |
| | Printers and Projectors Technical Support | toll-free: 1-877-459-7298 |
| | Public (government, education, and healthcare) | |
| | Customer Service and Technical Support | toll-free: 1-800-456-3355 |
| | Employee Purchase Program (EPP) Customers | toll-free: 1-800-234-1490 |
| | Dell Sales | toll-free: 1-800-289-3355 |
| | | or toll-free: 1-800-879-3355 |
| | Dell Outlet Store (Dell refurbished computers) | toll-free: 1-888-798-7561 |
| | Software and Peripherals Sales | toll-free: 1-800-671-3355 |
| | Spare Parts Sales | toll-free: 1-800-357-3355 |
| | Extended Service and Warranty Sales | toll-free: 1-800-247-4618 |
| | Fax | toll-free: 1-800-727-8320 |
| | Dell Services for the Deaf, Hard-of-Hearing, or | toll-free: 1-877-DELLTTY |
| | Speech-Impaired | (1-877-335-5889) |
| U.S. Virgin Islands | General Support | 1-877-673-3355 |
| Venezuela | General Support | 8001-3605 |

Regulatory Notices

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.

For additional regulatory information, see the *Dell Inspiron Help* file that accompanied your computer. To access the help file, see page 16.

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 Inc. One Dell Way Round Rock, TX 78682 |
|----------------------|---|
| Importer: | Dell Computer de México, S.A. de C.V. Paseo de la Reforma 2620 - 11° Piso Col. Lomas Altas 11950 México, D.F. |
| Ship to: | Dell Computer de México, S.A. de C.V. al Cuidado de Kuehne & Nagel de México S. de R.L. Avenida Soles No. 55 Col. Peñon de los Baños 15520 México, D.F. |
| Model number: | PP08L |
| Supply voltage: | 100-240 VAC |
| Frequency: | 50–60 Hz |
| Current consumption: | 1.5 A |
| Output voltage: | 19.5 VDC |
| Output current: | 4.62 A |

Dell Software License Agreement

This is a legal agreement between you, the user, and Dell Products, L.P ("Dell"). This agreement covers all software that is distributed with the Dell product, for which there is no separate license agreement between you and the manufacturer or owner of the software (collectively the "Software"). This agreement is not for the sale of Software or any other intellectual property. All title and intellectual property rights in and to Software is owned by the manufacturer or owner of the Software. All rights not expressly granted under this agreement are reserved by the manufacturer or owner of the Software. By opening or breaking the seal on the Software packet(s), installing or downloading the Software, or using the Software that has been preloaded or is embedded in your product, you agree to be bound by the terms of this agreement. If you do not agree to these terms, promptly return all Software items (disks, written materials, and packaging) and delete any preloaded or embedded Software.

You may use one copy of the Software on only one computer at a time. If you have multiple licenses for the Software, you may use as many copies at any time as you have licenses. "Use" means loading the Software in temporary memory or permanent storage on the computer. Installation on a network server solely for distribution to other computers is not "use" if (but only if) you have a separate license for each computer to which the Software is distributed. You must ensure that the number of persons using the Software installed on a network server will exceed the number of licenses that you have. If the number of users of Software installed on a network server will exceed the number of licenses, you must purchase additional licenses until the number of licenses equals the number of users before allowing additional users to use the Software. If you are a commercial customer of Dell or a Dell affiliate, you hereby grant Dell, or an agent selected by Dell, the right to perform an audit of your use of the Software during normal business hours, you agree to cooperate with Dell in such audit, and you agree to provide Dell with all records reasonably related to your use of the Software. The audit will be limited to verification of your compliance with the terms of this agreement.

The Software is protected by United States copyright laws and international treaties. You may make one copy of the Software solely for backup or archival purposes or transfer it to a single hard disk provided you keep the original solely for backup or archival purposes. You may not rent or lease the Software or copy the written materials accompanying the Software, but you may transfer the Software and all accompanying materials on a permanent basis as part of a sale or transfer of the Dell product if you retain no copies and the recipient agrees to the terms hereof. Any transfer must include the most recent update and all prior versions. You may not reverse engineer, decompile, or disassemble the Software. If the package accompanying your computer contains compact discs, 3.5", and/or 5.25" disks, you may use only the disks appropriate for your computer. You may not use the disks on another computer or network, or loan, rent, lease, or transfer them to another user except as permitted by this agreement.

LIMITED WARRANTY

Dell warrants that the Software disks will be free from defects in materials and workmanship under normal use for ninety (90) days from the date you receive them. This warranty is limited to you and is not transferable. Any implied warranties are limited to ninety (90) days from the date you receive the Software. Some jurisdictions do not allow limits on the duration of an implied warranty, so this limitation may not apply to you. The entire liability of Dell and its suppliers, and your exclusive remedy, shall be (a) return of the price paid for the Software or (b) replacement of any disk not meeting this warranty that is sent with a return authorization number to Dell, at your cost and risk. This limited warranty is void if any disk damage has resulted from accident, abuse, misapplication, or service or modification by someone other than Dell. Any replacement disk is warranted for the remaining original warranty period or thirty (30) days, whichever is longer.

Dell does NOT warrant that the functions of the Software will meet your requirements or that operation of the Software will be uninterrupted or error free. You assume responsibility for selecting the Software to achieve your intended results and for the use and results obtained from the Software.

DELL, ON BEHALF OF ITSELF AND ITS SUPPLIERS, DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, FOR THE SOFTWARE AND ALL ACCOMPANYING WRITTEN MATERIALS. This limited warranty gives you specific legal rights; you may have others, which vary from jurisdiction to jurisdiction.

IN NO EVENT SHALL DELL OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR OTHER PECUNIARY LOSS) ARISING OUT OF USE OR INABILITY TO USE THE SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Because some jurisdictions do not allow an exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

U.S. GOVERNMENT RESTRICTED RIGHTS

The software and documentation are "commercial items" as that term is defined at 48 C.ER. 2.101, consisting of "commercial computer software" and "commercial computer software documentation" as such terms are used in 48 C.ER. 12.212. Consistent with 48 C.ER. 12.212 and 48 C.ER. 227.7202-1 through 227.7202-4, all U.S. Government end users acquire the software and documentation with only those rights set forth herein. Contractor/manufacturer is Dell Products, L.P., One Dell Way, Round Rock, Texas 78682.

GENERAL

This license is effective until terminated. It will terminate upon the conditions set forth above or if you fail to comply with any of its terms. Upon termination, you agree that the Software and accompanying materials, and all copies thereof, will be destroyed. This agreement is governed by the laws of the State of Texas. Each provision of this agreement is severable. If a provision is found to be unenforceable, this finding does not affect the enforceability of the remaining provisions, terms, or conditions of this agreement. This agreement is binding on successors and assigns. Dell agrees and you agree to waive, to the maximum extent permitted by law, any right to a jury trial with respect to the Software or this agreement. Because this waiver may not be effective in some jurisdictions, this waiver may not apply to you. You acknowledge that you have read this agreement, that you understand it, that you agree to be bound by its terms, and that this is the complete and exclusive statement of the agreement between you and Dell regarding the Software.

Limited Warranties and Return Policy

Dell-branded hardware products purchased in the U.S. or Canada come with either a 90-day, 1-year, 2-year, 3-year, or 4-year limited warranty. To determine which warranty came with your hardware product(s), see your packing slip or invoice. The following sections describe the limited warranties and return policy for the U.S., the limited warranties and return policy for Canada, the manufacturer guarantee for Latin America and the Caribbean, and the Intel[®] Pentium[®] and Celeron[®] warranty for the U.S. and Canada.

Limited Warranty for Dell-Branded Hardware Products (U.S. Only)

What is covered by this limited warranty?

This limited warranty covers defects in materials and workmanship in your—our end-user customer's—Dell-branded hardware products, including Dell-branded peripheral products.

What is not covered by this limited warranty?

This limited warranty does not cover:

- Software, including the operating system and software added to the Dell-branded hardware products through our factory-integration system, third-party software, or the reloading of software
- Non-Dell-branded and Solution Provider Direct products and accessories
- Problems that result from:
 - External causes such as accident, abuse, misuse, or problems with electrical power
 - Servicing not authorized by Dell
 - Usage that is not in accordance with product instructions
 - Failure to follow the product instructions or failure to perform preventive maintenance
 - Problems caused by using accessories, parts, or components not supplied by Dell
- · Products with missing or altered Service Tags or serial numbers
- · Products for which Dell has not received payment

THIS 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 WARRANTY STATEMENT. ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN TIME TO THE TERM OF THE LIMITED WARRANTY PERIOD REFLECTED ON YOUR PACKING SLIP OR INVOICE. NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE LIMITED WARRANTY PERIOD HAS EXPIRED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THIS LIMITATION MAY NOT APPLY TO YOU.

WE DO NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS LIMITED WARRANTY OR FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY LIABILITY FOR THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES, FOR PRODUCTS NOT BEING AVAILABLE FOR USE, OR FOR LOST DATA OR LOST SOFTWARE. OUR LIABILITY WILL BE NO MORE THAN THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM. THIS IS THE MAXIMUM AMOUNT FOR WHICH WE ARE RESPONSIBLE.

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

How long does this limited warranty last?

This limited warranty lasts for the time period indicated on your packing slip or invoice, except for the following Dellbranded hardware:

- Portable computer batteries carry a 1-year limited warranty.
- Projector lamps carry a 90-day limited warranty.
- Memory carries a lifetime limited warranty.
- Monitors carry the longer of either a 3-year limited warranty or the remainder of the warranty for the Dell
 computer to which the monitor will be connected.
- Other add-on hardware carries the longer of either a 1-year limited warranty for new parts and a 90-day limited warranty for reconditioned parts or, for both new and reconditioned parts, the reminder of the warranty for the Dell computer on which such parts are installed.

The limited warranty on all Dell-branded products begins on the date of the packing slip or invoice. The warranty period is not extended if we repair or replace a warranted product or any parts. Dell may change the availability of limited warranties, at its discretion, but any changes will not be retroactive.

What do I do if I need warranty service?

Before the warranty expires, please call us at the relevant number listed in the following table. Please also have your Dell Service Tag or order number available.

| Individual Home Consumers: | U.S. Only |
|---|----------------|
| Technical Support | 1-800-624-9896 |
| Customer Service | 1-800-624-9897 |
| Individual Home Consumers who purchased through an Employee Purchase Program: | |
| Technical Support and Customer Service | 1-800-822-8965 |
| Home and Small Business Commercial Customers: | |
| Technical Support and Customer Service | 1-800-456-3355 |
| Medium, Large, or Global Commercial Customers, Healthcare Customers, and Value-Added Resellers (VARs): | |
| Technical Support and Customer Service | 1-800-822-8965 |
| Government and Education Customers: | |
| Technical Support and Customer Service | 1-800-234-1490 |
| Dell-Branded Memory | 1-888-363-5150 |

What will Dell do?

During the 90 days of the 90-day limited warranty and the first year of all other limited warranties: During the 90 days of the 90-day limited warranty and the first year of all other limited warranties, we will repair any Dell-branded hardware products returned to us that prove to be defective in materials or workmanship. If we are not able to repair the product, we will replace it with a comparable product that is new or refurbished.

When you contact us, we will issue a Return Material Authorization Number for you to include with your return. You must return the products to us in their original or equivalent packaging, prepay shipping charges, and insure the shipment or accept the risk if the product is lost or damaged in shipment. We will return the repaired or replacement products to you. We will pay to ship the repaired or replaced products to you if you use an address in the United States (excluding Puerto Rico and U.S. possessions and territories). Otherwise, we will ship the product to you freight collect.

If we determine that the product is not covered under this warranty, we will notify you and inform you of service alternatives that are available to you on a fee basis.

NOTE: Before you ship the product(s) to us, make sure to back up the data on the hard drive(s) and any other storage device(s) in the product(s). Remove any confidential, proprietary, or personal information and removable media such as floppy disks, CDs, or PC Cards. We are not responsible for any of your confidential, proprietary, or personal information; lost or corrupted data; or damaged or lost removable media.

During the remaining years: For the remaining period of the limited warranty, we will replace any defective part with new or refurbished parts, if we agree that it needs to be replaced. When you contact us, we will require a valid credit card number at the time you request a replacement part, but we will not charge you for the replacement part as long as you return the original part to us within 30 days after we ship the replacement part to you. If we do not receive the original part within 30 days, we will charge to your credit card the then-current standard price for that part.

We will pay to ship the part to you if you use an address in the United States (excluding Puerto Rico and U.S. possessions and territories). Otherwise, we will ship the part freight collect. We will also include a prepaid shipping container with each replacement part for your use in returning the replaced part to us.

NOTE: Before you replace parts, make sure to back up the data on the hard drive(s) and any other storage device(s) in the product(s). We are not responsible for lost or corrupted data.

What if I purchased a service contract?

If your service contract is with Dell, service will be provided to you under the terms of the service agreement. Please refer to that contract for details on how to obtain service.

If you purchased through us a service contract with one of our third-party service providers, please refer to that contract for details on how to obtain service.

How will you fix my product?

We use new and refurbished parts made by various manufacturers in performing warranty repairs and in building replacement parts and systems. Refurbished parts and systems are parts or systems that have been returned to Dell, some of which were never used by a customer. All parts and systems are inspected and tested for quality. Replacement parts and systems are covered for the remaining period of the limited warranty for the product you bought. Dell owns all parts removed from repaired products.

May I transfer the limited warranty?

Limited warranties on systems may be transferred if the current owner transfers ownership of the system and records the transfer with us. The limited warranty on Dell-branded memory may not be transferred. You may record your transfer by going to Dell's website:

- If you are an Individual Home Consumer, go to www.dell.com/us/en/dhs/topics/sbtopic_015_ccare.htm
- If you are a Home Office, Small, Medium, Large, or Global Commercial Customer, go to www.dell.com/us/en/biz/topics/sbtopic_ccare_nav_015_ccare.htm
- If you are a Government, Education, or Healthcare Customer, or an Individual Home Consumer who purchased through an Employee Purchase Program, go to www.dell.com/us/en/pub/topics/sbtopic_015_ccare.htm

If you do not have Internet access, call your customer care representative or call 1-800-624-9897.

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

We value our relationship with you and want to make sure that you're satisfied with your purchases. That's why we offer a "Total Satisfaction" return policy for most products that you—the end-user customer—purchase directly from Dell. Under this policy, you may return to Dell products that you purchased directly from Dell for a credit or a refund of the purchase price paid, less shipping and handling and applicable return fees as follows:

- New Hardware Products and Accessories All new hardware, accessories, parts, and unopened software still in its sealed package, excluding the products listed below, may be returned within 30 days from the date on the packing slip or invoice. To return applications software or an operating system that has been installed by Dell, you must return the entire computer. A different return policy applies to nondefective products purchased through Dell's Software and Peripherals division by customers of our Small and Medium Business divisions. Those products may be returned within 30 days from the date on the packing slip or invoice, but a fifteen percent (15%) return fee will be deducted from any refund or credit. The "Total Satisfaction" Return Policy and Software and Peripherals division return policy are not available for Dell | EMC storage products, EMC-branded products, Unisys-branded products, PowerVault[™] 160T tape libraries, or enterprise software.
- **Reconditioned or Refurbished Dell-Branded Hardware Products and Parts** All reconditioned or refurbished Dell-branded server and storage products may be returned within 30 days from the date on the packing slip or invoice. All other reconditioned or refurbished Dell-branded hardware products and parts may be returned within 14 days of the date on the packing slip or invoice.

To return products, e-mail or call Dell customer service to receive a Credit Return Authorization Number within the return policy period applicable to the product you want to return. You must obtain a Credit Return Authorization Number in order to return the product. See "Contacting Dell" or "Getting Help" in your customer documentation (or **www.dell.com/us/en/gen/contact.htm**) to find the appropriate contact information for obtaining customer assistance.

You must ship the products to Dell within 5 days of the date that Dell issues the Credit Return Authorization Number. You must also return the products to Dell in their original packaging, in as-new condition along with any media, documentation, and all other items that were included in the original shipment, prepay shipping charges, and insure the shipment or accept the risk of loss or damage during shipment.

Limited Warranty Terms for Dell-Branded Hardware Products (Canada Only)

What is covered by this limited warranty?

This limited warranty covers defects in materials and workmanship in your—our end-user customer's—Dell-branded hardware products, including Dell-branded peripheral products.

What is not covered by this limited warranty?

This limited warranty does not cover:

- Software, including the operating system and software added to the Dell-branded hardware products through our factory-integration system, or the reloading of the software
- Non-Dell branded and Solution Provider Direct products and accessories
- Problems that result from:
 - External causes such as accident, abuse, misuse, or problems with electrical power
 - Servicing not authorized by Dell
 - Usage that is not in accordance with product instructions
 - Failure to follow the product instructions or failure to perform preventive maintenance
 - Problems caused by using accessories, parts, or components not supplied by Dell

- Products with missing or altered Service Tags or serial numbers
- · Products for which Dell has not received payment

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM PROVINCE TO PROVINCE. DELL'S RESPONSIBILITY FOR MALFUNCTIONS AND DEFECTS IN PRODUCT IS LIMITED TO REPAIR AND REPLACEMENT AS SET FORTH IN THIS WARRANTY STATEMENT, FOR THE TERM OF THE WARRANTY PERIOD REFLECTED ON YOUR PACKING SLIP OR INVOICE. EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED IN THIS 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, STATUTORY OR OTHERWISE. SOME PROVINCES DO NOT ALLOW THE EXCLUSION OF CERTAIN IMPLIED WARRANTIES OR CONDITIONS, OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION LASTS. THEREFORE, THE FOREGOING EXCLUSIONS AND LIMITATIONS MAY NOT APPLY TO YOU.

WE DO NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS WARRANTY STATEMENT OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY LIABILITY FOR THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES, FOR PRODUCTS NOT BEING AVAILABLE FOR USE, OR FOR LOST DATA OR LOST SOFTWARE. OUR LIABILITY WILL BE NO MORE THAN THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM. THIS IS THE MAXIMUM AMOUNT FOR WHICH WE ARE RESPONSIBLE.

SOME PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

How long does this limited warranty last?

This limited warranty lasts for the time period indicated on your packing slip or invoice, except that the limited warranty on Dell-branded batteries lasts only 1 year and the limited warranty on the lamps for Dell-branded projectors lasts only 90 days. The limited warranty begins on the date of the packing slip or invoice. The warranty period is not extended if we repair or replace a warranted product or any parts. Dell may change the terms and availability of limited warranties, at its discretion, but any changes will not be retroactive (that is, the warranty terms in place at the time of purchase will apply to your purchase).

What do I do if I need warranty service?

Before the warranty expires, please call us at the relevant number listed in the following table. Please also have your Dell Service Tag or order number available.

| Individual Home Consumers; Home Office and Small Business Customers: | Canada Only |
|---|--|
| Technical Support and Customer Service | 1-800-847-4096 |
| Medium, Large, and Global Commercial Customers; Government, Education, and Healthcare Customers; and Value- Added Resellers (VARs): | |
| Technical Support | 1-800-387-5757 |
| Customer Service | 1-800-326-9463 |
| Government or Education Customers, or Individual Home Consumers who purchased through an Employee Purchase Program: | |
| Technical Support | 1-800-387-5757 |
| Customer Service | 1-800-326-9463 (Extension 8221 for Individual Consumers) |
| Dell-Branded Memory | 1-888-363-5150 |

What will Dell do?

During the 90 days of the 90-day limited warranty and the first year of all other limited warranties: During the 90 days of the 90-day limited warranty and the first year of all other limited warranties, we will repair any Dell-branded hardware products returned to us that prove to be defective in materials or workmanship. If we are not able to repair the product, we will replace it with a comparable product that is new or refurbished.

When you contact us, we will issue a Return Material Authorization Number for you to include with your return. You must return the products to us in their original or equivalent packaging, prepay shipping charges, and insure the shipment or accept the risk if the product is lost or damaged in shipment. We will return the repaired or replacement products to you. We will pay to ship the repaired or replaced products to you if you use an address in Canada. Otherwise, we will ship the product to you freight collect.

If we determine that the problem is not covered under this warranty, we will notify you and inform you of service alternatives that are available to you on a fee basis.

NOTE: Before you ship the product(s) to us, make sure to back up the data on the hard drive(s) and any other storage device(s) in the product(s). Remove any confidential, proprietary or personal information, removable media, such as floppy disks, CDs, or PC Cards. We are not responsible for any of your confidential, proprietary or personal information; lost or corrupted data; or damaged or lost removable media.

During the remaining years following the first year of all limited warranties: We will replace any defective part with new or refurbished parts, if we agree that it needs to be replaced. When you contact us, we will require a valid credit card number at the time you request a replacement part, but we will not charge you for the replacement part as long as you return the original part to us within 30 days after we ship the replacement part to you. If we do not receive the original part within 30 days, we will charge to your credit card the then-current standard price for that part.

We will pay to ship the part to you if you use an address in Canada. Otherwise, we will ship the part freight collect. We will also include a prepaid shipping container with each replacement part for your use in returning the replaced part to us.

NOTE: Before you replace parts, make sure to back up the data on the hard drive(s) and any other storage device(s) in the product(s). We are not responsible for lost or corrupted data.

What if I purchased a service contract?

If your service contract is with Dell, service will be provided to you under the terms of the service contract. Please refer to that contract for details on how to obtain service. Dell's service contracts can be found online at **www.dell.ca** or by calling Customer Care at 1-800-847-4096. If you purchased through us a service contract with one of our third-party service providers, please refer to that contract (mailed to you with your packing slip or invoice) for details on how to obtain service.

How will you fix my product?

We use new and refurbished parts made by various manufacturers in performing warranty repairs and in building replacement parts and systems. Refurbished parts and systems are parts or systems that have been returned to Dell, some of which were never used by a customer. All parts and systems are inspected and tested for quality. Replacement parts and systems are covered for the remaining period of the limited warranty for the product you bought. Dell owns all parts removed from repaired products.

May I transfer the limited warranty?

Limited warranties on systems may be transferred if the current owner transfers ownership of the system and records the transfer with us. The limited warranty on Dell-branded memory may not be transferred. You may record your transfer by going to Dell's website:

- For Canada-purchased computers (in-country transfers) and to transfer from one customer to another, go to www.dell.ca/ca/en/gen/topics/segtopic_ccare_nav_013_ccare.htm
- For out-of-country transfers (outside of the original country of purchase), go to www.dell.com/us/en/biz/topics/sbtopic_ccare_nav_016_ccare.htm

If you do not have Internet access, call Dell at 1-800-847-4096 (Home Consumer customers) or 1-800-326-9463 (Corporate Commercial or Government customers).

"Total Satisfaction" Return Policy (Canada Only)

If you are an end-user customer who bought new products directly from Dell, you may return them to Dell up to 30 days after you receive them for a refund or credit of the product purchase price. If you are an end-user customer who bought reconditioned or refurbished products from Dell, you may return them to Dell within 14 days after the date on the packing slip or 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 packing slip or invoice and will be subject to a fifteen percent (15%) restocking fee, unless otherwise prohibited by law. 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 at 1-800-847-4096 to receive a Credit Return Authorization Number. To expedite the process of your refund or credit, Dell expects you to return the products to Dell in their original packaging within 5 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 a 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 application or operating system software 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.

The "Total Satisfaction" Return Policy does not apply to Dell | EMC storage products. It also does not apply to products purchased through Dell's Software and Peripherals division. For those products, please instead refer to Dell's Software and Peripheral's then-current return policy (see the following section, "Dell Software and Peripherals [Canada Only]").

Dell Software and Peripherals (Canada Only)

Third-Party Software and Peripherals Products

Similar to other resellers of software and peripherals, Dell does not warrant third-party products. Third-party software and peripheral products are covered by the warranties provided by the original manufacturer or publisher only. Third-party manufacturer warranties vary from product to product. Consult your product documentation for specific warranty information. More information may also be available from the manufacturer or publisher.

While Dell offers a wide selection of software and peripheral products, we do not specifically test or guarantee that all of the products we offer work with any or all of the various models of Dell computers, nor do we test or guarantee all of the products we sell on the hundreds of different brands of computers available today. If you have questions about compatibility, we recommend and encourage you to contact the third-party software and peripheral product manufacturer or publisher directly.

Dell-Branded Peripheral Products

Dell does provide a limited warranty for new Dell-branded peripheral products (products for which Dell is listed as the manufacturer) such as monitors, batteries, memory, docking stations, and projectors. To determine which limited warranty applies to the product you purchased, see the Dell packing slip or invoice and/or the product documentation that accompanied your product. Descriptions of Dell's limited warranties are described in preceding sections.

Return Policy

If you are an end-user customer who bought Dell Software and Peripherals products directly from a Dell company, you may return Dell Software and Peripherals products that are in as-new condition to Dell up to 30 days from the date on the packing slip or invoice for a refund of the product purchase price if already paid. This refund will not include any shipping and handling charges shown on your packing slip or invoice; you are responsible for those.

To return products, you must call Dell Customer Service at 1-800-387-5759 to receive a Credit Return Authorization Number. You must ship the Dell Software and Peripherals products back to Dell in their original manufacturer's packaging (which must be in as-new condition), prepay shipping charges, and insure the shipment or accept the risk of loss or damage during shipment.

To qualify for refund or replacement, returned products must be in as-new condition, software products must be unopened, and all of the manuals, floppy disk(s), CD(s), power cables, and other items included with a product must be returned with it.

1-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 1 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) 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.

Intel[®] Warranty Statement for Pentium[®] and Celeron[®] Processors Only (U.S. and Canada Only)

Limited Warranty

Intel's Three Year Limited Warrantv

Intel warrants that its family of Pentium® and Celeron® processors, if properly used and installed, will be free from defects in materials and workmanship and will substantially conform to Intel's publicly available specifications for a period of three (3) years after the date the Pentium or Celeron processor was purchased (whether purchased separately or as part of a computer system).

If the Pentium or Celeron processor, which is the subject of this Limited Warranty, fails during the warranty period for reasons covered by this Limited Warranty, Intel, at its option, will:

· REPAIR the Pentium or Celeron processor by means of hardware and/or software; OR

REPLACE the Pentium or Celeron processor with another Pentium or Celeron processor; OR
if Intel is unable to repair or replace the particular Pentium or Celeron processor,
 REFUND the then-current value of the Pentium or Celeron processor.

THIS LIMITED WARRANTY, AND ANY IMPLIED WARRANTIES THAT MAY EXIST UNDER STATE LAW, APPLY ONLY TO THE ORIGINAL PURCHASER OF THE PENTIUM OR CELERON PROCESSOR, OR PENTIUM OR CELERON PROCESSOR-BASED COMPUTER AND LAST ONLY FOR AS LONG AS SUCH PURCHASER CONTINUES TO OWN THE PROCESSOR.

Extent of Limited Warranty

Intel does not warrant hat your Pentium or Celeron processor will be free from design defects or errors known as "errata." Current characterized errata are available upon request. This limited warranty is for purchasers in the United States and Canada only. The limited warranty does not cover any costs relating to removal or replacement of any Pentium or Celeron processors that are soldered or otherwise permanently affixed to your system's motherboard.

This limited warranty does not cover damages due to external causes, including accident, problems with electrical power, usage not in accordance with product instructions, misuse, neglect, alteration, repair, improper installation, or improper testing.

How to Obtain Warranty Service

To obtain warranty service for your Pentium or Celeron processor, you may contact your computer system manufacturer in accordance with its instructions, or you may contact Intel.

To request warranty service from Intel, you should call Intel at 1-800-628-8686 during the warranty period during normal business hours (Pacific Time), excluding holidays. Please be prepared to provide:

(1) your name, address, and telephone numbers;

(2) proof of purchase;(3) this Intel warranty card;

(4) a description of the computer system including the brand and model; and

(5) an explanation of the problem.

[Note: The Customer Service Representative may need additional information from you depending on the nature of the problem.]

The replacement processor is warranted under this written warranty and is subject to the same limitations and exclusions for the remainder of the original warranty period or one (1) year, whichever is longer.

WARRANTY LIMITATIONS AND EXCLUSIONS

THESE WARRANTIES REPLACE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. INTEL MAKES NO EXPRESS WARRANTIES BEYOND THOSE STATED HERE. INTEL DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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THE LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM JURISDICTION TO JURISDICTION.

Intel Pentium[®] and Celeron[®] Processors are backed by a three-year limited warranty. Please refer to the reverse side of this card for complete warranty details.

Intel's Commitment to Quality

Intel is committed to producing the highest quality processors available. That's why we have hundreds of people dedicated to continuously improve our design, manufacturing, and testing technology.

We put every one of our Pentium® and Celeron® processors through a rigorous battery of tests during the design and manufacturing processes.

To verify that the new chip will correctly run the software written for Intel Architecture processors, a team of Intel engineers is dedicated to compatibility testing. In a state-of-art lab, this group runs an extensive set of operating systems, applications, network tests and stress tests repeatedly to ensure that the processor is compatible with representative software.

Just as importantly, we work with hardware and software companies in the computer industry to ensure that our processors are compatible with their products.

Additionally, a sampling of Intel processors are subjected to a rigorous "burn-in" test whereby the chip is operated at higher-than-normal temperatures and voltages. During this burn-in period, the processor experiences the equivalent of weeks of normal usage. These units are monitored for failures as part of our ongoing quality assurance process.

As a result, today's microprocessors from Intel are among the most reliable components in computers.

What are "Errata"?

Exhaustive product testing can highlight differences between the actual behavior of the microprocessor and its specifications. Sometimes the discrepancies are caused by a design defect or error, which we call errata. Rigorous validation identifies most errata during the development of the processor, but we do detect additional errata during the life cycle of a microprocessor.

When an erratum is identified, our engineers work to characterize it and find a solution. We work with system designers and software developers to ensure that the discrepancy does not affect their products. If necessary, special software or hardware solutions (sometimes known as "work arounds") are implemented in the system design to prevent computer users from encountering the problem. Errata may then be corrected in future revisions of the microprocessor.

No microprocessor is perfect, and Intel recognizes that some consumers want to know about any errata, whether or not the errata affect them. Intel makes documentation of all characterized Pentium and Celeron processor errata publicly available through our Technical Documentation Service.

At Intel, our goal is to make every computer user satisfied with his or her Pentium or Celeron processor. Should you have any questions, comments or concerns about your Intel microprocessor, please call us at 1-800-628-8686.

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