

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

EXTENDING BATTERY LIFE

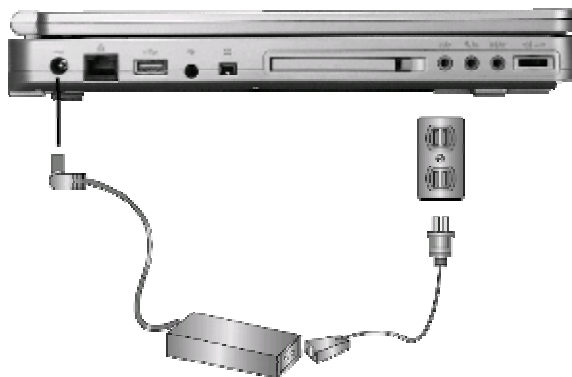
It is important to be aware of the simple things for extending the life of the system main battery while you are on the road. You should find a working place where the external lighting is not too bright and turn down the screen brightness. Also, you can choose the available mode on the Power Management item of the Control Panel in Windows.

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 left of the computer.

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

 *Please be sure to use LSE0202A1990 power supply adapter for this notebook computer.*

-  • *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 the total current load of all the connected devices.*
 - *Before cleaning the computer, make sure it is disconnected from any external power supplies (i.e. AC adapter).*

2.3 Starting Your Computer

The Power/Resume button is found on the top of the base unit. Press the Power/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 or 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.

Consult the Windows manual on how to use the program. If not, contact your dealer for assistance.

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 on 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 Installing the Notebook Device Drivers

If you already have an operating system installed into your notebook computer, it is best to install the needed device drivers for using the built-in devices of your computer. Before installing the drivers, check with your dealer first if they have already installed all the drivers along with the operating system. If not, follow the procedures below:

INSTALLING WINDOWS XP FROM OPTICAL DISK DRIVE

To install Windows XP directly from your optical disk drive, please go to **Boot** menu of **BIOS** setup menu. Use arrow key to select "CD-ROM Drive", then use "+" or "-" to move it to the top. Go to **Exit** menu and select "**Exit Saving**

Changes". Accordingly, insert the Windows XP installation CD into optical disk drive with following the instructions on the screen to finish the installation.

INSTALLING THE AGP DRIVER

For the best and fast performance of video AGP, please install the driver of the AGP. Follow the procedures indicated below to install the AGP driver.

Installing AGP device driver for Windows XP

1. Click the **Start**, then point to **Run**. The Run dialog box appears.
2. Click the **Browse** and specify the directory as.
"E:\Drivers\WinXP\AGP\Setup.exe".
3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE VGA DEVICE DRIVER

Following is the procedures for installing the Video Accelerator 3D Adapter VGA driver to your computer:

Installing VGA device driver for Windows XP

1. Click **Start**, then point to **Run**. The **Run** dialog box appears.
2. Click **Browse** and specify the directory as
"E:\Drivers\WinXP\VGA\Setup.exe".
3. Click **OK** to implement the setup program for driver installation. The **Welcome** dialog box appears.

4. Click **Next** to continue and click **Yes** to accept the License Agreement.
5. There are two choices appeared as "**Express: Recommend**" and "**Custom : For advanced user and system administrators**" for your selection. Choose either of these to continue the process, if you choose **Custom**, moreover, you should press **Next** twice to continue the advanced program.
6. Press **Finish** to restart your computer.

INSTALLING THE IDE DEVICE DRIVER

Your notebook computer uses the advanced IDE controller. Installing the driver will enhance the stability and performance

Installing IDE device driver for Windows XP

1. Click **Start**, then point to **Run**. The Run dialog box appears.
2. Click **Browse** and specify the directory as.
"E:\Drivers\WinXP\IDE\Setup.exe".
3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE AUDIO DEVICE DRIVER

Your notebook computer uses the Realtek Audio controller.

Installing Audio device driver for Windows XP

1. Click the **Start** button, then point to **Run**. The Run dialog box appears.

2. Click the **Browse** button and specify the directory as.
"E:\Drivers\WinXP\Audio\Setup.exe"
where the audio driver is located
3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE MODEM DEVICE DRIVER

Please follow the procedures below for installing the Askey Data Fax Modem driver:

Installing Modem driver for Windows XP

1. Click the **Start** button, then point to **Run**. The Run dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\Drivers\WinXP\modem\setup.exe"
where the audio driver is located
3. Follow the instruction to finish the installation.

INSTALLING THE LAN DEVICE DRIVER

Please follow the procedures below for installing the LAN driver:

Installing LAN driver for Windows XP

1. Click the **Start** button, then point to **Run** to appear the Run dialog box.
2. Click the **Browse** button to specify the directory as
"E:\Drivers\WinXP\LAN\setup.exe"

3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE FIR (FAST IR) DEVICE DRIVER

Your notebook computer uses the Fast IR controller.

Installing FIR device driver for Windows XP

1. Click the **Start** button, then point to **Run**. The Run dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\Drivers\WinXP\FIR\Setup.exe".
3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to finish the installation.

INSTALLING THE PCMCIA DEVICE DRIVER

Please follow the procedures below for installing the PCMCIA driver:

Installing the PCMCIA driver for Windows XP

1. Click the **Start** button, then point to **Run**. The Run dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\Drivers\WinXP\PCMCIA\Setup.exe".

3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE KEYBOARD CONTROLLER DRIVER

Installing keyboard controller driver for Windows XP

1. Click the **Start** button, then point to **Run** to appear the Run dialog box.
2. Click the **Browse** button to specify the directory as
"E:\Drivers\WinXP\KBC\setup.exe"
3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE SYNAPTICS – TOUCH PAD DRIVER

Installing Synaptics – Touch Pad driver for Windows XP

1. Click the **Start** button, then point to **Run** to appear the **Run** dialog box.
2. Click the **Browse** button to specify the directory as
"E:\Drivers\WinXP\Touch Pad\Setup.exe", then click **OK** to install this setup program.
3. Implement the setup program to install this driver. The Welcome dialog box appears.

4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE 4 IN 1 CARDREADER DRIVER

Installing CardReader driver for Windows XP

1. Click the **Start** button, then point to **Run** to appear the **Run** dialog box.
2. Click the **Browse** button to specify the directory as "**E:\Drivers\WinXP\CardReader\Setup.exe**", then click **OK** to install this setup program.
3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously when screen displays this command.
5. Press **Finish** to restart your system.

INSTALLING THE WIRELESS LAN DEVICE DRIVER

Please follow the procedures below for installing the Wireless LAN driver:

Installing Wireless LAN driver for Windows XP

1. Click the **Start** button, then point to **Settings**, and click **Control Panel**.
2. Double-click the **System** icon, change to **Hardware** tag, then click on the **Device Manager** folder tab. You will find the **Network Adapters**.
3. Right-click **RF Controller**, and Select **Driver** tag, then choose **Update Driver**.

4. Tick **Install from a list of specific location (Advanced)** and then click **Next**.
5. Click the **"Include this location in the search"**. Then, click **Browse** button and point to the Wireless LAN driver location as **"E:\Drivers\WinXP\Wireless LAN"**. Click **Next** to search and to install the driver.
6. Click **Finish** button to finish installing Wireless LAN driver.

INSTALLING THE WIRELESS LAN DEVICE UTILITY

Please follow the procedures below for installing the Wireless LAN device utility:

Installing Wireless LAN device utility for Windows XP

1. Click the **Start** button and then click **Run**. The Run dialog box appears.
2. Click the **Browse** button to specify the directory as **"E:\Drivers\WinXP\Wireless LANUtility\Setup.exe"**
3. Implement the setup program to install this driver. The Welcome dialog box appears.
4. Click **Next** to process the further step continuously if screen displays this command.
5. Click **Accept** for the License Agreement.
6. Press **Finish** to finalize the installation Wireless LAN Utility.

INSTALLING THE WIRELESS MOUSE DEVICE DRIVER

Installing Wireless Mouse driver for Windows XP

1. Click the **Start** button, then point to **Run**. The Run dialog box appears.

2. Click the **Browse** button to specify the directory as
"E:\Drivers\WinXP\Wireless Mouse\Battery_Bind.exe"
3. Follows the instruction to finish the installation.

INSTALLING EZMAIL LIGHT DRIVER

Installing EzMail Light for Outlook 98/2000/2002 driver on Windows XP

1. Click the **Start** button, then point to **Run**. The Run dialog box appears.
2. Click the **Browse** button to specify the directory as
"E:\Drivers\WinXP\EzMail\EzMail.exe".
3. Click **Next** to process the further step continuously when screen displays this command.
4. Click **Finish** to finalize the installing procedure.

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



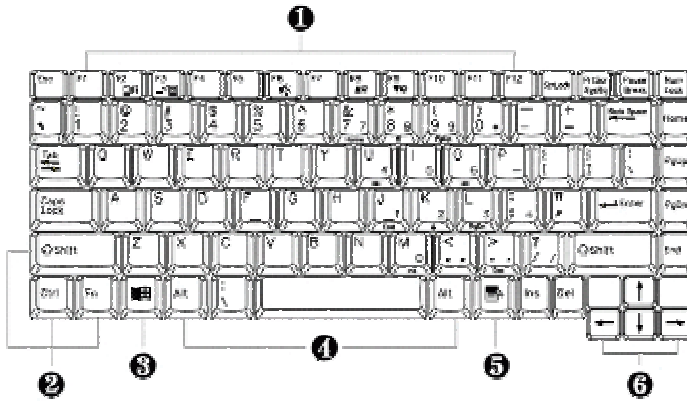
This chapter describes how to operate the standard built-in features of the notebook that you normally would use in your day-to-day computer work. If you are new to computers and to your operating system, you also need to read the manual for the operating system on how to work with your computer. It 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. Without an operating system, it is like playing chess without the chessboard. It is the platform for all your software application programs to run on. The most popular operating system today is Microsoft Windows. You should have installed one operating system by your dealer unless you are an expert computer user and would need a more powerful operating system. If you have an operating system already installed in your computer, then you would be up and running after you power on your computer and boot up the system. Check your operating system manual on how to run it.

3.2 Understanding the Keyboard Functions

Your notebook computer is equipped with an 88 keys 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.

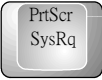
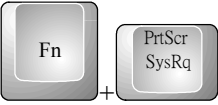
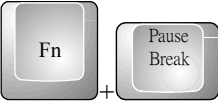
- **Cursor Control keys**

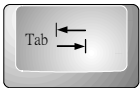
Cursor control keys let you position the cursor on the screen where you want. In the screen, the cursor is a blinking underline, block, or vertical bar depending on the application. The cursor indicates where the next text typed is inserted.

- **Typewriter keys**

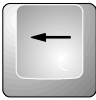
Typewriter keys (also called *alphanumeric* keys) are used to enter text and characters. Keys with blue print on them behave differently when combined with control keys.

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 what ordinary typewriter does.
	<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> key. 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 this key 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.
	 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.

Keypad	Function Description
	<Backspace> key. Press this key to delete the character to the left of the cursor.
	<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 side. 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.
	<Num Lock> key. 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
	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

Keypad	Function Description
	<End> key. Moves the cursor to the end of a screen or line.

WINDOWS HOT KEYS

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
 + 	Disables the built-in wireless LAN.

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

3.3 Using the Glide Pad and Wireless mouse

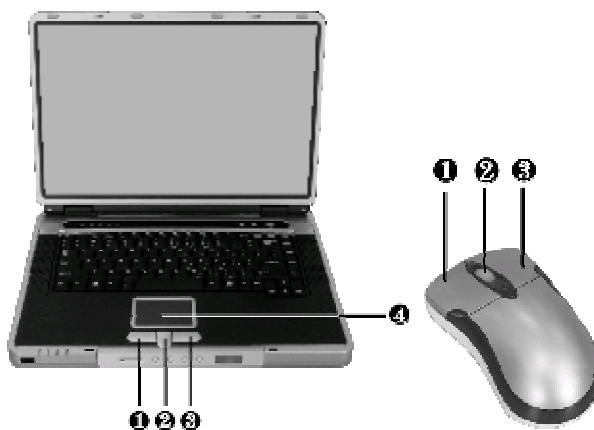
Your computer comes with a built-in Glide Pad pointing device that is found on the center of the palm-rest surface.

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.

In addition to Glide Pad, the N/B also comes with a wireless mouse. It works the same as normal computer mouse, however, by the wireless technology, you don't have to physically attach it to computer. User can operate the computer in a short range without facing the mouse directly to the computer.



1. Left Selection Button

2. Scroll button/wheel

2. Right Selection Button

4. Glide Pad

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.
4. To scroll up or down the screen, just slide up or down the scroll pad to move the screen up or down.

 ***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 you are connecting an external high-resolution and high-frequency CRT or LCD.

Please Refer to Section 6 "Installing the Notebook Device Drivers" of Chapter 2 in this manual for the procedures on how to install the VGA device driver under Windows. After installing the VGA driver, you would then configure the display resolution or screen size to match your LCD display panel. You would also probably want to set the amount of color output to display sharper images and photos.

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	Possible Resolution	Maximum Colors
1280x800 WXGA LCD	640x480	16 million colors
	800x600	16 million colors
	1024x768	16 million colors
	1280x800	16 million colors
CRT Only	640x480	16 million colors
	800x600	16 million colors
	1024x768	16 million colors
	1280x1024	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.

 *If you cannot configure the display properties, change the display driver first as mentioned on Section 6 "Installing the Notebook Device Drivers" of Chapter 2 in this manual. Consult your dealer for the latest Windows AGP VGA driver.*

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 function 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 Options** 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 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 (to 40 GB or above), you also need to setup 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 Disk Drive

Your system ships with either a CD-ROM, CD-RW/DVD combo or DVD+RW combo drive installed on the right side of your computer. 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 optical disk 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 drive.***

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

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 optical disk drive 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.

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 III	10.5 mm	Hard Disks (ATA 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. Instead of external wireless LAN PC card, you can purchase and install the built-in wireless LAN option of this notebook
- **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.
- **Storage Cards**
When you insert a storage PC card, PC card Adapter for other memory card (i.e. Compact Flash card, SmartMedia card...) or small hard drive card in the notebook computer, it appears as a unique drive depending on the type of card you are using.

The following table provides sample drive designations.

Sample Drive Designations	
Drive letter	Location/Device
C:	Internal hard disk
D:	Internal hard disk, 2nd partition

Sample Drive Designations	
Drive letter	Location/Device
E:	optical disk drive
F:	Slot 0, high-speed memory 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 right side of the computer.
2. Insert the side of PC card with the 68-pin socket into the PC 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 optical disk 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.***

NOTICE FOR HOT SWAPPING PC CARDS

Just like CD (compact disk), 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.***

3.9 Using Flash Memory Cards

WHAT IS FLASH MEMORY CARD?

Flash Memory is a memory storage media. It is used by most digital camera, moreover, it can replace the traditional floppy disk. Flash memory card is built with different form factor and brand name. Their size is smaller than PCMCIA card. This computer supports most of the flash memory card, including MMC, SD, SmartMedia, Memory Stick card.

The 4 in 1 card slot is used by the following cards as MMC, SD, SmartMedia and Memory Stick.

 ***For a single moment, only one card can be inserted into the 4 in 1 card or CF slot***

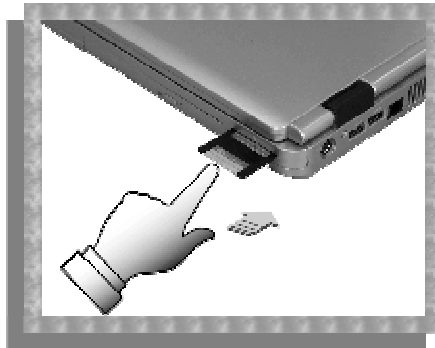
Inserting Flash Memory Card

To insert a flash memory card into the slot is similar to PCMCIA card. You only need to pay more attention whenever insert the CF card or the flash memory card into the slot with the correct side.

For MMC and SD card, you should position the copper connector at the bottom side. For SmartMedia and Memory Stick card, you should position the copper connector at the top side. All of these cards should be located at the center of the slots in inserting.

Slot	Card type	Copper connector
4 in 1	SD (Secure Digital) MMC (MultiMedia Card) SmartMedia Memory Stick	Bottom side Bottom Top side Top side

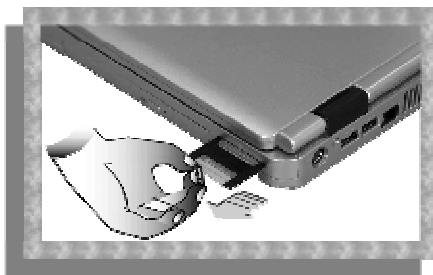
Only one correct side can be accepted for the 4 in 1 card slots. If you cannot insert the card into the 4 in 1 slot or you had inserted the card but it is not recognized by the computer, please remove the card and turn the card upside down and insert it again. To prevent the damage made both on card and the slot, never forced an entry into the slot with incorrect side.



Removing Flash Memory Card

It is similar to PCMCIA card for removing a flash memory card from the slot. You should first disable the card setting in the system as described in the PCMCIA chapter.

To remove the flash memory card, you should only pull out the card by finger, there is no release button for flash memory slot.



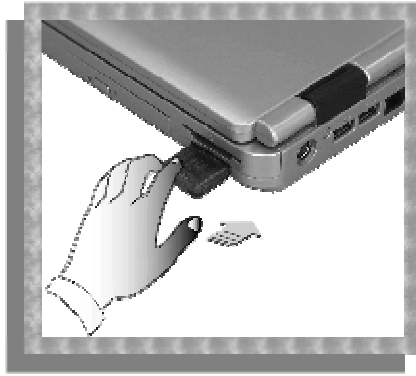
3.9 Using U-Disk

WHAT IS U-DISK?

U-Disk is a storage media that is made from flash memory. U-Disk can save digital data and the data is accessed through the USB port. You can use it to exchange digital data with other devices with USB port. It is shown as an independent storage media when connected to PC.

INSERTING U-DISK

To insert a U-Disk into the slot is similar to PCMCIA card.

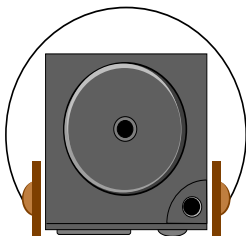


REMOVING U-DISK

To remove a U-Disk card, you should first disable the card setting in the system as described in the PCMCIA chapter. There is no release button for flash memory slot, you should pull out the U-Disk by finger.



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 optical disk 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 Mobile AthlonXP microprocessor.
- Up to 2 GB DDR SDRAM
- Optical disk drive for DVD/CD watching/playing and CD/DVD making
- ATI mobility RADEON 9600 Pro Video Graphics Engine.
- Brilliant 15.4" wide screen LCD display for dazzling video presenting.
- Playing and watching DVD movie either on the notebook or TV with built-in TV port.
- 16-bit Plug-and-Play Audio Sound System with two built-in speakers 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. A built-in microphone jack and two 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:

- SPDIF out port for digitized audio signal transmission.

- Earphone or headphone jack for personal listening.
- External 1/8-inch microphone jack that connects external microphone for recording purpose.
- Stereo Line-In Jack for connecting an external audio device such as CD player, a tape deck, or a synthesizer as an input source.

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. If you bought your computer with Windows pre-installed, it is most likely that your dealer have configured the sound driver for you. If not, you must refer to Chapter 2 on how to setup the sound drivers for Windows.

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)