

About this User's Manual

This user's manual is designed to let you easily find the information you need to get the most from your notebook.

- Introduces you to the features of your notebook.
- Gives you useful details on using your notebook.
- Tells you how to look after your notebook, whether at home or traveling.
- Talks about PCI Express Card peripherals and how to use them.
- Goes into more detail about power management and explains how to conserve power while on the move.
- Introduces you to BIOS, the nervous system of your computer, and how to change its fundamental settings.

There is no need to read the manual from the beginning to end. Simply find your way to the section that interests you using the table of contents, or browse through the manual.

You will come across the following icons in this manual:



Helpful pointers and tricks to get more from your notebook



To help you note and avoid possible damage to your notebook's hardware or software, or loss of your work



Points out possible damage to property, personal injury or death

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Contents

Safety Instructions	i
Modem Regulatory Notice	v
Specifications	x

Chapter 1 Introducing Your Notebook

1.1 Front Side	1-1
1.1.1 Built-in Camera.....	1-2
1.1.2 Built-in Microphone.....	1-2
1.1.3 Display.....	1-2
1.1.4 Top Panel Buttons and LEDs.....	1-2
1.1.5 Left Panel Buttons	1-3
1.1.6 Keyboard	1-3
1.1.7 Finger Printer.....	1-3
1.1.8 Touch Pad	1-3
1.1.9 Touch Pad Buttons	1-4
1.1.10 CIR (Optional)	1-4
1.1.11 Wireless Communication Switch	1-5
1.1.12 Device Status Indicators / Power Status	1-5
1.2 Right Side	1-6
1.2.1 Optical Disc Drive	1-7
1.2.2 USB Port	1-7
1.2.3 RF-in Connector	1-7
1.2.4 S-Video in Port	1-7
1.2.5 AC Adapter Connector.....	1-8
1.3 Left Side	1-9
1.3.1 VGA Port	1-9
1.3.2 LAN Jack	1-10
1.3.3 Modem Jack	1-10
1.3.4 S-Video out Port	1-10
1.3.5 High Power USB Port.....	1-10
1.3.6 IEEE 1394 Port.....	1-10
1.3.7 New Card Slot (For PCI Express Card).....	1-10
1.3.8 Multiple Digital Media Card Slot.....	1-10
1.3.9 Audio Ports.....	1-11
1.4 Rear Side	1-12
1.5 Bottom Side	1-13
1.5.1 Battery Pack	1-14
1.5.2 Battery Release Latch	1-14

Chapter 2 Operating Your Notebook (XP)

2.1	Turning Your Notebook On and Off	2-1
2.1.1	Turning Your Notebook On	2-2
2.1.2	Turning Your Notebook Off	2-2
2.1.3	Logging Off	2-2
2.1.4	Adding User Accounts	2-3
2.1.5	Standby Mode	2-3
2.2	Tips for Using Windows	2-4
2.2.1	Microsoft Windows XP Help	2-5
2.2.2	Windows Desktop.....	2-6
2.2.3	Desktop Cleanup Wizard.....	2-7
2.2.4	Start Button.....	2-7
2.2.5	Taskbar.....	2-8
2.2.6	Notification Area (System Tray)	2-8
2.2.7	Recycle Bin	2-8
2.2.8	Control Panel.....	2-9
2.2.9	My Computer.....	2-9
2.3	Keyboard and Touch Pad	2-10
2.3.1	Numeric Keypad.....	2-11
2.3.2	Keyboard Shortcuts	2-11
2.3.3	Windows Logo Key Functions	2-12
2.3.4	StickyKeys	2-13
2.3.5	Touch Pad	2-15
2.3.6	Customizing the Touch Pad.....	2-15
2.3.7	Finger Printer.....	2-16
2.4	Personalizing Your Desktop	2-18
2.4.1	Choosing a Wallpaper	2-19
2.4.2	Choosing a Screen Saver.....	2-19
2.4.3	Choosing a Desktop Theme	2-19
2.4.4	Creating a Shortcut on the Desktop	2-19
2.5	Display	2-20
2.5.1	Adjusting the Brightness.....	2-21
2.5.2	Using an External Monitor or Television	2-21
2.5.3	Setting the Display Resolution.....	2-21
2.6	Networks	2-22
2.7	Managing Programs	2-23
2.7.1	Running Programs.....	2-24
2.7.2	Adding Software	2-24
2.7.3	Removing Software	2-25
2.8	Managing Files	2-26
2.8.1	Updating Antivirus Software	2-27

2.8.2	Backing Up Files	2-27
2.8.3	Finding Files	2-27
2.8.4	Copying a File on the Hard Drive	2-27
2.8.5	Copying a File to a Floppy Disk.....	2-28
2.8.6	Moving Files	2-28
2.8.7	Renaming Files	2-28
2.8.8	Deleting Files.....	2-28
2.8.9	Emptying the Recycle Bin.....	2-29
2.8.10	Retrieving Files From the Recycle Bin.....	2-29
2.9	Playing CDs and Movies.....	2-30
2.9.1	Inserting Discs.....	2-31
2.9.2	Adjusting the Volume.....	2-31
2.9.3	Adjusting the Picture.....	2-31

Chapter 3 Operating Your Notebook (Vista)

3.1	Turning Your Notebook On and Off	3-1
3.1.1	Turning Your Notebook On	3-2
3.1.2	Turning Your Notebook Off	3-2
3.1.3	Logging Off.....	3-2
3.1.4	Adding User Accounts	3-3
3.1.5	Sleep Mode	3-3
3.2	Tips for Using Windows.....	3-4
3.2.1	Microsoft Windows Vista Help	3-5
3.2.2	Windows Desktop.....	3-6
3.2.3	Start Button.....	3-7
3.2.4	Taskbar.....	3-8
3.2.5	Notification Area (System Tray)	3-8
3.2.6	Recycle Bin	3-9
3.2.7	Control Panel.....	3-9
3.2.8	Computer.....	3-10
3.3	Keyboard and Touch Pad	3-11
3.3.1	Numeric Keypad.....	3-12
3.3.2	Keyboard Shortcuts	3-12
3.3.3	Windows Logo Key Functions	3-13
3.3.4	Sticky Keys.....	3-14
3.3.5	Touch Pad	3-16
3.3.6	Customizing the Touch Pad.....	3-16
3.3.7	Finger Printer.....	3-17
3.4	Personalizing Your Desktop.....	3-19
3.4.1	Choosing a Wallpaper	3-20
3.4.2	Choosing a Screen Saver.....	3-20
3.4.3	Choosing a Desktop Theme	3-20

3.4.4	Creating a Shortcut on the Desktop	3-20
3.5	Display	3-21
3.5.1	Adjusting the Brightness.....	3-22
3.5.2	Using an External Monitor or Television	3-22
3.5.3	Setting the Display Resolution.....	3-22
3.6	Networks	3-23
3.7	Managing Programs.....	3-24
3.7.1	Running Programs.....	3-25
3.7.2	Adding Software	3-25
3.7.3	Removing Software	3-26
3.8	Managing Files	3-27
3.8.1	Updating Antivirus Software	3-28
3.8.2	Backing Up Files	3-28
3.8.3	Finding Files	3-28
3.8.4	Copying a File on the Hard Drive	3-28
3.8.5	Renaming Files	3-29
3.8.6	Deleting Files.....	3-29
3.8.7	Emptying the Recycle Bin.....	3-29
3.8.8	Retrieving Files From the Recycle Bin.....	3-30
3.9	Playing CDs and Movies.....	3-31
3.9.1	Inserting Discs	3-32
3.9.2	Adjusting the Volume.....	3-32
3.9.3	Adjusting the Picture.....	3-32

Chapter 4 Caring for Your Notebook

4.1	Caring for Your Notebook.....	4-1
4.1.1	Cleaning Your Notebook and Keyboard.....	4-2
4.1.2	Cleaning the Display.....	4-2
4.1.3	Cleaning the Touch Pad	4-2
4.1.4	Cleaning the CD/DVD Drive	4-2
4.1.5	Precautions	4-3
4.2	Traveling	4-4
4.2.1	Identifying Your Notebook.....	4-5
4.2.2	Packing Your Notebook	4-5
4.2.3	Setting a Password.....	4-5
4.2.4	Travel Tips	4-6
4.2.5	If Your Notebook is Lost or Stolen	4-6

Chapter 5 Peripherals

5.1	PCI Express Cards	5-1
5.1.1	PCI Express Card Types	5-2

5.1.2	Installing a PCI Express Card.....	5-2
5.1.3	Removing a PCI Express Card.....	5-3
5.2	Adding and Removing SD/MMC/MS Cards	5-4
5.3	Memory Modules.....	5-5

Chapter 6 The Power System (XP)

6.1	Power Management	6-1
6.1.1	Managing Your Notebook's Power.....	6-2
6.1.2	Power Management Modes.....	6-2
6.1.3	Power Options Properties.....	6-4
6.1.4	SpeedStep	6-6
6.2	Battery.....	6-7
6.2.1	Battery Performance.....	6-8
6.2.2	Checking the Battery Charge	6-8
6.2.3	Power Meter	6-8
6.2.4	Low-Battery Warning	6-9
6.2.5	Charging the Battery.....	6-9
6.2.6	Removing the Battery	6-9
6.2.7	Installing a Battery	6-10
6.2.8	Storing a Battery	6-10
6.2.9	Working With Extra Battery Packs.....	6-10
6.2.10	Maximizing Battery Life	6-10

Chapter 7 The Power System (Vista)

7.1	Power Management	7-1
7.1.1	Managing Your Notebook's Power.....	7-3
7.1.2	Power Management Modes.....	7-3
7.1.3	Power Options Properties.....	7-4
7.1.4	SpeedStep	7-5
7.2	Battery.....	7-7
7.2.1	Battery Performance.....	7-8
7.2.2	Checking the Battery Charge	7-8
7.2.3	Power Meter	7-8
7.2.4	Low-Battery Warning	7-9
7.2.5	Charging the Battery.....	7-9
7.2.6	Removing the Battery	7-9
7.2.7	Installing a Battery	7-10
7.2.8	Storing a Battery	7-10
7.2.9	Working With Extra Battery Packs.....	7-10
7.2.10	Maximizing Battery Life	7-10

Chapter 8 The BIOS Setup Program

8.1	Introduction	8-1
8.2	Navigating through the BIOS Setup Program.....	8-2
8.2.1	Accessing the BIOS Setup Program	8-3
8.2.2	Launching Submenus.....	8-4
8.2.3	Saving Changes and Exiting the Setup Program	8-4
8.3	The Main Menu	8-5
8.4	The Advanced Menu	8-7
8.5	The Security Menu	8-8
8.6	The TPM State Menu	8-12
8.7	The Boot Menu	8-13
8.8	The Exit Menu.....	8-14

Safety Instructions

Use the following safety guidelines to help protect yourself and your computer.

General Warnings

- Do not operate your portable computer for an extended period of time with the base resting directly on your body. With extended operation, heat can potentially build up in the base. Allowing sustained contact with the skin could cause discomfort or, eventually, a burn.
- Do not attempt to service the computer yourself. Always follow installation instructions closely.
- To avoid personal injury from electric shock or fire:
 - Completely power down the computer when replacing memory modules, cleaning the computer, its components, or chassis, or performing operations requiring similar steps. To do this, first turn the power off at the power switch, remove the battery, and then disconnect the AC adapter from the electrical outlet or from any other type of external power source, such as an external battery.
 - Do not operate the computer near water, for example, near a bathtub, kitchen sink or laundry tub, in a wet basement, by a swimming pool, or in the rain.
 - Do not connect or disconnect any cables or perform maintenance or reconfiguration of this product during an electrical storm.
 - Avoid using the wired modem or LAN during an electrical storm, as a remote risk of electric shock from lightning exists.
 - Do not push objects into the air vents or openings of your computer or accessories. Doing so can short out interior components and may cause fire or electric shock.
 - When installing memory modules, ground yourself by touching a grounded conductive surface, such as a device with a grounded plug. Avoid touching the pins and leads on the memory module or internal circuitry of the computer.
- When setting up the computer for work, place it on a level surface.
- Handle components with care. Hold a component such as a memory module by its edges, not its pins.
- If the battery pack leaks and the fluid get in your eyes, do not rub them. Instead, rinse your eyes with clean running water and immediately seek medical attention. Otherwise, eye injury may result.

- If acid leaking from the battery pack contacts your skin or clothing, immediately wash it away with running water. Otherwise, skin inflammation can occur.
- Operate the computer at the recommended temperature range of +5°C to +35°C (+41°F to +95°F). Store it at a temperature of -20°C to +60°C (+4°F to +140°F).
- Your computer shipped with plastic dummies installed in the PCMCIA or Express slot. Dummies protect unused slots from dust, metal object, or other particles. Save the dummy for use when no PCMCIA or Express Card is installed in the slot.

Power Cord & Adapter Warnings

- See the installation instructions before connecting to the power supply.
- Power cord sets for use in other countries must meet the requirements of that country. Use the appropriate AC adapter and power cord for your locale.
- If you use an extension cord with your AC adapter, ensure that the total ampere rating of the products plugged into the extension cord does not exceed the ampere rating of the extension cable.
- When using your power cord, make sure to position it around objects so it will not be cut or punctured.
- When you disconnect a cable, pull on its connector on its strain relief loop, not on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Also, before you connect a cable make sure both connectors are correctly oriented and aligned.
- Be sure that nothing rests on your AC adapter's power cable and that the cable is not located where it can be tripped over or stepped on.
- Use only the AC adapters that are approved for use with this computer. Use of another type of adapter may risk fire or explosion.
- Before you connect the computer to a power source, ensure that the voltage rating of the AC adapter matches that of the available power source.
 - 115 V/60 Hz in most of North and South America and some Far Eastern countries such as South Korea and Taiwan.
 - 100 V/50 Hz in eastern Japan and 100 V/60Hz in western Japan.
 - 230 V/50 Hz in most of Europe, the Middle East, and the Far East.
 - If you use an extension cable with your AC adapter, ensure that the total ampere rating of the products plugged in to the extension cable does not exceed the ampere rating of the extension cable.

- Place the AC adapter in a ventilated area, such as a desktop or on the floor, when you use it to run the computer or to charge the battery. Do not cover the AC adapter with papers or other items that will reduce cooling; also, do not use the AC adapter while it is inside a carrying case.
- Disconnect power cords and cables by grasping the connector, not by pulling on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Before you connect a cable, make sure both connectors are correctly aligned.
- To remove power from the computer, turn it off, remove the battery, and disconnect the AC adapter from the electrical outlet.

Battery Pack Warnings

- Do not carry a battery in your pocket, purse, or other container where metal objects (such as car keys) could short-circuit the battery terminals. The resulting excessive current flow can cause extremely high temperatures and may result in damage from burns.
- Danger of explosion may occur if battery is incorrectly replaced. Replace only with the same or equivalent type battery recommended by the manufacturer.
- Do not dispose of batteries in a fire. They may explode. Check with local authorities for disposal instructions.
- Do not use or leave the battery pack near a heat source. Heat can melt the insulation and damage other safety features, possibly leading it to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not immerse the battery pack in water or allow it to get wet. Its protective features can be damaged. Abnormal chemical reactions may occur, possibly leading it to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not crush, disassemble, puncture, or incinerate the short external contacts of a battery pack.
- Do not connect the positive (+) and negative (-) terminals with a metal object such as wire. Short-circuiting may occur leading the battery pack to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not use an apparently deformed or damaged battery pack, which may leak acid, overheat, emit smoke, burst and/or ignite.
- If the battery pack leaks, gives off a bad odor, generates heat, becomes discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the computer or charger and stop using it.

Battery Pack Disposal

- Dispose of the lithium ion battery packs at approved disposal sites only. To locate an appropriate site, contact the solid waste disposal officials where you live or look for a rechargeable battery recycling website that lists disposal locations near you.
- Do not dispose of battery packs in a fire, throw them in a trash receptacle, put them in a recycling bin not intended for their disposal, or otherwise discard them in a manner that may result in their being hazardous to the environment.

Internal Modem Warnings

CAUTION: When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- The modem cable you connect to your computer should have a minimum wire size of 26 AWG (American wire gauge) and an UL-compliant RJ-11 modular plug.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Do not plug a modem connector (RJ-11) into a network connection (RJ-45). This may damage the connector.

Modem Regulatory Notice

Federal Communication Commission PART 68 Warning

This equipment complies with Part 68 of the FCC rules. Located on the bottom side of the modem is a label that contains, among other information, the FCC Registration Number and Ringer Equipment Number (REN) for this equipment. Upon request, you must provide this information to your telephone company.

If your telephone equipment damages the telephone network, the local telephone company may temporarily discontinue your service. If possible they will notify you in advance. But, if advance notice is not practical, you will be notified as soon as possible. You will also be informed of your right to file a complaint with the FCC.

Your telephone company may make changes to facilities, equipment, operations, or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If this equipment should fail to operate properly, disconnect the equipment from the phone line to determine if it is causing the problem. If the problem is with the equipment, discontinue use and contact your dealer or vendor.

TBR21

This equipment has been approved [Council Decision 98/482/EC – “TBR21”] for pan-European single terminal connection to the Public Switched Telephone Network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, in itself, give an unconditional assurance of successful operation on every PSTN termination point. In the event of problems, you should contact your equipment supplier in the first instance.

Important Safety Instructions

Read these instructions carefully. Save these instructions for future reference.

1. Follow all warnings and instructions marked on the product.
2. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use this product near water.
4. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
5. Slots and openings in the cabinet and the back or bottom are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, do not block or cover these openings. Avoid placing the product on a bed, sofa, rug, or similar surface to prevent blocking these openings. This product should never be placed near or over a radiator or a heat register, or in an enclosure unless proper ventilation is provided.
6. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
7. Do not allow anything to rest on the power cord. Do not locate this product where people will step on the cord.
8. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed the fuse rating.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
10. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltages or other risks. Refer all servicing to qualified service personnel.
11. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid is spilled into the product.
 - c. If the product was exposed to rain or water.
 - d. If the product does not operate normally when the operating instructions are followed, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and

will often require extensive work by a qualified technician to restore the product to normal condition.

- e. If the product has been dropped or the cabinet has been damaged.
- f. If the product exhibits a distinct change in performance, indicating a need for service.

EMC Regulatory Information

This product is designed and tested to comply with the following related EMC (Electromagnetic compatibility) standards.

FCC Notice

“Declaration of Conformity Information”

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Canadian Notice (Canada Only)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulation of the Canadian Department of Communications.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Norwegian Notice (Norway Only)

For Class I equipment: In Norway, intended to be connected to CABLE DISTRIBUTION SYSTEMS, the screen of a coax cable is required to be galvanic isolated from the protective earth. The Norwegian text is that "Må kun tilkoples kabel-TV nett via galvanisk isolator."

CE Notice (European Union)

EU Declaration of Conformity

The product conforms to the following standards:

Supplementary Information: "The product complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC and/or the R&TTE Directive 1999/05/EEC."



This product is carrying the CE-Mark in accordance with the related European Directives.

BSMI Notice (Taiwan Only)

Most Compal computer products are classified by the Bureau of Standards, Meteorology and Inspection (BSMI) as Class B information technology equipment (ITE).



R 31199

This (marked on the product) indicates the product complies with the BSMI standard.

BSMI 通告 (僅限於台灣地區)

如果您在電腦的底部、側面或背面板上找到一個



標誌，則適用於以下部份

的相關規定：

此設備經測試證明符合BSMI(經濟部標準檢驗局)之乙類數位裝置的限定規定。這些限制的目的是為了在住宅區安裝時，能防止有害的干擾，提供合理的保護。此設備會產生，使用並散發射頻能量；如果未遵照製造廠商的指導手冊來安裝和使用，可能會干擾無線電通訊。但是，這並不保證在個別的安裝中不會產生干擾。您可以透過關閉和開啓此設備來判斷它是否會對廣播和電視收訊造成干擾；如果確實如此，我們建議您嘗試以下列一種或多種方法來排除干擾：

- 重新調整天線的接收方向或重新放置接收天線。
- 增加設備與接收器的距離。
- 將設備連接至不同的插座，使設備與接收器連接在不同的電路上。
- 請向經銷商或有經驗的無線電/電視技術人員查詢，以獲得幫助。

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Specifications

CPU

- Intel Mobile Penryn & Merom & Merom ICPM, FCPGA, Socket P, 3M 4M 6M L2, FSB 800/667MHz
- Micro FC-PGA package CPU

Chipset

- Intel PM965 (667/800 MHz FSB supported)
- ENE KB925 for Keyboard Controller, Battery management Unit, and RTC
- ICH8-M
- Ricoh R5C833 for 3 in 1 controller and IEEE1394 controller
- External VGA card for PM965
- Realtek ALC268 for High Definition Audio Codec with Dolby
- Broadcom BCM5787KMLG for Giga LAN

Memory

- On board with two 200-pin +1.8V DDRII SO-DIMM connector, supporting, DDR II 533/667 SDRAM memory interface design , 0MB DDR RAM on board ,Two DDR SODIMM slots Maximum memory: 2GB per slot. 4GB total
- 4MB L2 Cache on Merom CPU, 3MB or 6MB L2 Cache on Penryn CPU.
- Support 128MB/256MB VGA memory for MXM II
- Adjustable128MB UMA VGA memory share from North Bridge
- VRAM:GDDR2,up to 256MB

Display

- Supports 15.4" WXGA (1280 x 800) TFT color LCD
- Supports 15.4" WXGA+ (1440 x 900) TFT color LCD
- Supports 15.4" WSXGA+ (1680 x 1050) TFT color LCD

Keyboard

- ENE 925Q K/B controller
- 86-US/87-UK/88-JA Key; 12 function keys; 4 cursor keys
- Windows key; Application keys, 19.05mm pitch, 2.5mm stroke, H=5.1mm

Hard Disk Drive (HDD)

- SATA

- 9.5mm, 2.5" HDD Support with 80GB/120GB/160GB/200GB/250GB
- PCI Bus Master Enhanced IDE
- 5400 RPM and 7200 RPM

Optical Disc Drive (ODD)

- 5.25" 12.7mm height 24X DVD/CD-RW Combo Drive
- 5.25" 12.7mm height 8XDVD-Super Multi Drive

Pointing Device

- Touch Pad
- 4-way Scroll button

I/O Ports

- One 15 pins CRT port
- One S-video port 7-pin
- One RF-In connector
- One AV-In connector
- One MIC In
- Headphone-Out
- 90W DC-in jack for AC Adapter
- One Single-Wide New Card slot, 54mm type
- Four External USB 2.0 jacks
- One RJ-11 jack for Modem
- One RJ-45 jack for LAN
- One IEEE 1394(4 pin)
- CIR
- 3 in 1 connector

WLAN

- PCI Express base specification compliant
- 802.11 a/b/g/n: Intel WLAN card

Modem

- Internal Modem with MDC solution (MDC1.5) (optional)

Bluetooth

- Foxconn Bluetooth V2.0+EDR (Broadcom chipset)

Mini Card Organization

- One Mini card slot for WLAN
- One Mini card for TV-Tuner or 3G module
- One Mini card for Robson

NEWCARD

- One Single-Wide New Card socket
- Supports both PCI-Express Card and USB2.0 Card

Excellent Power Management Function

- Suspend to RAM or Suspend to Disk mode, by time out or by hot key
- HDD Local Standby mode by time out
- LCD Local Standby mode by time out
- Low battery alarm (beep)
- Auto-backlight off when LCD cover closed
- Full ACPI 1.0B supported
- LCD Auto-DIM mode by time out

Easy Buttons

- Power button
- Empowering Button
- Internet Button
- E-mail button
- Wireless On/Off Button
- Bluetooth On/Off Button
- Arcade button

AC Adapter

- Universal AC adapter. 100-240V AC, 50-60Hz
- 90W with 19V DC output
- 3 pin type for AC-in

Memory Card & SO-DOMM Socket

- 3-in-1 Card Reader (MS, SD, MMC)
- Push-push type, with dummy card

- Ricoh R5C833 Card reader controller

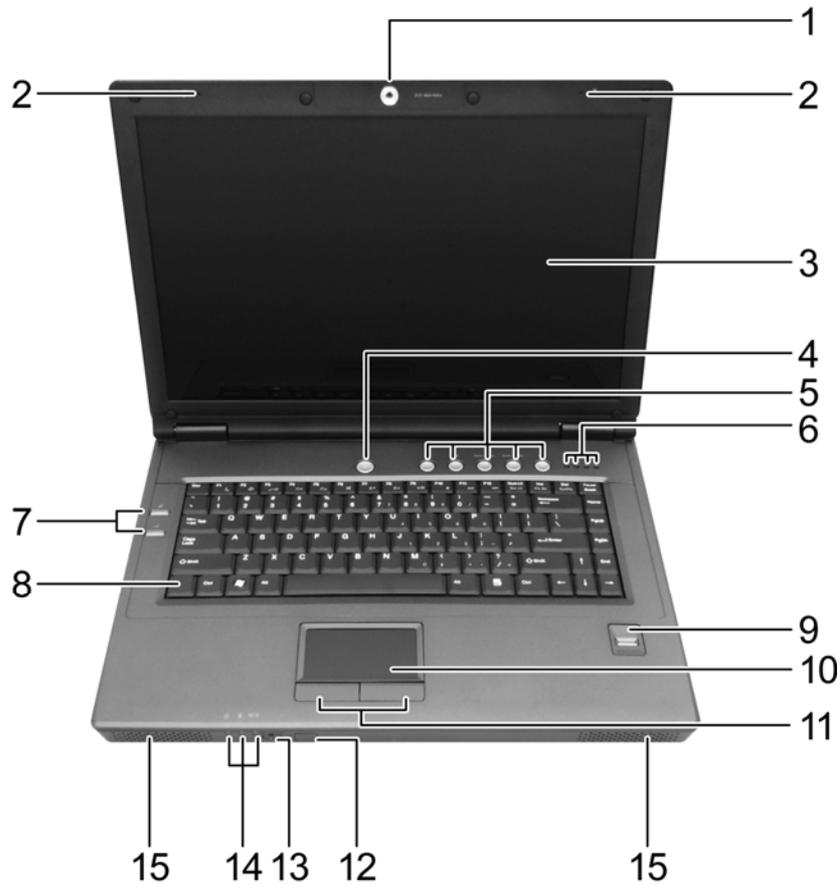
Options

- 256MB/512MB/1024MB/2048MB SO-DIMM modules
- MINI Card Wireless LAN module
- MINI Card TV-Tuner module
- MDC V1.5 Modem
- Bluetooth module
- Dual-Band builds in Antenna for Wireless LAN Communication

Chapter 1
Introducing Your Notebook

1.1 Front Side

The following picture shows the front side of the notebook.



1	Built-in Camera	9	Finger Printer
2	Built-in Microphone	10	Touch Pad
3	Display	11	Touch Pad Buttons
4	Power Button	12	Consumer Infrared Receiver (optional)
5	Easy Buttons	13	Wireless Communication Switch
6	Status LEDs	14	Device Status Indicators/Power Status
7	Power USB / Q-Charging Buttons	15	Internal Speakers
8	Keyboard		

1.1.1 Built-in Camera

The built-in camera supports a 2.0 mega pixel CMOS web camera.

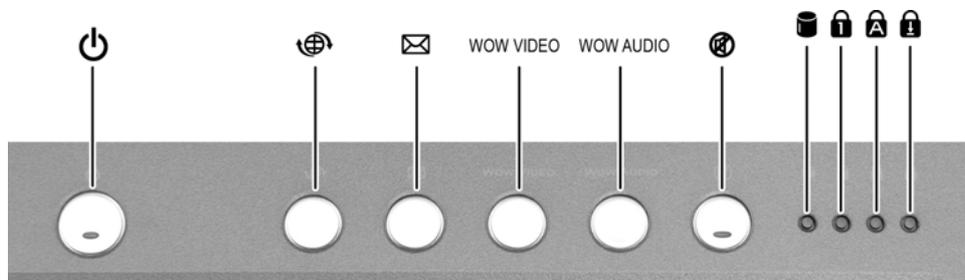
1.1.2 Built-in Microphone

The built-in microphone allows you to communicate without connecting an external microphone.

1.1.3 Display

Your display is either a 15.4" COLOR TFT WXGA, WXGA+, or WSXGA+ LCD.

1.1.4 Top Panel Buttons and LEDs



- Power Button:

-  Press to turn your notebook on. For more on power settings, see 6.1 Power Management (XP) or 7.1 Power Management (Vista).



Windows XP or Vista, which comes preinstalled, goes into the shutdown sequence automatically if you press the power button while on.

*In Windows XP, you can configure this in **Control Panel > Power Options > Advanced**.*

*In Windows Vista, you can configure this in **Control Panel > System and Maintenance or Hardware and Sound > Power Options > Change plan settings > Change advanced power settings**.*

- Easy Buttons:

The notebook offers these buttons for quick launch programs and functions.

	Internet access button
	Email button
Wow Video Wow Audio	Wow Video/Audio
	Mute button

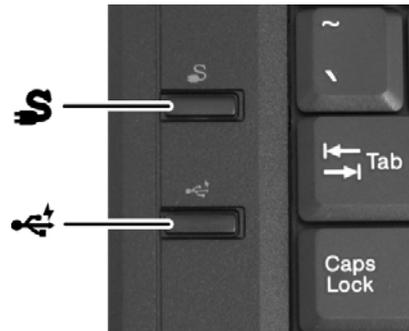
- Keyboard Indicators:

	HDD access indicator
	Num Lock On/Off indicator
	Caps Lock On/Off indicator
	Scroll Lock On/Off indicator

1.1.5 Left Panel Buttons

USB Buttons

	Q-Charging button
	Power USB button



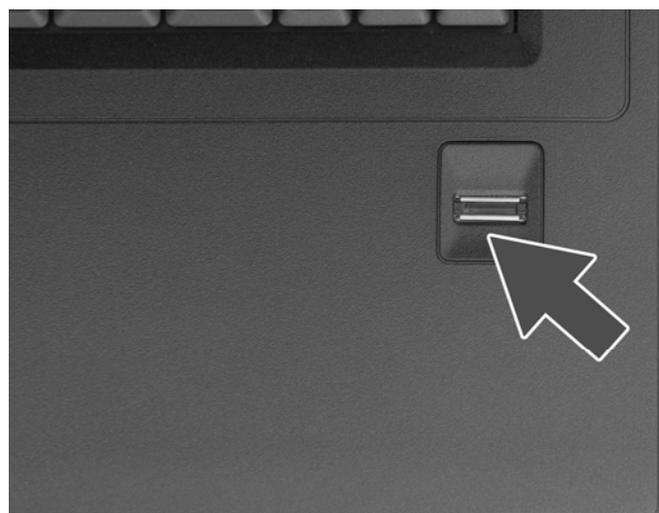
1.1.6 Keyboard

The keyboard includes a numeric keypad and the Microsoft® Windows® logo key.

See **2.3 Keyboard and Touch Pad (XP)** or **3.3 Keyboard and Touch Pad (Vista)** for details on using keyboard shortcuts.

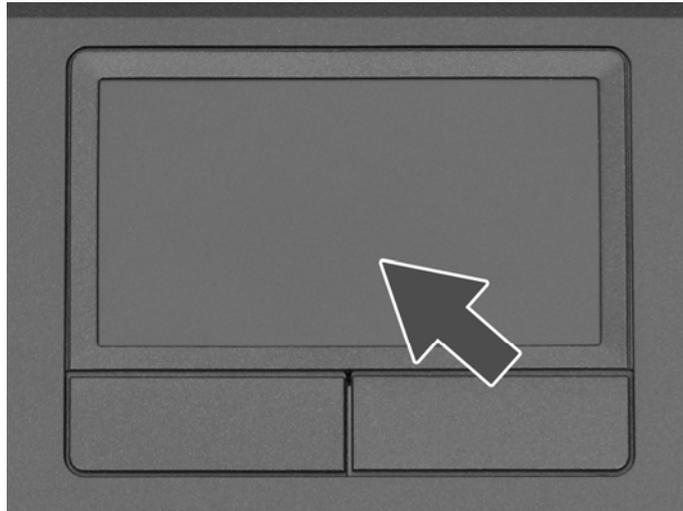
1.1.7 Finger Printer

The finger printer allows you to enroll the computer with registered fingerprint. This recognition device helps prevent unauthorized access by others. For more information, see **2.3.7 Finger Printer (XP)** or **3.3.7 Finger Printer (Vista)**.



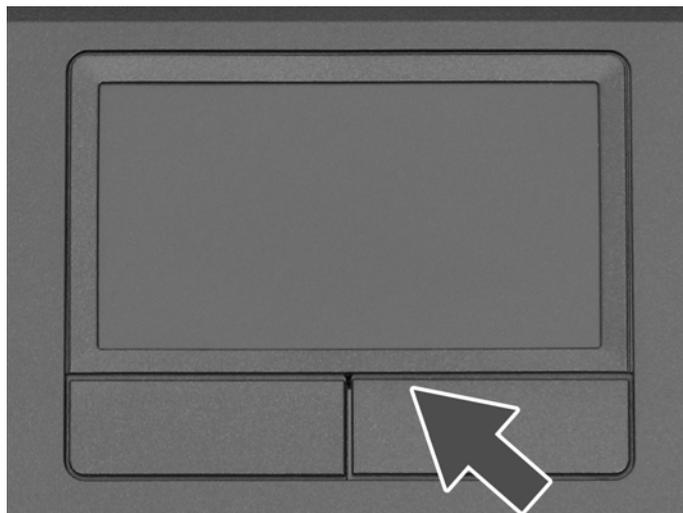
1.1.8 Touch Pad

The touch pad works like a desktop mouse. For more information, see **2.3 Keyboard and Touch Pad (XP)** or **3.3 Keyboard and Touch Pad (Vista)**.



1.1.9 Touch Pad Buttons

The left and right touch pad buttons perform the same functions as the left/right buttons of a standard mouse.



1.1.10 CIR (Optional)

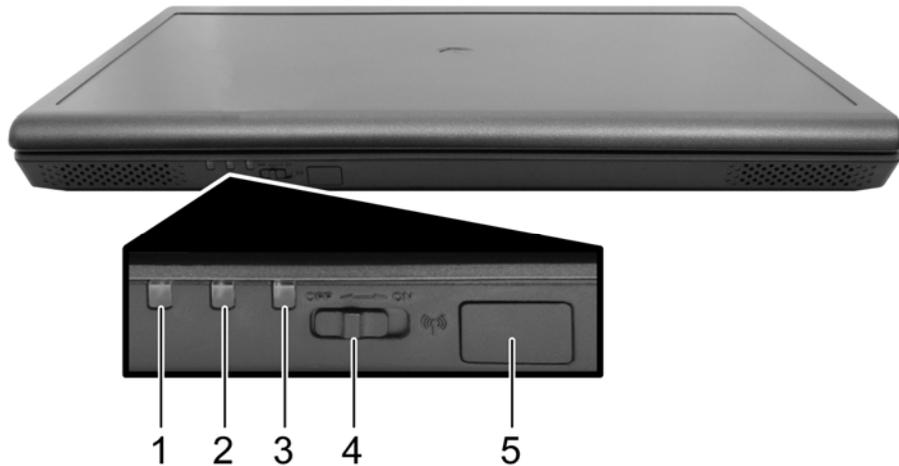
The CIR is an infrared receiver, which allows your notebook to work with a remote control to create a TV/ Multimedia environment (Power Cinema). Make sure you position the remote accurately so that the CIR can receive the signal.

1.1.11 Wireless Communication Switch

Turns the wireless communication function on or off. The wireless communication LED on the front panel lights when the function is activated.

1.1.12 Device Status Indicators / Power Status

The LEDs on the front of notebook indicate the device and power status.



1	Power On (Blue)
2	Battery Charge (Blue/Amber)
3	Bluetooth (Amber)/Wireless (Blue)
4	Wireless Communication Switch
5	Consumer Infrared (CIR) (optional)

The flashing Power On LED indicates the notebook is in standby mode.

For detailed battery status, see **6.2 Battery (XP)** or **7.3 Battery (Vista)**.

1.2 Right Side

The following picture shows the right side of the notebook.



1	Optical Disc Drive
2	USB Ports
3	AC Adapter Connector

1.2.1 Optical Disc Drive

The optical disc drive provides a means for you to import/export data into/from your computer. Depending on the configuration of your computer, you may either be able to record or play CDs/DVDs.

1.2.2 USB Port



Use this port to connect a USB device, such as a mouse, external keyboard, or printer to the computer.



USB is a peripheral expansion standard that supports data-transfer rates up to 480 Mbps. USB peripherals have a single standard for cables and connectors. You can install and remove USB devices while the computer is on. This is called "hot swapping".

1.2.3 RF-in Connector



Use this port to connect an antenna set. See 1.1.3 Display.

1.2.4 S-Video in Port



The S-Video in port allows you to connect a video output device, like a VCR, TV, camcorder or device which has S-video port, to the notebook.

1.2.5 AC Adapter Connector

- ■ ■ Use this connector to attach the AC adapter to your notebook. You can connect an AC adapter when your notebook is switched on or off.



- ⚡ *While the AC adapter works with electrical outlets worldwide, power connectors and power strips vary by country. Ensure you use a compatible cable or correctly connect the cable to the power strip or electrical outlet. Failure to do so may cause fire or damage to equipment.*

1.3 Left Side

The following picture shows the left side of the notebook.



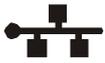
1	VGA Port
2	LAN Jack (Green/Amber)
3	Modem Jack
4	S-Video out Port
5	High Power USB Ports
6	IEEE 1394 Port
7	New Card Slot
8	Multiple Digital Media Slot
9	Microphone Jack
10	Headphone Jack

1.3.1 VGA Port



Use this port to connect an external monitor to your computer. See 1.1.3 Display.

1.3.2 LAN Jack



The RJ-45 network jack allows you to connect your notebook to a local area network (LAN).



Be careful not to plug the telephone line into the slightly larger network connector.

1.3.3 Modem Jack



The modem jack allows you to connect the notebook to a telephone line with a standard RJ-11 connector.

1.3.4 S-Video out Port



The S-Video out port allows you to connect an external display device, like a TV set or device which has S-video port, to the notebook.

1.3.5 High Power USB Port



High-power USB ports can provide power for devices that draw more than 100mA from the bus line, such as cameras and external hard disks.

1.3.6 IEEE 1394 Port



The IEEE 1394 port allows you to connect devices that utilize IEEE 1394 technology to your computer. This technology is widely used in consumer products such as digital cameras.

1.3.7 New Card Slot (For PCI Express Card)

Supports 54mm type PCI Express Card. For more information, see **5.1 PCI Express Cards**.

1.3.8 Multiple Digital Media Card Slot

Supports one SD/MMC/MS card, which is used in digital still camera and various forms of portable information equipment.

1.3.9 Audio Ports

You can connect a headphone or an external speaker to the  port and a microphone to the  port. The built-in speakers are disabled when a device is connected to the  port.

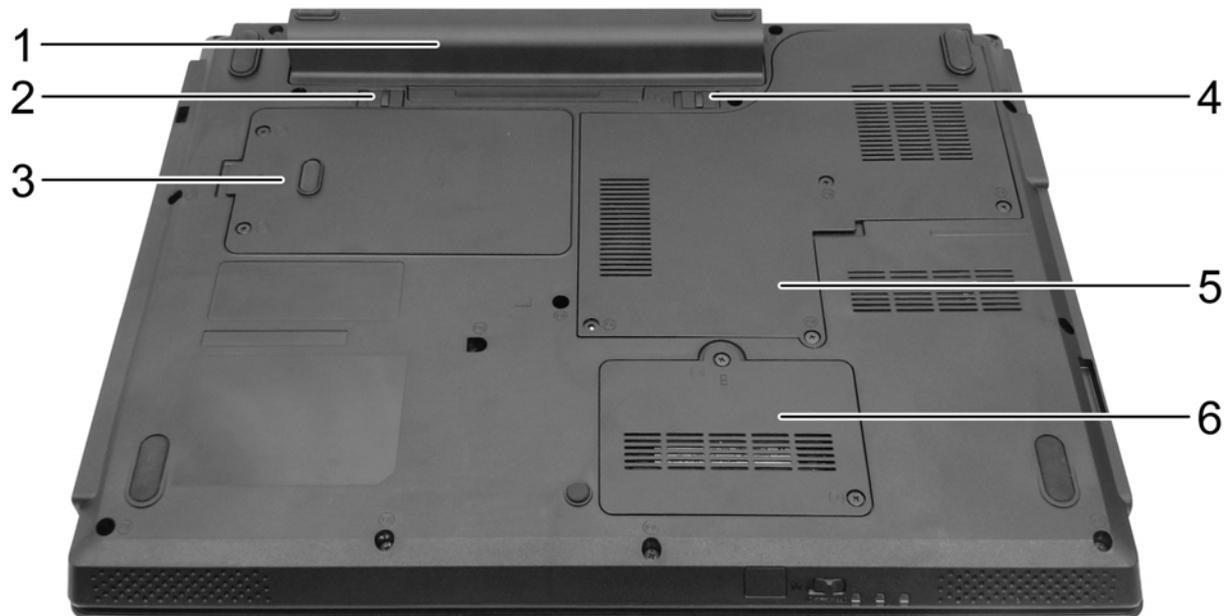
1.4 Rear Side

The following picture shows the rear side of the notebook.



1.5 Bottom Side

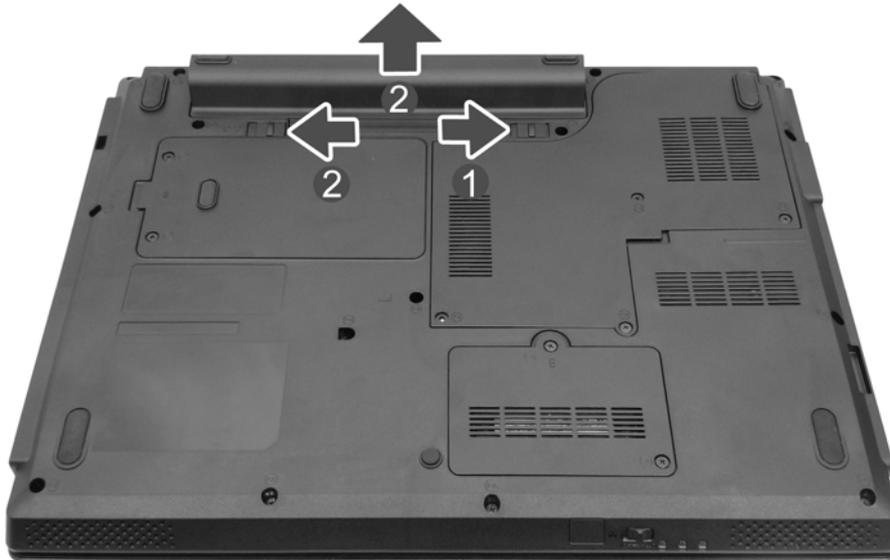
The following picture shows the bottom side of the notebook.



1	Battery Pack
2	Battery Release Latch
3	HDD Cover
4	Battery Lock Switch
5	Thermal Cover
6	Memory Module Cover

1.5.1 Battery Pack

With a charged battery pack installed, you can use your notebook without connecting it to an electrical outlet. For more details, see **6.2 Battery (XP)** or **7.3 Battery (Vista)**.



To remove the Battery Pack:

1. Move the Battery Lock Switch to the right (Unlock position).
2. Slide the Battery Release Latch to the left and gently pry the Battery Pack from the computer chassis.

1.5.2 Battery Release Latch

The Battery Release Latch secures the battery pack. To release, slide the latch and then remove the battery pack from the bay.

Chapter 2
Operating Your Notebook (XP)

2.1 Turning Your Notebook On and Off

- Turning Your Notebook On
- Turning Your Notebook Off
- Logging Off
- Adding User Accounts
- Standby Mode

2.1.1 Turning Your Notebook On



*You can configure the computer to start from a specific drive, such as a CD-ROM, an external floppy disk, or even an external device. See 8.7 **The Boot Menu**.*

Press the power button  to turn on your notebook.



Do not turn off the computer until the operating system has loaded completely. Turning the computer off during its initial startup will result in an error the next time you start your notebook.

2.1.2 Turning Your Notebook Off



If your notebook uses Microsoft Windows XP Professional operating system, the security and networking features are not available in Windows XP Home Edition. You will see different options in some windows, related to security and networking.

Save and close any open files, exit any open programs.

Click **Start > Turn Off Computer > Turn Off**.

Your notebook will automatically turn off after the shutdown process is finished.



*You can configure Windows XP to shut down or go into sleep mode by pressing the power button. Open the **Control Panel > Power Options > Advanced** dialog box to do this.*

2.1.3 Logging Off

With Microsoft Windows XP, multiple users can access a single computer with their own, personal settings. Using their own password, each user logs on to the computer, meaning other users cannot access their settings or files. To log off:

Save and close any open files, exit any open programs, click **Start > Log Off > Log Off**.

To switch users, click **Start > Log Off > Switch User**.

Using **Fast User Switching**, programs executed by previous users remain running in the background. This means a possible slower computer response. It may also stop multimedia programs, including games and DVD software, from running.



***Fast User Switching** does not work if your notebook is running Windows XP Professional and is a member of a computer domain or if the notebook has less than 128 MB of memory.*

You can set up Fast User Switching in the Control Panel dialog box, under User Accounts: Change the way users log on or off.

2.1.4 Adding User Accounts



Different account options are available when a computer is running Windows XP Professional operating system and is connected to a domain.

With Windows XP installed, the system administrator or a user with administrator rights can create additional user accounts:

1. Click **Start > Control Panel > User Accounts**.
2. Under **Pick a task**, click **Create a new account**.
3. Under **Name the new account**, enter the name of the new user. Click **Next**.
4. Under **Pick an account type**, choose one of the following options:
 - **Computer administrator**: User can change all computer settings.
 - **Standard (Windows XP Professional only)**: User can install some programs and hardware.
 - **Limited**: User can only change his own personal settings, such as the password. User is not able to install programs or use the Internet.
5. Click **Create Account**.

2.1.5 Standby Mode

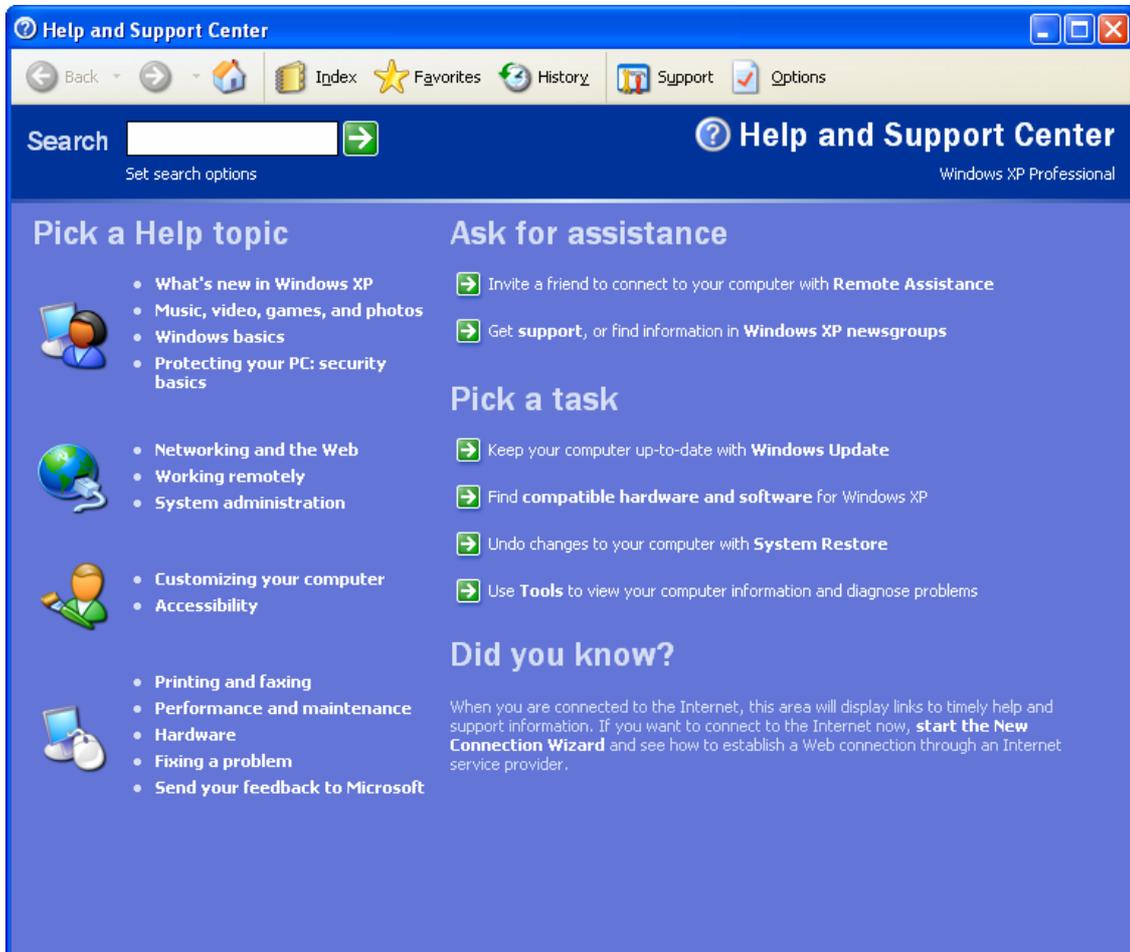
To find out how to conserve power using the Standby Mode, see **6.1 Power Management**.

2.2 Tips for Using Windows

- Microsoft Windows XP Help
- Windows Desktop
- Desktop Cleanup Wizard
- Start Button
- Taskbar
- Notification Area (System Tray)
- Recycle Bin
- Control Panel
- My Computer

2.2.1 Microsoft Windows XP Help

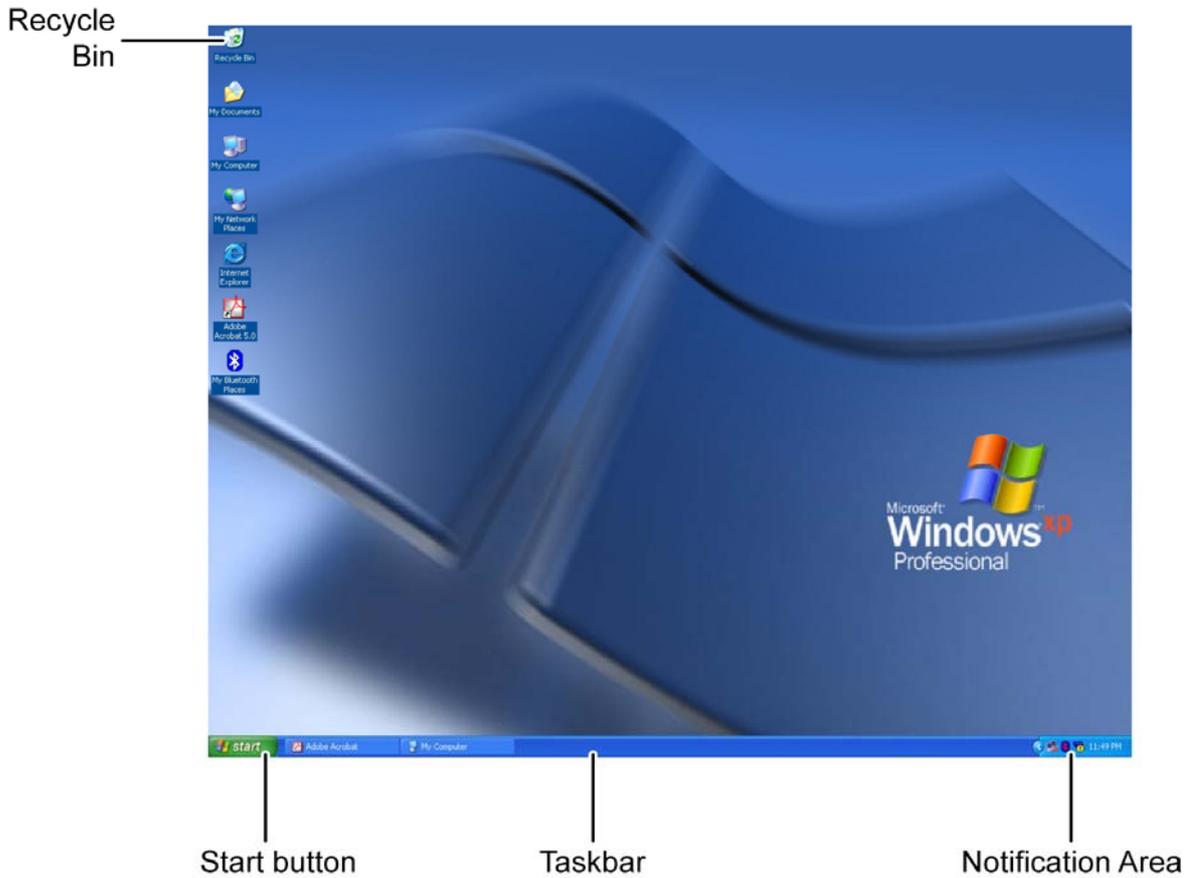
For Microsoft Windows XP help, click the **Start** menu then click the **Help and Support** icon. The Help and Support Center dialog box opens.



2.2.2 Windows Desktop



*Depending on your notebook setup and software, your desktop may have different or additional shortcuts. See **2.4 Personalizing Your Desktop** for more information.*



2.2.3 Desktop Cleanup Wizard

The Desktop Cleanup Wizard moves icons for programs not frequently used to a folder 7 days after you first start your notebook and every 60 days after that.

The Start menu's appearance changes as program icons are moved. To turn off the Desktop Cleanup Wizard:

Right-click an empty spot on your desktop > **Properties** > **Desktop** > **Customize Desktop** > click **Run Desktop Cleanup Wizard every 60 days** to remove the check mark > **OK**.

The Desktop Cleanup Wizard can be run any time by clicking **Clean Desktop Now** under **Desktop cleanup**.

2.2.4 Start Button

The **Start** button allows easy access to your notebook's programs.



The **Start** menu is designed to show the programs you use most frequently. To always keep an item on the **Start** menu, no matter how often it's used, right-click the item and click **Pin to Start menu**.

Log Off allows the current user to log off so a new user can log on to the notebook using his personal settings.

Turn Off Computer provides options for turning off, restarting, and placing your notebook in power saving modes. If your notebook is running Windows XP Professional and is connected to a domain, different options appear in the **Shut Down** window.

2.2.5 Taskbar

The **Start** button is on the left and the notification area on the right. Each time you open a program, a button for it appears on the taskbar. To toggle taskbar buttons, click the relevant button. Windows XP groups multiple instances of the same program on a single taskbar button if more space is needed.

Toolbars can be added to or removed from the taskbar:

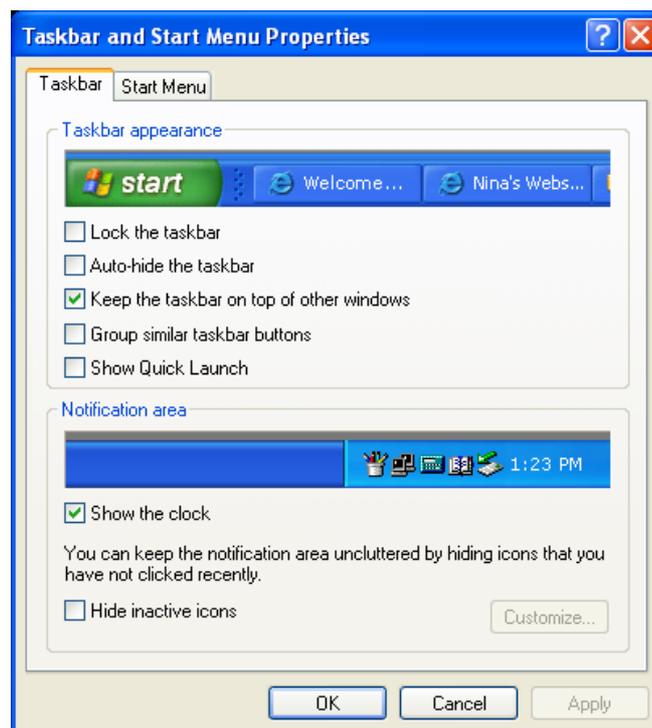
Right-click an empty spot on the taskbar, and select **Toolbars > choose the toolbar you want to add**.

2.2.6 Notification Area (System Tray)

The icons in this area allow quick access to programs and computer functions, including the clock and printer status. Windows XP hides icons that are not used frequently. Click  to see hidden icons.

To prevent Windows XP from hiding icons:

Right-click an empty spot on the **Taskbar > Properties >** ensure that **Hide inactive icons** is not checked.



2.2.7 Recycle Bin

Recycle Bin

When you delete a file, it is moved to the **Recycle Bin**. Files can be restored from the **Recycle Bin**.

Emptying the **Recycle Bin** deletes files permanently.

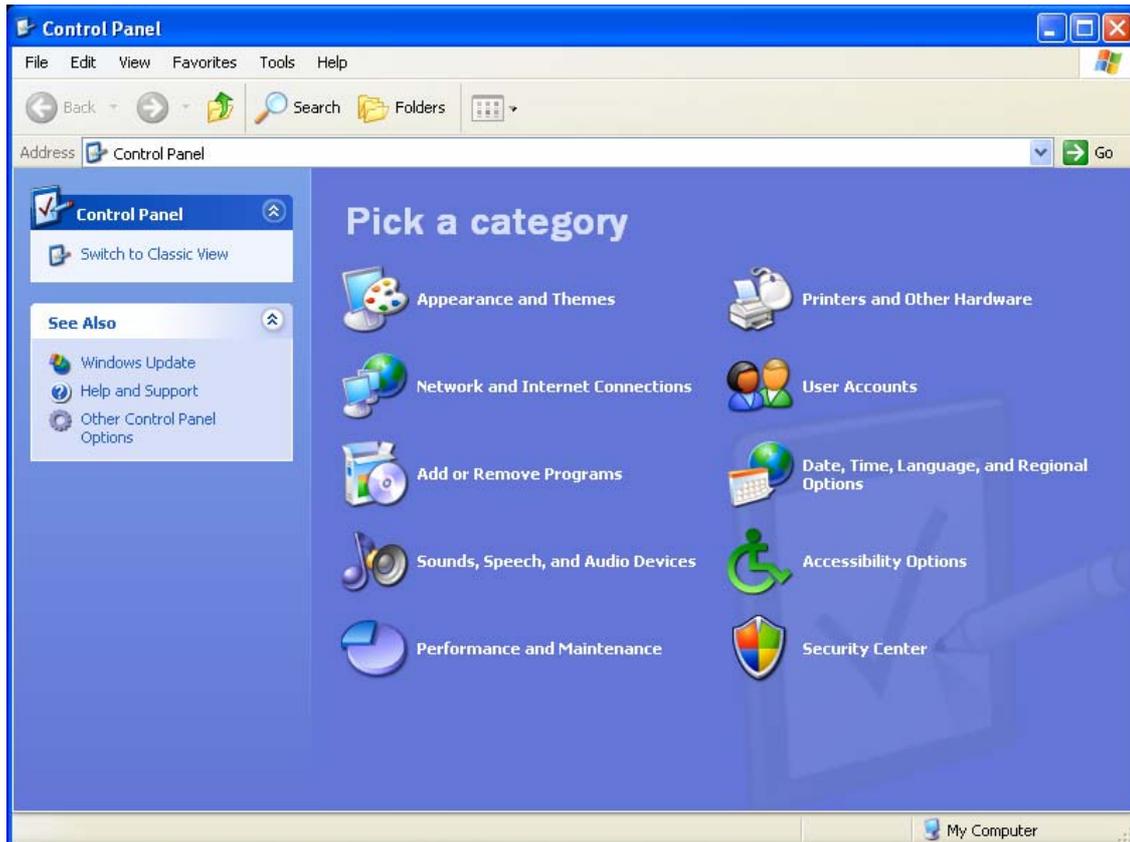
2.2.8 Control Panel

In the **Control Panel**, you can change how Windows looks and works.

Click the **Start** button and then **Control Panel**.

There are two interfaces - you can choose either **Classic View** or **Category View**. You can switch interfaces in the upper left hand of the **Control Panel** window.

Under **Pick a category**, choose the category of the task you wish to complete, and then choose the task in the next window.



2.2.9 My Computer

My Computer allows you to see the disk drives and other external devices connected to your notebook. The **My Computer** icon appears on your Desktop. To see the contents of a drive or folder, open **My Computer** then double-click the icon for the drive or folder you want to view (for example, drive C).



*You can also use **Windows Explorer** to see the contents of your notebook and find files. To open **Windows Explorer**, right-click the **Start** button and click **Explore** to find the drive or folder that you want to view. To find out more about **My Computer** and **Windows Explorer**, see **Help and Support Center**.*

2.3 Keyboard and Touch Pad

- Numeric Keypad
- Keyboard Shortcuts
- Windows Logo Key Functions
- StickyKeys
- Touch Pad
- Customizing the Touch Pad
- Finger Printer

2.3.1 Numeric Keypad

Keypad numbers and symbols are marked in blue on the lower right edge of the keypad keys.

To enable the numeric keypad, press .

The  indicator will light when the numeric lock is on.

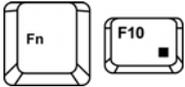
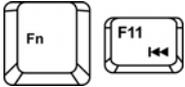
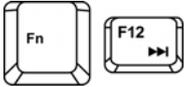
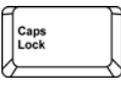
To disable the numeric keypad, press  again.

To use the primary function of a dual-function key when the numeric keypad is enabled,

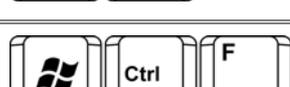
press  and the desired key.

2.3.2 Keyboard Shortcuts

 	Sleep
 	Wireless/Bluetooth On/Off To enable this function, you need to install Wireless Select Switch.
 	Switches Display Mode (LCD > CRT > TV > LCD + CRT Simultaneous > LCD+TV Simultaneous). Switches the video image to the next display or both displays simultaneously.
 	Brightness Down
 	Brightness Up
 	Mute
 	Audio Volume Down
 	Audio Volume Up
 	Play/Pause

	Stop
	Fast Rewind
	Fast Forward
	Number Lock
	Scroll Lock
	Caps Lock

2.3.3 Windows Logo Key Functions

	Opens Windows Explorer
	Opens the Run dialog box
	Opens the Search Results dialog box
	Opens the Search Results - Computers dialog box (when your notebook is connected to a network)
	Opens the System Properties dialog box

To adjust keyboard operation, including character repeat rate, in the **Control Panel** click **Printers and Other Hardware > Keyboard**.

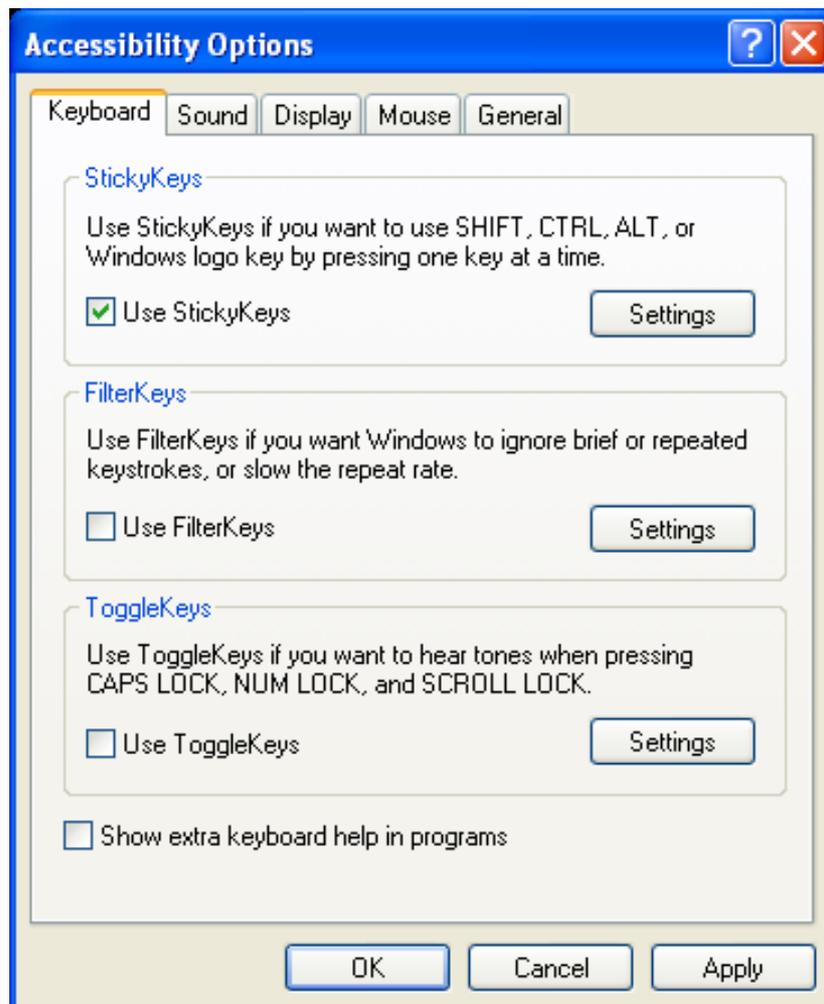
2.3.4 StickyKeys

The StickyKeys function lets you use the SHIFT, CTRL, ALT, FN keys or the Windows logo key (referred to as modifier keys) in conjunction with other keys by pressing one key at a time instead of simultaneously.

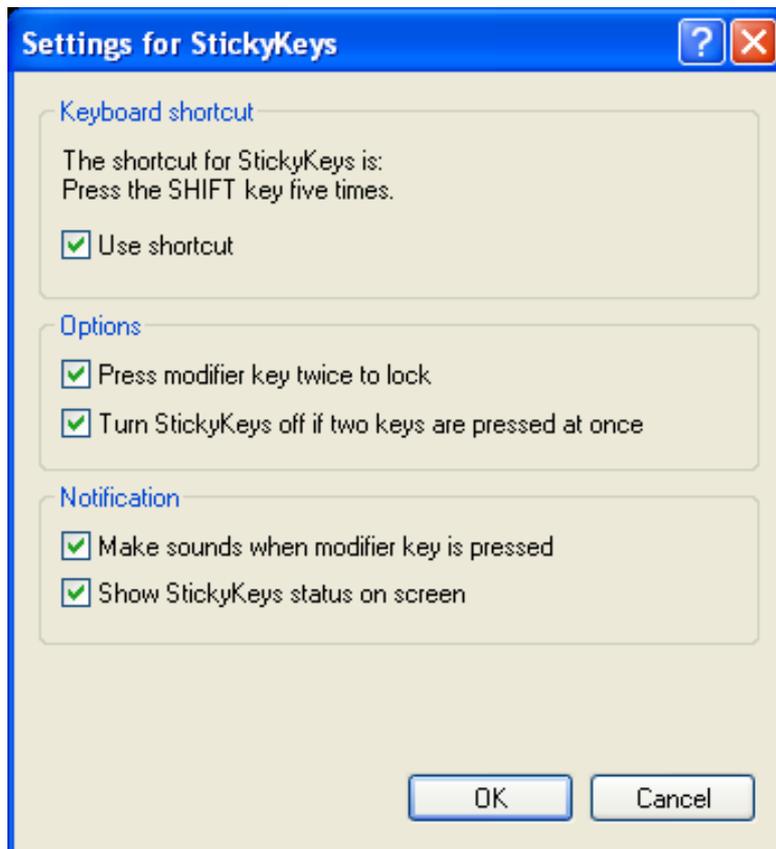
To activate StickyKeys mode, press the Shift key five times and then click **OK**.



Alternatively, you can click on **Start > Control Panel > Accessibility Options** and check **Use StickyKeys** before clicking **OK**.



To further customize **StickyKeys**, click **Settings** in either of the above dialogue boxes. The following dialogue box will appear.



Click **Use shortcut** to enable the listed shortcut to activate StickyKeys mode.

By checking **Press modifier key twice to lock**, pressing the **SHIFT, CTRL, ALT, FN** or the Windows logo key twice will 'lock' the key until it is pressed again. This allows you to perform multiple commands with these keys in succession without having to press the modifier key again each time.

Check **Turn StickyKeys off if two keys are pressed at once** to have StickyKeys automatically disable whenever any two keys are pressed simultaneously.

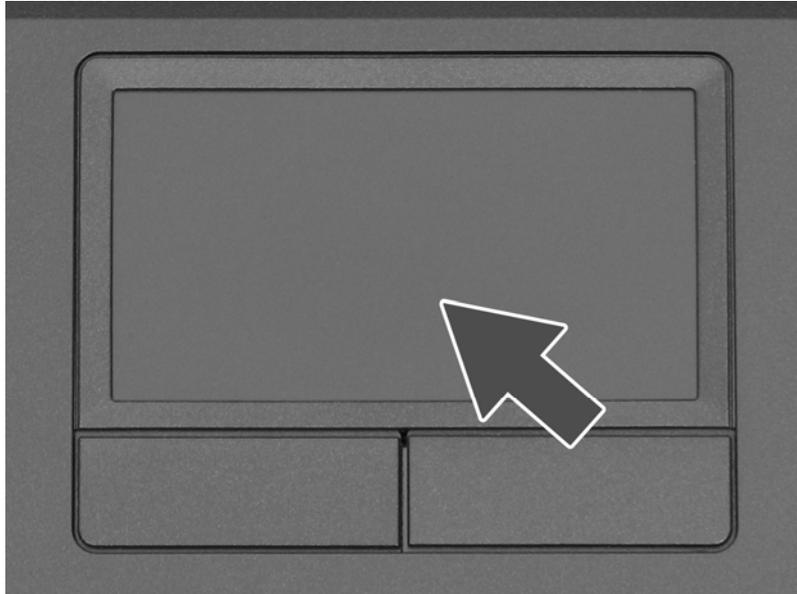
If **Make sounds when modifier key is pressed** is checked, a tone will be heard each time a modifier key is pressed. Different tones are heard when activating and deactivating modifier keys.

Check **Show StickyKeys status on screen** to display the StickyKeys icon in your toolbar whenever the StickyKeys mode is activated. The icon will change to indicate which modifier key, if any, is currently active.

Click on **OK** to confirm your changes, or **Cancel** to exit the dialogue box without making any changes.

2.3.5 Touch Pad

The Touch Pad responds to the movements and pressure of your finger, allowing you to move the cursor around the screen, in the same way you would with a mouse.



Place your fingers on the keyboard in the normal typing position.

You can use the Touch Pad by moving either your right or left thumb off the space bar and on to the Touch Pad.

Gently move your thumb across the Touch Pad in the direction you want the cursor to move.

The Touch Pad buttons have the same function as mouse buttons. Clicking these buttons makes selections, drags objects, or performs a variety of other functions depending on the software. To select an object, first move the pointer over the object you want to select, and then press the left button one time and release it. The functionality of these buttons depends on your software.

Double-clicking is a common technique for selecting objects or launching programs.

You may also select object or execute applications from icons by double tapping. This is similar to double-clicking; instead of pressing the Touch Pad buttons, you tap the Touch Pad itself.

2.3.6 Customizing the Touch Pad

To adjust Touch Pad settings, use the Mouse Properties window, which you can open by clicking **Control Panel > Printers and Other Hardware > Mouse**.

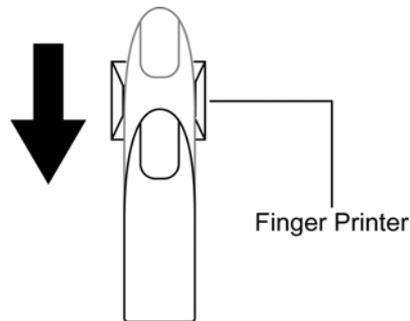
Select the desired settings and click **Apply**.

Click **OK** to save the settings and close the window.

2.3.7 Finger Printer

The finger printer lets you log on to your computer instead of inputting passwords from the keyboard.

To raise the recognition success rate, the following illustrations show the correct way to swipe your finger over the finger printer.



Align your fingertip with the finger printer as shown in the drawing and swipe.

To reduce the damage to the finger printer and fingerprint recognition problems, follow these guidelines when using the finger printer.

- Do not scratch or poke the finger printer with your nails or any hard or sharp objects.
- Do not press the finger printer strongly.
- Do not touch the finger printer with a wet finger or any wet objects. Keep finger printer surface dry and free of water vapor.
- Do not touch the finger printer with a soiled finger. Minute foreign particles on a soiled or dirty finger may scratch the finger printer.
- Do not paste stickers or write on the finger printer.
- Do not touch the sensor with a finger or any object with built-up static electricity.

2.3.7.1 Delete the Finger Printer Data

Saved fingerprint data is stored in the non-volatile memory inside the finger printer. Fingerprint data are recommended to delete before you hand over the computer the others, or dispose of it.

To delete the fingerprint data, do the following:

1. Click **Start > All Programs > Protector Suite QL > Control**.
2. The **Protector Suite Software** screen is displayed.
3. Click **Fingerprints > Delete**.
4. Click **Settings > Fingerprint Storage Inspector**.
5. The **Fingerprint Storage Inspector** screen is displayed. If other fingerprint data is still displayed on the list. Select all fingerprint data and click **remove**.
6. Check whether all fingerprint data was deleted on the **Fingerprint Storage Inspector** screen.

2.4 Personalizing Your Desktop

- Choosing a Wallpaper
- Choosing a Screen Saver
- Choosing a Desktop Theme
- Creating a Shortcut on the Desktop

2.4.1 Choosing a Wallpaper

To make your notebook reflect your style, you can set background colors, patterns, and the wallpaper on the desktop.

Control Panel > Appearance and Themes > Pick a task > Change the desktop background.

The **Display Properties** window offers a choice of wallpapers. Choose the name of the wallpaper you want to display, or choose (**None**) if you prefer not to use a wallpaper image.

You can also choose your own images by choosing **Browse**, and specifying images in a directory.

The Position pull-down menu lets you either **Tile** your selected image, **Center** (places one copy of the image in the center of the screen) or **Stretch** (enlarges it to fit the screen).

To accept the settings, click **OK** and close the **Display Properties** window.

2.4.2 Choosing a Screen Saver

Control Panel > Appearance and Themes > Pick a task > Choose a screen saver.

Select a screen saver from the Screen saver pull-down menu, or choose (**None**) if you prefer not to activate a screen saver.

You can customize your screen saver by choosing **Settings**. To check your selections, click **Preview**.

To accept the settings, click **OK** and close the **Display Properties** window.

2.4.3 Choosing a Desktop Theme

Desktop themes change the appearance of your desktop and add sound effects:

Control Panel > Appearance and Themes > Pick a task > Change the computer's theme.

Select a theme from the Theme pull-down menu in the **Display Properties** Window, and then click **OK**.

2.4.4 Creating a Shortcut on the Desktop

A shortcut is an icon that is placed on the desktop let you quickly access programs, files, folders, and drivers. To create a shortcut:

Open **My Computer** or **Windows Explorer**, and highlight the file or program for which you want to create the shortcut.

Click and hold down the right Touch Pad button, drag the highlighted item to the Windows desktop, and then release the right Touch Pad button to display a pop-up menu.

Click **Create Shortcuts Here**.

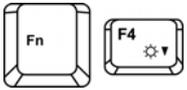
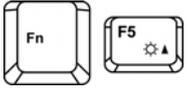
An icon appears on your desktop - double-click to activate the shortcut.

2.5 Display

- Adjusting the Brightness
- Using an External Monitor or Television
- Setting the Display Resolution

2.5.1 Adjusting the Brightness

To conserve power when running your notebook from the battery, set the brightness to the lowest comfortable setting using the keyboard shortcuts.

	Brightness Down
	Brightness Up

2.5.2 Using an External Monitor or Television

When you start your notebook with an external display device such as an external monitor or television attached and turned on, the image may appear on either the display or the external device.

Alternatively, you can press  to switch the video image to the display only, the display and the external device simultaneously, or the external device only.

2.5.3 Setting the Display Resolution

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

Before changing any of the original display settings, note the original settings for future reference.

Click **Start > Control Panel > Pick a category > Appearance and Themes**.

Under **Pick a task...**, click **Change the screen resolution**, or under **or pick a Control Panel icon**, click **Display** and select **Settings** tab.

You can try different settings for Screen resolution and Color quality.

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

2.6 Networks

To access a network:

At the office, you can access a network via the built-in PCI-E LAN.

For specific information about connecting to the LAN or WAN, consult your systems administrator.

If you are working at home or while traveling, you need a dial-up connection. Ask your system administrator for the telephone number of the network.

To set up the connection, go to **Start > Control Panel > Network and Internet Connections** (in Classic Interface, **Network Connections**).

Enter the details for your connection and click **OK**.

2.7 Managing Programs

- Running Programs
- Adding Software
- Removing Software

2.7.1 Running Programs

Programs are any software that process data - like a word processing program or an email program. They require an operating system - like Windows XP - to run on.

To run a program, click **Start > Programs**.

Click the program you want to run.

On the right side of the title bar in the window of any open program,

there are three icons:



 minimizes the program window. That is, it is removed from the screen, but is still running. It will appear as a tab on your bottom taskbar. To restore the program window, simply click the tab.

 maximizes the window to fill your entire screen. When the window is maximized, the button switches to , which will reduce the size of the window when clicked.

 closes the program or document.

2.7.2 Adding Software

To check what software is already installed on your computer, click **Start > All Programs**. If a program is listed in the **All Programs** menu or the **Start** menu, the software is already installed.

Before installing software, check the software's technical requirements to ensure that it is compatible with your notebook and that there is enough memory and hard drive space for installation and operation.

Temporarily disable your notebook's antivirus software before installing software. See the documentation that came with the antivirus software for detailed procedure.



Be sure to enable your antivirus software once you have installed any new software.

Insert the software installation CD into the CD drive and follow the instructions that came with the software to help you respond to the prompts on the screen.

If the software installation CD does not automatically run, click **Start > Run**. In the dialogue box, type x:\setup.exe (where x is the letter of your CD drive [usually D or E]). Then click **OK** and follow the prompts on your screen.

2.7.3 Removing Software



Once you've begun removing software, do not interrupt the process. To do so may result in data loss and corruption of your operating system.

Start > Control Panel > Add or Remove Programs > Change or Remove Programs.

Select the program that you want to remove and click the **Change/Remove** button. Instructions for removing programs will appear on the screen.



Some programs may not be listed and cannot be removed via this window. In this case, check the documentation that came with the specific program.

2.8 Managing Files

- Updating Antivirus Software
- Backing Up Files
- Finding Files
- Copying a File on the Hard Drive
- Copying a File to a Floppy Disk
- Moving Files
- Renaming Files
- Deleting Files
- Emptying the Recycle Bin
- Retrieving Files From the Recycle Bin

2.8.1 Updating Antivirus Software

There are thousands of known viruses, and more appear all the time. Installing antivirus software is the only way to protect your data, software, and hardware. Regular updates are necessary to ensure protection.

Your computer dealer can advise you regarding purchasing antivirus software.



Before installing any software from unlicensed sources, scan for viruses. Regularly backup your data to safeguard against loss if your notebook is infected.

2.8.2 Backing Up Files

Regularly backing up your files will protect you from losing data from accidental file deletion, viruses or hard drive failure.

Programs can be reinstalled, unless you have backed up your work, you will lose your data files.

The most convenient way to back up your files is to a CD-RW drive. For smaller files, you can use a floppy disk.

2.8.3 Finding Files

Right click on **Start > Search**.

In the search window, type either **All or part of the file name** or **A word or phrase in the file**.

Specify where you want the system to look by specifying a drive or folder in the **Look in** pull-down menu.



Windows will search the entire hard drive (or drive C partition) if the default setting of C: is unchanged.

Click **Search** to begin searching.

Files found that match your search criteria are listed in the **Search Results** window.

2.8.4 Copying a File on the Hard Drive

From the **Desktop**, select **My Computer**.

Locate the file you want to copy, and click the file to select it.

Under **File and Folder Tasks > Copy this file**.

In the **Copy Items** window, select the location where you want to copy the file.

Click **Copy**.

2.8.5 Copying a File to a Floppy Disk

Insert a floppy disk into the external floppy drive.

From the **Desktop**, select **My Computer**.

Locate the file you want to copy, and click the file to select it.

Under **File and Folder Tasks > Copy this file > Copy Items > 3½ Floppy (A:)**.

Click **Copy**.

2.8.6 Moving Files



Never move files that are part of an installed program. Doing so may make the program unusable.

From the **Desktop**, select **My Computer**.

Locate the file you want to move, and click the file to select it.

Click **Move this file**.

In the **Move Items** window, click the location where you want to move the file.

Click **Move**.

2.8.7 Renaming Files

Use **Windows Explorer** or **My Computer** to locate the file you want to rename, and click the file to select it.

Click the **File** menu and click **Rename**.



Never change a file's extension (the last three characters after the period). Doing so may render the file unusable.

Type the new filename and press **Enter**.

2.8.8 Deleting Files



Never delete files that are part of an installed program. Doing so may render the file unusable.

Use **Windows Explorer** or **My Computer** to locate the file you want to delete, and click the file to select it.

Click the **File** menu and click **Delete**.

Click **Yes** to send the file to the **Recycle Bin**.

If you accidentally delete a file, see **2.8.10 Retrieving Files From the Recycle Bin**.

2.8.9 Emptying the Recycle Bin

Files remain in the **Recycle Bin** and take up space on the hard drive until you empty them from the **Recycle Bin**.



Files deleted from an external drive or from a network are permanently erased. You cannot recover them from the Recycle Bin.

Double-click the **Recycle Bin** icon.

The **Recycle Bin** window appears and lists all deleted files, their previous locations, and the dates you deleted them.

Click the **File** menu, and click **Empty Recycle Bin**.

When the confirmation dialog box appears, click **Yes** to delete all file(s).

All files disappear from the **Recycle Bin** and are removed from your notebook.

2.8.10 Retrieving Files From the Recycle Bin

Deleted files are moved to the **Recycle Bin** and remain there until you empty the Recycle Bin. If you delete a file in error, you can retrieve it from the **Recycle Bin**:



Double-click the **Recycle Bin** icon.

Recycle Bin

The **Recycle Bin** window will appear, listing all deleted files, their previous locations, and the dates you deleted them.

Select the file you want to retrieve, click the **File** menu, and then click **Restore**.

The file disappears from the **Recycle Bin** and is moved to its original location.

2.9 Playing CDs and Movies

- Inserting Discs
- Adjusting the Volume
- Adjusting the Picture

2.9.1 Inserting Discs



Be careful not to press down on the drive tray when opening or closing it. When the drive is not in use, keep the tray closed.



Do not move the computer when playing CDs or DVDs.

To insert a disc, do the following:

1. Press the eject button on the front of the drive.
2. Pull the tray out.
3. With the label side up, place the disc in the center of the tray.
4. Snap the disc onto the spindle.
5. Gently push the tray back into the drive.

If your notebook has a CD-RW/DVD or DVD, you can watch movies.

For more information on playing CDs or watching movies, click **Help** on the CD player software or DVD player software.

2.9.2 Adjusting the Volume



If you do not hear anything when playing a CD or DVD, check that the speakers are not muted.

Start > All Programs > Accessories > Entertainment > Volume Control.

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

 	Audio Volume Down
 	Audio Volume Up

2.9.3 Adjusting the Picture

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

Start > Control Panel > Pick a category > Appearance and Themes > Pick a task... > Change the screen resolution.

In the **Display Properties** window, click and drag the bar in **Screen resolution** to change the setting to 1024 x 768 pixels.

Click the pull-down menu under **Color quality > Medium (16 bit) > OK.**

Chapter 3
Operating Your Notebook (Vista)

3.1 Turning Your Notebook On and Off

- Turning Your Notebook On
- Turning Your Notebook Off
- Logging Off
- Adding User Accounts
- Sleep Mode

3.1.1 Turning Your Notebook On



*You can configure the computer to start from a specific drive, such as a CD-ROM, an external floppy disk, or even an external device. See 8.7 **The Boot Menu**.*

Press the power button  to turn on your notebook.



Do not turn off the computer until the operating system has loaded completely. Turning the computer off during its initial startup will result in an error the next time you start your notebook.

3.1.2 Turning Your Notebook Off

Save and close any open files, exit any open programs.

Click **Start** >  > **Shut Down**.

Your notebook will automatically turn off after the shutdown process is finished.



*Press the power button to shut down or enter sleep mode. Click **Start** > **Control Panel** > **Power Options** > Choose what the power button does.*

3.1.3 Logging Off

With Microsoft Windows Vista, multiple users have access to a single computer with their own personal settings. Using their own password, each user can log on to the computer which using their own private profile and settings.

To log off:

Save and close any open files, exit any open programs, click **Start** >  > **Log Off**.

To switch users:

Click **Start** >  > **Switch User**.

Using **Fast User Switching**, programs executed by previous users remain running in the background. This means a possible slower computer response. It may also stop multimedia programs, including games and DVD software, from running.



***Fast User Switching** does not work if your notebook is running Windows Vista and is a member of a computer domain or if the notebook has less than 128 MB of memory.*

3.1.4 Adding User Accounts



Different account options are available when a computer is running Windows Vista operating system and is connected to a domain.

With Windows Vista installed, the system administrator or a user with administrator rights can create additional user accounts:

1. Click **Start > Control Panel > User Accounts and Family Safety > User Accounts > Manage another account**.
2. When prompted, click **Continue**.
3. Click **Create a new account**.
4. Enter the name of the new user and choose one of the following options:
 - **Standard user:** User can install some programs and hardware.
 - **Administrator:** User can change all computer settings.
5. Click **Create Account**.

3.1.5 Sleep Mode

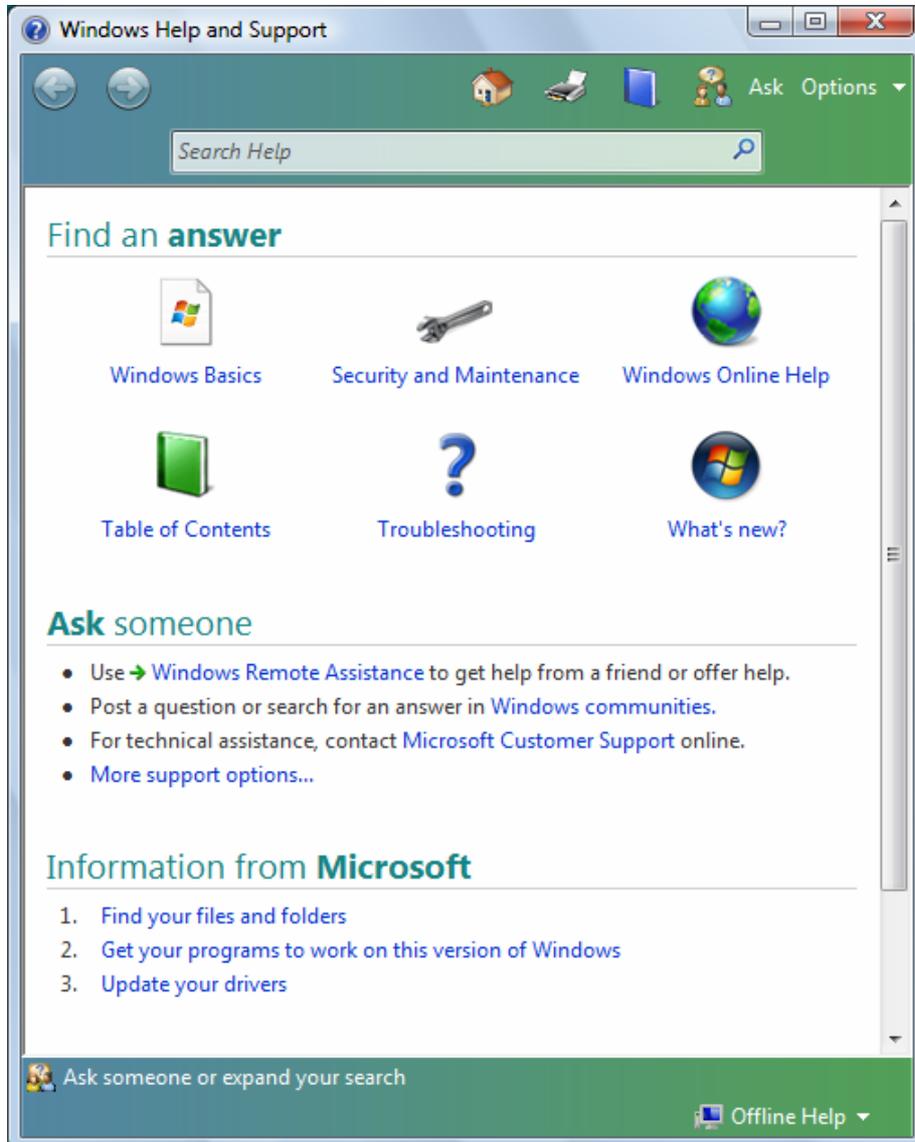
To find out how to conserve power using the Sleep Mode, see *7.1 Power Management*.

3.2 Tips for Using Windows

- Microsoft Windows Vista Help
- Windows Desktop
- Start Button
- Taskbar
- Notification Area (System Tray)
- Recycle Bin
- Control Panel
- Computer

3.2.1 Microsoft Windows Vista Help

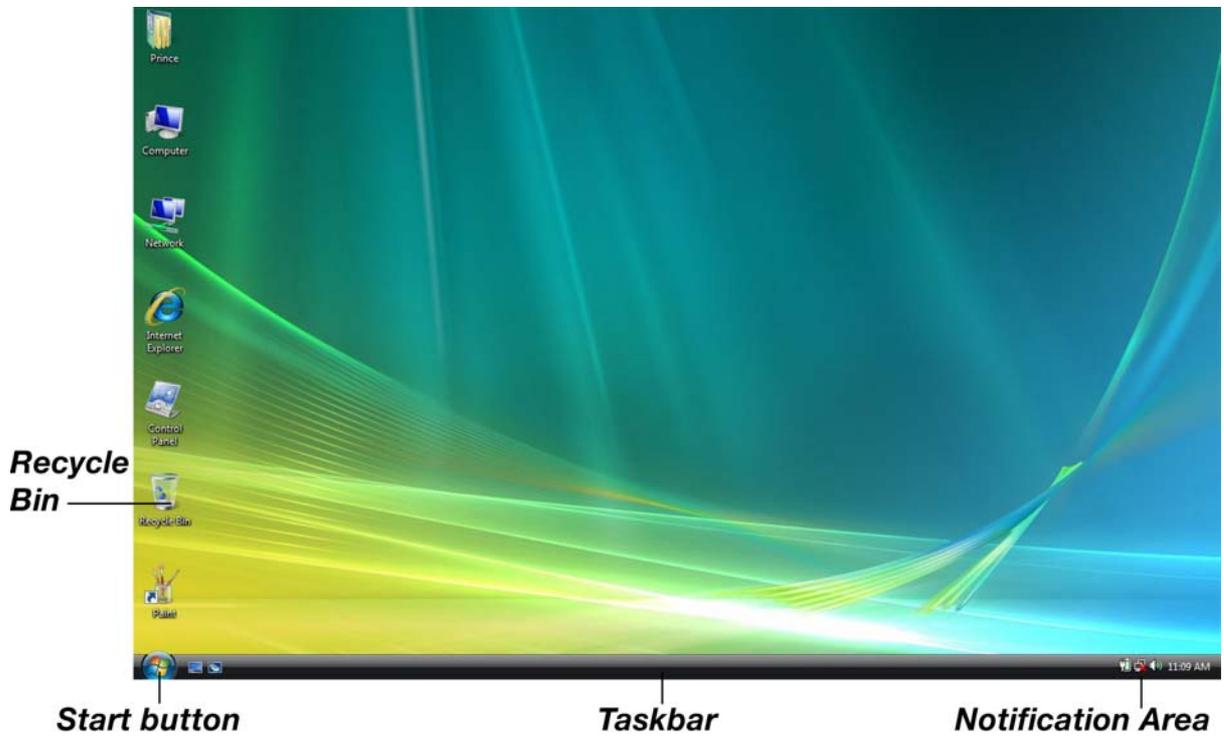
For Microsoft Windows Vista help, go to **Start > Help and Support**. The Windows Help and Support dialog box opens.



3.2.2 Windows Desktop

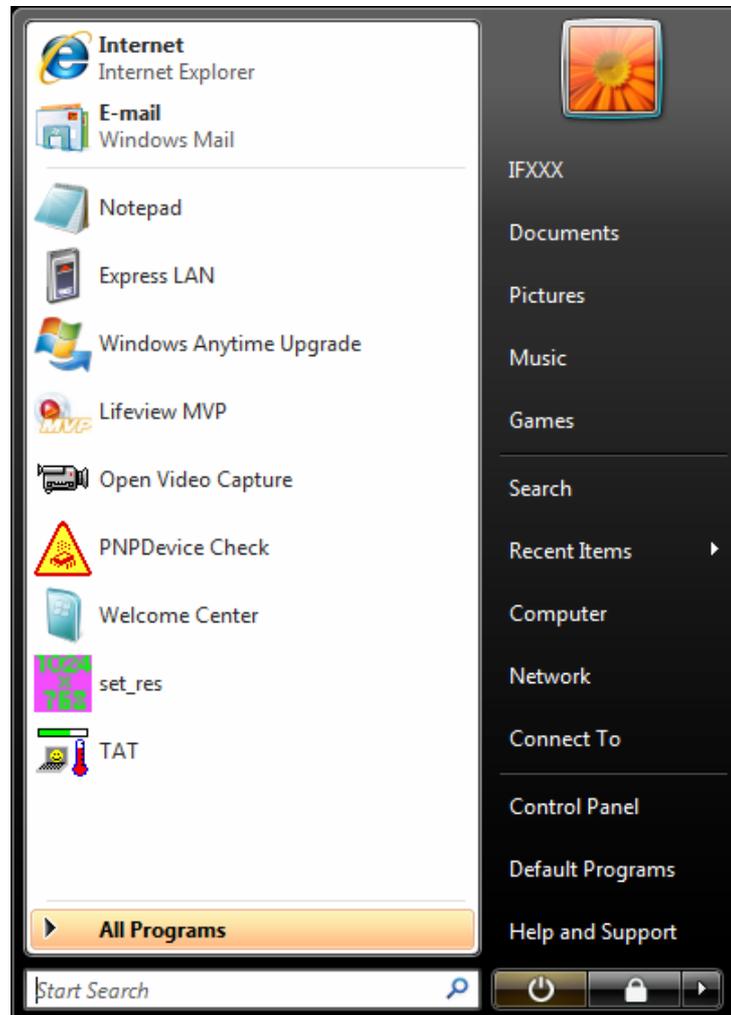


Depending on your notebook setup and software, your desktop may have different or additional shortcuts. See 3.4 Personalizing Your Desktop for more information.



3.2.3 Start Button

The **Start** button allows easy access to your notebook's programs.



The **Start** menu is designed to adapt to show the programs you use most frequently. To always keep an item on the **Start** menu, no matter how often it's used, right-click the item and click **Pin to Start menu**.

 puts the current session into memory and enters a low-power state ready to be resumed.

 locks this computer

 provides options for turning off, restarting, switching users, logging off, and placing your notebook in power saving modes.

3.2.4 Taskbar

The **Start** button is on the left and the notification area on the right. Each time you open a program, a button for it appears on the taskbar. To move between programs, simply click the relevant button. Windows Vista groups multiple instances of the same program on a single taskbar button if more space is needed.

Toolbars can be added to or removed from the taskbar:

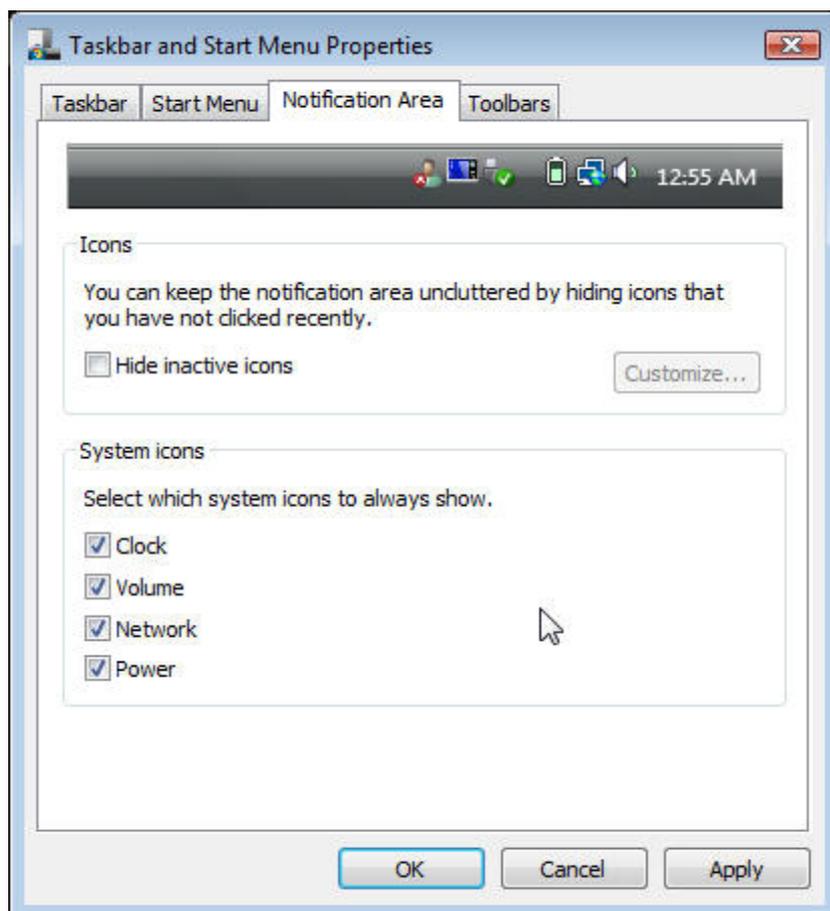
Right-click an empty spot on the taskbar, and select **Toolbars > choose the toolbar you want to add**.

3.2.5 Notification Area (System Tray)

The icons in this area allow quick access to programs and computer functions, including the clock and printer status. Windows Vista hides icons that are not frequently used. Click < to see hidden icons.

To prevent Windows Vista from hiding icons:

Right-click an empty spot on the **Taskbar > Properties > Notification Area > ensure that Hide inactive icons** is not checked.





3.2.6 Recycle Bin

Recycle Bin

When you delete a file, it is moved to the **Recycle Bin**. Files can be restored from the **Recycle Bin**.

Emptying the **Recycle Bin** deletes files permanently.

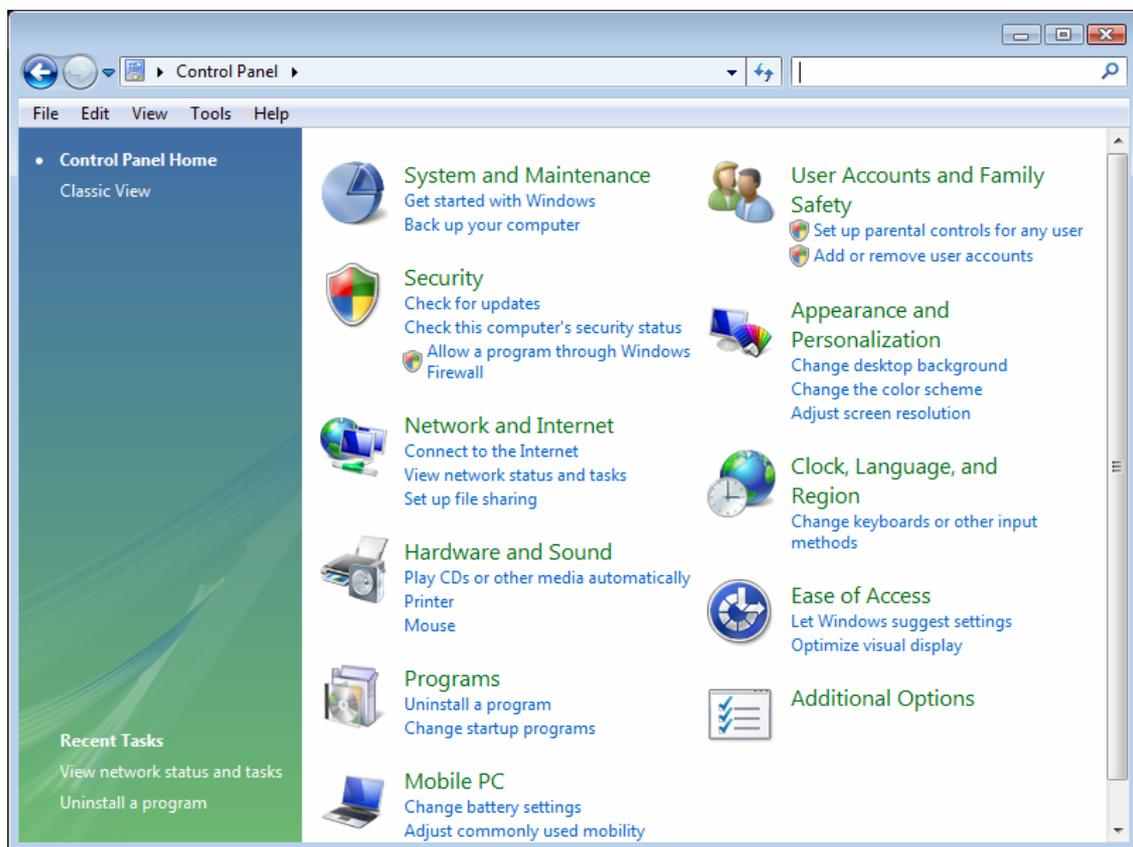
3.2.7 Control Panel

In the **Control Panel**, you can change how Windows looks and works.

Click the **Start** button and then **Control Panel**.

There are two interfaces - you can choose either **Control Panel Home** or **Classic View**. You can switch interfaces in the upper left hand of the **Control Panel** window.

Choose the task description you wish to complete, and then choose the task in the next window.



3.2.8 Computer

Computer allows you to see the disk drives and other external devices connected to your computer. The **Computer** icon displays on your Desktop. To see the contents of a drive or folder, open **Computer** then double-click the icon of the drive or folder you want to view (for example, drive C).



*You can also use **Windows Explorer** to see the contents of your notebook and find files. To open **Windows Explorer**, right-click the **Start** button and click **Explore**. Find the drive or folder that you want to view. To find out more about **Computer** and **Windows Explorer**, see the **Windows Help and Support**.*

3.3 Keyboard and Touch Pad

- Numeric Keypad
- Keyboard Shortcuts
- Windows Logo Key Functions
- Sticky Keys
- Touch Pad
- Customizing the Touch Pad
- Finger Printer

3.3.1 Numeric Keypad

Keypad numbers and symbols are marked in blue on the lower right edge of the keypad keys.

To enable the numeric keypad, press .

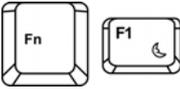
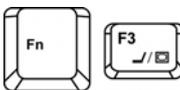
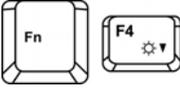
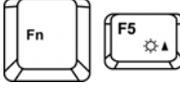
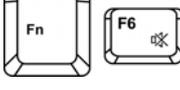
The  indicator will light when the numeric lock is on.

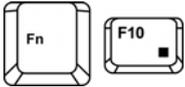
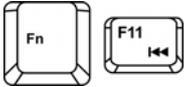
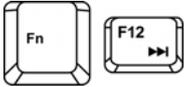
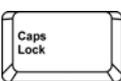
To disable the numeric keypad, press  again.

To use the primary function of a dual-function key when the numeric keypad is enabled,

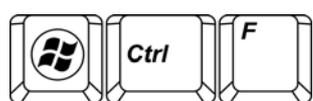
press  and the desired key.

3.3.2 Keyboard Shortcuts

	Sleep
	Wireless/Bluetooth On/Off To enable this function, you need to install Wireless Select Switch.
	Switches Display Mode (LCD > CRT > TV > LCD + CRT Simultaneous > LCD+TV Simultaneous). Switches the video image to the next display or both displays simultaneously.
	Brightness Down
	Brightness Up
	Mute
	Audio Volume Down
	Audio Volume Up
	Play/Pause

	Stop
	Fast Rewind
	Fast Forward
	Number Lock
	Scroll Lock
	Caps Lock

3.3.3 Windows Logo Key Functions

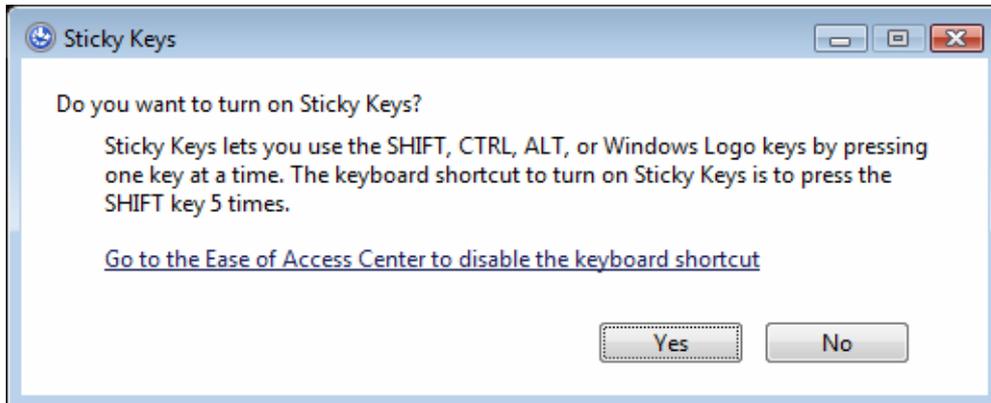
	Opens Windows Explorer
	Opens the Run dialog box
	Opens the Search Results dialog box
	Opens the Search Results - Computers dialog box (when your notebook is connected to a network)
	Opens the System Properties dialog box

To adjust keyboard operation, including character repeat rate, in the **Control Panel** click **Hardware and Sound > Keyboard**.

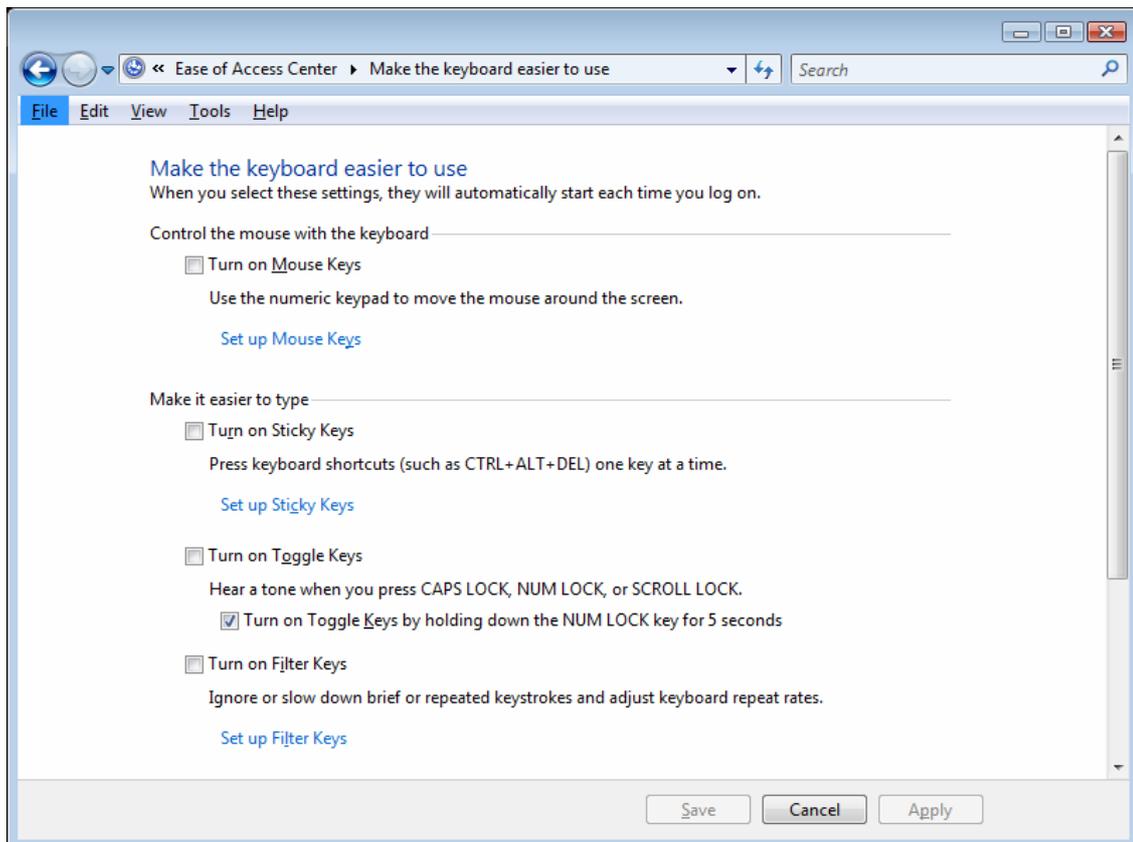
3.3.4 Sticky Keys

The Sticky Keys function lets you use the SHIFT, CTRL, ALT, FN keys or the Windows logo key (referred to as modifier keys) in conjunction with other keys by pressing one key at a time instead of simultaneously.

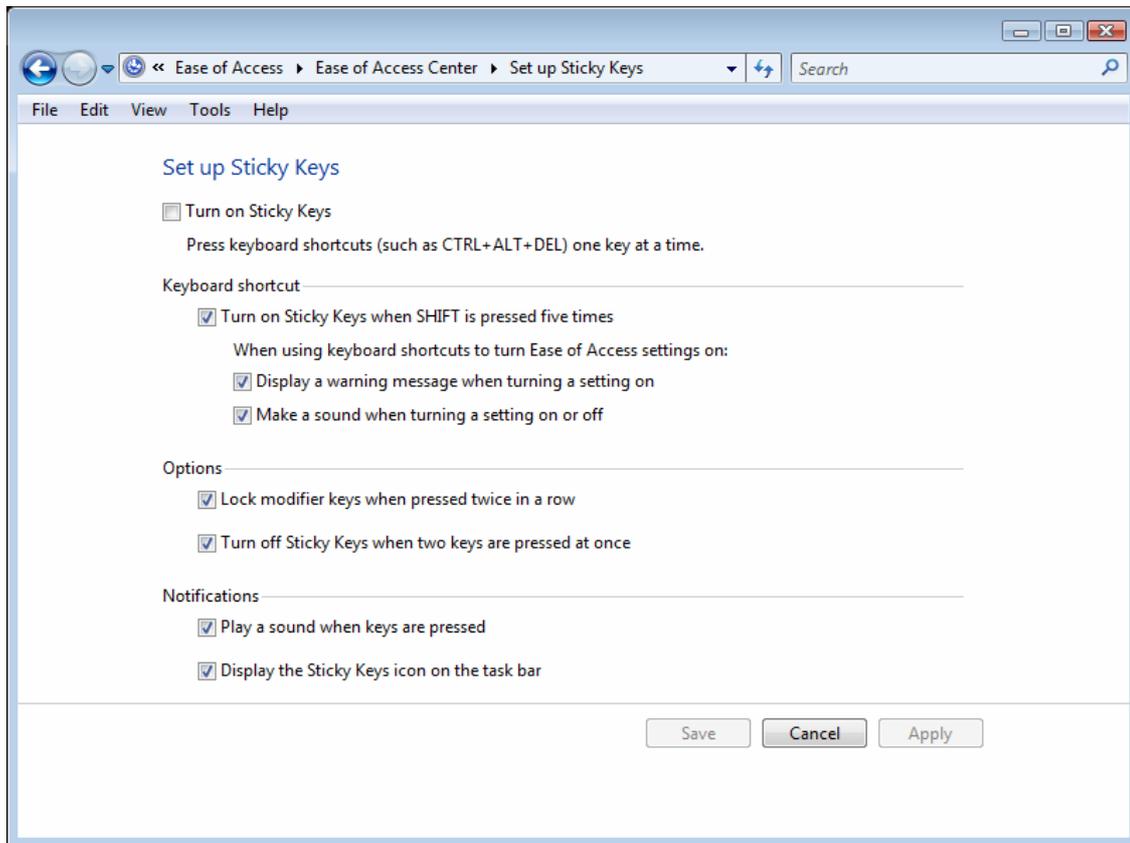
To activate Sticky Keys mode, press the Shift key five times and then click **YES**.



Alternatively, you can click on **Start > Control Panel > Ease of Access > Change how your keyboard works** and check **Turn on Sticky Keys** before clicking **Save**.



To further customize **Sticky Keys**, click **Set up Sticky Keys** in the above dialogue box. The following dialogue box will appear.



Click **Turn on Sticky Keys** to enable the listed shortcuts to activate Sticky Keys mode.

By checking **Lock modifier keys when pressed twice in a row**, pressing the **SHIFT**, **CTRL**, **ALT**, **FN** or the Windows logo key twice will 'lock' the key until it is pressed again. This allows you to perform multiple commands with these keys in succession without having to press the modifier key again each time.

Check **Turn off Sticky Keys when two keys are pressed at once** to have Sticky Keys automatically disable whenever any two keys are pressed simultaneously.

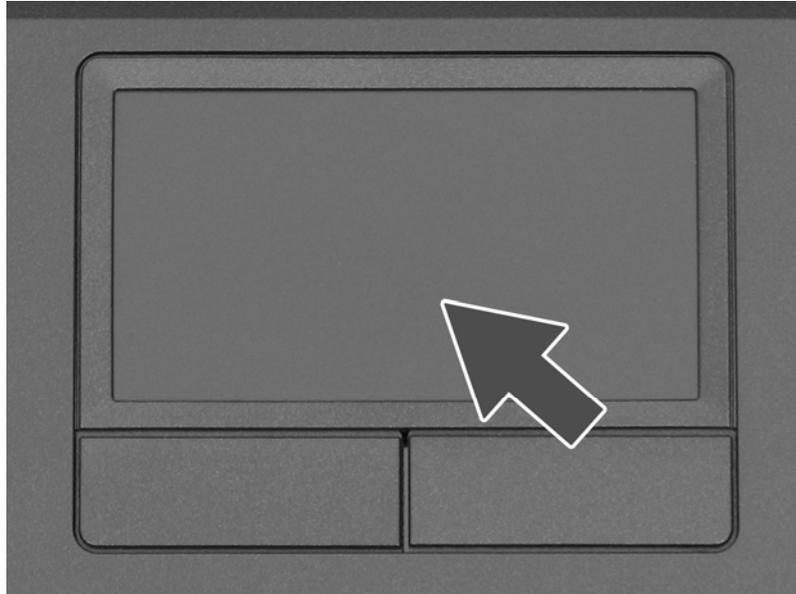
If **Play a sound when keys are pressed** is checked, a tone will be heard each time a modifier key is pressed. Different tones are heard when activating and deactivating modifier keys.

Check **Display the Sticky Keys icon on the task bar** to display the Sticky Keys icon in your toolbar whenever the Sticky Keys mode is activated. The icon will change to indicate which modifier key, if any, is currently active.

Click on **Save** to confirm your changes, **Cancel** to exit the dialogue box without making any changes, or **Apply** to have your settings take effect without saving.

3.3.5 Touch Pad

The Touch Pad responds to the movements and pressure of your finger, allowing you to move the cursor around the screen, in the same way you would with a mouse.



Place your fingers on the keyboard in the normal typing position.

You can use the Touch Pad by moving either your right or left thumb off the space bar and on to the Touch Pad.

Gently move your thumb across the Touch Pad in the direction you want the cursor to move.

The Touch Pad buttons have the same function as mouse buttons. Clicking these buttons makes selections, drags objects, or performs a variety of other functions depending on the software. To select an object, first move the pointer over the object you want to select, and then press the left button one time and release it. The functionality of these buttons depends on your software.

Double-clicking is a common technique for selecting objects or launching programs.

You may also select object or execute applications from icons by double tapping. This is similar to double-clicking; instead of pressing the Touch Pad buttons, you tap the Touch Pad itself.

3.3.6 Customizing the Touch Pad

To adjust Touch Pad settings, use the Mouse Properties window, which you can open by clicking **Control Panel > Hardware and sound > Mouse**.

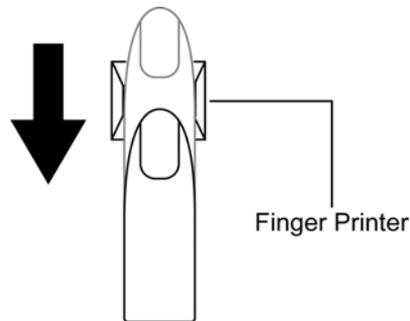
Select the desired settings and click **Apply**.

Click **OK** to save the settings and close the window.

3.3.7 Finger Printer

The finger printer lets you log on to your computer instead of inputting passwords from the keyboard.

To raise the recognition success rate, the following illustrations show the correct way to swipe your finger over the finger printer.



Align your fingertip with the finger printer as shown in the drawing and swipe.

To reduce the damage to the finger printer and fingerprint recognition problems, follow these guidelines when using the finger printer.

- Do not scratch or poke the finger printer with your nails or any hard or sharp objects.
- Do not press the finger printer strongly.
- Do not touch the finger printer with a wet finger or any wet objects. Keep finger printer surface dry and free of water vapor.
- Do not touch the finger printer with a soiled finger. Minute foreign particles on a soiled or dirty finger may scratch the finger printer.
- Do not paste stickers or write on the finger printer.
- Do not touch the sensor with a finger or any object with built-up static electricity.

3.3.7.1 Delete the Finger Printer Data

Saved fingerprint data is stored in the non-volatile memory inside the finger printer. Fingerprint data are recommended to delete before you hand over the computer the others, or dispose of it.

To delete the fingerprint data, do the following:

1. Click **Start > All Programs > Protector Suite QL > Control**.
2. The **Protector Suite Software** screen is displayed.
3. Click **Fingerprints > Delete**.
4. Click **Settings > Fingerprint Storage Inspector**.
5. The **Fingerprint Storage Inspector** screen is displayed. If other fingerprint data is still displayed on the list. Select all fingerprint data and click **remove**.
6. Check whether all fingerprint data was deleted on the **Fingerprint Storage Inspector** screen.

3.4 Personalizing Your Desktop

- Choosing a Wallpaper
- Choosing a Screen Saver
- Choosing a Desktop Theme
- Creating a Shortcut on the Desktop

3.4.1 Choosing a Wallpaper

To make your notebook reflect your style, you can set background colors, patterns, and the wallpaper on the desktop.

Control Panel > Appearance and Personalization > Change desktop background.

Choose the picture or color you want for your desktop background.

You can also choose your own images by choosing **Browse**, and specifying images in a directory.

Under **How should the picture be positioned**, choose a way for the position of your selected image: **Fit to screen** (scales the image to fit the screen), **Tile**, or **Center** (places one copy of the image in the center of the screen).

To accept the settings, click **OK** to save your settings and close this window.

3.4.2 Choosing a Screen Saver

Control Panel > Appearance and Personalization > Change screen saver.

Select a screen saver from the Screen saver pull-down menu, or click **(None)** if you prefer not to activate a screen saver.

You can customize your screen saver by choosing **Settings**. To check your selections, choose **Preview**.

To accept the settings, click **OK** and close the **Screen Saver Settings** window.

3.4.3 Choosing a Desktop Theme

Desktop themes change the appearance of your desktop and add sound effects:

Control Panel > Appearance and Personalization > Change the theme.

Select a theme from the Theme pull-down menu in the **Theme Settings** Window, and then click **OK**.

3.4.4 Creating a Shortcut on the Desktop

A shortcut is an icon that is placed on the desktop let you quickly access programs, files, folders, and drivers. To create a shortcut:

Open **Computer** or **Windows Explorer**, and highlight the file or program you want to create a shortcut to.

Click and hold down the right Touch Pad button, drag the highlighted item to the Windows desktop, and then release the right Touch Pad button to display a pop-up menu.

Click **Create Shortcuts Here**.

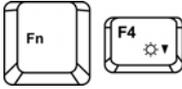
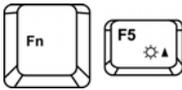
An icon appears on your desktop - double-click to activate the shortcut.

3.5 Display

- Adjusting the Brightness
- Using an External Monitor or Television
- Setting the Display Resolution

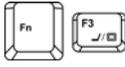
3.5.1 Adjusting the Brightness

To conserve power when running your notebook from the battery, set the brightness to the lowest comfortable setting using the keyboard shortcuts.

	Brightness Down
	Brightness Up

3.5.2 Using an External Monitor or Television

When you start your notebook with an external display device such as an external monitor or television attached and turned on, the image may appear on either the display or the external device.

Alternatively, you can press  to switch the video image to the display only, the display and the external device simultaneously, or the external device only.

3.5.3 Setting the Display Resolution

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

Before changing any of the original display settings, note the original settings for future reference.

Click **Start > Control Panel > Appearance and Personalization > Adjust screen resolution**.

You can try different settings for screen resolution and color quality.

If you choose a resolution or color depth that is higher than the display supports, the settings will automatically adjust to the closest possible setting.

3.6 Networks

To access a network:

At the office, you can access a network via the built-in PCI-E LAN.

For specific information about connecting to the LAN or WAN, consult your systems administrator.

If you are working at home or while traveling, you need a dial-up connection. Ask your system administrator for the telephone number of the network.

To set up the connection, go to **Start > Control Panel > Network and Internet > Network and Sharing Center**. Click **Set up a connection or network** on the left pane of the Network and Sharing Center window.

Choose a connection option and follow the on-screen instructions to set up your network connection.

3.7 Managing Programs

- Running Programs
- Adding Software
- Removing Software

3.7.1 Running Programs

Programs are any software that process data - like a word processing program or an email program. They require an operating system - like Windows Vista - to run on.

To run a program, click **Start > All Programs**.

Click the program you want to run.

On the right side of the title bar in the window of any open program there are three icons:



 minimizes the program window. That is, it is removed from the screen, but is still running. It will appear as a button on your bottom taskbar. To restore the program window, simply click the button.

 maximizes the window to fill your entire screen. When the window is maximized, the button switches to , which will reduce the size of the window when clicked.

 closes the program or document.

3.7.2 Adding Software

To check what software is already installed on your computer, click **Start > All Programs**. If a program is listed in the **All Programs** menu or the **Start** menu, the software is already installed.

Before installing software, check the software's technical requirements to ensure that it is compatible with your notebook and that there is enough memory and hard drive space for installation and operation.

Temporarily disable your notebook's antivirus software before installing software. See the documentation that came with the antivirus software for detailed procedure.



Be sure to enable your antivirus software once you have installed any new software.

Insert the software installation CD into the CD drive and follow the instructions that came with the software to help you respond to the prompts on the screen.

If the software installation CD does not automatically run, click **Start > All Programs > Accessories > Run**. In the dialogue box, type `x:\setup.exe` (where x is the letter of your CD drive [usually D or E]). Then click **OK** and follow the prompts on your screen.

3.7.3 Removing Software



Once you've begun removing software, do not interrupt the process. To do so may result in data loss and corruption of your operating system.

Start > Control Panel > Programs > Uninstall a program.

Select the program that you want to remove and click the **Uninstall** or **Change** button. Instructions for removing programs will appear on the screen.



Some programs may not be listed and cannot be removed via this window. In this case, check the documentation that came with the specific program.

3.8 Managing Files

- Updating Antivirus Software
- Backing Up Files
- Finding Files
- Copying a File on the Hard Drive
- Renaming Files
- Deleting Files
- Emptying the Recycle Bin
- Retrieving Files From the Recycle Bin

3.8.1 Updating Antivirus Software

There are thousands of known viruses, and more appear all the time. Installing antivirus software is the only way to protect your data, software and hardware. Regular updates are necessary to ensure protection.

Your computer dealer can advise you regarding purchasing antivirus software.



Before installing any software from unlicensed sources, scan for viruses. Regularly backup your data to safeguard against loss if your notebook is infected.

3.8.2 Backing Up Files

Regularly backing up your files will protect you from losing data from accidental file deletion, viruses or hard drive failure.

Programs can be reinstalled, unless you have backed up your work, you will lose your data files.

The most convenient way to back up your files is to a CD-RW drive. For smaller files, you can use a floppy disk.

3.8.3 Finding Files

Right click on **Start > Search**.

In the search window, type a word or part of a word in the search box.

As you type, files from a variety locations (drives and folders on your computer) that match your text will appear.

You can click one of the available filter buttons to show only certain kinds of files, such as E-mail, Document, Picture, or Music.

3.8.4 Copying a File on the Hard Drive

From the **Desktop**, select **Computer**.

Locate the file you want to copy, and click the file to select it.

Right click the file you want to copy, and then click **Copy**.

Open the location where you want to store the copy.

Right click within the location, and click **Paste**.

3.8.5 Renaming Files

Use **Windows Explorer** or **Computer** to locate the file you want to rename, and click the file to select it.

Click the **Organize** menu and select **Rename**.



Never change a file's extension (the last three characters after the period). Doing so may render the file unusable.

Type the new filename and press **Enter**.

3.8.6 Deleting Files



Never delete files that are part of an installed program. Doing so may render the file unusable.

Use **Windows Explorer** or **Computer** to locate the file you want to delete, and click the file to select it.

Click the **Organize** menu and click **Delete**.

Click **Yes** to send the file to the **Recycle Bin**.

If you accidentally delete a file, see **3.8.8 Retrieving Files From the Recycle Bin**.

3.8.7 Emptying the Recycle Bin

Files remain in the **Recycle Bin** and take up space on the hard drive until you empty them from the **Recycle Bin**.



Files deleted from an external drive or from a network are permanently erased. You cannot recover them from the Recycle Bin.

Double-click the **Recycle Bin** icon.

The **Recycle Bin** window appears and lists all deleted files, their previous locations, and the dates you deleted them.

Click the **File** menu, and click **Empty Recycle Bin**.

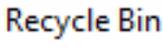
When the confirmation dialog box appears, click **Yes** to delete all file(s).

All files disappear from the **Recycle Bin** and are removed from your notebook.

3.8.8 Retrieving Files From the Recycle Bin

Deleted files are moved to the **Recycle Bin** and remain there until you empty the Recycle Bin. If you delete a file in error, you can retrieve it from the **Recycle Bin**:



Double-click the **Recycle Bin**  icon.

The **Recycle Bin** window will appear, listing all deleted files, their previous locations, and the dates you deleted them.

Select the file you want to retrieve, and click **Restore this item**.

The file disappears from the **Recycle Bin** and is moved to its original location.

You can also recover all the files from the **Recycle Bin** by clicking **Restore all items**.

3.9 Playing CDs and Movies

- Inserting Discs
- Adjusting the Volume
- Adjusting the Picture

3.9.1 Inserting Discs



Be careful not to press down on the drive tray when opening or closing it. When the drive is not in use, keep the tray closed.



Do not move the computer when playing CDs or DVDs.

To insert a disc, do the following:

1. Press the eject button on the front of the drive.
2. Pull the tray out.
3. With the label side up, place the disc in the center of the tray.
4. Snap the disc onto the spindle.
5. Gently push the tray back into the drive.

If your notebook has a CD-RW/DVD or DVD, you can watch movies.

For more information on playing CDs or watching movies, click **Help** on the CD player software or DVD player software.

3.9.2 Adjusting the Volume



If you do not hear anything when playing a CD or DVD, check that the speakers are not muted.

Start > All Programs > Accessories > Windows Mobility Center.

In the **Windows Mobility Center** window, click and drag the bar in the **Volume** column and slide it left or right to decrease or increase the volume.

 	Audio Volume Down
 	Audio Volume Up

3.9.3 Adjusting the Picture

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

Start > Control Panel > Appearance and personalization > Personalization > Display Settings.

In the **Display Properties** window, click and drag the bar in **Resolution** section to change the setting to 1024 x 768 pixels.

Click the pull-down menu under **Colors**, select **Medium (16 bit)**, and click **OK**.

Chapter 4
Caring for Your Notebook

4.1 Caring for Your Notebook

- Cleaning Your Notebook and Keyboard
- Cleaning the Display
- Cleaning the Touch Pad
- Cleaning the CD/DVD Drive
- Precautions



Never spray cleaning products directly onto your notebook's case or display. Only use products designed for cleaning computer displays.

4.1.1 Cleaning Your Notebook and Keyboard

1. Shut your notebook down, turn it off and disconnect it from the electrical outlet and any external devices, such as a printer.
2. Remove the battery pack.
3. Use the brush attachment of your vacuum cleaner to gently remove dust from your notebook's openings and keyboard.
4. Use a slightly moistened soft, lint-free cloth to wipe your notebook and keyboard. *Use only water or a recommended computer cleaner.*

4.1.2 Cleaning the Display

1. Shut your notebook down, turn it off and disconnect it from the electrical outlet and any external devices, such as a printer.
2. Remove the battery pack.
3. Use a slightly moistened soft, lint-free cloth to wipe your notebook's display. *Use only water or a recommended computer cleaner.*

4.1.3 Cleaning the Touch Pad

1. Shut your notebook down, turn it off and disconnect from the electrical outlet and any external devices, such as a printer.
2. Remove the battery pack.
3. Use a slightly moistened soft, lint-free cloth to carefully wipe the Touch Pad, being careful not to allow any moisture into the gaps. *Use only water or a recommended computer cleaner.*

4.1.4 Cleaning the CD/DVD Drive



Never touch the lens. Use only compressed air to clean the lens.

If you experience problems playing CDs or DVDs, including skipping, clean the unlabelled side of the disc with a soft, lint-free cloth or using a commercial product.

4.1.5 Precautions

- Do not spill liquids on the keyboard. If liquid is spilt on the keyboard, turn your notebook off immediately. Leave off overnight to let it completely dry out before using it again.
- Do not turn off your notebook if a drive light indicates a drive is active. Turning off your notebook while it is reading from or writing to a disk may damage the disk, the drive, or both.
- Keep your notebook and disks away from objects that generate strong magnetic fields, such as stereo speakers. Information on disks is stored magnetically. Placing a magnet too close to a disk can erase important files.
- Scan all new files for viruses. This precaution is especially important for files you receive via email, disk or download from the Internet. You will need a special program to scan for viruses. For further information, talk to your computer dealer.
- To ensure HDD function and the integrity of the saved data, please follow the instructions below:
 - Protect the notebook from any impact when it is during operation.
 - Do not use your notebook during transportation such as in a car.
 - Do not put your notebook in a car that is directly exposed to the sun.
 - Do not place any heavy objects on the LCD monitor.
 - Use the AC adapter coming with the package instead of other adapters.

4.2 Traveling

- Identifying Your Notebook
- Packing Your Notebook
- Setting a Password
- Travel Tips
- If Your Notebook is Lost or Stolen

4.2.1 Identifying Your Notebook

Attach a nametag or business card to your notebook, or use a permanent marker or stencil to write a unique identifying mark (such as your driver's license number) on the case.

Create a file on the Desktop called **if found**. Place information such as your name, address, and telephone number in this file.

Contact your credit card company, and ask if it offers coded identification tags.

4.2.2 Packing Your Notebook

Remove any external devices attached to the computer and store them in a safe place.

Fully charge the main battery and any spare batteries you plan to carry with you.

Turn off the computer or put the computer into hibernate mode.

Disconnect the AC adapter.

Remove any extraneous items, such as paper clips, pens, and paper, from the keyboard and then close the display.

Pack your notebook and accessories in their carry case.

Avoid packing the computer with items such as shaving cream, colognes, perfumes, or food.

Protect the computer, the batteries, and the hard drive from hazards such as extreme temperatures, dirt, dust, liquids, or overexposure to sunlight.

Pack the computer so that it does not slide around in the trunk of your car or in an overhead storage compartment.



When traveling by air, never check in your notebook as baggage.

4.2.3 Setting a Password

To provide extra protection for your data and documents, it is advisable to set a password.

As your notebook is booting (starting up), press **F2** to view the **BIOS Setup Utility**. Use the right arrow key to highlight **Security**.

Use the down arrow key to select: **Set Supervisor Password**. Press **Enter**.

Type your password, press **Enter** and re-type to confirm. Press **Enter**. Your changes will be saved. Press **Enter** to continue.

Use the right arrow key to select **Exit**, use the down key to select **Exit Saving Changes**. Press **Enter** and **Yes**. Your notebook will now boot as normal.



*To enable password protection on Boot, use the down key to select **Password on boot**. Press **Enter** and select **Enabled**.*

4.2.4 Travel Tips

- If you are traveling abroad, carry proof of ownership—or of your right to use the computer if it is company-owned—to speed your passage through customs. Investigate the customs regulations of the countries you plan to visit and consider acquiring an international carnet (also known as a merchandise passport) from your government.
- Ensure that you know which electrical outlets are used in the countries you will visit, and prepare the appropriate power adapters.
- Check with your credit card company for information about the kinds of emergency travel assistance it offers to users of portable computers.
- When traveling by air, ensure that you have a charged battery available in case you are asked to turn on the computer.
- Before you use the computer on an airplane, verify that such usage is permitted. Some airlines forbid the use of electronic devices during the flight. All airlines forbid the use of electronic devices during takeoff and landing.



Never walk your notebook through a metal detector. Send it through an X-ray machine, or have it manually inspected.

4.2.5 If Your Notebook is Lost or Stolen

Call a law enforcement agency to report your notebook lost or stolen. Ask that a case number be assigned and write down the number, along with the name, address, and telephone number of the law enforcement agency. If possible, obtain the name of the investigating officer.

If the notebook belongs to a company, notify the security office of the firm.

Chapter 5

Peripherals

5.1 PCI Express Cards

- PCI Express Card Types
- Installing a PCI Express Card
- Removing a PCI Express Card

5.1.1 PCI Express Card Types

The New Card slot supports one 54mm type PCI Express Card. It supports both USB 2.0 and PCI Express technology, which improves bus speed in data transfer and requires less power than PC Cards.



A PCI Express Card is not a bootable device.

5.1.2 Installing a PCI Express Card

PCI Express Cards, with hot-plug feature, allow you to install and remove cards when your notebook is running. The card will be detected automatically when installed.

Usually PCI Express Cards have a mark or symbol to show which end to insert into the slot. Insert the card according to the orientation symbol, and slide the card into the slot. Check the documents that came with your card if the orientation is unclear.



1. Press to release the dummy card from the New Card slot.
2. Hold the PCI Express card with its orientation symbol pointing into the slot and the topside of the card facing up.
3. Slide the card into the slot until it clicks into the connector.
4. If you encounter too much resistance, do not force the card. Check the card orientation and try again.

5.1.3 Removing a PCI Express Card



1. Push the card all the way to in to release it.
2. Pull the card out of the slot.

5.2 Adding and Removing SD/MMC/MS Cards



Before removing an SD/MMC/MS card, stop it running from the configuration utility on the taskbar. Failure to do so could result in data loss.

Insert the SD/MMC/MS card into the card reader slot.

To remove the SD/MMC/MS card, push it in gently, it ejects automatically.

5.3 Memory Modules

You can add more memory modules to your computer to improve its performance.



To install a memory module:

1. Make sure the computer is turned off.
2. Remove the two screws securing the memory module cover.
3. Lift off the memory module cover.
4. There are two memory module ports here. The first one is already occupied by your computer's current memory module. Place the new memory module in the second slot, matching up the notch along its connector rim with the tooth in the connection slot.
5. When the module is secured, press down gently until it snaps into place.



Depending on how much additional memory you require, you may need to replace the original memory module.

To remove a memory module:

1. Make sure the computer is turned off.
2. Remove the two screws securing the memory module cover.
3. Lift off the memory module cover.
4. Pop out the two silver latches holding the memory module into place. The module pops up.
5. Grasp the outer edges of the memory module with thumb and forefinger, and then gently remove it.

Chapter 6
The Power System (XP)

6.1 Power Management

- Managing Your Notebook's Power
- Power Management Modes
- Power Options Properties
- SpeedStep

6.1.1 Managing Your Notebook's Power



See 6.2 Battery for more information on getting the best performance from battery packs.



Use your notebook connected to an electrical outlet as often as possible as battery life expectancy is affected by the number of times it is charged.

Your computer comes with built-in power management. You can configure it, through the **Power Options** program in the Control Panel, to sleep, hibernate, and wake according to specific situations.

When leaving your notebook unattended for long periods, place it in standby or hibernate mode. You can exit either power management mode by pressing the power button.

6.1.2 Power Management Modes

6.1.2.1 Standby Mode

This mode conserves power by switching off the hard drive and display after a preset period of inactivity (a time-out). When standby mode is exited, your notebook will return to the same operating state it was before entering standby.



If your notebook loses power from both the electrical outlet and the battery while in standby mode, data may be lost.

To enter standby mode in Windows XP:

Start > Turn off computer > Stand By. Or

Set your notebook to enter Standby mode:

- When you close the lid of your notebook
- When you press the power button
- When you press the sleep hot key

The settings can be accessed via the **Advanced tab** in Power Options Properties (**Start > Control Panel > Pick a category > Performance and Maintenance > Power Options**).

To exit standby mode, press the power button. You cannot exit standby mode by pressing a key or the Touch Pad. For more information on standby mode, see **2.1 Turning Your Notebook On and Off**.

6.1.2.2 Hibernate Mode

In Hibernate mode, system data is copied to the hard drive, and your notebook is completely shut down to save power. When exiting Hibernate mode, your notebook returns to the same operating state it was in before entering Hibernate mode.

Hibernate mode can be enabled/disabled in the Power Options Properties window.

If enabled, your notebook will enter Hibernate mode if the battery charge level becomes critically low.

Depending on how you set the Power Management Options on the **Advanced tab** in the Power Options Properties window, use one of the following methods to enter hibernate mode:

- When you close the lid of your notebook
- When you press the power button
- When you press the sleep hot key
- **Start > Turn Off Computer > Hibernate** (if the Hibernate option does not show, press **Shift**, and the Standby option will switch to Hibernate).

If the Hibernate option is not available for these methods, Hibernate mode has not been enabled. Check the **Enable hibernation** box on the **Hibernate tab** of the Power Options Properties window and click **Apply** to enable Hibernation.



If your PC Cards do not operate correctly after exiting Hibernate mode, remove and reinsert the card or restart your notebook.

To exit Hibernate mode, press the power button. You cannot exit Hibernate mode by pressing a key or the Touch Pad. For more information on hibernate mode, see **2.1 Turning Your Notebook On and Off**.

6.1.3 Power Options Properties

To access the Windows Power Options Properties window:

Start > Control Panel > Pick a category > Performance and Maintenance > Power Options

6.1.3.1 Power Schemes Tab

The Power Schemes pull-down menu in the Power Options Properties displays the selected preset power scheme.



To maximize battery power, use the Portable/Laptop power scheme.

In Windows XP the processor's performance level depends on the power scheme you select. You do not need to make any further adjustments to set the performance level. Each preset power scheme has different time-out settings for entering standby mode, hibernate mode, turning off the display, and turning off the hard drive. For more information on power management options, see the **Help and Support Center**.

6.1.3.2 Alarms Tab



Enable audible alarms by clicking each Alarm Action button and selecting Sound alarm.

The Low battery alarm and Critical battery alarm settings alert you when the battery charge falls below a certain percentage.

When you receive your notebook, the Low battery alarm and Critical battery alarm check boxes are selected. See **6.2 Battery** for more information on low-battery warnings.

6.1.3.3 Power Meter Tab

Displays the current power source, battery status, and charge amount.

6.1.3.4 Advanced Tab

With the Advanced tab you can:

- Set power icon and standby mode password options.
- Depending on your operating system, program the following functions by clicking an option from the corresponding pull-down menu, and then clicking **OK**.

Set the computer to **Stand by / Hibernate / Do nothing** when you close the laptop lid

Set the computer to **Ask me what to do / Stand by / Hibernate / Shut down / Do nothing** when you press the power button.

Set the computer to **Ask me what to do / Stand by / Hibernate / Shut down / Do nothing** when you press the sleep hot key.

6.1.3.5 Hibernate Tab

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

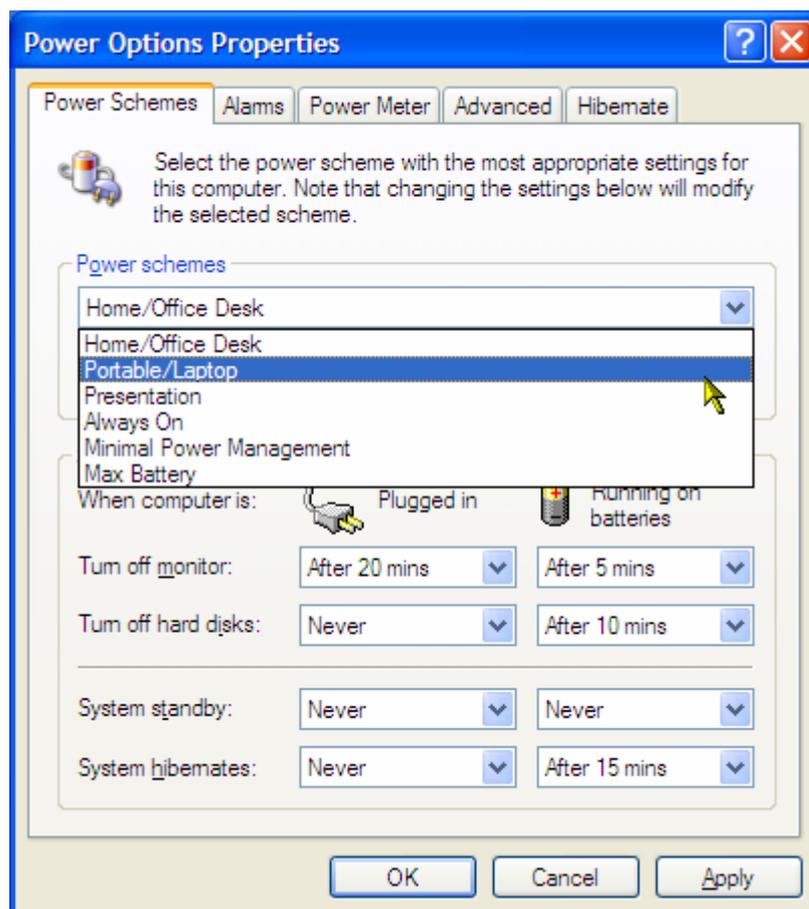
6.1.4 SpeedStep

Your notebook is equipped with SpeedStep technology to better manage power consumption. It changes the processor speed to find the best balance between your computing performance and power consumption needs. Higher speeds enjoy better performance, while slower speeds conserve more power.

In Windows XP, the processor's performance level depends on the Power Scheme you select (see **6.1.3 Power Options Properties**). You do not need to make any further adjustments to set the performance level. Each preset power scheme has different time-out settings for entering standby mode, hibernate mode, turning off the display, and turning off the hard drive.

For example, the **Portable/Laptop mode** automatically changes SpeedStep modes depending on if you are running the computer on AC power or batteries in order to prolong battery usage while still providing optimal performance.

You can also individually alter and save each of these settings and schemes if desired.



Windows XP automatically chooses the SpeedStep mode to find the most appropriate speed for your processor according to the Power Scheme you choose and your current system demands.

6.2 Battery

- Battery Performance
- Checking the Battery Charge
- Power Meter
- Low-Battery Warning
- Charging the Battery
- Removing a Battery
- Installing a Battery
- Storing a Battery
- Working With Extra Battery Packs
- Maximizing Battery Life

6.2.1 Battery Performance

The performance of the battery can vary, depending on operating conditions. Your battery may last less time if you are running power-intensive programs, playing CDs or DVDs, or have high display-brightness settings.

The Power Management Options can be set to alert you when the battery charge is low.



Ensure any battery you use is compatible. Failure to do so may risk fire or explosion. For more details on purchasing compatible batteries, contact your notebook retailer.



Batteries should never be disposed of with household waste. Contact your local waste disposal or environmental agency for advice on disposing of used lithium-ion batteries.



Only use the BATEL80L6 or BATEL80L9 battery pack with this computer.

6.2.2 Checking the Battery Charge

Battery Status	Indicator behavior
Charging	Flashes blue
Fully Charged	Solid blue
Critical Low	Amber > approximately 3 minutes left; system beeps

6.2.3 Power Meter

The power meter  indicates the remaining battery charge. When your notebook is running on battery power, you can check the remaining battery charge, double click

the  icon on the taskbar. For more details, including how to make the icon appear on the taskbar if it is not already, see **6.1 Power Management**.

6.2.4 Low-Battery Warning



After a low-battery warning, save your work immediately, then connect your notebook to an electrical outlet. Hibernate mode will begin automatically if the battery runs completely out of power.

You will hear the low-battery warning when the battery charge is approximately 90 percent depleted. Your notebook will beep once, indicating approximately 10 to 15 minutes of battery operating time remain. If you do not connect your notebook to alternative power source during that time, there will be a periodic beep. Your notebook will automatically enter **Hibernate** mode if battery charge reaches a critically low level. For more information, see **6.1 Power Management**.

6.2.5 Charging the Battery



When connected to an electrical outlet, a completely discharged 6 cell battery needs to be charged in 3.5 to 12 hours, and a 9 cell battery in 4.5 to 12 hours (depending on whether your notebook is on or off and what programs, if any, are running). You can leave the battery in your notebook as long as you like. The battery's internal circuitry prevents the battery from overcharging.

Before using the battery for the first time it must be charged. Connect the computer to an electrical outlet and allow the battery to fully charge, indicated by the battery indicator light on the front panel of the notebook.



Once a battery pack is fully charged for the first time, use your notebook on battery power until the battery discharges completely. This will extend battery life, and helps ensure accurate monitoring of battery capacity.

If necessary, the battery will be charged whenever your notebook is connected to an electrical outlet.

The battery will not be charged if it or your notebook is too hot, either from use or being in a hot environment. If this occurs, the battery indicator will light amber. Disconnect your notebook from any electrical outlet, and allow it and the battery to cool to room temperature. You can then reconnect your notebook to the electrical outlet and charge the battery. The battery indicator will also light amber if the battery is bad and needs replacing.

6.2.6 Removing the Battery

Before removing the battery, ensure your notebook is turned off.

1. Move the battery lock switch to the right (Unlock position).
2. Slide and hold the battery release latch.
3. Remove the battery.

6.2.7 Installing a Battery

1. Slide the battery into the bay.
2. Press it into place gently but firmly until the latch locks it into place.
3. Slide the battery lock switch back to the locked position.

6.2.8 Storing a Battery

If storing your notebook for an extended period of time, remove the battery. Fully charge the battery before using your notebook again.

6.2.9 Working With Extra Battery Packs

If you spend a lot of time traveling, working without connecting your notebook to an electrical outlet, it may be a good idea to carry additional battery packs so you can quickly replace a discharged battery and continue working.

6.2.10 Maximizing Battery Life

A battery can be recharged many times, but over time it will lose its ability to hold a charge. To maximize battery life:

- If you are not using your notebook for a long period, remove the battery.
- If you have a spare battery pack, alternate the batteries.
- Ensure your notebook is off when replacing the battery.
- Store spare battery packs in a cool, dry place, out of direct sunlight.

Chapter 7
The Power System (Vista)

7.1 Power Management

- Managing Your Notebook's Power
- Power Management Modes
- Power Options Properties
- SpeedStep

7.2 Managing Your Notebook's Power



See 7.3 Battery for more information on getting the best performance from battery packs.



Use your notebook connected to an electrical outlet as often as possible as battery life expectancy is affected by the number of times it is charged.

Your computer comes with built-in power management. You can configure it, through the **Power Options** program in the Control Panel, to sleep, hibernate, and wake according to specific situations.

The **Advanced** settings can be accessed via **Start > Control Panel > System and Maintenance > Power Options**.

On the **Select a power plan** page, click **Change plan setting** under the plan that you want to change.

Click **Change advanced power settings**. Expand the **Power buttons and lid** category to configure the settings.

When leaving your notebook unattended for long periods, place it in standby or hibernate mode. You can exit either power management mode by pressing the power button.

7.2.1 Power Management Modes

7.2.1.1 Sleep Mode

This mode conserves power by switching off the hard drive and display after a preset period of inactivity (a time-out). When sleep mode is exited, your notebook will return to the same operating state it was before entering sleep.



If your notebook loses power from both the electrical outlet and the battery while in sleep mode, data may be lost.

To enter sleep mode in Windows Vista:

Start > ► > Sleep. Or

Set your notebook to enter sleep mode:

- When you close the lid of your notebook
- When you press the power button
- When you press the start menu power button

The settings can be accessed via **Power Options: Advanced settings** window. See 7.2 *Managing Your Notebook's Power*.

To exit sleep mode, press the power button. You cannot exit sleep mode by pressing a key or touching the Touch Pad. For more information on sleep mode, see 3.1 *Turning Your Notebook On and Off*.

7.2.1.2 Hibernate Mode

In Hibernate mode, power is conserved by system data being copied to the hard drive, and your notebook is completely shut down. When Hibernate mode is exited, your notebook will return to the same operating state it was in before entering Hibernate mode.

Hibernate mode can be enabled/disabled in the Power Options window.

If enabled, your notebook will go into Hibernate mode if the battery charge level becomes critically low.

Depending on how you set the Power Management Options in the Power Options window, use one of the following methods to enter hibernate mode:

- When you close the lid of your notebook
- When you press the power button
- When you press the Start menu power button
- **Start > ► > Hibernate.**

The settings can be accessed via **Power Options: Advanced settings** window. See **7.2 Managing Your Notebook's Power**.

To exit Hibernate mode, press the power button. You cannot exit Hibernate mode by pressing a key or the Touch Pad. For more information on Hibernate mode, see **3.1 Turning Your Notebook On and Off**.

7.2.2 Power Options Properties

To access the Windows Power Options window:

Start > Control Panel > System and Maintenance > Power Options

7.2.2.1 Select a power plan

Windows Vista provides three preset power plans, Balanced, Power saver, and High performance. Each plan has different time-out settings for turning off the display and entering sleep mode. You do not need to make any further adjustments to set the performance level.

To change setting for the plan, click the following three items on the left pane of the Power Options window.

- Choose when to turn off the display
- Change when the computer sleeps
- Adjust the display brightness

After selecting a plan, you can see the percentage of battery charge remaining and active power plan by moving the mouse pointer over the battery meter icon on the taskbar.

For more information on changing advanced power settings, see the **Windows Help and Support**.



To maximize battery power, use the Power saver plan.

7.2.2.2 Power buttons and password protection

Select **Require a password on wakeup**, **Choose what the power buttons does**, or **Choose what closing the lid does** from the left pane of the Power Options window. There are two main settings in this section:

- Power button and lid settings
- Password protection on wakeup

Depending on your operating system, program the following functions by clicking an option from the corresponding pull-down menu in **Advanced settings** window, and then clicking **OK** to save your settings and close this window.

For more information on accessing the **Advanced settings** window, see *7.2 Managing Your Notebook's Power*.

- Set the computer to **Do nothing / Sleep / Hibernate / Shutdown** when you press the power button.
- Set the computer to **Do nothing / Sleep / Hibernate / Shutdown** when you close the laptop lid
- Select the password requirement when the computer wakes from sleep.

7.2.2.3 Create a power plan

Besides the three preset power plans offered in Windows Vista, you can also customize your own power plan. Select **Create a power plan** on the left pane of the Power Options window to begin configuring your power settings.

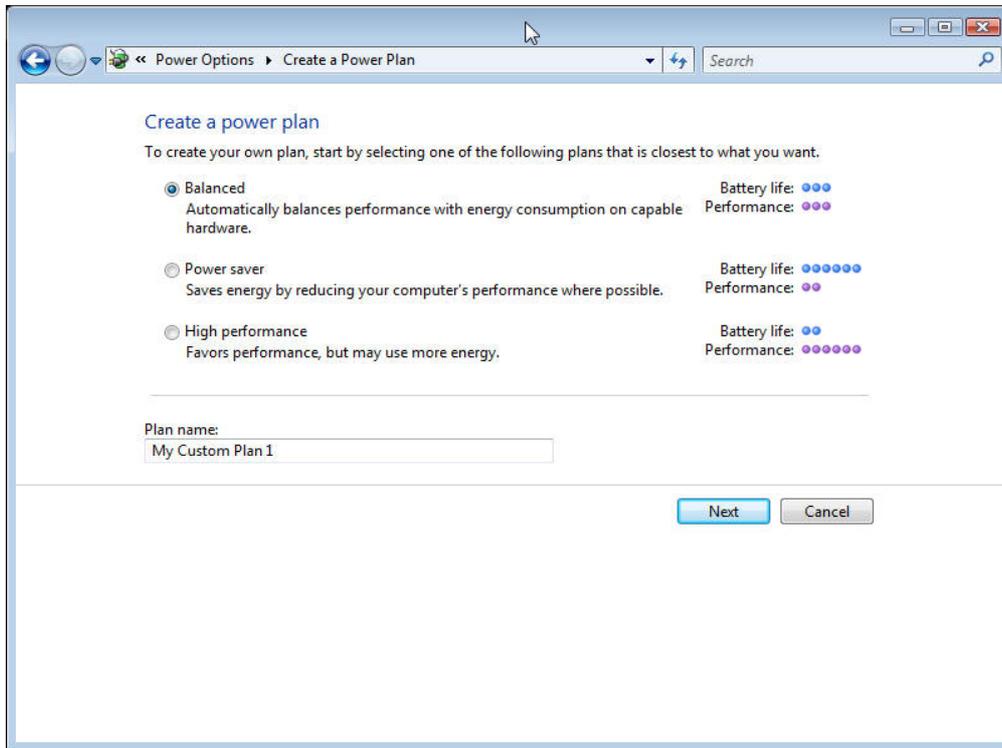
7.2.3 SpeedStep

Your notebook is equipped with SpeedStep technology to better manage power consumption. It changes the processor speed to find the best balance between your computing performance and power consumption needs. Higher speeds enjoy better performance, while slower speeds conserve more power.

In Windows Vista, the processor's performance level depends on the Power Scheme you select (see *7.2.2 Power Options Properties*). You do not need to make any further adjustments to set the performance level. Each preset power scheme has different time-out settings for entering sleep mode, hibernate mode, turning off the display, and turning off the hard drive.

For example, the Windows Vista automatically changes SpeedStep modes depending on if you are running the computer on AC power or batteries in order to prolong battery usage while still providing optimal performance.

You can also individually alter and save each of these settings and schemes if desired. Choose from the following three power plans that best describes the desired relationship between power and performance.



Windows Vista automatically chooses the SpeedStep mode to find the most appropriate speed for your processor according to the type of plan you choose and your current system demands.

7.3 Battery

- Battery Performance
- Checking the Battery Charge
- Power Meter
- Low-Battery Warning
- Charging the Battery
- Removing a Battery
- Installing a Battery
- Storing a Battery
- Working With Extra Battery Packs
- Maximizing Battery Life

7.3.1 Battery Performance

The performance of the battery can vary, depending on operating conditions. Your battery may last less time if you are running power-intensive programs, playing CDs or DVDs, or have high display-brightness settings.

The Power Management Options can be set to alert you when the battery charge is low.



Ensure any battery you use is compatible. Failure to do so may risk fire or explosion. For more details on purchasing compatible batteries, contact your notebook retailer.



Batteries should never be disposed of with household waste. Contact your local waste disposal or environmental agency for advice on disposing of used lithium-ion batteries.



Only use the BATEL80L6 or BATEL80L9 battery pack with this computer.

7.3.2 Checking the Battery Charge

Battery Status	Indicator behavior
Charging	Flashes blue
Fully Charged	Solid blue
Critical Low	Amber > approximately 3 minutes left; system beeps

7.3.3 Power Meter

The power meter  indicates the remaining battery charge. When your notebook is running on battery power, you can check the remaining battery charge, double click the  icon on the taskbar. For more details, including how to make the icon appear on the taskbar if it is not already, see **7.1 Power Management**.

7.3.4 Low-Battery Warning



After a low-battery warning, save your work immediately, then connect your notebook to an electrical outlet. Hibernate mode will begin automatically if the battery runs completely out of power.

You will hear the low-battery warning when the battery charge is approximately 90 percent depleted. Your notebook will beep once, indicating approximately 10 to 15 minutes of battery operating time remain. If you do not connect your notebook to alternative power source during that time, there will be a periodic beep. Your notebook will automatically enter **Hibernate** mode if battery charge reaches a critically low level. For more information, see **7.1 Power Management**.

7.3.5 Charging the Battery



When connected to an electrical outlet, a completely discharged 6 cell battery needs to be charged in 3.5 to 12 hours, and a 9 cell battery in 4.5 to 12 hours (depending on whether your notebook is on or off and what programs, if any, are running). You can leave the battery in your notebook as long as you like. The battery's internal circuitry prevents the battery from overcharging.

Before using the battery for the first time it must be charged. Connect the computer to an electrical outlet and allow the battery to fully charge, indicated by the battery indicator light on the front panel of the notebook.



Once a battery pack is fully charged for the first time, use your notebook on battery power until the battery discharges completely. This will extend battery life, and helps ensure accurate monitoring of battery capacity.

If necessary, the battery will be charged whenever your notebook is connected to an electrical outlet.

The battery will not be charged if it or your notebook is too hot, either from use or being in a hot environment. If this occurs, the battery indicator will light amber. Disconnect your notebook from any electrical outlet, and allow it and the battery to cool to room temperature. You can then reconnect your notebook to the electrical outlet and charge the battery. The battery indicator will also light amber if the battery is bad and needs replacing.

7.3.6 Removing the Battery

Before removing the battery, ensure your notebook is turned off.

1. Move the battery lock switch to the right (Unlock position).
2. Slide and hold the battery release latch.
3. Remove the battery.

7.3.7 Installing a Battery

1. Slide the battery into the bay.
2. Press it into place gently but firmly until the latch locks it into place.
3. Slide the battery lock switch back to the locked position.

7.3.8 Storing a Battery

If storing your notebook for an extended period of time, remove the battery. Fully charge the battery before using your notebook again.

7.3.9 Working With Extra Battery Packs

If you spend a lot of time traveling, working without connecting your notebook to an electrical outlet, it may be a good idea to carry additional battery packs so you can quickly replace a discharged battery and continue working.

7.3.10 Maximizing Battery Life

A battery can be recharged many times, but over time it will lose its ability to hold a charge. To maximize battery life:

- If you are not using your notebook for a long period, remove the battery.
- If you have a spare battery pack, alternate the batteries.
- Ensure your notebook is off when replacing the battery.
- Store spare battery packs in a cool, dry place, out of direct sunlight.

Chapter 8

The BIOS Setup Program

8.1 Introduction

The BIOS (Basic Input and Output System) Setup program is a menu driven utility that enables you to make changes to the system configuration and tailor the operation of your notebook to your individual work needs. A ROM-based configuration utility displays the system's configuration status and provides you with a tool to set system parameters. These parameters are stored in nonvolatile battery backed-up CMOS RAM, which saves this information even when the power is turned off. When the computer is turned back on, the system is configured with the values found in CMOS. Via easy-to-use menus, you can configure such items as:

- Hard drives, diskette drives and peripherals
- Video display options
- Password protection from unauthorized use
- Boot devices

The settings made in the Setup program intimately affect how the notebook performs. It is important, therefore, to first understand all the available options, and second, to make settings appropriate for the way you use the notebook. This chapter guides you through the Setup program by providing clear explanations for all Setup options.

A standard configuration has already been set in the Setup program by the factory technicians. However, eventually you may want to customize your system to suit your own performance needs. It is recommended that you read this chapter and become familiar with the configurations that can be made in the BIOS.

The next section explains how to move around in the Setup program, as well as how to specify and save your new settings. A brief discussion of the optional settings among the different submenus follows.

8.2 Navigating through the BIOS Setup Program

- Accessing the BIOS Setup Program
- Launching Submenus
- Saving Changes and Exiting the Setup Program

The Setup program has been designed to make it as easy to use as possible. It is a menu driven program, which means you can scroll through the various directories and make your selections among the various predetermined choices. If you accidentally configure a setting, use the BIOS hot keys to return to the previous value. The hot keys are discussed in more detail later in this chapter.

When turning on the notebook for the first time you may be prompted to run the BIOS Setup program. A warning message may appear on the screen if the hardware configuration is changed or the POST fails. This message will inform you of any errors or invalid settings and prompt you to run the Setup program to correct the problem.

Even if you are not prompted by a message instructing you to use the Setup program, at some time in the future you may want to change the configuration of your computer. For example, you may want to make changes to the display option settings or enable the notebook's password function for security purposes. It will then be necessary to reconfigure your system using the Setup program so that the computer can recognize these changes.

The list below gives a few examples of reasons why you may want or need to run the BIOS Setup program.

- You have set up the computer for the first time and you got a message stating that you should run the BIOS Setup program.
- You want to redefine the communication ports to prevent any conflicts.
- You want to change the password or make other changes to the security setup.



The few examples listed above are by no means complete.

8.2.1 Accessing the BIOS Setup Program

To access the BIOS Setup program, press the [F2] key as soon as the computer starts up. The Phoenix BIOS screen displays.

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
					Item Specific Help
System Time:		[19:34:35]			<Tab>, <Shift-Tab>, or <Enter> selects field.
System Date:		[01/01/2005]			
Hard Disk:		<i>Hard Disk Model Name</i>			
Quiet Boot:		[Enabled]			
System Memory:		640 KB			
Extended Memory:		1022 MB			
BIOS Version:		XXXXXX			
Language:		[English (US)]			
F1 Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup Defaults		
Esc Exit	←→ Select Menu	Enter Select	▶ Sub-Menu	F10 Save and Exit	

The Menu Bar

The top of the Setup screen has a menu bar with the following selections:

Main	Allows the user to configure standard IBM PC AT system parameters.
Advanced	Allows the user to configure advanced system settings.
Security	Allows the user to configure security system settings.
TPM State	Allows the user to configure TPM settings.
Boot	Allows the user to specify the order in which the notebook is to check for a device to boot the system.
Exit	Allows the user to save CMOS setting and exit the Setup program.

To move between menu bar items, use the [◀] and [▶] arrow keys until the desired item is highlighted. For example, if you want to move from the *Main menu* to the *Advanced menu*, press the right arrow key [▶] once.

Item Specific Help

To the right of the Setup screen, you will notice an item specific help bar. For each item that you select on the menu, the bar informs of its specific function as well as the hot keys related to that item and/or submenu.

8.2.2 Launching Submenus

A submenu contains additional options for a field parameter. To call up a submenu, simply move the highlight to the desired field and press the [Enter] key. The submenu opens.

If you are a first time user or are not familiar with BIOS Setup program, it is highly recommended that you take a few minutes to familiarize yourself with each of the submenus and their corresponding functions. If you accidentally make unwanted changes to the current configuration, go to the *Exit menu* and select **Discard Changes**.

8.2.3 Saving Changes and Exiting the Setup Program

Refer to the *Exit Menu* section of this chapter for detailed information on saving changes and exiting the Setup program.

8.3 The Main Menu

When the Setup program is accessed, the Information screen appears. It displays the following pieces of information regarding your current system:

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
					Item Specific Help
System Time:		[19:34:35]		<Tab>, <Shift-Tab>, or	
System Date:		[01/01/2005]		<Enter> selects field.	
Hard Disk:		<i>Hard Disk Model Name</i>			
Quiet Boot:		[Enabled]			
System Memory:		640 KB			
Extended Memory:		1022 MB			
BIOS Version:		XXXXXX			
Language:		[English (US)]			
F1	Help	↑↓	Select Item	F5/F6	Change Values
F9	Setup Defaults				
Esc	Exit	←→	Select Menu	Enter	Select ▶ Sub-Menu
F10	Save and Exit				

System Time and System Date

The hour is displayed with 24-hour format. The values set in these two fields take effect immediately.

Hard Disk

The hard disk information is displayed with the manufacturer and model name.

Quiet Boot

Enabled: Customer logo is displayed; Summary screen is disabled.

Disabled: Customer logo is not displayed; Summary screen is enabled.

System Memory

This field reports the memory size of system base memory. The size is fixed to 640KB.

Extended Memory

This field reports the memory size of the extended memory with an integer in the system, but 32Bit SMI will occupy 1 MB and UMA frame buffer (Integrated VGA uses only).

Extended Memory size = Total memory size – 1 MB – 1 MB – UMA frame buffer

BIOS Version

This field displays current version of the BIOS.

Language

Currently only English is supported.

8.4 The Advanced Menu

Selecting *Advanced* on the menu bar displays the Advanced Menu. Each field on this menu is covered below.

Phoenix TrustedCore(tm) Setup Utility						
Main	Advanced	Security	TPM State(*)	Boot	Exit	
						Item Specific Help
AHCI Configuration:			[Enabled]	Enhanced AHCI: WinXP-SP1+IAA driver supports AHCI mode.		
Total Graphics Memory:			512 MB			
Legacy USB Support:			[Enabled]			
F1	Help	↑↓	Select Item	F5/F6	Change Values	F9 Setup Defaults
Esc	Exit	←→	Select Menu	Enter	Select ▶ Sub-Menu	F10 Save and Exit

AHCI (Advanced Host Configuration Interface) Configuration

Disabled: Disables the AHCI mode.

Enabled: Enables the AHCI mode.

Total Graphics Memory

This field displays the total onboard graphics memory.

Legacy USB Support

Disabled: Disables the legacy USB support.

Enabled: Enables the legacy USB support.

8.5 The Security Menu

The notebook's advanced security system allows you to set a password to prevent unauthorized access to system resources, data, and the BIOS Setup program. This section covers each Security parameter. Selecting *Security* from the menu bar displays the Security menu.

A Note about Passwords

The BIOS Setup program allows you to specify passwords in the Security menu. The passwords control access to the BIOS and certain Security menu options during system startup.

Passwords are not case sensitive. A password can be entered using either upper or lower case letters; it makes no difference. When you choose your password, it should be composed of alphanumeric characters (a-z, 0-9) and be eight characters in length.

NOTE: The supervisor password must be set before the user password can be set.

Set Supervisor Password... / Set User Password...

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
					Item Specific Help
Supervisor Password Is:			Clear	Supervisor password controls access to the setup utility.	
User Password Is:			Clear		
Set Supervisor Password:			[Enter]		
Set User Password:			[Enter]		
Password on boot:			[Enabled]		
Built-in HDD1 Status			Clear		
Built-in HDD1 Password Select			[User Only]		
Set HDD User Password			[Enter]		
Trusted Platform Support(*)			[Disabled]		
F1	Help	↑↓	Select Item	F5/F6	Change Values
F9	Setup Defaults				
Esc	Exit	←→	Select Menu	Enter	Select ▶ Sub-Menu
F10	Save and Exit				

These fields allow you to set the System Password. The System Password allows full access to the BIOS Setup menus. To set the Supervisor password, highlight this field and press [Enter].

Type the password and press the [Enter] key. You can type up to eight alphanumeric characters. Symbols are ignored.

To confirm the password, type the password again and press the [Enter] key.

Supervisor Password Is / User Password Is

This field displays if the Supervisor/User Passwords is set.

Set System Password is set.

Clear System Password is not set.

Set Supervisor Password / Set User Password

Enter this field always shows the message.

While this field is highlighted, press [Enter]. The following message is shown:

Set Supervisor Password:		
Enter New Password	[]
Confirm New Password	[]

If there is an existing password then setup will prompt with the following window instead and the current password will be required to be entered at first:

Set Supervisor Password:		
Enter Current Password	[]
Enter New Password	[]
Confirm New Password	[]

User can type password in field of **Enter New Password**, and re-enter password in field of **Confirm New Password** for verification.

If verification OK:

Setup Notice
Changes have been saved.
[Continue]

The supervisor password is saved after pressing [Enter].

If verification fails:

Setup Warning
Passwords do not match.
Re-enter password.
[Continue]

The formats of the password are as follows:

Length: No more than eight characters.

Characters: Alphanumeric keys only. The shift status, Ctrl, Shift, Alt, and capitals, are ignored.

Password on boot

If password on boot is required, the password must be set otherwise it cannot be enabled. Enable this field to have setup prompt for the password when the computer boots.

Built-in HDD1 Status

Set HDD Password is set.

Clear HDD Password is not set.

Built-in HDD1 Password Select

User Only For normal user entering HDD password.

User+Master Master password must be set first before user password can be configured.

Set HDD User Password / Set HDD Master Password

Enter this field always shows the message.

While this field is highlighted, press [Enter]. The following message is shown:

Set HDD Master Password		
Enter New Password	[]
Confirm New Password	[]

If there is an existing password then setup will prompt with the following window instead and the current password will be required to be entered at first:

Set HDD Master Password		
Enter Current Password	[]
Enter New Password	[]
Confirm New Password	[]

User can type password in field of **Enter New Password**, and re-enter password in field of **Confirm New Password** for verification.

If verification OK:

Setup Notice
Changes have been saved.
[Continue]

The HDD password is saved after pressing [Enter].

If verification fails:

Setup Warning
Passwords do not match.
Re-enter password.
[Continue]

If password on boot is required, the password must be set otherwise it cannot be enabled.

The formats of the password are as follows:

Length: No more than 8 characters.

Characters: Alphanumeric keys only. The shift status, Ctrl, Shift, Alt, and Capital, are ignored.

Trusted Platform Support (*)

This item will show up if Trusted Platform Module (TPM) exists within the system.

Disabled: Disables TPM support.

Enabled: Enables TPM support.

8.6 The TPM State Menu

This menu allows the user to understand current TPM state and change the TPM state.

The TPM state menu will show up if TPM exists within the system and Trusted Platform Support item is enabled in “Security Menu”.

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
					Item Specific Help
Security Chip State:		Enable and Deactivated			
Change TPM State		[No Change]			
F1	Help	↑↓	Select Item	F5/F6	Change Values
F9	Setup Defaults				
Esc	Exit	←→	Select Menu	Enter	Select ▶ Sub-Menu
F10	Save and Exit				

Security Chip State

This field displays the current TPM state.

Change TPM State

<u>No Change</u>	Do not change the TPM settings.
Enable & Activate	Enable chip encrypted data and user from taking ownership.
Disable & Deactivate	Disable security chip prevents encrypted data from being used and Deactivated security chip prevents a user from taking ownership.
Clear	Clear Security Chip to default state and release ownership.

8.7 The Boot Menu

This menu allows the user to decide the order of boot devices to load the operating system. Bootable devices include the diskette drive in module bay, the onboard hard disk drive and the CD-ROM in module bay.

Phoenix TrustedCore(tm) Setup Utility					
Main	Advanced	Security	TPM State(*)	Boot	Exit
					Item Specific Help
HDD	<i>Hard Disk Model name</i>		Keys used to view or configure devices:		
CD/DVD	<i>CD/DVD Drive Model name</i>		Up and Down arrows select a device.		
FDD			<F5> and <F6> moves the device up or down.		
LAN			<Shift + 1> enables or disables a device.		
F1 Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup Defaults		
Esc Exit	←→ Select Menu	Enter Select	▶ Sub-Menu	F10 Save and Exit	

Load Setup Defaults

Allows the user loads default values in CMOS Setup. The following message prompts the user to confirm after pressing [Enter] on this item.

Setup Confirmation Load default configuration now? [Yes] [No]
--

Select **Yes** to confirm or **No** to abort. You will then return to the setup screen.