

Dell™ XFR630 with Touch

Fully Rugged Notebook

User's Guide

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.



WARNING: A **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

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1 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.

 **CAUTION:** The *XFR630 with Touch Fully Rugged Notebook User's Guide* provides important safety and regulatory information. See the [Safety Information](#) and [Regulatory Information](#) sections for further details.

Documentation	Purpose	Document Location
'Open Me First' Envelope	Provides a single location where the documentation and CDs shipped with the XFR630 can be located	<ul style="list-style-type: none"> In the ship container
XFR630 with Touch Fully Rugged Notebook Quick Reference Guide	Guides you through your initial XFR630 Notebook setup	<ul style="list-style-type: none"> Available on the <i>Documentation and Driver CD</i>
XFR630 with Touch Fully Rugged Notebook User's Guide	<ul style="list-style-type: none"> How to configure your system settings How to remove/replace parts How to troubleshoot and solve problems Specifications Safety and regulatory information Customer Care Program information 	<ul style="list-style-type: none"> Available in the 'Open Me First' envelope Available on the <i>Documentation and Driver CD</i>
Documentation and Driver CD	The <i>Documentation and Driver CD</i> contains: <ul style="list-style-type: none"> Product documentation Supplemental Dell documentation 	<ul style="list-style-type: none"> Available in the 'Open Me First' envelope
Dell Drivers and Utilities CD (Optional)	<p>NOTE: The <i>Drivers and Utilities CD</i> may be optional and may not ship with your computer. Documentation and drivers are already installed on your computer. You can use the media to reinstall drivers and to run Dell Diagnostics (see "Dell Diagnostics"). 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.</p>	<ul style="list-style-type: none"> Optionally available in the 'Open Me First' envelope
Operating System CD (Optional)	How to reinstall your operating system	<p>NOTE: The <i>Operating System CD</i> is optional and may not ship with your computer. The operating system is already installed on your computer. To reinstall your operating system, use the <i>Operating System CD</i>. See "Restoring Your Operating System". After you reinstall your operating system, use the optional <i>Drivers and Utilities CD</i> to reinstall drivers for the devices that came with your computer. Your operating system product key label is located in the 'Open Me First' envelope.</p>
Windows Help and Support Center	<ul style="list-style-type: none"> How to use Windows operating system How to work with programs and files How to personalize your desktop 	<ol style="list-style-type: none"> Click Start or  → Help and Support Type a word or phrase that describes your problem and click the arrow icon Click the topic that describes your problem

		4. Follow the instructions on the screen
Service Tag	The Service Tag is located on the bottom of your computer. Use the Serial Number on the Service Tag to identify your computer when you contact Customer Support.	This label is located on your computer. 
Microsoft Windows License Label	This label provides your Microsoft Windows License information.	Available in the 'Open Me First' envelope. 
Dell Support Utility	Software upgrades and troubleshooting hints, frequently asked questions, hot topics, and general health of your computer	The Dell Support Utility 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 in the taskbar. For more information, see " Dell Support Utility ".
Dell Quickset Help	Information on network activity, the Power Management Wizard, hotkeys, and other items controlled by Dell QuickSet	To view <i>Dell QuickSet</i> Help, right-click the QuickSet icon in the Microsoft Windows taskbar. For more information on Dell QuickSet, see " Dell QuickSet ".
Warranty Document	Limited Warranty for the XFR630 with Touch	<ul style="list-style-type: none"> Available in the 'Open Me First' envelope Available on the <i>Documentation and Driver CD</i>

2 About Your Computer

2.1 Overview

The XFR630 with Touch Fully Rugged Notebook provides Xtreme Terrain Grade™ protection through rugged design expertise and independent MIL-STD testing and validation.

The Armored Protection System™ (APS) is a proven ruggedization system that includes a dense magnesium exoskeleton, over-mold protection, and the patent-pending QuadCool™ thermal management system.

The QuadCool thermal management system is a multi-faceted thermal management system that combines enhanced forced convection and conductive cooling focused on the internal core system components, primary memory, storage and smart battery elements. QuadCool technology moves heat away from core system components and elements to the exterior of the system.

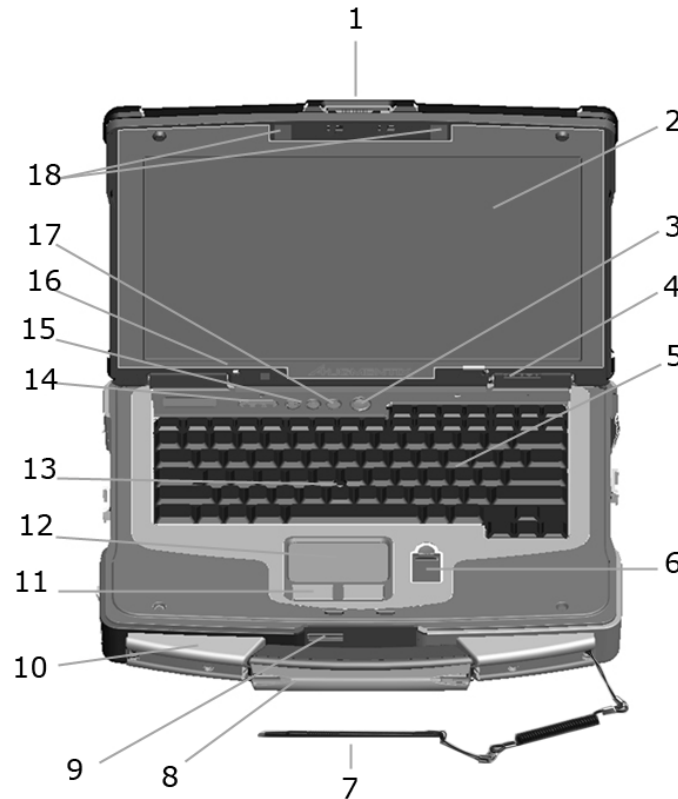
The XFR630 provides the rugged industry's first 14.1" wide-aspect LCD providing brighter, sharper and superior viewability. The DirectVue™ Display technology offers optimal sunlight-readability because of its increased brightness, reduced reflectivity and a proprietary optical enhancement. Optionally available is the DirectVue™ Touch Display.

Your XFR630 with Touch Fully Rugged Notebook has a common IT platform and architecture with Dell™'s Latitude™ D630 and ATG™ D630 notebooks, thereby simplifying IT management and reducing support and administrative time and costs. This also means operating system images, drivers, firmware and other key IT architecture elements remain consistent across the Dell offerings; and therefore there is a family of supporting tools that are available to assist you with your notebook.

The result is a notebook that is not only rugged - it is Rugged Redefined™.

2.2 Front View

Figure 2-1 XFR630 Front View

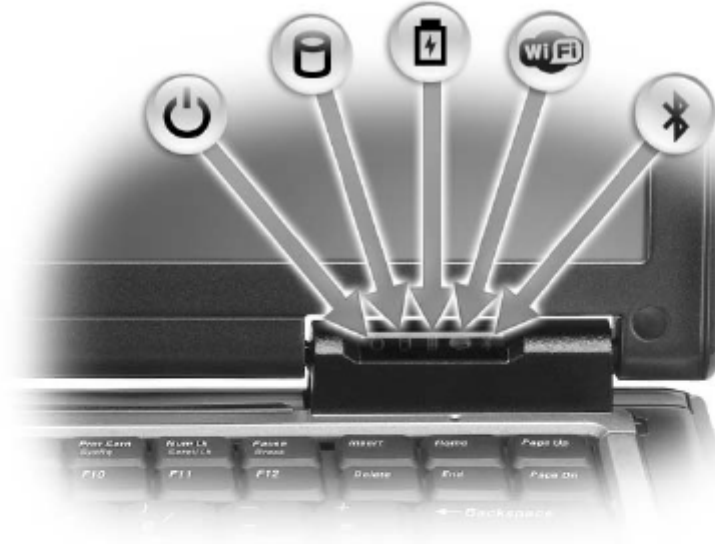









1	Display latch	2	DirectVue™ Display or DirectVue™ Touch Display	3	Power button
4	Device status lights	5	Keyboard	6	Biometric (fingerprint) reader - optional
7	Stylus and stylus tether (with Touch Display option)	8	Stylus housing (with Touch Display option)	9	Speaker
10	Handle	11	Touch pad/Track stick buttons	12	Touch pad
13	Track stick	14	Keyboard status lights	15	Volume control buttons
16	Ambient light sensor (ALS)	17	Mute button	18	Keyboard illumination lights



CAUTION: The optional DirectVue™ Touch Display has been designed to accept finger touch as well as passive stylus input directly onto the screen. With the optional DirectVue™ Touch Display, a stylus is included with the XFR630 for use in selecting items on the touch screen. Other pointing devices can be used with the touch screen such as any non-abrasive, smooth or blunt object that will not damage the touch screen display. The touch screen surface can be damaged by ink pens, marker pens or other pointed or abrasive objects. The use of non-approved input devices that cause damage to the digitizer or LCD may not be covered by the limited warranty.

2.2.1 Device Status Lights



	Turns on when you turn on the computer and blinks when the computer is in a power management mode.
	Turns on when the computer reads or writes data. NOTICE: To avoid loss of data, never turn off the computer while the  light is flashing.
	Turns on steadily or blinks to indicate battery charge status.
	Turns on when wireless devices are enabled.
	Turns on when Bluetooth® wireless technology is enabled. To enable or disable Bluetooth wireless technology, move the wireless switch to the "on" position. See "wireless switch" on page 19 for more information. NOTE: Bluetooth wireless technology is an optional feature on your computer, so the  icon turns on only if you ordered Bluetooth wireless technology with your computer. For more information, see the documentation that came with your Bluetooth wireless technology.

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.
- Off: The battery is adequately charged (or external power is not available to charge the battery).

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.

2.2.2 Volume Control Buttons

Press these buttons to adjust the volume.

2.2.3 Mute Button

Press this button to turn off the volume.

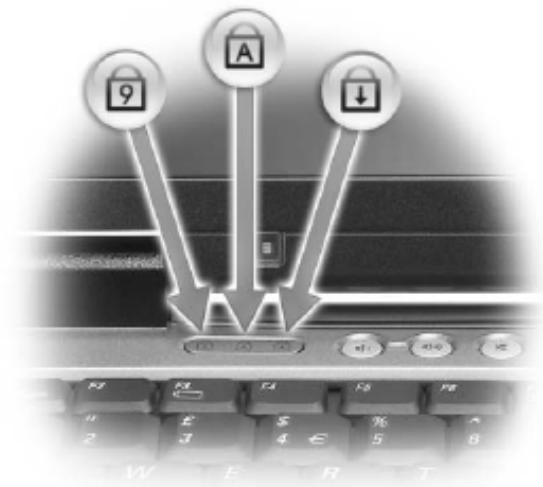
2.2.4 Displays

For more information about the standard DirectVue™ Display and the optional DirectVue Touch Display, see "[Using the DirectVue Displays](#)". The Display Latch keeps the display closed. The Display Latch Button is pressed to release the display latch and open the display.




2.2.5 Keyboard

The keyboard includes a numeric keypad as well as the Microsoft® Windows® logo key. For information on supported keyboard shortcuts, see "[Using the Keyboard](#)".

2.2.6 Keyboard Status Lights



The green lights located above the keyboard indicate the following:

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

2.2.7 Keyboard Illumination Lights

Press <Fn> and the right-arrow key to toggle on and off these lights for illumination of the keyboard in low-light environments (see "[Keyboard Illumination](#)").

2.2.8 Touch Pad

Provides the functionality of a mouse (see "[Touch Pad and Track Stick](#)").

2.2.9 Track Stick


Provides the functionality of a mouse (see "[Touch Pad and Track Stick](#)").

2.2.10 Touch Pad Buttons/Track Stick Buttons

Use these buttons much like the buttons on a mouse when you use the touch pad and track stick to move the cursor on the display (see "[Touch Pad and Track Stick](#)").

2.2.11 Power Button

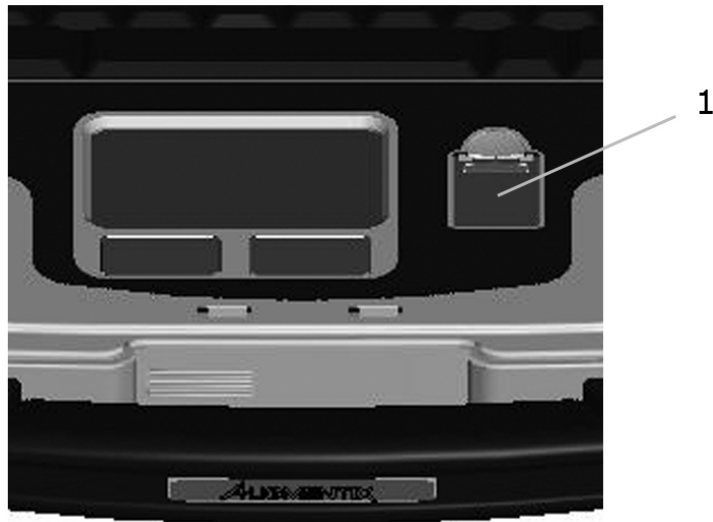
Press the power button to turn on the computer or to enter or exit a power management mode.

 **NOTICE:** To avoid losing data, shut down your computer instead of pressing the power button.

2.2.12 Biometric (Fingerprint) Reader (optional)

The optional biometric (fingerprint) reader helps to keep your Dell computer secure.

Figure 2-2 Biometric (Fingerprint) Reader



1	Biometric (Fingerprint) Reader
---	--------------------------------

To access the biometric reader, you must first slide down the protective door that covers the reader. When you place your finger on the exposed reader, it uses your unique fingerprint to authenticate your user identity. For information on how to activate and use the security management software that controls the fingerprint reader, see "[Security Management Software](#)".

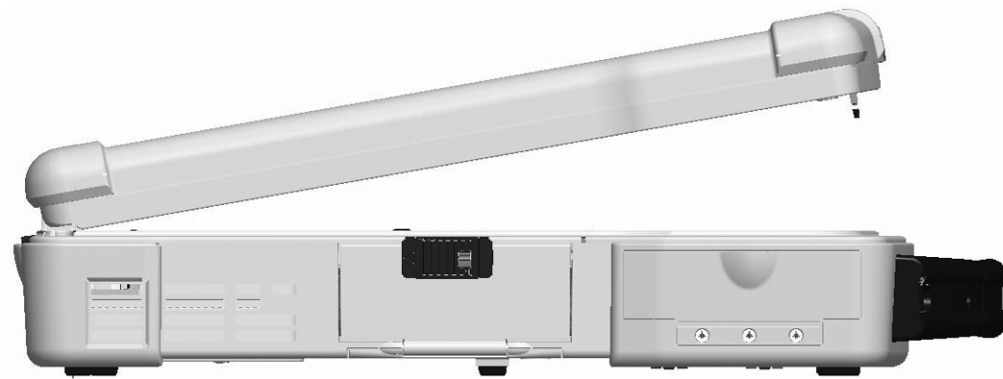
2.2.13 Speaker

To adjust the volume of the integrated speaker, press the volume control buttons, mute button, or volume-control keyboard shortcuts (see "[Key Combinations](#)").

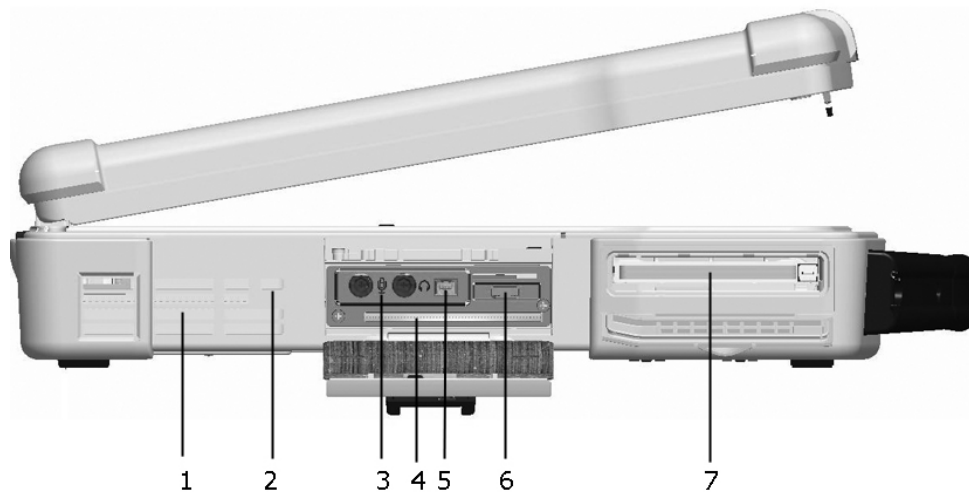
2.2.14 Ambient Light Sensor

Detects available environmental light and automatically increases or decreases the display backlighting to compensate for low-light and high-light environments. Press the **<Fn>** and left-arrow keys to enable or disable the sensor ("[Using the Ambient Light Sensor](#)").

2.3 Left Side View

Figure 2-3 XFR630 Left Side with Connectors/Devices Protected

The connectors and devices on the computer are protected from ingress by dense magnesium hinged and friction fit doors. This protection is a component of the Armored Protection System.

Figure 2-4 XFR630 Left Side with Connectors/Devices Revealed

1	Air vents (protected from ingress)	2	Security cable slot	3	Audio connectors (2)
4	Smart card slot (with blank)	5	1394 connector	6	Wireless switch
7	PC card/ExpressCard slot				

The following is applicable to UL 1604 and CSA C22.2 No. 213 compliant systems:



WARNING - Explosion Hazard - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous

⚠ WARNING - Explosion Hazard - Do not utilize any of the connectors/hubs unless area is known to be non-hazardous

2.3.1 Air Vents

The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating. The Air Vents are part of the QuadCool thermal management system. They provide external venting of internal heat via the enhanced convection cooling system.

⚠ 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.


📌 NOTE: This 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.


2.3.2 Security Cable Slot

Lets you attach a commercially available antitheft device to the computer (see "[Security Cable Lock](#)").

2.3.3 Audio Connectors



Attach headphones to the  connector.

Attach a microphone to the  connector

2.3.4 IEEE 1394 Connector

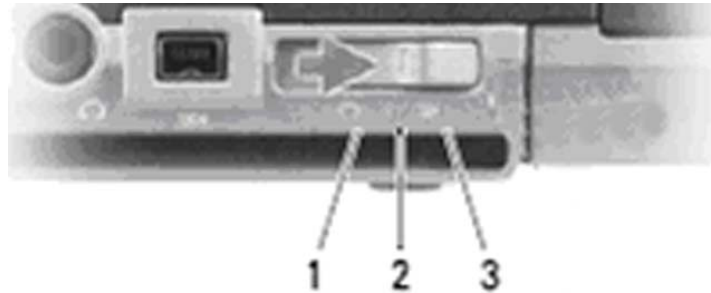
Connects devices supporting IEEE 1394 high-speed transfer rates, such as some digital video cameras.

2.3.5 Smart Card Slot (with blank)

Supports one smart card. Smart cards provide a variety of functions, including security features and data storage. The blank prevents foreign matter from entering the interior of the computer when a smart card is not installed in the smart card slot. For more information and instructions on removing the blank, see "[Smart Cards](#)".

2.3.6 Wireless Switch

When enabled through Dell QuickSet, this switch can scan for a wireless LAN (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](#)").



1	"off" position – disables wireless devices	2	"on" position – enables wireless devices	3	"momentary" position – Scans for WLAN networks (see " Dell Wi-Fi Catcher™ Network Locator ")
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2.3.7 PC Card Slot

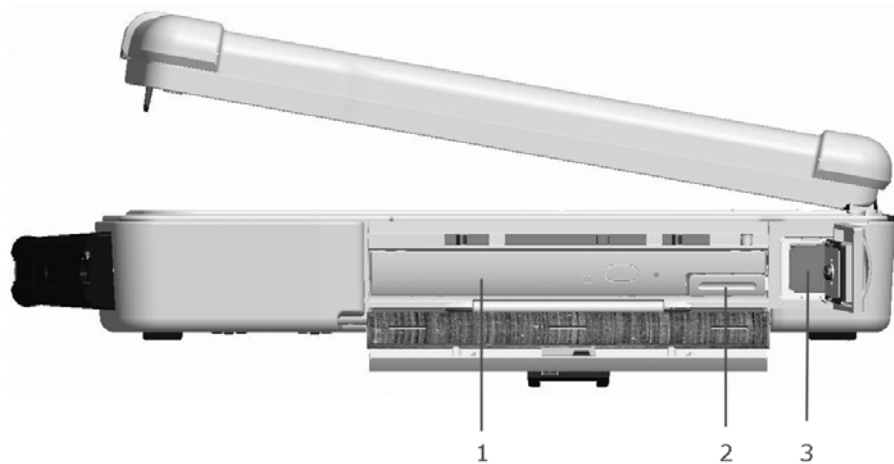
Supports one PC Card, such as a modem or network adapter. The computer ships with a blank installed in the slot to prevent foreign matter from entering the computer interior when a card is not installed (see "[Card Types](#)").

2.4 Right Side View

Figure 2-5 XFR630 Right Side with Connectors/Devices Protected



The connectors and devices on the computer are protected from ingress by dense magnesium hinged and friction fit doors. This protection is a component of the Armored Protection System.

Figure 2-6 XFR630 Right Side with Connectors/Devices Revealed

1	XBay expansion bay	2	XBay device latch release	3	USB connectors (2)
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The following is applicable to UL 1604 and CSA C22.2 No. 213 compliant systems:

⚠ WARNING - Explosion Hazard - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous

⚠ WARNING - Explosion Hazard - Do not utilize any of the connectors/hubs unless area is known to be non-hazardous

2.4.1 XBay

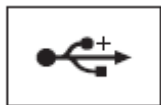
XBay expansion bay supports a floppy or an optical drive, second battery or second hard drive (see ["Using Multimedia"](#)).

2.4.2 XBay Device Latch Release

Press the latch release to eject any device installed in the XBay.

2.4.3 USB Connectors

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



2.5 Back View

Figure 2-7 XFR630 Back View with Connectors Protected

The connectors and devices on the computer are protected from ingress by dense magnesium hinged and friction fit doors. This protection is a component of the Armored Protection System.

Figure 2-8 XFR630 Back View with Connectors Revealed

1	Network connector (RJ-45)	2	Modem connector (RJ-11)	3	USB connectors (2)
4	Serial connector	5	Video connector	6	AC adapter connector
7	Air vents (protected from ingress)				

⚠ 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.

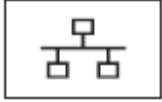
The following is applicable to UL 1604 and CSA C22.2 No. 213 compliant systems:

⚠ WARNING - Explosion Hazard - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous

⚠ WARNING - Explosion Hazard - Do not utilize any of the connectors/hubs unless area is known to be non-hazardous

2.5.1 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.

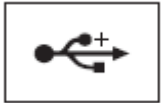
2.5.2 Modem Connector (RJ-11)



Connect the telephone line to the modem connector. For information on using the modem, see the documentation supplied with your modem.

2.5.3 USB Connectors

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



2.5.4 Serial Connector

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



2.5.5 Video Connector

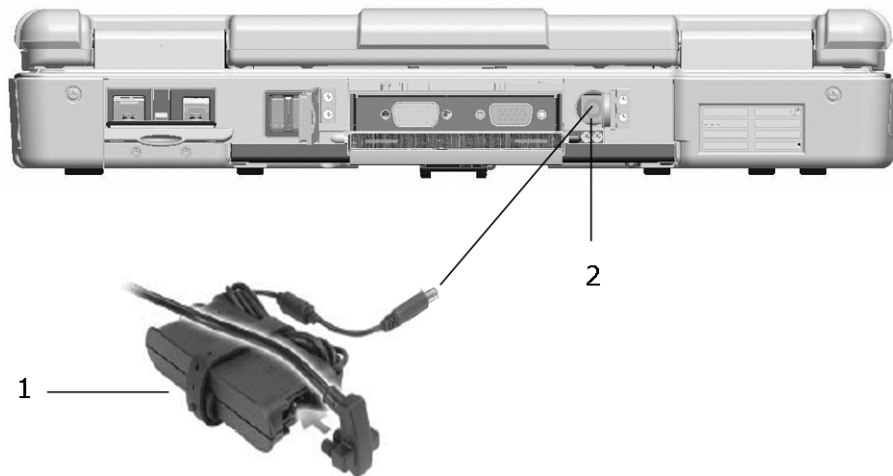
Connects video devices, such as a monitor.



2.5.6 AC Adapter Connector

Connects an AC adapter to the computer.



Figure 2-9 Connecting the AC Adapter

1	AC adapter	2	AC adapter connector
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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.

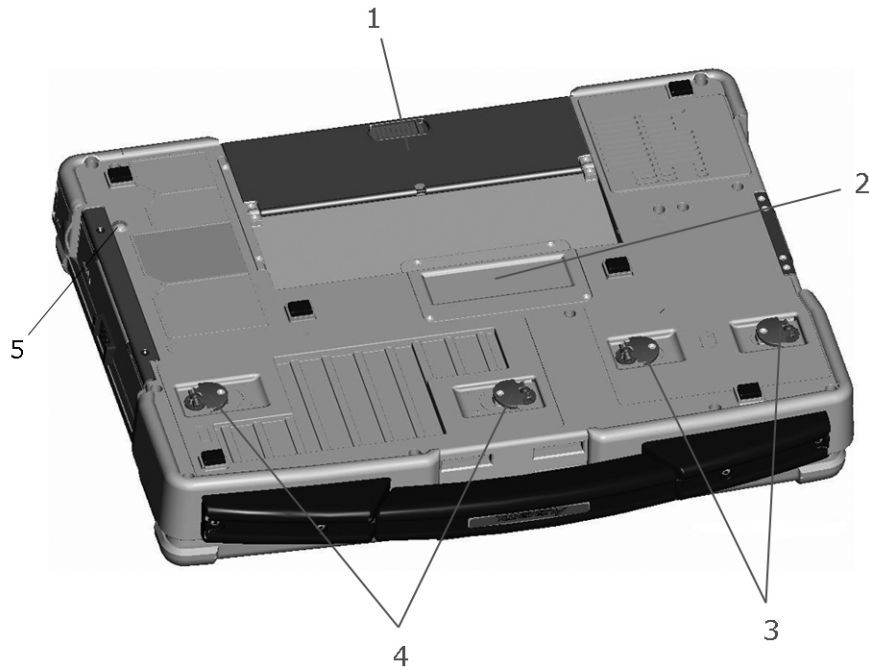
NOTICE: When you disconnect the AC adapter cable from the computer, grasp the connector, not the cable itself, and pull firmly but gently to avoid damaging the cable. When you wrap the AC adapter cable, ensure that you follow the angle of the connector on the AC adapter to avoid damaging the cable.

2.5.7 Air Vents

The computer uses an internal fan to create airflow through the vents, which prevents the computer from overheating. The Air Vents are part of the QuadCool thermal management system. They provide external venting of internal heat via the enhanced convection cooling system.

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.

2.6 Bottom View

Figure 2-10 XFR630 Bottom View with Connectors/Devices Protected

1	Docking device connector cover	2	Memory module cover	3	Hard disk drive compartment cover
4	Battery compartment cover	5	XBay device locking screw		

The compartments on the bottom of the computer are protected from ingress by dense magnesium compartment doors. This protection is a component of the Armored Protection System.

The following is applicable to UL 1604 and CSA C22.2 No. 213 compliant systems:

⚠ WARNING - Explosion Hazard - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous

⚠ WARNING - Explosion Hazard - Do not utilize any of the connectors/hubs unless area is known to be non-hazardous

2.6.1 Docking-Device Connector

Lets you attach your computer to a docking device. See the documentation that came with your docking device for more information.

2.6.2 Memory Module Cover

The memory module cover provides a cover for the compartment that contains the second memory module connector (DIMM B) (see "[Memory](#)").

2.6.3 Hard Disk Drive Compartment Cover

The hard disk drive compartment covers the compartment that contains the hard disk drive. See "[Hard Drive](#)" for additional information.

2.6.4 Battery Compartment Cover


The battery compartment cover provides a cover for the compartment that contains the battery. For additional information regarding the use and access of the battery, see "[Using a Battery](#)".

2.6.5 XBay Device Locking Screw

Locks the device in the XBay in place such as an optical drive (see "[XBay](#)").

3 Transferring Information to Another Computer

You can use your operating system wizards to help you transfer files and other data from one computer to another. For instructions, see the following section that corresponds to the operating system that your computer is running.


 **NOTE:** "Old computer" or "source computer" refers to the original computer *from* which the information is transferred; "new computer" or "destination computer" refers to the computer *to* which you transfer the information.

3.1 Microsoft® Windows® XP

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

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

You can transfer the data to the destination computer over a network, serial connection, or on removable media such as a writable CD.

 **NOTE:** You can transfer information from the source computer to the destination computer by directly connecting a serial cable to the input/output (I/O) ports of the two computers. To transfer data over a serial connection, you must access the Network Connections utility from the Control Panel and perform additional configuration steps, such as setting up an advanced connection and designating the host computer and the guest computer.

For instructions on setting up a direct cable connection between two computers, see Microsoft Knowledge Base 87uArticle #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* media for this process or you can create a wizard disk with the Files and Settings Transfer Wizard.

3.1.1 Running the Files and Settings Transfer Wizard With the Operating System Media



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

To prepare the new computer for the file transfer:

1. Click **Start**→ **All Programs**→ **Accessories**→ **System Tools**→ **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 source computer:

1. On the source computer, insert the Windows XP *Operating System* media.
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 destination computer:

1. On the **Now go to your old computer** screen on the destination 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 destination computer. When all of the settings and files have been applied, the **Finished** screen appears.
3. Click **Finished** and restart the destination computer.

3.1.2 Running the Files and Settings Transfer Wizard Without the Operating System Media

To run the Files and Settings Transfer Wizard without the *Operating System* media, 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 destination computer with Windows XP and perform the following steps:

1. Click **Start**→ **All Programs**→ **Accessories**→ **System Tools**→ **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**→ **Next**.
4. On the **Do you have a Windows XP CD?** screen, click **I want to create a Wizard Disk in the following drive**→ **Next**.
5. Insert the removable media, such as a writable CD, and click **OK**.
6. When the disk creation completes and the **Now go to your old computer** message appears, *do not* click **Next**.
7. Go to the source computer.

To copy data from the source computer:


1. On the source computer, insert the wizard disk.

2. Click **Start**→ **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**→ **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 destination computer:

1. On the **Now go to your old computer** screen on the destination 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 destination computer. When all of the settings and files have been applied, the **Finished** screen appears.
3. Click **Finished** and restart the destination computer.

3.2 Microsoft Windows Vista™

1. Click the Windows Vista Start button, , and then click **Transfer files and settings**→ **Start Window 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.

3.2.1 Easy Transfer Cable for Windows Vista




NOTE: Dell does not provide the Easy Transfer Cable.


1. Insert the Easy Transfer Cable for Windows Vista Application Software media into the computer from which you are transferring data.
2. Follow the on-screen instructions until you are prompted to connect the Transfer Cable.
3. Connect the Easy Transfer Cable to the source computer.
You are prompted to select a device option.
4. Continue until you are prompted to plug the other end of the Easy Transfer Cable into the destination computer.
The screen indicates that a connection has been made.
5. At the computer from which you are transferring data, follow the on-screen instructions to select the settings and files you want to transfer.
6. You will come to a screen that indicates that you are ready to transfer files.
7. From the destination computer, view the transfer and wait for the indication that the transfer is complete.
8. Select **Close**.
You are prompted to restart the computer.
9. Select **Yes**.
The computer reboots and the transfer is complete.

4 Using a Battery


4.1 Battery Performance


 **NOTE:** For information about the warranty for your computer, see the Limited Warranty document.

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 compartment.

 **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 the battery charge status, check the Power Meter in Power Options (see "[Accessing Power Options Properties](#)").

Battery operating time varies depending on operating conditions. You can install an optional second battery in the XBay to significantly increase operating time.


 **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 a CD or DVD


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

- Using optical drives
- Using wireless communications devices, PC Cards, media 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](#)" for information about accessing Windows Power Options Properties or Dell Quickset, which you can use to configure power management settings.


You can check the battery charge (see "[Checking 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 computer. Do not use a battery from other computers with your computer.

 **CAUTION:** Do not dispose of batteries with household waste. When your battery no longer holds a charge, call your local waste disposal or environmental agency for advice on disposing of a lithium-ion battery. See "[Battery Disposal](#)".

 **CAUTION:** Misuse of the battery may increase the risk of fire or chemical burn. Do not puncture, incinerate, disassemble, or expose the battery to temperatures above 65°C (149°F). Keep the battery away from children. Handle damaged or leaking batteries with extreme care. Damaged batteries may leak and cause personal injury or equipment damage. Maximum system storage temperature is 71°C (160°F) without the battery installed.

4.2 Checking the Battery Charge



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

4.2.1 Dell™ QuickSet Battery Meter

If Dell QuickSet is installed, press <Fn><F3> to display the QuickSet Battery Meter. The Battery Meter displays 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 in the taskbar, and click **Help**.

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

4.2.3 Charge Gauge

To access the charge gauge you must first remove the battery compartment cover. See "[Replacing the Battery](#)" for instructions regarding removing the battery compartment cover.

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

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




1	Battery	2	Status buttons	3	Charge gauge
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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. That is, a battery can show a status of "charged" but maintain a reduced charge capacity (health).

4.2.3.1 Check the Battery Charge


To check the battery charge, *press and release* 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.

4.2.3.2 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 or by using the Battery Meter in Dell QuickSet. For information about QuickSet, right-click the icon in the taskbar, and 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. 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 "[Charge Gauge](#)" for information about the battery operating time.

4.3 Low-Battery Warning

 **NOTICE:** To avoid losing or corrupting data, save your work immediately after a low-battery warning. Then connect the computer to an electrical outlet, or install a second battery in the XBay. 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. If two batteries are installed, the low-battery warning means that the combined charge of both batteries is approximately 90 percent depleted. The computer enters hibernate mode when the battery is at a critically low level.

You can change the settings for the battery alarms in QuickSet or the **Power Options Properties** window. See "[Configuring Power Management Settings](#)" for information about accessing QuickSet or the **Power Options Properties** window.

4.4 Conserving Battery Power

Perform the following actions to conserve 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. See "[Power Management Modes](#)".
- Use the Power Management Wizard or the **Power Options Properties** window 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>.

 **NOTE:** See "[Configuring Power Management Settings](#)" for information on conserving battery power.


4.5 Power Management Modes

4.5.1 Standby and Sleep Mode

Standby mode (sleep mode in Microsoft Windows Vista™) 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 or sleep mode, it returns to the same operating state it was in before entering standby or sleep mode.

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

To enter standby mode in Windows XP, click the **Start** button, click **Turn off computer**, and then click **Stand by**.

To enter sleep mode in Windows Vista, click the Windows Vista Start button, , and then click **Sleep**.


Depending on how you set the power management options in the **Power Options Properties** window or the QuickSet Power Management Wizard, you may also use one of the following methods:

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

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

4.5.2 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 or undock your computer 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 in Windows XP, click **Start**→ **Turn off computer**, press and hold <Shift>, and click **Hibernate**.

For information about the hibernate mode in Windows Vista, search for the keyword *hibernate* in Windows Help and Support (click **Start**→ **Help and Support**).

Depending on how you set the power management options in the **Power Options Properties** window or the QuickSet Power Management Wizard, you may also use one of the following methods to enter hibernate mode:

- Press the power button.
- Close the display.
- Press <Fn><F1>.

 **NOTE:** Some PC Cards may not operate correctly after the computer exits hibernate mode. Remove and reinsert the card (see "[Removing a Card or Blank](#)"), or simply restart (reboot) your computer.

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 or track stick. For more information on hibernate mode, see the documentation that came with your operating system.

4.6 Configuring Power Management Settings

You can use the QuickSet Power Management Wizard or Windows **Power Options Properties** to configure the power management settings on your computer. For more information about QuickSet, right-click the QuickSet icon in the taskbar and click **Help**.

4.6.1 Accessing Power Options Properties


Windows XP


Click **Start**→ **Control Panel**→ **Performance and Maintenance**→ **Power Options**.

Windows Vista

Click **Start**→ **Control Panel**→ **System and Maintenance**→ **Power Options**.

4.7 Charging the Battery

➔ **NOTICE:** The battery temperature must be between 0°C and 55°C (32°F and 131°F) to charge. If the battery is not in this temperature range when a charge is attempted, the  light flashes alternately green and orange. This may happen when the battery has gotten hot from being used in your computer or in a hot environment. Disconnect the computer from the electrical outlet and allow the computer and the battery to cool to the charging temperature range. Then connect the computer to an electrical outlet to continue charging the battery.

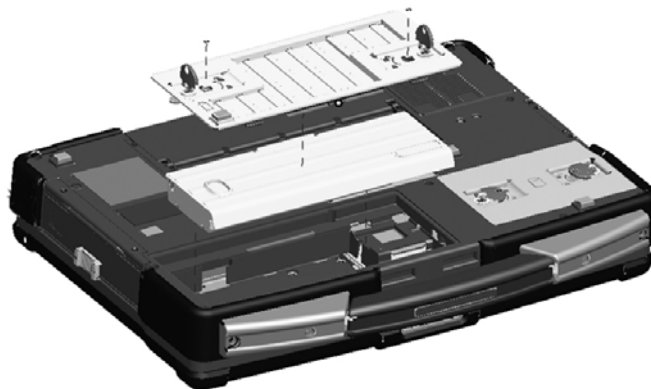
 **NOTE:** With Dell™ ExpressCharge™, when the computer is turned off, the AC adapter charges a completely discharged battery to 80 percent in approximately 1 hour and to 100 percent in approximately 2 hours. Charge time is longer with the computer turned on. You can leave the battery in the computer as long as you like. The battery's internal circuitry prevents the battery from overcharging. Battery charge times may vary dependent upon the ambient temperature.

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.


For more information about resolving problems with a battery, see "[Power Problems](#)".


4.8 Replacing the Battery


Figure 4-1 Accessing the Battery Compartment



4.8.1.1 Removing the Battery

 **CAUTION:** Before performing these procedures, turn off the computer, disconnect the AC adapter from the electrical outlet and the computer, disconnect the modem from the wall connector and computer, and remove any other external cables from the computer.

 **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 computer. Do not use a battery from other computers with your computer.

 **NOTICE:** You must remove all external cables from the computer to avoid possible connector damage. For information about replacing the second battery, if applicable, see "[XBay](#)".

The following is applicable to UL 1604 and CSA C22.2 No. 213 compliant systems:

 **WARNING - Explosion Hazard - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous**

 **WARNING - Explosion Hazard - Do not utilize any of the connectors/hubs unless area is known to be non-hazardous**

To remove the battery:

1. If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.
2. Ensure that the computer is turned off.
3. If the 2 screws that secure the quarter-turn latches are installed, remove the 2 screws on the latches on the battery compartment using a #1 Philips screw driver. See "[Bottom View](#)" for the location of the battery compartment. If the 2 security screws are not installed, proceed to step 4.
4. Lift each latch and turn each a quarter-turn, toward the 'unlock' icon, to release the latching mechanism. Remove the compartment cover from the computer.
5. To remove the battery from the compartment, utilize the tab on the battery to assist in lifting the battery from the compartment.

To replace the battery, follow the removal procedure in the reverse order.

4.9 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 (see "[Charging the Battery](#)") before you use it.

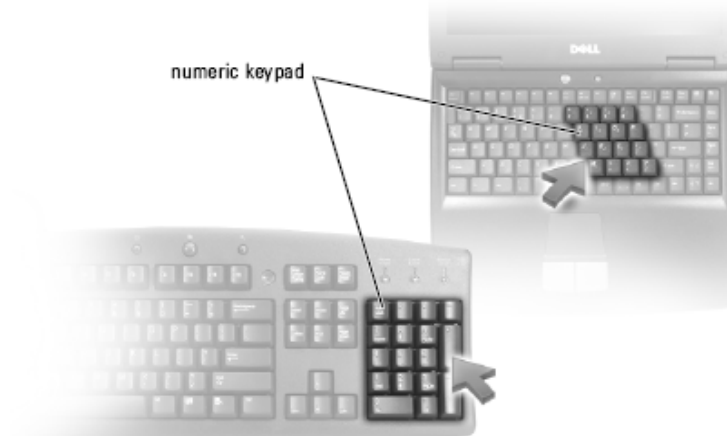
4.10 Battery Errors

To address error codes generated by the battery, refer to "[Error Messages](#)".


5 Using the Keyboard

5.1 Numeric Keypad

5-1 Keyboard Numeric Pad



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, hold down **<Fn>** and press the desired key.

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

5.2 Key Combinations

Keyboard Illumination

<Fn> and right-arrow key Toggles the keyboard illumination lights on and off.

System Functions

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

Battery

<Fn><F3> Displays the Dell™ QuickSet Battery Meter (see "[Dell™ QuickSet Battery Meter](#)").

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><F7> Scales between wide-screen and standard aspect ratio video resolutions.

<Fn> and left-arrow key Activates the ambient light sensor, which controls brightness of the display based on light level in the current environment.

<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).

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 "[Accessing Power Options Properties](#)").

<Fn> <F1>

Puts the computer into hibernate, or sleep, mode. Dell QuickSet is required (see "[Dell™ QuickSet](#)").

Microsoft® Windows® Logo Key Functions

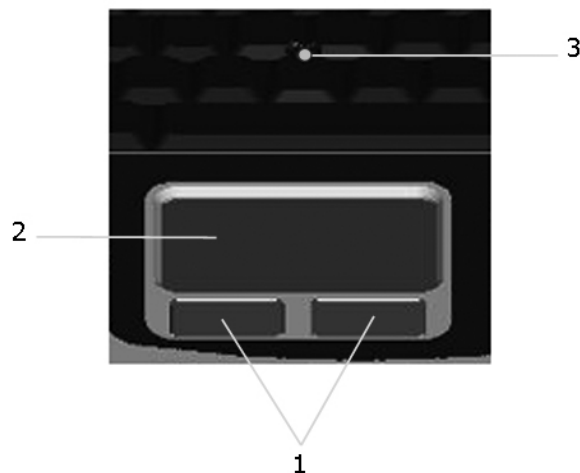
Windows logo key and <m>	Minimizes all open windows.
Windows logo key and <Shift> <m>	Restores all minimized windows. This key combination functions as a toggle to restore minimized windows following the use of the Windows logo key and <m> key combination.
Windows logo key and <e>	Runs Windows Explorer.
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.

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**, access the Help and Support Center (click **Start**→ **Help and Support**).

5.3 Touch Pad and Track Stick

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.

Figure 5-2 Touch Pad and Track Stick



1	Touch pad buttons / Track stick buttons	2	Touch Pad	3	Track stick
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- 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.

You can also use the track stick to move the cursor. Press the track stick left, right, up, and down to change the direction of the cursor on the display. Use the track stick and the track stick buttons as you would use a mouse.

5.3.1 Customizing the Touch Pad and Track Stick


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

1. Open the **Control Panel**, and then click **Mouse**. For information about the **Control Panel**, access the Help and Support Center (click **Start**→ **Help and Support**).
2. In the **Mouse Properties** window:
 - Click the **Device Select** tab to disable the touch pad and track stick.
 - Click the **Touch Pad** tab to adjust touch pad and track stick settings.
3. Click **OK** to save the settings and close the window.

5.3.2 Changing the Track Stick Cap

You can replace your track stick cap if it wears down from prolonged use. Contact Dell Customer Support.

1. Pull the cap off the track stick.
2. Align the new cap over the square track stick post and gently press the cap down onto the post.

 **NOTICE:** The track stick can damage the display if it is not properly seated on the post.


3. Test the track stick to ensure that the cap is seated properly.

6 Using the DirectVue Displays

The XFR630 is available in two display configurations; the standard DirectVue Display as well as the optional DirectVue Touch Display.

6.1 Adjusting Brightness

When your 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.

 **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).

6.2 Using the Ambient Light Sensor

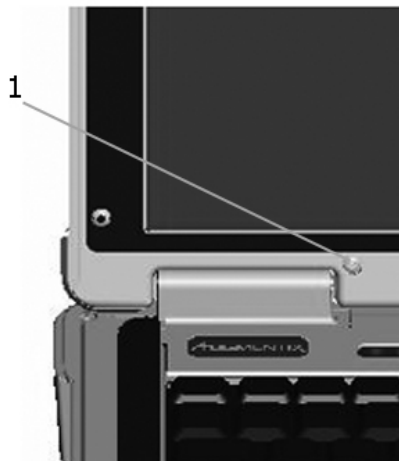
The ambient light sensor is located on the bottom of the computer display panel. The ambient light sensor detects available environmental light and automatically increases or decreases the display backlighting to compensate for low-light and high-light environments.

You can enable or disable the ambient light sensor by pressing the <Fn> and left-arrow key combination.



NOTE: Do not cover the ambient light sensor with any adhesive labels. If covered up, the ambient light sensor automatically sets the display brightness to the minimum level.

Figure 6-1 Ambient Light Sensor Location



1	Ambient light sensor
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The ambient light sensor is disabled when your computer is shipped to you. If you enable the ambient light sensor and then use any of the display brightness key combinations, the ambient light sensor is disabled and the display brightness is increased or decreased accordingly.

Dell™ QuickSet allows you to enable or disable the ambient light sensor. You can also adjust maximum and minimum brightness settings that are activated when you enable the ambient light sensor feature. For more information about QuickSet, right-click the QuickSet icon in the taskbar, and click **Help**.



NOTE: Rebooting the computer returns the ambient light sensor to the last setting of enabled or disabled.



NOTE: The ambient light sensor adjusts the display backlighting on your portable computer only. It does not control the brightness on any external monitors or projectors.

6.3 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.

6.4 Setting Display Resolution and Refresh Rate

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.



NOTE: Use only the pre-installed video drivers, which are designed to offer the best performance with your pre-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.

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. In the **Display Properties** window, click the **Settings** tab.
5. Try different settings for **Color quality** and **Screen resolution**.



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

If the video resolution setting is higher than that supported by the display, the computer enters pan mode. In pan mode, the entire screen cannot be displayed at one time. For example, the taskbar that usually appears at the bottom of the desktop may no longer be visible. To view the rest of the screen, use the touch pad or track stick to pan up, down, left, and right.



NOTICE: You can damage an external monitor by using an unsupported refresh rate. Before adjusting the refresh rate on an external monitor, see the user's guide for the monitor.

6.5 Dual Independent Display Mode

You can attach an external monitor or projector to your computer and use it as an extension of your display (known as "dual independent display" or "extended desktop" mode). This mode allows you to use both screens independently and drag objects from one screen to the other, effectively doubling the amount of viewable work space.

1. Connect the external monitor, TV, or projector to the computer.
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. In the **Display Properties** window, click the **Settings** tab.



NOTE: If you choose a resolution or color palette that is higher than the display supports, the settings adjust automatically to the closest supported values. For more information, see your operating system documentation.

5. Click the monitor 2 icon, click the **Extend my Windows desktop onto this monitor** check box, and then click **Apply**.
6. Change **Screen resolution** to the appropriate sizes for both displays and click **Apply**.

7. If prompted to restart the computer, click **Apply the new color setting without restarting** and click **OK**.
8. If prompted, click **OK** to resize your desktop.
9. If prompted, click **Yes** to keep the settings.
10. Click **OK** to close the **Display Properties** window.

To disable dual independent display mode:

1. Click the **Settings** tab in the **Display Properties** window.
2. Click the monitor 2 icon, uncheck the **Extend my Windows desktop onto this monitor** option, and then click **Apply**.

If necessary, press <Fn><F8> to bring the screen image back to the computer display.

6.6 Swapping Primary and Secondary Displays

To swap your primary and secondary display designations (for example, to use your external monitor as your primary display after docking):

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. Click the **Settings tab**→ **Advanced**→ **Displays** tab.

See the documentation that came with your video card for additional information.

6.7 DirectVue™ Touch Display Information

If you purchased your XFR630 Fully Rugged Notebook with the optional DirectVue Touch Display please review the following user instructions and tips.

The XFR630 provides an optional touch screen display for entering and selecting data using an approved pointing device such as your finger, a passive stylus or any non-abrasive smooth blunt object that will not damage the touch display.



NOTICE: To ensure you properly care for and maintain your touch display, please refer to [Cleaning Your Computer](#) and adhere to the care instructions regarding the display.



CAUTION: The optional DirectVue™ Touch Display has been designed to accept finger touch as well as passive stylus input directly onto the screen. With the optional DirectVue™ Touch Display, a stylus is included with the XFR630 for use in selecting items on the touch screen. Other pointing devices can be used with the touch screen such as any non-abrasive, smooth or blunt object that will not damage the touch screen display. The touch screen surface can be damaged by ink pens, marker pens or other pointed or abrasive objects. The use of non-approved input devices that cause damage to the digitizer or LCD may not be covered by the limited warranty.

The touch screen is pre-configured and pre-calibrated at the factory, but may require further calibration to improve accuracy for entering or selecting data on the touch display. Please see the [Tools](#) section for information on Calibrating your XFR630 Touch Display and using your stylus.

6.7.1 Accessing Drivers and Documentation

Your XFR630 DirectVue Touch Display's drivers, touch-input parameters and documentation have been pre-loaded at the factory. For experienced users or IT administrators - if you need to re-install drivers, set up your XFR630 Touch Display or modify parameters please refer to the pre-loaded

XFR630 *Touchkit* Utility documentation for detailed instructions and refer to the summary provided in [*Touchkit* Configuration Utility](#).

You can launch the pre-loaded documentation by selecting **Start -> Programs -> Touchkit -> Document**.

6.7.2 Touchkit Configuration Utility

Your XFR630 DirectVue Touch Display system incorporates EETI technology. *Touchkit* is a software utility tool that allows you to configure various touch features. You can launch *Touchkit* by clicking **Start -> Programs -> Touchkit -> Configure Utility**.



NOTE: The touch screen is pre-configured and pre-calibrated at the factory, but may require further calibration to improve accuracy for entering or selecting data on the touch display, or to further configure it to your specific application.

Please refer to the pre-loaded documentation for the *Touchkit* Configuration Utility for a complete description of all its capabilities and functionality.

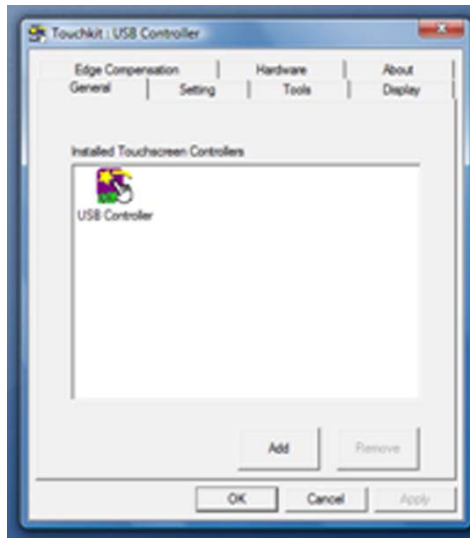
You can launch the pre-loaded documentation for the *Touchkit* Configuration Utility by selecting **Start -> Programs -> Touchkit -> Document -> User Guide for Windows 2000/XP -> Touchkit Utility**.

The *Touchkit* software utility consists of tabs that allow you to determine the best settings for your touch screen configuration.

- The **General** tab shows all of the touchkit touch screen controllers installed in your system
- The **Tools** tab provides access to calibration and touch position tools.
- The **Setting** tab provides access to the configuration of beeps, clicks and mouse emulation as well as selection of 9 point or 25 point calibration for linearization.
- The **Display** tab provides the tools for mapping the touch screen area to specific areas of the display. The default is full screen.
- The **Edge Paramaters** tab provides configuration for selecting items near the edge of the touch screen.
- The **Hardware** tab provides the model and firmware version of the Touchkit touch screen controller.
- The **About** tab provides the version of the Touchkit driver as well as providing a link for downloading the latest driver.

6.7.2.1 General

The general property page shows all the *Touchkit* touch screen controllers installed including RS232, USB and PS2 interfaces. The XFR630 touch screen controller is a USB device.

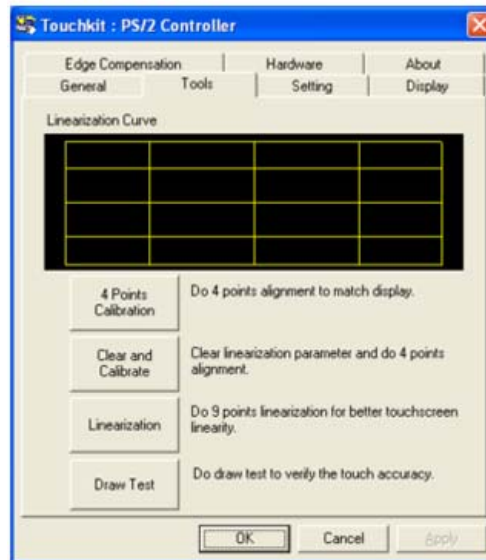


6.7.2.2 Tools

The Tools property page provides the following information and functions which are selected by pressing the push buttons.

NOTE: Your touch screen is configured and calibrated at the factory. However, if you notice that the calibration is not as precise as you would like, you can use the 4 Points Calibration and/or the Linearization tool to provide a more accurate alignment of the touch screen.

- Graph of the **Linearization Curve** of the touch screen – for reference and troubleshooting purposes. See its usage in the discussion of the Linearization function.
- **4 Points Calibration** – Calibration aligns the touch panel with the video screen. The touch screen must be calibrated to allow for positional accuracy of the stylus or finger touch inputs.
- **Clear and Calibrate** – Clears the calibration/linearization parameters and allows you to perform the 4 points calibration again.
- **Linearization** (9 or 25 points linearization is set within the Setting tab) – the linearization function provides for more precise mapping of the stylus or finger touch inputs. After linearization is completed, the linearity of the touch screen will be shown in the Linearization Curve window.
- **Draw Test** - used for accuracy and performance checking.



1. 4 Points Calibration

The touch screen must be calibrated before it can work accurately. This function pops up a new window to guide you through the 4 points calibration. You should follow the guide to touch and hold the blinking X symbol in the calibration window until it does not blink to make sure that the utility can gather enough data for computation. In addition, a time line bar is shown in the bottom of the window to indicate time elapsed. If the touch screen is not touched before the time line bar reaches the right end, the calibration task will be terminated automatically.



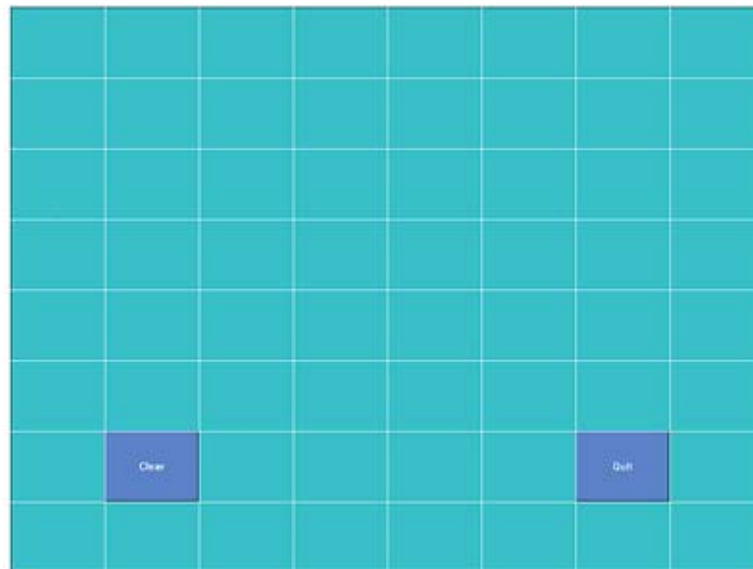
2. Linearization

This function provides for more accurate touch screen positional alignment. The linearization function pops up a new window to guide you through the 9 or 25 points calibration. Configuring the function for 9 or 25 points calibration is accessed in the Setting tab. You should follow the guide to touch and hold the blinking X symbol in the calibration window until it does not blink to make sure that the utility can gather enough data for computation. In addition, a time line bar is shown in the bottom of the window to indicate the time elapsed. If the touch screen is not touched before the time line bar reaches the right end, the calibration task will be terminated automatically.



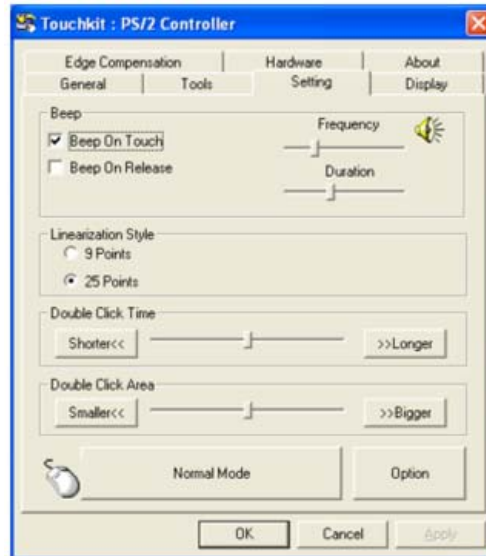
1. Draw Test

This function is used for accuracy and performance checking. You can use the stylus or finger touch to draw or write across the displayed area.



You can press the Clear button to clear the window. Press the Quit button to terminate the draw test.

6.7.2.3 Setting



The Setting property page provides the following buttons and check boxes:

1. Beep

- **Beep On Touch**
Check this check box to enable driver to generate a beep sound when touch touchscreen state is switched from untouched to touched state.
- **Beep On Release**
Check this check box to enable driver to generate a beep sound when touchscreen state is switched from touched state to untouch state.
- **Frequency**
Adjust this frequency to control the beep sound frequency generated by the driver.
- **Duration**
Adjust this duration to control the beep sound duration.

2. Linearization Style

The *Touchkit* utility provides you with both 9 points and 25 points calibration for linearization. You can select the suitable kind of linearization type with this setting. The Linearization function is accessed under the Tools tab.

3. Double Click Time

The double Click Time group is used to set system double click time. Changing this value will affect the double click behavior for all of the mice devices in the system. Two continuous clicks at the same area within this specified time period will be recognized as a double click event.

4. Double Click Area

The double click area group is used to set the system double click area. Changing this value will affect the double click behavior for all of the mice devices in the system. Two continuous clicks within the specified area in the specified double click time will be recognized as a double click event.

5. Mouse Emulation mode

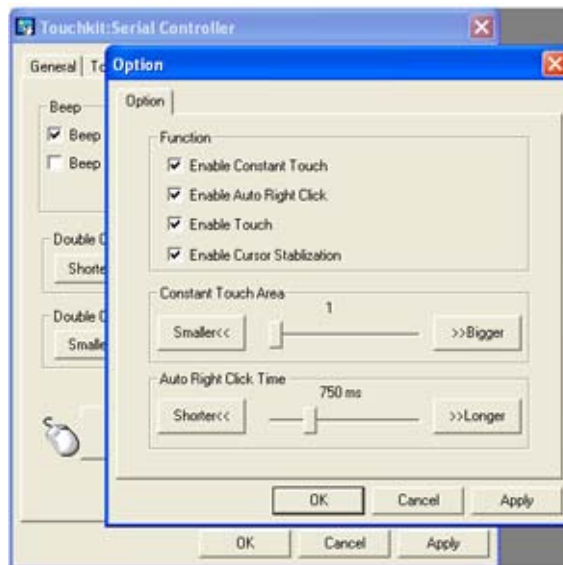
There are 5 mouse emulation modes for the *Touchkit* touch screen controllers. Press on the button to change the emulation mode.

- **Normal Mode**
You can select this mode to select objects, and drag objects.
- **Click On Touch**
With this Click On Touch mode, the driver emulates a mouse click event when the touch screen state is switched from un-touched state to touched state. Then, the driver always generates a mouse move event and tracks the touch position until the touch screen state switches to the un-touch state.

- **Click On Release**
With this Click On Release mode, the driver emulates a mouse click event when the touch screen state is switched from touched state to un-touched state.
- **Click On Touch without moving cursor**
With this mode, the driver behaves similarly to the Click On Touch mode. The cursor does not move to the touch position except for the first touch point.
- **Click On Release without moving cursor**
With this mode, the driver behaves similarly to the Click On Release mode. The cursor does not move to the touch position except for the lift-off point.

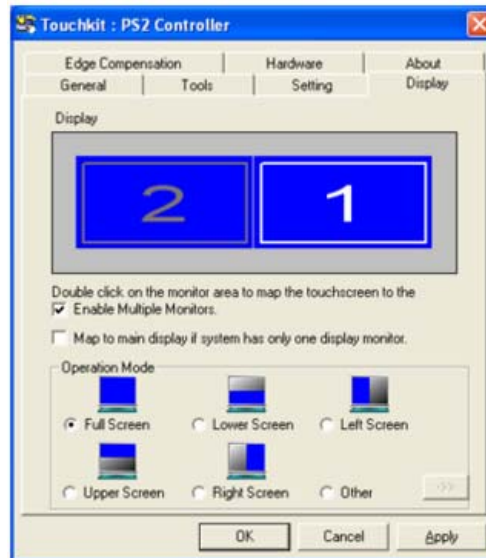
6. Option

You can access advanced configuration functions with the Option button. Press the button, and the following window will appear.



6.7.2.4 Display

The *Touchkit* driver supports multiple monitor and display systems. To work with multiple monitor systems, you need to perform the proper configuration to map the touch screen working area to the correct system display area using the Display property page.



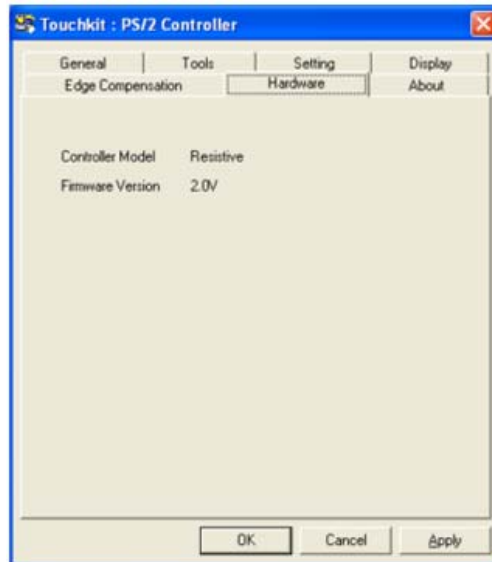
6.7.2.5 Edge Parameters

For some special touch screen applications where the edge area of the full screen cannot be reached, *Touchkit* provides you with this edge compensation tool to solve the problem and allow for touching the edge area without accuracy loss.



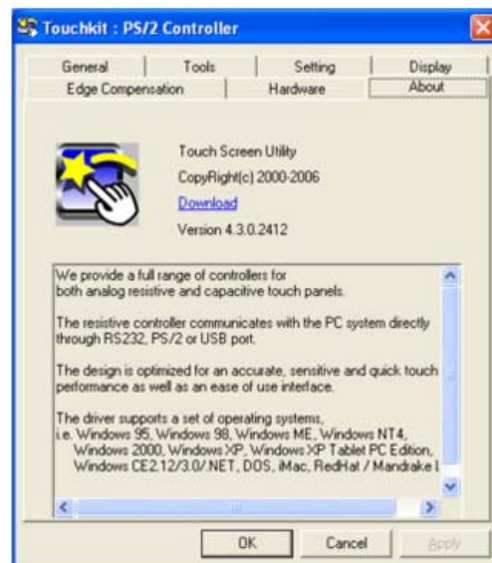
6.7.2.6 Hardware

The Hardware property page shows the model and firmware version of the *Touchkit* controller. The software will query the hardware information from the controller and show the information as illustrated here.



6.7.2.7 About

The About property page shows information regarding the *Touchkit* driver, including providing a link to allow you to download the latest driver.



7 Setting Up and Using Networks


Setting up a computer network provides connectivity between your computer and the Internet, another computer, or a network. For example, with a network set up in a home or small office you can print to a shared printer, access drives and files on another computer, browse other networks, or access the Internet. You can set up a local area network (LAN) using a network or broadband modem cable, or set up a wireless LAN (WLAN).

The Windows XP and Windows Vista operating systems provide wizards to help guide you through the process of networking computers. For more information about Networking, access the Help and Support Center (click **Start**→ **Help and Support**).

7.1 Connecting a Network or Broadband Modem Cable

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

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

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

2. Connect the other end of the network cable to a network connection device or a network wall connector.


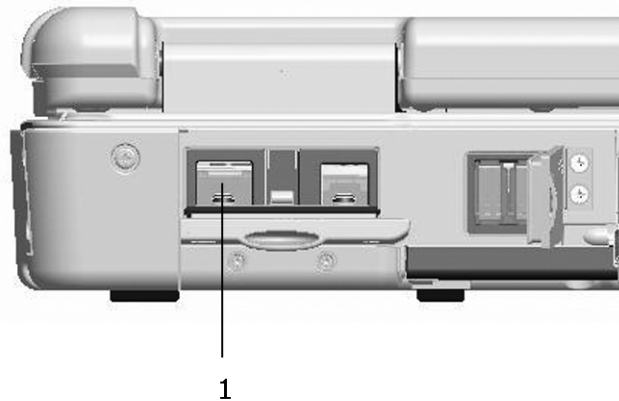

 **NOTE:** Do not use a network cable with a telephone wall connector.


Figure 7-1 Location of Network Adapter Connector on Rear Panel



1	Network adapter connector
---	---------------------------

The following is applicable to UL 1604 and CSA C22.2 No. 213 compliant systems:

 **WARNING - Explosion Hazard - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous**

 **WARNING - Explosion Hazard - Do not utilize any of the connectors/hubs unless area is known to be non-hazardous**

7.2 Setting Up a Network in the Microsoft® Windows® XP Operating System


1. Click **Start**→ **All Programs**→ **Accessories**→ **Communications**→ **Network Setup Wizard**→ **Next**→ **Checklist for creating a network**.

 **NOTE:** Selecting the connection method labeled **This computer connects directly to the**

Internet enables the integrated firewall provided with Windows XP Service Pack 2 (SP2).

2. Complete the checklist.
3. Return to the Network Setup Wizard and follow the instructions in the wizard.

7.3 Setting Up a Network in the Microsoft Windows Vista™ Operating System

1. Click the Windows Vista Start button, , and click **Connect To→ Set up a connection or network**.
2. Select an option under **Choose a connection option**.
3. Click **Next**, and then follow the instructions in the wizard.

7.4 Wireless Local Area Network

A wireless local area network (WLAN) is a series of interconnected computers that communicate with each other over the air waves rather than through a network cable connected to each computer. In a WLAN, a radio communications device called an access point or wireless router connects network computers and provides Internet, or network, access. The access point or wireless router and the wireless network card in the computer communicate by broadcasting data from their antennas over the air waves.

7.4.1 What You Need to Establish a WLAN Connection

Before you can set up a WLAN, you need:

- High-speed (broadband) Internet access (such as cable or DSL)
- A broadband modem that is connected and working
- A wireless router or access point
- A wireless network card for each computer that you want to connect to your WLAN
- A network cable with a network (RJ-45) connector

7.4.2 Checking Your Wireless Network Card

Depending on what you selected when you purchased your computer, the computer has a variety of configurations. To confirm that your computer has a wireless network card and to determine the type of card, use one of the following:

- The **Start** button and the **Connect To** option
- The order confirmation for your computer

Start Button and Connect To Option

In Microsoft Windows XP, click **Start→ Connect To→ Show all connections**.


In Microsoft Windows Vista, click **Start→ Connect To→ View network computers and devices**.

If Wireless Network Connection does not appear under LAN or High-Speed Internet, you may not have a wireless network card.

If Wireless Network Connection appears, you have a wireless network card. To view detailed information about the wireless network card:

1. Right-click **Wireless Network Connection**.
2. Click **Properties**.


The **Wireless Network Connection Properties** window appears. The wireless network card's name and model number are listed on the **General** tab.


 **NOTE:** If your computer is set to the **Classic Start** menu option, you can view network connections by clicking the **Start**→**Settings**→**Network Connections**. If Wireless Network Connection does not appear, you may not have a wireless network card.

The Order Confirmation for Your Computer


The order confirmation that you received when you ordered your computer lists the hardware and software that shipped with your computer.

7.4.3 Setting Up a New WLAN Using a Wireless Router and a Broadband Modem

1. Contact your Internet service provider (ISP) to obtain specific information about the connection requirements for your broadband modem.
2. Ensure that you have wired Internet access through your broadband modem before you attempt to set up a wireless Internet connection (see "[Connecting a Network or Broadband Modem Cable](#)").
3. Install any software required for your wireless router. Your wireless router may have been shipped with an installation media. Installation media usually contain installation and troubleshooting information. Install the required software according to the instructions provided by the router manufacturer.
4. Shut down your computer and any other wireless-enabled computers in the vicinity through the **Start** or  menu.
5. Disconnect your broadband modem power cable from the electrical outlet.
6. Disconnect the network cable from the computer and the modem.
7. Disconnect the AC adapter cable from your wireless router to ensure that there is no power connected to the router.


 **NOTE:** Wait for a minimum of 5 minutes after disconnecting your broadband modem before you continue with the network setup.


8. Insert a network cable into the network (RJ-45) connector on the unpowered broadband modem.
9. Connect the other end of the network cable into the Internet network (RJ-45) connector on the unpowered wireless router.
10. Ensure that no network or USB cables, other than the network cable connecting the modem and the wireless router, are connected to the broadband modem.

 **NOTE:** Restart your wireless equipment in the order described below to prevent a potential connection failure.

11. Turn on *only* your broadband modem and wait for at least 2 minutes for the broadband modem to stabilize. After 2 minutes, proceed to step 12.
12. Turn on your wireless router and wait for at least 2 minutes for the wireless router to stabilize. After 2 minutes, proceed to the step 13.
13. Start your computer and wait until the boot process completes.
14. See the documentation that came with your wireless router to do the following in order to set up the wireless router:
 - Establish communication between your computer and your wireless router.
 - Configure your wireless router to communicate with your broadband router.
 - Find out your wireless router's broadcast name. The technical term for the name of your router's broadcast name is Service Set Identifier (SSID) or network name.
15. If necessary, configure your wireless network card to connect to the wireless network (see "[Connecting to a WLAN](#)").


7.4.4 Connecting to a WLAN

 **NOTE:** Before you connect to a WLAN, ensure that you have followed the instructions in "[Wireless Local Area Network](#)".

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

This section provides general procedures for connecting to a network using wireless technology. Specific network names and configuration details vary. See "[Wireless Local Area Network](#)" for more information about how to prepare for connecting your computer to a WLAN.

Your wireless network card requires specific software and drivers for connecting to a network. The software is already installed.

 **NOTE:** If the software is removed or corrupted, follow the instructions in the user documentation for your wireless network card. For information on the type of wireless network card that is installed in your computer, see "[Checking Your Wireless Network Card](#)".

Determining the Wireless Network Device Manager

Depending on the software installed on your computer, different wireless configuration utilities may manage your network devices:

- Your wireless network card's client utility
- The Windows XP or Windows Vista operating system

To determine which wireless configuration utility is managing your wireless network card in Windows XP:

1. Click **Start**→ **Settings**→ **Control Panel**→ **Network Connections**.
2. Right-click the **Wireless Network Connection** icon, and then click **View Available Wireless Networks**.

If the **Choose a wireless network** window states **Windows cannot configure this connection**, the wireless network card's client utility is managing the wireless network card.

If the **Choose a wireless network** window states **Click an item in the list below to connect to a wireless network in range or to get more information**, the Windows XP operating system is managing the wireless network card.

To determine which wireless configuration utility is managing your wireless network card in Windows Vista:

1. Click **Start**→ **Connect To**→ **Manage wireless networks**.
2. Double-click a profile to open the wireless network properties screen.

For specific information about the wireless configuration utility installed on your computer, see your wireless network documentation in the Windows Help and Support Center (click **Start**→ **Help and Support**).


Completing the Connection to the WLAN


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

Follow the instructions provided in any utility prompts that appear on your screen.

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

Thereafter, whenever you log on to your computer within the range of the wireless network that you selected, the same pop-up notifies you of the wireless network connection.

 **NOTE:** If you select a secure network, you must enter a WEP or WPA key when prompted. 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 the network.

Monitoring the Status of the Wireless Network Card Through Dell QuickSet


The wireless activity indicator provides you with an easy way to monitor the status of your computer's wireless devices. To turn the wireless activity indicator on or off, click the QuickSet icon in the taskbar and select **Hotkey Popups**. If **Wireless Activity Indicator Off** is not checked, the indicator is on. If **Wireless Activity Indicator Off** is checked, the indicator is off.

The wireless activity indicator displays whether your computer's integrated wireless devices are enabled or disabled. When you turn the wireless networking function on or off, the wireless activity indicator changes to display the status.


For more information about the Dell QuickSet wireless activity indicator, right-click the QuickSet icon in the taskbar and select **Help**.

7.5 Mobile Broadband (or Wireless Wide Area Network)

A Mobile Broadband network, also known as a Wireless Wide Area Network (WWAN), is a high-speed digital cellular network that provides Internet access over a much wider geographical area than a WLAN, which typically covers only from 100 to 1000 feet. Your computer can maintain Mobile Broadband network access as long as the computer is within a cellular-data coverage zone. Contact your service provider for coverage of a high-speed digital cellular network.

 **NOTE:** Even if you are able to make a call from your cellular phone in a specific geographical location, that location may not necessarily be within a cellular-data coverage zone.

7.5.1 What You Need to Establish a Mobile Broadband Network Connection

 **NOTE:** Depending on your computer, you can use a Mini-Card or an ExpressCard with PCMCIA adapter to establish a Mobile Broadband network connection.

To set up a Mobile Broadband network connection, you need:

- A Mini-Card
- An activated Subscriber Identity Module (SIM) for your service provider

 **NOTE:** Only Cingular and Vodafone need a SIM card. Verizon, Sprint, and Telus do not use a SIM.

- The Dell Mobile Broadband Card Utility (already installed on your computer if you purchased the card when you purchased your computer, or on the media that accompanied your card if purchased separately from your computer).

If the utility is corrupted or deleted from your computer, see the Dell Mobile Broadband Card Utility user's guide for instructions. The user's guide is available through the Windows Help and Support Center (click **Start**→ **Help and Support**) or on the media that accompanied your card if you purchased it separately from your computer.

7.5.2 Checking Your Dell Mobile Broadband Card

Depending on what you selected when you purchased your computer, the computer has a variety of configurations. To determine your computer configuration, see one of the following:

- Your order confirmation
- Microsoft Windows Help and Support Center

To check your Mobile Broadband card in the Windows Help and Support Center:

1. Click **Start**→ **Help and Support**→ **Use Tools to view your computer information and diagnose problems**.
2. Under **Tools**, click **My Computer Information**→ **Find information about the hardware installed on this computer**.

On the **My Computer Information - Hardware** screen, you can view the type of Mobile Broadband card installed in your computer as well as other hardware components.



NOTE: The Mobile Broadband card is listed under **Modems**.

7.5.3 Connecting to a Mobile Broadband Network




NOTE: These instructions only apply to Mini-Cards. They do not apply to WLAN cards.



NOTE: Before you connect to the Internet, you must activate Mobile Broadband service through your cellular service provider. For instructions and for additional information about using the Dell Mobile Broadband Card Utility, see the user's guide available through the Windows Help and Support Center (click **Start**→ **Help and Support**). The user's guide is also available on the media included with your Mobile Broadband card if you purchased the card separately from your computer.

Use the Dell Mobile Broadband Card Utility to establish and manage a Mobile Broadband network connection to the Internet:

1. Click the Dell Mobile Broadband Card Utility icon  on the Windows desktop, to run the utility.
2. Click **Connect**.



NOTE: The **Connect** button changes to the **Disconnect** button.

3. Follow the instructions on the screen to manage the network connection with the utility.

Or

1. Click **Start**→ **All Programs**→ **Dell Wireless**.
2. Click **Dell Wireless Broadband** and follow the instructions on the screen.

7.5.4 Enabling/Disabling the Dell™ Mobile Broadband Card



NOTE: If you are unable to connect to a Mobile Broadband network, ensure that you have all the components for establishing a Mobile Broadband connection (see "[What You Need to Establish a Mobile Broadband Network Connection](#)"), and then verify that your Mobile Broadband card is enabled by verifying the setting of the wireless switch.

You can turn your computer's wireless devices on and off with the wireless switch on the left side of the computer (see "[Left Side View](#)").

If the switch is in the "on" position, move the switch to the "off" position to disable the switch and the Mobile Broadband card. If the switch is in the "off" position, move the switch to the "on" position to enable the switch and the Dell Mobile Broadband card. For information about the wireless switch positions, see "[Wireless Switch](#)".

To monitor the status of your wireless device, see "Monitoring the Status of the Wireless Network Card Through Dell QuickSet" in "[Connecting to a WLAN](#)".

7.5.5 Managing Your Network Settings Through the Dell QuickSet Location Profiler

The Dell QuickSet Location Profiler helps you manage network settings that correspond to your computer's physical location. It includes two categories of profile settings:

- Location Profile Settings
- General Mobility Settings

You can use **Location Profile Settings** to create profiles for accessing the Internet with your computer in your office, home, or other public places with Internet services. **General Mobility Settings** allows you to change the way network connections are handled. The profiles consist of different network settings and equipment that you need when using your computer in different locations.

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

7.5.6 Dell Wi-Fi Catcher™ Network Locator

The wireless switch on your Dell computer uses the Dell Wi-Fi Catcher Network Locator to scan specifically for WiFi WLAN in your vicinity. For more information about the wireless switch, see "[Wireless Switch](#)".

To scan for WiFi WLAN, slide and hold the switch in the "momentary" position for a few seconds. The Wi-Fi Catcher Network Locator functions regardless of whether your computer is turned on or off, in hibernate mode, or in standby mode, as long as the switch is configured through Dell QuickSet or the BIOS (system setup program) to control WiFi network connections.


Because the Wi-Fi Catcher Network Locator is disabled and not configured for use when your computer is shipped to you, you must first use Dell QuickSet to enable and configure the switch to control WiFi network connections.

For more information on the Wi-Fi Catcher Network Locator and to enable the feature through Dell QuickSet, right-click the QuickSet icon in the taskbar and select **Help**.

7.5.7 Microsoft® Windows® Firewall

Windows Firewall provides basic protection from unauthorized access to your computer while it is connected to the Internet. Windows Firewall is automatically enabled when you run the Network Setup Wizard.


When Windows Firewall is enabled for a network connection, the firewall icon appears with a red background in the **Network Connections** section of the **Control Panel**.


 **NOTE:** Enabling Windows Firewall does not reduce the need for virus-checking software.

For more information, click **Start**→**Control Panel**→**Security**→**Windows Firewall**, or access the Help and Support Center (click **Start**→**Help and Support**).

8 Using Multimedia

8.1 Playing Media


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

 **NOTICE:** Do not move the computer while playing media.

1. Press the eject button on the front of the drive.
2. Pull out the 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 module that shipped with another computer, you need to install the drivers and software necessary to play DVDs or write data. For more information, see the *Drivers and Utilities* media (the *Drivers and Utilities* media is optional and may not be available for your computer or in certain countries).

4. Push the tray back into the drive.












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

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

A CD player includes the following basic buttons:


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

A DVD player includes the following basic buttons:


	Stop.
	Restart the current chapter.
	Play.
	Fast forward.
	Pause.
	Fast reverse.
	Advance a single frame while in pause mode.
	Go to the next title or chapter.
	Continuously play the current title or chapter.
	Go to the previous title or chapter.
	Eject.

For more information on playing media, click **Help** on the CD or DVD player (if available).

8.2 Copying Media


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

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

 **NOTE:** The types of media drives offered by Dell may vary by country.

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

8.2.1 How to Copy Media

 **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 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 *Roxio Creator Plus*.

1. Open *Roxio Creator Plus*.
2. Under the **Copy** tab, click **Disc Copy**.
3. To copy media:
 - If you have one media drive, ensure that the settings are correct, and then click **Disc Copy**. The computer reads your source media and copies the data to a temporary folder on your computer hard drive.

When prompted, insert a blank media into the drive and click **OK**.

- If you have two media drives, select the drive into which you have inserted your source media, and then click **Disc Copy**. The computer copies the data from the source media to the blank one.

Once you have finished copying the source media, the media that you have created automatically ejects.

8.2.2 Using Blank Media

CD-RW drives can write to CD recording media only (including high-speed CD-RW media) 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 the maximum storage capacity of a CD-R is reached, you cannot write to that CD-R again (see the Sonic documentation for more information). Use blank CD-RWs if you plan to erase, rewrite, or update information on the CD later.

Blank DVD+/-Rs can be used to permanently store large amounts of data. 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 the disc later.

8.2.3 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
DVD-R DL	Maybe	No	No
DVD-RAM	Maybe	No	No

8.2.4 Helpful Tips

- Use Microsoft® Windows® Explorer to drag and drop files to a CD-R or CD-RW only after you start *Roxio Creator Plus* and open a Creator project.
- Use CD-Rs to burn music CDs that you want to play in regular stereos. CD-RWs may not play in many home or car stereos.
- You cannot create audio DVDs with *Roxio Creator Plus*.
- 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 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.

8.2.5 Adjusting the Volume



NOTE: When the speakers are muted, you do not hear the media playing.

1. Open the **Volume Control** window.
2. 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 click the QuickSet icon in the taskbar and select or deselect **Disable On Screen Volume Meter**, 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
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When the meter is enabled, adjust the volume with the volume control buttons.

For more information about QuickSet, right-click the icon in the taskbar and click **Help**. You can also use the volume control buttons on your computer to adjust the volume (see "[Front View](#)").


8.2.6 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.


Microsoft® Windows® XP Operating System

1. Click **Start**→ **Control Panel**→ **Appearance and Themes**.
2. Under **Pick a task...**, click **Change the screen resolution**.
3. Under **Screen resolution**, click and drag the bar to reduce the resolution setting.
4. In the drop-down menu under **Color quality**, click **Medium (16 bit)**.
5. Click **OK**.

Microsoft Windows Vista™ Operating System

1. Click the Windows Vista Start button, , and click **Control Panel**→ **Appearance and Personalization**.
2. Under **Personalization**, click **Adjust Screen Resolution**.
3. Under **Resolution**: click and drag the bar to reduce the resolution setting.
4. In the drop-down menu under **Colors**, click **Medium (16 bit)** and click **OK**.

9 Using Cards

 **NOTE:** Electrical and electronic devices are sensitive to electrostatic discharge (ESD). If a substantial ESD occurs, the device may reset and the device software may attempt to reinitialize a connection. If the software is not operational after an ESD occurrence, restart the modem software program.

9.1 Card Types

9.1.1 PC Cards

See "[PC Card](#)" for information on supported PC Cards.



NOTE: A PC Card is not a bootable device.

The PC Card slot has one connector that supports a single Type I or Type II card. The PC Card slot supports CardBus technology and extended PC Cards. "Type" of card refers to its thickness, not its functionality.

9.1.2 ExpressCards

See "[Specifications](#)" for information on supported ExpressCards.



NOTE: An ExpressCard is not a bootable device.

ExpressCards leverage PC Card technology to provide a fast and convenient way to add memory, wired and wireless network communications (including Mobile Broadband network [also known as WWAN] communications), multimedia, and security features to your computer. To use an ExpressCard in the PC Card slot, you must use an adapter (optional).

9.1.3 Smart Cards

Smart cards provide valuable tools for security, data storage, and special programs (see "[Smart Cards](#)").

9.1.4 Card Blanks

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

To remove a blank, see "[Removing a Card or Blank](#)".

9.1.5 Extended Cards

An extended PC Card (for example, a wireless network adapter) is longer than a standard PC Card and extends outside the computer. Follow these precautions when using extended PC Cards:

- Protect the exposed end of an installed card. Striking the end of the card can damage the system board.
- Always remove an extended PC Card before you pack the computer in its carrying case.

9.2 Installing a PC Card or ExpressCard

You can install a PC Card or ExpressCard in the computer while the computer is running. The computer automatically detects the card.


PC Cards and ExpressCards are generally marked with a symbol (such as a triangle or an arrow) 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 [Safety Information](#) section of this manual.

The following is applicable to UL 1604 and CSA C22.2 No. 213 compliant systems:

 **WARNING - Explosion Hazard - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous**

 **WARNING - Explosion Hazard - Do not utilize any of the connectors/hubs unless area is known to be non-hazardous**

9.2.1 PC Card

1. Lower the hinged door on the left side of the system that protects the PC card slot. See "[Left Side View](#)".
2. Hold the card with its orientation symbol pointing into the slot and the top side of the card facing up. The latch may need to be in the "in" position before you insert the card.
3. Slide the card into the slot until the card is completely seated in its connector.

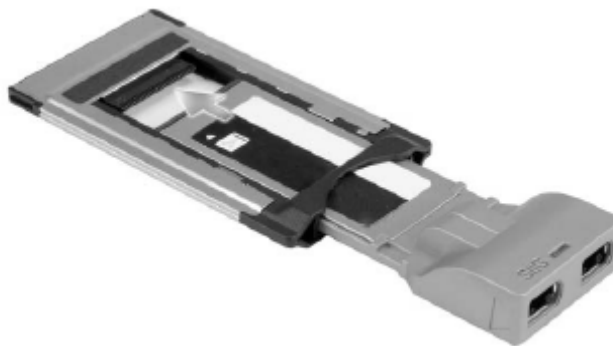
If you encounter too much resistance, do not force the card. Check the card orientation and try again.




The computer recognizes most PC Cards 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 PC Card.



9.2.2 ExpressCard

1. Place the ExpressCard in the adapter (the adapter is included with the ExpressCard).
2. Install the ExpressCard with adapter the same way as a PC Card (see "[PC Cards](#)").



9.3 Removing a Card or Blank


 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions in the [Safety Information](#) section of this manual.

 **NOTICE:** 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. Do not attempt to eject a card by pulling its cable, if one is attached.


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.

10 Securing Your Computer


10.1 Security Cable Lock


 **NOTE:** Your computer does not ship with a security cable lock.

A security cable lock is a commercially available antitheft device. To use the lock, attach it to the security cable slot on your Dell computer. For more information, see the instructions included with the device. See "[Left Side View](#)" for the location of the security cable slot.

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

10.2 Smart Cards

 **NOTE:** For information on how to secure your computer while traveling, see "[Traveling With Your Computer](#)".

 **NOTE:** The smart card feature may not be available on your computer.

10.2.1 About Smart Cards

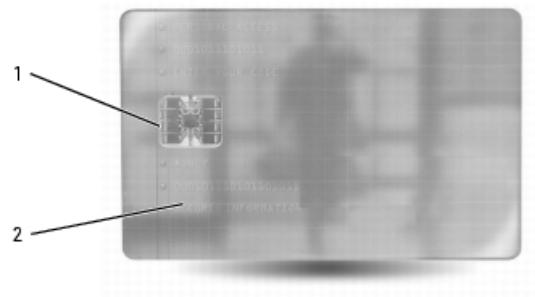
Smart cards are portable credit-card shaped devices with internal integrated circuits. The top surface of the smart card usually contains an embedded processor under the gold contact pad. The combination of the small size and integrated circuits make smart cards valuable tools for security, data storage, and special programs. Using smart cards can improve system security by combining something a user has (the smart card) with something only the user should know (a PIN) to provide more secure user authentication than passwords alone.

10.2.2 Installing a Smart Card

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

To install a smart card:

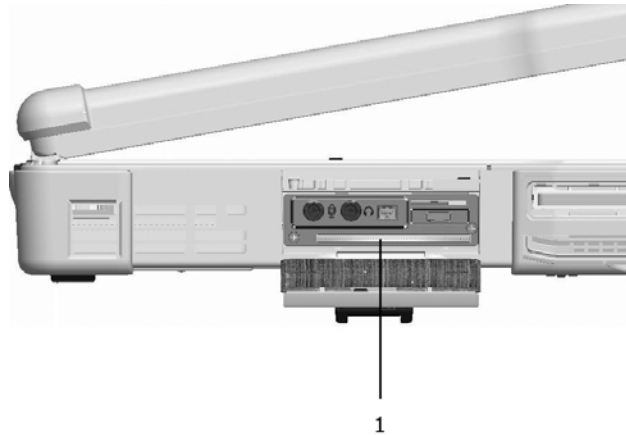
1. Lower the hinged door on the left side of the system that protects the smart card slot. See the figure 10-2 below.
2. Hold the card so that the gold contact pad is facing upward and pointing toward the smart card slot.

Figure 10-1 Smart Card

1	Gold contact pad	2	Smart card (top)
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- Slide the smart card into the smart card slot until the card is completely seated in its connector. The smart card will protrude approximately 1/2 inch from the slot. The smart card slot is located below the PC Card slot.

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


Figure 10-2 Smart Card Location

- Smart card slot

10.3 Passwords

Passwords prevent unauthorized access to your computer. When using passwords, observe the following guidelines:


- Choose a password that you can remember, but not one that is easy to guess. For example, do not use the names of family members or pets for passwords.
- It is recommended that you do not write down your password. If you do write it down, however, ensure that the password is stored in a secure place.
- Do not share your password with other people.
- Ensure that people are not watching you when you type your password.

 **NOTICE:** Passwords provide a high level of security for data in your computer or hard drive. However, they are not foolproof. If you require more security, obtain and use additional forms of protection, such as smart cards, data encryption programs, or PC Cards with encryption features.

Use the **User Accounts** option in the **Control Panel** in the Microsoft® Windows® operating system to create user accounts or to change passwords. Once you create a user password, you must enter it each time you turn on or unlock your computer. If you do not enter a password within 2 minutes, the computer returns to its previous operating state.


For more information, see your Windows documentation.

10.3.1 About Passwords

 **NOTE:** Passwords are disabled when you receive your computer.


A primary (or system) password, an administrator password, and a hard drive password all prevent unauthorized access to your computer in different ways. The following table identifies types and features of passwords available on your computer.

Type of Password	Features
Primary (or system)	<ul style="list-style-type: none"> Protects the computer from unauthorized access
Administrator	<ul style="list-style-type: none"> Gives system administrators or service technicians access to computers for repair or reconfiguration Allows you to restrict access to system setup in the same way a primary password restricts access to the computer Can be used instead of the primary password
Hard drive	<ul style="list-style-type: none"> Helps protect the data on your hard drive from unauthorized Access

 **NOTE:** Some hard drives do not support hard drive passwords.

When using passwords, observe the following guidelines:


- Choose passwords that you can remember, but not ones that are easy to guess. For example, do not use the names of family members or pets for passwords.
- It is recommended that you do not write down passwords. If you do write it down, however, ensure that the password is stored in a secure place.
- Do not share passwords with other people.
- Ensure that people are not watching you when you type your password(s).

 **NOTE:** Passwords provide a high level of security for data in your computer or hard drive. However, they are not foolproof. If you require more security, obtain and use additional forms of protection, such as smart cards, data encryption programs, or PC Cards with encryption features.

If you forget any of your passwords, contact your system administrator.

10.3.2 Using a Primary (or System) Password

The primary password allows you to protect the computer from unauthorized access. When you first start your computer, you must assign a primary password at the prompt. If you do not enter a password within 2 minutes, the computer returns to its previous operating state.

 **NOTICE:** If you disable the administrator password, the primary password is also disabled.

To add or change passwords, access **User Accounts** from the **Control Panel**.

If you have assigned an administrator password, you can use it instead of the primary password. The computer does not specifically prompt you for the administrator password.

10.3.3 Using an Administrator Password

The administrator password is designed to give system administrators or service technicians access to computers for repair or reconfiguration. The administrators or technicians can assign identical administrator passwords to groups of computers, allowing you to assign a unique primary password.

To set or change administrator passwords, access **User Accounts** from the **Control Panel**.

When you set an administrator password, the **Configure Setup** option becomes available in system setup. The **Configure Setup** option allows you to restrict access to system setup in the same way that a primary password restricts access to the computer.

The administrator password can be used instead of the primary password. Whenever you are prompted to enter the primary password, you can enter the administrator password.



NOTICE: If you disable the administrator password, the primary password is also disabled.



NOTE: The administrator password provides access to the computer, but it does not provide access to the hard drive when a hard drive password is assigned.

If you forget the primary password and do not have an administrator password assigned, or if you have both a primary and an administrator password assigned but forget them both, contact your system administrator.

10.3.4 Using a Hard Drive Password

The hard drive password helps protect the data on your hard drive from unauthorized access.

To assign or change a hard drive password, enter system setup (see "[System Setup Program](#)").

After assigning a hard drive password, you must enter it each time you turn on the computer and each time you restore the computer to normal operation from standby mode.

If the hard drive password is enabled, you must enter it each time you turn on the computer: A message appears asking for the hard drive password.

To continue, enter your password (with no more than eight characters) and press **<Enter>**.

If you do not enter a password within two minutes, the computer returns to its previous operating state.

If you enter the wrong password, a message tells you that the password is invalid. Press **<Enter>** to try again.

If you do not enter the correct password in three attempts, the computer tries to start from another bootable device if the **Boot First Device** option in system setup is set to allow start-up from another device. If the **Boot First Device** option is not set to allow the computer to start from another device, the computer returns to the operating state it was in when you turned it on.

If the hard drive password, the external hard-drive password, and the primary password are the same, the computer prompts you only for the primary password. If the hard drive password is

different from the primary password, the computer prompts you for both. Two different passwords provide greater security.



NOTE: The administrator password provides access to the computer, but it does not provide access to the hard drive when a hard drive password is assigned.

10.4 Trusted Platform Module (TPM)



NOTE: The TPM feature supports encryption only if the operating system supports TPM. For more information, see the TPM software documentation and the help files that came with the software.

TPM is a hardware-based security feature that can be used to create and manage computer-generated encryption keys. When combined with security software, the TPM enhances existing network and computer security by enabling features such as file protection capabilities and protected e-mail. The TPM feature is enabled through a system setup option.



NOTICE: To secure your TPM data and encryption keys, follow the backup procedures documented in the Broadcom *Secure Foundation Getting Started Guide*. In the event of these backups being incomplete, lost, or damaged, Dell will be unable to assist in the recovery of encrypted data.

10.4.1 Enabling the TPM Feature

1. Enable the TPM software:
 - a. Restart the computer and press **<F2>** during the Power On Self Test to enter the system setup program.
 - b. Select **Security**→ **TPM Security** and press **<Enter>**.
 - c. Under **TPM Security**, select **On**.
 - d. Press **<Esc>** to exit the setup program.
 - e. If prompted, click **Save/Exit**.
2. Activate the TPM setup program:
 - a. Restart the computer and press **<F2>** during the Power On Self Test to enter the system setup program.
 - b. Select **Security**→ **TPM Activation** and press **<Enter>**.
 - c. Under **TPM Activation**, select **Activate** and press **<Enter>**.



NOTE: You only need to activate the program once.


- d. Once the process is complete, the computer either restarts automatically or prompts you to restart your computer.

10.5 Security Management Software

The security management software is designed to utilize four different features to help you secure your computer:

- Log-in management
- Pre-boot authentication (using a fingerprint reader, smart card, or password)
- Encryption
- Private information management

10.5.1 Activating the Security Management Software

 **NOTE:** You must first enable the TPM in order for the security management software to have full functionality.

1. Enable the TPM feature (see "[Enabling the TPM Feature](#)").
2. Load the security management software:
 - a. Turn on (or restart) your computer.
 - b. When the DELL™ logo appears, press **<F2>** immediately. If you wait too long and the Windows logo appears, continue to wait until you see the Windows desktop. Then shut down your computer and try again.
 - c. In the drop-down menu, select **Wave EMBASSY Trust Suite** and press **<Enter>** to create the icons for the software components on the computer desktop.
 - d. Press **<Esc>** to exit the setup program.
 - e. If prompted, click **Save/Exit**.


10.5.2 Using the Security Management Software


For information about how to use the software and the different security features, see the *Getting Started Guide* for the software:

Click **Start**→ **All Programs**→ **Wave EMBASSY Trust Suite**→ **Getting Started Guide**.

10.6 Computer Tracking Software


Computer tracking software may enable you to locate your computer if it is lost or stolen. The software is optional and may be purchased when you order your Dell computer, or you can contact your Dell sales representative for information about this security feature.

 **NOTE:** Computer tracking software may not be available in certain countries.

 **NOTE:** If you have computer tracking software and your computer is lost or stolen, you must contact the company that provides the tracking service to report the missing computer.

10.7 If Your Computer Is Lost or Stolen

- Call a law enforcement agency to report the lost or stolen computer. Include the Service Tag in your description of the computer. Ask that a case number be assigned and write down the number, along with the name, address, and phone number of the law enforcement agency. If possible, obtain the name of the investigating officer.

 **NOTE:** If you know where the computer was lost or stolen, call a law enforcement agency in that area. If you do not know, call a law enforcement agency where you live.


- If the computer belongs to a company, notify the security office of the company.
- Contact Dell Customer Support to report the missing computer. Provide the computer Service Tag, the case number, and the name, address, and phone number of the law enforcement agency to which you reported the missing computer. If possible, give the name of the investigating officer.

The Dell Customer Support representative will log your report under the computer Service Tag and record the computer as missing or stolen. If someone calls Dell for technical assistance and gives your Service Tag, the computer is identified automatically as missing or stolen. The representative will attempt to get the phone number and address of the caller. Dell will then contact the law enforcement agency to which you reported the missing computer.

10.8 Cleaning Your Computer


 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions in the [Safety Information](#) section of this manual.

10.8.1 Computer, Keyboard, and Display


 **CAUTION:** Before you clean your computer, disconnect the computer from the electrical outlet and remove any installed batteries. Clean your computer with a soft cloth dampened with water. Do not use liquid or aerosol cleaners, which may contain flammable substances.

 **NOTE:** A soft, lint-free cloth is provided in your notebook's ship container.

- Use a can of compressed air to remove dust from between the keys on the keyboard.

 **NOTICE:** To avoid damaging the computer or display, do not spray cleaning solution directly onto the display. Only use products specifically designed for cleaning displays, and follow the instructions that are included with the product.

- Moisten a soft, lint-free cloth with either water or a display cleaner, and wipe the display until it is clean.

 **NOTICE:** To prevent damage to the antiglare coating, do not wipe the display with soap or alcohol.


- Moisten a soft, lint-free cloth with water and wipe the computer and keyboard. Do not allow water from the cloth to seep between the touch pad and the surrounding palm rest.
- To clean your monitor screen, lightly dampen a soft, clean cloth with water. You can also use a special screen-cleaning tissue or solution suitable for the monitor's antistatic coating.
- Wipe the keyboard, computer, and monitor plastics with a soft cleaning cloth moistened with a solution of three parts water and one part dishwashing detergent.

Do not soak the cloth or let water drip inside your computer or keyboard.

10.8.2 Touch Pad

1. Shut down and turn off your computer.
2. Disconnect any attached devices from the computer and from their electrical outlets.
3. Remove any installed batteries (see "[Replacing the Battery](#)").
4. Moisten a soft, lint-free cloth with water, and wipe it gently across the surface of the touch pad. Do not allow water from the cloth to seep between the touch pad and the surrounding palm rest.

10.8.3 Mouse

 **NOTICE:** Disconnect the mouse from the computer before cleaning the mouse.

If your screen cursor skips or moves abnormally, clean the mouse.

Cleaning a Non-Optical Mouse


1. Clean the outside casing of the mouse with a cloth moistened with a mild cleaning solution.

2. Turn the retainer ring on the underside of your mouse counterclockwise, and then remove the ball.
3. Wipe the ball with a clean, lint-free cloth.
4. Blow carefully into the ball cage or use a can of compressed air to dislodge dust and lint.
5. If the rollers inside the ball cage are dirty, clean the rollers with a cotton swab moistened lightly with isopropyl alcohol.
6. Recenter the rollers in their channels if they are misaligned. Ensure that fluff from the swab is not left on the rollers.
7. Replace the ball and retainer ring, and turn the retainer ring clockwise until it clicks into place.

Cleaning an Optical Mouse


Clean the outside casing of the mouse with a cloth moistened with a mild cleaning solution.

10.8.4 Floppy Drive

 **NOTICE:** Do not attempt to clean drive heads with a swab. You might accidentally misalign the heads which prevents the drive from operating.


Clean your floppy drive using a commercially available cleaning kit. These kits contain pretreated floppy disks to remove contaminants that accumulate during normal operation.

10.8.5 CDs and DVDs

 **NOTICE:** Always use compressed air to clean the lens in the CD/DVD drive, and follow the instructions that come with the compressed-air product. Never touch the lens in the drive.

If you notice problems, such as skipping, with the playback quality of your CDs or DVDs, try cleaning the discs.

1. Hold the disc by its outer edge. You can also touch the inside edge of the center hole.

 **NOTICE:** To avoid damaging the surface, do not wipe in a circular motion around the disc.


2. With a soft, lint-free cloth, gently wipe the bottom of the disc (the unlabeled side) in a straight line from the center to the outer edge of the disc.

For stubborn dirt, try using water or a diluted solution of water and mild soap. You can also purchase commercial products that clean discs and provide some protection from dust, fingerprints, and scratches. Cleaning products for CDs are also safe to use on DVDs.

11 Troubleshooting

11.1 Dell Diagnostics


Fill out the Diagnostics Checklist (see "[Diagnostics Checklist](#)") as you complete these checks.

 **CAUTION:** Before you begin any of the procedures in this section, follow the safety instructions in the [Safety Information](#) section of this manual.

11.1.1 When to Use the Dell Diagnostics

If you experience a problem with your computer, perform the checks in "[Lockups and Software Problems](#)" and run the Dell Diagnostics before you contact Dell for technical assistance.

It is recommended that you print these procedures before you begin.

 **NOTICE:** The Dell Diagnostics work only on Dell™ computers.


 **NOTE:** The *Drivers and Utilities* CD is optional and may not ship with your computer.

Enter the System Setup Program (see “[System Setup Program](#)”), review your computer's configuration information, and ensure that the device you want to test displays in system setup and is active.


Start the Dell Diagnostics from either your hard drive or from the optional *Drivers and Utilities* CD.


11.1.2 Starting the Dell Diagnostics From Your Hard Drive

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


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

1. If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions. Ensure the computer is connected to a known good electrical outlet.
2. Turn on (or restart) your computer.
3. Diagnostics can be invoked one of two ways:
 - a. When the DELL™ logo appears, press <F12> immediately. Select Diagnostics from the boot menu and press <Enter>.

 **NOTE:** If you wait too long and the operating system logo appears, continue to wait until you see the Microsoft® Windows® desktop. Then shut down your computer and try again.

 **NOTE:** Before attempting option 'b', the computer must be powered down completely.

- b. Press and hold the <Fn> key while powering the computer on.

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

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

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


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


- Press any key to start the Dell Diagnostics from the diagnostics utility partition on your hard drive.

11.1.3 Starting the Dell Diagnostics From the *Drivers and Utilities* CD

- Insert the *Drivers and Utilities* CD.
- Shut down and restart the computer.

When the DELL logo appears, press **<F12>** immediately.


 **NOTE:** If you wait too long and the operating system logo appears, continue to wait until you see the Microsoft® Windows® desktop; then shut down your computer and try again.

 **NOTE:** The next steps change the boot sequence for one time only. On the next start-up, the computer boots according to the devices specified in the system setup program.

- When the boot device list appears, highlight **IDE CD-ROM Device CD/DVD/CD-RW Drive** and press **<Enter>**.
- Select the **Boot from CD-ROM** option from the menu that appears and press **<Enter>**.
- Type **1** to start the menu and press **<Enter>** to proceed.
- Select **Run the 32 Bit Dell Diagnostics** from the numbered list. If multiple versions are listed, select the version appropriate for your computer.
- When the Dell Diagnostics **Main Menu** appears, select the test you want to run.


11.1.4 Dell Diagnostics Main Menu

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

 **NOTE:** It is recommended that you select **Test System** to run a complete test on your computer.

Option	Function
Test Memory	Run the stand-alone memory test
Test System	Run the System Diagnostics
Exit	Exit the Diagnostics


- After you have selected the **Test System** option from the main menu the following menu appears:

 **NOTE:** It is recommended that you select **Extended Test** from the menu below to run a more thorough check of the devices in your computer.

Option	Function
Express Test	Performs a quick test of devices in the system. This typically can take 10 to 20 minutes
Extended Test	Performs a thorough check of devices in the system. This typically can take an hour or more.
Custom Test	Use to test a specific device or customize the tests to be run.

Symptom Tree	This option allows you to select tests based on a symptom of the problem you are having. This option lists the most common symptoms.
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- If a problem is encountered during a test, a message appears with an error code and a description of the problem. Write down the error code and problem description and contact Dell.

 **NOTE:** The Service Tag for your computer is located on the bottom of your system. When you contact Dell, technical support will ask for your Service Tag number.

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

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

- When the tests are completed, close the test screen to return to the **Main Menu** screen. To exit the Dell Diagnostics and restart the computer, close the **Main Menu** screen.
- Remove the Dell *Drivers and Utilities CD* (if applicable).

11.2 Dell Support Utility


The Dell Support Utility is installed on your computer and available from the Dell Support icon on the taskbar or from the **Start** button. Use this support utility for self-support information, software updates, and health scans of your computing environment.

11.2.1 Accessing the Dell Support Utility

Access the Dell Support Utility from the Dell Support icon on the taskbar or from the **Start** menu.

If the Dell Support icon does not appear in your taskbar:


- Click the **Start** button and point to **Programs**.
- Click **Dell Support** and point to **Dell Support Settings**.
- Ensure that the **Show icon on the taskbar** option is checked.

 **NOTE:** If the Dell Support Utility is not available from the **Start** menu, contact Dell.

The Dell Support Utility is customized for your computing environment.


The Dell Support icon in the taskbar functions differently when you click, double-click, or right-click the icon.

11.2.2 Clicking the Dell Support Icon

Click or right-click the  icon to perform the following tasks:

- Check your computing environment
- View the Dell Support Utility settings
- Access the help file for the Dell Support Utility
- View frequently asked questions
- Learn more about the Dell Support Utility
- Turn the Dell Support Utility off

Double-Clicking the Dell Support Icon

Double-click the  icon to manually check your computing environment, view frequently asked questions, access the help file for the Dell Support Utility, and view Dell Support settings.

For more information about the Dell Support Utility, click the question mark (?) at the top of the Dell Support screen.

11.3 Drive Problems

Fill out the Diagnostics Checklist (see "[Diagnostics Checklist](#)") as you complete these checks.



CAUTION: Before you begin any of the procedures in this section, follow the safety instructions in the [Safety Information](#) section of this manual.

ENSURE THAT MICROSOFT® WINDOWS® RECOGNIZES THE DRIVE.

Click the **Start** button and click **My Computer**. If the floppy, CD, or DVD drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.

TEST THE DRIVE

- Insert another floppy disk, CD, or DVD to eliminate the possibility that the original one is defective.
- Insert a bootable floppy disk and restart the computer.

CLEAN THE DRIVE OR DISK.

ENSURE THAT THE CD IS SNAPPED ONTO THE SPINDLE.

CHECK THE CABLE CONNECTIONS.

CHECK FOR HARDWARE INCOMPATIBILITIES.

RUN THE DELL DIAGNOSTICS — See "[Dell Diagnostics](#)".

11.3.1 Media Drive Problems



NOTE: High-speed media drive vibration is normal and may cause noise, which does not indicate a defect in the drive or the media.



NOTE: Because of different regions worldwide and different disc formats, not all DVD titles work in all DVD drives.