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Dell™ Inspiron™ 510m




Owner's Manual

Model PP10L



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Notes, Notices, and Cautions

-  **NOTE:** A NOTE indicates important information that helps you make better use of your computer.
-  **NOTICE:** A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
-  **CAUTION:** A CAUTION indicates a potential for property damage, personal injury, or death.

Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see the *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.

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Model PP10L

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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 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.



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

- When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Also, before you connect a cable make sure both connectors are correctly oriented and aligned.
- Handle components with care. Hold a component such as a memory module by its edges, not its pins.
- When preparing to remove a memory module from the system board or disconnect a device from the computer, turn off the computer, disconnect the AC adapter cable, remove any battery installed in the battery bay or module 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 89 or "If You Drop or Damage Your Computer" on page 90. If, after following these procedures, you confirm that your computer is not operating properly, contact Dell (see page 127 for the appropriate contact information).

SAFETY: Ergonomic Computing Habits



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



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

For comfort and efficiency, observe the 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 or a Mini PCI card, Bluetooth card, or reserve battery.



NOTICE: Wait 5 seconds after turning off the computer before disconnecting a device or removing a memory module, Mini PCI card, Bluetooth card, or reserve battery 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 and, if necessary, the second battery from the module 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 "Replacing the Battery" on page 44. 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, see page 41 for instructions.

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 for Your Computer

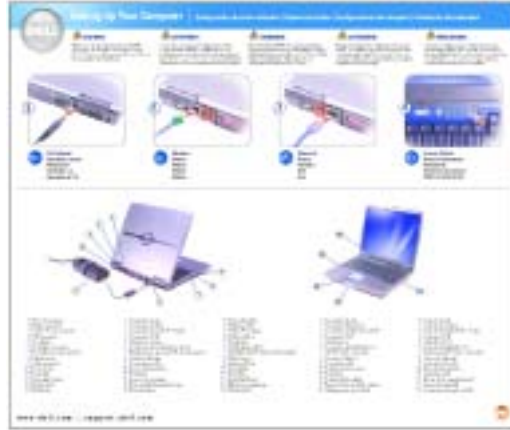
What are you looking for?	Find It Here
<ul style="list-style-type: none">• How to access tutorials and other how to information• How to get a copy of my invoice• How to extend my warranty• How to access Dell Support on my Windows desktop (U.S. only)• Additional documentation, tools, troubleshooting information, and links to online support resources	<p>Dell Solution Center</p>  <p>On your Windows desktop</p>
<ul style="list-style-type: none">• A diagnostic program for my computer• Drivers for my computer• My computer documentation• My device documentation	<p>Drivers and Utilities CD (also known as the ResourceCD)</p> <p>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.</p> <p>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.</p> 
<ul style="list-style-type: none">• 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	<p>Owner's Manual</p> 

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

What are you looking for?**Find It Here**

- How to set up my computer

Setup Diagram



- 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

Dell Inspiron Help File

- 1 Click the **Start** button and click **Help and Support**.
- 2 Click **User and system guides** and click **User's guides**.
- 3 Click **Dell Inspiron Help**.

- Service Tag and Express Service Code
- Microsoft Windows License Label

Service Tag and Microsoft Windows License

These labels are located on 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.



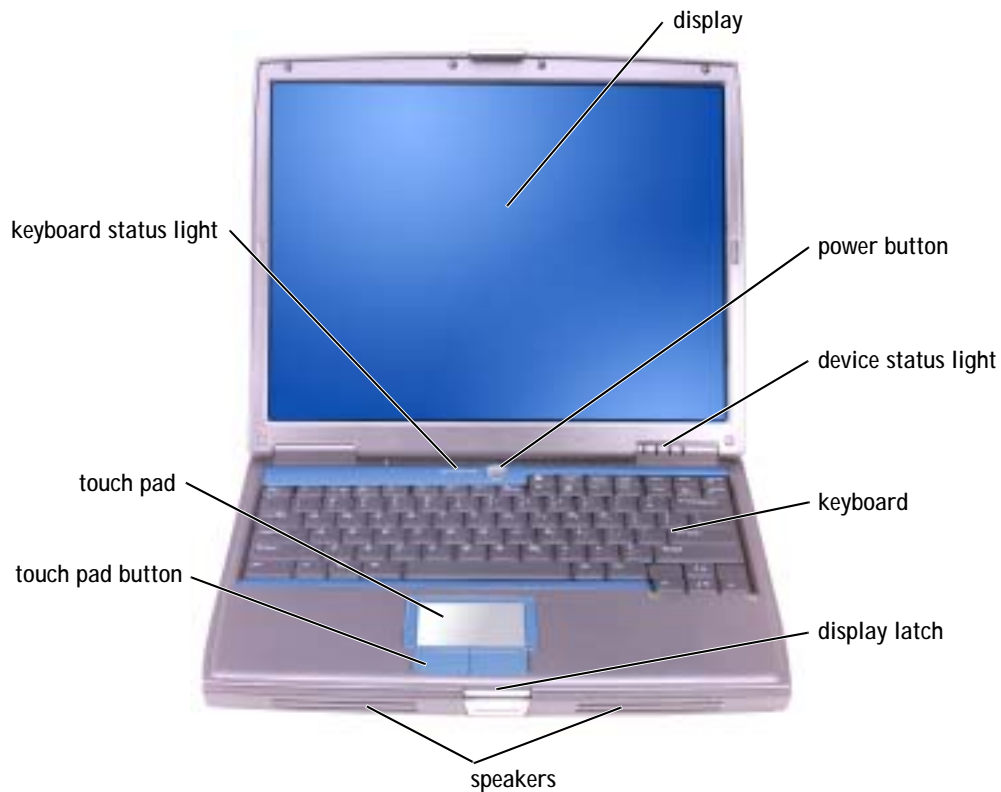
What are you looking for?	Find It Here
<ul style="list-style-type: none"> • Latest drivers for my computer • Answers to technical service and support questions • Online discussions with other users and technical support • Documentation for my computer 	<p>Dell Support Website — support.dell.com</p> <p>The Dell Support website provides several online tools, including:</p> <ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • How to use Windows XP • Documentation for my computer • Documentation for devices (such as a modem) 	<p>Windows Help and Support Center</p> <ol style="list-style-type: none"> 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.
<ul style="list-style-type: none"> • How to reinstall my operating system 	<p>Operating System CD</p> <p>The operating system is already installed on your computer. To reinstall your operating system, use the <i>Operating System</i> CD. See your <i>Owner's Manual</i> for operating system reinstallation instructions.</p> <p>After you reinstall your operating system, use the <i>Drivers and Utilities</i> CD to reinstall drivers for the devices that came with your computer.</p>



Your operating system product key label is located on your computer.

A Tour of Your Computer

Front View



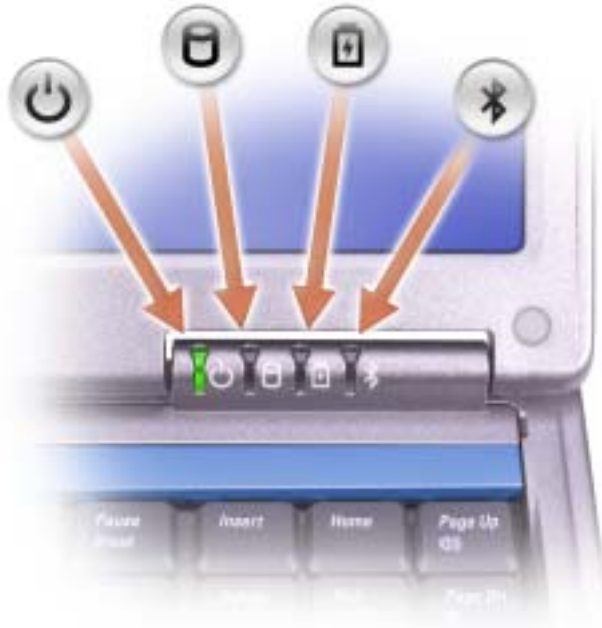
DISPLAY — For more information about your display, see the *Dell Inspiron Help* file. To access the help file, see page 16.


POWER BUTTON — Press the power button to turn on the computer or exit a power management mode.




NOTICE: To avoid losing data, turn off your computer by performing a Microsoft® Windows® operating system shutdown rather than by pressing the power button.


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




DEVICE STATUS LIGHTS



 Turns on when you turn on the computer and blinks when the computer is in a power management mode.

 Turns on when the computer reads or writes data.
 **NOTICE:** To avoid loss of data, never turn off the computer while the  light is flashing.


 Turns on steadily or blinks to indicate battery charge status.

 Turns on when Bluetooth™ technology is enabled.
NOTE: Bluetooth is an optional feature, so the  light turns on only if you ordered Bluetooth with your computer. For more information, see the documentation that came with your Bluetooth technology.
 To turn off only the Bluetooth functionality, right-click the  icon in the notification area and select **Disable Bluetooth Radio**.

To quickly enable or disable all wireless devices, press <Fn> <F2>.

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

- Solid green: The battery is charging.
- Flashing green: The battery is almost fully charged.

If the computer is running on a battery, the  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.

KEYBOARD — The keyboard includes a numeric keypad as well as the Windows logo key. For information on supported keyboard shortcuts, see page 53.

DISPLAY LATCH — Keeps the display closed.

SPEAKERS — To adjust the volume of the integrated speakers, press the volume control buttons, mute button, or volume-control keyboard shortcuts. For more information, see page 53.




TOUCH PAD BUTTONS — Provide the functionality of a mouse. For more information, see page 53.

TOUCH PAD — Provides the functionality of a mouse. For more information, see page 53.

KEYBOARD STATUS LIGHTS





The green lights located above the keyboard indicate the following:

-  Turns on when the numeric keypad is enabled.
-  Turns on when the uppercase letter function is enabled.
-  Turns on when the scroll lock function is enabled.

Left View



 **NOTE:** The computer turns on the fan when the computer gets hot. Fan noise is normal and does not indicate a problem with the fan or the computer.

 **CAUTION:** 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.

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


INFRARED SENSOR — Lets you transfer files from your computer to another infrared-compatible device without using cable connections.


IEEE 1394 CONNECTOR — Use to attach devices supporting IEEE 1394 high-speed transfer rates, such as some digital video cameras.

When you receive your computer, the sensor is disabled. You can use the system setup program to enable the sensor. For information on transferring data, see the Help and Support Center or the documentation that came with your infrared-compatible device.


AUDIO CONNECTORS



Attach a microphone to the  connector.

Attach headphones or speakers to the  connector.

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.



Right View



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.

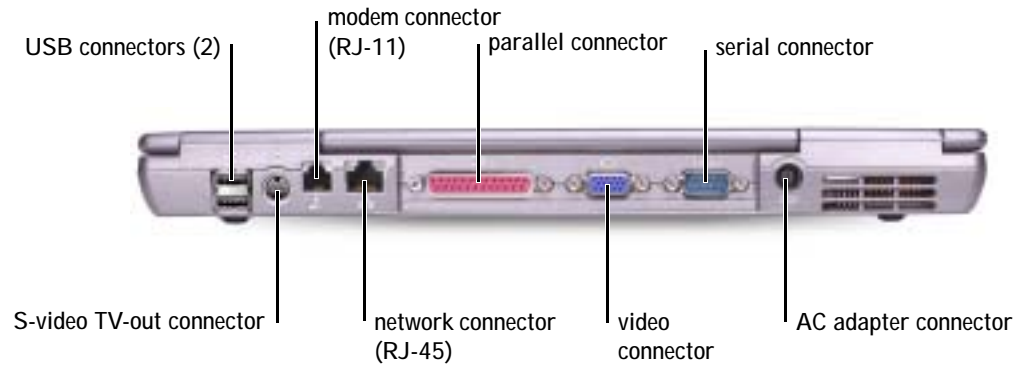


MODULE BAY — You can install devices such as an optical drive or a Dell TravelLite™ module in the module bay. For more information, see page 49.

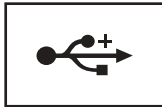
DEVICE LATCH RELEASE — Releases the module bay device. See page 49 for instructions.

Back View

 **CAUTION:** 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.



USB CONNECTORS



Connect USB devices, such as a mouse, keyboard, or printer. You can also connect the optional floppy drive directly to a USB connector using the optional floppy-drive cable.



S-VIDEO TV-OUT CONNECTOR




Connects your computer to a TV. For more information, see page 65.

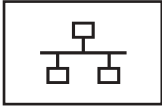
MODEM CONNECTOR (RJ-11)



Connect the telephone line to the modem connector.
For information on using the modem, see the online modem documentation supplied with your computer. See page 15.

NETWORK CONNECTOR (RJ-45)

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



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

For information on using the network adapter, see the device user's guide supplied with your computer. See page 15.

PARALLEL CONNECTOR



Connects a parallel device, such as a printer.

VIDEO CONNECTOR



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

SERIAL CONNECTOR







Connects serial devices, such as a mouse or handheld device.

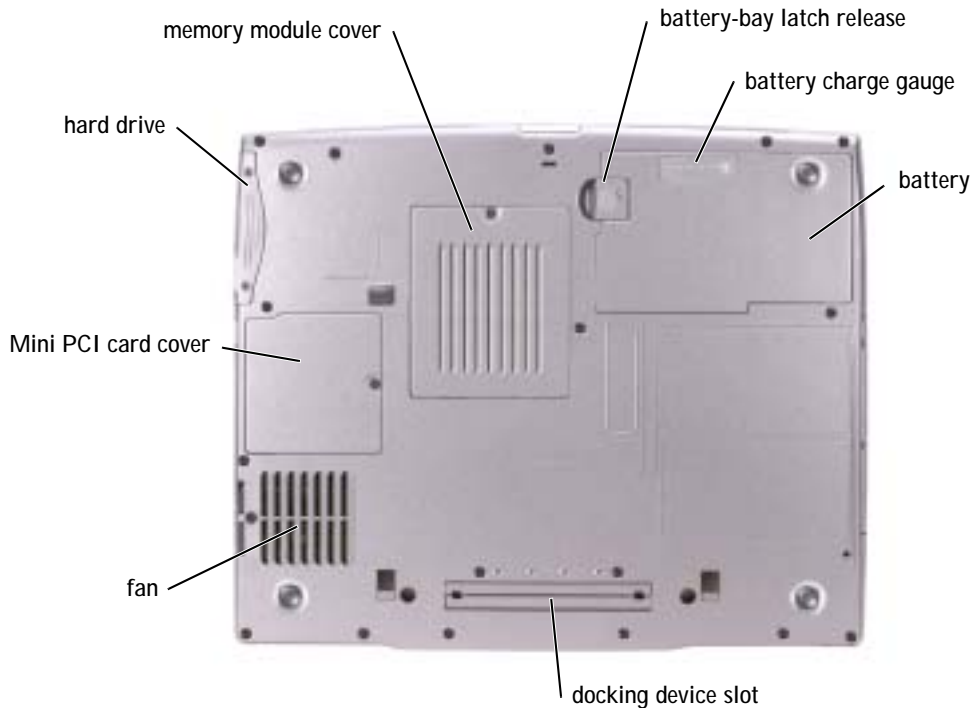
AC ADAPTER CONNECTOR — Attach an AC adapter to the computer.



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.

-  **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.
-  **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.
-  **NOTE:** The computer turns on the fan when the computer gets hot. Fan noise is normal and does not indicate a problem with the fan or the computer.
-  **CAUTION:** 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.

Bottom View



MEMORY MODULE COVER — Covers the compartment that contains the memory module(s). See page 103.

BATTERY-BAY LATCH RELEASE — Releases the battery. See page 44 for instructions.

BATTERY CHARGE GAUGE — Provides information on the battery charge. See page 43.

BATTERY — When a battery is installed, you can use the computer without connecting the computer to an electrical outlet. See page 44.

DOCKING DEVICE SLOT — Lets you attach your computer to a docking device. See the documentation that came with your docking device for additional information.

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



NOTE: The computer turns on the fan when the computer gets hot. Fan noise is normal and does not indicate a problem with the fan or the computer.




CAUTION: 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.

MINI PCI CARD COVER — Covers the compartment that contains the Mini PCI card. See page 107.

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 telephone line. Dial-up connections are considerably slower than DSL and cable modem connections.
- DSL connections that provide high-speed Internet access through your existing telephone line. With a DSL connection, you can access the Internet and use your telephone 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**.

- 4 In the next window, click the appropriate option:
 - If you do not have an ISP and want to select one, click **Choose from a list of Internet service providers (ISPs)**.
 - 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**.
 - 5 Click **Next**.
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 "Internet, Modem, and E-Mail 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

-  **NOTICE:** Connect the modem to an analog telephone wall jack only. Connecting the modem to a digital telephone network damages the modem.
-  **NOTICE:** 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 or serial 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 connects to your computer with either a USB cable or a parallel 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.

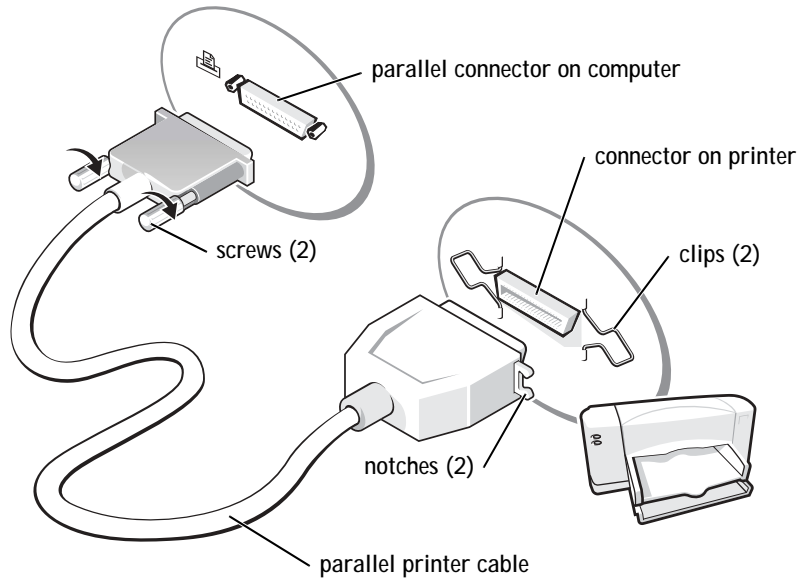
Connecting a Parallel Printer

- 1 Complete the operating system setup, if you have not already done so.
- 2 Turn off the computer.



NOTICE: For best results, use a 3-m (10-ft) or shorter parallel cable.

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

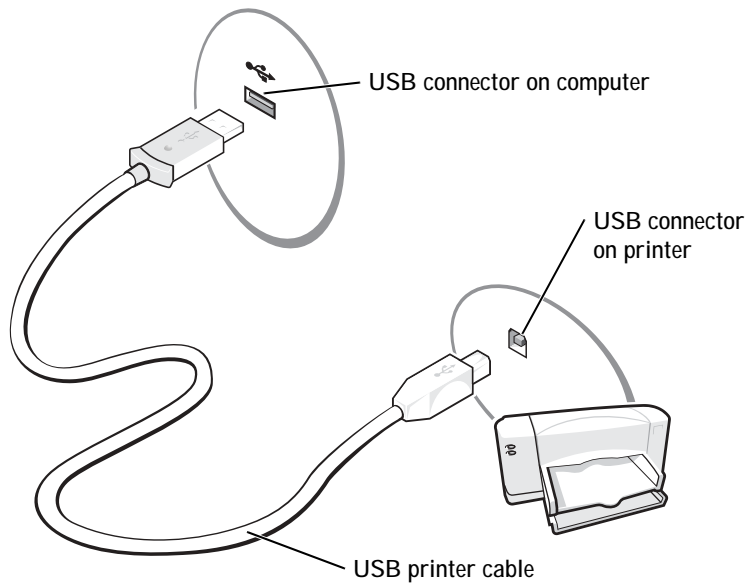


- 4 Turn on the printer and then turn on the computer. If the **Add New Hardware Wizard** window appears, click **Cancel**.
- 5 Install the printer driver if necessary. See the documentation that came with your printer.

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 35).

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 then click the **Ports** tab. Ensure that the **Print to the following port(s)**: setting is **LPT1 (Printer Port)**.

REINSTALL THE PRINTER DRIVER — See page 90.


Power Protection Devices

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


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

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


 **NOTICE:** 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, turn off your computer by performing a Microsoft® Windows® operating system shutdown, as described next, rather than by pressing the power button.


 **NOTE:** As an alternative to turning off your computer, you can set your computer to enter standby or hibernate mode.


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

 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions at the beginning of this document.


 **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 the separate paper warranty document that shipped with your computer.

For optimal computer performance and to help preserve BIOS settings, operate your Dell™ portable computer with the main battery installed at all times. Use a battery to run 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. You can install an optional second battery in the module bay to significantly increase operating time. For more information about the second battery, see page 49.


Operating time is significantly reduced when you perform operations including, but not limited to, the following:


- Using DVD, DVD-R, and CD-RW drives
- Using wireless communications devices, PC Cards, or USB devices
- Using high-brightness display settings, 3D screen savers, or other power-intensive programs such as 3D games
- Running the computer in maximum performance mode

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


You can check the battery charge before you insert the battery into the computer. You can also set power management options to alert you when the battery charge is low.

 **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.

 **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 "Battery Disposal."

 **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 Dell QuickSet Battery Meter, the Microsoft® Windows® **Power Meter** window and  icon, the battery charge gauge, and the low-battery warning provide information on the battery charge.

For more information about checking the charge on the second battery, see page 49.

Dell™ QuickSet Battery Meter

If Dell QuickSet is installed, press <Fn> <F8> to display the QuickSet Battery Meter.

The **Battery Meter** window displays status, charge level, and charge completion time for the battery in your computer.

In addition, when your computer is connected to a docking device (docked), the **Battery Meter** window includes a **Dock Battery** tab, which displays the charge level and current status of the docking device battery.

The following icons appear in the **Battery Meter** window:



- The computer or docking device is running on battery power.
- The battery is discharging or idle.




- The computer or docking device is connected to an electrical outlet and running on AC power.
- The battery is charging.




- The computer or docking device is connected to an electrical outlet and running on AC power.
 - The battery is discharging, idle, or charging.
-

For more information about QuickSet, right-click the  icon in the taskbar, and click **Help**.

Microsoft® Windows® 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 about the **Power Meter** tab, see "Power Management" in the *Dell Inspiron Help* file. To access the help file, see page 16.

If the computer is connected to an electrical outlet, a  icon appears.

Charge Gauge

Before you insert a battery, press the status button on the battery charge gauge to illuminate the charge-level lights. Each light represents approximately 20 percent of the total battery charge. For example, if the battery has 80 percent of its charge remaining, four of the lights are on. If no lights appear, the battery has no charge.

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, or install a second battery in the module bay. If the battery runs completely out of power, hibernate mode begins automatically.

A low-battery warning occurs when the battery charge is approximately 90 percent depleted. The computer beeps once, indicating that minimal battery operating time remains. During that time, the speaker beeps periodically. If two batteries are installed, the low-battery warning means that the combined charge of both batteries is approximately 90 percent depleted. The computer enters hibernate mode when the battery charge is at a critically low level. For more information about low-battery alarms and to access "Power Management," see 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 1 hour with the computer turned off. Charge time is longer with the computer turned on. You can leave the battery in the computer as long as you like. The battery's internal circuitry prevents the battery from overcharging.

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  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.

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

Removing a Battery

⚠ CAUTION: Before performing these procedures, disconnect the modem from the telephone wall jack. For information about removing the second battery, see "Using the Module Bay" on page 49.

🕒 NOTICE: If you choose to replace the battery with the computer in standby mode, you have up to 30 seconds to complete the battery replacement before the computer shuts down and loses any unsaved data.

- 1 Ensure that the computer is turned off, suspended in a power management mode, or connected to an electrical outlet.
- 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 Slide and hold the battery-bay latch release on the bottom of the computer, and then remove the battery from the bay.



Installing a Battery

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

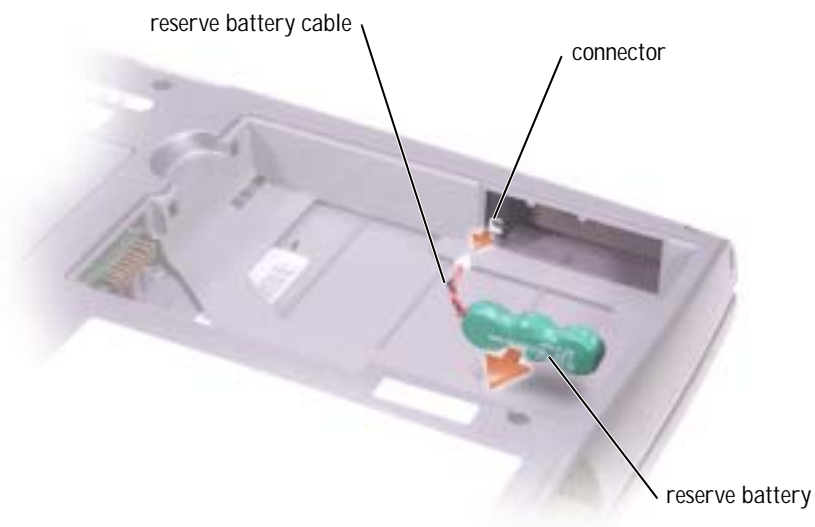
For information about installing the second battery, see page 49.

Removing and Installing a Reserve Battery

- 1 Remove the battery.
- 2 Remove the reserve battery cover.



- 3 Slide the reserve battery toward the connector, and pull the battery out of its compartment.
- 4 Disconnect the reserve battery cable from the connector.




- 5 Connect the reserve battery cable to the connector in the reserve battery compartment.
- 6 Place the reserve battery in the compartment, and replace the reserve battery cover.



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.

Power Problems

 **NOTE:** For information on standby mode, see the *Dell Inspiron Help file*. 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.

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 39), 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 127).

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 the help file, see page 16.

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

Using the Module Bay

About the Module Bay



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

You can install devices such as a floppy drive, CD drive, CD-RW drive, DVD drive, CD-RW/DVD drive, DVD+ RW, second battery, or second hard drive in the module bay.

About the Device Security Screw



NOTE: You do not need to install the device security screw unless you want to prevent the module from being easily removed.

Your Dell™ computer ships with a CD/DVD drive installed in the module bay and a device security screw, which is not installed in the CD/DVD drive but packaged separately. When you install a module in the bay, you can install the device security screw to prevent the module from being easily removed.

Removing the Device Security Screw



If the device security screw is installed, you must remove the screw to remove the module from the bay:

- 1 Save and close any open files, exit any open programs, and 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 Close the display and turn the computer over.

- 4 Use a #1 Phillips screwdriver to remove the device security screw from the bottom of the computer.



Removing and Installing Devices While the Computer Is Turned Off

-  **NOTE:** If the device security screw is not installed, you can remove and install devices while the computer is running and connected to a docking device (docked).
 -  **NOTICE:** To prevent damage to devices, store them in a safe, dry place when they are not installed in the computer. Avoid pressing down on them or placing heavy objects on top of them.
- 1 If the device security screw is installed, remove it.
 - 2 Press the device latch release.



- 3 Pull the device out of the module bay.



- 4 Push the new device into the bay until it clicks.

Removing and Installing Devices While the Computer Is Running

- 1 Before ejecting the device, double-click the **Safely Remove Hardware** icon on the taskbar, click the device you want to eject, and click **Stop**.
- 2 If the device security screw is installed, remove it.

NOTICE: To prevent damage to devices, store them in a safe, dry place when they are not installed in the computer. Avoid pressing down on them or placing heavy objects on top of them.

- 3 Press the device latch release.



- 4 Pull the device out of the module bay.



- 5 Push the new device into the bay until it clicks.
The operating system automatically recognizes the device.
- 6 If necessary, enter your password to unlock your computer.


Using the Keyboard and Touch Pad

Numeric Keypad



NOTE: When you connect an external keyboard or keypad to the computer, the keypad is disabled.

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 type a number or symbol, enable the keypad, hold down < Fn > and press the desired key.

- To enable the keypad, press < Num Lk > . The  light indicates that the keypad is active.
- To disable the keypad, press < Num Lk > again.

Keyboard Shortcuts

System Functions



Opens the **Windows Task Manager** window



Enables and disables the numeric keypad (on an external keyboard only)



Enables and disables the scroll lock

Battery



Displays the Dell™ QuickSet **Battery Meter**.

CD or DVD Tray



Ejects the tray out of the drive.

Display Functions



Switches the video image to the next display in the following sequence: the integrated display only, the integrated display and an external CRT monitor simultaneously, an external CRT monitor only, the integrated display and an external DVI monitor simultaneously, and an external DVI monitor only.



Increases brightness on the integrated display only (not on an external monitor)



Decreases brightness on the integrated display only (not on an external monitor)

Radios (Including Wireless Networking and Bluetooth™)



Enables and disables radios, including wireless networking and Bluetooth.

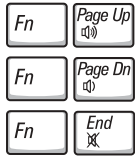
Power Management



Activates the power management mode of your choice. You can program this keyboard shortcut on the **Advanced** tab in the **Power Options Properties** window.

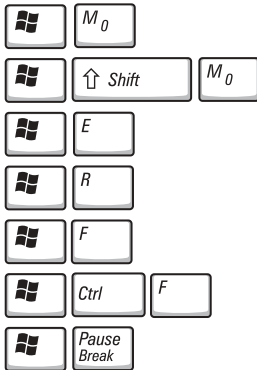
Speaker Functions

If no sound comes from the speakers, press <Fn> <End> and adjust the volume.



Increases the volume of the integrated speakers and external speakers, if attached
Decreases the volume of the integrated speakers and external speakers, if attached
Enables and disables the integrated speakers and external speakers, if attached

Microsoft® Windows® Logo Key Functions

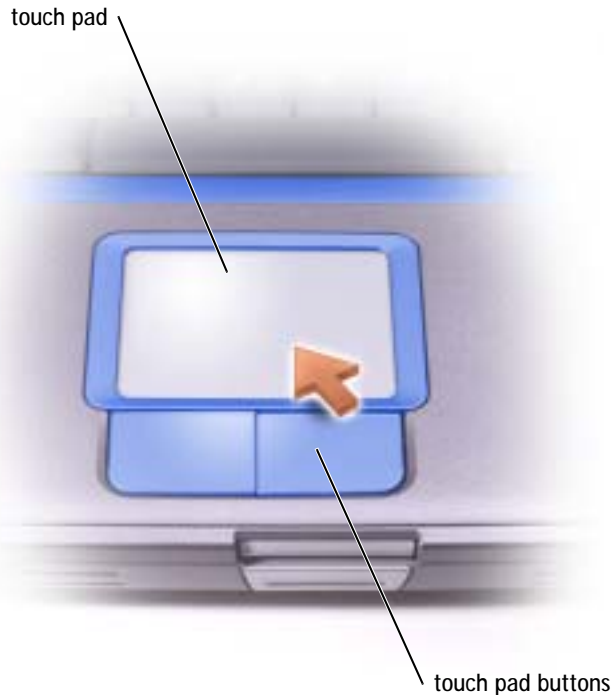


Minimizes all open windows
Maximizes all windows
Runs Windows Explorer
Opens the **R**un dialog box
Opens the **S**earch **R**esults dialog box
Opens the **S**earch **R**esults-**C**omputer dialog box (if the computer is connected to a network)
Opens the **S**ystem **P**roperties dialog box

To adjust keyboard operation, such as the character repeat rate, open the Control Panel, and click **Printers and Other Hardware**.

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-up-down 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 across the surface.
- To double-click an object, position the cursor on the object and then tap twice on the touch pad, or use your thumb to press the left touch-pad button twice.

Customizing the Touch Pad

You can disable the touch pad or adjust its settings by using the **Mouse Properties** window.

- 1 Open the Control Panel, click **Printers and Other Hardware**, and then click **Mouse**.
- 2 On the **Mouse Properties** window:
 - Click the **Device Select** tab to disable the touch pad.
 - Click the **Pointer** tab to adjust touch pad settings.
- 3 Select the desired settings and click **Apply**.
- 4 Click **OK** to save the settings and close the 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 39). Disconnect the mouse cable and check it for damage. For PS/2 cables, check the cable connector for bent or broken pins. 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 Turn off the computer.
- 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 90.

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 39). Disconnect the keyboard cable and check it for damage. For PS/2 cables, check the cable connector for bent or broken pins. 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 Turn off the computer, 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 **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 Turn off the computer.
- 2 Disconnect the external keyboard.
- 3 Turn on the computer.
- 4 From the Windows desktop, click the **Start** button, point to **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 127).

Unexpected Characters


DISABLE THE NUMERIC KEYPAD — Press < Num Lk > 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.

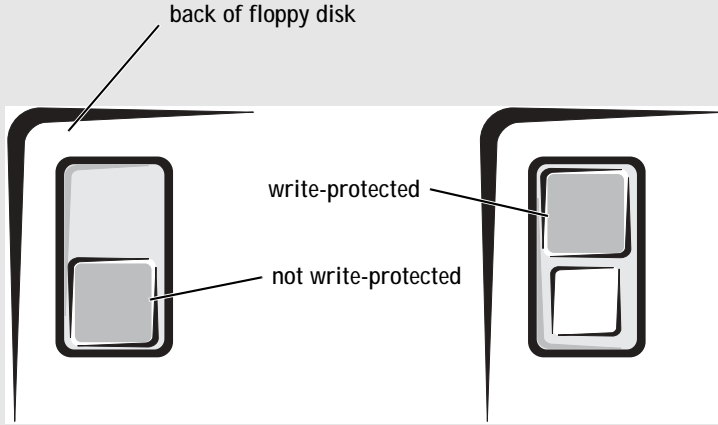
Drive Problems

 **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 disk 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  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.

REINSTALL THE DRIVE


- 1 Save and close any open files, exit any open programs, and shut down the computer.
- 2 Remove the drive. See page 49 for instructions.
- 3 Reinstall the drive.
- 4 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 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  light is blinking, indicating normal operation.

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

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.

IDENTIFY THE DISC THAT IS NOT PLAYING — If you have one CD, CD-RW, or DVD in the fixed drive device and one in the module bay device:

- 1 Click the **Start** button and click **My Computer**.
- 2 Double-click the drive letter of the device that you are verifying.


REINSTALL THE DRIVE

- 1 Save and close any open files, exit any open programs, and shut down the computer.
- 2 Remove the drive. See page 49 for instructions.
- 3 Reinstall the drive.
- 4 Turn on the computer.

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.

CHECK THE DRIVE FOR ERRORS

If the drive is a fixed drive:

- 1 Remove the hard drive and floppy drive.
- 2 Insert the *Drivers and Utilities* CD for your computer and turn on the computer.
- 3 Verify that the  light is blinking, indicating normal operation.

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

- 1 Ensure that the computer is turned off.
- 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 *the Help and Support Center*, see page 17.

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.

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 Click 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**.

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, bass, or treble 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 "Reinstalling Software" on page 91.

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, bass, or treble controls to eliminate distortion.


TEST THE SPEAKERS — Plug the speaker audio cable in to the  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 "Reinstalling Software" on page 91.


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 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.

Connecting a Television to the Computer

 **NOTE:** Video and audio cables for connecting your computer to a television are not included with your computer. Cables may be purchased at most consumer electronics stores.

Your computer has an S-video TV-out connector that enables you to connect the computer to a television. Using a commercially available S-video cable or composite video cable, you can connect the computer to a television in one of two ways:

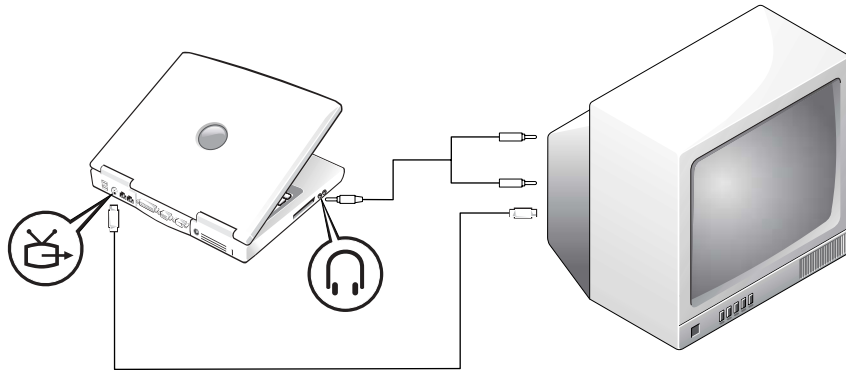
- S-video (for a television with S-video input)
- Composite video (for a television with only a composite video input; also uses a composite TV-out adapter cable)

 **NOTE:** Diagrams for each connection combination appear at the beginning of each subsection to help you determine which method you should use.

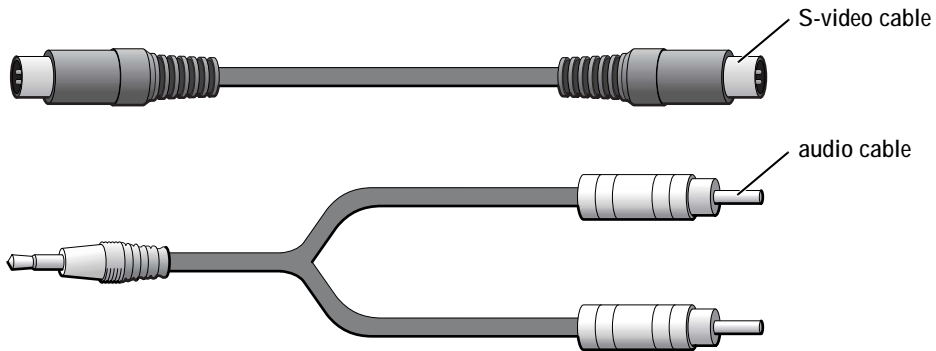
The audio connector on the side of the computer enables you to connect the computer to your television or audio device, using a commercially available audio cable.

When you complete the cable connection, see "Enabling the Display Settings for a Television" on page 70 to ensure that the computer recognizes and works properly with the television.

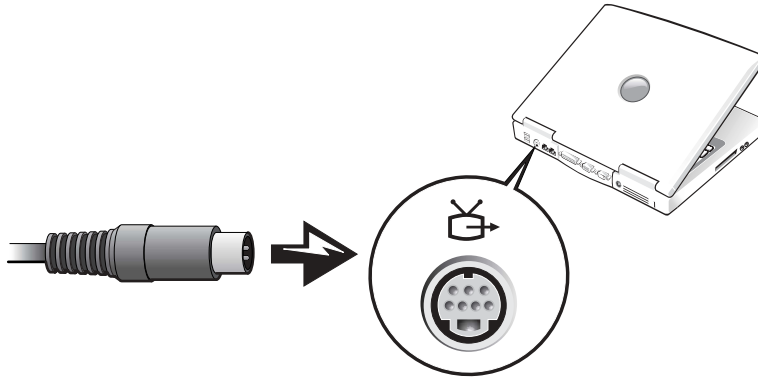
S-Video Connection



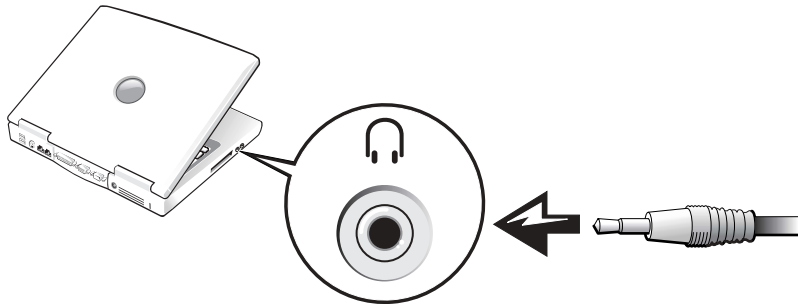
Before you begin, ensure that you have the following cables:



- 1 Shut down the computer and the television and/or audio device you want to connect.
- 2 Plug one end of the S-video cable in to the S-video connector on the computer.

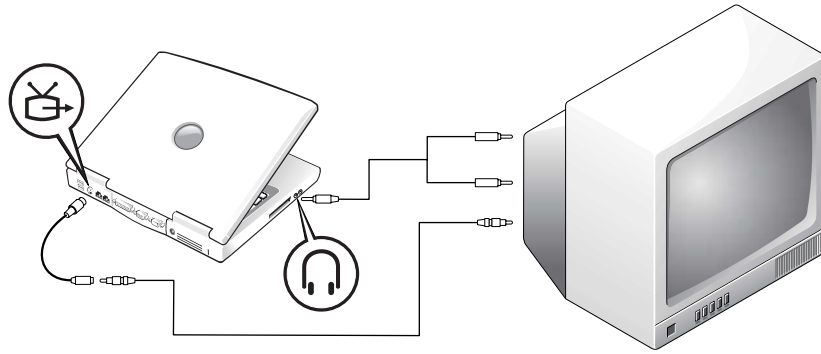


- 3 Plug the other end of the S-video cable in to your television.
- 4 Plug the single-connector end of the audio cable in to the headphone connector on your computer.

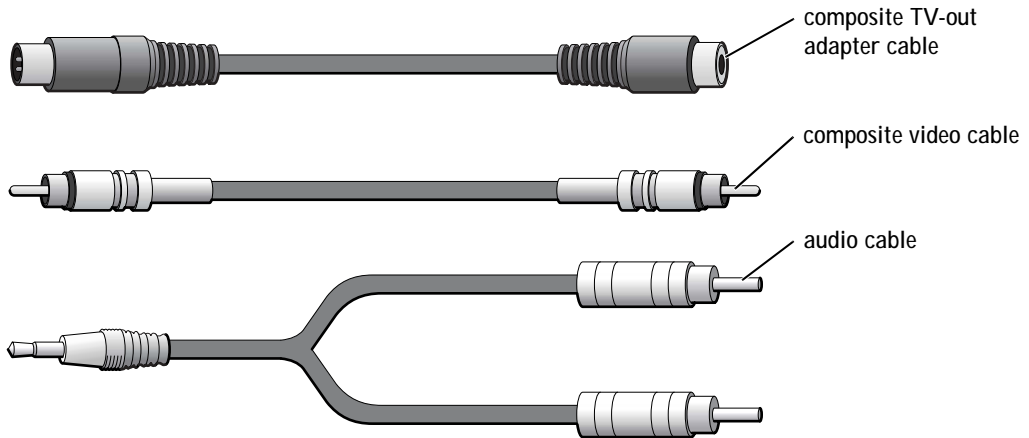


- 5 Plug the two RCA connectors on the other end of the audio cable in to the audio input connectors on your television or audio device.
- 6 Turn on the television, turn on any audio device you connected, and then turn on the computer.
- 7 See "Enabling the Display Settings for a Television" on page 70 to ensure that the computer recognizes and works properly with the television.

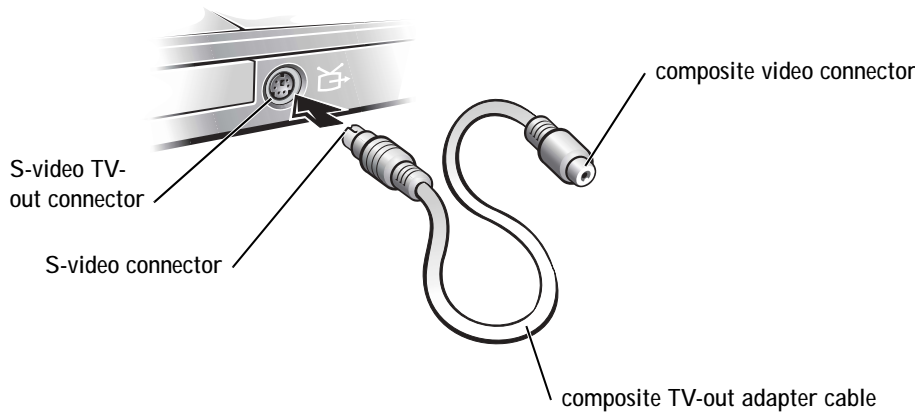
Composite Video Connection



To connect the computer to a television that has a composite video input only, use a composite TV-out adapter cable available from Dell. Before you begin, ensure that you have the following cables:



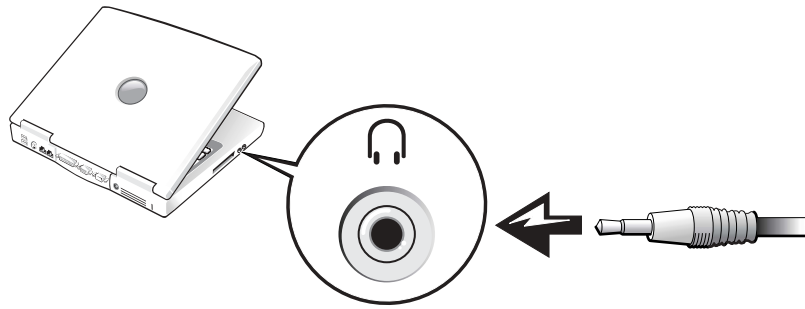
- 1 Turn off the computer and the television and/or audio device you want to connect.
- 2 Connect the composite TV-out adapter cable to the S-video TV-out connector on the computer.



- 3 Plug one end of the composite video cable in to the composite video connector on the composite TV-out adapter cable.




- 4 Plug the other end of the composite video cable in to the composite video connector on the television.
- 5 Plug the single-connector end of the audio cable in to the headphone connector on the computer.



- 6 Plug the two RCA connectors on the other end of the audio cable in to the audio input connectors on your television or audio device.

Enabling the Display Settings for a Television

Intel UMA Integrated Video Controller

 **NOTE:** Ensure that you properly connect the television before you enable the display settings.



- 1 Click the **Start** button and click the **Control Panel** icon. Under **Pick a Category**, click **Appearance and Themes**.
- 2 Double-click the **Display** icon, click the **Settings** tab, and then click **Advanced**.
- 3 Click the **Intel (R) Extreme Graphics** tab.
- 4 Click the **Graphic Properties** button.
- 5 If you want to use only a television without using the computer display or any other display options:
 - a In the new window, click **Television** so that a red check mark appears over the television icon.
 - b Ensure that the settings are correct.
- 6 If you want to use a television and the computer display at the same time:
 - a In the new window, click **Intel (R) Dual Display Clone** and ensure that one of the devices listed is a television.
 - b Click **Device Settings**.
 - c In the new window, ensure that the display resolution settings are correct.
- 7 Click **Apply** to view the new settings.

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:

-  **NOTE:** Insert the cable until it clicks into place, and then gently pull it to ensure that it is secure.
- 1 Connect the network cable to the network adapter connector on the back of your computer.
-  **NOTE:** Do not use a network cable with a telephone wall jack.
- 2 Connect the other end of the network cable to a network connection device, such as a network 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.

- 4 Complete the checklist and required preparations. Return to the Network Setup Wizard and follow the instructions on the screen.

Network Problems

CHECK THE NETWORK CABLE CONNECTOR — Ensure that the network cable connector is firmly connected to the optional 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 optional network adapter driver is loaded and the adapter is detecting activity.

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

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


Connecting to a Wireless Local Area Network



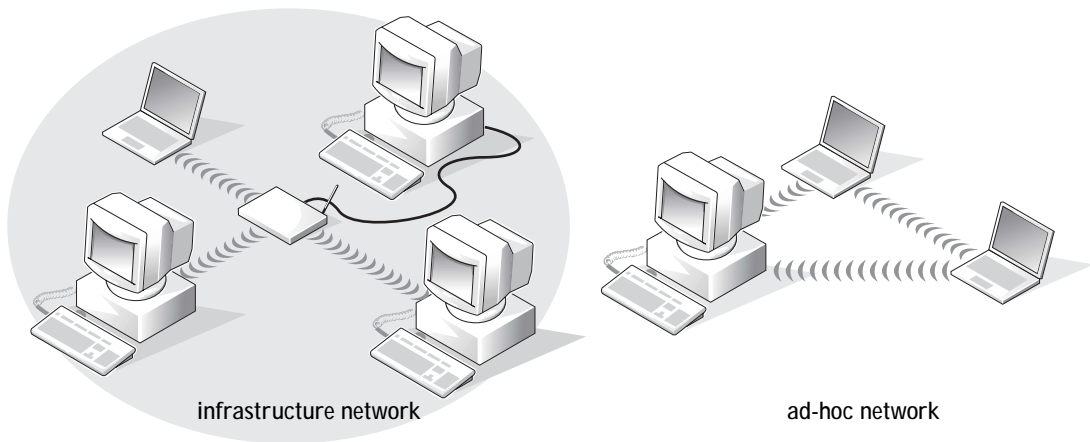
NOTE: These networking instructions do not apply to Bluetooth™ or cellular products.

Before you can connect to a wireless LAN, you must have specific information about your network. Be sure to get the name of your wireless network along with any special security settings from your network administrator. The settings are unique to your network and cannot be provided by Dell.

Determining Your Network Type

 **NOTE:** Most wireless networks are of the infrastructure type. Consult your network administrator if you are unsure of the type of network to which you are connecting.

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.




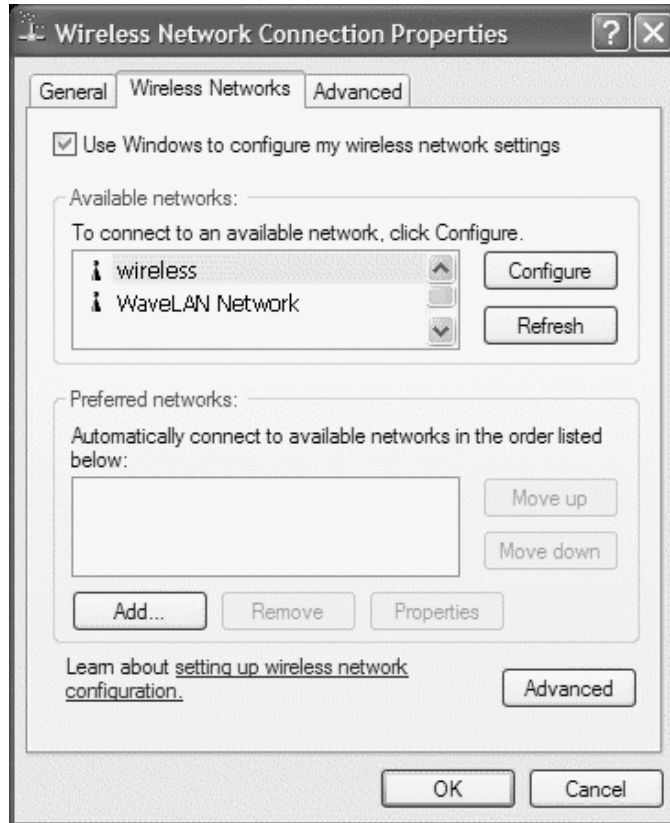
Connecting to a Wireless Network in Microsoft® Windows® XP

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.

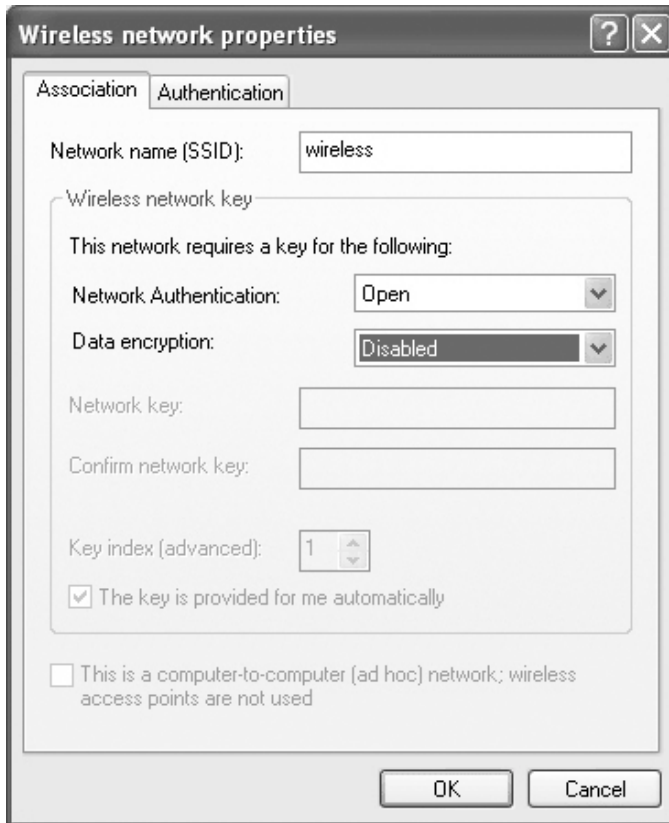
- 1 Click the **Start** button, click **Control Panel**, and then click **Switch to Classic View**.
- 2 Double-click **Network Connections**.
- 3 Click **Wireless Network Connection**.

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**.

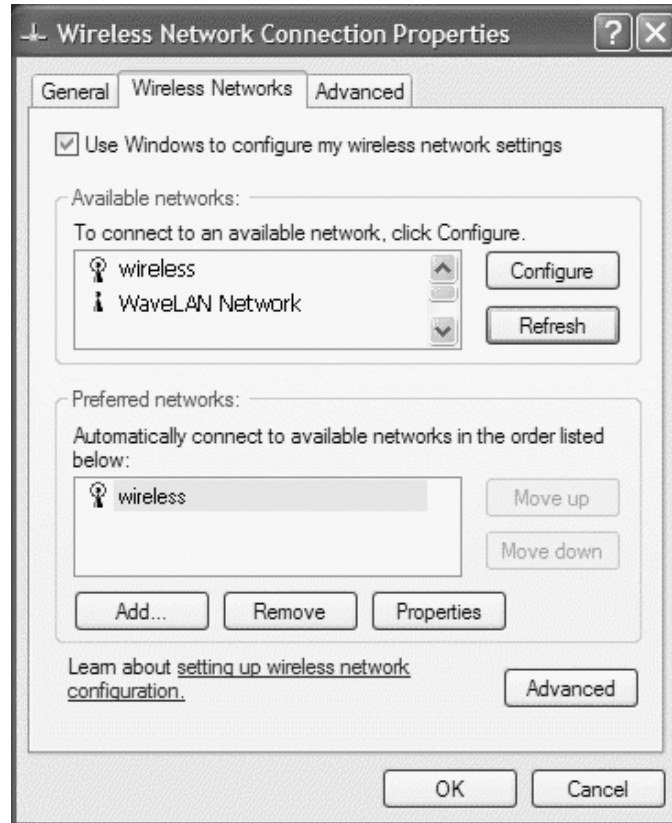


- 6 Click **Add**. The **Wireless network properties** window appears.



- 7 Enter the name of your network in the **Network name (SSID)** field.
- 8 If you are connecting to an ad-hoc network, which does not use any routers or access points, click to check the **This is a computer-to-computer (ad hoc) network; wireless access points are not used** check box.
- 9 Click **OK**.

Your new network name appears in the **Preferred networks** field.



Finalizing Your Wireless Network Connection (Security Settings)

To finalize your network connection, you must change your wireless security settings to match the wireless network to which you are trying to connect. Choose one of the following connection options based on the security settings for your network:

- Connecting to a Network without Security-Related Requirements (common for home and small business networks)
- Connecting to a Network with Wi-Fi Protected Access (WPA) Security Requirements
- Connecting to a Network with Wired Equivalent Protocol (WEP) Security Requirements

NOTE: Network security settings are only provided by your network administrator and are unique to your network. Dell cannot provide this information.

Connecting to a Network Without Security-Related 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 the Dell™ wireless software may not contain the drop-down menu. If you are using an earlier version, click to uncheck the **Data encryption (WEP enabled)** check box and go to step 5.

- 4 From the **Data encryption** drop-down menu, select **Disabled**.



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

- 5 Click **OK**.

Your network setup is complete.

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

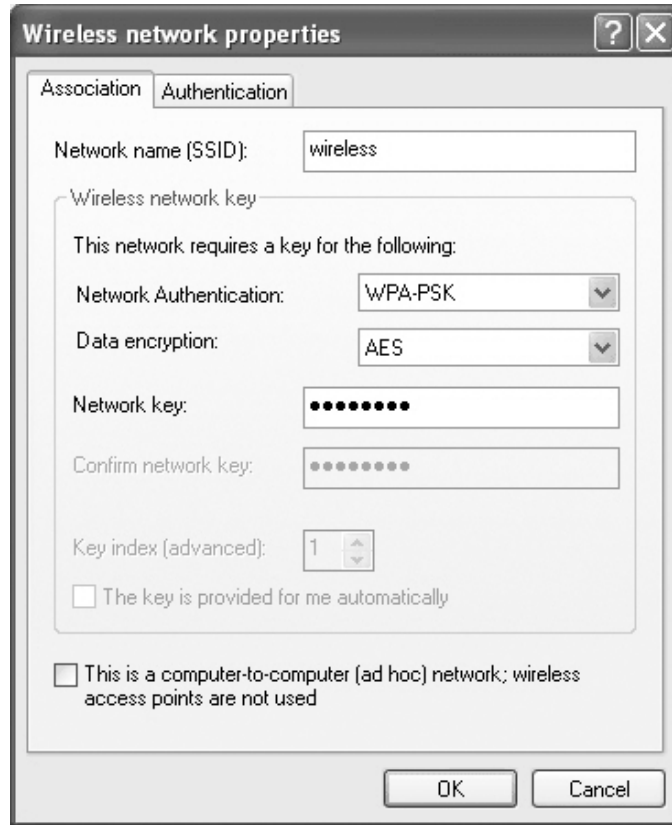
The following instructions are basic steps for connecting to a WPA network. If your network requires a user name, password, or domain settings, consult the setup instructions in the user's guide for your wireless network card.



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. Be sure to get all necessary WPA settings from your network administrator before continuing.


- 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 (as provided by the network administrator).

If you do not see the drop-down menu, you must update your wireless network software before continuing. Download and install the latest version of your wireless-network driver software from the Dell Support website at support.dell.com.



4 From the **Data encryption** drop-down menu, select your data encryption type (as provided by the network administrator).

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.

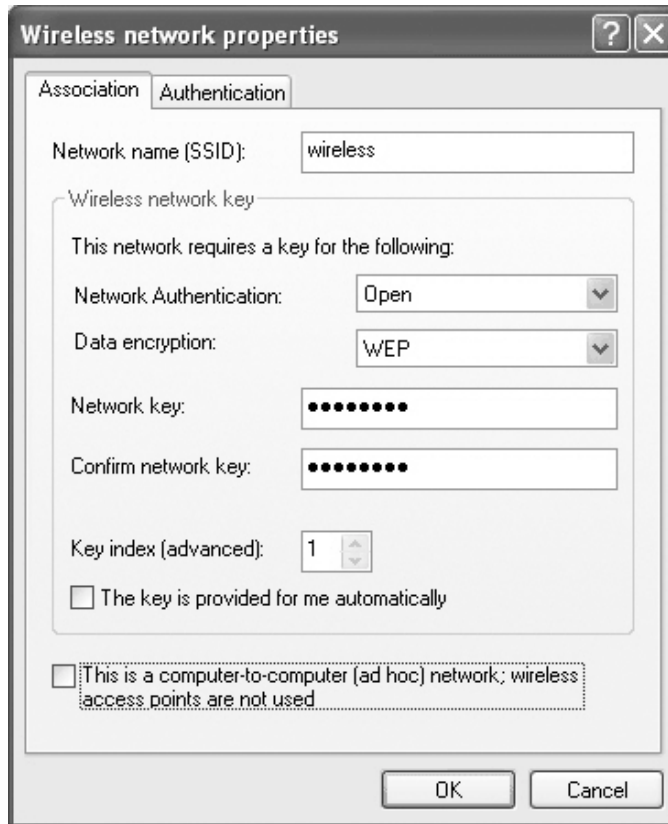
Connecting to a Network With Wired Equivalent Protocol (WEP) Security Requirements


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.



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

Your network setup is complete.

Solving Problems

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.

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

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

OPERATING SYSTEM NOT FOUND — Contact Dell. See page 127.

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

- 1 Click the **Start** button and click **Control Panel**.
- 2 Click **Add or Remove Programs**.
- 3 Select the program you want to remove.
- 4 Click **Remove** or **Change/Remove** and follow the prompts on the screen.
- 5 See the program documentation for installation instructions.

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

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, Dell recommends that you attach an external monitor to your computer.

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 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. To access the help file, see page 16.

ADJUST THE POWER PROPERTIES — Search for the keyword *standby* in the Windows Help and Support Center. For instructions on accessing help files, 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.

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 then 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 81.


If only part of the display is readable

CONNECT AN EXTERNAL MONITOR —

- 1 Shut down 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 127).

Modem and Internet Connection Problems

 **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.

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.

Floppy Disk and Hard Drive Problems

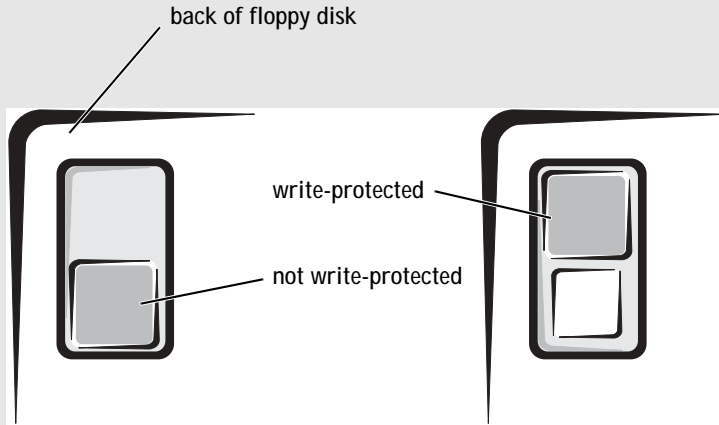


NOTE: For information on saving files to a floppy disk, see the *Dell Inspiron Help* file. To access the help file, see page 16.

If you cannot save a file to a floppy disk 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.

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.

REINSTALL THE DRIVE —

- 1 Save and close any open files, exit any open programs, and shut down the computer.
- 2 Remove the drive from the module bay. See page 49 for instructions.
- 3 Reinstall the drive.
- 4 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 Click 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 127.

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

General Program Problems

A program crashes



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

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**.

A solid blue screen appears

TURN THE COMPUTER OFF — If the computer does not respond to a keystroke or a proper shutdown (see page 39), press the power button until the computer turns off. Press the power button again to restart the computer.

The computer restarts.

Error messages appear

REVIEW "ERROR MESSAGES" ON PAGE 81 — 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.


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.


CONTACT DELL — If you cannot solve your problem using the Dell Support website (**support.dell.com**) or e-mail service, call Dell for technical assistance (see page 127).

If Your Dell™ Computer Gets Wet


 **CAUTION:** Perform this procedure only after you are certain that it is safe to do so. If the computer is connected to an electrical outlet, 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 39), 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.
- 3 Ground yourself by touching one of the metal connectors on the back of the computer.
- 4 Remove the module bay device (see page 49) and any installed PC Cards, and put them in a safe place to dry.
- 5 Remove the battery.
- 6 Wipe off the battery and put it in a safe place to dry.
- 7 Remove the hard drive (see page 109).
- 8 Remove the memory module(s) (see page 49).
- 9 Open the display and place the computer right-side up across two books or similar props to let air circulate all around it. Let the computer dry for at least 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.

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

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

If the computer does not start, or if you cannot identify the damaged components, see page 127.

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 39).
- 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 the separate paper warranty document that shipped with your computer.

If the computer does not start, or if you cannot identify the damaged components, see page 127.

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 any other programs that use the device. Each device has its own set of specialized commands that only its driver recognizes.

Dell ships your computer to you with required drivers already installed—no further installation or configuration is needed.



NOTICE: The *Drivers and Utilities* CD may contain drivers for operating systems that are not on your computer. Ensure that you are installing software appropriate for your operating system.

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.
- Reinstall your operating system.
- Connect or install a new device.

Identifying Drivers

If you experience a problem with any device, identify whether the driver is the source of your problem and, if necessary, update the driver.

- 1 Click the **Start** button and click **Control Panel**.
- 2 Under **Pick a Category**, click **Performance and Maintenance**.
- 3 Click **System**.

- 4 In the **System Properties** window, click the **Hardware** tab.
- 5 Click **Device Manager**.
- 6 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 and Utilities



NOTICE: The Dell Support website at support.dell.com 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.

- 1 Click the **Start** button and click **Control Panel**.
- 2 Under **Pick a Category**, click **Performance and Maintenance**.
- 3 Click **System**.
- 4 In the **System Properties** window, click the **Hardware** tab.
- 5 Click **Device Manager**.
- 6 Right-click the device for which the new driver was installed and 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 to return your computer to the operating state that existed before you installed the new driver.

Using the Drivers and Utilities CD

If using Device Driver Rollback or System Restore 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.

5 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.

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

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

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



NOTE: If you are reinstalling an infrared sensor driver, you must first enable the infrared sensor in the system setup program before continuing with the driver installation. For information on the system setup program, see page 123.

- 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

If a device either is not detected during the operating system setup or is detected but incorrectly configured, you can use Device Manager or the Hardware Troubleshooter to resolve the incompatibility.

To resolve incompatibilities using Device Manager:

- 1 Click the **Start** button and click **Control Panel**.
- 2 Click **Performance and Maintenance** and click **System**.
- 3 Click the **Hardware** tab and click **Device Manager**.
- 4 In the **Device Manager** list, check for devices that are incorrectly configured. Incorrectly configured devices are indicated by a yellow exclamation point (!) or a red x if the device has been disabled.
- 5 Double-click any device marked with an exclamation point to display the **Properties** window. The **Device** status area in the **Properties** window reports the cards or devices that need to be reconfigured.
- 6 Reconfigure the devices or remove the devices from the **Device Manager**. See the documentation that came with the device for information on configuring the device.

To resolve incompatibilities using the 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 Microsoft® Windows® XP 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 Windows 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 to resolve the problem. For more information see "Using Windows XP Device Driver Rollback" on page 91. If that is unsuccessful, then use System Restore.

 **NOTICE:** Before you restore the computer to an earlier operating state, save and close any open files and exit any 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 boldface type.
- 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 exit any 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.

Dell Diagnostics



CAUTION: Before you begin any of the procedures in this section, follow the safety instructions at the beginning of this document.

When to Use the Dell Diagnostics

If you experience a problem with your computer, perform the checks in "Solving Problems" on page 81 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. See page 127

- 1 Shut down the computer. See page 39.
- 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.



NOTE: If you cannot see anything on your display, hold down the mute button 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. For information on Contacting Dell, see page 127.

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. For information on Contacting Dell, see page 127.



NOTE: The Service Tag for your computer is located at the top of each test screen. If you contact Dell, technical support will ask for your Service Tag.

- 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.

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.

- 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.

Reinstalling Microsoft® Windows® XP


Before You Begin

If you are considering reinstalling the Windows XP operating system to correct a problem with a newly installed driver, first try using Windows XP Device Driver Rollback. For information on Device Driver Rollback, see page 91. If Device Driver Rollback does not resolve the problem, then use System Restore to return your operating system to the operating state it was in before you installed the new device driver. For information on System Restore, see page 93.


- ➡ **NOTICE:** Before performing the installation, back up all data files on your primary hard drive. For conventional hard drive configurations, the primary hard drive is the first drive detected by the computer.

To reinstall Windows XP, you need the following items:

- Dell™ *Operating System* CD
- Dell *Drivers and Utilities* CD

 **NOTE:** The *Drivers and Utilities* CD contains drivers that were installed during assembly of the computer. Use the *Drivers and Utilities* CD to load any required drivers.

- Product Key (Product ID Number)

 **NOTE:** The Product Key is the bar code number on the sticker that is located on the external side cover of your computer. You may be prompted for the Product Key when you use the *Operating System* CD under certain conditions.

Reinstalling Windows XP

To reinstall Windows XP, perform all 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 you reinstall the operating system, you must also 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 a Dell technical support representative instructs you to do so.
- ➡ **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.

Booting From the Operating System CD

- 1 Save and close any open files and exit any open programs.
- 2 Insert the *Operating System* CD. If any program starts automatically, exit the program before proceeding.
- 3 Restart the computer.
- 4 Press <F2> 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 Press the arrow keys to select **CD-ROM**, and press <Enter>.
- 6 When the `Press any key to boot from CD` message appears, press any key.

Windows XP Setup

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

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



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



NOTICE: Do not press any key when the following message appears: *Press any key to boot from the CD.*

- 6 When the **Regional and Language Options** screen appears, select the settings for your location and click **Next**.
- 7 Enter your name and organization (optional) in the **Personalize Your Software** screen, and click **Next**.
- 8 *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 click **Next**.
- 9 If the **Modem Dialing Information** screen appears, enter the requested information and click **Next**.
- 10 Enter the date, time, and time zone in the **Date and Time Settings** window, and click **Next**.
- 11 If the **Networking Settings** screen appears, click **Typical** and click **Next**.
- 12 If you are reinstalling Windows XP Professional and you are prompted to provide further information regarding your network configuration, enter your selections. If you are unsure of your settings, accept the default selections.

Windows XP installs the operating system components and configures the computer. The computer automatically restarts.



NOTICE: Do not press any key when the following message appears: *Press any key to boot from the CD.*

- 13 When the **Welcome to Microsoft** screen appears, click **Next**.

- 14 When the **How will this computer connect to the Internet?** message appears, click **Skip**.
- 15 When the **Ready to register with Microsoft?** screen appears, select **No, not at this time** and click **Next**.
- 16 When the **Who will use this computer?** screen appears, you can enter up to five users.
- 17 Click **Next**.
- 18 Click **Finish** to complete the setup, and remove the CD.
- 19 Reinstall the appropriate drivers with the *Drivers and Utilities* CD.
- 20 Reinstall your virus protection software.

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 beginning of this document.

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.



CAUTION: Before you begin any of the procedures in this section, follow the safety instructions at the beginning of this document.



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.



CAUTION: Handle components and cards with care. Do not touch the components or contacts on a 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.
 - 1 **Ensure that the work surface is flat and clean to prevent the computer cover from being scratched.**
 - 2 **Shut down the computer.**
 - 3 **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.**
 - 4 **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.
 - 5 **Disconnect any telephone or telecommunication lines from the computer.**
 - 6 **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.
 - 7 **Remove any installed PC Cards from the PC Card slot.**
 - 8 **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.
 - 9 **Slide and hold the battery-bay latch release on the bottom of the computer, and then remove the battery from the bay.**



- 10 Remove any installed modules, including a second battery, if installed.
- 11 Remove the hard drive.

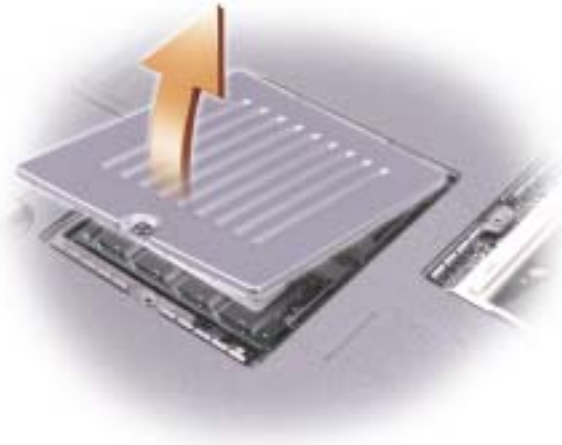
Adding Memory

You can increase your computer memory by installing memory modules on the system board. See "Specifications" on page 117 for information on the memory supported by your computer. Install only memory modules that are intended for your computer.

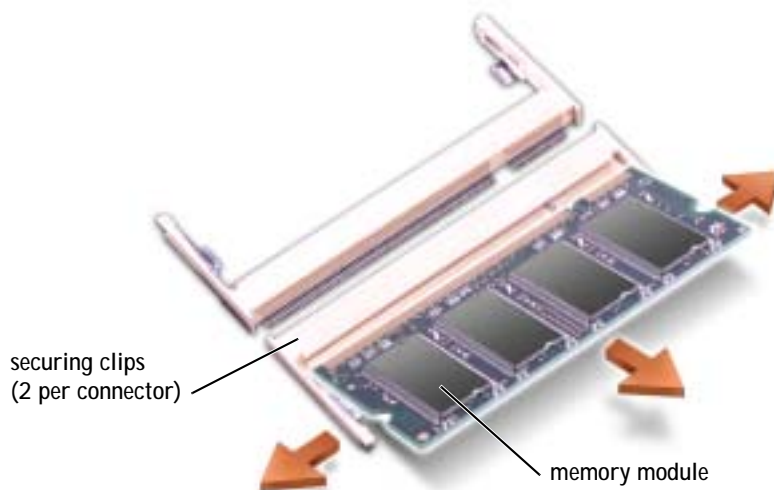
 **NOTE:** Memory modules purchased from Dell are covered under your computer warranty.

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

- 1 Follow the procedures in "Before You Begin" on page 101.
- 2 Turn the computer over, loosen the captive screw from the memory module cover, and then remove the cover.



- ⓘ NOTICE:** To prevent damage to the memory module connector, do not use tools to spread the memory-module securing clips.
- 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.

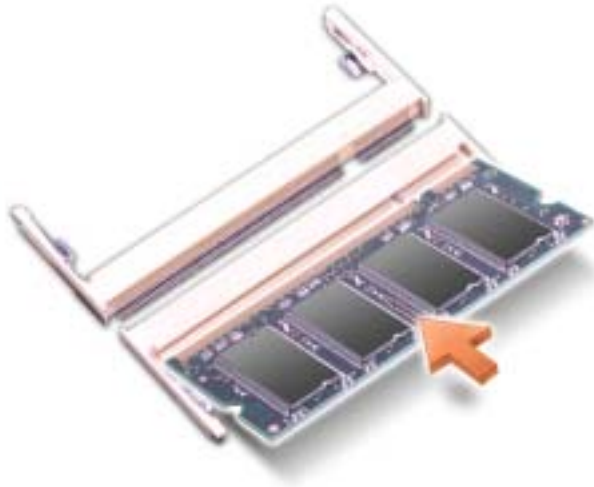


➔ **NOTICE:** If you need to install memory modules in two connectors, install a memory module in the connector labeled "DIMMA" before you install a module in the connector labeled "DIMMB." Insert memory modules at a 45-degree angle to avoid damaging the connector.

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 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**.

Adding a Mini PCI Card

 **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, 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.

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

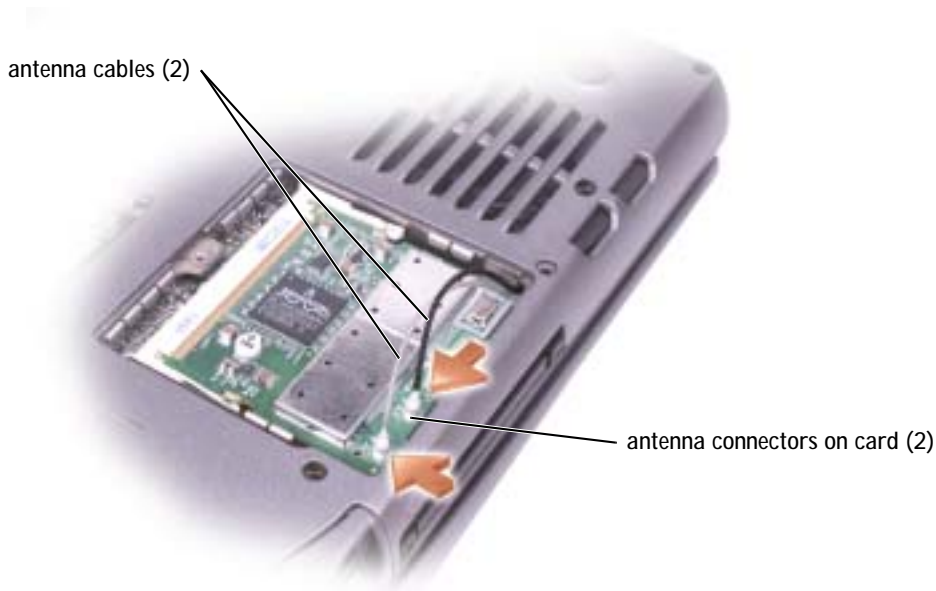
- 1 Follow the procedures in "Before You Begin" on page 101.
- 2 Turn the computer over.
- 3 Loosen the captive screw in the cover, and remove the cover.



- 4 If a Mini PCI card is not already installed, go to step 5. 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.
- 5 Align the Mini PCI card with the connector at a 45-degree angle, and press the Mini PCI card into the connector until you hear a click.
- 6 Connect the antenna cables to the Mini PCI card.









7 Tuck in the antenna cables.



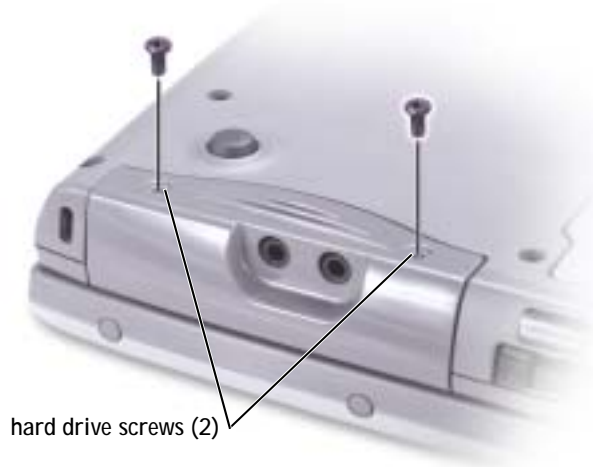
8 Replace the cover and screw(s).

Replacing the 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.
-  **CAUTION:** Before working inside your computer, read the safety instructions at the front of this document.
-  **NOTICE:** To prevent data loss, turn off your computer 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:

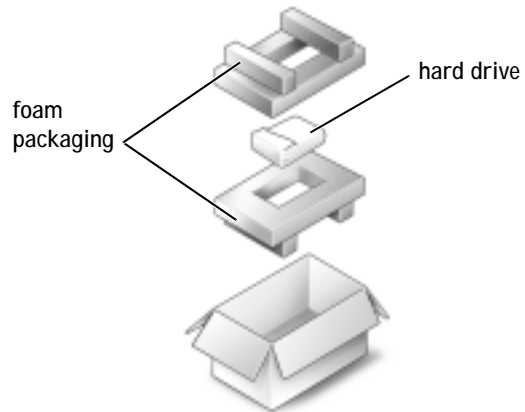
- 1 Follow the procedures in "Before You Begin" on page 101.
- 2 Turn the computer over, and remove the hard drive screws.



- ➔ **NOTICE:** When the hard drive is not in the computer, store it in protective antistatic packaging. See "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 lift the hard drive door. Push the hard drive until it is fully seated in the bay. Press the hard drive door down.
- 6 Replace and tighten the screw(s).
- 7 Use the *Operating System* CD to install the operating system for your computer.
- 8 Use the *Drivers and Utilities* CD to install the drivers and utilities for your computer.

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.



Keyboard

⚠ CAUTION: Before performing the following procedures, read the safety instructions at the beginning of this document.

🔄 NOTICE: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface (such as the back panel) on the computer.

- 1 Turn the computer top-side up and open it.



- 2 Remove the center control cover:
 - a Open the display all the way (180 degrees) so that it lies flat against your work surface.
 - b Starting on the right side of the computer, use a plastic scribe to pry up the center control cover. Lift it away from the computer, and lay it aside.



3 Remove the keyboard:

- a Remove the two M2.5 x 5-mm screws across the top of the keyboard.

NOTICE: The keycaps on the keyboard are fragile, easily dislodged, and time-consuming to replace. Be careful when removing and handling the keyboard.

- b Rotate the keyboard up and slide it forward.
- c Hold the keyboard up and slightly forward to allow access to the keyboard connector.
- d Pull up on the keyboard connector tab to disconnect the keyboard connector from the system board.



NOTE: When you replace the keyboard, ensure that the keyboard tabs are completely in place to avoid scratching the palm rest.

Bluetooth™ Card

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

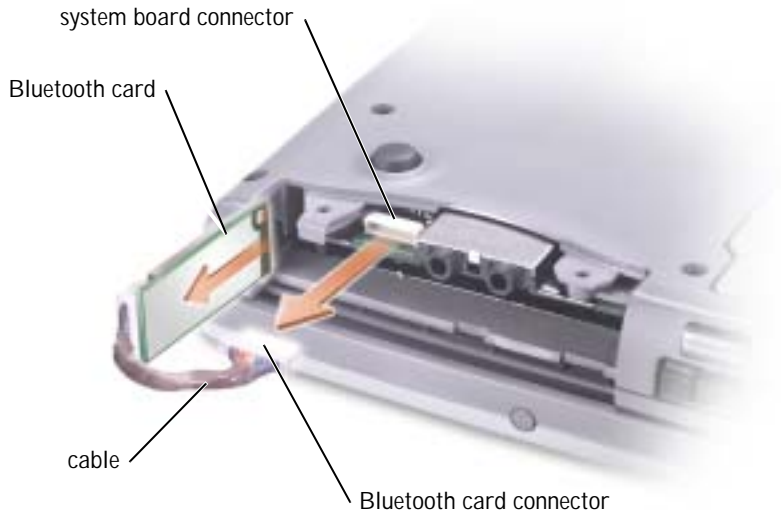
CAUTION: Before working inside your computer, read the safety instructions at the front of this document.


- 1 Ensure that the work surface is flat and clean to prevent scratching the computer cover.
- 2 Save and close any open files, exit any open programs, and then shut down the computer (see page 39).
- 3 If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.
- 4 Disconnect the computer from the electrical outlet.
- 5 Wait 10 to 20 seconds, and then disconnect any attached devices.
- 6 Remove any installed PC Cards, batteries, and module bay devices.

NOTICE: Handle components and cards by their edges, and avoid touching pins and contacts. Ground yourself by touching a metal connector on the back of the computer. Continue to ground yourself periodically during this procedure.

- 7 Remove the hard drive.

- 8 Pull the Bluetooth card connector out of the system board connector.
- 9 Pull the cable to remove the Bluetooth card from the computer.



 **NOTE:** When replacing the Bluetooth card, ensure the Bluetooth cable is routed correctly so that you do not damage the cable when you install the hard drive.

Appendix

Specifications

Microprocessor

Microprocessor type	Intel® Centrino™ Mobile Technology or Intel® Pentium® M Processor
L1 cache	64 KB (internal); 32-KB instruction and 32-KB write-back data
L2 cache	1 MB
External bus frequency	400 MHz, source synchronous processor system bus

System Information

Data bus width	64 bits
DRAM bus width	64 bits
Microprocessor address bus width	32 bits
Flash EPROM	1MB
PCI bus	32 bits

PC Card

CardBus controller	PCI4510 CardBus controller
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	
Minimum speed requirement	266 MHz
Memory module connector	two user-accessible DDR SDRAM connectors
Memory module capacities	128 MB, 256 MB, 512 MB, and 1024MB
Memory type	2.5V DDR SDRAM
Standard memory	128 MB
Maximum memory	2 GB
Ports and Connectors	
Serial	9-pin connector; 16550C-compatible, 16-byte buffer connector
Parallel	25-hole connector; unidirectional, bidirectional, or ECP
Video	15-hole connector
Audio	microphone miniconnector, stereo headphones/speakers miniconnector
USB	two 4-pin USB 2.0-compliant connectors
Infrared sensor	sensor compatible with IrDA Standard 1.1 (Fast IR) and IrDA Standard 1.0 (Slow IR)
S-video TV-out	7-pin mini-DIN connector (optional S-video to composite video adapter cable)
Mini PCI	Type IIIA Mini PCI card slot
Modem	RJ-11 port
Network adapter	RJ-45 port
IEEE 1394	4-pin serial connector
Communications	
Modem:	
Type	v.92 56K MDC
Controller	softmodem
Interface	internal AC'97 bus
Network adapter	10/100 Ethernet LAN on system board

Communications (continued)

Wireless internal Mini PCI Wi-Fi wireless support; Bluetooth™ card (optional, available at point of sale only)

Video

Video type Intel UMA Integrated
Video controller Intel 855GME Integrated chip set
Video memory 8 MB or 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 LVDS

Audio

Audio type compatible with Soundblaster and Microsoft® Windows® Sound System
Audio controller Intel AC'97
Stereo conversion 20-bit (stereo digital-to-analog), 18-bit (stereo analog-to-digital)
Interfaces:
 Internal AC'97
 External microphone miniconnector, stereo headphones/speakers miniconnector
Speaker two 4-ohm speakers
Internal speaker amplifier 2-W channel into 4 ohms
Volume controls keyboard shortcuts or program menus

Display

Type (active-matrix TFT) XGA; UXGA
Dimensions:
 Height 228.1 mm (9 inches)
 Width 304.1 mm (12 inches)
 Diagonal 380.1 mm (15 inches)
Maximum resolutions 1024 x 768 at 16.8 million colors

Display (continued)	
Response time (typical)	25-ms rise (maximum), 35-ms fall (maximum)
Refresh rate	60 Hz
Operating angle	0° (closed) to 180°
Viewing angles:	
Horizontal	± 60°
Vertical	± 45°
Pixel pitch	0.2172 x 0.2172 mm
Power Consumption:	
Panel with backlight (typical)	4.6 W
Controls	brightness can be controlled through keyboard shortcuts
Keyboard	
Number of keys	87 (U.S. and Canada); 88 (Europe); 91 (Japan)
Key travel	2.7 mm ± 0.3 mm (0.11 inch ± 0.016 inch)
Key spacing	19.05 mm ± 0.3 mm (0.75 inch ± 0.012 inch)
Layout	QWERTY/AZERTY/Kanji
Touch Pad	
X/Y position resolution (graphics table mode)	240 cpi
Size:	
Width	64.88-mm (2.55-inch) sensor-active area
Height	48.88-mm (1.92-inch) rectangle
Battery	
Type	6-cell "smart" lithium ion (48 WHr) 4-cell "smart" lithium ion (32 WHr)
Dimensions:	
Depth	77.5 mm (3.05 inches)
Height	19.5 mm (0.76 inch)

Battery (continued)

Width	123.4 mm (4.86 inches)
Weight	0.32 kg (0.7 lb) (6-cell battery) 0.23 kg (0.52 lb) (4-cell battery)
Voltage	11.1 VDC (6-cell battery) 14.8 VDC (4-cell battery)
Charge time with computer off (approximate)	1 hour for eighty percent charge
Operating time	approximately 3.5 to 4 hours (6-cell battery); approximately 2 to 2.5 hours (4-cell battery); can be significantly reduced under certain power-intensive conditions
Life span (approximate)	300 discharge/charge cycles
Temperature range:	
Operating	0° to 35°C (32° to 95°F)
Storage	-20° to 65°C (-4° to 149°F)

AC Adapter

Input voltage	90–264 VAC
Input current (maximum)	1.7 A
Input frequency	47–63 Hz
Output current	3.34A (65 W) 4.62A (90 W)
Output power	65 W or 90 W
Rated output voltage	19.5 VDC
Dimensions:	
Height	28.2 mm (1.11 inches) (65 W) 34.2 mm (1.35 inches) (90 W)
Width	57.9 mm (2.28 inches) (65 W) 60.8 mm (2.39 inches) (90 W)
Depth	137.2 mm (5.40 inches) (65 W) 153.4 mm (6.04 inches) (90 W)
Weight (with cables)	0.4 kg (1 lb) (90 W) 0.3 kg (.69 lb) (65 W)

AC Adapter *(continued)*

Temperature range:

Operating	0° to 35°C (32° to 95°F)
Storage	-40° to 65°C (-40° to 149°F)

Computer Dimensions and Weight

Height	35.5 mm (1.40 inches)
Width	338.4 mm (13.32 inches)
Depth	273 mm (10.75 inches)
Weight:	
With travel module and standard battery	2.51 kg (5.53 lb)
With CD drive and standard battery	2.72 kg (5.99 lb)

Computer Environmental

Temperature range:

Operating	0° to 35°C (32° to 95°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 (using a random-vibration spectrum that simulates user environment):

Operating	0.66 GRMS
Storage	1.30 GRMS

Maximum shock (measured with hard drive in head-parked position and a 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 system setup, thus overriding options that you set through system setup. (An exception is the **External Hot Key** option, which you can disable or enable only through system setup.) For more information on configuring features for your operating system, see the Help and Support Center.

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 system setup settings. 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 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 system setup.

 **NOTE:** To change the boot sequence on a one-time-only basis, see "Performing a One-Time Boot."

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**
- **Modular bay HDD**
- **Internal HDD**
- **CD/DVD/CD-RW drive**

 **NOTE:** You can only boot (start up) your computer from a CD, CD-RW, or DVD drive installed as a fixed drive. You cannot boot from one of these modules if it is installed in the module bay.

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 down-arrow or up-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 and press the space bar. Enabled items appear as white and display a small triangle to the left; disabled items appear blue or dimmed without a triangle.
- To reorder a device in the list, highlight the device, and then press <u> or <d> (not case-sensitive) to move the highlighted device up or down.

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

Performing a One-Time Boot

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

- 1 Shut down the computer through the **Start** menu.
- 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.

Changing Printer Modes


Set the **Parallel Mode** option according to the type of printer or device connected to the parallel connector. To determine the correct mode to use, see the documentation that came with the device.

Setting **Parallel Mode** to **Disabled** disables the parallel port and the port's LPT address, which frees computer resources for another device to use.

Changing COM Ports

Serial Port allows you to map the serial port COM address or disable the serial port and its address, which frees computer resources for another device to use.


Enabling the Infrared Sensor

- 1 Enter system setup:
 - a Turn on your computer.
 - b Press < F2 > when the Dell™ logo appears.
 - 2 Press < Alt > < P > until you locate **Infrared Data Port** under **Basic Device Configuration**.
-  **NOTE:** Ensure that the COM port that you select is different from the COM port assigned to the serial connector.
- 3 Press the down-arrow key to select the **Infrared Data Port** setting, and press the right-arrow key to change the setting to a COM port.
 - 4 Press the down-arrow key to select the **Infrared Mode** setting, and press the right-arrow key to change the setting to **Fast IR** or **Slow IR**.

It is recommended that you use **Fast IR**. If the infrared device cannot communicate with your computer, shut down the computer and repeat steps 1 through 5 to change the setting to **Slow IR**.

- 5 Press < Esc > and then click **Yes** to save the changes and exit the system setup program. If you are prompted to restart your computer, click **Yes**.

- 6 Follow the instructions on the screen.
- 7 After the infrared sensor has been enabled, click **Yes** to restart the computer.

 **NOTE:** If neither Fast IR nor Slow IR work, contact the infrared device manufacturer.

After you enable the infrared sensor, you can use it to establish a link to an infrared device. To set up and use an infrared device, see the infrared device documentation and the Microsoft® Windows® XP Help and Support Center.

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
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

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Austria (Vienna)	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: support.euro.dell.com/be/fr/emaildell/	
City Code: 2	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
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

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Canada (North York, Ontario)	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 2062
	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 2572
	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) International Access Code: 00 Country Code: 45	Website: support.euro.dell.com 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) International Access Code: 990 Country Code: 358 City Code: 9	Website: support.euro.dell.com E-mail: fin_support@dell.com E-mail Support (servers): 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/emaiddell/	
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™)	296 93188
	Technical Support (OptiPlex™, Latitude™, and Dell Precision™)	296 93191
	Customer Service (non-technical, post-sales issues)	800 93 8291
	Transaction Sales	toll-free: 800 96 4109
	Large Corporate Accounts HK	toll-free: 800 96 4108
	Large Corporate Accounts GCP HK	toll-free: 800 90 3708
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	Ireland 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™ and Inspiron™)	toll-free: 0120-198-226
	Technical Support outside of Japan (Dimension and Inspiron)	81-44-520-1435
	Technical Support (Dell Precision™, OptiPlex™, and Latitude™)	toll-free: 0120-198-433
	Technical Support outside of Japan (Dell Precision, OptiPlex, and Latitude)	81-44-556-3894
	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 City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
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/emaidell/	
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) International Access Code: 00 Country Code: 46 City Code: 8	Website: support.euro.dell.com E-mail: swe_support@dell.com E-mail Support for Latitude and Inspiron: Swe-nbk_kats@dell.com E-mail Support for OptiPlex: Swe_kats@dell.com E-mail Support for Servers: Nordic_server_support@dell.com	
	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) International Access Code: 00 Country Code: 41 City Code: 22	Website: support.euro.dell.com E-mail: swisstech@dell.com E-mail for French-speaking HSB and Corporate Customers: support.euro.dell.com/ch/fr/emaildell/	
	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 Country Code: 886	Technical Support (portable and desktop computers) Technical Support (servers) Transaction Sales Corporate Sales	toll-free: 00801 86 1011 toll-free: 0080 60 1256 toll-free: 0080 651 228 or 0800 33 556 toll-free: 0080 651 227 or 0800 33 555

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Thailand	Technical Support	toll-free: 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
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/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
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 Country Code: 1	AutoTech (portable and desktop computers) Consumer (Home and Home Office) Technical Support Customer Service DellNet™ Service and Support	toll-free: 1-800-247-9362 toll-free: 1-800-624-9896 toll-free: 1-800-624-9897 toll-free: 1-877-Dellnet (1-877-335-5638)
	Employee Purchase Program (EPP) Customers Financial Services website: www.dellfinancialservices.com Financial Services (lease/loans) Financial Services (Dell Preferred Accounts [DPA])	toll-free: 1-800-695-8133 toll-free: 1-877-577-3355 toll-free: 1-800-283-2210
	Business Customer Service and Technical Support Employee Purchase Program (EPP) Customers Projectors Technical Support Public (government, education, and healthcare) Customer Service and Technical Support Employee Purchase Program (EPP) Customers Dell Sales	toll-free: 1-800-822-8965 toll-free: 1-800-695-8133 toll-free: 1-877-459-7298 toll-free: 1-800-456-3355 toll-free: 1-800-234-1490 toll-free: 1-800-289-3355 or toll-free: 1-800-879-3355
	Dell Outlet Store (Dell refurbished computers) Software and Peripherals Sales Spare Parts Sales Extended Service and Warranty Sales Fax Dell Services for the Deaf, Hard-of-Hearing, or Speech-Impaired	toll-free: 1-888-798-7561 toll-free: 1-800-671-3355 toll-free: 1-800-357-3355 toll-free: 1-800-247-4618 toll-free: 1-800-727-8320 toll-free: 1-877-DELLTTY (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:	PP10L
Supply voltage:	100–240 VAC
Frequency:	50–60 Hz
Current Consumption:	1.5 A
Output voltage:	19.5 VDC
Output current:	4.62 A

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