Dell™ Portable Computers
Owner's Manual

Model PP19L

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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 "Glossary" on page 163.

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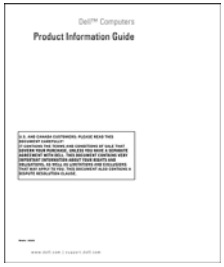
Finding Information

NOTE: Some features or media may be optional and may not ship with your computer. Some features or media may not be available in certain countries.

NOTE: Additional information may ship with your computer.

What Are You Looking For?	Find It Here
• A diagnostic program for my computer • Drivers for my computer • My device documentation • Notebook System Software (NSS)	**Drivers and Utilities CD (also known as ResourceCD)** **NOTE:** The *Drivers and Utilities* CD may be optional and may not ship with your computer. Documentation and drivers are already installed on your computer. You can use the CD to reinstall drivers (see page 97) or to run the Dell Diagnostics (see page 77). 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. **NOTE:** Drivers and documentation updates can be found at **support.dell.com**.
• How to set up my computer • Basic troubleshooting information • How to run the Dell Diagnostics • 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 • Specifications • How to contact Dell	**Owner's Manual** **NOTE:** This document is available as a PDF at **support.dell.com**.

What Are You Looking For?	Find It Here
• Warranty information • Terms and Conditions (U.S. only) • Safety instructions • Regulatory information • Ergonomics information • End User License Agreement	**Dell™ Product Information Guide** 
• Service Tag and Express Service Code • Microsoft Windows License Label	**Service Tag and Microsoft® Windows® License** These labels are located on the bottom of your computer. • Use the Service Tag to identify your computer when you use **support.dell.com** or contact technical support. • Enter the Express Service Code to direct your call when contacting technical support. 	

What Are You Looking For?	Find It Here
• Solutions — Troubleshooting hints and tips, articles from technicians, and online courses, frequently asked questions • 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, service call and order status, warranty, and repair information • Service and support — Service call status and support history, service contract, online discussions with technical support • Reference — Computer documentation, details on my computer configuration, product specifications, and white papers • Downloads — Certified drivers, patches, and software updates	**Dell Support Website — support.dell.com** **NOTE:** Select your region to view the appropriate support site. **NOTE:** Corporate, government, and education customers can also use the customized Dell Premier Support website at **premier.support.dell.com**.
• Notebook System Software (NSS)— If you reinstall the operating system for your computer, you should also reinstall the NSS utility. NSS provides critical updates for your operating system and support for Dell™ 3.5-inch USB floppy drives, Intel® Pentium® M processors, optical drives, and USB devices. NSS is necessary for correct operation of your Dell computer. The software automatically detects your computer and operating system and installs the updates appropriate for your configuration.	To download Notebook System Software: **1** Go to **support.dell.com** and click **Downloads**. **2** Enter your Service Tag or product model. **3** In the **Download Category** drop-down menu, click **All**. **4** Select the operating system and operating system language for your computer, and click **Submit.** **5** Under **Select a Device**, scroll to **System and Configuration Utilities**, and click **Dell Notebook System Software**.
• How to use Windows XP • How to work with programs and files • How to personalize my desktop	**Windows Help and Support Center** **1** Click the **Start** button and click **Help and Support**. **2** Type a word or phrase that describes your problem and click the arrow icon. **3** Click the topic that describes your problem. **4** Follow the instructions on the screen.

What Are You Looking For?	Find It Here
• How to reinstall my operating system	**Operating System CD** **NOTE:** The *Operating System* CD may be optional and may not ship with your computer. The operating system is already installed on your computer. To reinstall your operating system, use the *Operating System* CD. See "Reinstalling Windows XP" on page 103. After you reinstall your operating system, use the *Drivers and Utilities* CD (*ResourceCD*) to reinstall drivers for the devices that came with your computer. **NOTE:** The color of your CD varies based on the operating system you ordered.

1

A Tour of Your Computer

Front View

1	display latch release	5	touch pad	9	keyboard
2	display	6	media control buttons	10	keyboard and wireless status lights
3	power button	7	speakers	11	display latches (2)
4	device status lights	8	touch pad buttons		

DISPLAY LATCH RELEASE — Press to release the display latches and open the display.

DISPLAY — For more information about your display, see "Using the Display" on page 33.

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

NOTICE: To avoid losing data when you turn off your computer, shut down your computer through the **Start** menu instead of pressing the power button.

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.

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.

TOUCH PAD — Provides the functionality of a mouse.

MEDIA CONTROL BUTTONS — Control CD, DVD, and Media Player playback.

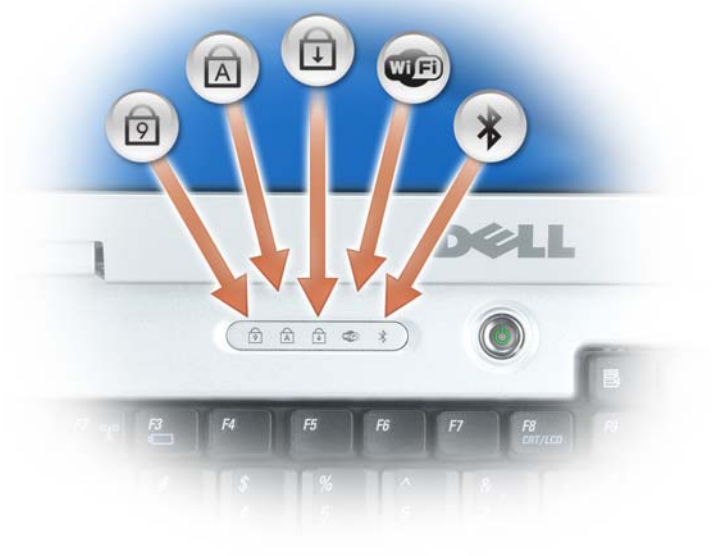
	Mute the sound.
	Turn the volume down.
	Turn the volume up.
▶/II	Play or pause.
	Play the previous track.
	Play the next track.
■	Stop.
	Launch Dell MediaDirect or Microsoft® Windows® Media Center Edition. See "Using Dell MediaDirect" on page 54.

SPEAKERS — To adjust the volume of the integrated speakers, press the media control buttons or speaker-volume keyboard shortcuts. For more information, see "Speaker Functions" on page 37.

TOUCH PAD BUTTONS — Touch pad buttons provide the functionality of a mouse.

KEYBOARD — The keyboard includes a numeric keypad as well as the Microsoft Windows logo key. For information on supported keyboard shortcuts, see "Key Combinations" on page 36.

KEYBOARD AND WIRELESS STATUS LIGHTS

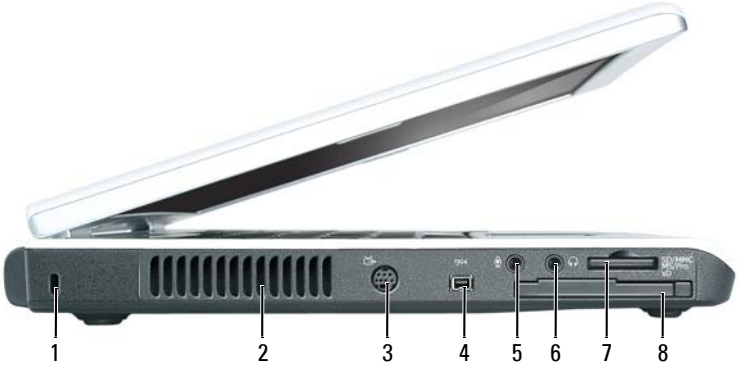


The green lights located above the keyboard indicate the following:

	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.
	Turns on when wireless networking is enabled. To enable or disable wireless networking, press <Fn><F2>.
	Turns on when a card with Bluetooth® wireless technology is enabled. **NOTE:** The card with Bluetooth wireless technology is an optional feature, so the light turns on only if you ordered the card with your computer. For more information, see the documentation that came with your card. To turn off only the Bluetooth wireless technology functionality, right-click the icon in the notification area and click **Disable Bluetooth Radio**. To quickly enable or disable all wireless devices, press <Fn><F2>.

DISPLAY LATCHES — Keeps the display closed.

Left Side View



1	security cable slot	4	IEEE 1394 connector	7	5-in-1 media memory card reader
2	air vent	5	microphone connector	8	ExpressCard slot
3	S-video TV-out connector	6	headphone connector		

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

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

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

AIR VENT — The computer uses fans to create airflow through the vents, which prevents the computer from overheating.

S-VIDEO TV-OUT CONNECTOR

Connects your computer to a TV. Also connects digital audio capable devices using the TV/digital audio adapter cable.

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

AUDIO CONNECTORS

Attach headphones or speakers to the connector.

Attach a microphone to the connector.

5-IN-1 MEDIA MEMORY CARD READER — Provides a fast and convenient way to view and share digital photos, music, and videos stored on a memory card. The 5-in-1 media memory card reader reads the following digital media memory cards:

- Secure Digital (SD) card/SDIO
- MultiMediaCard (MMC)
- Memory Stick
- Memory Stick PRO
- xD-Picture Card

EXPRESSCARD SLOT — Supports one ExpressCard. The computer ships with a plastic blank installed in the slot. For more information, see "Using ExpressCards" on page 67.

Right Side View

1	optical drive bay	3	USB connectors (2)	5	network connector (RJ-45)
2	optical drive-tray eject button	4	modem connector (RJ-11)	6	video connector

OPTICAL DRIVE BAY — You can install devices such as a DVD drive or other optical drive in the optical drive bay. For more information, see "Optical Drives" on page 111.

OPTICAL DRIVE-TRAY EJECT BUTTON — Press this button to eject a CD or DVD from the optical drive.

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.

MODEM CONNECTOR (RJ-11)

To use the internal modem, connect the telephone line to the modem connector.

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

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

NETWORK CONNECTOR (RJ-45)

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

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

VIDEO CONNECTOR

Connects an external VGA-compatible monitor.

Back View

1	USB connectors (2)	2	AC adapter connector

USB CONNECTORS

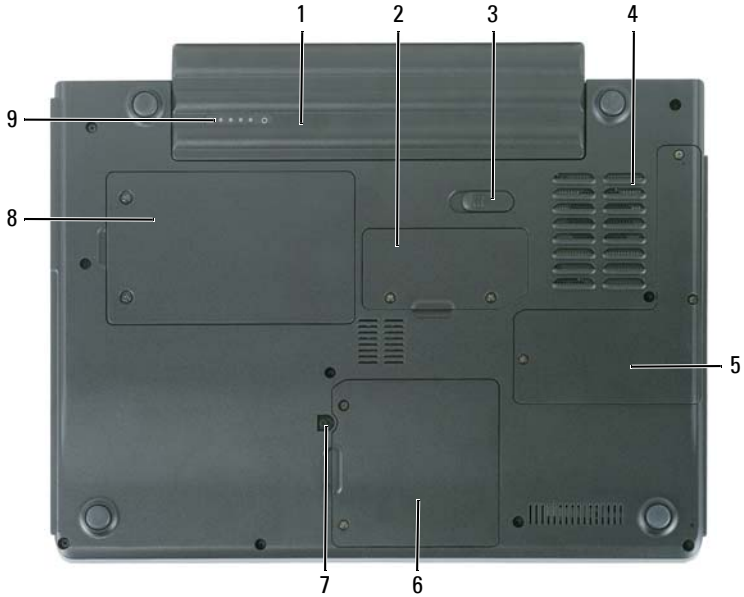
Connect USB devices, such as a mouse, keyboard, or printer. You can also connect the optional floppy drive directly to a USB connector using the optional floppy-drive cable.

AC ADAPTER CONNECTOR — Attaches 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.

Bottom View



1	battery	4	fan	7	optical-drive locking screw
2	memory module cover	5	processor and thermal module cover	8	hard drive
3	battery-bay latch release	6	modem/Mini PCI/ wireless cover	9	battery charge gauge

BATTERY — When a battery is installed, you can use the computer without connecting the computer to an electrical outlet. For more information, see "Using a Battery" on page 45.

MEMORY MODULE COVER — Covers the compartment that contains the memory modules. For more information, see page 112.

BATTERY-BAY LATCH RELEASE — Releases the battery from the battery bay. See "Battery" on page 108.

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

PROCESSOR AND THERMAL MODULE COVER — Covers the processor and thermal module.

MODEM/MINI PCI/WIRELESS COVER — Covers the compartment that contains the modem, Mini PCI card, and internal card with Bluetooth wireless technology. For more information, see page 119.

OPTICAL-DRIVE LOCKING SCREW — Secures the optical drive in the optical drive bay. For more information, see "Optical Drives" on page 111.

HARD DRIVE — Stores software and data. For more information, see "Hard Drive" on page 108 and "Hard drive problems" on page 81. The size displayed for your hard drive in Windows Explorer is the capacity of the drive before any operating system or programs are installed.

BATTERY CHARGE GAUGE — Provides information on the battery charge status. See "Using a Battery" on page 45.

2

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). 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 Internet connection with a provided ISP desktop shortcut:

1. Save and close any open files, and exit any open programs.
2. Double-click the ISP icon on the Microsoft® Windows® desktop.
3. Follow the instructions on the screen to complete the setup.

If you do not have an ISP 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 "E-Mail, Modem, and Internet Problems" on page 82. 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.

Transferring Information to a New Computer

The Microsoft® Windows® XP operating system provides a Files and Settings Transfer Wizard to move data from a source computer to a new computer. You can transfer data, such as:

- E-mail messages
- Toolbar settings
- Window sizes
- Internet bookmarks

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

NOTE: For instructions on setting up a direct cable connection between two computers, see Microsoft Knowledge Base Article #305621, titled *How to Set Up a Direct Cable Connection Between Two Computers in Windows XP*. This information may not be available in some countries.

For transferring information to a new computer, you must run the Files and Settings Transfer Wizard. You can use the optional *Operating System* CD for this process or you can create a wizard disk with the Files and Settings Transfer Wizard utility.

Running the Files and Settings Transfer Wizard With the Operating System CD

NOTE: This procedure requires the *Operating System* CD. This CD is optional and may not be included with all computers.

To prepare the new computer for the file transfer:

1 Start the **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.

Running the Files and Settings Transfer Wizard Without the Operating System CD

To run the Files and Settings Transfer Wizard without the optional *Operating System* CD, you must create a wizard disk that will allow you to create a backup image file to removable media.

To create a wizard disk, use your new computer with Windows XP and perform the following steps:

1 Click the **Start** button.

2 Click **Files and Settings Transfer Wizard**.

3 When the **Files and Settings Transfer Wizard** welcome screen appears, click **Next**.

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

5 On the **Do you have a Windows XP CD?** screen, click **I want to create a Wizard Disk in the following drive:** and click **Next.**

6 Insert the removable media, such as a floppy disk or CD, and click **OK**.

7 When the disk creation completes and the **Now go to your old computer** message appears, *do not* click **Next**.

8 Go to the old computer.

To copy data from the old computer:

1 On the old computer, insert the wizard disk.

2 Click the **Start** button and click **Run**.

3 In the **Open** field on the **Run** window, browse to the path for **fastwiz** (on the appropriate removable media) and click **OK**.

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**. Follow the instructions on the screen.

   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.

NOTE: For more information about this procedure, search **dell.support.com** for document #PA1089586 (*How Do I Transfer Files From My Old Computer to My New Dell Computer Using the Microsoft® Windows® XP Operating System?*).

NOTE: Access to the Dell Knowledge Base document may not be available in some countries.

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.

For technical assistance, refer to the printer owner's manual or contact the printer manufacturer.

Printer Cable

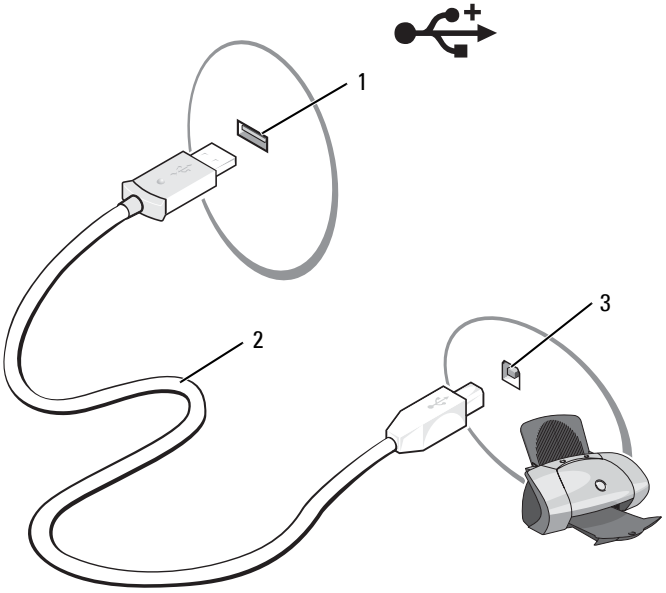
Your printer connects to your computer with either a USB cable or a parallel cable. Your printer may not come with a printer cable, so if you purchase a cable separately, ensure that it is compatible with your printer and computer. If you purchased a printer cable at the same time you purchased your computer, the cable may arrive in the box in which your computer was shipped.

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



1	USB connector on computer	2	USB printer cable	3	connector on printer

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

4 Install the printer driver if necessary. See the documentation that came with your printer.

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 prevent damage to your computer from voltage spikes that can occur during electrical storms or after power interruptions. 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).

3

Using the Display

Adjusting Brightness

When a Dell™ computer is running on battery power, you can conserve power by setting the brightness to the lowest comfortable setting by pressing <Fn> and the up- or down-arrow key on the keyboard.

The Dell QuickSet Brightness Meter shows the current brightness setting for the display. Right-click the icon in the taskbar to enable or disable the Brightness Meter on the screen.

NOTE: By default, the Brightness Meter appears in the lower-right corner of the display. You can click and drag the meter to a preferred location.

NOTE: Brightness key combinations only affect the display on your portable computer, not monitors that you attach to your portable computer. If your computer is connected to an external monitor and you try to change the brightness level, the Brightness Meter appears, but the brightness level on the monitor does not change.

You can enable or disable the Brightness Meter from the QuickSet taskbar menu. When the meter is enabled, press the following keys to adjust brightness:

- Press <Fn> and the up-arrow key to increase brightness on the integrated display only (not on an external monitor).
- Press <Fn> and the down-arrow key to decrease brightness on the integrated display only (not on an external monitor).

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

Switching the Video Image

When you start the computer with an external device (such as an external monitor or projector) attached and turned on, the image may appear on either the computer display or the external device.

Press <Fn><F8> to switch the video image between the display only, the external device only, or the display and the external device simultaneously.

Setting Display Resolution

To display a program at a specific resolution, both the graphics card and the display must support the program, and the necessary video drivers must be installed.

Before you change any of the default display settings, make a note of the default settings for future reference.

If you choose a resolution or color palette that is higher than the display supports, the settings adjust automatically to the closest supported values.

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

2 Under **Pick a category**, click **Appearance and Themes**.

3 Under **Pick a task...**, click the area you want to change, or under **or pick a Control Panel icon**, click **Display**.

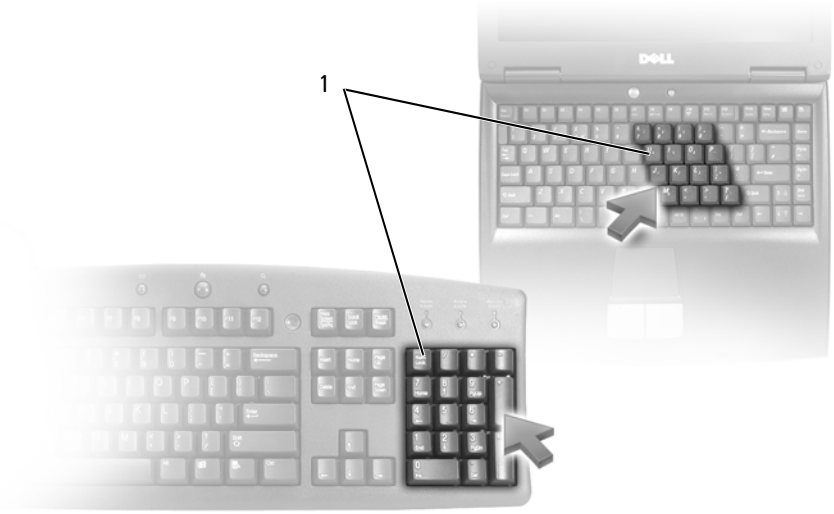
4 Try different settings for **Color quality** and **Screen resolution**.

NOTE: As the resolution increases, icons and text appear smaller on the screen.

4

Using the Keyboard and Touch Pad

Numeric Keypad



1 numeric keypad

The numeric keypad functions like the numeric keypad on an external keyboard. Each key on the keypad has multiple functions. The keypad numbers and symbols are marked in blue on the right of the keypad keys. To type a number or symbol, press <Fn> and the desired key after enabling the keypad.

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

Key Combinations

System Functions

<Ctrl><Shift><Esc>	Opens the **Task Manager** window.

Battery

<Fn><F3>	Displays the Dell™ QuickSet Battery Meter. This feature is not supported in Dell MediaDirect. For more information, see "Dell™ QuickSet Battery Meter" on page 46.

CD or DVD Tray

<Fn><F10>	Ejects the tray out of the drive (if Dell QuickSet is installed). This feature is not supported in Dell MediaDirect. For more information on QuickSet, see "Dell™ QuickSet Features" on page 44.

Display Functions

<Fn><F8>	Switches the video image to the next display option. The options include the integrated display, an external monitor, and both displays simultaneously.
<Fn> and up-arrow key	Increases brightness on the integrated display only (not on an external monitor).
<Fn> and down-arrow key	Decreases brightness on the integrated display only (not on an external monitor).

Radios (Including Wireless Networking and an Internal Card With Bluetooth® Wireless Technology)

<Fn><F2>	Enables and disables radios, including wireless networking and Bluetooth wireless technology.

Power Management

<Fn><Esc>	Activates a power management mode. You can reprogram this keyboard shortcut to activate a different power management mode using the **Advanced** tab in the **Power Options Properties** window. See "Power Management Modes" on page 41.

Speaker Functions

<Fn><Page Up>	Increases the volume of the integrated speakers and external speakers, if attached.
<Fn><Page Dn>	Decreases the volume of the integrated speakers and external speakers, if attached.
<Fn><End>	Enables and disables the integrated speakers and external speakers, if attached.

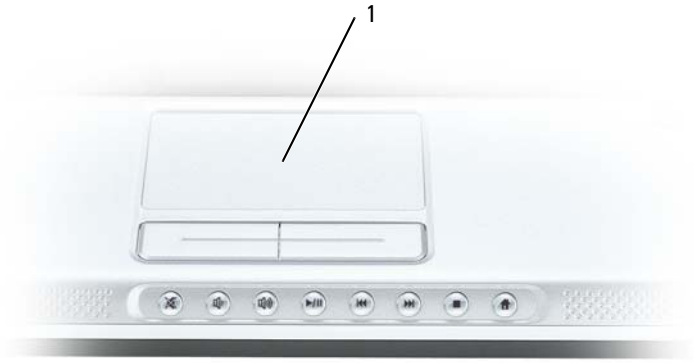
Microsoft® Windows® Logo Key Functions

Windows logo key and <m>	Minimizes all open windows.
Windows logo key and <Shift><m>	Maximizes all windows.
Windows logo key and <e>	Runs Windows Explorer. This opens the same window as double-clicking "My Computer" on your desktop.
Windows logo key and <r>	Opens the **Run** dialog box.
Windows logo key and <f>	Opens the **Search Results** dialog box.
Windows logo key and <Ctrl><f>	Opens the **Search Results-Computer** dialog box (if the computer is connected to a network).
Windows logo key and <Pause>	Opens the **System Properties** dialog box.

To adjust keyboard operation, such as the character repeat rate, open the Control Panel, click **Printers and Other Hardware**, and click **Keyboard**. For information about the Control Panel, see the Windows Help and Support Center. To access the Help and Support Center, see page 13.

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.



1 touch pad

- 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 twice on the touch pad. On the second tap, leave your finger on the touch pad and move the selected object by sliding your finger over the surface.
- To double-click an object, position the cursor on the object and tap twice on the touch pad or use your thumb to press the left touch-pad button twice.

Customizing the Touch Pad

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

1. Open the Control Panel, click **Printers and Other Hardware**, and then click **Mouse**. For information about the Control Panel, see the Windows Help and Support Center. To access the Help and Support Center, see page 13.
2. In the **Mouse Properties** window, click the **Touch Pad** tab to adjust touch pad settings.
3. Click **OK** to save the settings and close the window.

5

Power Management

Power Management Tips

NOTE: See "Using a Battery" on page 45 for more information on conserving battery power.

- Connect the computer to an electrical outlet when possible because battery life is largely determined by the number of times the battery is used and recharged.
- Place the computer in standby mode or hibernate mode when you leave the computer unattended for long periods of time.
- You can use the Power Management Wizard to select options to optimize your computer's power usage. These options can also be set to change when you press the power button, close the display, or press <Fn><Esc>.

Power Management Wizard

NOTE: The Power Management Wizard is not available if you have restricted access rights.

Click or double-click the icon to open the Power Management Wizard.

The first two screens of the wizard—**Welcome** and **What is Power Management?**—describe and define various power management options.

NOTE: On the **What is Power Management?** screen, you can select **Do not show this page again.** When you select this option, the **Welcome** screen also does not appear again.

Use the screens that follow the **Welcome** and **What is Power Management?** screens to set various power management options, including sleep modes, power schemes, and low battery-charge alarms.

Setting Sleep Modes

This screen defines standby and hibernate modes. From the screen you can:

- Set the standby-mode password option.
- Enable or disable hibernate mode.
- Select how the computer will respond when you close the display:
  - Choose no action.
  - Enter standby mode.
  - Enter hibernate mode.

- Select how the computer will respond when you press the power button:
  - Choose no action.
  - Enter standby mode.
  - Enter hibernate mode.
  - Shut down Microsoft Windows and turn off the computer.
  - Prompt a user for an action (**Ask me what to do**).
- Select how the computer will respond when you press <Fn><Esc>:
  - Choose no action.
  - Enter standby mode.
  - Enter hibernate mode.
  - Shut down Microsoft Windows and turn off the computer.
  - Prompt a user for an action (**Ask me what to do**).

Selecting a Power Scheme

NOTE: The **Network Disabled** power scheme disables your internal network and wireless activity when your computer is running on battery power. When your computer is connected to an electrical outlet, the **Network Disabled** power scheme disables only your wireless activity. You must select the power scheme through QuickSet (not Microsoft® Windows®) for the **Network Disabled** power scheme to work.

The **Selecting a Power Scheme** screen allows you to create, edit, and switch between power schemes. In addition, you can delete power schemes that you create, but you cannot delete Dell™ QuickSet predefined power schemes (**Maximum Battery**, **Maximum Performance**, **Presentation**, and **Network Disabled**).

NOTE: QuickSet automatically adds the word **(QuickSet)** after the names of power schemes created using QuickSet.

All QuickSet power schemes are displayed in a drop-down menu near the center of the screen. The power settings for each scheme are below the name of the current selection. The power settings are listed separately for when the computer is running on battery or connected to an electrical outlet.

The Power Management Wizard also allows you to associate the display brightness level with a power scheme. You must enable brightness-level power schemes through QuickSet in order to set the brightness level.

The display brightness, internal network-card activity, and wireless activity features are not available through the Control Panel power schemes. In order to use these features, you must set them through QuickSet power schemes.

NOTE: Brightness key combinations only affect the display on your portable computer, not monitors that you attach to your portable computer. If your computer is in CRT-only mode and you try to change the brightness level, the Brightness Meter appears, but the brightness level on the monitor does not change.

Setting Battery Alarms and Actions

This screen allows you to enable the low-battery and critical-battery alarms and to change settings for the alarms. For example, you can set the low-battery alarm to 20 percent to remind you to save work and switch to AC power, and you can set the critical-battery alarm to 10 percent to enter hibernate mode. From the screen, you can:

- Select whether the alarm will notify you by sound or text.
- Adjust the power level at which you want the alarm to notify you.
- Select how the computer will respond when the alarm notifies you:
  - Choose no action.
  - Enter standby mode.
  - Enter hibernate mode.
  - Shut down Windows and turn off the computer.

Completing the Power Management Wizard

This screen summarizes the QuickSet power scheme, sleep mode, and battery alarm settings for your computer. Review the settings you have selected and click **Finish**.

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

Power Management Modes

Standby Mode

Standby mode conserves power by turning off the display and the hard drive after a predetermined period of inactivity (a time-out). When the computer exits standby mode, it returns to the same operating state it was in before entering standby mode.

NOTICE: If your computer loses AC or battery power while in standby mode, it may lose data.

To enter standby mode, click the **Start** button, click **Turn off computer**, and then click **Stand by**. Depending on how you set the power management options on the Advanced tab in the **Power Options Properties** window, use one of the following methods:

- Press the power button.
- Close the display.
- Press <Fn><Esc>.

To exit standby mode, press the power button or open the display depending on how you set the options on the Advanced tab. You cannot make the computer exit standby mode by pressing a key or touching the touch pad.

Hibernate Mode

Hibernate mode conserves power by copying system data to a reserved area on the hard drive and then completely turning off the computer. When the computer exits hibernate mode, it returns to the same operating state it was in before entering hibernate mode.

NOTICE: You cannot remove devices while your computer is in hibernate mode.

Your computer enters hibernate mode if the battery charge level becomes critically low.

To manually enter hibernate mode, click the **Start** button, click **Turn off computer**, press and hold <Shift>, and then click **Hibernate**. Depending on how you set the power management options on the Advanced tab in the **Power Options Properties** window, use one of the following methods to enter hibernate mode:

- Press the power button.
- Close the display.
- Press <Fn><Esc>.

NOTE: Some ExpressCards may not operate correctly after the computer exits hibernate mode. Remove and reinsert the card, or simply restart (reboot) your computer. See "Installing an ExpressCard" on page 67.

To exit hibernate mode, press the power button. The computer may take a short time to exit hibernate mode. You cannot make the computer exit hibernate mode by pressing a key or touching the touch pad. For more information on hibernate mode, see the documentation that came with your operating system.

Power Options Properties

The **Power Options Properties** window helps you to manage power consumption and monitor battery charge status. To access the Windows **Power Options Properties** window, click the **Start** button, point to **Control Panel**→ **Performance and Maintenance**, and click **Power Options**.

Power Schemes Tab

The **Power schemes** drop-down menu displays the selected preset power scheme. Keep the default **Portable/Laptop** power scheme to maximize battery power.

Windows XP controls the performance level of the processor depending on the power scheme you select. You do not need to make any further adjustments to set the performance level.

Each preset power scheme has different time-out settings for entering standby mode, turning off the display, and turning off the hard drive. For more information on power management options, see the Windows Help and Support Center. To access the Help and Support Center, see page 13.

Alarms Tab

NOTE: To enable audible alarms, click each **Alarm Action** button and select **Sound alarm**.

The **Low battery alarm** and **Critical battery alarm** settings alert you with a message when the battery charge falls below a certain percentage. When you receive your computer, the **Low battery alarm** and **Critical battery alarm** check boxes are selected. It is recommended that you continue to use these settings. See "Using a Battery" on page 45 for more information on low-battery warnings.

Power Meter Tab

The **Power Meter** tab displays the current power source and amount of battery charge remaining.

Advanced Tab

The **Advanced** tab allows you to:

- Set power icon and standby mode password options.
- Select how the computer will respond when you close the display:
  - Choose no action.
  - Enter standby mode.
  - Enter hibernate mode.
- Select how the computer will respond when you press the power button:
  - Choose no action.
  - Enter standby mode.
  - Enter hibernate mode.
  - Shut down Microsoft Windows and turn off the computer.
  - Prompt a user for an action (**Ask me what to do**).
- Select how the computer will respond when you press <Fn><Esc>:
  - Choose no action.
  - Enter standby mode.
  - Enter hibernate mode.
  - Shut down Microsoft Windows and turn off the computer.
  - Prompt a user for an action (**Ask me what to do**).

To program these functions, click an option from the corresponding drop-down list and then click **OK**.

Hibernate Tab

The **Hibernate** tab lets you enable hibernate mode by clicking the **Enable hibernation** check box.

Dell™ QuickSet Features

NOTE: This feature may not be available on your computer.

Dell QuickSet is activated from the icon on the taskbar and functions differently when you click, double-click, or right-click the icon.

Clicking the QuickSet Icon

Click the icon to perform the following tasks:

- Adjust power management settings using the Power Management Wizard (see page 39).
- Adjust the size of icons and toolbars.
- Select a power scheme that you set in the Power Management Wizard (see page 39).
- Turn presentation mode on or off.

Double-Clicking the QuickSet Icon

Double-click the icon to adjust power management settings using the Power Management Wizard (see page 39).

Right-Clicking the QuickSet Icon

Right-click the icon to perform the following tasks:

- Enable or disable the Brightness Meter on the screen (see page 33).
- Enable or disable the Volume Meter on the screen (see page 51).
- Turn the wireless activity indicator on or off (see page 40).
- View *Dell QuickSet Help*.
- View the version and copyright date of the QuickSet program installed on your computer.

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

6

Using a Battery

Battery Types

See "Specifications" on page 131 for information on supported batteries.

Battery Performance

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

NOTE: For information about the Dell warranty for your computer, see the *Product Information Guide* or 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.

NOTE: Because the battery may not be fully charged, use the AC adapter to connect your new computer to an electrical outlet the first time you use the computer. For best results, operate the computer with the AC adapter until the battery is fully charged. To view battery charge status, access the **Control Panel**→ **Power Options**→ **Power Meter** tab.

Battery operating time varies depending on operating conditions.

NOTE: Battery operating time (the time the battery can hold a charge) decreases over time. Depending on how often the battery is used and the conditions under which it is used, you may need to purchase a new battery during the life of your computer.

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

- Using optical drives
- Using wireless communications devices, ExpressCards, 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 (see page 40)

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

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 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 battery. See "Battery Disposal" in the *Product Information Guide*.

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 60°C (140°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.

Dell™ QuickSet Battery Meter

If Dell QuickSet is installed, press <Fn><F3> to display the QuickSet Battery Meter.

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

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

	The computer is running on battery power.
	The computer is connected to AC power and the battery is charging.
	The computer is connected to AC power and the battery is fully charged.

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" on page 39.

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.

Health Gauge

The battery operating time is largely determined by the number of times it is charged. After hundreds of charge and discharge cycles, batteries lose some charge capacity, or battery health. To check the battery health, press and hold the status button on the battery charge gauge for at least 3 seconds. If no lights appear, the battery is in good condition, and more than 80 percent of its original charge capacity remains. Each light represents incremental degradation. If five lights appear, less than 60 percent of the charge capacity remains, and you should consider replacing the battery. See "Specifications" on page 131 for more information about the battery operating time.

Low-Battery Warning

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

A pop-up window warns you when the battery charge is approximately 90 percent depleted. For more information about low-battery alarms, see "Power Management" on page 39.

Charging the Battery

NOTE: Without Dell™ ExpressCharge™, the AC adapter charges a completely discharged 6-cell battery in approximately 2 hours and a 9-cell battery in approximately 3 hours 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, see "Power Problems" on page 91.

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.

7

Using CDs, DVDs, and Other Multimedia

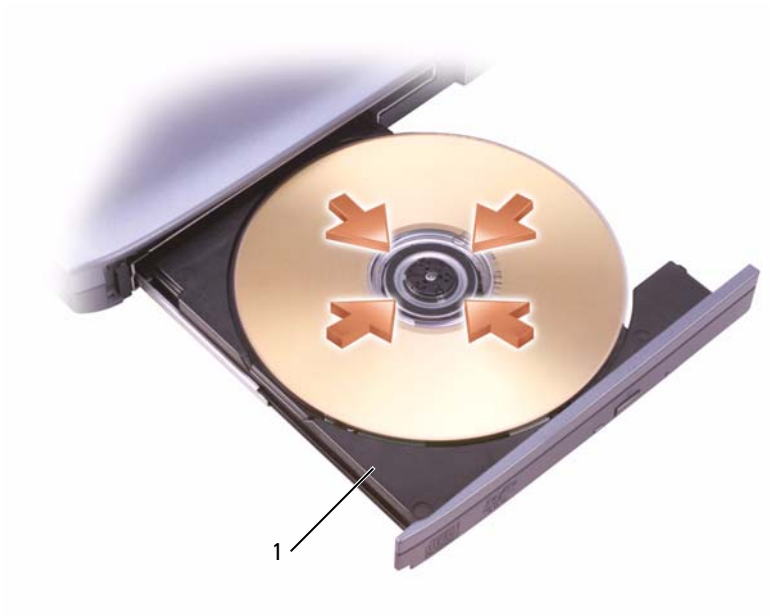
Playing a CD or DVD

NOTICE: Do not press down on the CD or DVD tray when you open or close it. Keep the tray closed when you are not using the drive.

NOTICE: Do not move the computer when you are playing CDs or DVDs to prevent damage to your CD/DVD drive or discs.

1 Press the eject button on the front of the drive.

2 Pull out the tray.



1 CD/DVD tray

3 Place the disc, label side up, in the center of the tray and snap the disc onto the spindle.

NOTE: If you use a CD/DVD drive that shipped with another computer, you need to install the drivers and software necessary to play CDs or DVDs or write data. For more information, see the *Drivers and Utilities* CD (the *Drivers and Utilities* CD is optional and may not be available for your computer or in certain countries).

4 Push the tray back into the drive.

To format CDs for storing data, to create music CDs, or to copy CDs, see the CD software that came with your computer.

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

The CD player includes the following basic buttons:

	Play.
	Move backward within the current track.
	Move forward within the current track.
	Go to the previous track.
	Go to the next track.
	Pause.
	Stop.
	Eject.

The DVD player includes the following basic buttons:

	Play.
	Stop.
	Restart the current chapter.
	Fast forward.
	Fast reverse.
	Go to the next title or chapter.
	Go to the previous title or chapter.
	Continuously play the current title or chapter.

	Pause.
	Advance a single frame while in pause mode.
	Eject.

For more information on playing CDs or DVDs, click **Help** in the CD or DVD player program window (if available).

Adjusting the Volume

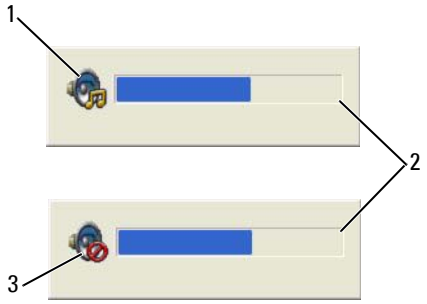
NOTE: When the speakers are muted, you do not hear the CD or DVD playing.

1 Click the **Start** button, point to **All Programs**→ **Accessories**→ **Entertainment**, and then click **Volume Control**.

2 In the **Volume Control** window, click and drag the bar in the **Volume Control** column and slide it up or down to increase or decrease the volume.

For more information on volume control options, click **Help** in the **Volume Control** window.

The Volume Meter displays the current volume level, including mute, on your computer. Either right-click the icon in the taskbar or press the volume control buttons to enable or disable the Volume Meter on the screen.



1	volume icon	2	Volume Meter	3	mute icon

When the Volume Meter is enabled, adjust the volume with the volume control buttons or by pressing the following key combinations:

- Press <Fn><PageUp> to increase the volume.
- Press <Fn><PageDn> to decrease the volume.
- Press <Fn><End> to mute the volume.

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

Adjusting the Picture

If an error message notifies you that the current resolution and color depth are using too much memory and preventing DVD playback, adjust the display properties.

1 Click the **Start** button and click **Control Panel**.
2 Under **Pick a category**, click **Appearance and Themes**.
3 Under **Pick a task...**, click **Change the screen resolution**.
4 In the **Display Properties** window, click and drag the bar in **Screen resolution** to reduce the screen resolution setting.
5 Click the drop-down menu under **Color quality**, and then click **Medium (16 bit)**.
6 Click **OK** to save the settings and close the window.

Copying CDs and DVDs

NOTE: Ensure that you observe all copyright laws when creating CDs or DVDs.

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

NOTE: The types of CD or DVD drives offered by Dell may vary by country.

The following instructions explain how to make an exact copy of a CD or DVD. You can also use Sonic DigitalMedia for other purposes, such as creating music CDs from audio files stored on your computer or backing up important data. For help, open Sonic DigitalMedia and then click the question mark icon in the upper-right corner of the window.

How to Copy a CD or DVD

NOTE: CD-RW/DVD combo drives cannot write to DVD media. If you have a CD-RW/DVD combo drive and you experience recording problems, check for available software patches on the Sonic support website at **www.sonic.com**.

The DVD-writable drives installed in Dell™ computers can write to and read DVD+/-R, DVD+/-RW and DVD+R DL (dual layer) media, but they cannot write to and may not read DVD-RAM or DVD-R DL media.

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

1 Click the **Start** button, point to **All Programs**→ **Sonic**→ **DigitalMedia Projects**, and then click **Copy**.
2 Under the **Copy** tab, click **Disc Copy**.

3 To copy the CD or DVD:

- *If you have one CD or DVD drive*, ensure that the settings are correct and click the **Disc Copy** button. The computer reads your source CD or DVD and copies the data to a temporary folder on your computer hard drive.

  When prompted, insert a blank CD or DVD into the 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 the **Disc Copy** button. The computer copies the data from the source 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 CDs and DVDs

CD-RW drives can write to CD recording media only (including high-speed CD-RW) while DVD-writable drives can write to both CD and DVD recording media.

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 (see the Sonic documentation for more information). Use blank CD-RWs to write to CDs or to erase, rewrite, or update data on CDs.

Blank DVD+/-Rs can be used to permanently store large amounts of information. After you create a DVD+/-R disc, you may not be able to write to that disc again if the disc is "finalized" or "closed" during the final stage of the disc creation process. Use blank DVD+/-RWs if you plan to erase, rewrite, or update information on that disc later.

CD-Writable Drives

Media Type	Read	Write	Rewritable
CD-R	Yes	Yes	No
CD-RW	Yes	Yes	Yes

DVD-Writable Drives

Media Type	Read	Write	Rewritable
CD-R	Yes	Yes	No
CD-RW	Yes	Yes	Yes
DVD+R	Yes	Yes	No
DVD-R	Yes	Yes	No
DVD+RW	Yes	Yes	Yes
DVD-RW	Yes	Yes	Yes
DVD+R DL	Yes	Yes	No

Media Type	Read	Write	Rewritable
DVD-R DL	Maybe	No	No
DVD-RAM	Maybe	No	No

Helpful Tips

- Use Microsoft® Windows® Explorer to drag and drop files to a CD-R or CD-RW only after you start Sonic DigitalMedia and open a DigitalMedia project.
- 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 DigitalMedia.
- Music MP3 files can be played only on MP3 players or on computers that have MP3 software installed.
- Commercially available DVD players used in home theater systems may not support all available DVD formats. For a list of formats supported by your DVD player, see the documentation provided with your DVD player or contact the manufacturer.
- 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 blank 650-MB CD. The CD-RW drive needs 1–2 MB of the blank space 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 website at **www.sonic.com** for additional information.

Using Dell MediaDirect

NOTE: Dell QuickSet, which is automatically installed and enabled on your computer, is necessary for Dell MediaDirect to function. Changing or disabling QuickSet default settings can limit Dell MediaDirect functionality. For more information about Dell QuickSet, see "Dell™ QuickSet Features" on page 44.

If you have Microsoft Windows Media Center Edition or another version of Windows XP with Dell Media Experience installed, you can press the Dell MediaDirect button to launch either media program.

- If you press the Dell MediaDirect button while you are logged in, either Windows XP Media Center Manager or Dell Media Experience launches, depending on your system setup. If both programs are present, Windows XP Media Center Manager will launch.
- When your computer is off, you can press the Dell MediaDirect button to start the computer and automatically launch the media application. The computer can either be on and running Windows or it can be in the hibernate, standby, or off mode.

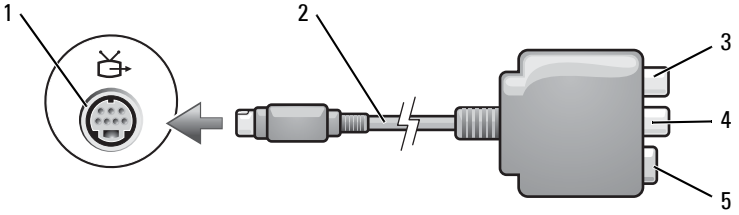
NOTICE: You cannot reinstall the Dell MediaDirect feature if you voluntarily reformat the hard drive. Contact Dell for assistance. See "Contacting Dell" on page 145.

1 Dell MediaDirect button

Connecting Your Computer to a TV or Audio Device

NOTE: Video and audio cables for connecting your computer to a TV or other audio device are not included with your computer. Cables may be purchased at most consumer electronics stores. The TV/digital audio adapter cable is available for purchase from Dell.

Your computer has an S-video TV-out connector that, together with a standard S-video cable (available from Dell), enables you to connect the computer to a TV.



1	S-video TV-out connector	3	S/PDIF digital audio connector	5	S-video connector
2	TV/digital audio adapter cable	4	composite video-output connector		

Your TV has either an S-video input connector or a composite video-input connector. Depending on what type of connector is available on your TV, you can use a commercially available S-video cable or composite video cable to connect your computer to your TV.

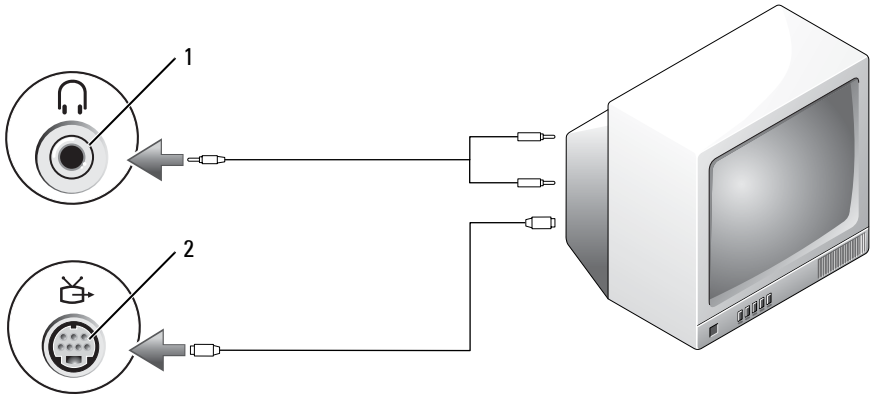
It is recommended that you connect video and audio cables to your computer in one of the following combinations.

NOTE: See the diagrams at the beginning of each subsection to help you determine which method of connection you should use.

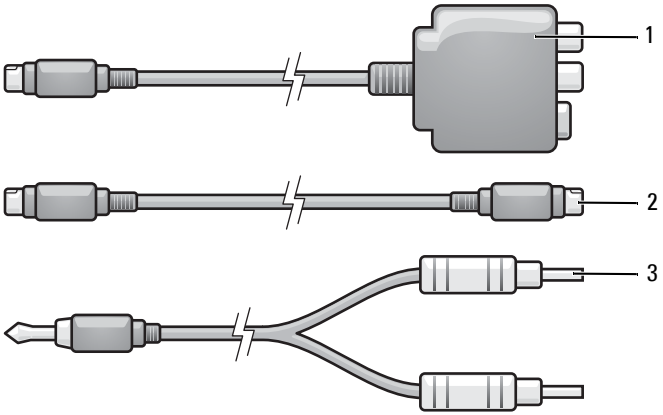
- S-video and standard audio
- Composite video and standard audio

When you finish connecting the video and audio cables between your computer and your TV, you must enable your computer to work with the TV. See "Enabling the Display Settings for a TV" on page 66 to ensure that the computer recognizes and works properly with the TV. Additionally, if you are using S/PDIF digital audio, see "Enabling S/PDIF Digital Audio" on page 64.

S-Video and Standard Audio



1 audio connector 2 S-video TV-out connector

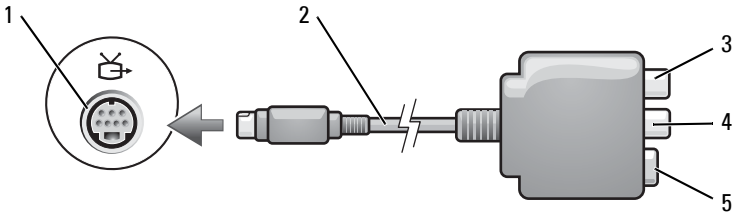


1	TV/digital audio adapter cable	2	standard S-video cable	3	standard audio cable

1 Turn off the computer and the TV and/or audio device that you want to connect.

NOTE: You can connect an S-video cable directly to the S-video TV-out connector on the computer (without the TV/digital audio adapter cable) if your TV or audio device supports S-video but not S/PDIF digital audio.

2 Plug one end of the S-video cable in to the S-video output connector on the computer.



1	S-video TV-out connector	3	S/PDIF digital audio connector	5	S-video connector
2	TV/digital audio adapter cable	4	composite video-output connector		

3 Plug the other end of the S-video cable in to the S-video input connector on your TV.

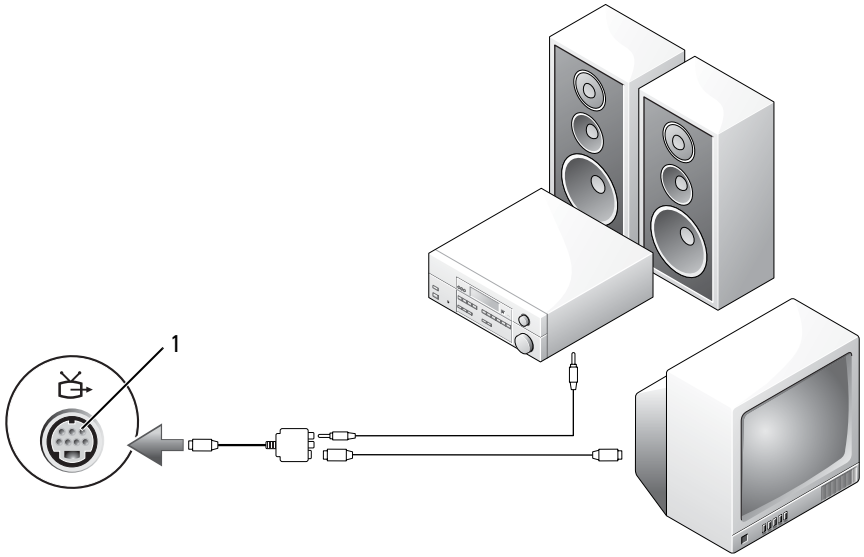
4 Plug the single-connector end of the audio cable in to the headphone connector on your computer.

5 Plug the two RCA connectors on the other end of the audio cable in to the audio input connectors on your TV or other audio device.

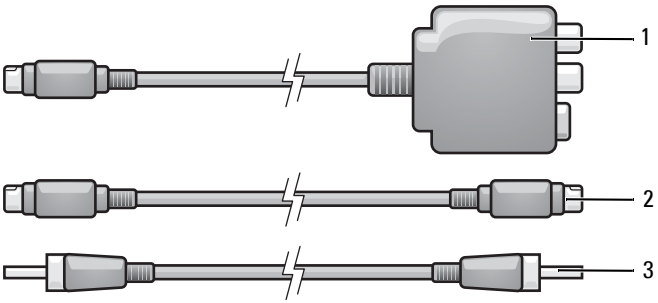
6 Turn on the TV and any audio device that you connected (if applicable), and then turn on the computer.

7 See "Enabling the Display Settings for a TV" on page 66 to ensure that the computer recognizes and works properly with the TV.

S-Video and S/PDIF Digital Audio



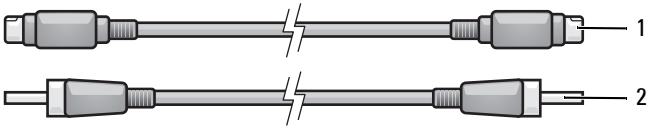
1 S-video TV-out connector



1 TV/digital audio adapter cable

2 S-video cable

3 S/PDIF digital audio cable

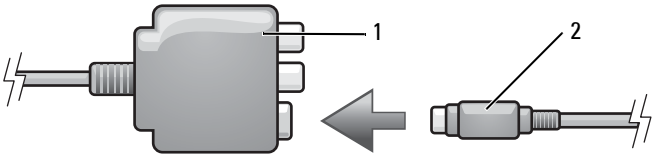


1	S-video cable	2	S/PDIF digital audio cable

1 Turn off the computer and the TV and/or audio device that you want to connect.

2 Connect the TV/digital audio adapter cable to the S-video TV-out connector on your computer.

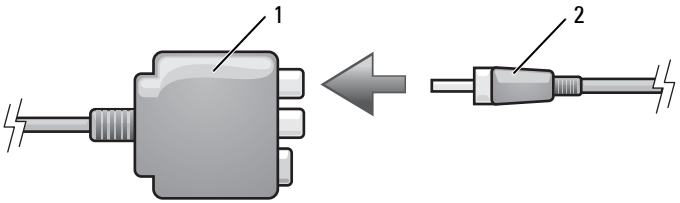
3 Plug one end of the S-video cable in to the S-video input connector on the TV/digital audio adapter cable.



1	TV/digital audio adapter cable	2	S-video cable

4 Plug the other end of the S-video cable in to the S-video input connector on the TV.

5 Plug one end of the S/PDIF digital audio cable in to the digital audio connector on the TV/digital audio adapter cable.



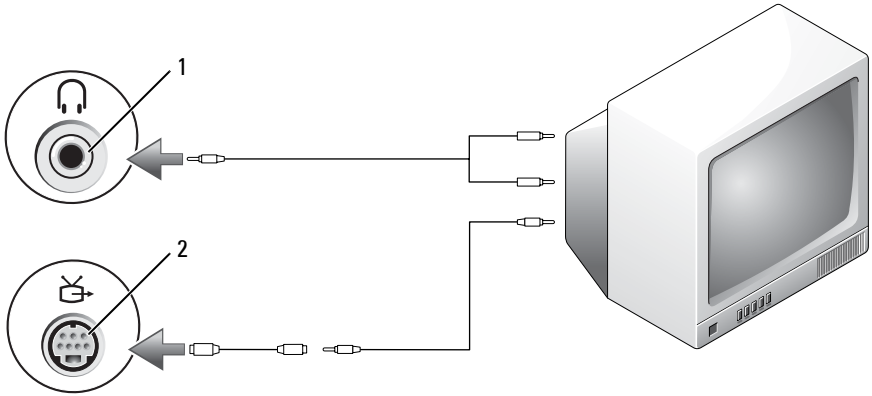
1	TV/digital audio adapter cable	2	S/PDIF digital audio cable

6 Plug the other end of the S/PDIF digital audio cable in to the audio input connector on your TV or other audio device.

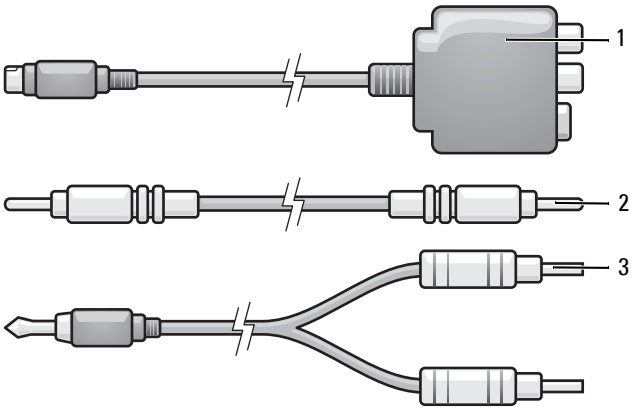
7 Turn on the TV, turn on any audio device that you connected (if applicable), and then turn on the computer.

8 See "Enabling the Display Settings for a TV" on page 66 to ensure that the computer recognizes and works properly with the TV.

Composite Video and Standard Audio



1	audio input connector	2	composite video-input connector

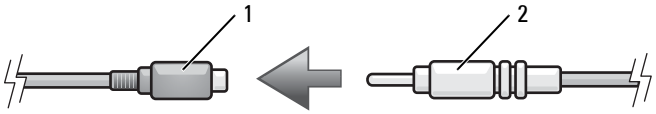


1	TV/digital audio adapter cable	2	composite video cable	3	standard audio cable

1 Turn off the computer and the TV and/or audio device that you want to connect.

2 Connect the standard video to composite video 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-input connector on the standard video to composite video cable.



1	standard S-video to composite video adapter	2	composite video cable

4 Plug the other end of the composite video cable in to the composite video-input connector on the TV.

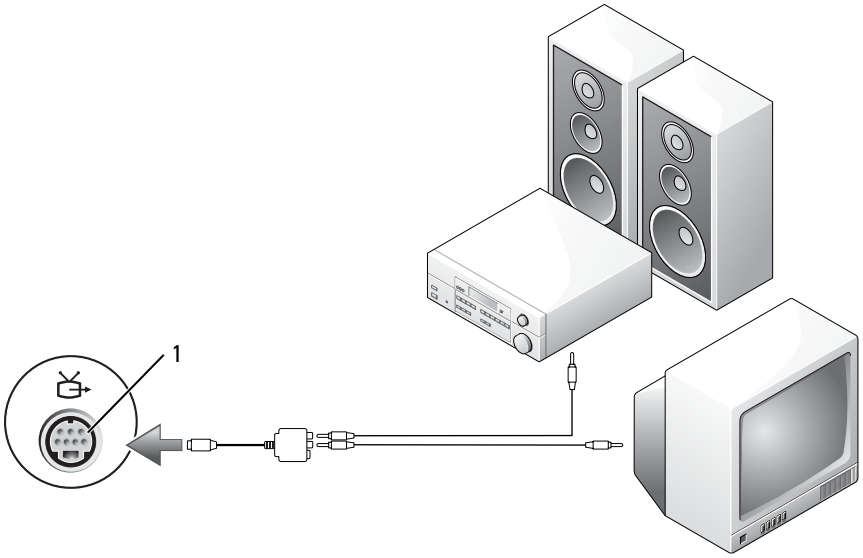
5 Plug the single-connector end of the audio cable in to the headphone connector on the computer.

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

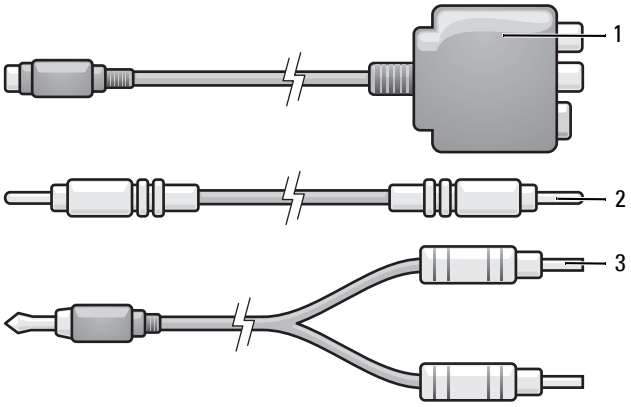
7 Turn on the TV, turn on any audio device that you connected (if applicable), and then turn on the computer.

8 See "Enabling the Display Settings for a TV" on page 66 to ensure that the computer recognizes and works properly with the TV.

Composite Video and S/PDIF Digital Audio



1 composite video-input connector



1 TV/digital audio adapter cable

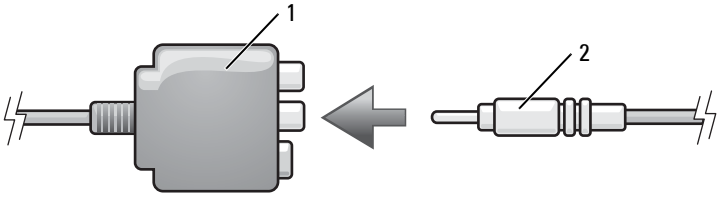
2 composite video cable

3 standard audio cable

1 Turn off the computer and the TV and/or audio device that you want to connect.

2 Connect the TV/digital audio adapter cable to the S-video TV-out connector on the computer.

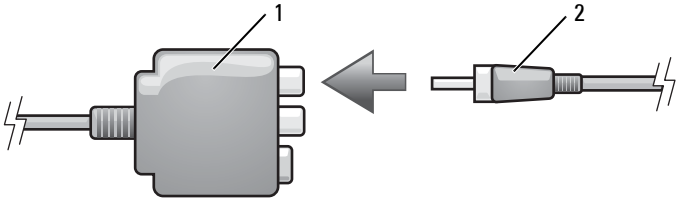
3 Plug one end of the composite video cable in to the composite video-input connector on the TV/digital audio adapter cable.



1	TV/digital audio adapter cable	2	composite video-input connector

4 Plug the other end of the composite video cable in to the composite video-input connector on the TV.

5 Plug one end of the S/PDIF digital audio cable in to the S/PDIF audio connector on the TV/digital audio adapter cable.



1	TV/digital audio adapter cable	2	S/PDIF digital audio cable

6 Plug the other end of the digital audio cable in to the S/PDIF input connector on your TV or other audio device.

7 Turn on the TV, turn on any audio device that you connected (if applicable), and then turn on the computer.

8 See "Enabling the Display Settings for a TV" on page 66 to ensure that the computer recognizes and works properly with the TV.

Enabling S/PDIF Digital Audio

If your computer has a DVD drive, you can enable digital audio for DVD playback.

1 Click **Start**→ **Programs**→ **PowerDVD** to launch the **Cyberlink PowerDVD** application.

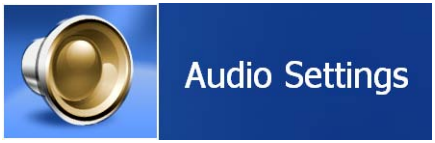
2 Insert a DVD into the DVD drive.

If the DVD begins playing, click the stop button.

3 Click the **Settings** option.

4 Click the **DVD** option.

5 Click the **DVD Audio Setting** icon.



6 Click the arrows beside the **Speaker Configuration** setting to scroll through the options, and select the **SPDIF** option.

7 Click the **Back** button once, and then click the **Back** button again to return to the main menu screen.

Enabling S/PDIF in the Windows Audio Driver

1 Double-click the speaker icon in the Windows notification area.
2 Click the **Options** menu and then click **Advanced Controls**.
3 Click **Advanced**.
4 Click **S/PDIF Interface**.
5 Click **Close**.
6 Click **OK**.

Setting Up the Cyberlink (CL) Headphones

NOTE: The CL headphone feature is available only if your computer has a DVD drive.

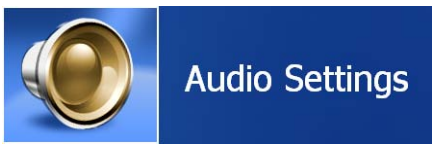
If your computer has a DVD drive, you can enable digital audio for DVD playback.

1 Click **Start**→ **Programs**→ **PowerDVD** to launch the **Cyberlink PowerDVD** program.
2 Insert a DVD into the DVD drive.

   If the DVD begins playing, click the stop button.
3 Click the **Settings** option.

4 Click the **DVD** option.

5 Click the **DVD Audio Setting** icon.



6 Click the arrows beside the **Speaker Configuration** setting to scroll through the options, and select the **Headphones** option.
7 Click the arrows beside the **Audio listening mode** setting to scroll through the options, and select the **CL Headphone** option.
8 Click the arrows beside the **Dynamic range compression** option to select the most suitable option.

9 Click the **Back** button once, and then click the **Back** button again to return to the main menu screen.

Enabling the Display Settings for a TV

Video Controller

NOTE: To ensure that the display options appear correctly, connect the TV to the computer before you enable the display settings.

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

2 Double-click **Display** and click the **Settings** tab.

3 Click **Advanced**.

4 Click the tab for your video card.

5 In the display devices section, select the appropriate option for using either a single display or multiple displays, ensuring that the display settings are correct for your selection.

NOTE: To determine the type of video card installed in your computer, click the **Start** button and click **Help and Support**. Under **Pick a Task**, click **Use Tools to view your computer information and diagnose problems** and click **My Computer Information**.

8

Using ExpressCards

ExpressCard Types

See "Specifications" on page 131 for information on supported ExpressCards.

NOTE: An ExpressCard is not a bootable device.

ExpressCard Blanks

Your computer shipped with a plastic blank installed in the ExpressCard slot. Blanks protect unused slots from dust and other particles. Save the blank for use when no ExpressCard is installed in the slot; blanks from other computers may not fit your computer.

To remove the blank, see "Removing an ExpressCard or Blank" on page 68.

Installing an ExpressCard

You can install an ExpressCard in the computer while the computer is running. The computer automatically detects the card.

ExpressCards are generally marked with a symbol (such as a triangle or an arrow) or a label to indicate which end to insert into the slot. The cards are keyed to prevent incorrect insertion. If card orientation is not clear, see the documentation that came with the card.

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

To install an ExpressCard:

1 Hold the card with the top side of the card facing up. The latch may need to be in the "in" position before you insert the card.

2 Slide the card into the slot until the card is completely seated in its connector.

If you encounter too much resistance, do not force the card. Check the card orientation and try again.

1 ExpressCard

The computer recognizes the ExpressCard and automatically loads the appropriate device driver. If the configuration program tells you to load the manufacturer's drivers, use the floppy disk or CD that came with the ExpressCard.

Removing an ExpressCard or Blank

NOTICE: Use the ExpressCard configuration utility (click the icon in the taskbar) to select a card and stop it from functioning before you remove it from the computer. If you do not stop the card in the configuration utility, you could lose data.

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

Press the latch and remove the card or blank. For some latches, you must press the latch twice: once to pop the latch out, and then a second time to pop the card out.

Save a blank to use when no ExpressCard is installed in a slot. Blanks protect unused slots from dust and other particles.

1	release button	2	ExpressCard

9

Using the 5-in-1 Media Memory Card Reader

Media Memory Card Types

The 5-in-1 media memory card reader provides a fast and convenient way to view and share digital photos, music, and videos stored on a memory card.

NOTE: A media memory card is not a bootable device.

The 5-in-1 media memory card reader reads the following media memory cards:

- Secure Digital (SD) card/SDIO
- MultiMediaCard (MMC)
- Memory Stick
- Memory Stick PRO
- xD-Picture Card

Media Memory Card Blanks

Your computer shipped with a plastic blank installed in the 5-in-1 media memory card slot. Blanks protect unused slots from dust and other particles. Save the blank for use when no card is installed in the slot; blanks from other computers may not fit your computer.

To remove the blank, see "Removing a Media Memory Card or Blank" on page 72.

Installing a Media Memory Card

You can install a media memory card in the computer while the computer is running. The computer automatically detects the card.

Media memory cards are generally marked with a symbol (such as a triangle or an arrow) or a label to indicate which end to insert into the slot. The cards are keyed to prevent incorrect insertion. If card orientation is not clear, see the documentation that came with the card.

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

To install a media memory card:

1 Hold the card with the top side of the card facing up.

2 Slide the card into the slot until the card is completely seated in its connector.

If you encounter too much resistance, do not force the card. Check the card orientation and try again.

1	5-in-1 media memory card slot	2	media memory card

The computer recognizes the media memory card and automatically loads the appropriate device driver. If the configuration program tells you to load the manufacturer's drivers, use the CD that came with the media memory card, if applicable.

Removing a Media Memory Card or Blank

NOTICE: Use the media memory card configuration utility (click the icon in the taskbar) to select a card and stop it from functioning before you remove it from the computer. If you do not stop the card in the configuration utility, you could lose data.

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

Press the card in to release and remove the card or blank.

Save a blank to use when no media memory card is installed in the slot. Blanks protect unused slots from dust and other particles.

10

Setting Up a Home and Office Network

Connecting to a Network Adapter

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

To connect a network cable:

1 Connect the network cable to the network adapter connector on the back of your computer.

NOTE: Insert the cable until it clicks into place, and then gently pull it to ensure that it is secure.

2 Connect the other end of the network cable to a network connection device, such as a network wall connector.

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

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 **Network Setup Wizard** 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 Service Pack 1 (SP1) or later.

4 Complete the checklist and required preparations.

5 Return to the Network Setup Wizard and follow the instructions on the screen.

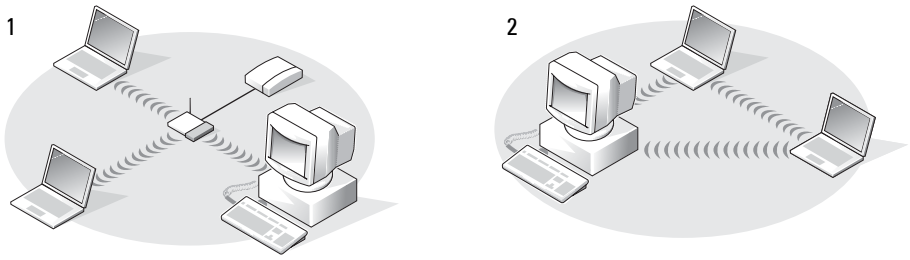
Connecting to a Wireless Local Area Network

NOTE: These networking instructions do not apply to internal cards with Bluetooth® wireless technology or cellular products.

Determining Your Network Type

NOTE: Most wireless networks are of the infrastructure type.

Wireless networks fall into two categories—infrastructure networks and ad-hoc networks. An infrastructure network uses routers or access points to connect several computers. An ad-hoc network does not use routers or access points and consists of computers that broadcast to one another. For additional assistance with setting up your wireless connection, go to **support.dell.com** and search for the keyword *wireless setup*.



1 infrastructure network 2 ad-hoc network

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 the optional *Drivers and Utilities* CD 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** and may also be located on your computer desktop.

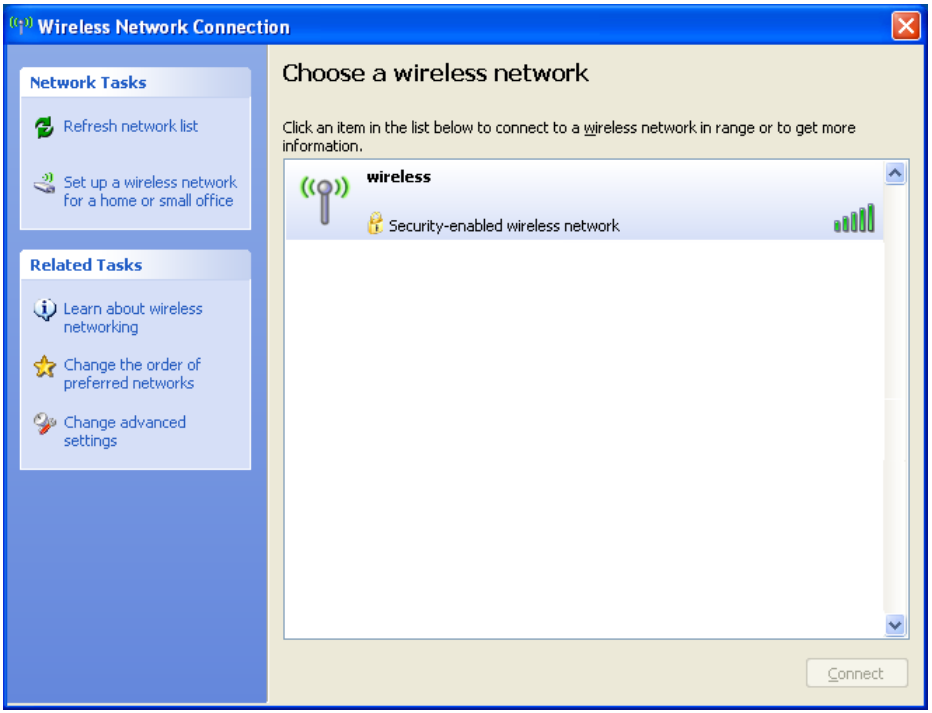
NOTE: The *Drivers and Utilities* CD is optional and may not be available for your computer or in certain countries.

When you turn on your computer, a pop-up appears from the network icon in the notification area (located in the lower-right corner of the Windows desktop) when a network, for which your computer is not configured, is detected in the area.

NOTE: The following instructions apply if you use the Windows operating system to manage your network devices. For information about other wireless configuration utilities, see your wireless network documentation.

1 Click either the pop-up or the network icon to configure your computer for one of the available wireless networks.

The **Wireless Network Connections** window lists the wireless networks available in your area.



2 Click to select the network you want to configure, and then click **Connect** or double-click the network name in the list. If you select a secure network (identified by a icon), you must enter a password when prompted.

NOTE: Network security settings are unique to your network. Dell cannot provide this information.

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

After your computer is configured for the wireless network you selected, another pop-up notifies you that your computer is connected to the network you selected.

Thereafter, whenever you log on to your computer in the area of the wireless network, the same pop-up notifies you of the wireless network connection.