Chapter One

INTRODUCTION

Welcome to the Notebook PC

Thank you for purchasing your new notebook. Your Notebook features the latest advances in portable computing technology. Your new notebook will meet your computing needs both today and in the future with modular design provides maximum expandability without compromising portability.

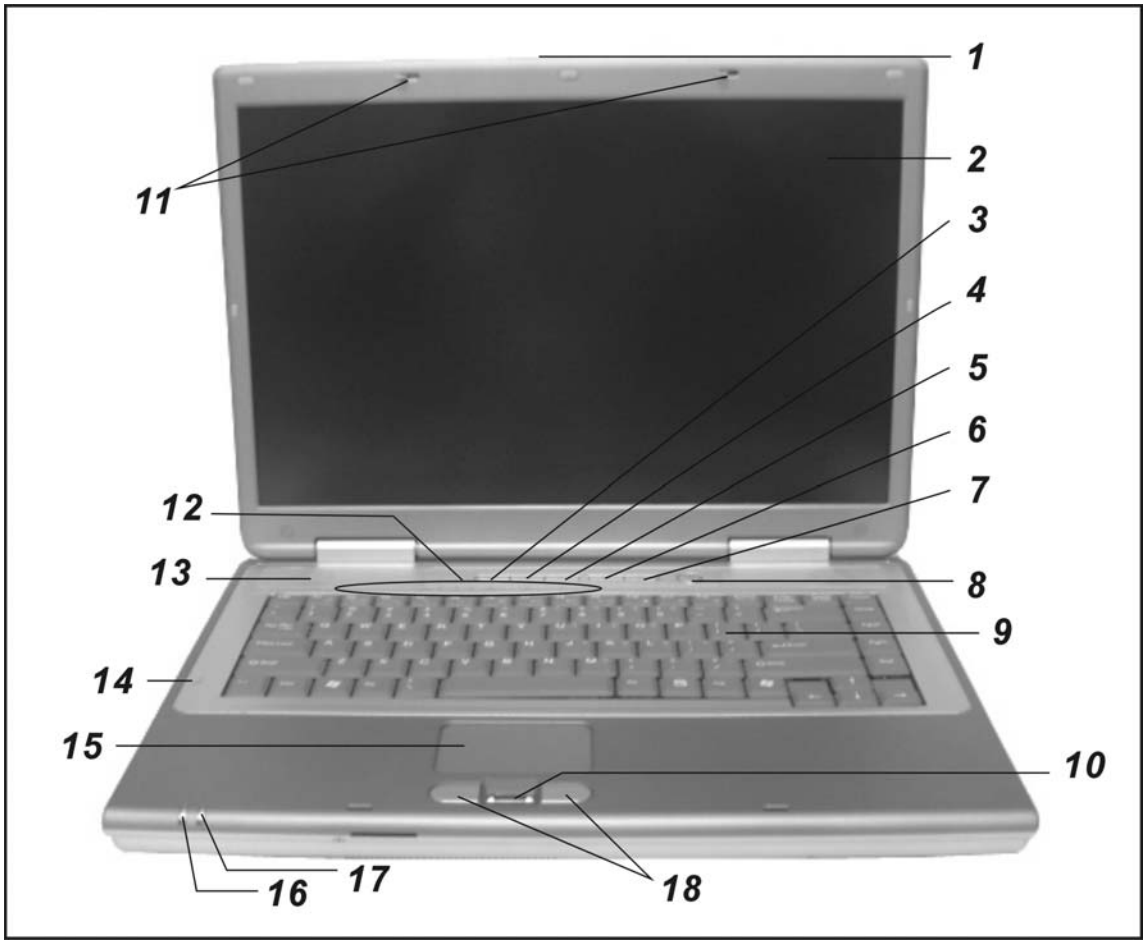
There are a wide range of wireless home entertainment and networking products to experience digital entertainment in a truly connected home without the need for messy cables and wiring.

USING THE USER GUIDE

This user guide has been designed to explain all of the important features and functions of your new notebook and the Microsoft Windows XP Home Edition operating system.

System At A Glance

FRONT VIEW

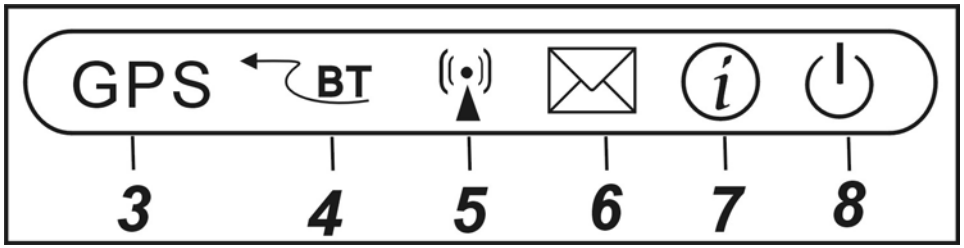


1. **LCD LATCH**

   The LCD latch unlock the LCD panel.

2. **KEYBOARD**

   The keyboard is used to enter data. It has an embedded numeric keypad and cursor control keys.



3. **GPS**

   GPS (Global Positioning Service)

4. **WIRELESS AND BLUETOOTH ON/OFF KEY**

   Press the On/Off key repeatedly to select one or both of wireless and Bluetooth to enable or disable. When Wireless icon (key top) appears green, the wireless LAN function is enabled.

5. **WIRELESS AND BLUETOOTH ON/OFF KEY**

   Press the On/Off key repeatedly to select one or both of wireless and Bluetooth to enable or disable.

6. **MICROSOFT OUTLOOK KEY**

   Press this key to open the Microsoft Outlook to receive and send mail.

7. **INTERNET QUICK KEY**

   The Internet Quick Key launches the Internet Explore.

8. **POWER BUTTON**

The power button turns the notebook on and off. Press momentarily to turn on the system. Press and hold for at least 3~4 seconds to turn off the system. How this key behaves can be defined in [Start > Settings > Control Panel > Power Options > Advanced] menu.

9. **KEYBOARD**

The keyboard is used to enter data. It has an embedded numeric keypad and cursor control keys. (See Keyboard Section for details.)

10. **OPTICAL FINGERPRINT READER**

Place your finger gently on the glass window and slide your finger from top to bottom. You will need to use this security feature with an application.

11. **LCD LATCH**

The LCD latch locks the LCD panel.

12. **LED STATUS INDICATOR**

The LED Status Indicator displays the operating status of your notebook. When a certain function is enabled, an LED will light up. The following section describes its indication.

System Status Indicator

LED Graphic Symbol	Indication
	Green light indicates the hard drive and/or optical drive is being accessed.

1	Green light indicates the numeric keypad is activated.
A	Green light indicates the cap-lock is activated.
↓	Green light indicates the scroll-lock is activated.
GPS	Green light indicates the GPS (Global Positioning Service) is activated.
BT	Green light indicates the bluetooth is activated.
((•))	Green light indicates the wireless is activated.

13. **BUILT-IN STEREO SPEAKERS**

The built-in speakers output the sound in stereo.

14. **THE BUILT-IN MICROPHONE**

The built-in microphone is located directly at the left of the keyboard.

15. **TOUCHPAD**

The dual-button TouchPad is located below the keyboard. The TouchPad is hardware-compatible with the IBM PS/2 mouse and software-compatible with the Microsoft mouse.

16. **SUSPEND LED INDICATOR**

Indicates when the Notebook is in Suspend mode.

17. **BATTERY LED INDICATOR**

Indicates when the primary rechargeable battery is being dis-charged.

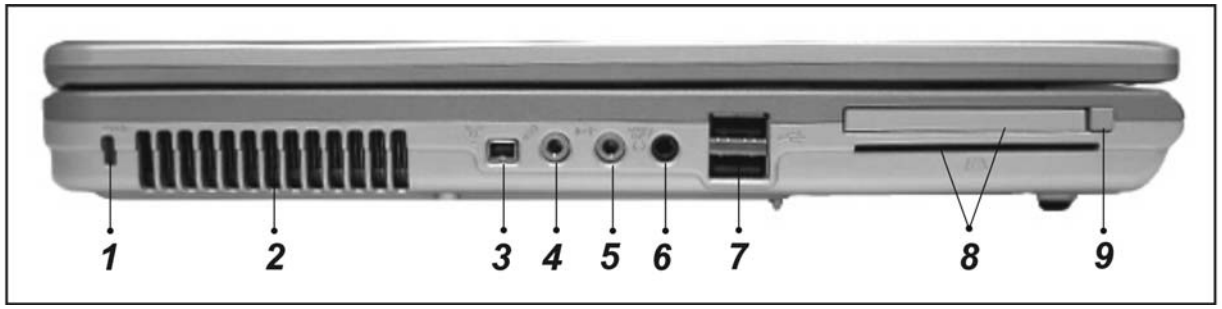
LED Graphic Symbol	Indication
☽	Blinking green light indicates the notebook is in suspend mode.

☼/▯	Blinking orange light indicates the battery is being charged when the system is turn ON. Blinking red light indicates the battery is being charged in when the system is turn OFF. Blinking green light indicates the battery power is currently low.

18. **TOUCHPAD BUTTONS**

    The buttons below the TouchPad correspond to the left and right buttons on a standard mouse.

LEFT VIEW



1. **KENSINGTON LOCK KEYHOLE**

   Your computer includes a keyhole to be used with a standard Kensington lock. You can connect the Notebook lock to a large object with the Kensington lock to prevent theft of your Notebook.

2. **VENTILATION GRILL**

   The fan grill is where air is exchanged to dissipate the internal heat. Do not block this airway completely.

3. **1394 USB**

A fast external bus standard that supports data transfer rates of up to 400 Mbps (400 million bits per second). Can be used to connect up 63 external devices, also supports isochronous *data* -- delivering data at a guaranteed rate.

This makes it ideal for devices that need to transfer high levels of data in real-time, such as video devices. Also supports both Plug-and-Play and hot plugging, and also provides power to peripheral devices.

4. **MICROPHONE JACK**

The microphone jack (3.5-mm diameter) is where you connect a microphone.

5. **WIRELESS AND BLUETOOTH ON/OFF KEY**

Press the On/Off key repeatedly to select one or both of wireless and Bluetooth to enable or disable. When Wireless icon (key top) appears green, the wireless LAN function is enabled.

6. **STEREO HEADPHONE / SPDIF-OUT JACK**

The stereo headphone jack (3.5-mm diameter) is where you connect the headphones or external speakers. Alternatively, you may connect the SPDIF output to an external DTS, AC3, or PCM sound processor / decoder in your home stereo system.

7. **USB 2.0 PORT (X2)**

The Universal Serial Bus (USB2.0-compliant) port allows you to connect a wide variety of devices to your computer at a rate of up to 480 Mbps. This port conforms to the latest USB2.0 plug-and-play standards.

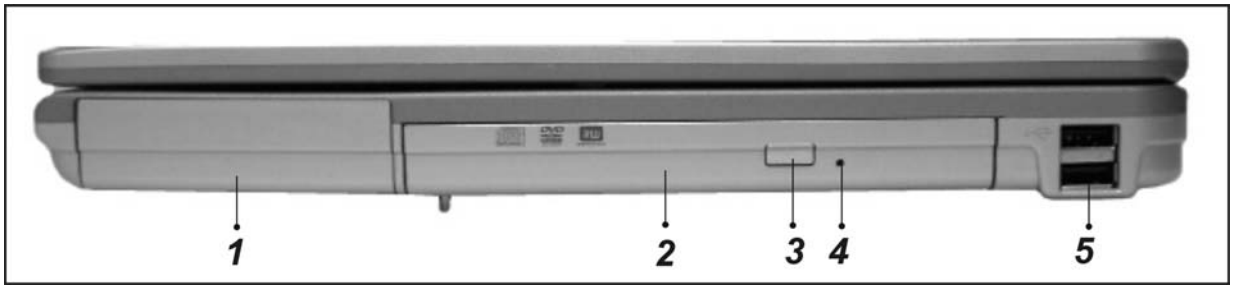
8. **PC CARD SLOT (TYPE I & II PCMCIA)**

The slot is where PC Card (Type II PCMCIA) is inserted. The system also supports 1394, Smart card and 4-1 card reader.

9. **CARD EJECT BUTTON**

Press the eject button to release the PC Card.

RIGHT VIEW



1. **BATTERY PACK**

The battery pack is a built-in power source for the notebook.

2. **OPTICAL DRIVE**

If your computer comes with the CD-RW/DVD Combo/DVD Dual, you may save data onto a CD-R / CD-RW or DVD RW disc.

3. **DISK EJECT BUTTON**

Press the eject button to eject the disk tray.

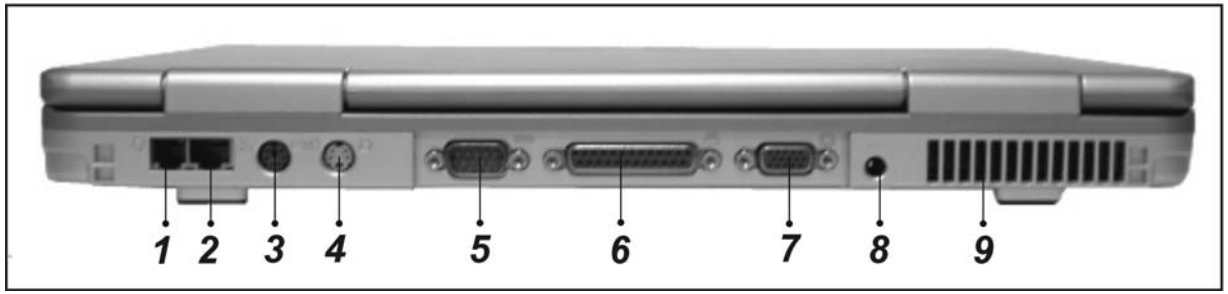
4. **MANUAL EJECT KEY HOLE**

The manual eject keyhole allows you to manually eject a jammed disk.

5. **USB 2.0 PORT (X2)**

The Universal Serial Bus (USB2.0-compliant) port allows you to connect a wide variety of devices to your computer at a rate of up to 480 Mbps. This port conforms to the latest USB2.0 plug-and-play standards.

REAR VIEW



1. **MODEM PORT**

   This is where you plug the phone jack (RJ-11) for fax/modem functions.

2. **ETHERNET / LAN PORT**

   The port connects to a network hub via the RJ-45 cable and also conforms to 10/100/1000Base-TX transmission protocol.

3. **PS/2 SERIAL PORT**

   This is where you connect PS/2-type mouse or keyboard.

4. **TV (S-VIDEO) PORT**

   The S-Video port permits you to redirect the screen output to a television set or any analog video playback device. This TV Port is copyright protected; when DVD movie is played, the output is scrambled to prevent analog recording.

5. **SERIAL PORT**

   The 9-pin serial port connects to any serial-port devices.

6. **PARALLEL PORT**

   The 25-pin parallel port connects to any parallel-port devices such as a printer.

7. **EXTERNAL VGA PORT**

   The 15-pin VGA analog port is for connecting the external CRT monitor or projector.

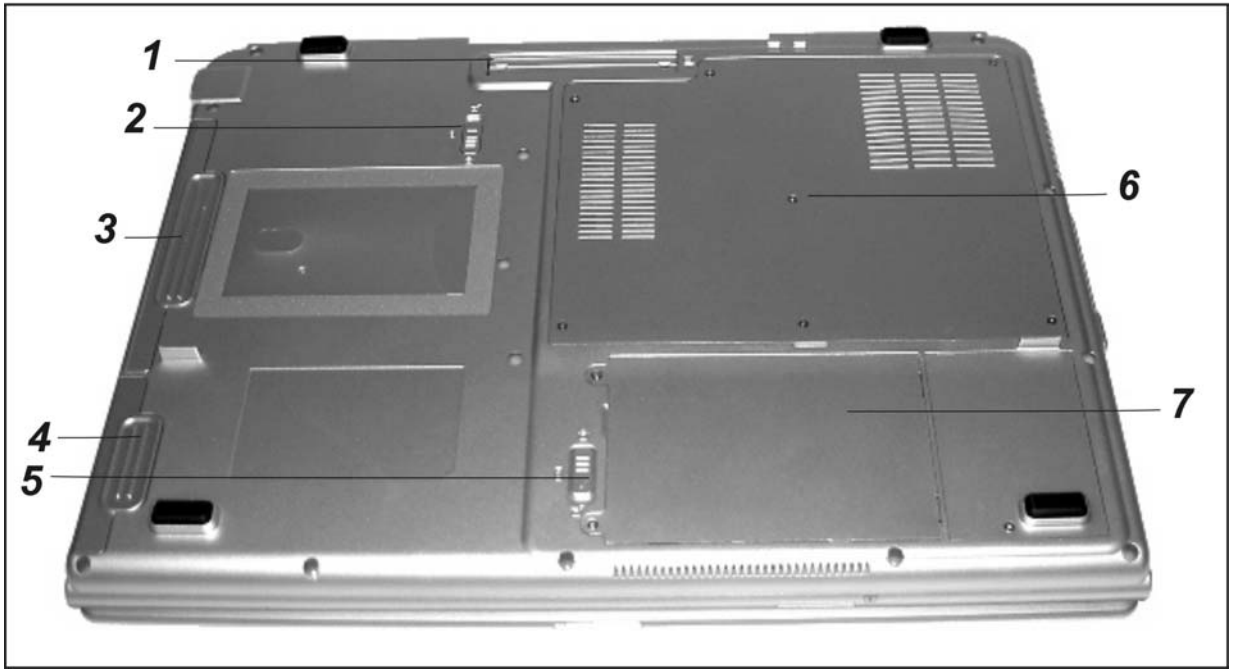
8. **POWER JACK (DC-IN)**

   The DC-out jack of the AC Adapter connects here and powers the computer.

9. **VENTILATION GRILL**

   The fan grill is where air is exchanged to dissipate the internal heat. Do not block this airway completely.

BOTTOM VIEW



1. **PORT REPLICATOR PORT**

   The system can be docked onto an optional port replicator for additional input / output ports.

2. **SWAPPABLE DEVICE BAY LATCH**

   Push the latch and pull on the drive hard case to remove the swappable device.

3. **SWAPPABLE DEVICE BAY**

   The optical drive resides in the Swappable Device Bay. Additionally, you may also purchase an optional hard drive module, or an empty shell (to reduce travel weight) to be used in this bay.

4. **BATTERY PACK AND**

   The battery pack is a built-in power source for the notebook.

5. **BATTERY LATCH**

   Slide the battery latch to release the battery pack.

6. **EXPANSION COMPARTMENT**

   This compartment will serve as an expansion to upgrade your RAM module.

7. **HARD DISK DRIVE BAY**

   This is where the hard disk drive is located. The hard disk drive stores all the system data. The hard disk drive can be upgraded to a larger capacity.

Chapter Two

STARTING YOUR NOTEBOOK

Operating Environment

You can use your computer under a wide range of environmental conditions. However, to ensure long use and continued high performance, consider the following factors when setting up your computer:

- Set the computer on a flat, stable surface. To prevent damage to the computer's hard disk drive, avoid using the computer where it will be exposed to strong vibration.
- Place the computer away from electromagnetic or radio frequency interference.
- Avoid using or storing the computer where it will be exposed to extreme temperatures. In particular, do not leave the computer in direct sunlight, over a radiator, or near a heat source for a long period of time. High temperature can damage the circuitry.
- Avoid exposing the computer to high or low humidity. Extreme humidity can contribute to disk drive failure.
- If you are using the computer with the AC adapter, do not allow anything to rest on the power cord. Do not place the computer where people can step on or trip over the cord.
- The openings on the computer are provided to protect the computer from overheating. To ensure reliable operation, leave about 10 cm (4 inches) around the computer for unobstructed air circulation. Avoid exposing the computer to dust or smoke.

Connecting to a Power Source

You can use the provided AC adapter to supply your computer with power from an AC wall outlet.

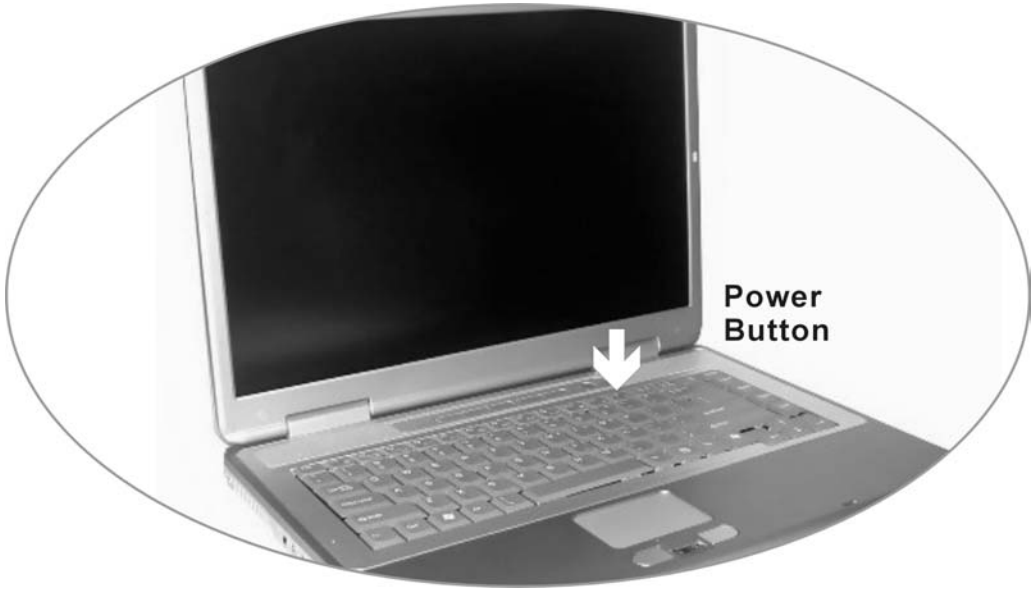
1. Place the computer so that you have easy access to its rear panel.
2. Plug the AC adapter's connector into the DC-IN connector on the rear panel of the computer.
3. Connect the power cord to the AC adapter and then to a wall outlet.

WARNING

Do not use inferior extension cords as this may result in damage to your Notebook. An AC adapter is provided along with your Notebook. Do not use a different adapter to power the computer, and do not use the AC adapter to power other electrical devices. Try not to turn off or reset your Notebook while the hard disk is in use.

Turning on Your Notebook Computer

Before turning on your computer, make sure you are familiar with its features as mentioned in previous chapter. Once you have set up your notebook you are now ready to turn it on. To do this press the power button.



Operating on Battery Power

Your computer comes with a rechargeable battery pack that lets you operate the computer without an external power source.

NOTE

We recommend you to use batteries that are approved by an authorized dealer. Try not to use the wrong battery for it would cause serious damage to your computer.

Battery Low-Power Warning

Low Battery Warning

Low battery condition occurs when battery power is reduced to 6%. The green power LED indicator blinks and the system beeps once every 16 seconds or so.

Very Low Battery Warning

Very Low battery condition occurs at 3 % power remaining. The power LED indicator blinks and the system beeps at 4-second interval. When the notebook warns you of its low battery condition, you will have about 3-5 minutes to save your current work.

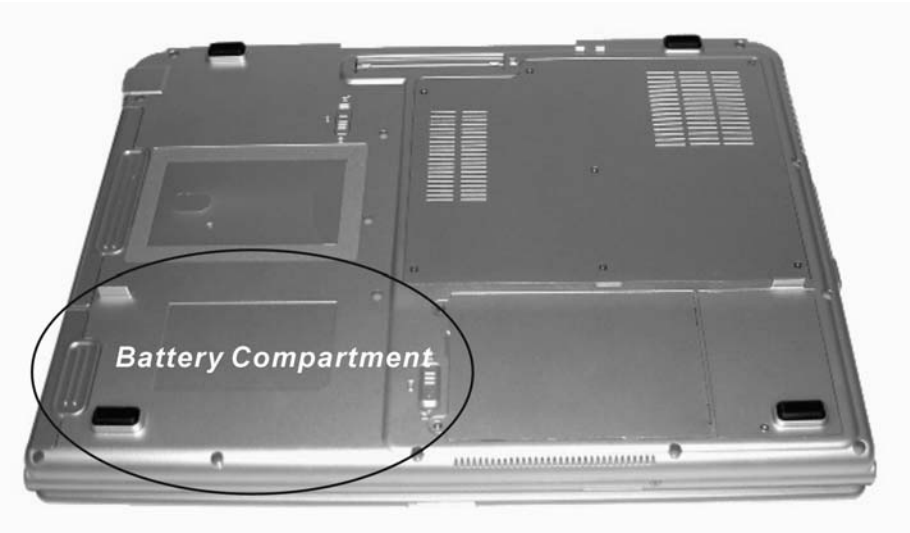
WARNING

Do not expose battery packs to temperatures below 0 degree Celsius (32 degree F) or above 60 degree C (140F). This may adversely affect the battery pack.

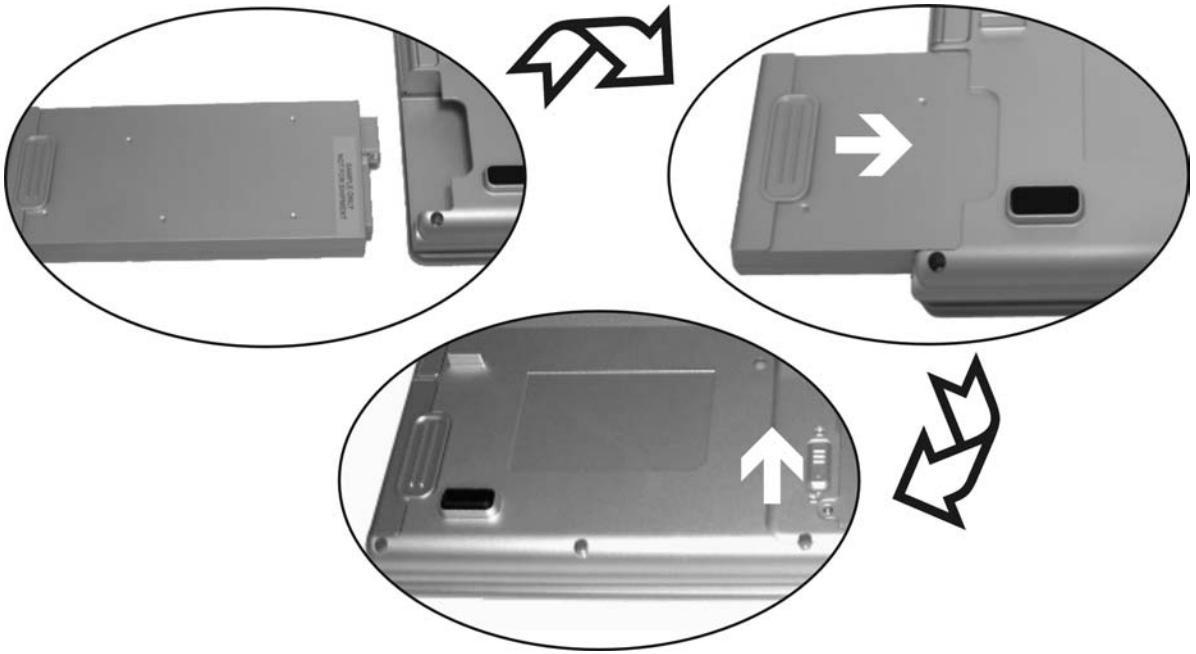
Inserting and Removing the Battery Pack

The battery pack should already be inserted in your Notebook computer when you unpack it. If it is not inserted, follow these directions:

1. Turn off the notebook.
2. Turn the Notebook over and locate the battery compartment.

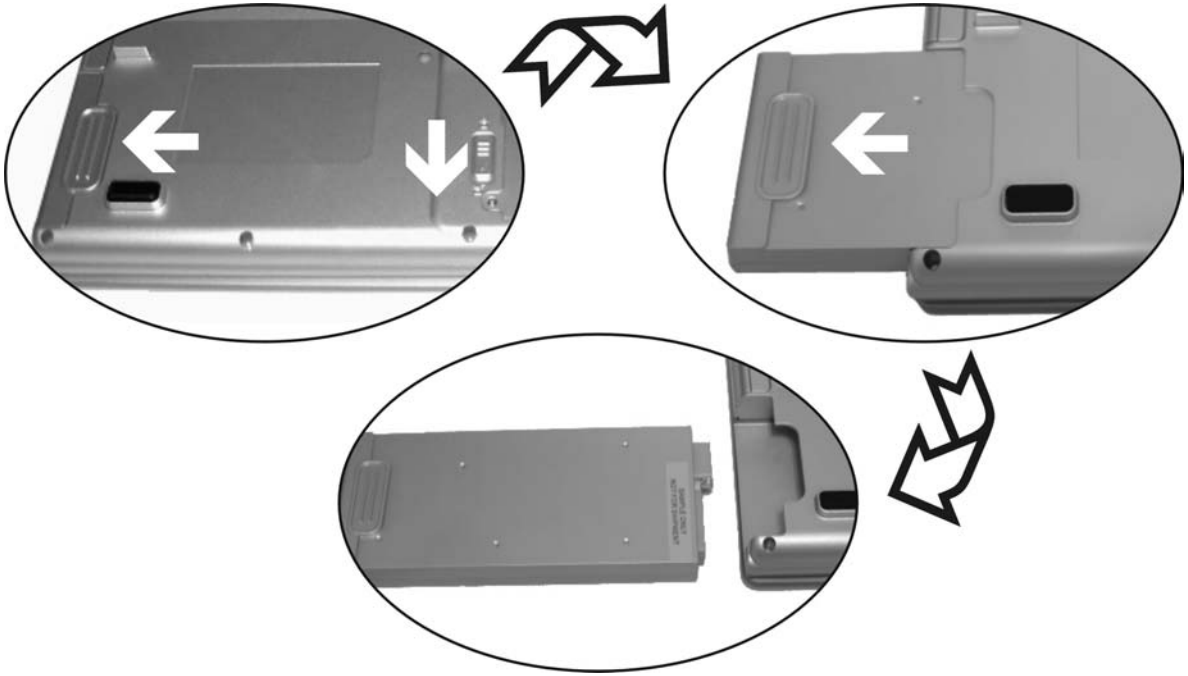


3. Insert the battery into the empty compartment. It is designed so that it only fits one way. It should easily “click” into place.
4. Be sure that the battery release latch on the battery has clicked into place. This will prevent the battery from sliding out of its compartment.



To remove the battery pack:

1. Turn off the Notebook.
2. Slide the battery latch into the direction of the arrow as shown in the illustration.
3. Hold the battery at the finger grip and slide the battery out.



Charging the Battery and Charging Time

To charge the battery, while the battery pack is in the notebook, plug the AC adapter into the notebook and an electrical outlet.

The charging time is approximately 2.5 hours when the notebook is turned off and approximately 4.5-6 hours when the notebook is turned on.

When the battery is fully charged, the battery charge indicator becomes dark (off).

NOTE

If system runs at heavy loading or in a high temperature environment, the battery may not be fully charged. You need to continue to charge it with the AC adapter plugged in until the charging LED turns off.

Checking the Battery Level

You can check the remaining battery power in the Windows battery status indicator, which is located at the lower right-hand corner of the task bar. (If you do not see a battery or AC-in icon on the task tray, go to Power Options Properties box and click on the Advanced tab. Check off ``Always show icon on the task bar``.)

Alternatively, you can access the power meter by clicking the Power Options icon in the Windows Control Panel.

Prolonging the Battery's Life and Usage Cycles

There are ways you can do to prolong the use of battery.

- Use the AC adapter wherever AC wall outlet is available. This will ensure uninterrupted computing.
- Purchase additional battery pack.
- Store the battery pack in room temperature. Higher temperature tends to deplete the battery's power faster.
- Make good use of the power management function. Save To Disk (Hibernate) saves the most energy by storing current system contents in a hard disk space reserved for this function.
- The life expectancy of the battery is approximately 300 recharges.
- See the notices section in the beginning of the user manual on how to care for the battery pack.

NOTE

Read Section Protecting Your Notebook in the beginning of this manual for tips about how to maintain the battery pack. To achieve optimal battery performance, you may need to do a battery calibration at a 3-month interval. To do this:

- Fully charge the battery.

- Then discharge the battery by entering the BIOS setup screen. (Press F2 key as soon as you turn on the computer. And let it remain at the setup screen until the battery runs out.
- Fully charge the battery again.

Using Windows Power Options

Windows Power Management provides basic power saving features. In the Windows Power Options Properties [Start > Settings > Control Panel > Power Options] dialogue box, you may enter time-out values for display and hard disk drive. Windows power manager saves power by turning off hard drive after 1 minute of inactivity, for example.

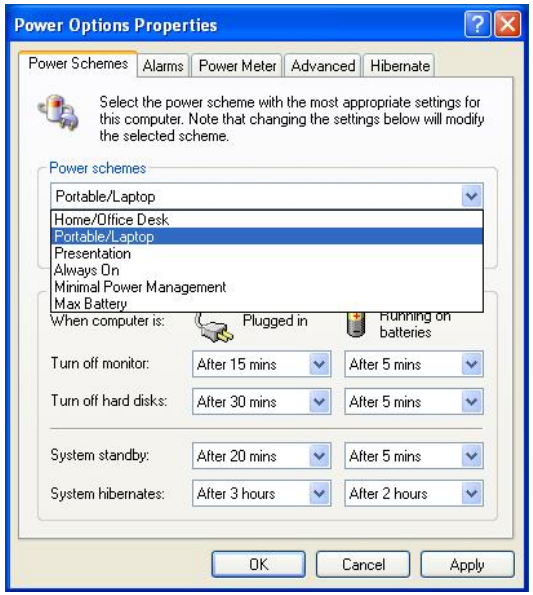
Windows' Power Schemes

The power management control panel in Windows XP, known as Power Schemes, is designed to provide the user with an easy-to-use interface. The Power Schemes tab can be found in the Power Options Properties panel that is accessible via the control panel window.

Schemes are easy to understand, based on notebook usage scenarios, and control not only processor power usage but other system peripherals as well.

Go to [Start > Settings > Control Panel] and double-click the Power Options icon.

Always on mode puts the processor into maximum performance mode, which provides no power saving. The other schemes control processor performance based on demand. For example, Max Battery mode lowers the processor's speed and voltage to conserve power as much as possible.



In this dialog box, you can manually set the LCD and hard drive's time-out values in the Plugged in column and in the Running on batteries column. Lower time-out values will save more battery power.

NOTE

Also consult Windows user guide for more information on how to use Windows power management functions. Actual dialogue box shown above may appear slightly different.

Suspend Mode

Standby Suspend

The system automatically enters this mode after a period of inactivity, which is set in the Power Schemes dialog box. In Standby mode, hardware devices, such as display panel and hard disk, are turned off to conserve energy.

Hibernate Suspend

In this mode, all system data are saved in the hard disk before powering down. When this mode is activated, all system state and contents are saved to the hard disk drive after a period of inactivity defined by the user. No power or very little power is drawn from the battery module under this mode.

However, depending on how much RAM that have been installed on your computer, the amount of time the system requires to restore all its previous contents can range from 5 to 20 seconds.

For Windows 2000 / XP users, hibernation is handled by the operating system; therefore, no special disk partition or disk file is necessary. If you wish to activate Hibernate mode, you need enable Hibernate Support in the Hibernate tab of the Power Options menu.

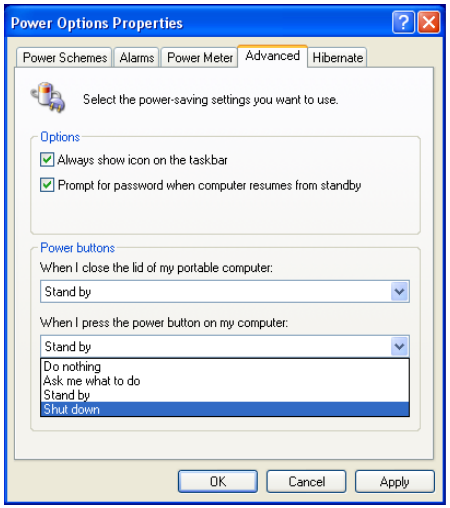
NOTE

Do not install or remove the memory module when the system is in the suspend mode. Actual dialogue box shown above may appear slightly different.

Power Button Action

The notebook PC's power button turns the notebook on and off the system.

Go to [Start > Settings > Control Panel > Power Options] and click on the Advanced tab. In the pull-down menu, select how you wish the power button to work as.



NOTE

Actual dialogue box shown above may appear slightly different.

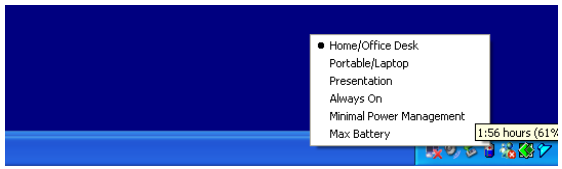
WARNING

In the When I close the lid of my portable computer pull-down menu, DO NOT select Do nothing – otherwise the system will still run at high speed while the processor's fan grill is fully blocked by the closed LCD panel. The heat will damage the LCD panel.

Power Menu Quick Access

Instead of making specific selections in the Power Options Properties box, you can quickly and easily specify which pre-set power saving function you desire by clicking on the Battery icon at the lower right-hand corner of the task bar. (If you do not see a battery or AC-in icon, go to Power Options Properties box and click on the Advanced tab.

Check off ``Always show icon on the task bar``.) Select Max Battery if you want the system to enter suspend mode more often. Or, select Always On if your notebook PC is plugged into an AC power source.



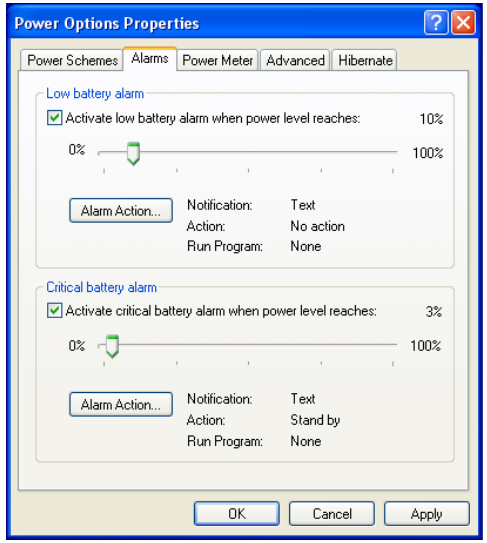
NOTE

Actual dialogue box shown above may appear slightly different.

Low Battery Warning

You can define when and how the system warns you of its battery-low condition.

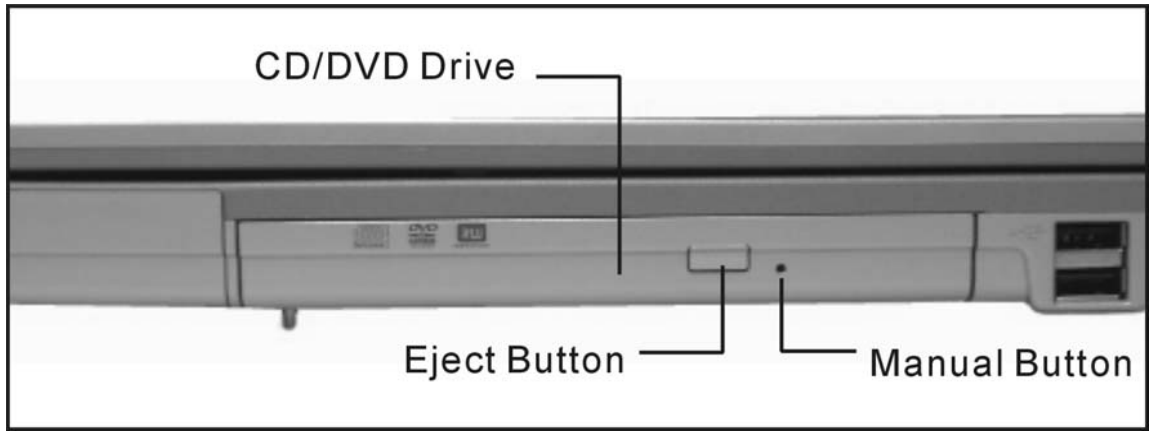
Go to the Alarms tab in the Power Options Properties box. If you wish to hear audible beeps, click on the Alarm Action button and put a check on Sound Alarm.



NOTE

Consult Windows user guide for more information on how to use Windows power management functions. Actual dialogue box shown above may appear slightly different.

CD/DVD Drives



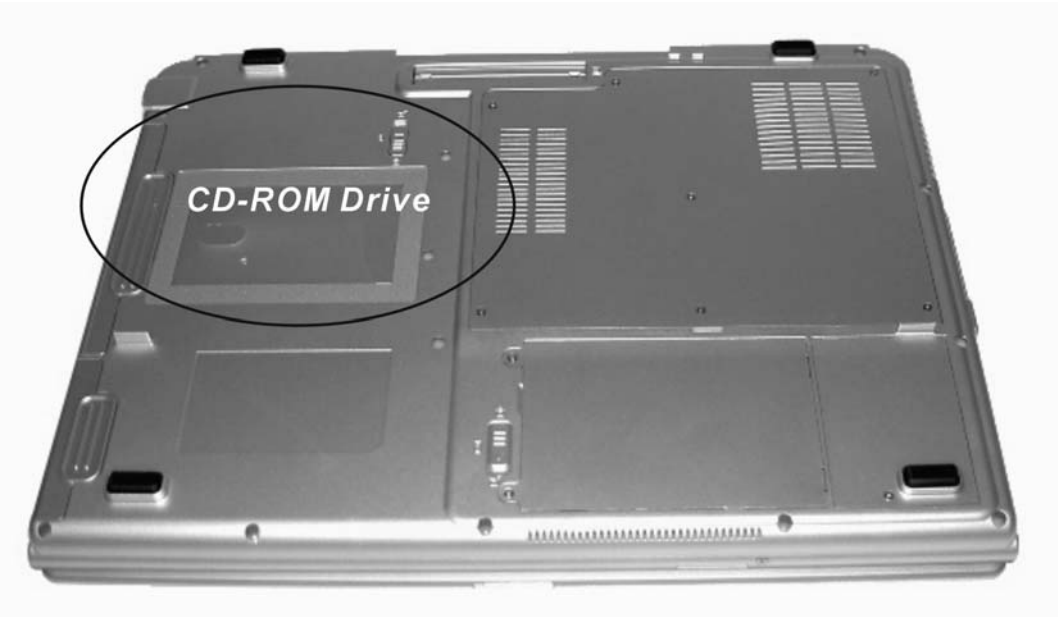
The Notebook comes with a built-in CD-ROM drive module. The CD-ROM drive allows you to run the latest multimedia CD titles providing a new educational and entertainment dimension to your personal computing experience.

- CD-ROM – these drives allow you to use data and audio CDs with your computer.
- DVD-ROM – these drives have all the functions of a CD ROM/CD-RW in addition to reading DVD disc. You can also record files and movies to recordable and re-recordable DVD disc on compatible drives.

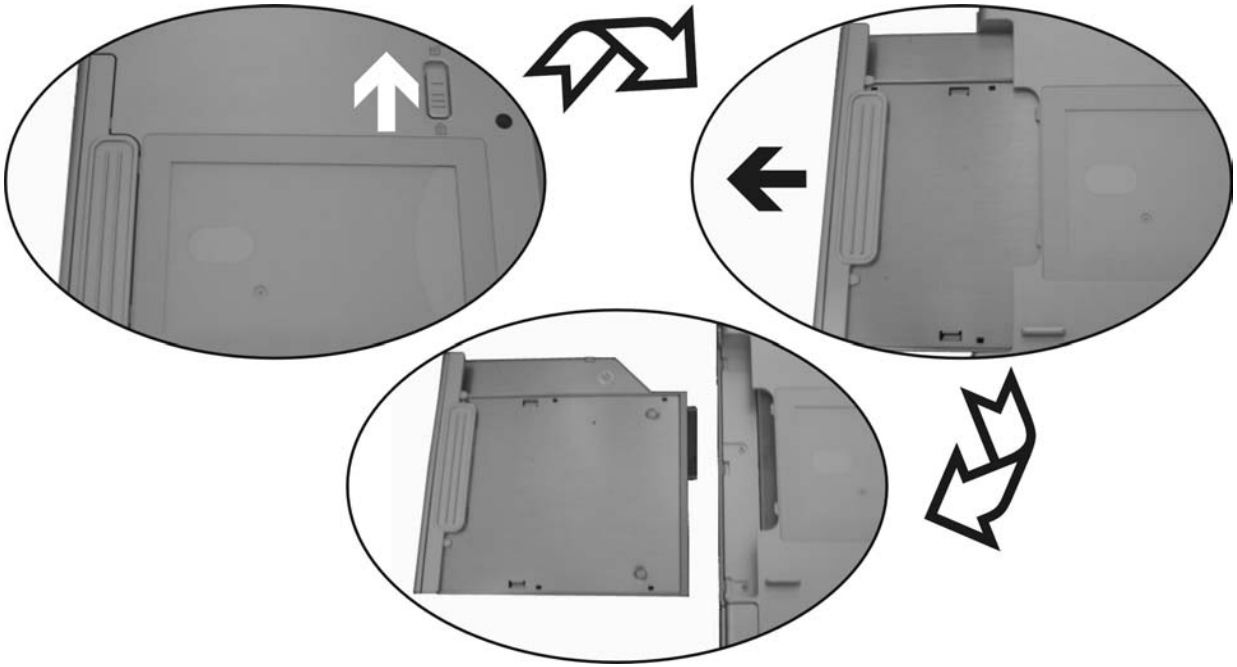
Removing the CD-ROM

The CD-ROM drive is removable and swappable with other modules to give you versatility while minimizing weight and size. To remove the CD-ROM drive:

1. Save your work and turn off the computer.
2. Turn the Notebook over and locate for the CD-ROM drive.



3. Push the CD-ROM release latch in the direction of the arrow indicated in the illustration.
4. Pull on the CD-ROM finger grip as indicated in the illustration to slide the CD-ROM module out of the bay.
5. To insert the CD-ROM module, slide the module into the drive bay so that it mates with its connector. You will hear the release latch click shut.



The CD-ROM module can be swapped with a DVD module, second battery, secondary SATA HDD or an Air bay (dummy).

Function Keys (Quick Keys)

Graphic Symbol	Action	System Control
	Fn + F1	Enters Suspend Mode.
Touch Pad On/Off	Fn + F2	Touch Pad On/Off
	Fn + F3	Changes Display Mode: LCD-only, CRT-only and LDC&CRT.

☼–	Fn + F4	Decreases Display Brightness.
☼+	Fn + F5	Increases Display Brightness.
🔇	Fn + F6	Mutes audio / sound
🔉	Fn + F7	Turns Speaker Volume down.
🔊	Fn + F8	Turns Speaker Volume up.
▷/II	Fn + F9	Playback or Pause
□	Fn + F10	Stop
⏮	Fn + F11	Backward
⏭	Fn + F12	Forward
Num Lk	Number Lock	Enables the embedded keypad to work in numeric mode. The keys act like numeric keypads in a calculator. Use this mode when you need to do a lot of numeric data entry. An alternative would be to connect an external numeric keypad.
Scr Lk	Fn + Scroll Lock	Press the Scroll Lock key and then press ↑ or ↓ to move one line up or down.

Touchpad

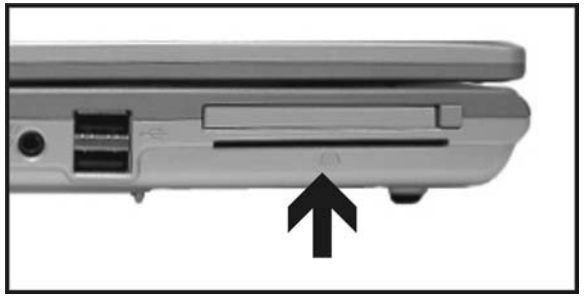
Your notebook touchpad is compatible with the PS/2 mouse. A device driver is not required for working with application software that supports PS/2 mouse operation.

The Touchpad is a pressure sensitive pointing device that provides all the features of a two-button mouse. Its primary function is to move the cursor around the screen.

- Left button – click once to select an item, double-click to open a file or program.
- Right button – use the right button to open special menus.

Memory card reader

Memory card readers are a relatively new addition to notebook computers. They are an ideal replacement for the floppy disk drive because the cards are small and light and have a large storage capacity.



The memory cards are used in a number of consumer devices including:

- Digital cameras
- Mobile phones
- Handheld games devices
- PDAs

Graphic Subsystem

Your computer uses a high performance 15.4 inch WUXGA/WSXGA panel with high resolution and multi-million colors for comfortable viewing.

Adjusting the Display Brightness

The notebook uses special key combinations, called hot keys, to control brightness.

- Press Fn+F5 to increase the brightness.
- Press Fn+F4 to decrease the brightness.

Audio Subsystem

Your computer's audio subsystem is Sound Blaster Pro-compatible.

Adjusting the Volume Manually

- To increase the volume, press Fn+F8.
- To decrease the volume, press Fn+F7.

Adjusting the Audio Volume in Windows

- Click the speaker symbol in the task tray in Windows.
- Drag the volume control bar up or down to adjust the volume.
- To temporarily silence the speaker without changing the volume setting, click Mute.

Voice Recording

A built-in microphone allows you to record sound. You will need to use audio processing software to enable the built-in microphone. For example, you may use Microsoft Sound Recorder.

Modem

Your computer comes with an integrated modem/Bluetooth module and a phone jack (RJ-11), which is located on the left side of your computer. Use a telephone cable to connect the computer to the telephone wall outlet.

Connecting the Modem

1. Plug one end of the phone line into the modem port located on the rear side of the computer. (For EMI compliance, you need to clip the included EMI CORE to the phone line.)
2. Plug the other end of the line into the analog phone wall outlet.

Depending on where your computer is used, you may need to change settings in the modem. Correct setting will allow you to maintain a stable connection in a country where its telecommunication system may be different to others.

To change the modem setting, do the following:

1. Go to [Start > Settings > Control Panel] and double-click on Modem Settings icon. You will see a similar dialog box.
2. Click on the pull-down menu and select the country where it is applicable. Click on OK to exit.

Ethernet

Your computer is equipped with a 10/100/1000Base-TX Fast Ethernet network adapter. Connect the active LAN cable to the RJ-45 LAN port located on the left side of the computer. This allows you to access and transmit data in the local area network.

Connecting to the Network

Use Unshielded Twisted Pair (UTP) Ethernet cable only.

1. Insert one end of the UTP cable into the network connector until the connector snaps securely into the receptacle.
2. Either connect the other end of the cable to an RJ-45 jack wall outlet or to an RJ-45 port on a UTP concentrator or hub in the network.

Cabling Restriction for Networks

The following restrictions should be observed for 100/1000BASE-TX networks:

- The maximum cable run length is 100 meters(m) (328 feet[ft]).
- For 100/1000-Mbps operations, use Category 5 wiring and connections.

NOTE

Consult Windows manual and / or Novell Netware user's guide for the software installation, configuration, operation of the network.

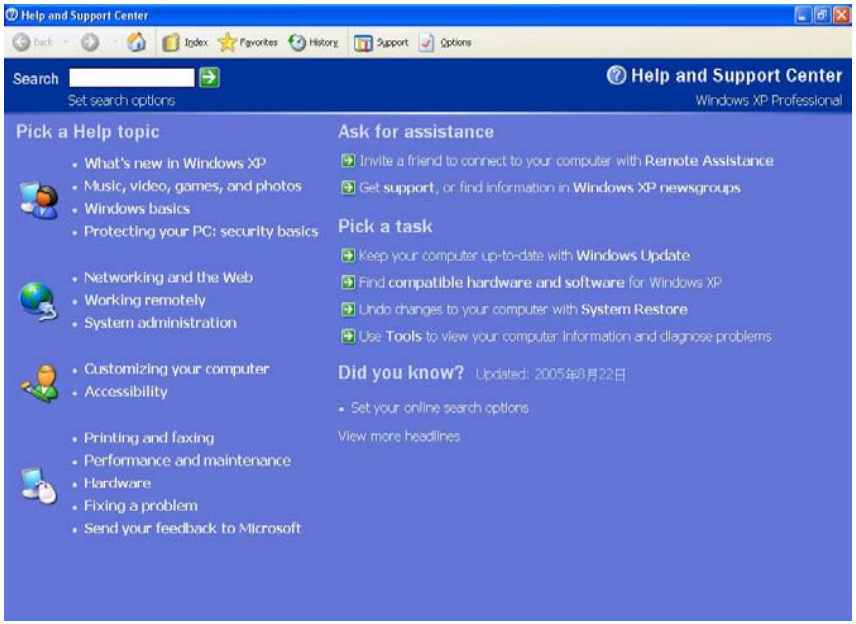
Chapter Three

EXPLORING WINDOWS

Using the Windows

HELP WINDOWS

For Windows XP help, click **Start ➔Help and Support** icon will open the dialog box.



DESKTOP

Desktop may vary differently on the software installed in your notebook with different or additional shortcuts.

Recycle Bin

Used for storing deleted files in case you want to recover and save it in your system. The files will only be deleted from the Recycle Bin permanently only if you empty it by right clicking your mouse and select the “Empty Recycle Bin”.

Start Button

Allows easy access to all Windows programs.

The **Start** menu allows you to adapt and show the programs used most frequently. If you wish to keep an item, right click the item and click **Pin to Start menu**.

Log Off will enable the current user to log off and allows a new user to log on.

Turn Off Computer allows you to shut down, restart, and Stand by modes for power saving purposes.

Taskbar

When you open a program, its icon is displayed at the taskbar for you to conveniently move between programs by clicking the relevant button.

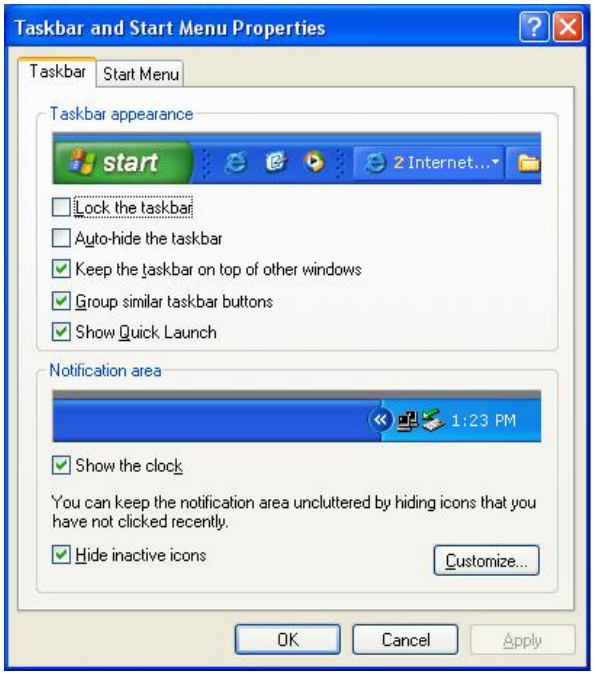
To add or remove toolbars from the taskbar: right click an empty spot on the taskbar, select **Toolbars ➔ choose the toolbar you want to add**.

Notification

The icons that appear here are for quick access to some programs and computer functions that you frequently used. For you to see the hidden icons, simply click the icon.

To prevent Windows XP from hiding icons:

From an empty spot on the **Taskbar**, right click your mouse and select the **Properties**, remove the checked mark on the **Hide inactive icons**.



CONTROL PANEL

It is in this area that you can change how Windows looks and works. Click Start ➔ Control Panel dialog box. There are two interfaces – **Classic View** or **Category View**.

Desktop icons

Desktop icons give you easy access to your favorite programs and files. Double left-click an icon to open it.

MY COMPUTER

Quick access your hard drives, CD/DVD drives, memory cards, your documents and more.

MY NETWORK

You can access other computers, printers and shared files on your home network from here.

RECYCLE BIN

When you delete a file it is sent to the Recycle Bin. You can also retrieve the files that you deleted provided you haven't emptied the Recycle Bin.

MY DOCUMENTS

This icon gives you quick access to your My Documents folder. This contains all your personal files, music and photos.

Turning off Your Notebook

When you finished working on your notebook it is recommended that you turn it off correctly. This will help your computer to run smoothly. In order to turn off your computer correctly, click **Start** then **turn off**. Several options will then appear on the screen:

- **Shut down** – this option will close the Windows XP and turn off your computer.

- **Standby** – this option will let your computer enter the power saving sleep mode. To return to your work, move the mouse, press a key of your keyboard, or press the power button of the computer.
- **Hibernate** – if you choose this option Windows will take a snap shot of your current work and save it to memory, then it will turn off. The next time you turn on your computer will returned back to this saved condition.
- **Restart** – this option will let you close Windows and restart your computer. This is convenient in case a crash occurs for you to reset your computer or your computer is running slowly.

Chapter Four

BIOS SETUP

The Setup Utility is a hardware configuration program built into your computer's BIOS (Basic Input/Output System). It runs and maintains a variety of hardware functions. It is a menu-driven software, which allows you to easily configure and change the settings.

The BIOS contains manufacture's default settings for the computer's standard operations. However, there are occasions when you may be required to modify the default settings in the BIOS. For example, you may need to configure the BIOS power management (APM) settings if you are using DOS, or non-Windows operating system.

The BIOS allows you to set up passwords to limit access to users. This is an important feature because a great deal of vital information is carried within the computer nowadays. Unauthorized access can be prevented. Later in this chapter, you will learn how to use this security feature.

Entering the BIOS Setup Screen

First turn on the power. When the BIOS perform the POST (Power-On Self Test), press F2 key quickly to activate the AMI BIOS Setup Utility.

You may need to press F2 key fairly quickly. Once the system begins to load Windows, you may have to retry by cycle-power on again

Leaving the BIOS Setup Screen

When you have finished modifying the BIOS settings, exit the BIOS. It takes a few seconds to record changes in the CMOS.

BIOS Action Keys

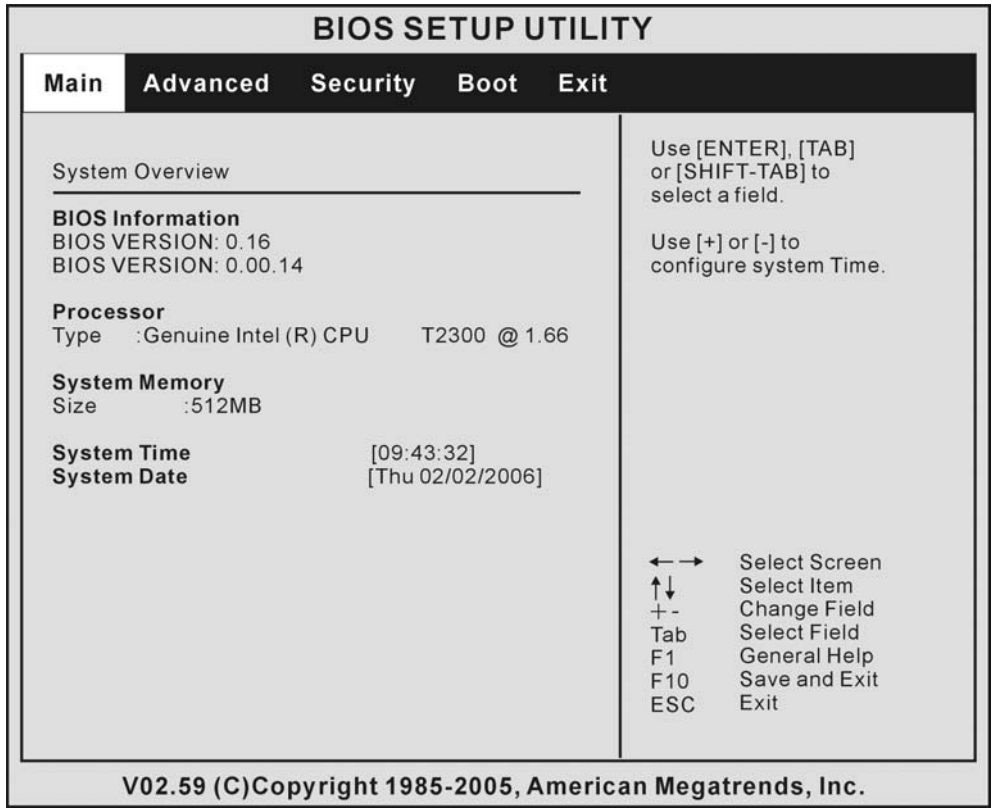
Function Key	Command	Description
ESC	Exit	Leaves a sub-menu to return to the previous menu OR exits the BIOS setup while saving changes.
Enter	Go to Sub Screen	Shows the Sub Menu
F1	General Help	Shows the Help Screen
F9	Default setting	Load Optimal Defaults
F10	Save and Exit	Saves changes and reboots the computer.
<Tab>	Select a field	Selects the next field.
↑	Select an item	Selects the next upper item.
↓	Select an item	Selects the next lower item.
-	Lower value	Selects the next value within a field.
+	Higher value	Selects the next value within a field.

Modifying the BIOS Settings

The AMIBIOS setup main menu is subdivided into sub-menus. Each menu item is described in this section.

MAIN SETUP

Under this menu, you may change time/date and view basic processor and system memory information.



Date

Type in the current date, in MM/DD/YY format.

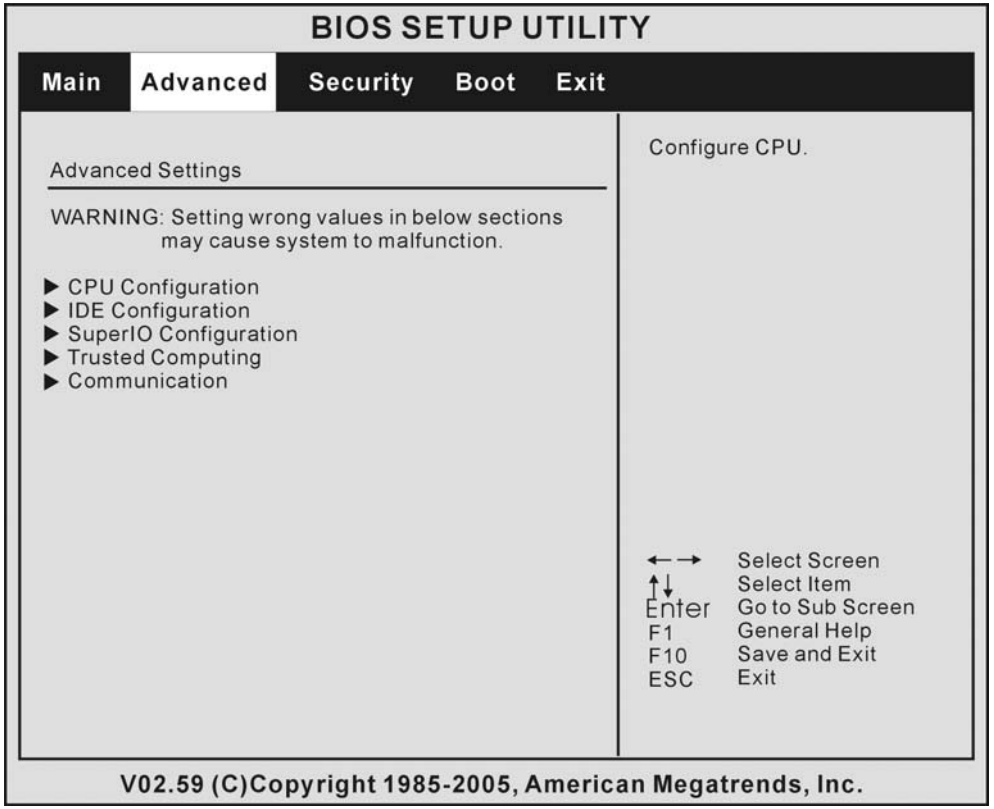
- N/A

Time

Type in the current date, in HH:MM:SS format.

- N/A

ADVANCED SETUP



CPU CONFIGURATION

Enabled you to configure the CPU settings

IDE CONFIGURATION

Primary IDE Master

Primary Master is where BIOS tries to boot from first. The primary master controls the hard drive. Normally, Auto is selected.

- Auto

Secondary IDE Master

The secondary master controls the ATAPI CD-ROM drive. Normally, Auto is selected.

- Auto

SUPER IO CONFIGURATION (PORT ADDRESS)

Parallel Port Address

You may choose a value for the parallel port.

- Disabled/378/278/3BC

Parallel Port Mode

You may choose any one of these settings. ECP offers the best performance.

- Normal/Bi-Directional/EPP/ECP

Parallel Port IRQ

You may choose any one of these settings. IRQ7 offers the best performance.

- IRQ5/IRQ7

TRUSTED COMPUTING

Configure settings related to Trusted Computing Innovations

COMMUNICATION

Wireless LAN

Enable or disable the internal wireless LAN module (optional.)

- Disabled/Enabled

Bluetooth

Enable or disable the Bluetooth.

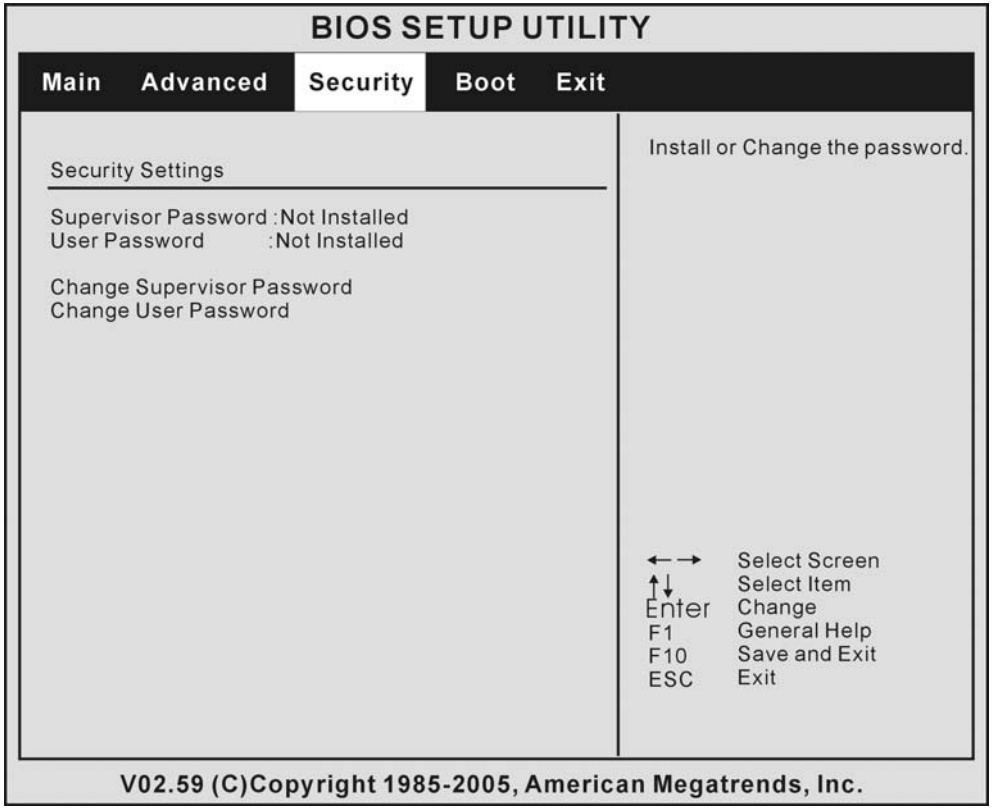
- Disabled/Enabled

GPS

Enable or disable GPS function

- Disabled/Enabled

SECURITY SETUP



BOOT SETTINGS CONFIGURATION

Change Supervisor Password

Install or Change the Password

- N/A

Change User Password

Install or Change the Password

- N/A

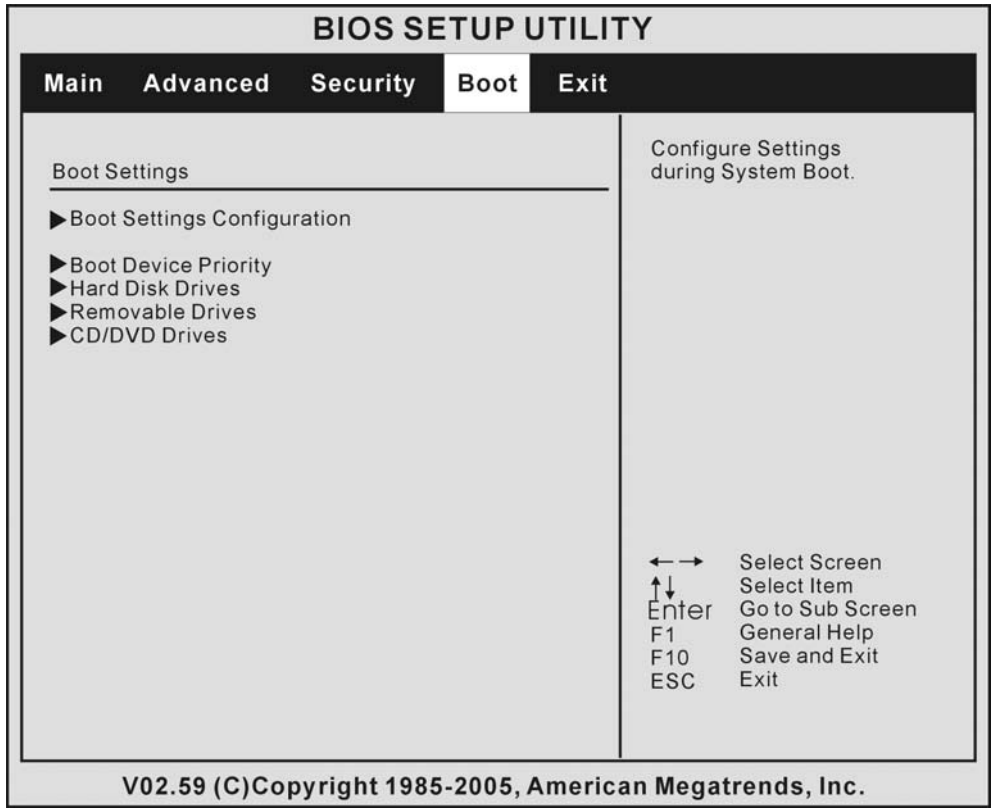
Using Password Protection

Two Levels of Password Protection are available. The BIOS provides both a Supervisor and a User password. If you try to activate both passwords, the Supervisor password must be set first. The passwords activate two different levels of protection:

1. System always asks for password every time it is powered on.
2. System asks for password only when you attempt to enter BIOS utility.

The passwords are encrypted and stored in NVRAM. Make sure you write them down or memorize them. If you lost the passwords, the computer may need to be sent back to the factory or to an authorized service dealer to reset the passwords.

BOOT SETUP



BOOT SETTINGS CONFIGURATION

Quiet boot

Disabled: Display normal POST message.

Enabled: Display OEM logo instead of POST messages.

- Disabled/ Enabled

Bootup Num-Lock

Select Power-on state for Numlock.

- Off/On

BOOT DEVICE PRIORITY

1st Boot Device

Set the type of device for the 1st drive BIOS attempts to boot from.

2nd Boot Device

Set the type of device for the 2nd drive BIOS attempts to boot from.

3rd Boot Device

Set the type of device for the 3rd drive BIOS attempts to boot from.

- Removable Dev/CD/DVD/Hard Drive/Disabled

HARD DISK DRIVES

1st Drive

Specifies the boot sequence from the available devices.

- SATA: PM-FUJITSU MHV2040BH/Disabled

REMOVABLE DRIVES

1st Drive

Specifies the boot sequence from the available devices.

- USB:USB Hotplug FDD/Disabled

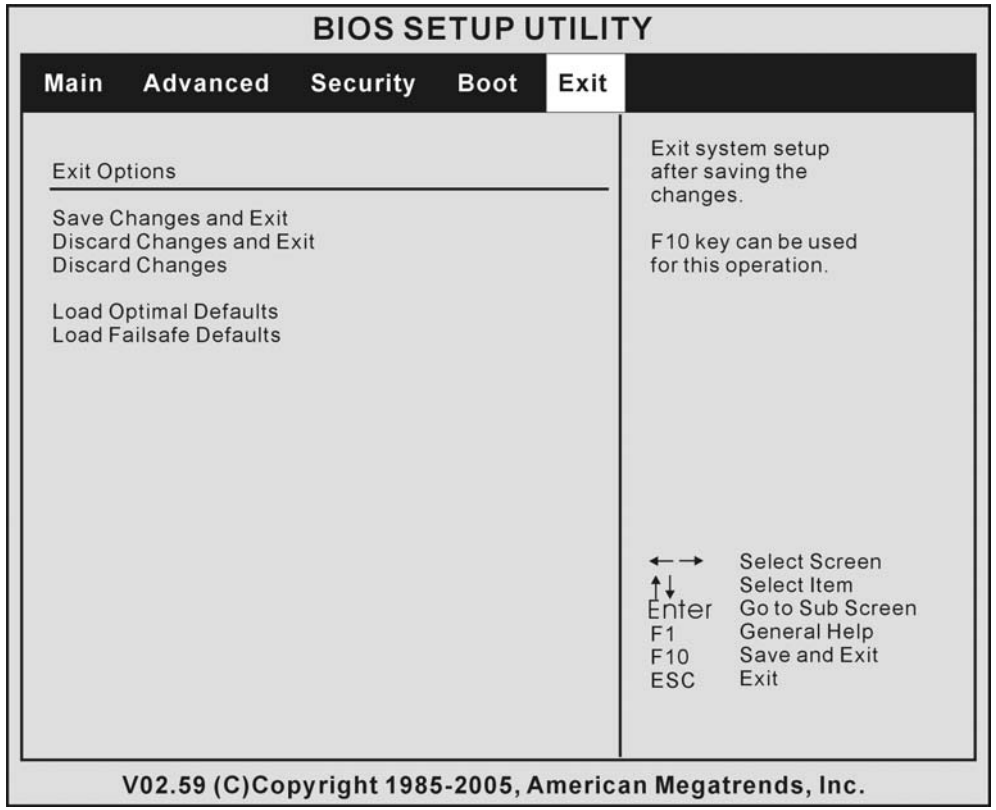
CD/DVD DRIVES

1st Drive

Specifies the boot sequence from the available devices.

- CD/DVD:SM-Slimtype COMBO SOSC-2/Disabled

EXIT SETUP



Saves Changes and Exit

After you have completed the BIOS settings, select this item to save all settings, exit BIOS Setup utility, and reboot. New system settings will take effect on next power-up. F10 key can be used for this operation.

Discard Changes and Exit

Exit system setup without saving any changes. Esc key can be used for this operation.

Discard Changes

Discards changes done so far to any of the setup questions. F7 key can be used for this operation.

Load Optimal Defaults

Load Optimal Default value for all the setup questions. F9 key can be used for this operation.

Load Failsafe Defaults

Load Failsafe Default value for all the setup questions. F8 key can be used for this operation.

Chapter Five

UPGRADING YOUR COMPUTER

In this chapter, you will learn how to upgrade the DRAM, hard disk drive, and to install the optional wireless LAN mini PCI card.

Warning: We strongly recommend you sending your notebook back to your dealer or agent for the specification upgrading.

When you upgrade your system, please turn off the power, disconnect the LAN and Modem cable first for your safety.

After system upgrade, please screw all the screws before turn on.

Upgrading the Hard Disk Drive

Replacing the original drive with one of larger capacity can increase the hard drive capacity of your computer. The computer uses a 9.5 mm (height), 2.5-inch Serial ATA type hard disk.

Be sure to make a backup copy of all your data before attempting this operation.

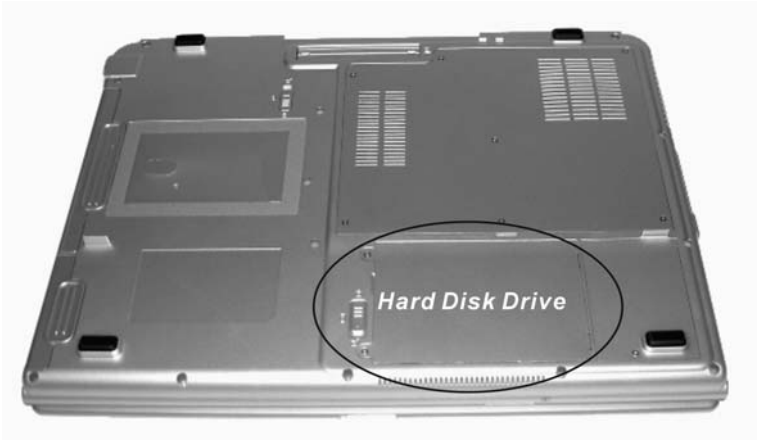
WARNING

Hard drive upgrade is a delicate process. Please observe the following instructions carefully or have a qualified technician install it for you. Damages due to mishandling of this procedure are NOT covered by the manufacture's warranty. Apply care when handling the hard disk.

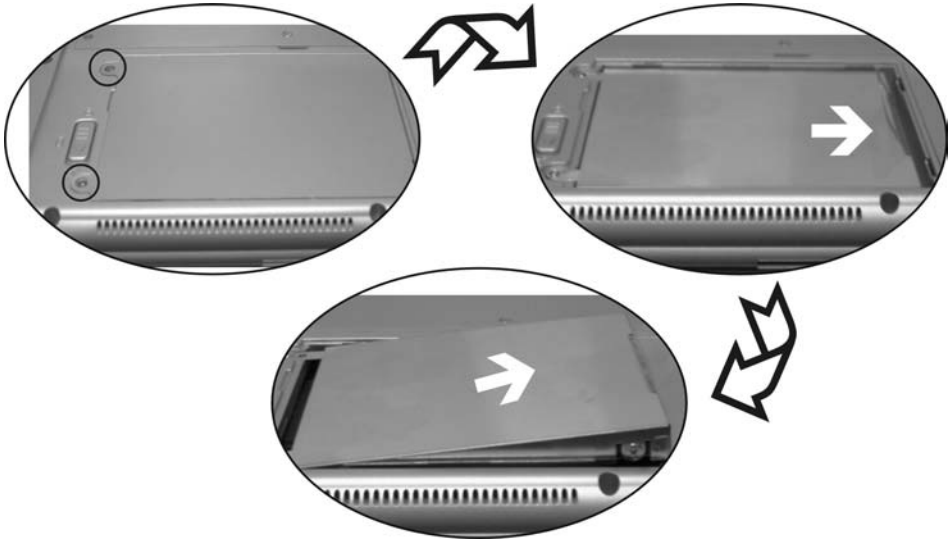
- Do not drop or apply any shock.
- Do not press on the cover.
- Do not touch the connector with your fingertips.
- Mishandling of the hard drive can result in permanent loss of data. Make a backup copy of the drive s content before you remove it.

To replace the hard disk drive, do the following:

1. Turn OFF the computer. Unhook the AC cord and all cables/devices attached to the notebook.
2. Place your hand on a large metal object momentarily to discharge any static electricity.

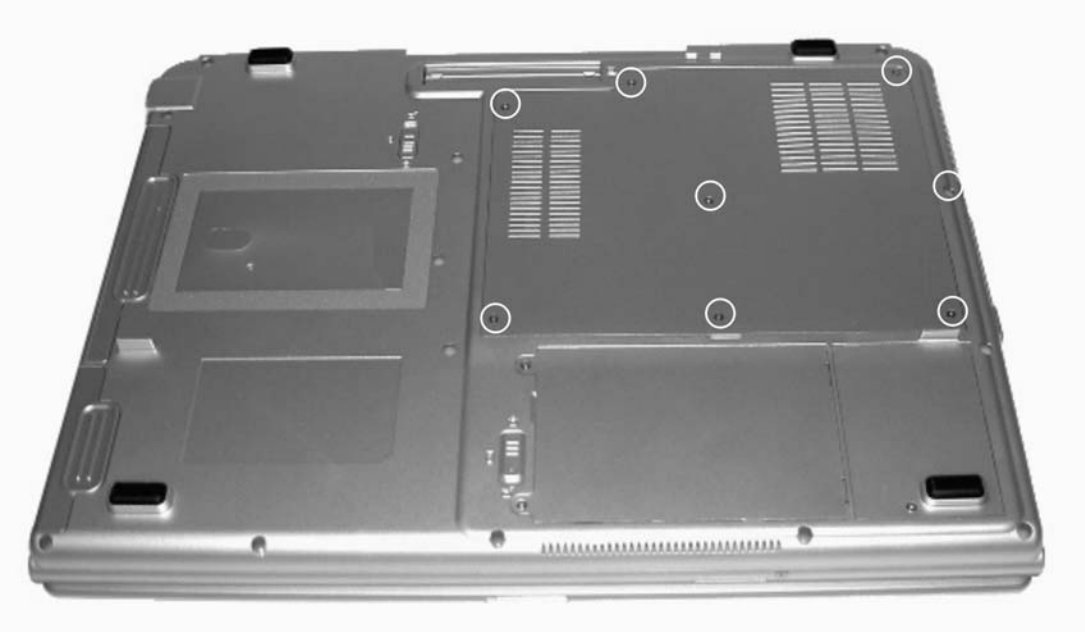


3. Un-screw the two screw that lock the HDD compartment.
4. Slide the HDD into the direction of the arrow as shown in the illustration.
5. Pull up the HDD away from the compartment.



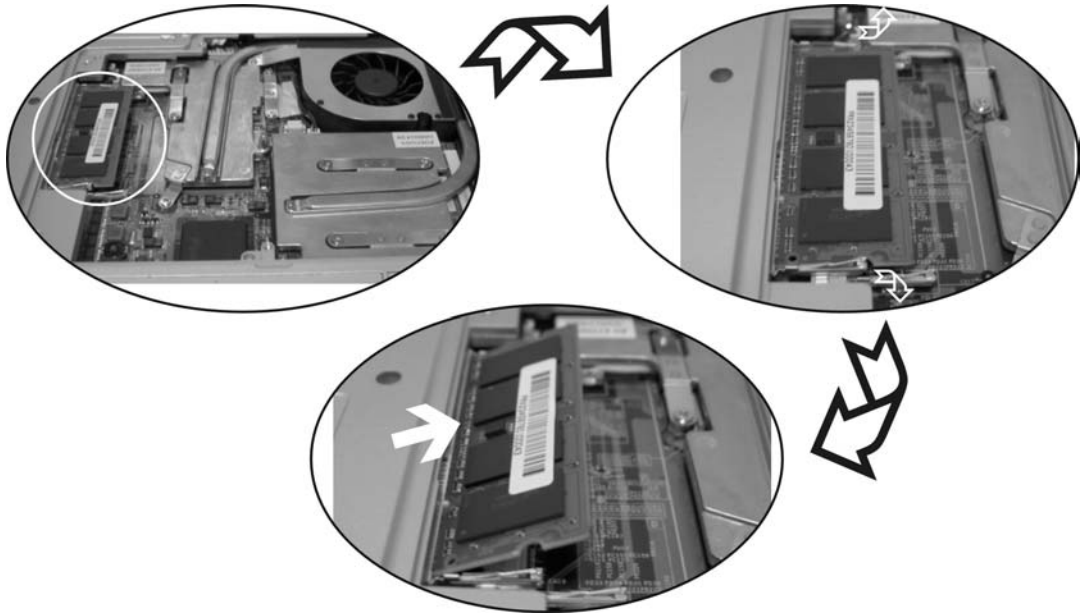
Upgrading the System Memory

Many applications will generally run faster when the computer's dynamic memory capacity is increased. The computer provides two DDRII memory sockets, located underneath the keyboard. You can increase the amount of memory by replacing the existing one with a dual inline memory module (commonly known as DIMM) of a higher capacity.



NOTE

Memory upgrade is a delicate process. Please observe the following instructions carefully or have a qualified technician install it for you. Damages due to mishandling of this procedure are NOT covered by the manufacture's warranty.Changing memory while your computer is in suspend or power-saving mode may cause permanent damage to the hardware. Make sure you turn off the power and unplug the AC cord before proceeding with a memory upgrade.



Chapter Six

TROUBLE SHOOTING

Your computer has been fully tested and complies with the system specifications before shipping. However, incorrect operations and/or mishandling may cause problems.

This chapter provides a reference for identifying and correcting common hardware and software problems that you may encounter.

When you encounter a problem, you should first try to go through the recommendations in this chapter. Instead of returning the computer and waiting for repair, you may easily solve the problems by considering the following scenarios and possible solutions. If the error continues, contact your reseller for service information.

Before taking further actions, consider the following suggestions:

- Check to see if the problem persists when all the external devices are removed.
- Check to see that the green light indicator on the AC adapter is lit.
- Check to see the power cord is properly plugged to the wall outlet and to the computer.
- Check to see the power indicator of the computer is on.
- Check to see if your keyboard is operational by pressing and holding any key.
- Check for any incorrect or loose cable connections. Make sure the latches on the connectors latch securely on to the receptor end.

- Be sure you have not performed an incorrect setting on the hardware devices in the BIOS Setup utility. A faulty setting may cause the system to misbehave. If you are not sure of the changes you made, try to restore all the settings to factory defaults.
- Be sure all the device drivers are installed properly. For example, without the audio driver properly installed, the speakers and microphone will not work.
- If external devices such as USB camera, scanner, printer do not function correctly when connected to the system, it is usually the device's own problem. Consult the device's manufacturer first.
- Some software programs, which have not gone through rigorous coding and testing, may cause problems during your routine use. Consult the software vendor for problem solving.
- Legacy peripheral are not plug-and-play capable. You need to restart the system with these devices powered up and connected first.
- Be sure to go to BIOS SETUP and load DEFAULT SETTING after BIOS re-flash.
- Be sure the Quick Key Lockout Switch on the bottom of the computer is not engaged; otherwise the quick keys will not work.

Audio Problems

No speaker output -

- Turn up the volume dial located at the right edge of the computer. See Chapter 1 for its location.
- Software volume control is turned down in Microsoft Sound System or is muted. Double-click the speaker icon on the lower right corner of the taskbar to see if the speaker has been muted or turned down all the way.
- Most audio problems are software-related. If your computer worked before, chances are software may have been set incorrectly.
- Go to [Start > Settings > Control Panel] and double-click the Sounds and Audio Devices icon. In the Audio page, make sure that Realtek ALC880 Audio is the default playback device.

Sound cannot be recorded -

- Double-click the speaker icon on the lower right corner of the taskbar to see if the microphone has been muted.
  - Click Options and select Properties.
  - Select Recording and click the OK button.
  - After Click OK button, the recording volume control panel will appear.
- Go to [Start > Settings > Control Panel] and double-click the Multimedia icon (or Sounds and Audio Devices icon). In the Volume or Audio page, make sure that Realtek ALC 880 Audio is the default recording device.

Hard Disk Problems

The hard disk drive does not work or is not recognizable -

- If you had just performed a hard disk upgrade, make sure the hard drive connector is not loose and the hard disk drive is also correctly seated. Remove it and reinsert it firmly, and restart your PC. (Refer to Chapter 4 for details.)
- The new HDD may need to be partitioned and reformatted. O/S and drivers will need to be re-installed as well.
- Check the hard disk indicator LED. When you access a file, the LED lamp should light up momentarily.
- The new HDD may be defective or is not compatible.
- If your computer has been subjected to static electricity or physical shock, you may have damaged the disk drive.

The hard drive is making abnormal whining noises -

- You should back up your files as soon as possible.
- Make sure the source of noise is indeed from the hard drive and not the fan or other devices.

The hard disk drive has reached its capacity -

- Run Disk Cleanup utility in Windows. [Start > All Programs > Accessories > System Tools > Disk Cleanup] The system will prompt you for what to do.
- Archive files or programs that you had no longer used by moving them to an alternative storage medium (floppy disk, optical record-able disk, etc.) or uninstall programs that no longer use.

- Many browsers store files in the hard drive as a cache to speed up the performance. Check the program's Online Help for instructions on decreasing the cache size or on removing temporary Internet files.
- Empty the Recycle Bin to create more disk space. When you delete files, Windows saves them to the Recycle Bin.

The hard disk takes longer to read a file -

- If you have been using the drive for a period, the files may be fragmented. Go to [Start > Programs > Accessories > System Tools > Disk Defragmenter] to perform a disk defragmentation. This operation may take a while.
- Interrupt requests or problems with other hardware devices may have occupied the CPU and therefore slows down the system performance.

The files are corrupted -

- Run the Error-checking utility in Windows to check the HDD. Double-click My Computer. Right-click C: and select Properties. Click Check Now in Error-checking in Tools.

Optical Drive Problems

The optical drive does not work -

- Try rebooting the system.
- The disk is damaged or files are not readable.
- After you have inserted a CD-ROM disk, it may take a moment before you can access its content.

The drive dose not read any disks -

- The CD may not be properly seated in the tray. Make sure the disk is firmly seated onto the spindle.
- The disk is damaged or not readable.

The disk cannot be ejected -

- Normally, it takes a few seconds to eject the disk.

- If the disk cannot be ejected, it may be mechanically jammed. Straighten out a paper clip and insert it to a tiny hole next to the eject button. This should reject the disk tray. If not, return the unit for repair. Do not forcefully pull on the disk tray.

The Combo or DVD RW drive (optional device) cannot record -

- You need to purchase and install a burner utility program to record files to a blank media.

Display Problems

The display panel is blank when the system is turned on -

- Make sure the computer is not in the Standby or Hibernate suspend modes. The display is turned off to conserve energy in these modes.

The screen is difficult to read -

- The display resolution should at least be set to at least1024x768 for optimal viewing.
  - Go to [Start > Settings > Control Panel] and double-click the Display icon.
  - Under the Settings page, set screen resolution to at least 1024x768 and choose at least 256 colors.

The screen flickers -

- It is normal if the display flickers a few times during shutting down or powering up.

Keyboard, Mouse and Touchpad Problems

The built-in touch pad performs erratically -

- Make sure there is no excess perspiration or humidity on your hand when using the touch pad. Keep the surface of the touch pad clean and dry.
- Do not rest your palm or wrist on the surface of the touch pad while typing or using the touch pad.
- Make sure Touch Pad On/Off function (Fn+F2) is not activated.

The built-in keyboard accepts no input -

- If you are connecting an external keyboard to the system, the built-in keyboard may not work.
- Try restarting the system.

The characters on the screen repeat while I type.

- You may be holding the keys down too long while you're typing.
- Keep the keyboard clean. Dust and dirt under the keys could cause them to stick.
- Configure the keyboard to wait longer before the auto repeat feature starts. To adjust this feature, Go to [Start > Settings > Control Panel], and double-click the Keyboard icon. A dialogue box shows up with the adjustable settings for the keyboard.

CMOS Battery Problem

A message "CMOS Checksum Failure" displays during the booting process or the time (clock) resets when booting -

- Try to reboot the system.
- If the message "CMOS Checksum Failure" appears during the booting procedure even after rebooting, it may indicate failure of the CMOS battery. If so, you need to replace the battery. This battery normally lasts two to five years. The battery is of type CR1225 (3V).

Memory Problems

The POST does not show an increased memory capacity when you have already installed additional memory -

- Certain brands of memory module may not be compatible with your system. You should ask your vendor for a list of compatible DIMM.
- The memory module may not be installed properly. Go back to Chapter 4 to review the details of this operation.
- The memory module may be defective.

The O/S issues an insufficient memory error message during operation -

- This is often a software or Windows-related problem. A program is draining the memory resources.
- Close the application programs you're not using and restart the system.

- You need to install additional memory module. For instructions, go to Chapter 4 Upgrading Your Computer.

Modem Problems

The built-in modem does not respond -

- Make sure the modem driver is loaded properly.
- Make sure the modem is not disabled under CMOS configuration.
- Go to [Start > Settings > Control Panel > Phone and Modem Options] and go to Modems tab. Make sure Azalia Modem is listed. Otherwise, click the Add button to add the modem drive, which is located in the factory CD-ROM (or floppy diskette).
- Go to [Start > Settings > Control Panel > System] and click Device Manager button in the Hardware page to check for possible resource or driver conflict. See Windows on-line help or manual for how to handle such problems.
- Make sure the phone line, which the computer is connected to, is working.

Connection difficulties -

- Be sure to disable Call Waiting on the phone line.
- Be sure to have the correct country setting where your computer is used. [Start > Settings > Control Panel > Modem Settings > Configuration] In the Country/Area pull-down menu, select the appropriate country setting.
- Excessive line noise might cause the connection to be dropped. To check this, put the regular phone handset on the line and placing a phone call. If you do hear abnormal noise, try to make the modem connection with a different line or contact your local telephony company for service.
- Make sure the cable connection is firm.
- Try a different receiver number and see if the problem persists.

Network Adapter / Ethernet Problems

The Ethernet adapter does not work -

- Go to [Start > Settings > Control Panel > System > Hardware > Device Manager]. Double-click on Network Adapters and check if Intel Gigabit PCI Fast Ethernet Adapter appears as one of the adapters. If it does not exist, Windows has not detected the Intel Gigabit Fast Ethernet adapter or the device driver has not been installed properly. If there is a yellow mark or red-cross on the network adapter, it may be a device or resource conflict. Replace or update the device driver from the factory CD-ROM disk or consult Windows manual on how to solve the resource conflict problem.
- Make sure the physical connections on both ends of the cable are good.
- The hub or concentrator may not be working properly. Check to see if other workstations connected to the same hub or concentrator is working.

The Ethernet adapter does not appear to operate in the 100/1000Mbps transmission mode -

- Make sure the hub you are using supports 100/1000Mbps operation.
- Make sure that your RJ-45 cable meets the 100/1000Base-TX requirements.
- Make sure the Ethernet cable is connected to the hub socket that supports 100/1000Base-TX mode. The hub may have both 100/1000Base-TX and 100/1000Base-T sockets.

PC Card / PCMCIA Problems

NOTE

Some system may not have the PC Card Slot option.

PC Cards do not function-

- Make sure you have properly installed the driver for the card.
- Consult the card's manual or contact the vendor for trouble-shooting.

The PC card cannot be recognized -

- Windows NT4.0 does not support PCMCIA (PC Card) function. You may need an external program for this.
- Make sure the card is fully inserted; the outer end of the card should be even with the edge of the computer.
- Remove and insert the PC card again.
- Make sure there is no IRQ conflict with the card. See Windows on-line help for solving IRQ conflicts.
- Reboot the computer and see if the problem persists.
- The card may be defective. Try the card on another system, if possible.

Windows crashes or freezes when you remove the PC card-

- Make sure you have <Stop> the PC card before removing it. Double-click the Safely Remove Hardware icon at the lower right corner of the task bar and select the card you wish to stop. When you click <Close>, in few seconds Windows will prompt you to remove the card.

Performance Problems

The computer becomes hot -

- In a 35°C environment, the certain areas of the computer's back case are expected to reach 50 degrees.
- Make sure the air vents are not blocked.
- If the fan does not seem to be working at high temperature (50 degrees Celsius and up), contact the service center.
- Certain programs that are processor-intensive may increase the computer temperature to a degree where the computer automatically slows down its CPU clock to protect itself from thermal damage.

The program appears stopped or runs very slowly -

- Press CTRL+ALT+DEL to see if an application is still responding.
- Restart the computer.

- This may be normal for Windows when it is processing other CPU-intensive programs in the background or when the system is accessing slow-speed devices such the floppy disk drive.
- You may be running too many applications. Try to close some applications or increase system memory for higher performance.
- The processor may have been overheated due to the system's inability to regulate its internal heat. Make sure the computer's ventilation grills are not blocked.

Printer Problems

The printer does not print -

- Make sure the cable connection is secured and the printer is powered up, if the printer is connected via the parallel port.
- Run the printer self-test to see if it reports any problem.
- Check if the printer displays any error messages. A paper jam may have occurred.
- Make sure you have already installed the printer driver.
- Try rebooting the system with the printer powered up and connected first.

The printer does not print what's on the screen -

- The information displayed on the screen may not exactly be the same as what is printed.
- If the printer prints extra and strange symbols, it is the result of the cache (garbage) in the printer memory buffer. Cancel all the printer tasks and toggle off the printer power switch to clear up the memory buffer. Then, turn the printer back online and print again.
- Make sure you install the correct printer driver.

The printer does not respond to infrared communication -

- See Infrared Problems listed elsewhere in this chapter.

Firewire (IEEE1394) and USB2.0 Problems

The USB device does not work -

- Windows NT 4.0 does not support USB protocols
- Check the settings in the Windows Control Panel.
- Make sure you have installed the necessary device drivers.
- Contact the device vendor for additional support.

The IEEE1394 port does not work -

- Go to [Start > Settings > Control Panel > System > Hardware > Device Manager]. You should see an entry which reads “Texas Instrument OHCI Compliant IEEE 1394 Host Controllers”. If it does not exist, Windows has not detected the host controller or the device driver has not been installed properly. If there is a yellow mark or red-cross on the 1394 host controller, it may be a device or resource conflict. Replace or update the device driver from the factory CD-ROM disk or consult Windows manual on how to solve the resource conflict problem.
- Make sure the cable is fully connected.
- Make sure you have installed the necessary device drivers.
- Contact the device vendor for additional support.

Chapter Seven

CONNECTING PERIPHERAL DEVICES

To expand your computing capabilities, you can add a variety of external devices to your computer. You may, for example, want to add a mouse, modem, or a printer. The computer is equipped with several interface ports, including an enhanced parallel (printer) port, a serial, and USB ports. These are provided as a means of connecting peripheral devices to the computer.

External Keyboard/Mouse

You can use your computer with an optional external keyboard, or IBM PS/2 compatible mouse. The devices are “hot pluggable”. You do not have to power down the Notebook to connect these devices.

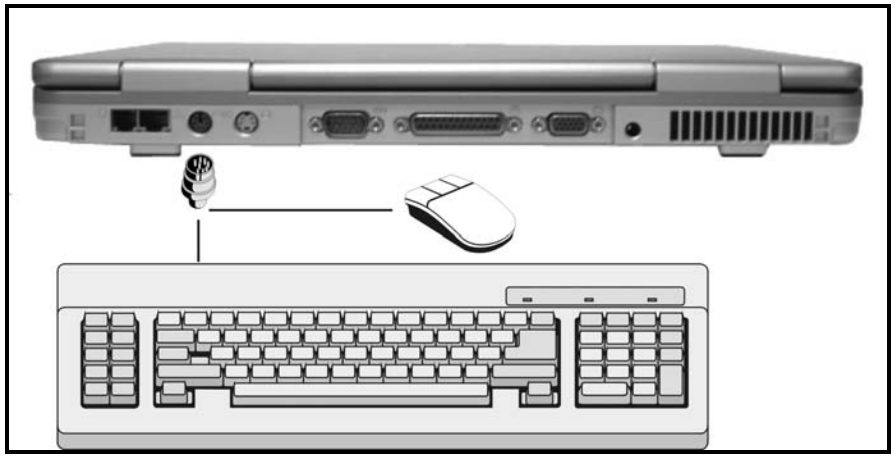
You can either connect

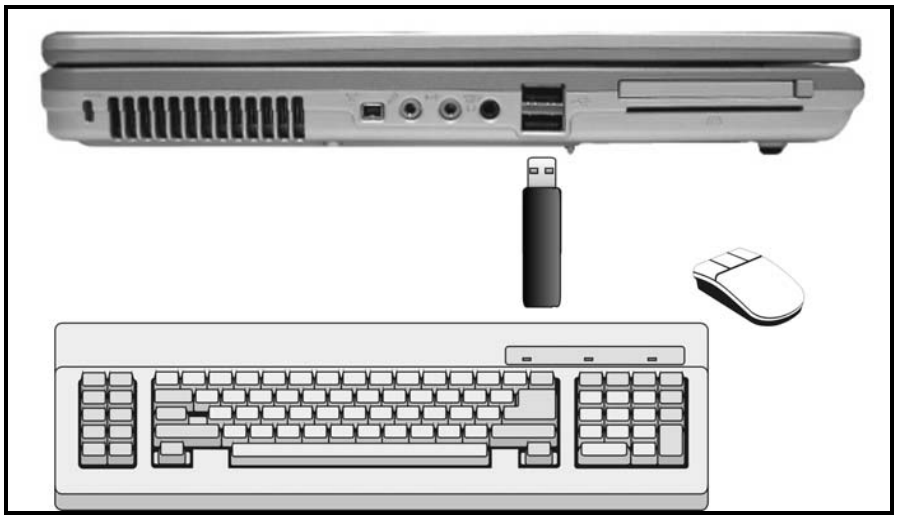
- A traditional external keyboard or
- An IBM PS/2 compatible mouse or
- A USB keyboard/mouse or
- A wireless keyboard into

NOTE

You can opeate both the internal keyboard and an external keyboard at the same time.

The PS/2 compatible mouse will work with the Notebook PC’s TouchPad simultaneously.

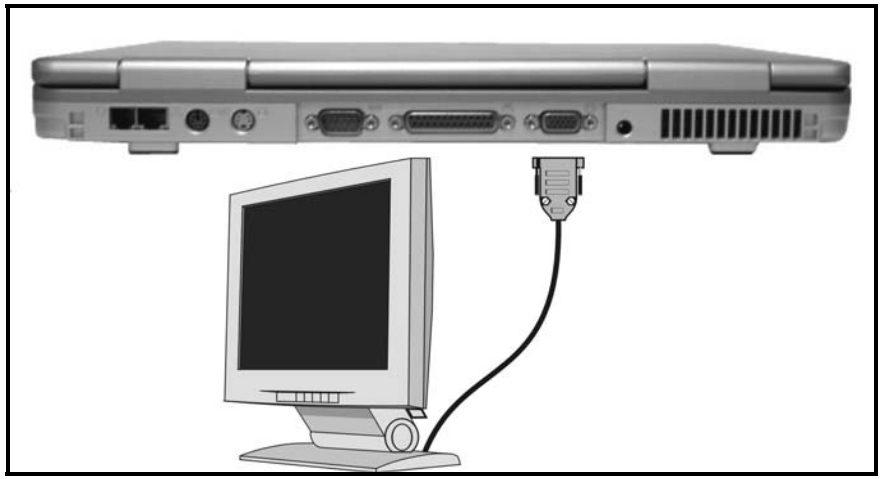




External Monitor

You can use optional display monitor with your computer.

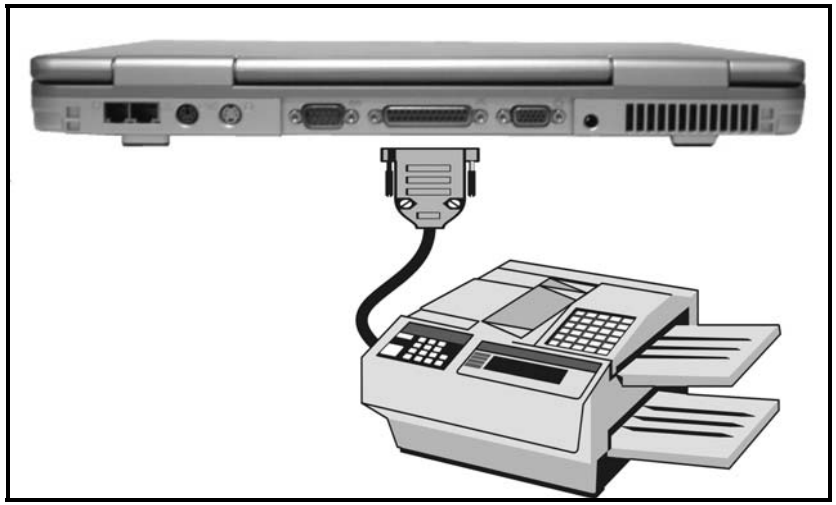
- Plug the monitor's signal connector into the external VGA monitor on the rear panel of the computer.
- Secure the monitor cable to the external monitor port using the screws on the monitor cable.
- Plug the monitor's power cable into a wall outlet.
- Turn on the monitor and adjust the monitor stand so that you have a good viewing angle of the screen.



Parallel Printer

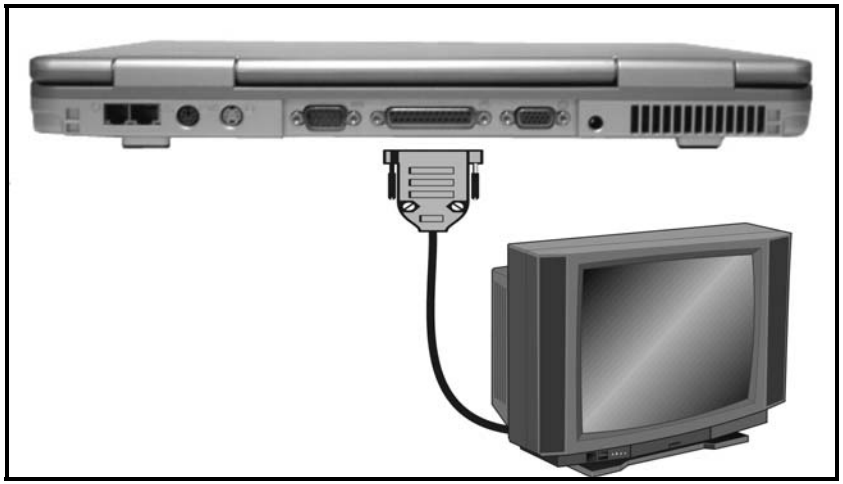
Your Notebook computer is equipped with an enhanced bi-directional parallel port.

The parallel port is the most widely used interface on personal computers because it usually does not require setup commands or special configurations on either the computer or the peripheral device.



TV Out

You can connect a TV monitor to the Notebook's S-Video port and view the Notebook's video output.



Chapter Eight

USING THE GPS

The GPS, short for Global Positioning System, transmit digital radio signals that contain data on the satellites location and exact time to the earth-bound receivers. GPS has applications beyond navigation and location determination. GPS can also be used to monitor the movement of people and things and bringing precise timing to the world.

SYSTEM REQUIREMENT

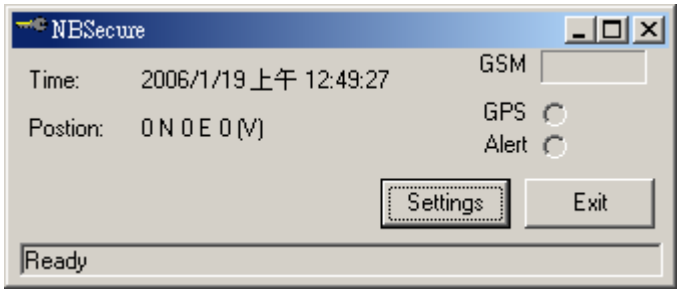
- PC notebook with x86 CPU
- Windows 2000/XP
- GSM/GPS module installed

INSTALLATION

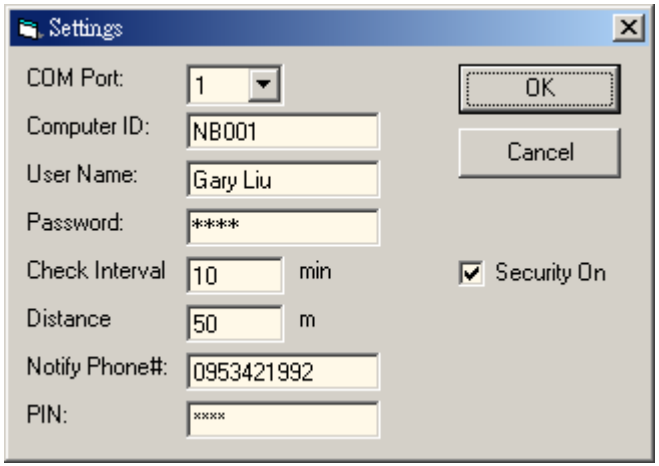
1. Launch setup.exe
2. Change the destination directory if needed, then click the square button to proceed with the installation.

OPERATION

1. Launch Secure.exe, wait till the initialization finished.

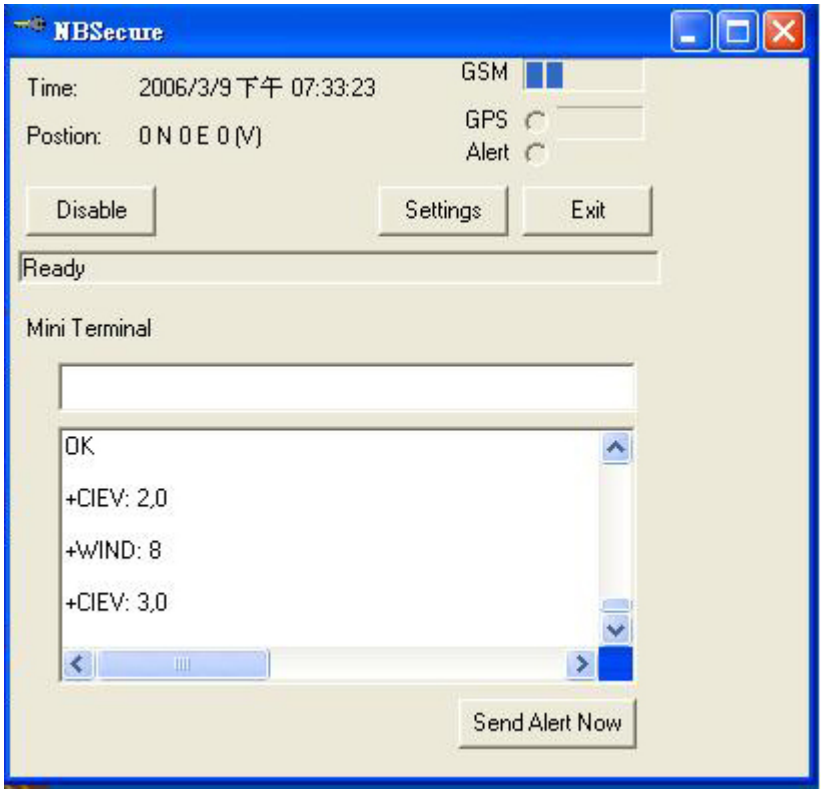


2. Click the [Settings] button to set parameters.

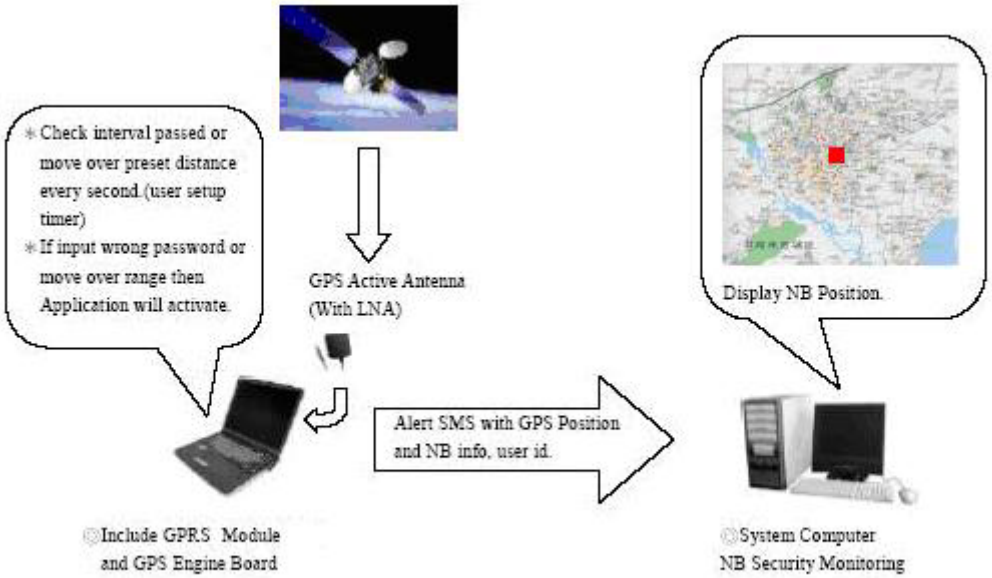


- **COM Port** is the serial port where the SIM/GPS module is connected.
- **Password** is the one that user should enter every **Check Interval**, or the notebook is moved beyond the **Distance** since its last check.
- **Notify Phone#** is the phone no. that the alert SMS is sent to if user fail to pass the check.
- **PIN** is the PIN code, if any, of the SIM card.
- Check **Security On** to enable the security check, or uncheck it to disable the security check.
- Click the **OK** button to save changes, or the **Cancel** button to discard changes.

3. Leave the application running. When the password dialog shows up, enter the correct password, or it will start to send alert SMS out every 60 seconds.



The following illustration gives you detail on how GPS will operate and transmit informations.



Appendix A

SPECIFICATIONS

CPU

Intel

- Support for Intel Yonah Dual Core processor Pentium M , 667MHz FSB, 2MB L2 Cache,
- Support for Intel Yonah Single Core processor
- TDP 31W
- CPU Speed: Follow Intel the highest CPU speed.
- Keeping pace with Intel Roadmap through 2007 u-FCPGA Socket if possible
- Support Merom Dual Core CPU if the socket the same with Yonah.

MEMORY

DDR DRAM

- 2 SODIMM sockets, up to 2048MB total system memory (highest memory configuration with
- DDR II) 533/ 667MHz DDRII
- Accessible beneath keyboard per Intel design suggestion
- Allowance for changes in technology through 1st half of 2007.

CORE LOGIC

Intel 945PM

- Support Intel Pentium Dual(Single) Core processor FSB 667MHz
- Support DDR2 RAM, up to 2048MB total
- Discrete Graphics using (x16) PCI-Express
- Configurable as x2 or x4 DMI lanes

Intel ICH7M

- Support PCI-Express interface
- Support S-ATA controllers

- Support Ultra ATA 33/66/100
- Support 8 USB 2.0/1.1 devices
- Support Azalia (HD) controller

BIOS

(AMI)

- AMI 8Mbit BIOS memory
- Ability to turn off internal modem, LAN option, Wireless Lan (802.11x Golan), Bluetooth
- GPS & Touch Pad
- UPEK (ST Micro) TBX for finger print security
- Landesk functionality
- Other BIOS options TBD.

GRAPHICS

MXM TypeII supporting ATI & Nvdia

- Daughter card solution. PCI Express using MXM technology per Nvida specification
- ATI M56 Type II 128MB VRAM (high end, mid range, low end and workstation class MXM
- cards)
- Nvdia NV73M 256MB standard MXM TypeII card (Outsourcing)

PCMCIA

(OZ711MP1)

- 1-32Bit Card bus (support for 1 typeI & II)
- (But still reserve circuit ,space and 1 internal usb port for future New Card)
- OZ711MP1 controller also support 1394, Smart card and 4-1 card reader

AUDIO

(Realtek ALC861)

- Built-in Azalia Audio , 3D sound effects, 7.1 digital sound
- Built-in two 1.5W stereo speakers id space is available.

MINI CARD

- 1 * Mini Card socket. Accessible from bottom case.

- Intel Golan WLAN 3945 A/B/G

LED

- Power on/ Charging status, Suspend status (on Main board)
- Caps Lock, Num Lock, Scroll Lock, HDD/CD, Wireless, Blue tooth , GPS (on LED board)

POINT DEVICE

(Synaptic)

- Touch pad with latest S/W feature set. OTR is simultaneous with external PS/2 device (including MS-Intellimouse). With imbedded UPEX touch strip. Touch strip should allow horizontal and vertical scrolling. Look into styling this so it gives the appearance of one piece on the palm rest

BAYS

SATA HDD Bay

- Bottom loading tool less design (can't compatible with 3100 series)

Multibay (Warm swappable through OS)

- 2nd Battery (6 cells, 1800mA, 3S2P)
- CD-RW/ DVD Combo/ DVD Dual
- Secondary SATA HDD
- Air Bay (Dummy)

POWER CONSUMPTION

- 110 Watts (with 1A charging)
- (120W Adapter slim tiny as possible)

POWER MANAGEMENT

- Fu Full feature ACPI power management, Stand-by, Suspend, Hibernation
- ACPI 3.0 supported with Intel SpeedStep
- With bridge battery

COMMUNICATIONS

Modem

- Castlenet MA820

LAN

- Intel Tekoa 82573E GigaLAN (support AMT)

WLAN

- Intel Golan WLAN 3945 A/B/G (Mini Card)

Blue tooth

- GUBTCR42M Billionton

GPS

- GPS module (could be enable/disable in BIOS and also has LED indicator)---fixed on the bottom case door.

SECURITY

Finger strip

- STMicro touch strip UPEK

Password

- System password

TPM

- St Micro ST19WP18-TPM-C
- Kensington Lock

Smart Card

- Internal to the system. Running off PCMCIA controller, Smart card should
- be orientated so the smart chip must be inserted up. In this model we would like the card slot
- so it can be orientated with the chip up.

KEYBOARD

- 87/88-keys Keyboard
- 19mm pitch 2.5 mm travel length, 19mm pitch IBM style layout , support US

LCD

- 15.4” WUXGA
- 15.4” WSXGA+

MAIN BATTERY

- 2400mA (8cells,4S2P)

I/O PORT

- 4 USB2.0
- 1 IEEE 1394
- 1 RJ-11

- 1 RJ-45
- 1 Microphone
- 1 Line In
- 1 Audio Out (SPDIF)
- 1 PCMCIA
- 1 VGA
- 1 S-Video
- 1 PS/2 (Y splitter of mouse and keyboard)
- 1 Port-replicator
- 1 Printer Port
- 1 Serial Port
- 1 Smart Card
- 1 DC-In
- 4 in 1 Card Reader (Built-in SD,MMC,MS 及 MS-Pro)

FUNCTION KEYS

User definable Keys

- Fn+F1 Suspend switch
- Fn+F2 Turn On/ Off Touch Pad
- Fn+F3 LCD/ CRT/ LCD+CRT Switch
- Fn+F4 Brightness down
- Fn+F5 Brightness up
- Fn+F6 Mute
- Fn+F7 Volume Down
- Fn+F8 Volume Up
- Fn+F9 Media Play/Pause
- Fn+F10 Media Stop
- Fn+F11 Media Play Backward
- Fn+F12 Media Play Forward
- Fn+Num Lk , Scr Lk

PHYSICAL OUTLINE DIMENSION

- 358mm x 262mm x 35mm

WEIGHT

- 6.9 lbs with 8 cells battery (15.4 wide screen)

OPERATING SYSTEM

Microsoft

- Windows 2000, Windows XP SP2(with subsequence service releases), upcoming 64bit Windows Vista.

PORT REPLICATOR

- Compatibility with 3000 series port replicator (PR1000)

CERTIFICATIONS

- WHQL apply only for Windows XP all drivers software and peripherals must be WHQL certified with MID numbers.
- RoHs, WEEE (Uniwill)
- Macrovison, Energy Star, BQB (MPC)

REGULATIONS

- FCC, FCC Wireless, UL

Appendix B

AGENCY REGULATORY NOTICES

Federal Communications Commission Notice

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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the 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 or television 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC RADIATION EXPOSURE STATEMENT:

FCC RF Radiation Exposure Statement:

This Transmitter has been demonstrated co-location compliance requirements with (Intel wireless 802.11abg module, FCC ID:PD9WM3945ABG).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.

According to FCC 15.407(e), the device is intended to operate in the frequency band of 5.15GHz to 5.25GHz under all conditions of normal operation. Normal operation of this device is restricted to indoor used only to reduce any potential for harmful interference to co-channel MSS operations.

MODIFICATIONS

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by the Manufacture may void the user's authority to operate the equipment.

CONNECTIONS TO PERIPHERAL DEVICES

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

DECLARATION OF CONFORMITY

This device complies with Part 15/68 the FCC Rules. Operation is subject to the following two 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

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) and R&TTE Directive (1999/5/EC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:

- EN55022 (CISPR 22) Radio Frequency Interference
- EN50082 (IEC801-2, IEC801-3, IEC801-4) Electro-magnetic Immunity
- EN 300 328-2, EN 300 328-1, EN 301 489-1, EN 301 489-17 (ETSI 300 328, ETSI 301 489) Electro-magnetic Compatibility and Radio Spectrum Matter.
- TBR21 (ETSI TBR21) Terminal Equipment.
- EN60950 (IEC950) I.T.E. Product Safety

CANADIAN NOTICE

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

Le present appareil numerique nemet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de Classe B prescrites dans le reglement sur le brouillage radioelectrique edicte par le Ministere des Communications du Canada.

POWER CORD REQUIREMENT

The power cord supplied with the AC adapter should match the plug and voltage requirements for your local area. Regulatory approval for the AC adapter has been obtained using the power cord for the local area. However, if you travel to a different area and need to connect to a different outlet or voltage, you should use one of the power cords listed below. To purchase a power cord (including one for a country not listed below) or a replacement ac adapter, contact your local dealer.

U.S. AND CANADA

- The cord set must be UL-Listed and CSA-Certified or C-UL Listed.
- The minimum specifications for the flexible cord are (1) No. 18 AWG, (2) Type SJ, and (3) 3-conductor.
- The cord set must have a rated current capacity of at least 10 A.
- The attachment plug must be an earth-grounding type with a NEMA 5-15P (15A, 125V) or NEMA 6-15P (15 A, 250V) configuration.

JAPAN

- All components of the cord set (cord, connector, and plug) must bear a `PSE` mark and registration number in accordance with the Japanese Dentori Law.
- The minimum specification for the flexible cord are: (1) 0.75 mm^2 conductors, (2) Type VCT or VCTF, and (3) 3-conductor.

The cord set must have minimum rated current capacity of 7 A.

- The attachment plug must be a two-pole, grounded type with a Japanese Industrial Standard C8303 (15 A, 125 VAC) configuration.

OTHER COUNTRIES

- The cord set fittings must bear the certification mark of the agency responsible for evaluation in a specific country. Acceptable agencies are:
  - BSI (UK)
  - OVE (Australia)
  - CEBEC (Belgium)
  - SEMKO (Sweden)
  - FIMKO (Finland)
  - DEMKO (Denmark)
  - NEMKO (Norway)
  - SETI (Finland)
  - EANSW (Australia)
  - SEV (Switzerland)
  - IMQ (Italy)
  - UTE (France)
  - CCC (China)
  - PSB (Singapore)
  - PSE (Japan)
  - BSMI (Taiwan)
  - B (Polish)
  - VDE (Germany)
  - SASO (Saudi Arabia)
- The flexible cord must be of a HAR (harmonized) type HO5VV-F 3-conductor cord with a minimum conductor size of 0.03 square inches.
- The minimum specification for the flexible cord for Class II product are: (1) 2X0.75 mm^2 conductors, (2) 2-conductor cord.
- The cord set must have a current capacity of at least 10 A and a nominal voltage rating of 125 / 250 VAC.

CAUTION: MODEL X51IAx IS DESIGNED TO USE WITH THE FLLOWING AC ADAPTER MODEL ONLY

Manufacture: LITE-ON ELECTRONICS, INC.; LI SHIN INTERNATIONAL ENTERPRISE CORP.

Model: PA-1121-22 (120W); 022720120A (120W)

TELEPHONE LINES REQUIREMENT

- The appropriate utilization of 26AWG telephone line cord on unit.

CAUTION: Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment.

CAUTION: To reduce the risk of fire, use only No. 26AWG or larger telecommunication line cord.

BATTERY PACK SAFETY

- The battery pack is intended to use only with this notebook.
- Do not disassemble the pack.
- Do not dispose of the battery pack in fire or water.
- To avoid risk of fire, burns, or damage to your battery pack, do not allow a metal object to touch the battery contacts.
- Handle a damaged or leaking battery with extreme care. If you come in contact with the electrolyte, wash the exposed area with soap and water. If it contacts the eye, flush the eye with water for 15 minutes and seek medical attention.
- Do not charge the battery pack if the ambient temperature exceeds 42℃ (107.6℉).
- To obtain a replacement battery, contact your local dealer.
- Do not expose the battery pack to high storage temperatures (above 60℃, 140℉).
- When discarding a battery pack, contact your local waste disposal provider regarding local restrictions on the disposal or recycling of batteries.
- Use only supplied AC Adapter for charging.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions or local laws.

VORSICHT! Explisionsgefahr bei unsachgernazen Austausch der Batterie. Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ahnlichen Typ. Entsorgung gebrauchter Batterien navh Angaben des Herstellers.

LASER SAFETY

The optical drive used with this computer is certified as a Class 1 laser device according to the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard and International Standards IEC 825 / IEC 825-1 (EN60825 / EN60825-1). The device is not considered harmful, but the following precautions are recommended:

- Do not open the unit.
- Avoid direct exposure to the laser beam.
- If the unit requires service, contact an authorized service center.
- Ensure proper use by reading and following the instructions carefully.
- Do not attempt to make any adjustment of the unit.

CLASS 1 LASER PRODUCT

APPAREIL A LASER DE CLASSE 1

LASERSCHUTZKLASSE 1 PRODUKT

WARNING!

Do not attempt to disassemble the cabinet containing the laser. The laser beam used in this product is harmful to the eyes. The use of optical instruments, such as magnifying lenses, with this product increase the potential hazard to your eyes. For your safety, have this equipment serviced only by an authorized service provider.

- Lithium battery warning

This computer contains a lithium battery to power the clock and calendar circuitry.

CAUTION: Danger of explosion if battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

ATTENTION: Il y a danger d'xplosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avcc unc batterie du meme type ou d'un type recommande par le constructer. Mettre au rebut les batteries usagees conformement aux instructions du fabricant.

VORSICHT! Explosionsgefahr bei unsachgemBen Austausch der Batterie Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ahnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

Der Arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 betragt 70dB (A) oder weniger.

Zum Netzanschlua dieses Gerates ist eine geprufte Leitung zu verwenden. Fur einen Nennstrom bis 6A und einem Gerategewicht groBer 3kg ist eine Leitung nicht leichter als (1)H05VV-F, 3G, 0.75mm^2 (2)2X0.75 mm^2 conductors einzusetzen.

Die Steckdose muB nahe dem Gerat angebracht und leicht zuganglich sein.

CAUTION!
Thisp art ish ot. Be C are ful.
VORSICHT!
Di e se Fla ch e wird se hr he iss.

When you see this symbol, be careful as this spot may be very hot.

Notice

The information in this user's manual is subject to change without notice.

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Rev 1.0

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