Dell™ XPS™ M1530 Owner's Manual

Model PP28L

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 PP28L

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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.

What Are You Looking For?	Find It Here
• A diagnostic program for my computer • Drivers for my computer • Device documentation • Notebook System Software (NSS)	**Drivers and Utilities Media** Documentation and drivers are already installed on your computer. You can use the *Drivers and Utilities* media to reinstall drivers (see "Reinstalling Drivers and Utilities" on page 119) or run the Dell Diagnostics (see "Dell Diagnostics" on page 91). Readme files may be included on your media 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**.

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**
• How to set up my computer	**Setup Diagram** **NOTE:** The appearance of your setup diagram may vary.
• Service Tag and Express Service Code • Microsoft® Windows® Product Key	**Service Tag and Microsoft Windows Product Key** These labels are located on your computer. • Use the Service Tag to identify your computer when you use **support.dell.com** or contact support. • Enter the Express Service Code to direct your call when contacting support. **NOTE:** As an increased security measure, the newly designed Microsoft Windows license label incorporates a missing portion or "hole" to discourage removal of the label.

What Are You Looking For?	Find It Here
• Solutions — Troubleshooting hints and tips, articles from technicians, online courses, and frequently asked questions • Community — Online discussion with other Dell customers • Upgrades — Upgrade information for components, such as the memory, hard drive, and operating system • Customer Care — Contact information, service call and order status, and warranty and repair information • Service and support — Service call status, support history, service contract, and online discussions with support • Dell Technical Update Service — Proactive e-mail notification of software and hardware updates for your computer • 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 or business segment to view the appropriate support site.
• 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 processors, optical drives, USB devices, and so on. 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 Drivers & Downloads. **2** Enter your Service Tag or Product Type and Product Model, and click **Go**. **3** Scroll to **System and Configuration Utilities→Dell Notebook System Software** and click **Download Now**. **4** Select **Drivers & Downloads** and click **Go**. **NOTE:** The support.dell.com user interface may vary depending on your selections.

What Are You Looking For?	Find It Here
• Software upgrades and troubleshooting hints — Frequently asked questions, hot topics, and general health of your computing environment	**Dell Support Utility** The Dell Support Utility is an automated upgrade and notification system installed on your computer. This support provides real-time health scans of your computing environment, software updates, and relevant self-support information. Access the Dell Support Utility from the icon on the taskbar. For more information, see "Dell Support Utility" on page 95.
• How to use Microsoft Windows Vista™ • How to work with programs and files • How to personalize my desktop	**Windows Help and Support** 1 Click **Start** →**Help and Support**. 2 In *Search Help*, type a word or phrase that describes your problem, and then press <Enter> or click the magnifying glass. 3 Click the topic that describes your problem. 4 Follow the instructions on the screen.
• Information on network activity, the Power Management Wizard, hotkeys, and other items controlled by Dell QuickSet.	**Dell QuickSet Help** To view *Dell QuickSet Help*, right-click the QuickSet icon in the Microsoft® Windows® taskbar. The taskbar is located in the lower-right corner of your screen.

What Are You Looking For?	Find It Here
• How to reinstall my operating system	**Operating System Media** The operating system is already installed on your computer. To reinstall your operating system, use the *Operating System* media. See "Restoring Your Operating System" on page 122. After you reinstall your operating system, use the *Drivers and Utilities* media to reinstall drivers for the devices that came with your computer. Your operating system product key label is located on your computer. **NOTE:** The color of your DVD varies based on the operating system you ordered.

1

Setting Up Your Computer

Connecting to the Internet

NOTE: Internet Service Providers (ISPs) and ISP offerings vary by country.

To connect to the Internet, you need a modem or network connection and an 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 and to the telephone wall jack before you set up your Internet connection. Your system does not have an internal modem. It supports an external USB modem which can be connected to the USB port. If you have ordered an external modem with your system, see the Help in the CD that shipped with the modem for information on setting it up. If you are using a DSL, cable or satellite modem connection, contact your ISP or cellular telephone service 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, perform the steps in the following section that corresponds to the operating system your computer is using.

NOTE: If you are having problems connecting to the Internet, see "E-Mail, Modem, and Internet Problems" on page 98. 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.

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

1. Save and close any open files, and exit any open programs.
2. Click **Start** → **Control Panel**.
3. Under **Network and Internet,** click **Connect to the Internet**.

   The **Connect to the Internet** window appears.
4. Click either **Broadband (PPPoE)** or **Dial-up**, depending on how you want to connect:
   - Choose **Broadband** if you will use a DSL, satellite modem, cable TV modem, or Bluetooth wireless technology connection.
   - Chose **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.

Transferring Information to a New Computer

You can use your operating system "wizards" to help you transfer files and other data from one computer to another—for example, from an *old* computer to a *new* computer. For instructions, see the following section that corresponds to the operating system that your computer is running.

1. Click **Start** → **Transfer files and settings**→**Start Windows Easy Transfer**.
2. In the **User Account Control** dialog box, click **Continue**.
3. Click **Start a new transfer** or **Continue a transfer in progress**.

Follow the instructions provided on the screen by 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.

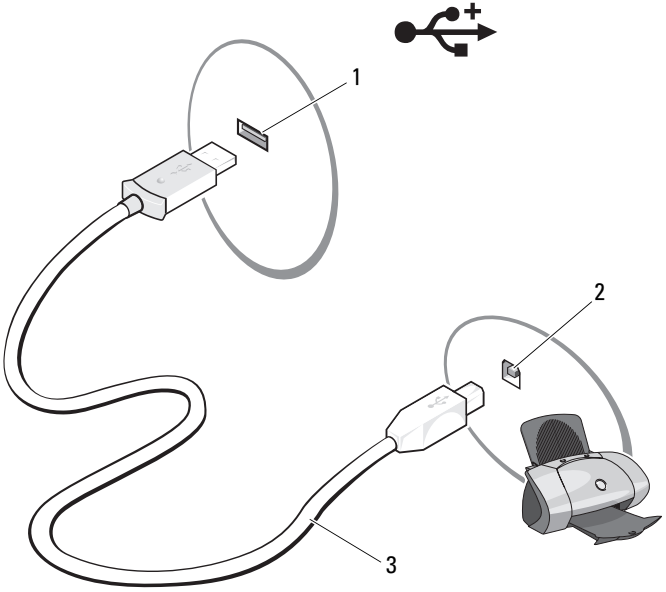
Printer Cable

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 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.



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

3. Turn on the printer, and then turn on the computer.
4. Click **Start** → **Network** → **Add a printer** to start the Add Printer Wizard.
5. Install the printer driver if necessary. See "Reinstalling Drivers and Utilities" on page 119 and 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.

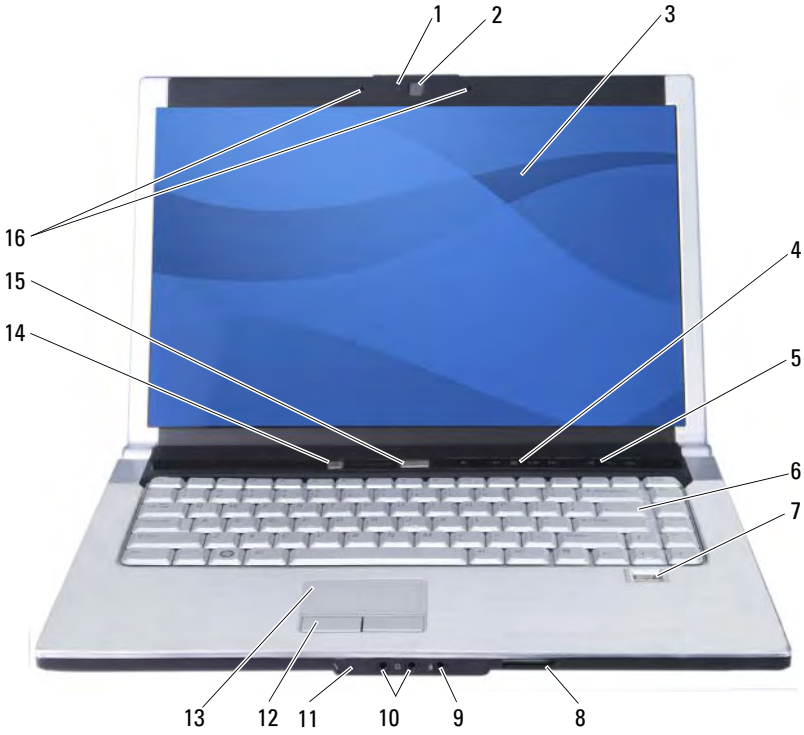
NOTE: To ensure maximum battery operating time, connect only your computer to a UPS. Connect other devices, such as a printer, to a separate power strip that provides surge protection.

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).

2

About Your Computer

Front View



1	camera indicator (optional)	2	camera (optional)
3	display	4	media control buttons
5	volume control buttons	6	keyboard
7	fingerprint reader (optional)	8	8-in-1 memory reader
9	microphone connector	10	audio connectors
11	consumer IR	12	touch pad buttons
13	touch pad	14	Dell MediaDirect button
15	power button	16	dual digital 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 — For more information about your display, see "Using the Display" on page 43.

POWER BUTTON — Press the power button to turn on the computer or exit a power management mode (see "Configuring Power Management Settings" on page 48).

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

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

KEYBOARD — For more information about the keyboard, see "Using the Keyboard and Touchpad" on page 39.

DELL MEDIADIRECT™ BUTTON — Press the Dell MediaDirect button to launch Dell MediaDirect (see "Using Dell MediaDirect™" on page 60).

DUAL DIGITAL MICROPHONES — Built-in microphone for conferencing and chat.

8-IN-1 MEMORY CARD READER — Provides a fast and convenient way to view and share digital photos, music, and videos stored on a memory card. The computer ships with a plastic *blank* installed in the slot. The 8-in-1 memory card reader reads the following digital memory cards:

- Secure Digital (SD) memory card
- SDIO card
- MultiMediaCard (MMC)
- Memory Stick
- Memory Stick PRO
- xD-Picture Card
- Hi Speed-SD
- Hi Density-SD

TOUCH PAD — Provides the functionality of a mouse (see "Touch Pad" on page 41).

TOUCH PAD BUTTONS — Use these buttons much like the buttons on a mouse when you use the touch pad to move the cursor on the display (see "Touch Pad" on page 41).

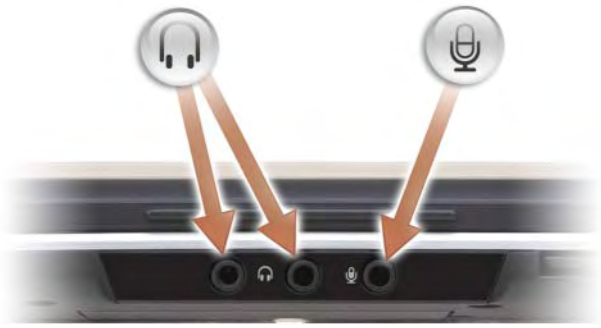
FINGERPRINT READER (OPTIONAL) — Helps to keep your Dell™ computer secure. When you slide your finger over the reader, it uses your unique fingerprint to authenticate your user identity. For more information, click **Start** → **Programs** → **Fingerprint Reader Suite**. There are four sub items in this folder.

- **User Enrollment** - To enroll your fingerprint
- **Control Center** - To access the Fingerprint Reader Suite settings
- **Fingerprint Tutorial** - Guide to fingerprint scanning
- **Help** - HTML-based help

For information on how to activate and use the security management software that controls the biometric reader, see "Fingerprint Reader (optional)" on page 88.

MEDIA CONTROL BUTTONS — Control CD, DVD, Blu-ray Disc™ (BD), and Media Player playback.

CONSUMER IR — A port on the front of the computer that allows certain software applications to be controlled by the Dell Travel Remote Control.



Attach headphones to the connector.
Attach a microphone to the connector.

DEVICE STATUS LIGHTS

The blue lights located above the keyboard indicate the following:

	Turns on when you turn on the computer and blinks when the computer is in a power management mode.
	Turns on when the numeric keypad (Num Lock) is enabled.
	Turns on when the uppercase letter (Caps Lock) function is enabled.
	Turns on when the scroll lock function is enabled.
	WiFi status light – Turns on when wireless networking is enabled. To enable or disable wireless networking, use the wireless switch (see "wireless On/Off switch" on page 33).
	Bluetooth® status light – Turns on when a card with Bluetooth wireless technology is enabled. **NOTE:** The card with Bluetooth wireless technology is an optional feature. 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 then click **Disable Bluetooth Radio**. To quickly enable or disable all wireless devices, use the wireless switch (see "wireless On/Off switch" on page 33).

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

- Solid blue: The battery is charging.
- Flashing blue: The battery is almost fully charged.
- Off: The battery is adequately 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 amber: The battery charge is low.
- Solid amber: The battery charge is critically low.

VOLUME CONTROL BUTTONS — Press these buttons to adjust the volume.

⏏	Eject	⏭	Play the next track or press and hold to fastforward within a track
⏮	Play the previous track or press and hold to rewind within a track	🔇	Mute
■	Stop	🔉	Turn the volume down
▶/II	Play or pause	🔊	Turn the volume up

Left Side View

1	AC adapter connector	2	USB connector (2)
3	video connector	4	network connector (RJ-45)
5	HDMI connector	6	IEEE 1394a connector
7	hard drive		

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.

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

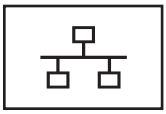
HDMI CONNECTOR — HDMI (High-Definition Multimedia Interface) connector carries an uncompressed all digital signal to produce hi-definition video and audio.

VIDEO CONNECTOR

Connects video devices, such as a monitor.

NETWORK CONNECTOR (RJ-45)

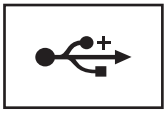
NOTICE: The network connector is slightly larger than the modem connector. To avoid damaging the computer, do not plug a telephone line into the network connector.



Connects the computer to a network. The two lights next to the connector indicate status and activity for wired network connections.

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

USB CONNECTORS



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

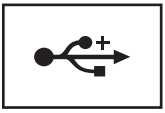
Right Side View

1	Express card slot	2	Wireless On/Off switch
3	Wi-Fi Catcher™ Network Locator	4	optical drive
5	USB connector	6	S-video connector
7	security cable slot		

EXPRESSCARD SLOT — Supports one ExpressCard. The computer ships with a plastic *blank* installed in the slot. For more information see "Using ExpressCards" on page 73.

OPTICAL DRIVE — For more information about the optical drive see "Using Multimedia" on page 53.

USB CONNECTOR

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

S-VIDEO CONNECTOR — Connects your computer to a TV.

NOTE: The S-Video port does not support audio. You need to use the headphone port at the front of the system to connect to an audio device.

SECURITY CABLE SLOT — Lets you attach a commercially available antitheft device to the computer (see "Security Cable Lock" on page 87).

WIRELESS ON/OFF 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™ Network Locator" on page 86).

1 off : Disables wireless devices.

2 on : Enables wireless devices.

3 Wi-Fi Catcher™ Network Locator

DELL WI-FI CATCHER™ NETWORK LOCATOR — Push this button to scan specifically for wireless networks in your vicinity (see "Dell Wi-Fi Catcher™ Network Locator" on page 86).

The Wi-Fi Catcher Network Locator has an LED that operates as follows:

– Flashing blue: Searching for networks
– Solid orange: Weak network found
– Solid blue: Strong network found
– Off: No signal found

Back View

1 battery 2 air vent

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

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

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.

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.

NOTE: Plug the power cord to the adapter firmly until the green LED is on.

Bottom View

1	battery	2	battery release latch
3	battery charge/health gauge	4	memory module compartment
5	wireless mini card compartment		

MEMORY MODULE COMPARTMENT — Compartment that contains the DIMM 1 and DIMM 2 memory modules. For additional information, see "Memory" on page 134.

WIRELESS MINI CARD COMPARTMENT — Compartment for WLAN, WWAN, and Flash Cache Module (FCM) Mini Cards (see "Wireless Mini Cards" on page 138).

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 45).

BATTERY CHARGE/HEALTH GAUGE — Provides information on the battery charge (see "Checking the Battery Charge" on page 46).

BATTERY RELEASE LATCHES — Releases the battery (see "Replacing the Battery" on page 50 for instructions).

3

Using the Keyboard and Touchpad

Numeric Keypad

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

- 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.

Display Functions

<Fn><F8>	Displays icons representing all currently available display options (display only, external monitor or projector only, both display and projector, etc). Highlight the desired icon to switch the display to that option.
<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).

Battery

<Fn><F3>	Displays the Dell™ QuickSet Battery Meter (see "Dell QuickSet Battery Meter" on page 46).

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 "Configuring Power Management Settings" on page 48).

Microsoft® Windows® Logo Key Functions

Windows logo key and <m>	Minimizes all open windows.
Windows logo key and <Shift><m>	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.
Windows logo key and <e>	Starts Windows Explorer.
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.
Windows logo key and <Tab>	3D Windows Flip on Windows Vista

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**.

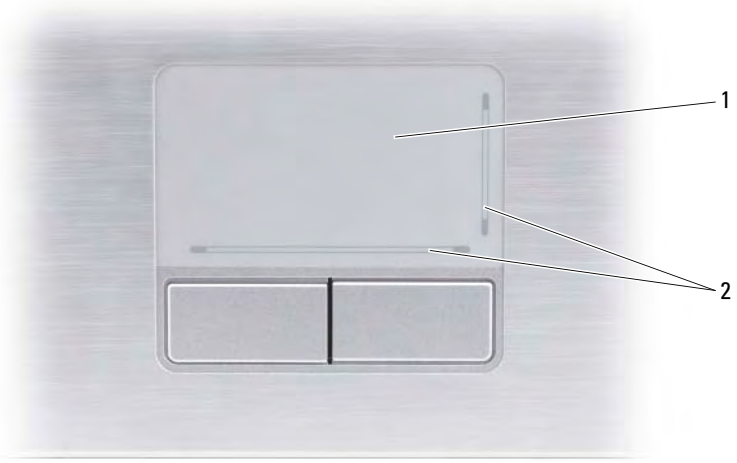
Adjusting Keyboard Settings

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.**

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 depicting scrolling capabilities

- 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 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.

4

Using the Display

Adjusting Brightness

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

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.

You can press the following keys to adjust display 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).

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.

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-provided video drivers, which are designed to offer the best performance with your Dell-installed operating system. These drivers are available on the Drivers and Utilities CD (optional) or via the web at **support.dell.com**.

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** →**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.

NOTE: For additional instructions, click **How do I get the best display?**

5

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™ 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 power-intensive programs such as complex 3D graphics applications.
- Running the computer in maximum performance mode (see "Configuring Power Management Settings" on page 48 for information about accessing Windows Power Options Properties which you can use to configure power management settings).

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.

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

Microsoft® Windows® 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 the charge capacity remains, and you should consider replacing the battery. See "Battery" on page 160 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. The computer enters hibernate mode 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 48 for information about accessing QuickSet or the **Power Options Properties** window.

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 48).
- Use the Sleep power state when you leave the computer unattended for long periods of time (see "Using the Sleep Power State" on page 49).

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**.
- To use Windows Power Options, do one of the following:
  - Click **Start** →**Control Panel**→**Hardware and Sound**→**Power Options**, and then select a power plan in the **Select a power plan** window.

    or
  - Click the icon in the notification area, click **Power Options**, and then select a plan in the **Select a power plan** window.