

FCC ID: E4NS200

GTK2000-F004

## **Preface**

**About Your Notebook Computer**

**About Your User Guide**

**Copyright © 2000**

**All Rights Reserved - Printed in Taiwan**

Notebook Computer User Guide

Original Issue: 2000/08

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

No part of this manual may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopy, recording, or otherwise, without prior written permission.

## **Trademarks**

Product names used herein are for identification purposes only and may be the trademarks of their respective companies.

IBM, AT, PS/2, and Token Ring are registered trademarks and OS/2 is a trademark of International Business Machines Corporation.

Microsoft, MS-DOS, Windows, and Windows Sound System are trademarks of Microsoft Corporation.

Intel and Intel Pentium is a registered trademark of Intel Corporation.

Sound Blaster, Sound Blaster Pro are trademarks of Creative Technology.

All other brands or product names mentioned in this manual are trademarks or registered trademarks of their respective companies.

## **FCC Information to User**

### **Safety and Care Instructions**

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

### **Radio and television interference**

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and

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

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

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

**Warning** The user must not modify or change this computer without approval. Modification could void authority to this equipment.

## **Canadian Department of Communications Compliance Statement**

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

## **Shielded Cables Notice**

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

## **Peripheral Devices Notice**

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

## **CD-ROM Notice**

The CD-ROM is a Class One Laser Product.

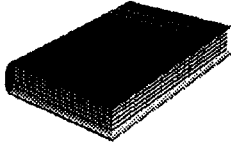
## **Caution**

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

## **Use Conditions**

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

# About Your User Guide

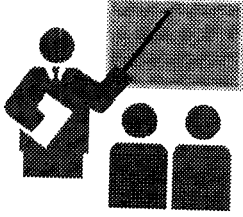


**W**elcome to your Professional Multimedia Notebook User Guide. This manual covers everything you need to know in learning how to use your computer. This manual also assumes that you know the basic concepts of Windows and the PC. You will start doing a lot of great and fun things with your computer.

This manual is divided into eight chapters.

- Chapter 1 gives introduction on your computer features.
- Chapter 2 provides step-by-step instructions to help you begin using your notebook as quickly as possible.
- Chapter 3 describes how to operate the standard features of your computer.
- Chapter 4 illustrates how to integrate video and sound chips into impressive presentation.
- Chapter 5 illustrates how to connect external device to your computer.
- Chapter 6 explains how to use the System BIOS Setup program.
- Chapter 7 explains how to use the external PortBar and internal module options of your computer.
- Chapter 8 offers instructions on how to care and maintain your notebook.

# Chapter 1: Introduction



**Y**our Notebook PC is a fully IBM compatible portable personal computer. With the latest features in mobile computing and multimedia technology, this notebook become your natural traveling companion. Lightweight and compact, your Notebook PC runs on a whole wide range of general business, personal productivity, entertainment, and professional applications. It is ideal for use in the office, at home, and on the road.

With its super slim light weight design, you can carry it easily to process the information and to connect the world everywhere. Your Notebook PC makes an ideal choice for use in the office, the schoolroom, at home, on the road and all other occasions.

## In This Chapter

- 1.1 Feature Highlight**
- 1.2 Unpacking the Computer**
- 1.3 The Front and Inside of the Notebook**
- 1.4 The Front Side of the Notebook**
- 1.5 The Rear Side of the Notebook**
- 1.6 The Left Side of the Notebook**
- 1.7 The Right Side of the Notebook**
- 1.8 The Portbar and Combo of the Notebook**
- 1.9 The Underside of the Notebook**
- 1.10 Notebook Accessories**
- 1.11 Notebook Options**

## 1.1 Feature Highlight

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

### Processing Unit

- 1 Your notebook runs on Intel Mobile Pentium III microprocessor, with integrated 256KB L2 Cache; or Intel Mobile Celeron microprocessor, with integrated 128 KB L2 Cache. Check with your dealer on the CPU type and speed.
- 1 Fully compatible with an entire library of PC software based on operating systems such as MS-DOS, Windows 95/98, and Windows NT/2000. It also runs on future versions of Windows.

## **Memory**

This notebook provides one memory slots for installing 144-pin SODIMM modules up to 256MB using 32MB, 64MB, and 128MB SDRAM modules.

## **PCMCIA**

Provides two PCMCIA slots that allows you to insert either two Type II or one Type III cards.

## **PCI Video Local Bus Architecture**

- 1 PCI local bus and 2D/3D Graphic Engine with 4/8MB VRAM. Supports Zoomed Video (ZV) Port technology for smooth full-screen motion picture playback capabilities.

## **PCI Local Bus Architecture**

- 1 32-bit PCI Enhanced IDE optimizes the data transfer between the CPU and hard disk drives. Support ultra DMA33/66 PIO Mode up to PIO Mode 4, bus mastering for LBA Scheme.
- 1 32-bit PCMCIA CardBus PCI technology that is also backward compatible with 16-bit PC cards.

## **Audio System**

Full-duplex 16-bit stereo audio system with wavetable function and Plug-and-Play features. Sound Blaster and Sound Blaster Pro compatible.

## **Flash BIOS**

Flash EPROM BIOS allows you to easily upgrade the System BIOS using the Phoenix Flash utility program.

## **Power and System Management**

- 1 Integrated SMM on system chipset that shuts down components not in use to reduce power consumption. Power Management user control on System BIOS SETUP allows you to activate and deactivate power saving features.
- 1 Auto Suspend hot-key allows you to suspend the system operation instantly and resume at the press of the power button.
- 1 System Password for User and Supervisor included on the BIOS SETUP Program to protect unauthorized use or your computer.

# **1.2 Unpacking the Computer**

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

- ± The Notebook Computer
- ± An AC Adapter and AC Power Cord
- ± Li-Ion or NiMH Battery Pack(s)
- ± Utility Diskettes/CD

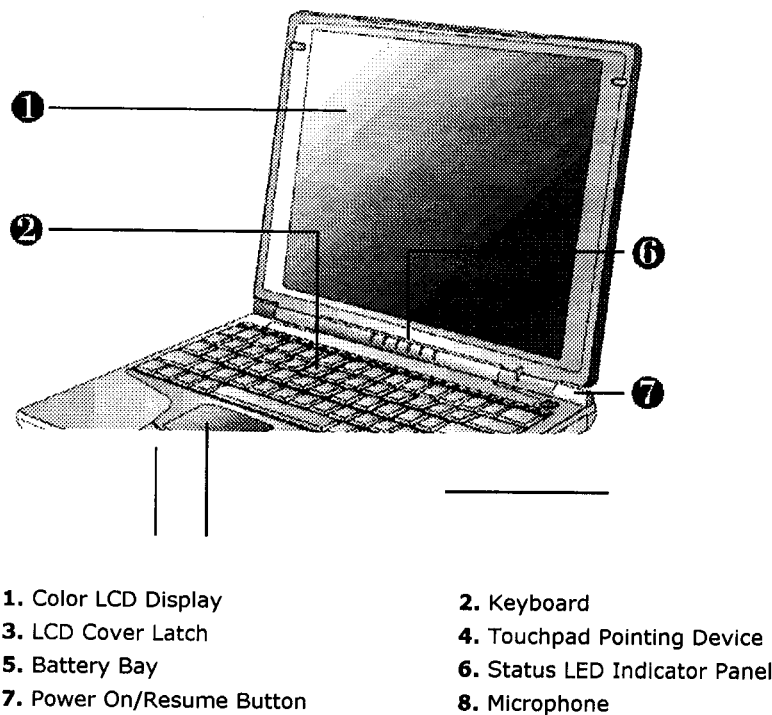
± Hardcopy/E-Book User Guide

± Quick Setup Manual

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

## 1.3 The Front and Inside of the Notebook

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



### 1 Color LCD Display

The notebook computer comes with a color LCD that you can adjust for a comfortable viewing position. The LCD can be a 12.1" TFT (Thin Film Transistor) color LVDS with 800x600 SVGA (Super Video Graphics Array) resolution panels, or 12.1" TFT color LVDS with 1024x768 XGA (Extended Graphics Array) resolution panels. The features of the Color LCD Display are summarized as follows:

- TFT color LVDS with 800x600 SVGA or 1024x768 XGA resolution panels.
- Capable of displaying 64K colors (32-bit high color) on either SVGA or XGA LVDS panels.
- LVDS display control hot-keys allows you to adjust the contrast of the LCD.
- Simultaneous display capability for LCD and external desktop computer monitor.
- LCD display can be upgraded from 12.1" SVGA to XGA.

### 1 Keyboard

- Standard QWERTY-key layout and full-sized 82 keys keyboard with Windows 98 hot-keys, embedded numeric keypad, 12 function keys, inverted "T" cursor arrow keys, separate page screen control keys, Internet access key and e-mail access key.
- Wide extra space below the keyboard panel for your wrist or palm to sit-on comfortably during typing.

#### 1 LCD Cover Latch

- This hole can lock the LCD panel when it is closed. Press the front side button can release the lock.

**Note** If you close the LCD panel without shut down the Windows normally, the notebook will go into the Suspend to RAM or Suspend to Disk mode depending on the setting of CMOS BIOS. When you re-open the LCD panel, you should press the Power button again to start the notebook. After few second, the system will return to its original status.

#### 1 Touchpad Pointing Device

Microsoft and IBM PS/2 mouse compatible with two select buttons. Supports tapping selection and dragging function. It works like a standard computer mouse. Simply move your fingertip over the Glide Pad to control the position of the cursor. Use the selection buttons below the Glide Pad to select menu items.

#### 1 Battery Bay

This battery supports power for the whole computer, including the external FDD/CD-ROM (DVD-ROM) combo. However, if you use the combo very often, we suggest you to connect external secondary battery for longer operation time.

#### 1 Status LED Indicator Panel

keeps you informed of your notebook computer's current operating status. Descriptions of the status icons appear in the following section.

#### 1 Power On/Resume Button

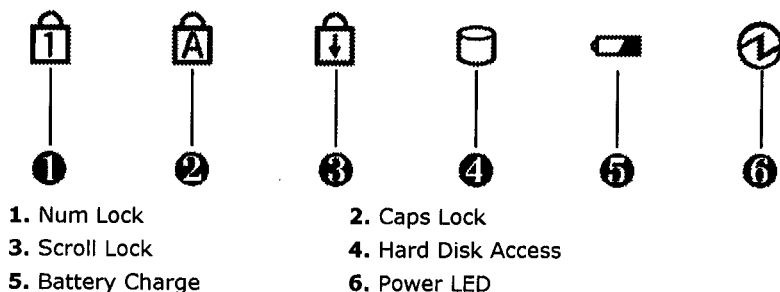
Switches the computer power on and off, or resumes whenever it is in Suspend mode.

#### 1 Microphone

Use software voice recorder can record sound from this microphone

## Status Icons

The notebook computer uses status lights marked with icons to communicate system status. See the following figure and list for each icon's meaning.



#### Status LED Icons

#### 1 Num Lock

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

1 Caps Lock

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

1 Scroll Lock

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

1 Hard Disk Access

When LED in green light indicates that the system is accessing the hard disk.

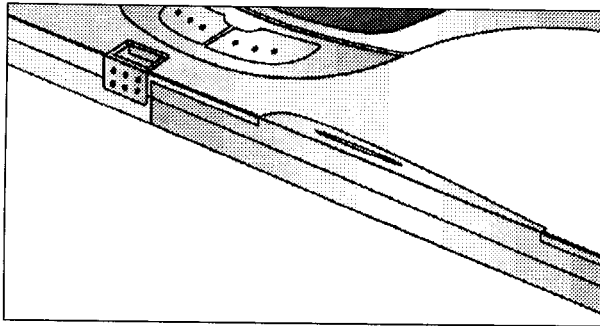
1 Battery Charging LED

It indicate battery charging status.

1 Power LED

Lets you know that power to the system is turned on. This LED is positioned so that you can see the power state whether the LVDS panel is opened or closed.

## 1.4 The Front Side of the Notebook



1 Cover Latch

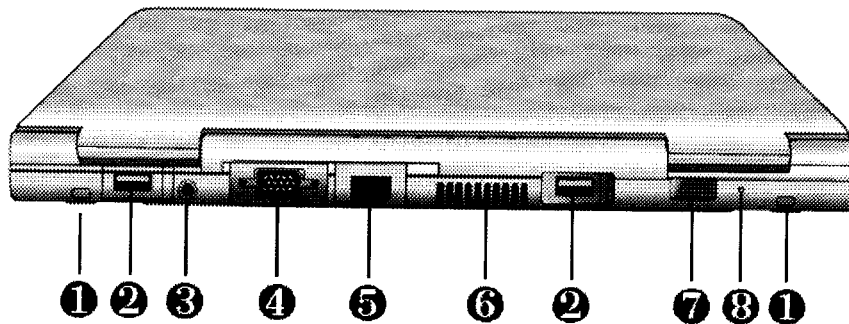
The cover (LCD panel) is locked when it is closed. Push the button to release the latch and then you can open the cover of the computer.

1 Battery Bay

Stores the Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) battery pack for off-the-cord operation or battery recharging.

## 1.5 The Rear Side of the Notebook

You'll find system ports for connecting optional devices (like a printer or external monitor) to the back of your notebook computer. The ports are described after the figure.



1. External Batt Lock Hole

4. Monitor (Video) Port

2. USB Port

5. Modem/LAN Port

3. AC Power Port

6. Cooling Fan Vent



## 7. IR Port

## 8. Force Power-Off Hole

### 1 External Battery Lock Hole

These two holes is to secure and lock the secondary external battery. Please refer to chapter 7 on how to attach and detach the external battery module.

### 1 USB Port

The Universal Serial Bus (USB) port allows you to connect up to 127 USB-equipped peripheral devices (for example, printers, monitors, scanners, digital camera and so on) to your notebook computer.

### 1 AC Power Port

Lets you connect the AC power adapter in supplying continuous power to your notebook and to recharge the battery.

### 1 Monitor (Video) Port

Lets you attach an external CRT monitor for wider display. You can run the LCD display and the external CRT monitor simultaneously or switch it to CRT only using the display hot-key.

### 1 Modem/LAN Port

If you purchase an internal fax modem, a 56K internal voice/fax/data modem is installed. It keeps you connected to the outside world through networks.

If you purchase an internal 10Base-T/100Base-TX LAN module, it connects your computer to other computers/networks through a local area network (LAN).

Build-in Modem and LAN modules are available as option. You can install only one module in the notebook PC and cannot use them simultaneously. If you need to use them simultaneously, you need to use other PC card in PCMCIA socket instead.

### 1 Cooling Fan Vent

Emits the heat out of your computer and keeps it within operating temperature.

**Note** Do not block the fan while the notebook is in use.

### 1 USB Port

The Universal Serial Bus (USB) port allows you to connect up to 127 USB-equipped peripheral devices (for example, printers, monitors, scanners, digital camera and so on) to your notebook computer.

### 1 IR Port (Infrared Transmission Port)

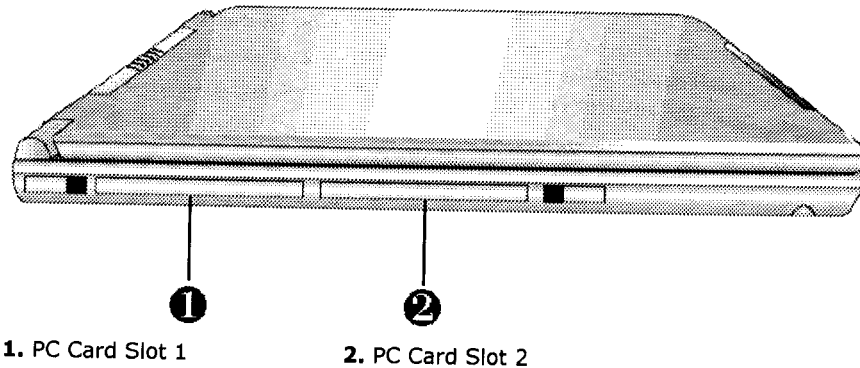
Wireless data transfer of files between your notebook computer and an IR-equipped device or notebook computer. You can also print to an IR-equipped printer without using cables. The FIR mode provides up to 4Mbps of data transfer rate.

### 1 Force Power-Off Hole

If there is any hardware or software problem that cause the notebook can not be powered off smoothly, use the tip of ball-point-pen to plunge the hole can force the notebook to be powered off.

## 1.6 The Left Side of the Notebook

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



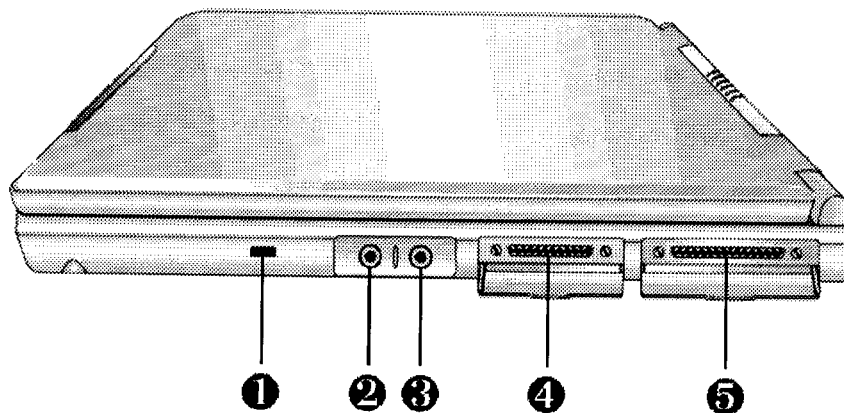
#### Left Side Features

##### 1 PCMCIA Slot

- Lets you connect various PC cards such as Modem cards, Ethernet LAN cards, and SCSI cards.
- Two PCMCIA slots that support two Type II PC cards at the same time
- Supports both 5V and 3V 32-bit CardBus and 16-bit PC cards including PC cards with ZV function. The Zoom Video (ZV) port is supported in the front slot only.

## 1.7 The Right Side of the Notebook

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



#### Right Side Features

##### 1 Kensington Lock Keyhole

Lets you attach a Kensington security system or a compatible lock to secure and lock your notebook computer on the desktop. It prevents others to take it without permission.

##### 1 Microphone Jack

Allows you to connect an external microphone for monophonic recording or amplification through the unit. Plugging in an external microphone disables the built-in microphone. Lets you connect an external microphone to record monophonic sound directly into your notebook computer.

**Note** The feature for this MIC port is for general voice recording purpose only. If you use software voice recognition input system. It may not fit the requirement of those systems. Please try it with different setting of those systems or try it with other sound card on desktop PC.

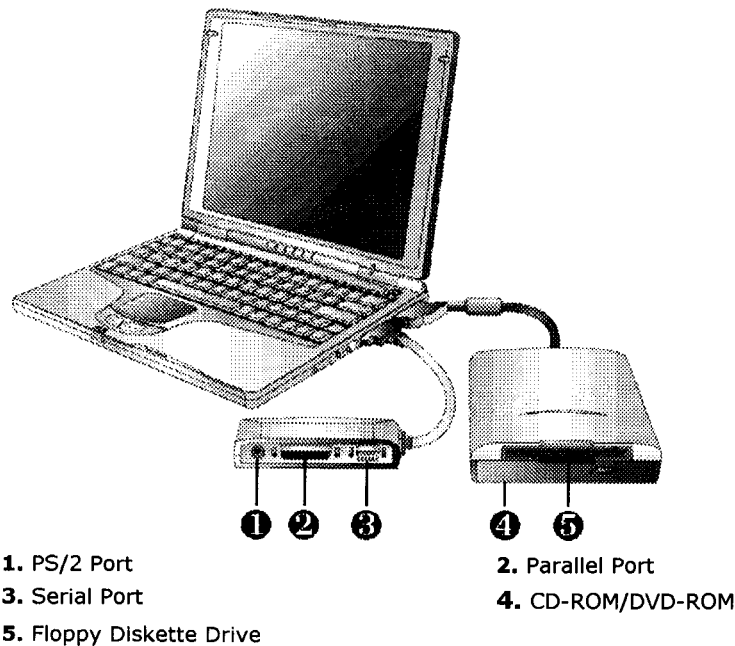
1 Headphone Jack

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

1 Port Bar Connector

Use this port to connect an external port bar. A port bar includes a serial port, a parallel (printer) port and a PS/2 or other ports.

## 1.8 The Portbar and Combo of the Notebook



1 Portbar:

The port bar can connect the device on the desktop

– P2/2 Port:

Lets you connect an external PS/2-style mouse, PS/2-style keyboard, or PS/2-style numeric keypad to the system. With an optional Y-cable adapter, you also can connect any combination on two of these devices simultaneously.

– Parallel Port:

The parallel port supports Enhanced Capabilities Port (ECP) standard. The standard provides you with a greater processing speed than the conventional parallel port. The port also supports bi-directional and uni-directional protocols.

**Note** The default setting for the parallel port on your notebook computer is set to Enhanced Capabilities Port (ECP). Some older parallel devices may not function with the ECP default setting. You may need to adjust the setting to accommodate your parallel device by changing the BIOS setting.

– Serial Port:

Lets you connect a 9-pin external pointing device such as a high-speed modem, mouse, or other serial devices.

1 Combo port:

The CD-ROM/DVD-ROM and Diskette Drive is integrated inside the Combo together

- CD-ROM/DVD-ROM

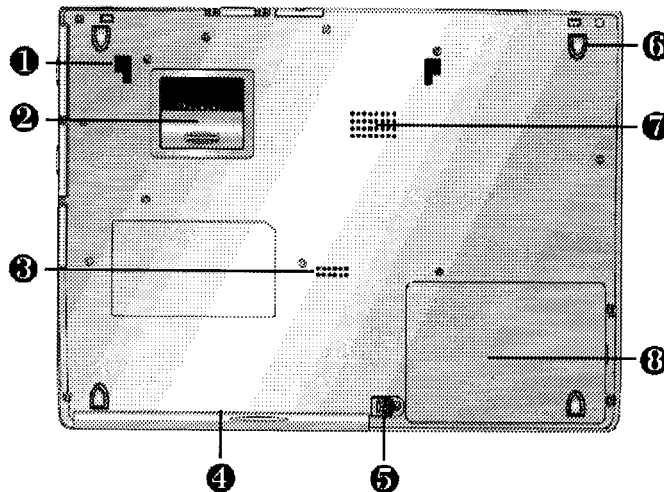
Allows you to load and start programs from a compact disc (CD) or a digital video disc (DVD) and play conventional audio CDs.

- Diskette Drive

The drive accepts 3.5" 1.44 MB/1.2MB floppy diskettes.

## 1.9 The Underside of the Notebook

The bottom of the notebook computer offers the following features.



- 1. External Battery Stabilizer
- 3. Speaker
- 5. Battery Release Latch
- 7. Heat Radiator

- 2. Secondary Battery Connector
- 4. Battery Bay
- 6. Rubber Pad
- 8. Hard Disk Compartment

**Bottom of the System**

1 External Battery Stabilizer

These two holes can secure the second external battery if you had used it.

1 External Secondary Battery Connector

Please push and slip along the surface to open the cover. There are connectors inside the compartment. You can connect external secondary battery here. Please refer to Chapter 7 to know how to attach and detach the battery.

1 Built-in Speakers

Mono sound audio output for your multimedia presentations or listening pleasure. You can connect external powered speaker to phone jack on the right side of the Notebook to for stereo and louder sound output

1 Battery Bay

Provides internal battery inserted into the bay for power supply without AC adapter.

1 Battery Release Latch

Slide the latch to the other end and hold it. While holding the latch, slide the battery bay outwards to remove the battery.

#### 1 Rubber Pad

It keeps the computer stable and provides a little height between the desktop and the computer. It helps the Notebook to emit the heat and the sound. Please do not operate it on the soft cloth, because it may block the emission of heat and sound.

#### 1 Heat Radiator

These small holes radiate the heat. Please do not operate the notebook on the soft cloth, because it may block the heat radiation

#### 1 Hard Disk Compartment

Open this cover of this compartment to replace with other Hard Disk Drive. Please refer to Chapter 7 to know how to replace it.

## 1.10 Notebook Accessories

### AC Adapter

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

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

### Battery Pack

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

## 1.11 Notebook Options

### FDD/CD-ROM, DVD-ROM Combo

This device pack option is plugged into the Combo port and used for accessing floppy diskette and reading DVD or playing DVD titles. DVD-ROM drives are also backward compatible with CD-ROM, so you can also use any audio CDs, video CDs, photo CDs, and recorded CD (CD-R).

### Internal Ethernet LAN module

This notebook comes with an optional 10Base-T/100Base-TX LAN module that supports data transfer rates at 10Mbps and can be up to 100Mbps.

### Internal Modem Module

This notebook comes equipped with a 56Kbps capable internal fax/ data modem that allows you to communicate with others via fax, email, or connect to an online service or bulletin board.