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# Dell<sup>™</sup> Vostro<sup>™</sup> 1700 Owner's Manual

Model PP22X

www.dell.com | support.dell.com

## Notes, Notices, and Cautions

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

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.

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Model PP22X

May 2007

P/N TT565 Rev. A00

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# **Finding Information**

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

**NOTE:** Additional information may ship with your computer.

| Find It Here  |  |
|---|--|
| Drivers and Utilities Media   |  |
| Documentation and drivers are already<br>installed on your computer. You can use<br>the <i>Drivers and Utilities</i> media to<br>reinstall drivers (see "Reinstalling Drivers<br>and Utilities" on page 127) or run the<br>Dell Diagnostics (see "Dell Diagnostics"<br>on page 99).<br>Readme files may be included on your<br><i>Drivers and Utilities</i> media to provide<br>last-minute updates about technical<br>changes to your computer or advanced<br>technical-reference material for<br>technicians or experienced users.<br><b>NOTE:</b> Drivers and documentation updates<br>can be found at support.dell.com.   |  |
| Dell™ Product Information Guide   |  |
| Dell <sup>er</sup> Computers<br>Product Information Guide<br>Information State State<br>Information State State<br>Information State State<br>Information State State<br>Information State |  |
|   |  |

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Finding Information |

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| Vhat Are You Looking For?   | Find It Here   |  |
|---|--|--|
| • How to set up my computer   | Setup Diagram  |  |
| <ul> <li>Service Tag and Express Service Code</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> Product Key</li> </ul> | Service Tag and Microsoft Windows<br>Product Key   |  |
|   | These labels are located on your computer.   |  |
|   | <ul> <li>Use the Service Tag to identify your computer when you use support.dell.com or contact support.</li> <li>Image: Image: Image:</li></ul> |  |
|   | <b>NOTE:</b> As an increased security measure<br>the newly designed Microsoft Windows<br>license label incorporates a "security<br>portal," which looks like a missing portion<br>of the label, to discourage removal of the<br>label.   |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
|   |  |  |
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| Vhat Are You Looking For?   | Find It Here   |
|---|--|
| Solutions — Troubleshooting hints and<br>tips, articles from technicians, online<br>courses, and frequently asked questions<br>Community — Online discussion with<br>other Dell customers<br>Upgrades — Upgrade information for<br>components, such as the memory, hard<br>drive, and operating system<br>Customer Care — Contact<br>information, service call and order<br>status, and warranty and repair<br>information<br>Service and support — Service call<br>status, support history, service contract,<br>and online discussions with support<br>Dell Technical Update Service —<br>Proactive e-mail notification of software<br>and hardware updates for your  | Dell Support Website — support.dell.com<br>NOTE: Select your region or business<br>segment to view the appropriate support<br>site.  |
| <ul> <li>computer</li> <li>Reference — Computer</li> <li>documentation, details on my</li> <li>computer configuration, product</li> <li>specifications, and white papers</li> <li>Downloads — Certified drivers,</li> <li>patches, and software updates</li> <li>Notebook System Software (NSS) — If</li> <li>you reinstall the operating system on</li> <li>your computer, you should also reinstall</li> <li>the NSS utility. NSS automatically</li> <li>detects your computer and operating</li> <li>system, and installs the updates</li> <li>appropriate for your configuration,</li> <li>providing critical updates for your</li> <li>operating system and support for Dell</li> <li>3.5-inch USB floppy drives, Intel<sup>®</sup></li> <li>processors, optical drives, and USB</li> <li>devices. NSS is necessary for correct</li> <li>operation of your Dell computer.</li> </ul> | <ul> <li>To download Notebook System Software:</li> <li>1 Go to support.dell.com, select your country/region, and then click Drivers &amp; Downloads.</li> <li>2 Enter your Service Tag or product model, and then click Go.</li> <li>3 Select your operating system and language, and then click Find Downloads, or under Downloads Search, search for the keyword Notebook System Software.</li> <li>NOTE: The support.dell.com user interface may vary depending on your selections.</li> </ul> |

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Finding Information | 17

|  | Find It Here   |
|--|--|
| • Software upgrades and troubleshooting  | Dell Support Utility   |
| hints — Frequently asked questions,<br>hot topics, and general health of your<br>computing environment | The Dell Support Utility is an automated<br>upgrade and notification system installed<br>on your computer. This support provides<br>real-time health scans of your computing<br>environment, software updates, and<br>relevant self-support information. Access<br>the Dell Support Utility from the<br>icon on the taskbar. For more information<br>see "Dell Support Utility" on page 103. |
| • How to use Microsoft Windows Vista™  | Windows Help and Support   |
| <ul><li> How to work with programs and files</li><li> How to personalize my desktop</li></ul>          | 1 Click the Windows Vista Start button   |
|  | <ul> <li>2 In <i>Search Help</i>, type a word or phrase that describes your problem, and then press <enter> or click the magnifying glass.</enter></li> <li>3 Click the topic that describes your problem.</li> <li>4 Follow the instructions on the screen.</li> </ul>  |
| Information on network activity, the   | Dell QuickSet Help   |
| Power Management Wizard, hotkeys,<br>and other items controlled by Dell<br>QuickSet.                   | To view Dell QuickSet Help, right-click<br>the Dell QuickSet icon in the Windows<br>notification area.   |
|  | For more information on Dell QuickSet,<br>see "Dell™ QuickSet Features" on<br>page 167.  |

| Vhat Are You Looking For?              | Find It Here  |
|--|---|
| • How to reinstall my operating system | Operating System Media  |
|  | The operating system is already installed<br>on your computer. To reinstall your<br>operating system, use one of the<br>following methods:  |
|  | <ul> <li>Microsoft Windows System Restore —<br/>Microsoft Windows System Restore<br/>returns your computer to an earlier<br/>operating state without affecting data<br/>files.</li> <li>Dell PC Restore — Dell PC Restore<br/>returns your computer to its original<br/>operating state. Dell PC Restore may<br/>not ship with your computer.</li> <li>Operating System Installation Media —<br/>If you received operating system media<br/>with your computer, you can use it to<br/>restore your operating system.</li> </ul> |
|  | For more information, see "Restoring<br>Your Operating System" on page 130.   |
|  | After you reinstall your operating system,<br>use the <i>Drivers and Utilities</i> media to<br>reinstall drivers for the devices that came<br>with your computer.   |
|  | Your operating system product key label is<br>located on your computer.<br><b>NOTE:</b> The color of your operating system<br>installation media varies according to the<br>operating system you ordered.   |

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# 2

## **About Your Computer**

## **Determining Your Computer's Configuration**

Based on selections that you made when purchasing your computer, your computer has one of several different video controller configurations. To determine your computer's video controller configuration:

- 1 Click Start 🚳, and then click Help and Support.
- 2 Under Pick a Task, click Use Tools to view your computer information and diagnose problems.
- **3** Under My Computer Information, select Hardware.

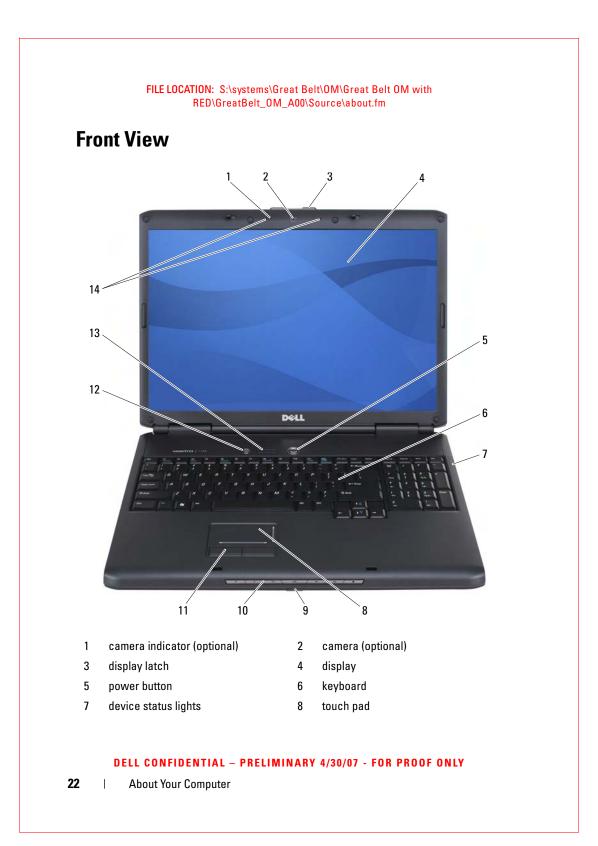
From the My Computer Information - Hardware screen, you can view the type of video controller installed in your computer, as well as the other hardware components.

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About Your Computer

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### 

9 consumer IR sensor

13

- 11 touch pad buttons
- 10 media control buttons
- 12 Dell<sup>™</sup> MediaDirect<sup>™</sup> button
- keyboard status lights 14 digital array microphones

**CAMERA INDICATOR** — Indicates that the camera is turned on. Based on configuration selections you made when ordering your computer, your computer may not include a camera.

**CAMERA** — Built-in camera for video capture, conferencing, and chat. Based on configuration selections you made when ordering your computer, your computer may not include a camera.

**DISPLAY LATCH** — Keeps the display closed.

**DISPLAY** — For more information about your display, see "Using the Display" on page 41.

**POWER BUTTON** — Press the power button to turn on the computer or exit a power management mode (see "Configuring Power Management Settings" on page 50).

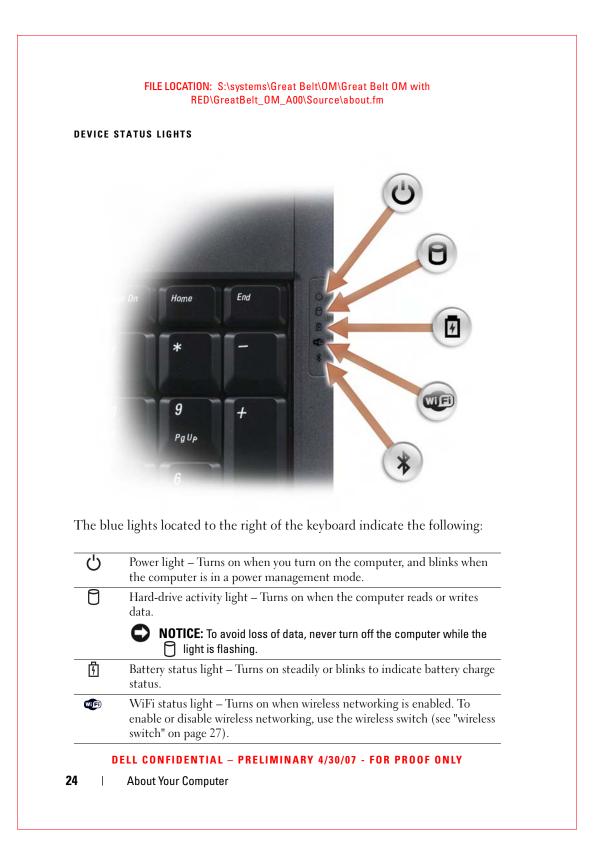
NOTICE: To avoid losing data, turn off your computer by performing a Microsoft<sup>®</sup> Windows<sup>®</sup> operating system shutdown rather than by pressing the power button.

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

**KEYBOARD** — For more information about the keyboard, see "Using the Keyboard and Touch Pad" on page 43.

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|  | RED\GreatBelt_0N  | И_A00\Soui  | rce\about.fm  |
|--|---|---|---|
| ₿  | Bluetooth <sup>®</sup> status light – Tur<br>wireless technology is enabled   |   | n an internal card with Bluetooth   |
|  | NOTE: The internal card with feature. The 🗼 light turns or  | Bluetooth v<br>1 only if you  | wireless technology is an optional<br>u ordered the card with your<br>documentation that came with your   |
|  |   |   | echnology functionality, right-click<br>nd then click <b>Disable Bluetooth</b>  |
|  | To quickly enable or disable a<br>(see "wireless switch" on page  |   | devices, use the wireless switch  |
| – Soli<br>– Flas   | d blue: The battery is charging.<br>hing blue: The battery is almost  | fully charge  | :, the <b>岱</b> light operates as follows<br>ed.  |
| <ul> <li>Soli</li> <li>Flas</li> <li>Off:</li> <li>If the cordination</li> <li>Off:</li> <li>Flas</li> </ul>                         | d blue: The battery is charging.  | fully charge<br>ed.<br>the <b>5</b> lig<br>ed (or the c<br>s low.   | ed.<br>ght operates as follows:<br>computer is turned off).   |
| <ul> <li>Soli</li> <li>Flas</li> <li>Off:</li> <li>If the cordination</li> <li>Off:</li> <li>Flas</li> <li>Soli</li> </ul>           | d blue: The battery is charging.<br>hing blue: The battery is almost<br>The battery is adequately charge<br>mputer is running on a battery, the<br>The battery is adequately charge<br>hing amber: The battery charge is<br>d amber: The battery charge is cr<br>AD — Provides the functionality  | fully charge<br>ed.<br>the <b>[</b> ] lig<br>ed (or the c<br>s low.<br>ritically low<br>ty of a mou                           | ed.<br>ght operates as follows:<br>computer is turned off).<br>c.<br>use (see "Touch Pad" on page 45).  |
| <ul> <li>Soli</li> <li>Flas</li> <li>Off:</li> <li>Off:</li> <li>Off:</li> <li>Flas</li> <li>Soli</li> </ul> TOUCH P                 | d blue: The battery is charging.<br>hing blue: The battery is almost<br>The battery is adequately charge<br>mputer is running on a battery, the<br>The battery is adequately charge<br>hing amber: The battery charge is<br>d amber: The battery charge is or<br>AD — Provides the functionality<br>AD BUTTONS — Use these but                                | fully charge<br>ed.<br>the <b>5</b> lig<br>ed (or the c<br>s low.<br>ritically low<br>ty of a mou<br>tons much                | ed.<br>ght operates as follows:<br>computer is turned off).<br>use (see "Touch Pad" on page 45).<br>like the buttons on a mouse when                                      |
| <ul> <li>Soli</li> <li>Flas</li> <li>Off:</li> <li>If the co:</li> <li>Off:</li> <li>Flas</li> <li>Soli</li> </ul> TOUCH P You use t | d blue: The battery is charging.<br>hing blue: The battery is almost<br>The battery is adequately charge<br>mputer is running on a battery, the<br>The battery is adequately charge<br>hing amber: The battery charge is<br>d amber: The battery charge is or<br>AD — Provides the functionality<br>AD BUTTONS — Use these but                                | fully charge<br>ed.<br>the <b>f</b> lig<br>ed (or the c<br>s low.<br>ritically low<br>ty of a mou<br>tons much<br>r on the di | ed.<br>ght operates as follows:<br>computer is turned off).<br>use (see "Touch Pad" on page 45).<br>like the buttons on a mouse when<br>splay (see "Touch Pad" on page 45 |
| <ul> <li>Soli</li> <li>Flas</li> <li>Off:</li> <li>If the co:</li> <li>Off:</li> <li>Flas</li> <li>Soli</li> </ul> TOUCH P You use t | d blue: The battery is charging.<br>hing blue: The battery is almost<br>The battery is adequately charge<br>mputer is running on a battery, t<br>The battery is adequately charge<br>hing amber: The battery charge is<br>d amber: The battery charge is cr<br>AD — Provides the functionalit<br>AD BUTTONS — Use these but<br>he touch pad to move the curso | fully charge<br>ed.<br>the <b>f</b> lig<br>ed (or the c<br>s low.<br>ritically low<br>ty of a mou<br>tons much<br>r on the di | ed.<br>ght operates as follows:<br>computer is turned off).<br>use (see "Touch Pad" on page 45).<br>like the buttons on a mouse when<br>splay (see "Touch Pad" on page 45 |
| <ul> <li>Soli</li> <li>Flas</li> <li>Off:</li> <li>If the co:</li> <li>Off:</li> <li>Flas</li> <li>Soli</li> </ul> TOUCH P You use t | d blue: The battery is charging.<br>hing blue: The battery is almost<br>The battery is adequately charge<br>mputer is running on a battery, t<br>The battery is adequately charge<br>hing amber: The battery charge is<br>d amber: The battery charge is cr<br>AD — Provides the functionalit<br>AD BUTTONS — Use these but<br>he touch pad to move the curso | fully charge<br>ed.<br>the <b>f</b> lig<br>ed (or the c<br>s low.<br>ritically low<br>ty of a mou<br>tons much<br>r on the di | ed.<br>ght operates as follows:<br>computer is turned off).<br>use (see "Touch Pad" on page 45).<br>like the buttons on a mouse when<br>splay (see "Touch Pad" on page 45 |
| <ul> <li>Soli</li> <li>Flas</li> <li>Off:</li> <li>If the co:</li> <li>Off:</li> <li>Flas</li> <li>Soli</li> </ul> TOUCH P You use t | d blue: The battery is charging.<br>hing blue: The battery is almost<br>The battery is adequately charge<br>mputer is running on a battery, t<br>The battery is adequately charge<br>hing amber: The battery charge is<br>d amber: The battery charge is cr<br>AD — Provides the functionalit<br>AD BUTTONS — Use these but<br>he touch pad to move the curso | fully charge<br>ed.<br>the <b>f</b> lig<br>ed (or the c<br>s low.<br>ritically low<br>ty of a mou<br>tons much<br>r on the di | ed.<br>ght operates as follows:<br>computer is turned off).<br>use (see "Touch Pad" on page 45).<br>like the buttons on a mouse when<br>splay (see "Touch Pad" on page 45 |

| <b>Ľ</b> ))) | Turn the volume up. Stop.   |
|--------------|---|
| ►/II         | Play or pause.  |
| Dell Mee     | MEDIADIRECT <sup>™</sup> BUTTON — Press the Dell MediaDirect button to launch<br>liaDirect (see "Using Dell MediaDirect <sup>™</sup> " on page 60).<br>ID STATUS LIGHTS |
|              | F7 F8 F9 F10 F1   |
|              | e lights located above the keyboard indicate the following:   |
| The blu      | CRT/LED<br>P.   |



**SECURITY CABLE SLOT** — Lets you attach a commercially available antitheft device to the computer (see "Security Cable Lock" on page 95).

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.

**AIR VENTS** — The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating. The computer turns the fan on when the computer gets hot. Fan noise is normal and does not indicate a problem with the fan or the computer.

**HARD DRIVE** — Stores software and data.

**EXPRESSCARD SLOT** — Supports one ExpressCard. The computer ships with a plastic *blank* installed in the slot. For more information see "Using ExpressCards" on page 79.

**WIRELESS SWITCH** — When enabled through Dell QuickSet, this switch can scan for a wireless local area network (WLAN) in your vicinity. You can also use it to rapidly turn off or on any wireless devices such as WLAN cards and internal cards with Bluetooth wireless technology (see "Dell Wi-Fi Catcher<sup>™</sup> Network Locator" on page 93).

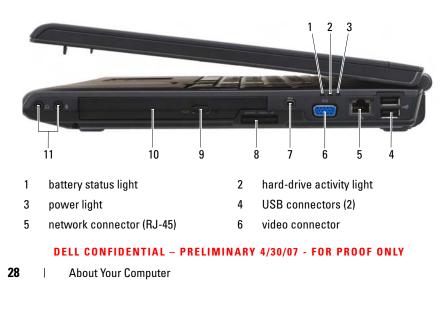
#### DELL CONFIDENTIAL - PRELIMINARY 4/30/07 - FOR PROOF ONLY

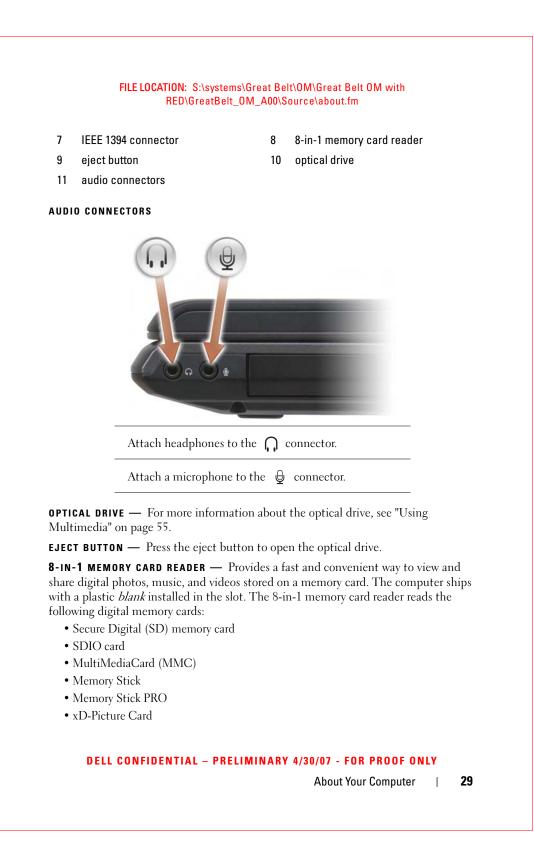
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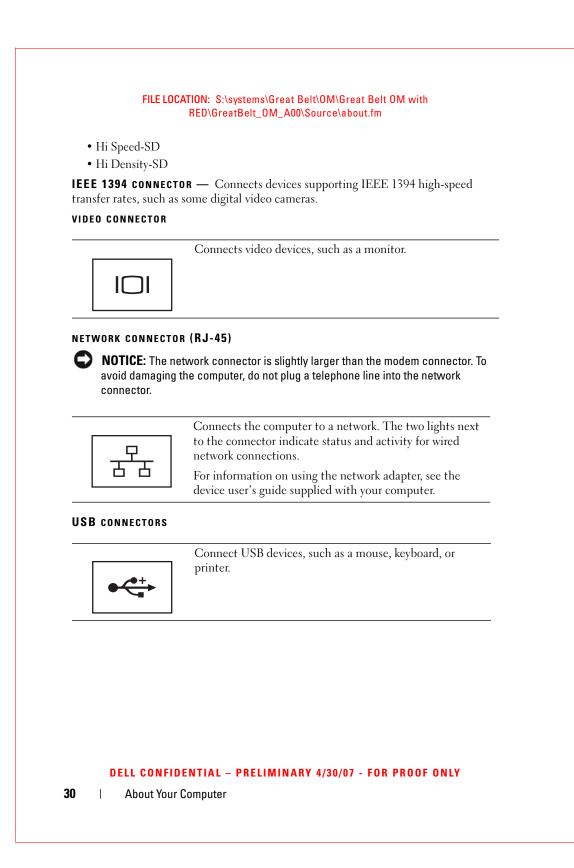


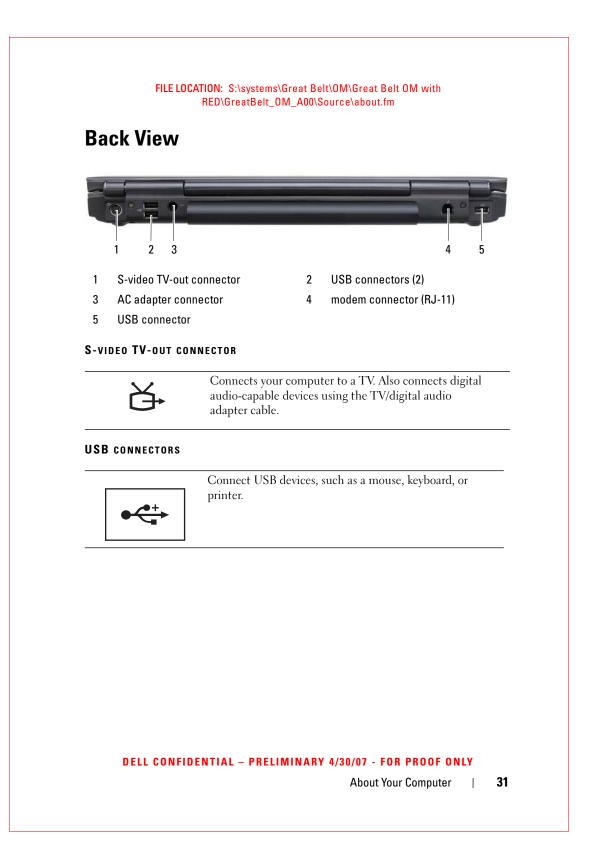
- Solid green: Strong network for
- Solid yellow: Weak network found
- Flashing yellow: Error
- Off: No signal found

## **Right Side View**











**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 on or off.



**NOTE:** Ensure the power cord is firmly attached to the AC adapter. A green LED light on the AC adapter indicates a proper connection.



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 help prevent damage to the cable.

## MODEM CONNECTOR (RJ-11)

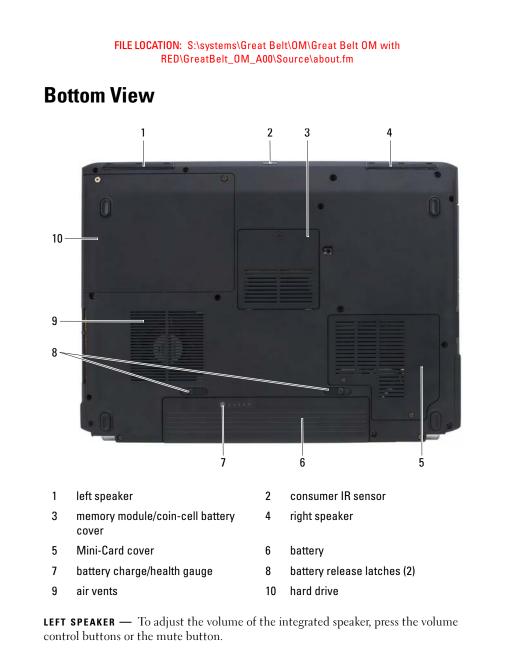


Connect the telephone line to the modem connector.

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

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**CONSUMER IR SENSOR** — Receives the signal from the Dell travel remote controller for basic multimedia navigation control.

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**MEMORY MODULE/COIN-CELL BATTERY COVER** — Covers the DIMM B memory module and the coin-cell battery. For additional information, see "Adding and Replacing Parts" on page 135.

**RIGHT SPEAKER** — To adjust the volume of the integrated speaker, press the volume control buttons or the mute button.

**MINI-CARD COVER** — Covers Mini-Cards (WLAN, WWAN, or WPAN) or a Flash Cache Module (FCM) (see "Wireless Mini-Cards" on page 152 and "Flash Cache Module" on page 161).

**BATTERY** — When a battery is installed, you can use the computer without connecting the computer to an electrical outlet (see "Using a Battery" on page 47).

**BATTERY CHARGE/HEALTH GAUGE** — Provides information on the battery charge (see "Checking the Battery Charge" on page 48).

**BATTERY RELEASE LATCHES** — Releases the battery (see "Replacing the Battery" on page 52 for instructions).

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.

**AIR VENTS** — The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating. The computer turns the fan on when the computer gets hot. Fan noise is normal and does not indicate a problem with the fan or the computer.

HARD DRIVE — Stores software and data.

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# 3

## **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:

- DSL connections that provide high-speed Internet access through your existing telephone line or cellular telephone service. 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.
- Satellite modem connections that provide high-speed Internet access through a satellite television system.
- Dial-up connections that provide Internet access through a telephone line. Dial-up connections are considerably slower than DSL, cable, and satellite modem connections.
- Wireless Wide Area Network (WWAN) or Mobile Broadband technology provides a connection to the Internet using cellular technology at broadband rates.
- Wireless Local Area Network (WLAN) connections use high-frequency radio waves to communicate. Typically, a wireless router is connected to the broadband cable or DSL modem that broadcasts the Internet signal to your computer.

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

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## **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<sup>®</sup> Windows<sup>®</sup> desktop.
- **3** Follow the instructions on the screen to complete the setup.

**NOTE:** If you are having problems connecting to the Internet, see "E-Mail, Modem, and Internet Problems" on page 106. If you cannot connect to the Internet, but have successfully connected in the past, the ISP may have a service outage. Contact your ISP to check the service status, or try connecting again later.

**NOTE:** Have your ISP information ready. If you do not have an ISP, the Connect to the Internet wizard can help you obtain one.

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 Start (29), and then click Control Panel.
- 3 Under Network and Internet, click Connect to the Internet.

The Connect to the Internet window appears.

- 4 Click either Broadband (PPPoE), Wireless, or Dial-up, depending on how you want to connect:
  - Choose Broadband if you will use a DSL modem, cable TV modem, or satellite modem.
  - Choose Wireless if you will use a wireless connection through a • WLAN card.
  - Choose **Dial-up** if you will use a dial-up modem or ISDN.
  - **NOTE:** If you do not know which type of connection to select, click Help me choose or contact your ISP.
- **5** Follow the instructions on the screen and use the setup information provided by your ISP to complete the setup.

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## **Transferring Information to a New Computer**

You can transfer the following types of data from one computer to another:

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

Use one of the following methods for transferring data:

- Windows Easy Transfer wizard, an Easy Transfer Cable, and a USB port
- Over a network
- Removable media, such as a writable CD

## Microsoft<sup>®</sup> Windows<sup>®</sup> Easy Transfer

- 1 Click Start ()→ All Programs→ Accessories→ System Tools→ Windows Easy Transfer.
- 2 In the User Account Control dialog box, click Continue.
- 3 Click Next.
- 4 Click Start a new transfer or Continue a transfer in progress.
- 5 Follow the instructions in the Windows Easy Transfer wizard.

## **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.

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## **Printer Cable**

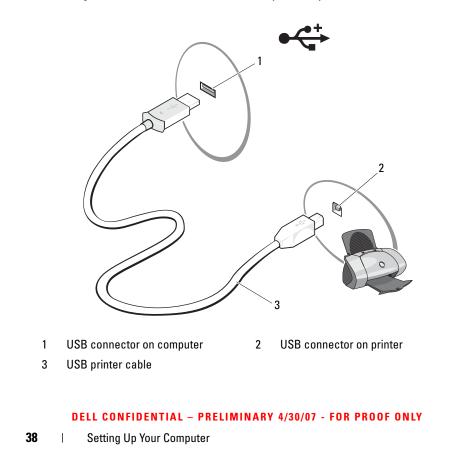
Your printer connects to your computer with a USB cable. Your printer may not come with a printer cable, so if you purchase a cable separately, ensure that it is compatible with your printer and computer. If you purchased a printer cable at the same time you purchased your computer, the cable may arrive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

## **Connecting a USB Printer**



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

- 1 Complete the operating system setup if you have not already done so.
- 2 Attach the USB printer cable to the USB connectors on the computer and the printer. The USB connectors fit only one way.



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**3** Turn on the printer, and then turn on the computer.

If the Add New Hardware Wizard window appears, click Cancel.

- **4** Click Start **69**, and then click Network.
- **5** Click **Add a printer** to start the Add Printer Wizard.
- **NOTE:** To install the printer driver, see "Reinstalling Drivers and Utilities" on page 127 and the documentation that came with your printer.
- 6 Click Add a local printer or Add a network, wireless, or Bluetooth printer.
- **7** Follow the instructions in the Add Printer Wizard.

## **Power Protection Devices**

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

- Surge protectors ٠
- ٠ 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 connector 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.

C

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

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## **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).

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# Using the Display

## **Adjusting Brightness**

When a Dell<sup>™</sup> computer is running on battery power, you can conserve power by setting the display brightness to the lowest comfortable level.

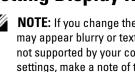
- Press <Fn> and the up-arrow key to increase brightness on the integrated display only (not on an external monitor).
- Press <Fn> and the down-arrow key to decrease brightness on the integrated display only (not on an external monitor).
- **NOTE:** Brightness key combinations only affect the display on your portable computer, not monitors or projectors that you attach to your portable computer or docking device. If your computer is connected to an external monitor and you try to change the brightness level, the Brightness Meter may appear, but the brightness level on the external device does not change.

## Switching the Video Image From Your Computer **Display to a Projector**

When you start the computer with an external device attached (such as an external monitor or projector) 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 and Refresh Rate



**NOTE:** If you change the display resolution from the current settings, the image may appear blurry or text may be hard to read if you change the resolution to one not supported by your computer and display. Before you change any of the display settings, make a note of the current settings so you can change back to the previous settings if needed.

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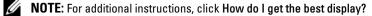
You can enhance the legibility of text and change the appearance of images on the screen by adjusting display resolution. As you increase resolution, items appear smaller on the screen. In contrast, lower resolution causes text and images to appear larger and can benefit people with vision impairments. To display a program at a specific resolution, both the video card and the display must support the program, and the necessary video drivers must be installed.

## **NOTE:** Use only the Dell-installed video drivers, which are designed to offer the best performance with your Dell-installed operating system.

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

To set the display resolution and refresh rate for your display:

- 1 Click Start  $\bigcirc \rightarrow$  Control Panel.
- 2 Under Appearance and Personalization, click Adjust screen resolution.
- 3 In the Display Settings window, under Resolution, move the slide bar to the left or right to decrease/increase the screen resolution.



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# 5

# **Using the Keyboard and Touch Pad**

## **Numeric Keypad**

The numeric keypad functions like the numeric keypad on an external keyboard.

- To disable the keypad, press <Num Lk> again.

## **Key Combinations**

## **System Functions**

| <ctrl><shift><esc></esc></shift></ctrl> | Opens the Task Manager window. |
|---|--------------------------------|

## **Display Functions**

| <fn><f8></f8></fn>           | Displays icons representing all currently available<br>display options (display only, external monitor or<br>projector only, both display and projector, etc).<br>Highlight the desired icon to switch the display<br>to that option. |
|------------------------------|---|
| <fn> and up-arrow key</fn>   | Increases brightness on the integrated display only (not on an external monitor).   |
| <fn> and down-arrow key</fn> | Decreases brightness on the integrated display only (not on an external monitor).   |

| <fn><f3></f3></fn> | Displays the Dell™ QuickSet Battery Meter (see |
|--------------------|--|
|                    | "Dell™ QuickSet Battery Meter" on page 48).    |

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Using the Keyboard and Touch Pad

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## **Power Management**

| <fn><esc></esc></fn> | Activates a power management mode. You can<br>reprogram this keyboard shortcut to activate a<br>different power management mode using the |
|----------------------|---|
|                      | Advanced tab in the Power Options Properties<br>window (see "Configuring Power Management<br>Settings" on page 50).                       |

## Microsoft<sup>®</sup> Windows<sup>®</sup> Logo Key Functions

| Windows logo key and <m></m>                   | Minimizes all open windows.  |
|--|--|
| Windows logo key and<br><shift><m></m></shift> | Restores all minimized windows. This key combination functions as a toggle to restore minimized windows following the use of the Windows logo key and <m> combination.</m> |
| Windows logo key and <e></e>                   | Starts Windows Explorer.   |
| Windows logo key and <r></r>                   | Opens the <b>Run</b> dialog box.   |
| Windows logo key and <f></f>                   | Opens the Search Results dialog box.   |
| Windows logo key and <ctrl><f></f></ctrl>      | Opens the <b>Search Results-Computer</b> dialog box (if the computer is connected to a network).   |
| Windows logo key and <pause></pause>           | Opens the System Properties dialog box.  |

## **Dell™ QuickSet Key Combinations**

If Dell QuickSet is installed, you can use other shortcut keys for functions such as the Battery Meter or activating power management modes. For more information about Dell QuickSet key combinations, right-click the QuickSet icon in the notification area, and then click **Help**.

## **Adjusting Keyboard Settings**

To adjust keyboard operation, such as the character repeat rate:

- 1 Click Start 🚳, and then click Control Panel.
- 2 Click Hardware and Sound.
- 3 Click Keyboard.

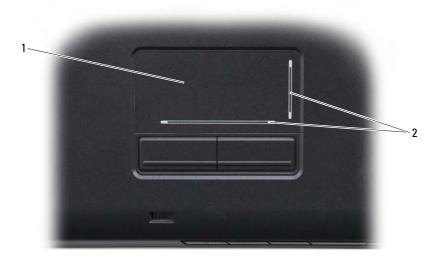
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## **Touch Pad**

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 2 silk-screen scroll zones

- 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.

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## **Customizing the Touch Pad**

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

- 1 Click Start 🚳, and then click Control Panel.
- 2 Click Hardware and Sound.
- 3 Click Mouse.
- 4 In the Mouse Properties window:
  - Click the **Device Select** tab to disable the touch pad.
  - Click the Touch Pad tab to adjust touch pad settings.
- 5 Click OK to save the settings and close the window.

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Using the Keyboard and Touch Pad

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# 6

# **Using a Battery**

## **Battery Performance**

**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<sup>™</sup> portable computer with the main battery installed at all times. 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, place the mouse cursor over the battery icon in the Windows notification area.

**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.

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

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

- Using optical drives.
- Using wireless communications devices, ExpressCards, memory cards, or USB devices.
- Using high-brightness display settings, 3D screen savers, or other powerintensive programs such as complex 3D graphics applications.
- Running the computer in maximum performance mode (see "Configuring Power Management Settings" on page 50 for information about accessing Windows Power Options Properties or Dell QuickSet, which you can use to configure power management settings).

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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 batteries 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" 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 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**

You can check the battery charge on your computer using any one of the following methods:

- Dell QuickSet Battery Meter
- Microsoft Windows battery meter icon 💷 located in the notification area
- Battery charge/health gauge located on the battery
- Low-battery warning pop-up window

## Dell™ QuickSet Battery Meter

To view the Dell QuickSet Battery Meter:

Double-click the Dell QuickSet icon in the taskbar, and then click Battery
Meter

or

• Press <Fn><F3>

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

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

## Microsoft<sup>®</sup> Windows<sup>®</sup> Battery Meter

The battery meter indicates the remaining battery charge. To check the battery meter, double-click the 📴 icon in the notification area.

## **Charge Gauge**

By either pressing once or pressing and holding the status button on the battery charge gauge, you can check:

- Battery charge (check by *pressing* and *releasing* the status button)
- Battery health (check by *pressing* and *holding* the status button)

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. Therefore, a battery can show a status of charged, but maintain a reduced charge capacity (health).

## **Check the Battery Charge**

To check the battery charge, *press and release* the status button on the battery charge gauge to illuminate the charge indicator 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 are on, the battery has no charge.

## **Check the Battery Health**

**NOTE:** You can check battery health in one of two ways: by using the charge gauge on the battery, as described below, and by using the Battery Meter in Dell QuickSet. For information about QuickSet, right-click the QuickSet icon in the notification area, and then click Help.

To check the battery health using the charge gauge, *press and hold* the status button on the battery charge gauge for at least 3 seconds to illuminate the health indicator lights. Each light represents incremental degradation. If no lights appear, the battery is in good condition, and more than 80 percent of its original charge capacity remains. If five lights appear, less than 60 percent of

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#### FILE LOCATION: S:\systems\Great Belt\OM\Great Belt OM with RED\GreatBelt\_OM\_A00\Source\battery.fm

the charge capacity remains, and you should consider replacing the battery (see "Battery" on page 183 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, Sleep state begins automatically.

A pop-up window warns you when the battery charge is approximately 90 percent depleted. The computer enters Sleep state when the battery charge is at a critically low level.

You can change the settings for the battery alarms in Dell QuickSet or the **Power Options** window (see "Configuring Power Management Settings" on page 50).

## **Conserving Battery Power**

To conserve battery power on your portable computer, do any of the following:

- Connect the computer to an electrical outlet when possible; battery life is largely determined by the number of times the battery is used and recharged.
- Configure the power management settings using either Dell QuickSet or Microsoft Windows Power Options to optimize your computer's power usage (see "Configuring Power Management Settings" on page 50).
- Use the Sleep power state when you leave the computer unattended for long periods of time (see "Using the Sleep Power State" on page 51).

## **Configuring Power Management Settings**

You can use Dell QuickSet or Windows Power Options to configure the power management settings on your computer.

• For information on how to use the Dell QuickSet Power Management wizard, right-click the QuickSet icon in the notification area, click Help, and then select Power Management.

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