AVERATEC
5400 Series
User Guide

Notebook Computer User Guide

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This manual guides you in setting up and using your new notebook computer. Information in this manual has been carefully checked for accuracy and is subject to change without notice.

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FCC Information to User

Safety and Care Instructions

No matter what your level of experience with computers, please make sure you read the safety and care instructions. This information can help protect you and your computer from possible harm.

Radio and television interference

Warning: Use the specified shielded power cord and shielded signal cables with this computer, so as not to interfere with radio and television reception. If you use other cables, it may cause interference with radio and television reception.

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 not cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encourage to try to correct the interference by one or more of the following measures:

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

You may find helpful the following booklet, prepared by the Federal Communications Commission: Interference Handbook (stock number 004-000-00345-4). This booklet is available from the U.S. Government Printing Office, Washington, DC20402

Warning: The user must not modify or change this computer without approval. Modification will void the warranty to this equipment.

FCC RF Exposure

FCC RF Radiation Exposure Statement:

This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

15.247 (b)(4), the EUT meets the requirement that it be operated in a manner that ensures the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines (1.1307, 1.1310, 2.1091 and 2.1093)

Canadian Department of Communications Compliance Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Shielded Cables Notice

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Peripheral Devices Notice

Only peripherals (input/output devices, terminals, printers, etc) certified to comply with Class B limits may be attached to this equipment. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

CD-ROM Notice

The CD-ROM is a Class One Laser Product.

Caution

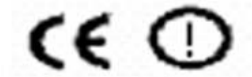
Changes or modifications not expressly approved by the manufacturer may void the user's authority, which is granted by the Federal Communications Commission, to operate this computer.

Use Conditions

This part complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

European Notice

For the following equipment: Notebook PC



is herewith confirmed to comply with the requirements set out in the

Council Directive on the Approximation of the Laws of the Member

States relating to Electromagnetic Compatibility (89/336/EEC), Low voltage

Directive (73/23/EEC) and the Amendment Directive

(93/68/EEC), the procedures given in European Council Directive

99/5/EC and 89/3360EEC.

The equipment was passed. The test was performed according to the

following European standards:

EN 300 328-2 V.1.2.1 (2001-12)

EN 301 489-1 V.1.3.1 (2001-09) / EN 301 489-17 V.1.1.1 (2000-09)

EN 50371: 2002

EN 60950: 2000

EN 55022: 2001

EN 61000-3-2: 2000

EN 61000-3-3: 1995 + A1: 2001

EN 55024: 2001

802.11b Restrictions:

- European standards dictate maximum radiated transmit power of 100mW EIRP and frequency range 2.4000-2.4835GHz;

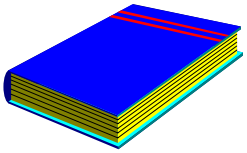
- In France, the equipment must be restricted to the 2.4465-2.4835GHz frequency range and must be restricted to indoor use."

About Your Notebook Computer

Congratulations on your purchase of a new Professional Multimedia Notebook. This notebook incorporates the strongest features, which integrate the latest technologies available in the notebook industry.

Your new notebook computer not only drives today's multimedia applications but also be ready for tomorrow exciting new software.

About Your User Guide

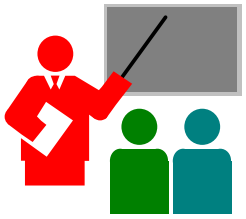


Welcome to your Professional Multimedia Notebook User Guide. This manual covers what you need to know in using your computer. This manual also assumes that you know the basic concepts of Windows and the PC.

This manual is divided into seven chapters.

Chapter 1	Gives introduction on your computer features.
Chapter 2	Provides step-by-step instructions to help you begin using your notebook as quickly as possible.
Chapter 3	Describes how to operate the standard features of your computer.
Chapter 4	Illustrates how to integrate video and sound chips into impressive presentation.
Chapter 5	Illustrates how to connect external device to your computer.
Chapter 6	Explains how to use the System BIOS Setup program.
Chapter 7	Offers instructions on how to care and maintain your notebook.

1 Introduction



Your Notebook PC is a full Windows compatible portable personal computer. With the latest features in mobile computing and multimedia technology, this notebook is a natural traveling companion. With leaps in technology, your Notebook PC runs a wide range of general business, personal productivity, entertainment, and professional applications. It is ideal for use in the office, at home, and on the road.

Your Notebook PC makes an ideal choice for use in the office, the schoolroom, at home, on the road and all other occasions.

1.1 Feature Highlight

Before we identify each part of your Notebook PC, we will first introduce you to some notable features of your computer.

Processing Unit

- Your notebook is equipped with the latest AMD microprocessor.

Memory

This notebook provides two memory slots for installing 200-pin DDR SDRAM SO-DIMM (Small Outline Dual In-Line Memory Module) up to 2 GB using 128 MB, 256 MB, 512 MB, or 1024 MB DDR SDRAM SO-DIMMs.

PCMCIA

Provides one PCMCIA slot that allows you to insert one Type II card.

Graphics System

Fast S3 UniChrome™ Pro IGP graphics processor

PCI Local Bus Architecture

- 32-bit PCI Enhanced IDE optimizes the data transfer between the CPU and hard disk drives. Support ultra DMA ATA-100/133 PIO Mode up to PIO Mode 5 bus mastering for LBA Scheme.
- 32-bit PCMCIA CardBus PCI technology that is also backward compatible with 16-bit PC cards.

Audio System

Full-duplex 16-bit stereo audio system output. Sound Blaster and Sound Blaster Pro compatible.

Flash BIOS

Flash BIOS allows you to easily update the System BIOS using a flash utility program.

Power and System Management

- Integrated SMM (System Management Mode) on system chipset that shuts down components not in use to reduce power consumption. To execute power management, you can set up the parameter in **Power Options** properties by pointing your mouse to Control Panel of Windows.
- Suspend hot-key allows you to suspend the system operation instantly and resume at the press of the power button.
- System Password for User and Supervisor included on the BIOS SETUP Program to protect unauthorized use of your computer.

1.2 Unpacking the Computer

Your computer comes securely packaged in a sturdy cardboard shipping carton. Upon receiving your computer, open the carton and carefully remove the contents. In addition to this User Guide, the shipping carton should also contain the following items:

☑ The Notebook Computer

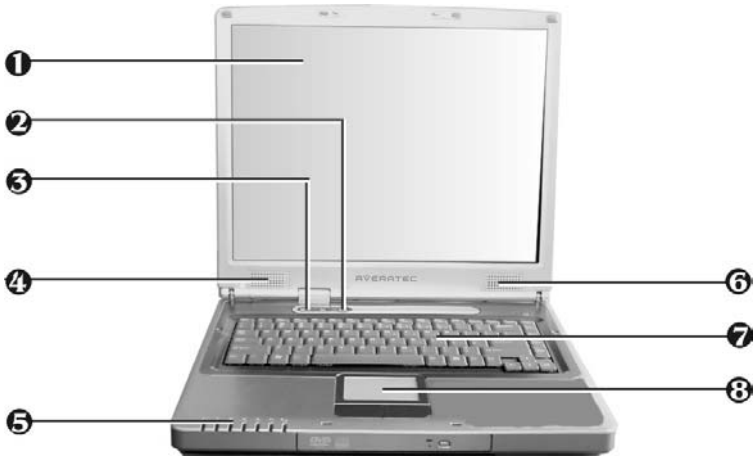
☑ An AC Adapter and AC Power Cord

- ☑ Li-Ion Battery Pack
- ☑ Recovery CDs
- ☑ Quick Setup Guide

Carefully inspect each component to make sure that nothing is missing and/or damaged. If any of these items is missing or damaged, notify your point of purchase immediately. Be sure to save the shipping materials and the carton in case you need to ship the computer or if you plan to store the computer away sometime in the future.

1.3 The Inside of the Notebook

The notebook computer is compact with features on every side. First, look at the inside of the system. The following sections describe inside features.



1. Color LCD Display
2. Power On/Resume Button
3. Easy Buttons
4. 6. Built-in Stereo Speakers
5. Status LED Indicator
7. Keyboard
8. Glide pad Pointing Device

- Color LCD Display
  The notebook computer comes with a color LCD that you can adjust for a comfortable viewing position. The LCD is a 15" TFT color LVDS with 1024x768 XGA (Extended Graphics Array) resolution panels. The features of the Color LCD Display are summarized as follows:

- TFT color LVDS with 15" 1024x768 XGA resolution
- Capable of displaying 16M colors (32-bit true color) on either size panels
- LVDS display control hot-keys allows you to adjust the brightness of the LCD.
- Simultaneous display capability for LCD and external desktop computer monitor.

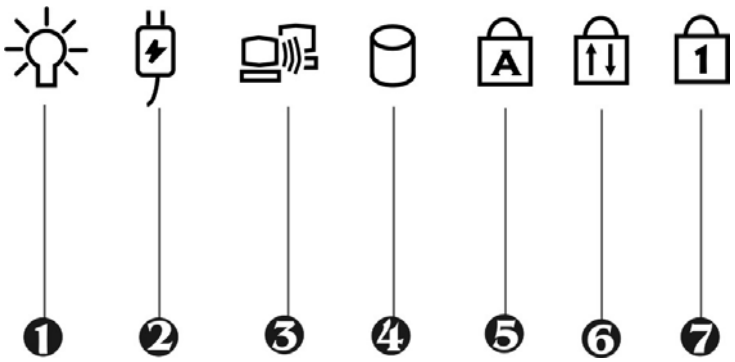
- Power On/Resume Button
  Switches the computer power on and off, or resumes whenever it is in Suspend mode.
- Easy Buttons
  There are two easy buttons used for accessing Internet and e-mail functions instantly and easily. Description of the easy buttons appears in the latter part of this section.
- Built-in Stereo Speakers
  Integrated left and right mini stereo speakers for sound and audio output for your multimedia presentations or listening pleasure.
- Status LED Indicator
  Keeps you informed of your notebook computer's current power status. Descriptions of the status icons appear in the latter part of this section.
- Keyboard
  - Standard QWERTY-key layout and full-sized 87/88/89 keys keyboard with Windows system hot-keys, embedded numeric keypad, 7 hot keys, inverted "T" cursor arrow keys, and separate page screen control keys.

- Wide extra space below the keyboard panel for your wrist or palm to sit-on comfortably during typing.

- Glide Pad Pointing Device
  Microsoft and IBM PS/2 mouse compatible with two Glide Pad click buttons. These two buttons array below the Glide pad. The two click buttons located at each side support tapping selection and dragging functions. These buttons work like a standard computer mouse. Simply move your fingertip over the Glide Pad to control the position of the cursor. Use the selection buttons below the Glide Pad to select menu items.

STATUS LED INDICATOR

The Status LED Panel keeps you informed of the notebook's current operating status. Each LED is marked with an icon to designate the system status. See the following figure and list for each icon's meaning.



1. Power Indicator
2. Battery Charging LED
3. Wireless LAN Access
4. Drive Access
5. Caps Lock
6. Scroll Lock
7. Num Lock

Status LED Icons

- Power Indicator
  Lets you know that the power to the system is turned on. This LED is positioned so that you can see the power state whether the LVDS panel is opened or closed.
  - ➡ Lights green when the system is powered on using the AC adapter or battery.
  - ➡ Lights green blinking when in Suspend to RAM. (or Suspend to Disk)

- ➟ Lights amber when the battery power is low.

- Battery Charging LED
  Lights to indicate battery in charging status.
  - ➟ Lights amber to indicate that the battery is in charging.
  - ➟ Lights off to indicate the battery is fully charged or no battery installed.

- Wireless LAN access
  Lights in green indicate that the wireless LAN module is installed. When lights blinking green indicate that the system is accessing or retrieving data by wireless device.

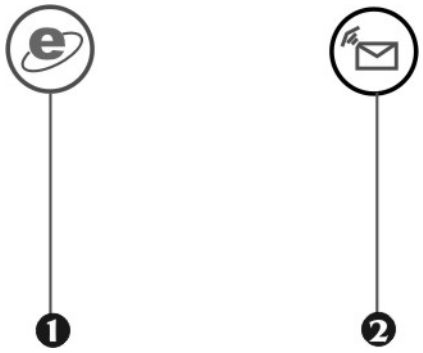
- Drive Access
  When LED in green light indicates that the system is accessing either the Hard Disk or DVD/CD-RW Combo drive.

- Caps Lock
  When LED in green light indicates that the Caps Lock key on the keyboard is activated. When activated, all alphabet keys typed in will be in uppercase or capital letters.

- Scroll Lock
  When LED in green indicates that the Scroll Lock key on the keyboard is activated. The Scroll Lock key has different functions depending on the software you are using.

- Num Lock
  When LED in green light indicates that the Num Lock key on the keyboard is activated. When activated, the embedded numeric keypad will be enabled.

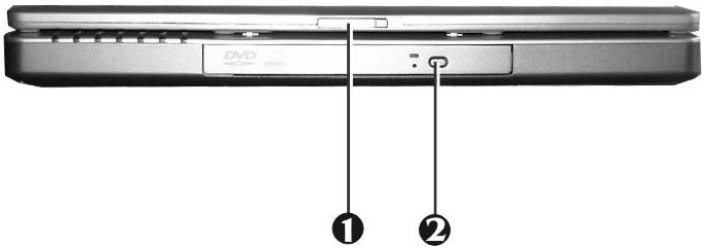
THE FUNCTION OF EASY BUTTONS



1. Internet Button 2. E-Mail Button

- Internet Button
  This technology is designed specifically for providing a very convenient way in connecting to the Internet
- E-mail Button
  This is the most convenient way to access your E-mail application such as Microsoft Outlook or Outlook Express.

1.4 The Front Side of the Notebook

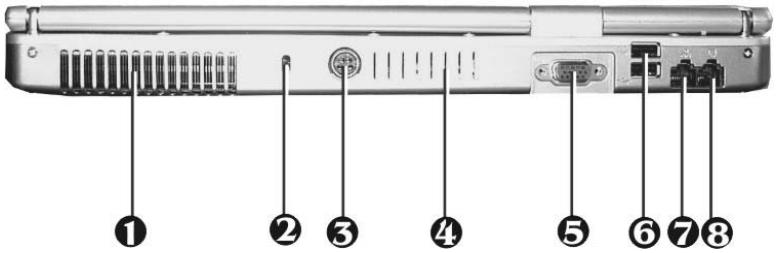


1. Cover Switch 2. Optical Disk Drive

- Cover Switch
  The cover (LCD panel) is locked when it is closed. Slide the latch towards your right to release the latch to open the cover.
- Optical Disk Drive
  The ODD (Optical Disk Drive) device supports DVD-ROM, CD, CD-R, CD-RW, DVD-R/RW and DVD+R/RW media. Allows you to read from and write to the medium listed above.

1.5 The Rear Side of the Notebook

The system ports at the back of your notebook computer can connect various devices (like a external monitor). Each port is described as followings.



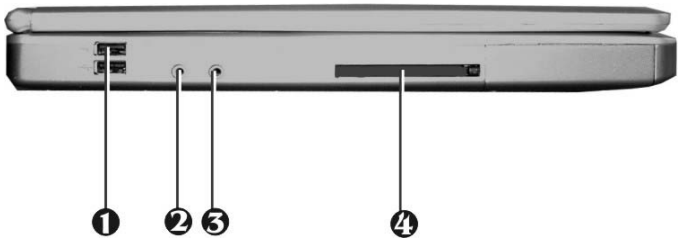
1. Air Outlet Vent
2. Locking Device Keyhole
3. DC Power Port
4. Air Intake
5. VGA Port
6. USB Ports
7. LAN Port
8. Modem Port

- Air-Outlet Vent
  Transmits the heat out of your computer and keeps it within operating temperature.
- Locking Device Keyhole
  Lets you attach a Kensington security system or a compatible lock to secure your notebook computer.
- DC Power Port
  Lets you connect the AC power adapter in supplying continuous power to your notebook and recharging the battery.
- Air Intake
  Brings air into your computer to keep it within operating temperature.
- VGA Port
  Lets you attach an external CRT monitor for wider display. You can run the LCD display and the external CRT monitor simultaneously or switch it to CRT only using the display hot-key.

- USB Port
  The Universal Serial Bus (USB) port allows you to connect up to 127 USB-equipped peripheral devices (for example, printers, monitors, scanners and so on) to your notebook computer.
- LAN Port
  An internal 10Base-T/100Base-TX LAN module connects your computer to other computers/networks through a local area network (LAN).
- Modem Port
  56K internal fax/data modem for use to connect to dial-up networks and send/receive faxes using your notebook computer.

1.6 The Left Side of the Notebook

The left side of your notebook computer provides the features shown in the following figure.



1. USB Port
2. Headphone Jack
3. Microphone Jack
4. PCMCIA slot

Left Side Features

- USB Port
  The Universal Serial Bus (USB) port allows you to connect up to 127 USB-equipped peripheral devices (for example, printers, monitors,

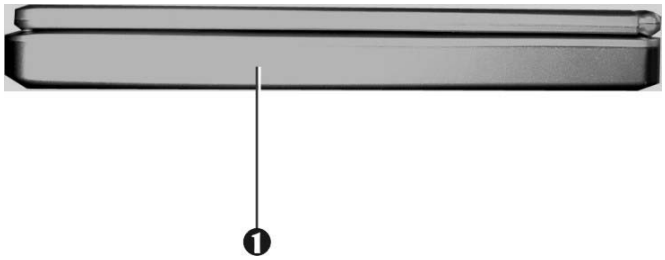
scanners and so on) to your notebook computer.

- Headphone Jack
  Lets you plug in a stereo headphone, powered speakers, or earphone set with 1/8 inch phono plug for personal listening.
- Microphone Jack

  Allow you to connect an external microphone for monophonic sound recording directly into your notebook computer.
- PCMCIA Slot
  - ➟ Lets you connect various PC cards such as memory card.
  - ➟ Supports both 32-bit CardBus and 16-bit PC cards.

1.7 The Right Side of the Notebook

The right side of the notebook computer offers the features shown in the following figure.



1. Battery Pack

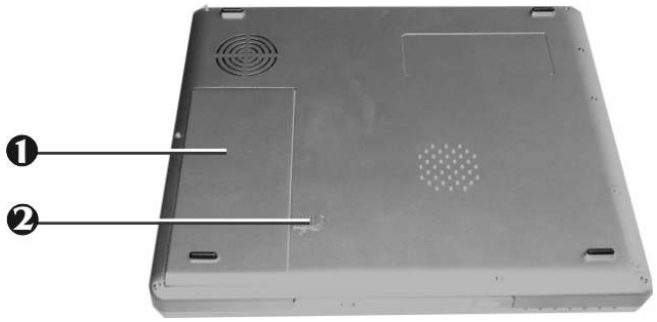
Right Side Features

- Battery Pack

The battery provides the power for the notebook when there is no AC power available. Please refer to chapter 2.1 for how to attach and detach the battery.

1.8 The Underside of the Notebook

The bottom of the notebook computer offers the following features.



1. Battery Bay 2. Battery Release Latch

Bottom of the System

- Battery Bay
  Equipped with a Lithium-Ion (Li-Ion) battery pack.
- Battery Release Latch
  Push the latch to the right and slide the battery cover. Lift and remove the battery pack.

1.9 Notebook Accessories

AC Adapter

The AC Adapter supplies external power to your notebook computer and charges the internal battery pack simultaneously. The AC adapter has an auto-switching design that can connect to any 100VAC ~ 240VAC power outlets. You just change the power cord if you are going to use your notebook in other countries with different connector outlets.

When you connect the AC adapter, it charges the battery whether or not the notebook computer is powered on.

Battery Pack

Aside from the AC adapter, your computer can also be powered through the internal battery pack. The battery pack uses rechargeable Lithium-Ion (Li-Ion) battery cells that provide long computing hours when fully charged and power management enabled. You should always leave the battery inside your computer even when using the AC adapter as it also acts as a back-up power supply in case power from the AC adapter is cut off. It is also very important to have the battery pack always charged to prevent battery cell degradation.

1.10 Notebook Options

DVD dual (Dual Rewritable DVD combo) Device

This device combines both functionality of a DVD-R/RW and DVD+R/RW drive.

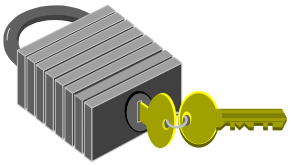
DVD-R/RW combo:

This device can write data to CD-R, CD-RW, DVD-R and DVD-RW media.

DVD+R/RW combo:

This device can write data to CD-R, CD-RW, DVD+R and DVD+RW media.

2 Getting Started



Your Notebook is designed and pre-configured for easy setup and use. This chapter describes the installation steps you should follow to get the notebook up and running as quickly as possible.

2.1 Using the Battery Pack

The notebook is designed to operate with one of the following power sources:

- With AC power using the AC adapter connected to an electrical outlet.
- With a Lithium-Ion (Li-Ion) battery pack.

You should use the AC adapter whenever it is possible, relying on the battery pack only when AC power is unavailable.

Before you use your notebook computer, install and recharge the battery pack first. The rechargeable Li-Ion battery pack allows you to operate the notebook without an external power source. When you connect the AC power adapter, the battery immediately starts to recharge.

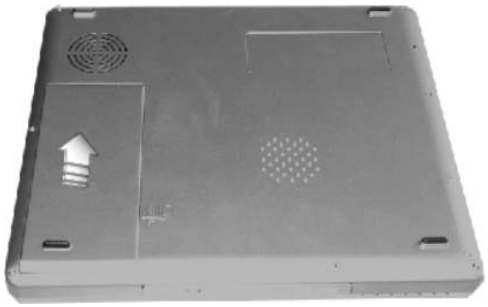
For maximum battery performance, fully discharge the battery first before recharging it when you start to use it first time. To do so, unplug the AC adapter, turn off power management features (through Setup and Windows), and turn on the system. Once the battery is fully discharged, plug in the AC adapter and recharge the battery.

If you do not discharge the battery completely, it fails to accept a full recharge.

☞ ***Li-Ion battery is vulnerable, do not charge it with other power adapter, or it may cause fire or explosion.***

Installing the Battery Pack

This notebook provides the most convenient way to install the battery pack into your computer.



Removing the Battery Pack

To remove the battery pack, slide the latch to the end of right side to release the battery pack, and then take out the battery pack with your finger.

Replacing the Battery Pack

When your notebook estimates that the battery only has enough charge to continue for a few minutes, it will alert you with a battery low warning beep. If you are consuming a lot of power by using the audio system, the PCMCIA slots, the hard drives, and DVD, DVD/CD-RW Combo, DVD dual drive, your notebook might run out of charge much sooner than expected. You should always respond to the battery low indication by connecting to AC power or turning off your notebook, or suspending your notebook to disk. If you do not do so, the notebook will automatically suspend to disk and turn off. The contents of the memory will store in the hard disk drive. You will be unable to restart the notebook until you have connected to the AC adapter or installed a charged battery. To replace the battery pack, refer to the previous sections on "Installing the Battery Pack" and "Removing the Battery Pack."

☞ ***For Window Me/2000/XP, the suspend mode (Hibernate or Standby) can be chosen in the Power Options Properties.***

☞ ***Be sure to save your data before replacing the battery pack or connecting the AC adapter. Failure to do so can result in data loss.***

EXTENDING BATTERY LIFE

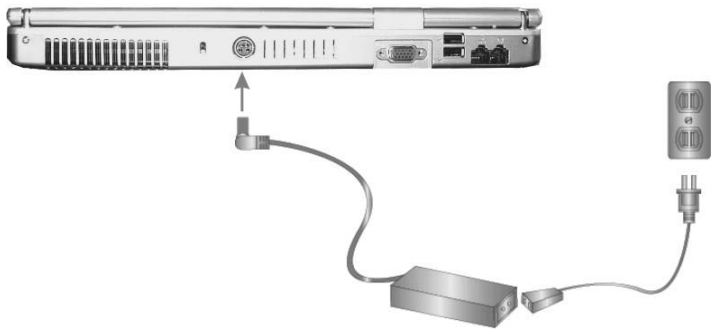
It is important to be aware of ways to extend the life of the system main battery while you are on the road. You should find a working place where the external lighting is not too bright and turn down the screen brightness. Also, you can choose the Portable/Laptop power scheme in the **Power Options** Properties.

2.2 Connecting the AC Power Source

The AC adapter provides external power source to your computer and charges the internal battery pack at the same time. The AC adapter also has an auto-switching design that can connect to any 100VAC ~ 240VAC power outlets.

To connect the power adapter:

1. Plug the AC power cord into the power socket of the AC power adapter.
2. Plug the other end of the AC power cord to a live AC wall outlet.



3. Plug the connector of the AC adapter to the DC-IN port found at the rear side of the notebook.

☞ ***Whenever possible, it is advisable to always have the AC adapter be connected to the notebook and the battery pack installed. This ensures continuous power supply and prevents any data loss incurring from sudden power outage.***

☞ • ***For the power supply of this equipment, an approved power cord has to be used.***
• ***Make sure the socket and any extension cord(s) you use can support***

• ***Before cleaning the computer, make sure it is disconnected from any***

2.3 Starting Your Computer

The Power On/Resume Button is found on the top of the base unit. Press the Power On/Resume Button to start your computer and check that if the Power LED turns on.

After a few seconds, the computer's display will turn on and your computer will begin to execute the Power On Self Test (POST) to check if all system components are running properly. Any error found during the test will be displayed on the screen and may generate short beep sound as well.

After the test, the screen will also display a message "**press <F2> to enter SETUP**". You don't need to run this program at the moment as your dealer already made the necessary settings for your computer optimal operation. Refer to Chapter 6 on running the SETUP program later.

After the test has completed, your computer will start to search and boot up the operating system from your hard drive. The notebook computer normally comes with a Windows operating system pre-installed in your hard drive.

2.4 Adjusting the Display Controls

The LCD brightness adjustment is controlled by <**Fn**> +<**F8**> and <**Fn**> + <**F9**> keys respectively. You need to press these hot-key controls after powering on your notebook to suit your viewing pleasure.

The Brightness hot-key control adjusts the brightness of the LCD. The brightness hot-key control will not set the LCD completely dark or bright; it provides sufficient lighting to the LCD to match the external lighting of the surrounding. The brighter the room, the more you need to increase the brightness of the LCD.

2.5

2.6 Turning off Your Computer

If you are not going to use the computer for a while, it is best to turn off the power of the computer for longer use. Before turning off the power, you need to close first all application programs and shutdown the operating system.

After turning off the computer, make it a habit to leave the LVDS panel open for a while whenever used for an extended period of time. This allows the inside parts of the computer to cool off. Closing the panel will force the heat

up against the LCD screen, which may degrade the LCD when done regularly. More importantly, never close the LVDS panel for a long period of time when computer is on and power saving features are disabled.

3 Using Your Notebook

This chapter describes how to operate the standard built-in features of the notebook that you normally would use in your day-to-day computer work. If you are new to computers and to your operating system, you also need to read the manual for the operating system on how to work with your computer. It is very important to familiarize yourself well with the operating system. The succeeding chapters not only guide you to go beyond the basics, but also try other exciting features.

3.1 Starting Your Operating System

The operating system is a must ingredient in using your computer. It is the base platform for all your software applications.

3.2 Understanding the Keyboard Functions

Your notebook computer is equipped with an 87-key keyboard that provides all the functionality of a full-sized 101 or 102-key IBM keyboard. Aside from the standard typewriter-layout keyboard of your computer, there are a number of extra features and function controls on the built-in keyboard including Windows system hot keys.

1. Function Keys
2. Control Keys
3. Windows Start Menu Key
4. Control Keys
5. Windows Shortcut Key
6. Cursor Control Keys

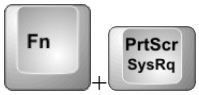
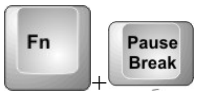
Keyboard

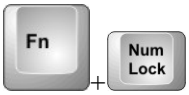
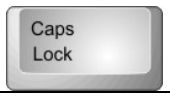
Key features and operations are described below:

- **Function Keys**
  Function keys are application-driven, like **F1** through **F12** can be found on the keyboard. These keys work together with the **Fn** key to activate special functions. Some keys (printed in blue on keypad) are preprogrammed with dual functions.
- **Control keys** — **Ctrl**, **Alt**, **Fn**, and **Shift** are controls used in conjunction with other keys to change their functions. To use control keys, press and hold the control key while pressing another key. For example, "Press **Ctrl-C**" means to hold down the **Ctrl** key and type the letter **C**. Key combinations work especially to the application you are running.
- **Windows keys**
  Use the following two keys to facilitate your work:
  - ➡ Start Menu key
    Displays the Start menu.
  - ➡ Shortcut/Application key
    Provides quick access to shortcut menus. This key acts like a right mouse button.

- **Cursor Control keys**
  Cursor control keys let you position the cursor on the screen where you want. In the screen, the cursor is a blinking underline, block, or vertical bar depending on the application. The cursor indicates where the next text typed is inserted.
- **Typewriter keys**
  Typewriter keys (also called *alphanumeric* keys) are used to enter text and characters. Keys with blue print on them behave differently when combined with control keys.

BASIC KEYBOARD FUNCTIONS

Keypad	Function Description
	<Enter> key. Execute a command. Within many text editing application programs, the <Enter> key inserts a hard carriage return, just like a typewriter.
	<Esc> key. Press this key to cancel or escape from a command or function.
	<PrtSc> key. Known as the Print Screen key. Press this key to map the whole screen to share memory for your specific usage.
	<Fn>+<SysRq> keys. Used for multitasking operating system.
	<Pause > key. Press this key to temporarily halt execution of a command. Pressing any other key to resume execution of a command.
	<Fn>+<Break> key. Press the two keys to temporarily halt execution of a command. Pressing any other key to resume execution of a command.
	<Ins> key. Known as the Insert key. Press this key to toggle the keyboard data entry from insert to type over mode.
	<Del> key. Known as the Delete key. Press this key to delete the character to the right of the cursor, or delete marked texts or items.
	<Backspace> key. Press this key to delete the character to the left of the cursor.

Keypad	Function Description
	<Shift> key. Press this key in combination with alphabet letters to produce uppercase letters in typing. Use this key in combination with those two-character keys (found on the second row of the keyboard) to produce the upper marked keys. Also used in most application program in combination with other keys to execute a certain command.
	<Tab> key. Press this key to move the cursor to the next tab stop on the right. This key works much the same as in ordinary typewriter.
	<Ctrl> key. Known as the Control key. Used in most application program in combination with other keys to execute a certain command.
	<Alt> key. Known as the Alternate key. Used in most application program in combination with other keys to execute a certain command.
	<Fn>+<Num Lock>. Activates the embedded 15-key numeric keypad. The keys are color coded blue.
	<Caps Lock> key. Used in most application program to always activate uppercase alphabet characters.
	<Scroll Lock> key. Used in most application program to scroll the screen without having to move the cursor.

CURSOR CONTROL KEYS

Keypad	Function Description

Keypad	Function Description
	**Up arrow key.** Moves the cursor up one line at a time.
	**Down arrow key.** Moves the cursor down one line at a time.
	**Left arrow key.** Moves the cursor to the left one space at a time.
	**Right arrow key.** Moves the cursor to the right one space at a time.

SCREEN CONTROL KEYS

Keypad	Function Description
	<Home> key. Moves the cursor to the beginning of a screen or line.
	<PgUp> key. Moves the cursor up one screen at a time
	<PgDn> key. Moves the cursor down one screen at a time
	<End> key. Moves the cursor to the end of a screen or line.

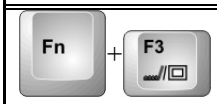
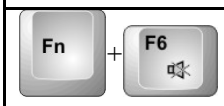
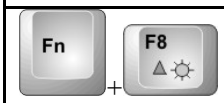
WINDOWS HOT KEYS

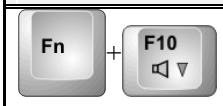
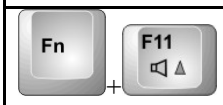
Keypad	Function Description

Keypad	Function Description
	<Start> key. Pulls up the Windows Start menu.
	<Right Click> key. Performs a mouse right-click function for Windows system.

SPECIAL FUNCTION KEYS

The notebook has special system function keys that activate key serving dual functions. When pressed in conjunction with the **<Fn>** key, these keys set specific system parameters and are sometimes referred to as "hot keys".

Keypad	Function Description
	Enable or Disables the built-in wireless LAN.
	Switches display between LCD, CRT, or LCD and CRT simultaneously.
	Enable or Disables the built-in system speaker.
	Increases the brightness of LCD display incrementally.
	Decreases the brightness of LCD display incrementally.

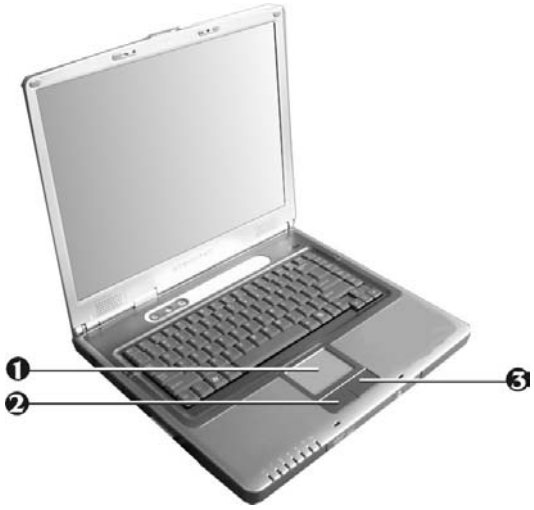
Keypad	Functio . Description
	Decreases the audio volume of the notebook incrementally.
	Increases the audio volume of the notebook incrementally.

3.3 Using the Glide Pad Pointing Device

Your computer comes with a built-in Glide Pad pointing device that is found on the center of the palm-rest surface.

The Glide Pad offers a number of options that let you customize how it functions. To access these options, locate the **Control Panel** and double click on the **Mouse** icon. The options let you control the size and color of the cursor, cursor speed, the accepted double-click speed, and selection button orientation.

The Glide Pad works a mouse pointing device replacement that is used under Windows-based operating system. You can use the standard Microsoft driver that is compatible with the Glide Pad device and is normally used under Windows-based operating system. However, if you want to utilize the added features of the Glide Pad, you may want to try installing its own device driver that comes with added utilities for enhancing the function of the device.



1. Glide Pad
2. Left Selection Button
3. Right Selection Button

Glide Pad Features

Here how to use the Glide Pad pointing device:

1. The rectangular surface acts like a miniature duplicate of your display screen. To move the mouse cursor, place the finger lightly on the sensor pad and move in the desired direction. If you reach the end of the pad, lift your finger and place it back down on the other side of the pad.
2. To select an item, click on the item by pressing the left button or by simply tapping on the surface once. A light, quick tap always works best. To execute an item, click the left button twice or do a quick double tap on the surface.

3. To simulate holding the mouse button down (dragging an icon or selection), use the tap-and-drag gesture. This feels much like a double-click, except that the finger remains on the pad after the second tap: Tap, lift, tap, hold and move. The simulated button remains held as long as the finger remains on the pad.

☞ ***Avoid spilling any liquid on the Glide pad surface and always keep the Glide pad surface and pointing finger dry from sweat built-up. Also do not expose Glide pad to any magnetic source object.***

3.4 Configuring Your Screen Display

The VGA display function of your notebook is based on a high performance AGP local bus controller and is fully IBM VGA compatible. This controller offers a large set of extended functions and higher resolutions especially useful when connecting an external high-resolution and high-frequency display device.

POSSIBLE DISPLAY CONFIGURATIONS

The table below shows you the possible display resolution you can set when using either the LCD display or the external monitor (CRT):

Display	Pos ble Resolution	Maximum Colors
1024x768 XGA LCD	640x480	16 million colors
	800x600	16 million colors
	1024x768	16 million colors
CRT Only	640x480	16 million colors
	800x600	16 million colors

	1024x768 1280x1024	16 million colors 16 million colors

☞ ***65,536 or 64K colors is also equivalent to 16-bit high color while 16 million or 16M colors is equivalent to 32-bit true color.***

☞ ***You can use the <Fn> + <F3> hot-key to switch the display between LCD only, CRT only, or both LCD and CRT display.***

CHANGING THE DISPLAY PROPERTIES UNDER WINDOWS

To change the display properties of your screen under Windows system, just right-click on the desktop area and select **Properties** or go to the **Control Panel** and click on the **Display** icon. The Display Properties dialog box will appear on your screen. Click on the Settings tab to set your desired configuration. Make sure to follow the configuration table above.

3.5 Knowing the Power Saving Features

One of the great features in your notebook computer aside from its superior performance is the ability to save energy power. Your computer is designed to incorporate intelligent and advanced power management functions that turn off power of most components when system is idle or not in use. This does not affect the performance of your system as it monitors the activity of your computer and resumes power and operating speed when activity is detected. This feature not only gives you longer battery hours but cooler systems and components as well. For more information on how to control the power management features of your computer, refer to **Power Options** in **Control Panel** of Windows.

The definitions of power management mode are depicted as follows:

Full-On Mode

No device in the system is executed in power management, the system can respond to all applications at maximum performance.

Suspend to RAM mode

All devices are powered off except the other supporting components and system memory where your working files are stored. You can activate this either pressing the power button or setting the Suspend timer on the Power Management function of the Control Panel in Windows. To resume full-on state, press the power button.

Suspend to Disk mode

When this mode is activated, the context of the entire system is saved to disk and all components and devices are powered off, while all clocks are also stopped (except Real Time Clock or RTC). You can activate this by setting the **Hibernate** (Windows Me/2000/XP) mode on the Power Management function of the Control Panel in Windows. To resume full-on state, you can press the power button.

Mechanical off Mode

All power, except the RTC (real time clock), has been turned off from the system. This includes external AC power source and battery power source.

3.6 Working with the Built-in HDD

Your notebook computer is equipped with a built-in large capacity 2.5 inch IDE hard disk drive where you store or install your computer operating system and all application software programs. You need to format the hard disk before using. The internal hard disk is normally assigned as Drive (C:) after formatting. Sometimes divided into two partitions, adding a Drive (D:). Since your computer supports different hard disk capacities (80 GB or above), you also need to set up the disk type first on your computer's BIOS SETUP program before formatting the disk drive. Your computer supports Auto-detect hard disk type, so you do not need to set it manually. Your dealer should already have done all of this for you. You can refer to **Chapter 6** on how to run the BIOS SETUP program.

You can increase the system's storage capacity by replacing the standard hard disk drive with a drive of greater storage capacity.

☞ ***If you wish to replace your hard disk, contact your local dealer for more information about this dealer-installable device.***

☞ ***Always turn off your computer first before removing the hard disk drive. Failure to do so will damage the computer and the hard disk. Avoid jarring or moving the computer while the hard disk is still being accessed.***

3.7 How to Access the Optical Drive

Your system ships with either a DVD-ROM, DVD/CD-RW combo or DVD dual drive installed on the front of your notebook. You would normally use the drive for installing operating system and software application programs.

To insert and remove a disc on the drive:

1. Make sure the computer is turned on. Press the eject button found on the door cover of the DVD-ROM drive. The CD tray mechanism will pop-out slightly and slowly pull out the whole length of the tray.
2. Place the disc on top of the CD tray with the label side facing up. Gently press the compact disc onto the center spindle to secure the disc.

3. To remove the disc, press on the center spindle and pull up the disc from the side until the disc snaps out of the spindle lock.

☞ ***If the eject function is disabled by software or a power failure occurs, the Emergency Eject Hole allows you to manually remove a CD from the reader.***

4. To close the DVD-ROM drive, simply push the CD tray inside. The CD-ROM LED will activate when the disc is detected. Wait until the LED has turned off and then start to read the disc.

The above procedures also apply to DVD/CD-RW or DVD dual drive.

How to care the CD

When you handle CDs, pay attention to the following guidelines:

- Always pick up the CD by its edges.
- Avoid scratching or soiling either side of the CD.
- Do not write with the hard ball-point pen or apply labels on either side of the CD.
- Keep the CD away from direct sunlight or high temperatures.
- Clean fingerprints or dust from the CD by wiping it with a soft cloth.

The above points also apply to DVD-ROM, CD-RW/DVD combo, or DVD Dual drive.

☞ ***The DVD-ROM reader is a Class 1 Laser Product.***

3.8 Using PCMCIA Cards

WHAT IS PCMCIA?

PCMCIA or Personal Computer Memory Card International Association is a non-profit trade association that defines the industry standard for the PC Card technology. The goal of PCMCIA is to ensure that any PC Card can work in any mobile computer built with a PCMCIA slot.

A PC Card is a peripheral device that can add a wide variety of capabilities to your computer including memory, mass-storage, LAN, fax/modem, wireless communications, and multimedia. The PCMCIA standardized PC Card is roughly the dimension of a credit card, and has a standardized 68-pin connector at one end. The main benefits of the PC Card are its low-power consumption, small size and ruggedness.

To allow manufacturers to add functions and technologies in the PC Card form factor, PCMCIA has defined two PC Card types:

Type	Thickness	Sample Devices
Type II	5.0 mm	Fax/Modem & Network Cards

Type II Cards

Type II card has a thickness of 5.0 millimeters (mm). Type II cards are often storage or communications devices such as Flash Memory, LAN, and Small Computer System Interface (SCSI). Typical Type II cards include input/output (I/O) features such as modems and LANs. The features for Type II Cards include following characters:

- Type II Extended Cards
  Many PC cards are Type II extended cards. The extended card has an additional physical component that protrudes beyond the traditional card size. The extension can be as large as 40 mm deep by 9.65 mm high. This extension provides room for additional electronics as well as a location for external connectors. The wireless LAN card and GPRS card are examples. The extended part is for additional electronics and antenna.

- Communication Cards
  Both network PC cards and fax/modem cards can use with your notebook computer. However, if you use built-in LAN/Modem options of this computer, it is not necessary to use those cards. If you start the LAN/Modem application without inserting the fax/modem card or had the built-in LAN/Modem options installed, the application typically does not find the card.

WHAT IS CARDBUS?

CardBus is the high-performance 32-bit PCI bus master interface from PCMCIA. It runs up to 33MHz clock speed and operates at only 3.3V. Your notebook computer incorporates the CardBus inside the PC card slot. Aside from 3.3V CardBus PC cards, you can also insert 5V 16-bit PC cards that can also be detected and used by your computer.

INSERTING AND REMOVING A PCMCIA CARD

Your computer includes hot swapping capability, that allows you to exchange cards while the computer is turn on and start using it immediately.

Inserting PC Cards

To insert a PC card into the PCMCIA slot:

1. Locate the PC card slot cover on the left side of the computer.
2. Insert the side of PC card with the 68-pin socket into the PCMCIA slot. The face label of the card should also be facing up.
3. When the full length of the card is almost inside the slot, push firmly but slowly, to ensure full connection with the computer. The PC card will be detected and once the needed driver is installed, it will generate a beep sound to indicate that the card is detected.

Removing PC Cards

To remove a PC card from the PCMCIA slot, you should first disable the PCMCIA card setting in the system as described followings:

1. Double click the **PC card** icon on the right bottom side of the task bar.
2. Select the socket from the list that you want to remove, and click **Stop** button. The system then disables the function of PCMCIA card.
3. Then you can remove the inserted PC card, push the button found on the right side of the PC slot to release the eject button. Then push it again to release the PC card.

4. When the PC card has moved out a space out of the slot, hold the edges of the card and slowly slide it out.

MAKING PC CARDS WORK

Since PC cards come in different types and brands, making every card work on your computer may not that be easy. PC cards like network, SCSI or multifunction cards (MFC) need additional driver installation and configuration in making the card work. This additional driver may already be built-in under Windows that Windows will try to detect and prompts you if you want to install the driver. If the driver is not included under Windows, you will need to insert the driver CD provided by the PC card manufacturer into the CD-ROM drive and install to Windows system. You need to read the manual guide of the PC card on how to configure and operate the card.

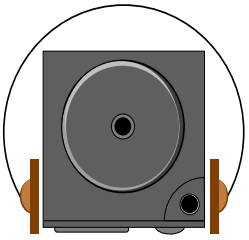
☞ ***Some PC cards require additional system resources. Before inserting a PC card you may have to disable either the USB port, or the 56K internal modem. Check the Windows device manager to ensure that there are no conflicts of resource amount those devices.***

HOT SWAPPING PC CARDS

Just like floppy disk drive, your PCMCIA slots allow you to replace one PC card with another even while your computer is on. However, you need to remember the rule that if the PC card is in use, you must not remove it.

☞ ***PC cards draw power even when not in use. To save energy, press the button to disconnect the card when it is not in use.***

4 Fun with Multimedia



This chapter lets you make full use of all the multimedia features of your computer in having fun and excitement during work or leisure. You will learn how to mix and match the built-in sound system, use DVD, DVD/CD-RW Combo, DVD Dual drive in creating an exciting full multimedia presentation.

4.1 Notebook Multimedia Features

Your notebook computer is rich in multimedia features that make your computing fun, comfortable, exciting and easy. Your computer is well able to perform all multimedia tasks through the following:

- AMD Athlon XP-M microprocessor.
- 256 or 512 MB RAM.
- DVD/CD-RW combo or DVD dual drive
- Integrated 128-bit 2D/3D graphics engine
- 16-bit Audio Sound System with built-in speaker and microphone.

4.2 Audio Sound System Features

Your computer has a built-in 16-bit stereo sound controller that allows you to record, store, and playback voice, music and other sound effects with built-in mixer controls. An integrated full-duplex microphone and twin mini-speakers are also built-in into your computer to allow you to record and playback sound anytime and anywhere.

On the left side of your computer, you will find the audio ports that include the following:

- External 1/8-inch microphone jack for your external microphone for recording purpose.
- Earphone or headphone jack for personal listening.
- Sound volume adjust by Keyboard hot-keys

4.3 Setting Up the Audio Driver Properties

Before you can start using the audio capabilities of your computer, you need first to setup properly the audio driver after installing Windows. Since Windows pre-installed, your audio driver was already configured for you.

4.4 Windows Multimedia Programs

Windows provides several multimedia programs that you can run with the built-in features of your computer. Pointing the **Start** button, **Programs**, **Accessories**, then **Entertainment**, you will find the Multimedia programs group. (The section below use Window XP as examples)

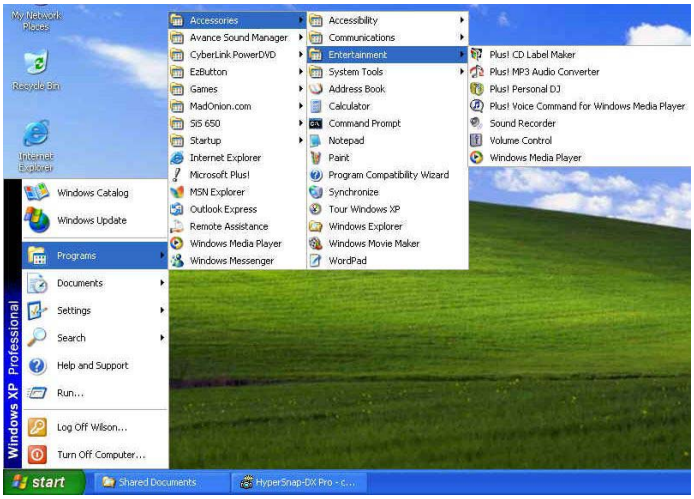


Figure 4-1 Entertainment Programs Group

The standard multimedia components are as follows:

- Windows Media Player - for playing sound, video and animation files
- Sound Recorder - for recording sounds and playback
- Volume Control - for adjusting the volume of mixer

☞ ***For more information on how to operate these multimedia components, run the program and click on the Help menu.***

4.5 Recording Sounds

Your computer allows you to record voice and other sounds in several ways and stores them as files on your hard disk. These voice or sound files can then be played back through the internal speaker or earphone jack using an external speaker, headphone, or earphone set. You can also use the files as voice annotations on many applications for more real presentation. This section will describe briefly how you can record sounds under Windows operating system.

To record sounds, you need to run the Sound Recorder program from the Multimedia program groups. The control buttons of the Sound Recorder are simple to understand which comprise of the Fast Rewind, Fast Forward, Play, Stop, and Record buttons. Click the Help menu on how to operate the Sound Recorder.

Figure 4-2 Sound Recorder

The Sound Recorder also allows you to record sound from different input audio source like the following:

- From the external microphone
- From the DVD, DVD/CD-RW Combo, or DVD Dual drive

Since you could record sound from different input sources, you must first set the proper audio input recording device under the Recording Control panel. To do this:

1. Double-click on the Volume Control on the taskbar or click Start button, then point to Programs, Accessories, Entertainment and then click on Volume Control.
2. Click **Properties** in the Options main menu.
3. Click the round button for Recording and tick off each component that list in the "Shows the following Volume Controls" box.

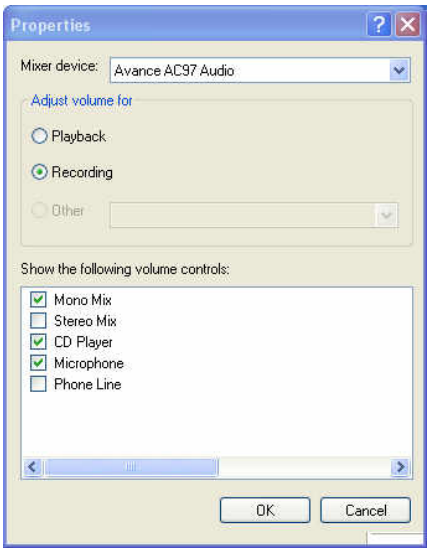


Figure 4-3 Audio Properties

4. Click OK and the Recording Control dialog box will appear. Here, you will select the input device for the recording source. If you want to record from the DVD, CD-RW/Combo, or DVD Dual drive with audio music, you must click on CD Player.

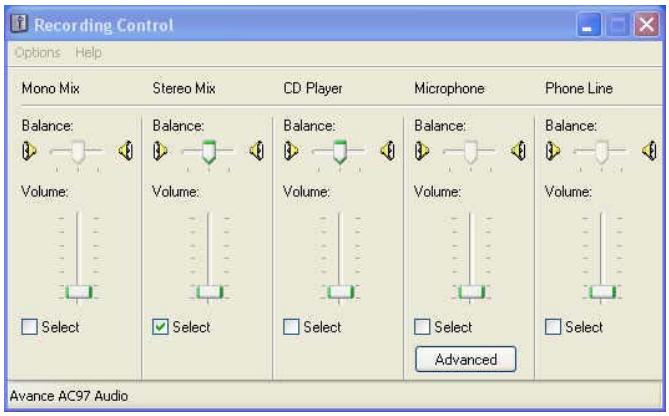


Figure 4-4 Recording Volume Control

USING AN EXTERNAL MICROPHONE

Your computer allows you to connect an external microphone for high quality recording. The external microphone jack is found on the left side of your computer. Use only microphone with 1/8-inch mini-jack connector. Follow the same procedure for recording voice.

USING THE BUILT-IN DVD-ROM, DVD/CD-RW COMBO, DVD DUAL DRIVE

You would normally use the DVD-ROM, DVD/CD-RW combo or DVD dual drive for recording audio music from the Audio CD. Follow these steps:

1. Activate CD Player volume on the Recording Control as discussed earlier.
2. Run the Sound Recorder program.

3. Insert the audio CD into the DVD-ROM/ DVD/CD-RW combo or DVD dual drive. Unless you have disabled the CD auto-insertion notification for supporting Suspend mode, the CD Player should automatically run after you have inserted an audio compact disc and will start playing the audio CD.

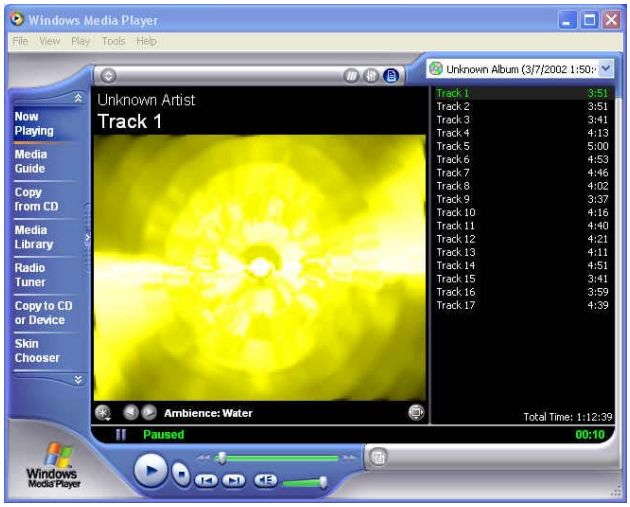


Figure 4-5 Play Audio CD by Windows Media Player

4. Select the starting point where you want to start recording.
5. Switch to the Sound Recorder and press the Record button.
6. Switch immediately to the Windows Media Player and press the **Play** button. You can adjust the volume control so you can also hear the music while in recording.

4.6 Playing Audio and Sound

Your computer has built-in twin speakers to playback audio and sound. You can also adjust the volume manually by adjusting keyboard hot-keys.

For more quality sound output, you can choose to connect an external amplified speaker or earphone from headphone jack. Always minimize the volume first before placing the phone set to your ear.

USING THE WINDOWS MEDIA PLAYER

The easiest way to playback multimedia media files is to run the Windows Media Player. Follow these steps:

1. Click on **Start**, point to **Programs**, **Accessories**, and then **Entertainment**.
2. Click on **Windows Media Player** to start program.
3. Click on the File menu and select the file you want to play.
4. When the file is recognized and open, click on the **Play** button to start playback.

4.7 Using DVD

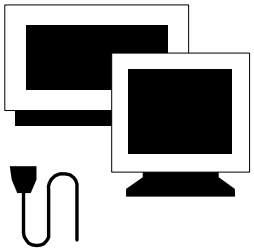
DVD is the breakthrough in superb full-motion picture playback. One disc can contain at least 4.7GB of information, capable of holding one full-length movie with soundtracks, subtitles, and different languages. Much more, the DVD-ROM drive of your computer is backward compatible with CD-ROM drive so it allows you to use any CD as well. It also works the same as the CD-ROM.

4.8 Using DVD/CD-RW combo

CD-RW, CD-RW/DVD combo drive is a device that can write digital data to CD-RW and CD-R compact disk (CD). With this device, you can backup your own data to CD-R or CD-RW disc for mass data storage and safely retaining. The CD-R disc can be written several times until the CD-R is full; the CD-RW disc, furthermore, can write and erase data repeatedly. Please refer to the related user manual about the CD-RW software.

☞ ***Please pay attention to the copyright of the software or data you want to backup. Backup or distribute the software or data might be illegal according the restriction of the law.***

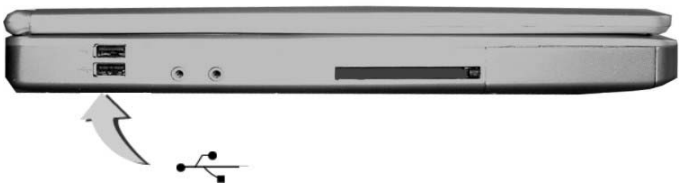
5 Connecting to Peripherals



This chapter describes how you attach peripheral devices to your notebook. You can attach a printer or mouse; connect an external monitor and keyboard, or any other peripheral device. You will learn how to use these peripheral devices with the step-by-step instructions depicted in this chapter.

5.1 Using the USB Port

USB or Universal Serial Port is a peripheral bus standard. Personal computers equipped with USB will allow computer peripherals to automatically configure as soon as they are physically attached - without the need to reboot or run setup. USB will also allow multiple devices to run simultaneously on a computer, with peripherals such as floppy drive, mouse, digital cameras, scanners, printers, , modems, keyboards, games devices and additional plug-in sites, or hubs.



☞

5.2 Using an External Monitor Port

Your computer has a 15-pin Monitor port for supporting any external CRT or LCD color monitor. You need a display signal cable (usually provided with the monitor). One end of the cable must have a 15-pin connector for the system.

To connect an external monitor:

1. Turn off your computer and make sure the monitor power switch is turned off.

2. Connect the connector cable of the monitor to the VGA port at the back of your computer. Secure the cable connection with the screws provided.
3. Connect the monitor power cable and plug it into a properly grounded wall outlet.
4. Turn on the power of the monitor.
5. Turn on your computer. Both the LCD panel and the monitor screen will show the display. Your computer is set at default to run at simultaneous display mode.
6. If you only want to show the display on the external monitor (CRT/LCD) and shut off the LCD display, you can use the <**Fn**> + <**F3**> hot-key to switch display type between LCD and CRT. Keep pressing the hot-key until you get the display to external CRT/LCD only.

☞ ***Refer to Chapter 3 regarding the possible External CRT resolutions and how to change the display properties.***

5.3 Using the External Audio System

At the left side of your computer, you will find the built-in audio ports. You can connect Microphone jacks, earphone or powered speaker.

To connect to a audio jack:

1. Locate the audio port (Microphone, Headphone) that you want to use to the target device.
2. Plug the jack into the port on the left side of the system.

☞ ***If you use external speakers and experience the sound distortion or feedback, please lower the volume. Some factors is caused by too close locating the microphone and speakers from each other, moving away the external audio option from the unit may also help.***

5.4 Using the LAN Port

This notebook comes with an internal 10Base-T/100Base-TX LAN module that connects your computer to other computers/networks through a local area network (LAN) and supports data transfer rates up to 100Mbps. The 10Base-T standard also called Twisted Pair Ethernet is connected with RJ-45 connectors. The 100Base-TX is based on the older Ethernet standard. Because it is 10 times faster than Ethernet, it is often referred to as Fast Ethernet.

The built-in LAN module provides a standard RJ-45 connector.

To connect the twisted-pair cable to your LAN port:

1. Purchase a twisted-pair cable. Each end of the cable has an RJ-45 connector.
2. Connect one end of the cable into the network wall outlet or HUB.
3. Connect the other end of the cable into the computer's RJ-45 LAN port.

5.5 Using the Modem Port

This notebook comes equipped with a 56K internal fax/data modem that allows you to communicate with others via fax, email, or to connect to an online service or bulletin board. The modem module is available as an option.

The built-in fax/data modem provides on standard phone connector.

To connect the analog phone cable to your modem:

1. Purchase an analog phone cable. Each end of the cable has a RJ-11 connector.
2. Connect one end of the cable into a standard wall outlet.
3. Connect the other end of the cable into the computer modem port.

☞ ***The speed of data transmission is dependent on the quality of telephone lines. Digitally terminated lines improve the speed of data transmission. Contact your service provider for more information.***

☞ ***The analog phone cable is an industry standard cable. Longer cables are available at your local electronics store.***

☞ ***If you want to buy the telephone line by yourselves, please be sure that only No. 26 analog phone cable can connect to your computer.***

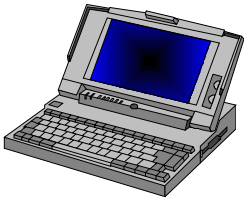
5.6 Using the Wireless LAN

Wireless LAN is the major breakthrough in computer communication technology. It lets user connect to the LAN environment without using any wire to traditional RJ-45 jack. User can enjoy the wireless connection within the range of a Wireless Access Point (WAP) of LAN.

WAP is the wireless transmission and receiving device and generally connects to the server of a LAN environment or acts as a LAN hub with wireless connection. Access point can be set in an office environment, airport, major railway station, etc. that depends on the construction of each country. In most case, you probably can use it at office, please consult with the network department of your company for more details.

This computer integrates an IEEE 802.11 g wireless LAN module which supports 54 Mbps and 11 Mbps wireless connection speed. You can connect to the wireless LAN Access Point without the need of an additional wireless LAN device.

6 Customizing Your Notebook



Your computer uses the Phoenix BIOS Setup program that allows you to set several system configuration in changing the way your computer performs. This includes your system time and date, disk drive configuration and password setup. This information is then stored in the CMOS RAM and will remain permanent unless you change it again. This chapter discusses on how you will activate the BIOS Setup program and change the system configuration to suit your desired operation. You must be careful to set the configuration properly in order for your computer to run smoothly. If you are not sure of any settings, contact your dealer.

6.1 Running the BIOS Setup Program

Your computer is likely to have been properly setup and configured by your dealer prior to delivery. However, you may find it necessary to use the computer's BIOS (Basic Input-Output System) Setup program to change system configuration information, such as the current date and time, or your hard disk drive type. The Setup program can be accessed when you power on the system and pressing the <**F2**> function key.

The settings that you specify within the Setup program are recorded in a special area memory called the **CMOS RAM**. This memory is backed up by a battery so that is will not be erased when you turn off or reset the system. Whenever you turn on the computer, the system will read the settings stored in the CMOS RAM and compare them to the equipment check conducted during the Power On Self Test (POST). If an error occurs, an error message will be displayed on the screen, and you will then be prompted to run the Setup Program.

As the POST (Power-On Self Test) executes during the boot up process, the screen will display the following message:

```
Press <F2> to Enter SETUP
```

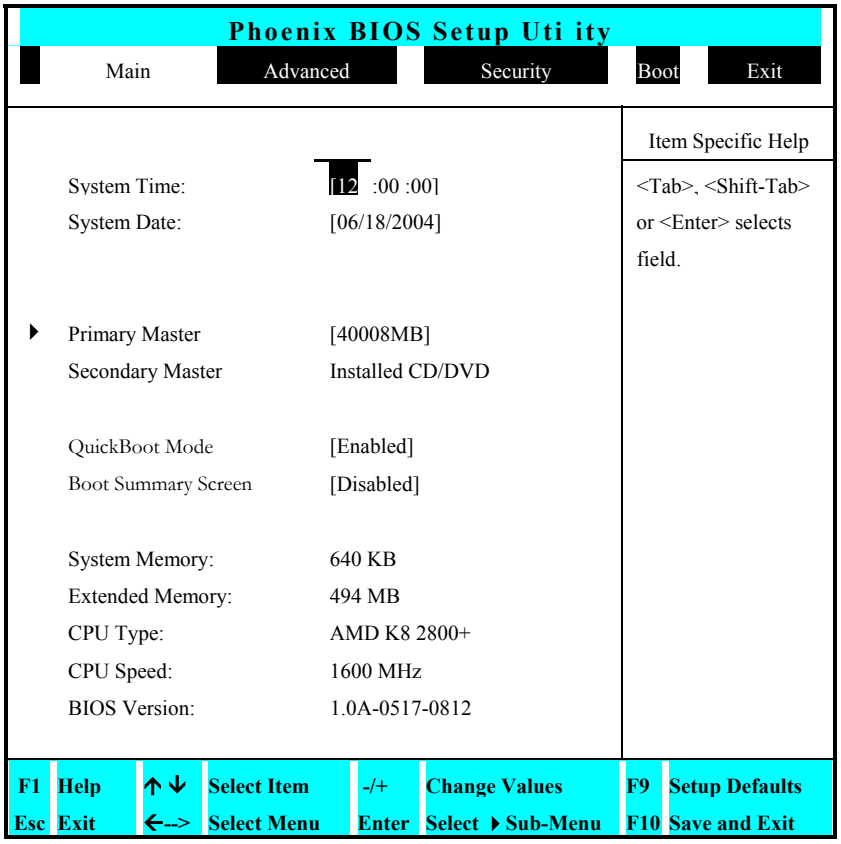
Press the <**F2**> key to run the BIOS Setup program. The BIOS Setup program is organized into five menus which you can select using the arrow ← and → keys. To move from one option to another, you use the up and down arrow keys while using the <F5> and <F6>, or <+>and <–> keys to change the settings. On the right hand side of the screen are some brief help descriptions of each item you want to change.

On the BIOS Setup program, you will find the following parts on the screen:

- Item Specific Help
  The right side of the screen. This item describes each parameter and its available settings.
- Menu Bar
  The top line of the screen. Each of the five selections displays its own screen.
- Parameters
  The left side of the screen. This area lists the parameters and their current settings.
- Key Status Bar
  The bottom part of the screen. These lines display the keys available to move the cursor, select a particular function and so forth.

To exit the BIOS Setup program, simply press the <Esc> key and select from the Exit menu whether you want to Save changes and exit; Discard Changes and exit.

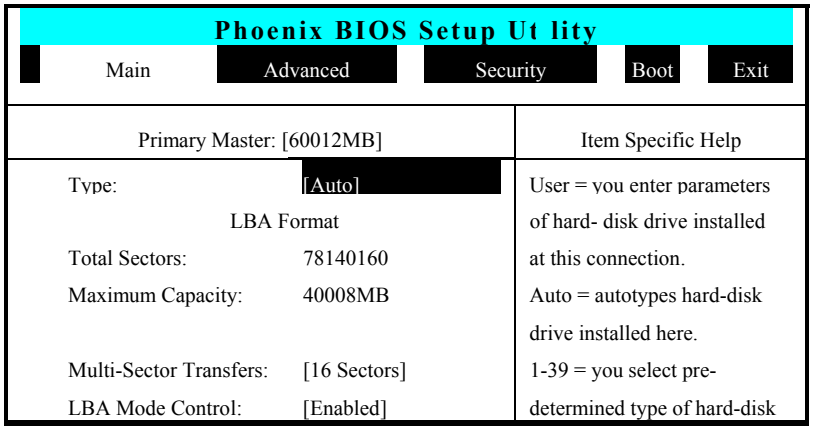
6.2 Using the Main Menu Setup



- System Time
  Allows you to change the system time using the hour:minute:second format of the computer.
  Enter the current time for reach field and use the <Tab>, <Shift>+<Tab>, or <Enter> key to move from one field or back to another.
  You can also change the system time from your operating system.
- System Date
  Allows you to set the system date using the month/date/year format.
  Enter the current time for reach field and use the <Tab>, <Shift>+<Tab>, or <Enter> key to move from one field or back to another.
  You can also change the system time from your operating system.
- Primary Master
  This field display various parameters for the hard disk drive. If type [Auto] is selected, the system automatically sets these parameters. If type [User] is selected, Cylinders, Heads and Sectors can be edited.
- Secondary Master
  This field is for information only as the BIOS automatically detects the DVD-ROM, DVD/CD-RW Combo.
- QuickBoot Mode
  This field allows you to skip certain tests and shorten the time while the system is in booting. You can set the value to Enabled or Disabled to activate or inactivate this function.
- Boot Summary Screen
  This field displays the system configuration while in booting. You can set the value to Enabled or Disabled to activate or inactivate this function.

- System Memory
  This field reports the amount of base (or conventional) memory found by the BIOS during Power-On Self-Test (POST).
- Extended Memory
  This field reports the amount of extended memory found by the BIOS during Power-On Self-Test (POST).
- CPU Type
  This field reports the CPU type information detected by the BIOS during Power-On Self-Test (POST).
- CPU Speed
  This field reports the CPU speed information detected by the BIOS during Power-On Self-Test (POST).
- BIOS Version
  This field is for information only as the BIOS displays the BIOS version during the Power-On Self-Test (POST).

6.2.1 INTERNAL HDD SUB-MENU



32 Bit I/O:	[Disabled]	drive installed here.
Transfer Mode:	[Fast PIO 4 / DMA 2]	CD-ROM = a CD- ROM
Ultra DMA Mode:	[Mode 5]	drive is installed here.
SMART Monitoring	Enabled	ATAPI Removable =
		removable disk drive is
		installed here.

F1	Help	↑ ↓	Select Item	-/+	Change Values	F9	Setup Defaults
Esc	Exit	←-->	Select Menu	Enter	Select ▸ Sub-Menu	F10	Save and Exit

Use the Type field to select the drive type installed. You can select different drive types as **CD-ROM**, **User**, **Auto** or **None** by pressing <**Space**> bar. Set this option to Auto so your computer will automatically detect the drive type during power on. Set this option to None when your computer is not installed any devices. Press <**Esc**> to return to the Main Menu.

6.3 Using the Advanced CMOS Setup

Phoenix BIOS Setup Ut lity

Main | Advanced | Security | Boot | Exit

Item Specific Help

▸ Chipset Configuration

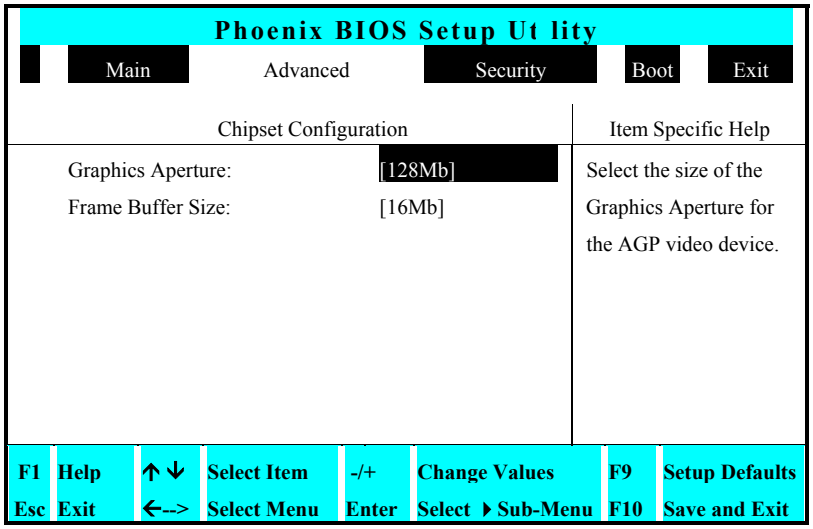
Legacy USB Support: [Enable]

Select options for advanced chipset features

F1	Help	↑ ↓	Select Item	-/+	Change Values	F9	Setup Defaults
Esc	Exit	←-->	Select Menu	Enter	Select ▸ Sub-Menu	F10	Save and Exit

- Legacy USB Support
  Enable or disable support for USB devices.

6.3.1 ADVANCED CHIPSET CONTROL SUB-MENU

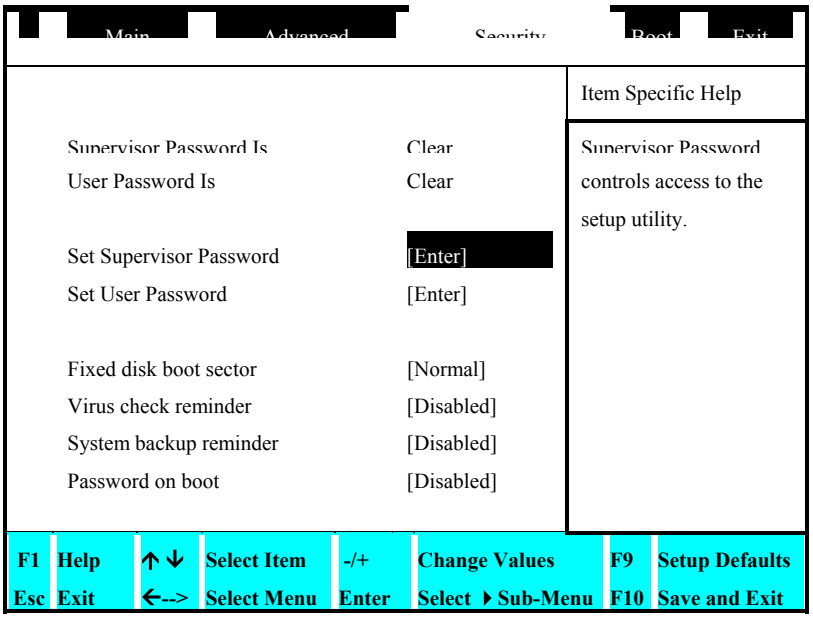


- Graphics Aperture:
  Lets you specify the memory size of the Graphics Engine. Please set it to default value.
- Frame Buffer Size:

  Lets you specify the speed of AGP rate for video devices. Please set it to default value.

☞ ***All items on this sub-menu cannot be modified unless you are qualified system supervisor. Please set all of these items to default value.***

6.4 Security Menu Setup

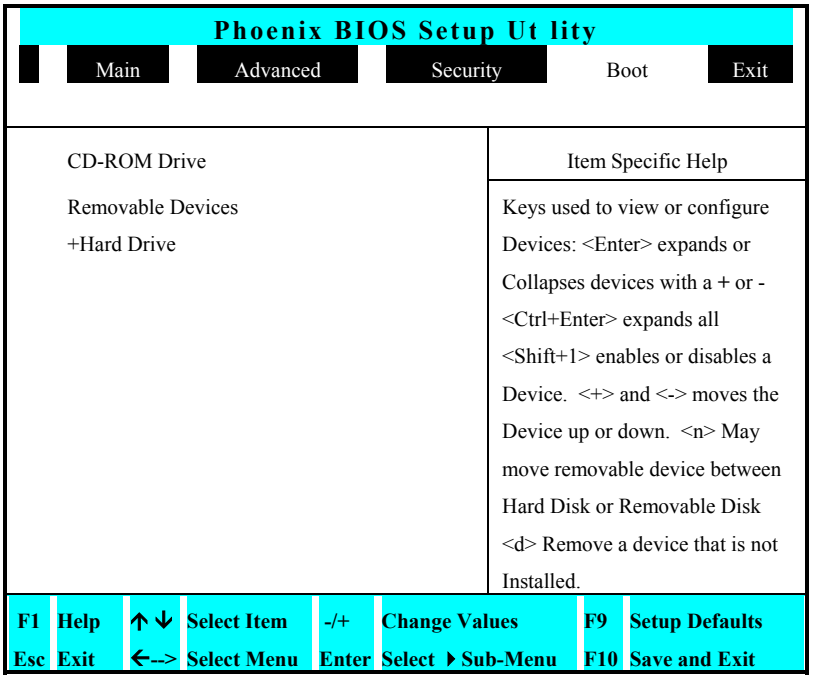


- Supervisor Password Is
  Set/Clear selections show that the notebook is under controlled by Supervisor Password or not.
- User Password Is
  Set/Clear selections show that the notebook is under controlled by User Password or not.
- Set Supervisor Password
  Supervisor password gives you the authority in accessing the setup utility. You also need to enter this password in system booting and resuming from suspend mode. When you press <**Enter**> in this field, the Set Supervisor Password dialog box appears. Enter a new password with up to 8 alpha-numeric characters, and then re-enter it for confirmation.

- Set User Password
  This field is only available when Supervisor Password has set. Enter the user password when boot the system or resume from suspend mode. But if the Write Protect is set in the Fixed disk boot sector field, you should enter a supervisor password to access the fixed disk when boot the system or resume from suspend mode.
- Fixed Disk Boot Sector
  If you set this field to Write Protect, the write protect boot sector on hard disk will protect against viruses. In this situation, only the supervisor can access the Boot Sector of fixed disk. (Normal/Write Protect)
- Virus check reminder:
  This field always displays the virus check message every time you boot your computer. You can set the reminder message to Disabled, Daily, Weekly, or Monthly.
- System backup reminder:
  This field always displays the system backup message every time you boot your computer. You can set the reminder message to Disabled, Daily, Weekly, or Monthly.
- Password on Boot
  If you set this field to Enabled, your computer will always ask for the password every time you boot your computer.

6.5 Using the Boot Setup

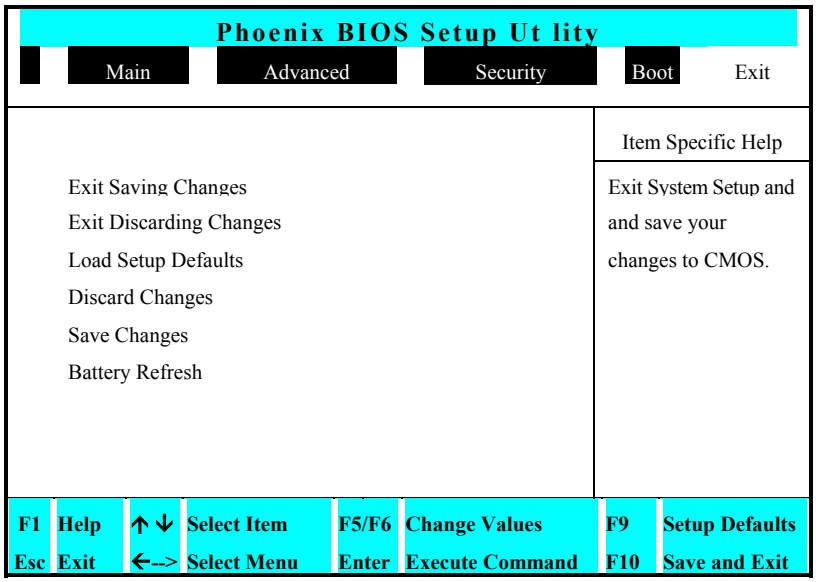
This item allows you to set the search drive sequence where the system will try to boot up first.



To select the boot device, you can use the up or down arrow key, then press <**+**> to move up the device in the list or press <**-**> to move down the device in the list. To exit from this menu, press <**Esc**>.

6.6 How to Exit the Setup Program

There are two choices to escape from the Setup program.



- Exit Saving Changes
  Saves all changes to CMOS while running the BIOS setup program and exit from the system setup program.
- Exit Discarding Changes
  Allows you to discard all changes made while running the BIOS setup program and exit from the system setup program.
- Load Setup Defaults
  Lets you load the default values for all setup items.
- Discard Changes
  Reverts to previously selected settings.

- Save Changes
  Saves Setup data to CMOS.

Battery Refresh
Conditions the battery so that the battery can be fully charged.

7 Caring for Your Notebook

Your Notebook PC is a full Windows compatible portable personal computer with the latest features in mobile computing and multimedia technology. Lightweight and compact, your Notebook PC runs on a whole wide range of general business, personal productivity, and professional applications, it is ideal for use in the office, at home, and on the road.

Your Notebook PC also allows you for several levels of customization and expansion that are previously available only on desktop PCs.

7.1 Important Safety Instructions

Portable computers take the most beating from end users. This section gives you detailed information about how to maintain a safe working environment while using the notebook computer. You can maintain its condition and performance by following these guidelines. Please read it carefully to ensure maximum safety.

- Before cleaning the notebook computer, make sure it is disconnected from any external power supplies (i.e. AC adapter, car adapter and so on).
- When cleaning, do not use liquid or sprayed detergent for cleaning. Instead, use moisture sheet or a cloth for cleaning.
- The socket-outlet shall be installed near the notebook computer and shall be easily accessible.
- Please keep the notebook computer away from humid environments.
- Lay the notebook computer on a reliable surface when installing. A drop or fall may cause injury and damage to your computer.
- The openings on the enclosure are for air ventilation and circulation to protect your notebook from overheating. DO NOT BLOCK or COVER THE OPENINGS.
- Be careful with using the power supply. The notebook computer has specific power requirements.
- Use only the power adapter approved for use with this notebook computer.
- The power adapter may have a 2-prong or 3-prong plug. This is an important safety feature. A compatible outlet is required. If it is not available, find a qualified electrician to install one.

- While unplugging the power cord, disconnect it by the plug head, not by its wire.
- Make sure the socket and any extension cords you may use can support the total current load of all the connected devices.
- Though your AC adapter is suitable for universal international voltage, it still requires a stable power source. Make sure the voltage of the power source is stable. If you are unsure of your local power specifications, consult your local power company.
- Place the power cord in such a way that people do not step on it. Do not place anything over the power cord.
- All cautions and warnings on the notebook computer should be noted.
- If the notebook computer is not in use for a long time, disconnect it from the power outlet to avoid possible damage by transient over-voltage.
- Never pour any liquid into openings or any part of your notebook as this may cause fire, electrical shock and damage to your notebook.
- Never open the body of your notebook computer. For safety reason, this notebook computer should only be opened by qualified service personnel.
- If one of the following situations arise, have the notebook computer checked by service personnel:
  - The power cord or plug is damaged.
  - Liquid has penetrated into the notebook computer.
  - The notebook computer has been exposed to moisture.
  - The notebook computer has not worked well or it does not work according to user's manual.
  - The notebook computer was dropped and damaged.

- Do not leave this notebook computer in an environment unconditioned. Storage temperature above 60ºC (140ºF) may damage the notebook computer.
- An approved power cord has to be used for the notebook computer's power supply. For a rated current up to 6A and an equipment weight more than 3 kg, a power cord not lighter than H05VV-F, 2G, 0.75mm^2, must be used.
- To avoid any damage happening to the internal devices, you should first disconnect the AC adapter and remove the battery pack from the notebook when replacing any internal device.

The sound pressure level at the operator's position according to IEC 60704-1 is equal or less than 70dB(A).

7.2 Cleaning Your Computer

When it is necessary to clean the plastic case and keyboard, use a soft, lint-free cloth, slightly dampened with a mild detergent solution or use the contents of any commercially available computer cleaning kit.

Never use alcohol, petroleum-based solvents, or harsh detergents to clean the notebook. Also never spray any liquids directly on the computer case, keyboard, or screen. If the liquid-crystal display (LCD) screen has become smeared or dusty, clean the screen by first applying a mild glass cleaner to a soft, clean, lint-free cloth, and gently wipe the glass. Never apply liquids directly on the screen surface. Moreover, do not use paper towels to clean the display screen. Paper can scratch the display screen matte.

7.3 Maintaining the LCD Quality

When it comes to screen problems, heat plays a big part. After a good working session, the typical routine is to shut the machine and close the cover. But the display surface - no matter what type it is - and the components inside the computer radiates heat; when you close the cover, you trap the heat against the screen. Leave the computer's cover open for about ten minutes while the heat disperses.

You should also enable the power management of your computer to turn off the LCD power and display when the system is in inactivity for some time. Adding screen savers is also acceptable.

Follow the safety guidelines mentioned earlier and how to clean your computer.

7.4 Maintaining Your Hard Disk

Losing your data has worse consequences as a system break down. Users must make it a habit of performing daily or weekly data backup. Here is some maintenance you could do:

- Regularly back up your data files from your hard disk.
- Keep your Anti Virus software updated.
-
- Never move or raise the computer while the hard disk is being accessed, most especially don't jar the hard disk as this may cause a hard disk crash.
-
- Install a system password in your computer so others won't be able to use the hard disk.

7.5 Battery Care Guidelines

The battery pack furnished with the computer requires reasonable care and handling to ensure efficient operation and maximum life. There is a risk of fire and chemical burn if the battery pack is handled improperly.

To ensure that the battery pack endures normal life cycle, always observe the following precautions when handling the battery pack:

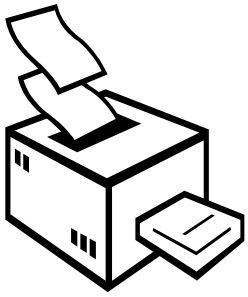
- Handle batteries carefully. Do not try to disassemble, crush, puncture, open, drop, mutilate, short external contacts, disposed of in water or fire, or expose it to temperatures higher than 60 C.
- Recharge batteries only as described in this manual and only in ventilated areas. Never use an external charger other than the one supplied with your computer.
- Do not leave batteries in hot locations for more than a day or two.
- Do not leave your battery in your computer for longer than 1 month without plugging in the power adapter.
- Do not leave battery in storage for more than 2 months without recharging it to prevent over discharge. Over discharge will hurt the battery
- Dispose dead battery properly to protect the environment. The batteries contain hazardous chemicals and should not be thrown out with household or office trash.
- You should always discharge your battery before recharging it on either of these two conditions: first, this is the first time you start to use your battery; second, you had not charge the battery for more than 2 months. To discharge the battery, please execute the "Battery Refresh" function in the BIOS Setup Utility.

7.6 When You Travel

For safety and convenience when traveling, please follow these instructions:

- Back up all needed files on your hard disk before traveling.
- Recharge your battery overnight to ensure full battery power before you leave.
- Don't forget to bring along the AC adapter and extra battery pack.
- Try to bring backup software as well.
- Check the voltage rating and the outlet type of your destination. If the power cord of the adapter is different, then you need to purchase a suitable one. Consult your dealer.
- Carry your computer in its carrying case or in a briefcase. Never check-in the computer as a luggage.
- Remember to apply those power saving features and techniques to save battery power.

APPENDIX A
Hardware System Information



This appendix gives information on the technical and hardware specifications of your computer. Please note that the information mentioned here may not be exactly the same with your computer as specification is subject to change without notice.

System Specification

PROCESSOR UNIT

- AMD Athlon XP-M Processor

SYSTEM MEMORY

- Two 200-pin memory slots
- User-upgradeable to maximum 2 GB using 200-pin SODIMM 128MB, 256MB, 512MB, and 1024KB module
- PC-333/400 DDR SDRAM modules

LCD DISPLAY

- 15" Color TFT LCD XGA, 1024x768 resolution
- Maximum 16M (32-bit) true colors

VGA SYSTEM

- S3 UniChrome™ Pro
- Simultaneous LCD and external monitor (CRT) display
- Extended Display to an external display device
- Up to 1280x1024 resolution (non-interlaced) on external display

DISK DRIVES

- 2.5" Format 9.5mm High HDD Module; Bus Mastering, Ultra DMA ATA-100/133 Support
- Enhanced IDE bootable optical disk drive

AUDIO SYSTEM

- Full-duplex 16-bit stereo speaker with Wavetable support
- Sound Blaster Compatible, Compliant with AC97
- Built-in 2 High Quality Speakers
- One Microphone (Line-In) Jack
- One Headphone/Line out Jack
- Sound volume adjust by Keyboard hot-keys

PCMCIA

- 32-bit CardBus PCI Local Bus PCMCIA controller
- Supports 1 x Type II PC card
- Supports 32-bit CardBus and 16-bit PC Cards

GLIDE PAD

Integrated Glide Pad pointing device with left and right buttons

KEYBOARD

- 87(Int'l)/88(UK)/89(JPN) Keys with Windows systems hot-keys, inverted T-cursor keys, 7 hot keys, 12 function keys, and embedded numeric keypad

- Provides international language keyboard

FLASH BIOS

512K Flash ROM BIOS for easy BIOS upgrade

I/O PORTS

- Four USB Ports (two for 2.0, two for 1.1)
- One DB 15-Pin VGA Port
- One RJ-11 Port for Modem Module
- One RJ-45 Port for LAN Module

AC/DC POWER SUPPLY ADAPTER

Miniature Size Adapter, AC 100-240Volt, 50-60 Hz, 120W, 19 Voltage

BATTERY

- 9-cell Li-Ion Battery Pack with Smart Battery function
- Approximately 2 Hours Battery Life

WEIGHT AND DIMENSION

- 13.2" (W) x 11.42" (D) x 1.5" (H)
- Approximately 7.9 lbs.