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Notebook Computer User Guide

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

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## FCC Information to User

### Safety and Care Instructions

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

### Radio and television interference

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does not cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encourage to try to correct the interference by one or more of the following measures:

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

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

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

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

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

### **Avis de conformite aux normes du ministere des Communications du Canada**

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

### **Shielded Cables Notice**

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

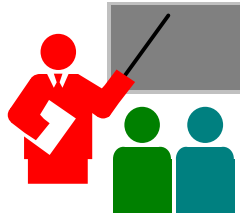
### **Peripheral Devices Notice**

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.

## 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 makes a 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 all-in-one design, full functionality is built-in with no need to change external devices. Your Notebook PC makes an ideal choice for use in the office, the schoolroom, at home, on the road and all other occasions.

## 1.1 Feature Highlight

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

### *Processing Unit*

- Your notebook runs on AMD-K6-2 or AMD-K6-III microprocessor, with AGP2X and external 512KB L2 Cache. Check with your dealer on the CPU type and speed.
- Fully compatible with an entire library of PC software based on operating systems such as MS-DOS, Windows 95/98, and Windows NT. It also runs on future versions of Windows.

### *Memory*

This notebook provides two 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.

### *AGP Local Bus Architecture*

- AGP 2X video local bus and Windows graphics accelerator are sharing the memory size from SDRAM. You can occupy 4, 8, 16, 32, 64 or 128MB RAM by setting the parameter in BIOS Setup Utility. Supports Zoomed Video (ZV) Port technology for smooth full-screen motion picture playback capabilities.

***PCI Local Bus Architecture***

- 32-bit PCI Enhanced IDE optimizes the data transfer between the CPU and disk drives. Support disk drives with ultra DMA and PIO Mode up to PIO Mode 4.
- 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***

- 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.
- Auto Suspend hot-key allows you to suspend the system operation instantly and resume at the press of the power button.
- System Password for User and Supervisor included on the BIOS SETUP Program to protect unauthorized use of your computer.

## 1.2 Unpacking the Computer

Your computer comes securely packaged in a sturdy cardboard shipping carton. Upon receiving your computer, open the carton and carefully remove the

contents. In addition to this User Guide, the shipping carton should also contain the following items:

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

# Graphic 1

- |                             |                               |
|-----------------------------|-------------------------------|
| ❶. Color LCD Display        | ❷. Internet Button            |
| ❸. E-Mail Button            | ❹. Status LED Indicator Panel |
| ❺. Touchpad Pointing Device | ❻. Power On/Resume Button     |
| ❼. Cooling Fan Vent         | ❸. Keyboard                   |
| ❾. Power Indicator          | ❿. Battery Charging LED       |


- 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" DSTN/TFT (Dual Scan Super-Twisted Nematic/Thin Film Transistor) color LVDS with 800x600 SVGA (Super Video Graphics Array) resolution panels, or 13.3" or 14.1" TFT color LVDS with 1024x768 XGA (Extended Graphics Array) resolution panels. The features of the Color LCD Display are summarized as follows:

- DSTN or 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" DSTN/TFT to 13.3" or 14.1" TFT.



- **Internet button**  
This latest technology is designed specifically for providing a very convenient way in connecting Internet only by pressing Internet button as shown in the graphics. For more understanding and interesting, you can refer Section 2.5 to recognize the driver installation procedures in activating Internet button.
- **E-mail button**  
This is the most convenient way to access the outlook utility just by pressing this button, you can omit several procedures in entering into Outlook environment.
- **Status LED Indicator Panel**  
keep you informed of your notebook computer's current operating status. Descriptions of the status icons appear in the following section.
- **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.
- **Power On/Resume Button**  
Switches the computer power on and off, or resumes whenever it is in Suspend mode.
- **Cooling Fan Vent**  
Emits the heat out of your computer and keeps it within operating temperature.

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

- Keyboard
  - Standard QWERTY-key layout and full-sized 86/87 keys keyboard with Windows 98 hot-keys, embedded numeric keypad, 12 function keys, inverted “T” cursor arrow keys, and separate page screen control keys.
  - Wide extra space below the keyboard panel for your wrist or palm to sit-on comfortably during typing.
- Power Indicator

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.

  - Lights green when the system is powered on using the AC adapter or battery.
  - Lights amber when battery is warning in low battery power.
  - Lights green blinking when in Suspend to RAM (or Suspend to Disk if you already created Save to Disk partition in HDD by using PHDISK utility in the MS-DOS) mode and critically low battery power. We strongly recommend that users create Save to Disk partition as this will prevent your data from loss when power is critically low.
- Battery Charging LED

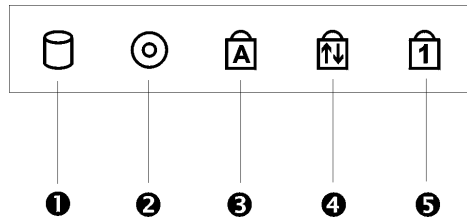
Lights to indicate battery charging status.

  - Lights amber to indicate the battery is charging.
  - Lights off to indicate the battery is fully charged or no battery installed.

## **STATUS ICONS**

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



- ❶. Drive Access      ❷. Diskette Drive Access  
❸. Caps Lock        ❹. Scroll Lock  
❺. Num Lock

### Status LED Icons

- Drive Access  
When LED in green light indicates that the system is accessing either the CD-ROM or DVD-ROM.
- Diskette Drive Access  
When LED in green light indicates that the system is accessing data from or is retrieving data to the floppy diskette drive.
- Caps Lock  
When LED in green light indicates that the Caps Lock key on the keyboard is activated. When activated, all alphabet keys typed in will be in upper-case or capital letters.
- 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.

- 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.

## 1.4 The Front Side of the Notebook

# Graphic 3

- ❶. Built-in Stereo Speakers    ❷. IR Port    ❸. Microphone Jack  
❹. Integrated Microphone    ❺. Stereo Line-In Jack    ❻. Headphone Jack  
❼. Volume Control    ❽. Built-in Stereo Speakers

- **Built-in Stereo Speakers**  
Integrated left and right mini stereo speakers for sound and audio output for your multimedia presentations or listening pleasure.
- **IR 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 SIR mode provides up to 115.2Kbps of data transfer rate.
- **Audio Ports**  
From left to right, the jacks are Microphone, Line In & Headphones described as follows:

- **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.
- **Integrated Microphone**  
Integrated mono microphone for instant voice recording and simultaneous voice conversation.
- **Stereo Line-In Jack**  
Lets you connect an external audio device such as CD player, a tape deck, or a synthesizer as an input source. Use a cable to connect to the Line-Out port on the other audio system to record or play.
- **Headphone Jack**  
Lets you plug in a stereo headphone, powered speakers, or earphone set with 1/8 inch phono plug for personal listening.
- **Thumb Wheel Volume Control**  
Allows you to control the speaker volume.

## 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.

# Graphic 4

- ❶ PortBar Notches
- ❷ AC Power Port
- ❸ PS/2 Port
- ❹ Serial Port
- ❺ Expansion Port
- ❻ Parallel Port
- ❼ Monitor (Video) Port

- **PortBar Notches**  
Use these notches to secure the PortBar to the back of the system. There are two PortBar notches located at the both ends of the rear side of the system.
- **AC Power Port**  
Lets you connect the AC power adapter in supplying continuous power to your notebook and recharging the battery.
- **PS/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.
- **Serial Port**  
Lets you connect a 9-pin external pointing device such as a high-speed modem, mouse, or other serial devices.
- **80-Pin Expansion Port**  
Lets you connect to the notebook PortBar.

- **Parallel Port**  
Use this port to connect a parallel printer or other parallel device. 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.

 *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.*

- **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.

## 1.6 The Left Side of the Notebook

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



# Graphic 5

❶. USB

❷. CD-ROM/DVD-ROM

❸. Diskette Drive

## Left Side Features

- **USB Port**  
The Universal Serial Bus (USB) port allows you to connect up to 127 USB-equipped peripheral devices (for example, printers, monitors, scanners and so on) to your notebook computer.
- **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**  
A 3.5-inch floppy diskette drive comes installed in the notebook computer. The drive accepts 1.44 MB/1.2MB floppy diskettes.

## 1.7 The Right Side of the Notebook

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


# Graphic 6

- ❶. Battery Bay
- ❷. PC Card Slots
- ❸. Modem / LAN Port
- ❹. Cooling Fan Vent
- ❺. Kensington Lock

## Right Side Features

- Battery Bay
  - Stores the Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) battery pack for off-the-cord operation or battery recharging.
- PCMCIA Slot
  - Lets you connect various PC cards such as Modem cards, Ethernet LAN cards, and SCSI cards.
  - Double-deck PCMCIA slots that support two Type II PC cards at the same time, or one Type III PC card in the bottom slot.
  - 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 top slot only.

- **Modem/LAN Port**  
If you purchase an internal fax modem, a 56K internal fax/data modem is installed. It keeps you connected to the outside world through networks.  
If you purchase an internal 10/100 Base T LAN module, it connects your computer to other computers/networks through a local area network (LAN).  
Modem and LAN modules are available as option.
- **Cooling Fan Vent**  
Emits the heat out of your computer and keeps it within operating temperature.

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

- **Locking Device Keyhole**  
Lets you attach a Kensington security system or a compatible lock to secure your notebook computer.

## 1.8 The Underside of the Notebook

The bottom of the notebook computer offers the following features.

# Graphic 7

❶. Tilt Foot

❷. Fax/Modem or LAN Card Compartment

- ③. Battery Bay
- ④. Tilt Foot
- ⑤. Memory Compartment
- ⑥. Battery Release Latch

### **Bottom of the System**

- Tilt Foot  
Provides flexible keyboard angle.
- Fax/Modem or LAN Card Compartment  
Provides optional Fax/Modem card or LAN card inserted into this compartment for executing relative functions.
- Battery Bay  
Equipped with a rechargeable Nickel-Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) battery.
- Memory Compartment  
Remove the screw to find two DIMM slots. One is inserted with SDRAM memory board configured by the factory. The other is empty for upgrade use.
- 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.

## **1.9 Notebook Accessories**

### ***AC Adapter***

The AC Adapter supplies external power to your notebook computer and charges the internal battery pack simultaneously. The AC adapter has an auto-switching design that can connect to any 100VAC ~ 240VAC power outlets.

You just change the power cord if you are going to use your notebook in other countries with different connector outlets.

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

### ***Battery Pack***

Aside from the AC adapter, your computer can also be powered through the internal battery pack. The battery pack uses rechargeable 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 battery inside your computer even when using the AC adapter as it also acts as a back-up power supply in case power from the AC adapter is cut off. It is also very important to have the battery pack always charged to prevent battery cell degradation.

## **1.10 Notebook Options**

### ***DVD-ROM Device Pack***

This device pack option plugs into the Device Bay and used for 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***

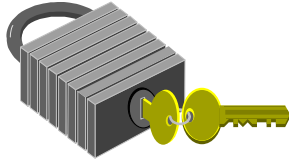
This notebook comes with an optional 10/100Base-T LAN module that supports data transfer rates at 10Mbps and can be up to 100Mbps.

*Internal Modem Module*

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



## 2 Getting Started



**Y**our Notebook is designed and pre-configured for easy setup and use. This chapter describes the installation steps you should follow to get the notebook up and running as quickly as possible. Contact your dealer if they have pre-installed all the needed drivers to fully operate your computer or if there is an update on the driver installation of the notebook.



## 2.1 Using the Battery Pack

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

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

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

Before you use your notebook computer, install and recharge the battery pack first. The rechargeable Ni-MH or Li-Ion battery pack allows you to operate the notebook without an external power source. When you connect the AC power adapter, the battery immediately starts to recharge. Normal battery charging time is 2.5 hours for Lithium-Ion (Li-Ion) battery pack when your computer is turned off.

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

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

### ***Installing the Battery Pack***

This notebook provides the most convenient way to install the battery pack into your computer. With the extended nose directed toward the compartment, insert the battery pack.

# Graphic 8

## *Removing the Battery Pack*

To remove the battery pack, slide the latch and push out the battery pack simultaneously.

# Graphic 9

## *Replacing the Battery Pack*

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

☞ *If you do not have a “Suspend-to-Disk” partition or file prepared beforehand and the battery is running low, the system will not be able to enter suspend to disk mode, but would rather enter suspend to RAM mode. The contents will be saved to the memory instead and you need to connect the AC adapter.*

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

## EXTENDING BATTERY LIFE

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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 and contrast. Also, please refer to Chapter 6 “Customizing Your Computer” for details about power management features and the modes available.

## 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.

# Graphic 10

3. Plug the connector of the AC adapter to the DC-IN port found at the back 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.*

## 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.

# Graphic 11

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 errors 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 98 operating system pre-installed in your hard drive. Consult the Windows 98 manual on how to use the program. If not, contact your dealer for assistance.

## 2.4 Adjusting the Display Controls

The LCD brightness and contrast adjustment are controlled by <Fn> + <F8>/<Fn> + <F9> keys and <Fn> + <F10>/<Fn> + <F11> keys respectively. You need to press these hot-key controls after powering on your notebook to suit your viewing pleasure. Press the <Fn> key using your left finger and while still holding the key, press the arrow cursor keys using your right finger.

 *For TFT color screens, only the Brightness hot-key controls are functional.*

The contrast hot-key control adjusts the amount of contrast between the dark and bright tones of the DSTN LCD background color.

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 like DOS or Windows 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:

## **RUNNING THE PHDISK SUSPEND UTILITY**

---

The PHDISK utility of the notebook allows you to create a suspend-to-disk (STD) partition or file that is used to save the opened files when you activate STD mode and power off the computer. If you want to make use of the STD feature, you need first to run the PHDISK utility. There are two options for executing this utility:

1. **PHDISK/Create/Partition** - you can choose to run Suspend-to-Disk and save your work into an allocated fixed disk partition. This option should be done before partitioning and formatting your hard disk. The advantage of this option is that it is more secure since the files are saved in a separate partition and has no risk of being deleted. The disadvantage of this is that you need to allocate enough disk partition for future memory upgrade. The STD partition should always be larger than the system memory RAM.
2. **PHDISK/Create/File** - you can also choose to run Suspend-to-Disk and save your work into a STD file. You do not need to allocate an extra disk partition when running this option. The advantage of this is that you do not need to allocate or waste extra disk partition. The disadvantage of this option is that it is less secure since there is risk of deleting the STD file although the file is hidden.

## **RUNNING THE PHDISK/CREATE/PARTITION**

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Before you run this option, you should carefully consider how much disk size you need to allocate for the STD partition. The STD partition should be larger than the installed system memory RAM. If you are planning to install more memory in the future, it is recommended to allocate more disk space. Run FDISK under DOS and leave around 5% of disk space for Non-DOS partition. This will later be used by the PHDISK for creating the STD partition.

If you already run FDISK before, you need to delete the original partition of the hard disk.

Load the notebook driver CD and look for the PHDISK program file. Run “**PHDISK/Create/Partition**” or “**PHDISK/C/P**”. The PHDISK utility program will automatically assign a disk size in reference to the installed system RAM to be allocated for the STD partition. After PHDISK has completed the STD partition, you will be prompted to reboot the system.

## **RUNNING THE PHDISK/CREATE/FILE**

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Creating a STD file is much simpler since you do not need to allocate an extra disk partition. Load the notebook driver CD and look for the PHDISK program file. Run “**PHDISK/Create/File**” or “**PHDISK/C /F**”. PHDISK will create the **SAVE2DSK.BIN** file on Drive C. The size of this file will depend on the installed RAM memory of your computer. This file also is hidden and has read-only attributes. You must not delete this file.

*☞ During power on or restart, the system will detect if STD partition or file is present. If not, it will show a red colored dialog box informing you that “Save to Disk Partition Not Present” and “Save to Disk Feature Disabled”.*

*☞ Whenever you upgrade the memory, you need to delete the existing STD partition or file and create a new one according to the new memory size. Run **PHDISK/Delete/Partition** or **PHDISK/Delete/File** to delete existing STD partition or file.*

## **INSTALLING THE CHIPSET DEVICE DRIVER**

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This section provides instruction for installing chipset driver under Win95/98 and other operating systems.

### *Installing Chipset Driver for Window NT*

1. Boot Windows NT 4.0 with Service Pack 5.0 or 4.0 already installed. Then, insert the CD containing the chipset driver for Windows NT.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click the **Browse** button and specify the directory as “**E:\driver\chipset\NT\setup.exe**”. (Assuming Drive E is assigned to the CD-ROM drive.)
3. Press **OK** to execute the program. The Welcome message box appears. Click **Next** to see "readme" message and license agreement. Click **Yes** to agree with license agreement.
4. Click **Next** to install driver.
5. When setup program has finished copying the files into your computer, restart the computer.

### *Installing Chipset Driver for Windows 98/95*

1. Boot Windows 98/95 from your hard disk and insert the CD containing the chipset driver for Windows 98/95.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click the **Browse** button and specify the directory as “**E:\driver\chipset\Win95\_98\setup.exe**”. (Assuming Drive E is assigned to the CD-ROM drive.)
3. Press **OK** to execute the program. The Welcome message box appears. Click **Next** to see “readme” message and license agreement. Click **Yes** to agree with license agreement.
4. The “Select Component” dialog box will appear. Click **Next** with boxes ticked on.
5. Select “**Install VIA AGP VxD in turbo mode**” and click **Next**.





6. Select “**Install VIA Chipset Functions' Registry**” and click **Next**.
7. Select “**Install VIA IRQ Routing Miniport Driver**” and click **Next**.
8. The Setup program will now install the drivers.
9. Click **Finish** to restart Computer.
10. The computer will redetect and set-up your hardware. Click **Yes** to finish hardware set-up.
11. Click **Start** button, then point to **Settings**, and click **Control Panel**. Double click **System** and click **Device Manager** tab. Under System Devices, you will find an extra “**PCI standard ISA bridge**” with a yellow exclamation point. Select it and click **Remove** button. Click **OK** to confirm removal.
12. Click **Refresh** button to detect and install **VIA Power Management Controller**.

## **INSTALLING THE CD-ROM/DVD-ROM DRIVER**

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This section provides installation guide for the CD-ROM or DVD-ROM device driver under MS-DOS and other operating systems.

 *For DOS installation, you must have a pre-installed MS-DOS v6.0 or higher operating system on your hard disk with the “MSCDEX.EXE” (Microsoft CD Extension) driver file.*

 *Both CD-ROM and DVD-ROM drive are ATAPI IDE interface and uses the same driver.*

### *Installing the CD-ROM/DVD-ROM driver under DOS*

1. Boot up the system of your computer and insert the Teac CD-ROM driver diskette into the floppy drive.

2. Change the directory of the DOS prompt to Drive A and run the CD-ROM installation program by typing the command **A:\>INSTALL** and pressing **<Enter>**.
3. The “CD/DVD-ROM Install Program” message appears for asking if you want to continue the next step by pressing **<Enter>** or exit it by pressing **<Esc>**. Press **<Enter>** to continue with the installation.
4. A connection diagram appears with a message shown “Confirm the connection environment of the computer, are you sure ?”
5. Press **<Y>** to confirm.
6. The installation program will ask you to specify the directory where you want to place CD/DVD-ROM driver. Press **<Enter>** to install into the default directory.
7. Press **<Enter>** to continue with the next step.
8. The Installation program will automatically copy the CD-ROM driver to your hard disk and modify the AUTOEXEC.BAT and CONFIG.SYS files in activating the CD-ROM drive every time you boot the system up.
9. Remove the diskette and restart the computer after installation is complete. Your computer will then detect the CD-ROM drive and will display the designated drive letter. The CD-ROM drive should be assigned to Drive D. If you have two disk partition, the CD-ROM drive will be assigned to Drive E.

### ***Installing Windows NT from CD-ROM or DVD ROM***

To install Windows NT directly from your CD-ROM or DVD-ROM, insert Windows NT installation CD into CD-ROM drive and enter BIOS Setup menu. Go to Boot menu and select “**ATAPI CD-ROM Drive**” as your boot device. Go to Exit menu and select “**Exit Saving Changes**”.

## ***Installing Windows 98/95 from CD-ROM or DVD-ROM***

The easiest way to install Windows 98/95 is to boot from Windows 98 start-up disk. With Windows 98 start-up disk, you don't need to install CD-ROM driver since the start-up disk can support virtually all CD-ROM device. Insert Windows 98 Installation CD into CD-ROM drive and run “**setup.exe**”.

If you don't have Windows 98 start-up disk, you need to install CD-ROM /DVD-ROM driver under DOS. Then, insert Windows 98 Installation CD into CD-ROM drive and run “**setup.exe**”

## **INSTALLING THE VGA DEVICE DRIVER**

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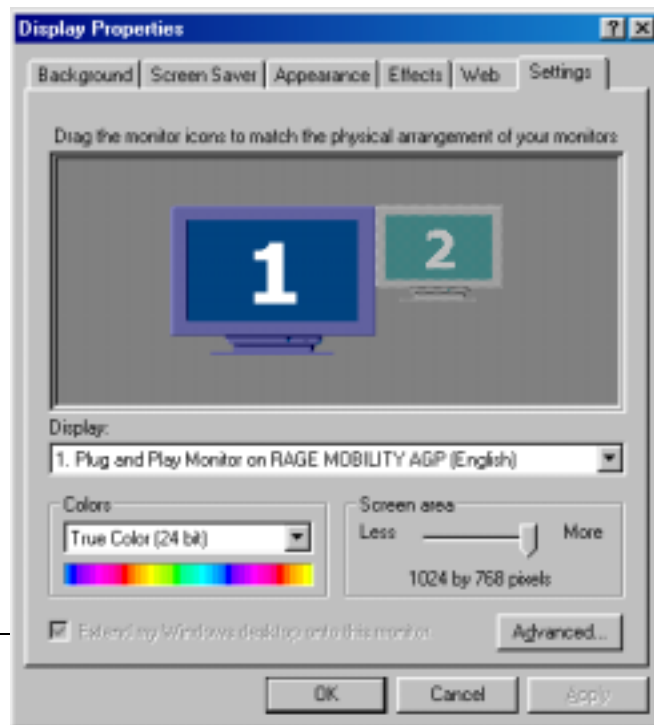
Following is the procedure for installing the Trident Video Accelerator 3D Adapter (English) VGA driver to your computer:

### ***Installing VGA device driver for Windows 98/95***

1. Insert the CD containing the VGA driver for Windows 98 into CD-ROM drive.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click **Browse** button and specify the directory as “**E:\driver\vga\win95\_98\setup.exe**”
3. The Welcome message box appears. Click **Next** to continue with the next step.
4. The Select Components box appears. Click **Next** to begin with installation.
5. Click **Finish** to restart computer. You will need to set screen resolution and color depth to have optimum viewing. Click **Start** button, point to **Settings** and click **Control Panel**. Double click **Display** and click **Settings** tab. Adjust resolution and color depth in accordance with your preference.

### *Installing VGA device driver for Windows NT*

1. Insert the CD containing the VGA driver for Windows NT into CD-ROM drive.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click **Browse** button and specify the directory as “E:\driver\vga\NT\ Setup.exe”.
3. The Welcome message box appears. Click **Next** to continue with the next step.
4. The Select Components box appears. Click **Next** to begin with installation.
5. Click **Finish** to restart computer. You will need to set screen resolution and color depth to have optimum viewing. Click **Start** button, point to **Settings** and click **Control Panel**. Double click **Display** and click **Settings** tab. Adjust resolution and color depth in accordance with your preference.



## Display Properties

### **INSTALLING THE MODEM DEVICE DRIVER**

---

Following is the procedure for installing the ESS ES56T-PI Data Fax Modem driver to your computer:

#### *Installing modem driver for Windows NT*

1. Boot Windows NT from your hard disk and insert the disc containing the Modem driver for Windows NT.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click **Browse** button and navigate to the directory as “**E:\driver\modem\NT\setup.exe**” where the modem driver is located.
3. Click **OK** to run the program. The EDSP Configuration box appears for you to set up the COM port.
4. Click **OK**. Then, point to **Start, Settings, and Control Panel**.
5. In the Control Panel box, double click the **Modem** icon. The Install New Modem message box appears. Click **Next** to detect modem.
6. When your modem are detected, a message box will appear to advise you the detected modem with its COM port. Click **Next** to continue with the installation.
7. Click **Finish** to show the Modem Properties message box. You will see the modem type and the attached port here.
8. Click **Close** to end this driver setting.

#### *Installing modem driver for Win98/95*

1. Click the **Start** button, then point to **Settings, and click Control Panel**.

2. Double-click on the **System** icon and click on the **Device Manager** folder tab.
3. Under the **Other Devices** line, you will find the **PCI Communication Device**, click **Remove**, **OK**, then **Refresh** buttons to appear the **New Hardware Found** Message Box.
4. In the Add New Hardware Wizard message box which shows searching PCI Communication Device driver. Click **Next** to proceed to the next step.
5. Select **“Search for the best driver for your device”**, and click **Next**.
6. Tick on **“Specify a location box”**. Then, click **Browse** button and navigate to the modem driver location as **“E:\driver\modem\ win95\_98”**. Click **Next** to begin searching the driver.
7. The Add New Hardware will found **ESS Modem Device Manager**. Click **Next** to continue installing the driver.
8. Click **Finish** button to finish installing modem driver.
9. After you restart your computer, go to Device Manager of System Properties and you'll find the following: **ESS Modem Device Manager**, **ESS ES56T-PI Data Fax Voice Modem** and **Wave Device for Voice Modem in the Device Manager**.

## **INSTALLING THE LAN DRIVER**

---

Following is the procedure for installing the Intel 82559 Fast Ethernet LAN driver:

### ***Installing LAN driver for Windows NT***

1. Boot Windows NT from your hard disk and insert the disc containing the Modem driver for Windows NT.

2. Click the **Start** button, then click **Settings**, and **Control Panel**. Double click **Network** and click Yes to install network.
3. With Wired to Network box ticked on, click **Next**.
4. Click **Select from list** button and click **Have disk** button.
5. Type "**d:\lan**" and click **OK**.
6. Click **OK** and click **Next** to proceed with next step.
7. Select **Network Protocols** you need and click **Next** to proceed to next step.
8. Select **Network Services** and click **Next** to proceed to next step.
9. Click **Next** to continue installation.
10. When Windows prompts you that Setup needs to copy some Windows files, insert Windows NT disc and type "**d:\i386**". Then, click **Continue**.
11. Select "**Intel PRO PCI Adapter**" and click **Continue**.
12. Windows will ask you if you have DHCP server on your network. Ask your system administrator and click either **Yes** or **No**.
13. After enabling or disabling network bindings, click **Next** to continue with the next procedure.
14. Click **Next** to start network.
15. Windows might ask you for your computer name, workgroup or domain. Input your data and click **Next**.
16. Finally, click **Finish** and click **Yes** to restart computer.

### *Installing LAN driver for Windows 98*

1. Boot Windows 98 from your hard disk and insert the disc containing the LAN driver for Windows 98.
2. Click the **Start** button, then click **Settings**, and **Control Panel**. Double click **System** and click **Device Manager** tab. Under **Other devices**, you'll see **PCI Ethernet Controller**. Select it and click **Remove** button.
3. Click **Refresh** button. The **Add New Hardware Wizard** will detect PCI Ethernet Controller. Click **Next** to search for the driver.
4. Click **Next** to continue.
5. Tick **Specify a location** and click **Browse** button. Then, navigate to "d:\lan" and click **OK**.
6. Click **Next** to continue with the next step.
7. Click **Next** to accept the updated driver for Intel 82559 Fast Ethernet LAN driver.
8. Click **Next** to continue with LAN driver installation.
9. When Windows prompt you for **Intel PRO Adapter CD-ROM**, navigate to "d:\lan" and click **OK**.
10. Click **Finish** to complete installation.

Restart Computer to finish setting up LAN.

### **INSTALLING THE AUDIO DEVICE DRIVER**

---

Your notebook computer uses the VIA PCI Audio controller embedded in VIA chipset core.



## *Installing Audio Driver for Windows NT4.0/98/95*

1. Boot Windows from your hard disk and insert the disc containing the Audio driver for respective Windows version.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click the **Browse** button and navigate to the directory as “E:\driver\ audio” and run “setup.exe”.
3. Click **Next** to proceed with the next step.
4. Select **Install** and click **Next** to begin installing the audio driver.
5. Select “**Yes, I want to restart my computer now**” and click **Finish** to complete the audio installation.

## **INSTALLING THE PCMCIA DEVICE DRIVER**

---

Your notebook computer incorporates a true 32-bit PCMCIA CardBus controller that you need to configure properly in order to run smoothly.


### *Configuring the PCMCIA for Windows 95B version (OSR2)*

For supporting CardBus controllers, you need to have at least Windows 95 OSR2 (B version) installed on your hard disk. Refer to the README file on how to setup the PCMCIA controller.

If you only have a Windows 95 B version, you should follow these steps:

1. Go to **Control Panel-System-Device Manager**, and double-click on **Other Devices** to open list of detected devices.
2. You will find two **PCI CardBus Bridge** devices. Click on these two and remove them by clicking on **Remove**. Click **OK** to confirm.
3. Click **Start, Run**, and type “E:\driver\PCMCIA\O2Setup.exe”.

4. Restart your system.

 *When using two PCMCIA cards at the same time, it is strongly recommended to disable the FIR port (COM2) under the BIOS Setup program.*

## **INSTALLING THE IRDA**

---


Your notebook PC incorporates an IrDA port that provides wireless data communication with other infrared device.


To use IRDA feature, you need to enter BIOS setup and go to Advanced menu. Select I/O Device Configuration and enable Infrared port. Windows 98/95 will detect and install IRDA port.

## **INSTALLING THE USB DRIVER**

---

In order to support USB (Universal Serial Bus) devices, you must have a Windows 95 OSR2.1 (B version) that includes the USB supplement driver. If you only have an OSR2.0, then you need to download the “**usbsupp.exe**” program file from the Internet.

 *Make sure the version of the USB driver is 4.03.1214 (QFE) or the latest. Earlier versions may have cause some problems like hot-swapping USB devices.*

 *Since the USB supplement driver is under licensed by Microsoft, FIC cannot bundle the driver together with the notebook driver CD. However, it is free for download from the Microsoft Internet or other authorized website.*

Follow the procedure below on how to install the USB supplement driver:

1. Boot Windows 95 OSR2 and insert the diskette containing the “**usbsupp.exe**” driver file.

2. Go to Control Panel, System, Device Manager. Click on Other Devices and PCI Universal Serial Bus. Click Remove and click OK to confirm.
3. Click the **Start** button, point to **Run** and enter "**E:\usbsupp.exe**".
4. The **Microsoft USB Supplement (QFE)** dialog box will appear. Click **Yes** to continue installation.
5. Follow the succeeding instructions in completing the installation. When prompted for the "**Uhcd.sys**" file, enter "**E:\windows\ system**".
6. After installation is complete, you need to restart your system to activate new settings.

## **INSTALLING EZBUTTON DRIVER**

---

Following is the procedure for installing the Internet and e-mail button keys.

### *Installing EZbutton driver for Windows NT/98*

1. Boot Windows from your hard disk and insert the disc containing the Internet/e-mail button driver.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click **Browse** button and navigate to the directory as "**E:\driver\EZbutton\setup.exe**".
3. The **Welcome** dialog will appear. Click **Next** to continue with the installation.
4. If you wish to install the driver in a different directory, click **Browse**. Otherwise, click **Next** to continue with the next step.
5. The **Select Program Folder** dialog box will appear. To setup icon on a different folder, you may type a new folder name or select one from the existing Folder list. Click **Next** to continue.

6. Click **Finish** to complete installation.

## **INSTALLING ZV-PORT DRIVER**

---

The upper pcmcia slot of your notebook supports ZV-port. You need to ZV-port driver before you can use the slot for mpeg card. Following is the procedure for installing the ZV-port driver.

### *Installing ZV-port driver for Windows 98*

1. Boot Windows from your hard disk and insert the disc containing the ZV-port driver.
2. Click the **Start** button, then click **Run**. In the Run dialog box, click **Browse** button and navigate to the directory as "**E:\driver\ZV-port\MM5401.exe**".
3. Click **Yes** to install Trident Mars Media.
4. The **Welcome** dialog box will appear. Click **Next** to continue with the installation.
5. The **User Information** dialog box will appear. After inputting the name and company, click **Next** to continue.
6. Click **Next** to start copying files.

Click **Finish** to complete Setup.

## **INSTALLING THE LS-120 DRIVER (OPTIONAL)**

---

The LS-120 works almost the same as the FDD and is backward compatible with any standard 3.5 Double-sided high-density (2HD) FDD. Windows support LS-120 and you don't need to install additional driver to use LS-120. However, if

you wish to include optional utility which Windows already have, you can run **SETUP** on the CD driver.

## 2.6 Turning off Your Computer

If you are not going to use the computer for awhile, 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. Then, press the power button to switch off the power of your computer. If you are using Windows 95/98 or its newer version, the system will power off by itself whenever you shut down 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



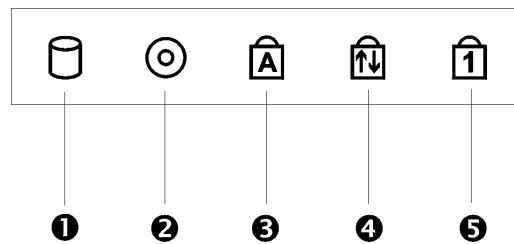
**T**his chapter describes how to operate the standard built-in features of the notebook that you normally would use in your day-to-day computer work. If you are new to computers and to your operating system, you also need to read the manual for the operating system on how to work with your computer. It is very important to familiarize yourself well with the operating system. The succeeding chapters let you know how to go beyond the basics and 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 one installed 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 Knowing the Status of Your Computer

The Status LED Panel, located at the top of the base unit, provides you with several graphical icons with LEDs (Light Emitting Diode) in representing your system's activity and status. This includes power source and power management status. You will glance it from time to time as you use your computer.





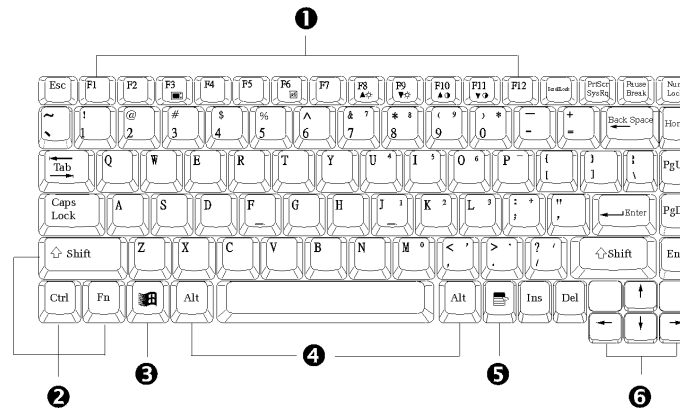
- ❶. Drive Access
- ❷. Diskette Drive Access
- ❸. Caps Lock
- ❹. Scroll Lock
- ❺. Num Lock

## Status LED Icons

- Drive Access  
The drive folder icon indicates that the system is accessing either the HDD, CD-ROM, or DVD-ROM.
- Diskette Drive Access  
The drive folder icon indicates that the system is accessing FDD. When this LED lights, the notebook writes data to or retrieves data from the floppy diskette drive.
- Caps Lock  
The Caps Lock icon 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.
- Scroll Lock  
The Scroll Lock icon indicates that the Scroll Lock key on the keyboard is activated. The Scroll Lock key has different functions depending on the software you are using.
- Num Lock  
The Num Lock icon indicates that the Num Lock key on the keyboard is activated. When activated, the embedded numeric keypad LED will be enabled.

### 3.3 Understanding the Keyboard Functions

Your notebook computer is equipped with an 86-key keyboard that provides all the functionality of a full-sized 101 or 102-key IBM keyboard. Aside from the standard typewriter-layout keyboard of your computer, there are a number of extra features and function controls on the built-in keyboard including Windows 95/98 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.

- **Windows 95/98 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**



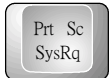






Cursor control keys let you position the cursor on the screen where you want. In the screen, the cursor is a blinking underline, block, or vertical bar depending on the application. The cursor indicates where the next text typed is inserted.






- **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.

- **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 specific to the application you are running.



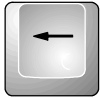
**BASIC KEYBOARD FUNCTIONS**


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 send information on the screen to a printer connected to the parallel port.
	<Pause Break> key. Press this key to temporarily halt execution of a command. Pressing any other key resumes execution of a command.
	<Ins> key. Known as the Insert key. Press this key to toggle the keyboard data entry from insert to type over mode.
	<Del> key. Known as the Delete key. Press this key to delete the character to the right of the cursor, or delete marked texts or items.
	<Backspace> key. Press this key to delete the character to the left of the cursor.
	<Shift> key. Press this key in combination with alphabet letters to produce uppercase letters in typing. Use this key in combination with those two-character keys (found on the second row of the keyboard) to produce the upper marked keys. Also used in most application program in combination with other keys to execute a certain command.
	<Tab> key. Press this key to move the cursor to the next tab stop on the right. This key works much the same as in ordinary typewriter.

Keypad	Function Description
	<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.
	<Scroll Lock> key. Used in most application program to scroll the screen without having to move the cursor.
	<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.

## CURSOR CONTROL KEYS

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Keypad	Function Description
	<b>Up arrow key.</b> Moves the cursor up one line at a time.
	<b>Down arrow key.</b> Moves the cursor down one line at a time.
	<b>Left arrow key.</b> Moves the cursor to the left one space at a time.

Keypad	Function Description
	<b>Right arrow key.</b> Moves the cursor to the right one space at a time.

---

### SCREEN CONTROL KEYS


---


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

---

### WINDOWS 95 HOT KEYS

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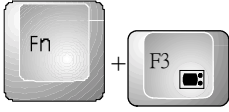
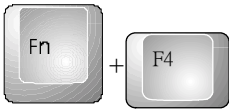
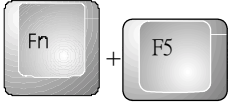
Keypad	Function Description
	<Start> key. Pulls up the Windows 95 Start menu.









Keypad	Function Description
	<Right Click> key. Performs a mouse right-click function for Windows 95/98.

## SPECIAL FUNCTION KEYS







---

The notebook has special system function keys which 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
	Switches display between LCD, CRT, or LCD and CRT simultaneously.
	<ul style="list-style-type: none"> <li>→ In DOS/Win95/Win98 (APM mode) /WinNT, means to enter <b>Suspend-to-RAM</b> mode. Your files will be saved into the memory and power off the computer. The Power Saving LED will also blink. Press the power button to resume.</li> <li>→ In Win98 (ACPI mode)/Win2000, no function in this environment.</li> </ul>
	Switch the LCD display mode in expanded or non-expanded view. These combination keys only work in a 640x480 resolution

Keypad	Function Description
	mode.
 + 	Enable or Disables the built-in system speaker volume to on or off mode.
 + 	<p>→ In DOS/Win95/Win98 (APM mode)/WinNT, means to enter <b>Power Management Level</b>. When you execute the function, system will beep the sound:</p> <ul style="list-style-type: none"> <li>▶ One beep sound - Disables the PMU function.</li> <li>▶ Two beeps sound - Sets PMU to Customized mode.</li> <li>▶ Three beeps sound - Sets PMU to Maximum Power Saving mode.</li> <li>▶ Four beeps sound - Sets PMU to Maximum Performance mode.</li> </ul> <p>→ In Win98(ACPI mode)/Win2000, no function in this environment.</p>
 + 	Increases the brightness of LCD display incrementally.
 + 	Decreases the brightness of LCD display incrementally.



Keypad	Function Description
 + 	Increases the contrast of LCD display incrementally. Only for DSTN LCD.
 + 	Decreases the contrast of LCD display incrementally. Only for DSTN LCD.
 + 	<Scroll Lock> key. Used in most application program to scroll the screen without having to move the cursor. This function is only for Japanese version.

## 3.4 Using the Glide Pad Pointing Device

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

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

The Glide Pad works a mouse pointing device replacement that is used under Windows-based operating system. Before using the Glide Pad, you need first to load or install the device driver to activate the device. You can also use the standard Microsoft or IBM PS/2 driver which 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.


# Graphic 14

- ❶. Left Selection Button
- ❷. Right Selection Button
- ❸. 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 control or by simply tapping on the surface once. A light, quick tap always works best. To execute an item, click the left button twice or do a quick double tap on the surface.
3. To simulate holding the mouse button down (dragging an icon or selection), use the tap-and-drag gesture. This feels much like a double-click, except that the finger remains on the pad after the second tap: Tap, lift, tap, hold and move. The simulated button remains held as long as the finger remains on the pad.

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

## 3.5 Configuring Your Screen Display

The VGA display function of your notebook is based on a high performance PCI 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.

Refer to Section 5 “Installing the Notebook Device Drivers” of Chapter 2 in this manual, the procedures on how to install the VGA device driver under Windows 95/98. After installing the VGA driver, you would then configure the display resolution or screen size to match your LCD display panel. This notebook computer model provides 800x600 as well as 1024x768 LVDS panels. 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 or both the LCD display or the external monitor (CRT):

Display	Possible Resolution	Maximum Colors
800x600 SVGA LCD	640x480	65,536 colors
	800x600	65,536 colors
	1024x768*	65,536 colors
1024x768 XGA LCD	640x480	65,536 colors
	800x600	65,536 colors
	1024x768	65,536 colors
CRT Only	640x480	16 million colors
	800x600	16 million colors
	1024x768	65,536 colors
Both	640x480	65,536 colors

	800x600	65,536 colors
	1024x768* (SVGA LCD)	65,536 colors
	1024x768 (XGA LCD)	65,536 colors

☞ *\* - denotes special panning feature that allows higher resolution modes to be displayed on the LCD or CRT. This feature will show a section of a larger screen, and will automatically pan or scroll the screen horizontally and vertically when the mouse reaches the edge of the display.*

☞ *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, and LCD and CRT display.*

### **CHANGING THE DISPLAY PROPERTIES UNDER WINDOWS 95/98**

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To change the display properties of your screen under Windows 95/98, 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 5 “Installing the Notebook Device Drivers” of Chapter 2 in this manual. Consult your dealer for the latest Windows 98 AGP VGA driver.*

## 3.6 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 turns 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 Chapter 6 on running the BIOS SETUP program.

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.

### ***Doze Mode***

The CPU clock is slow down when there is no system activity, but all other devices are in full-on state. This mode is controlled by the system itself.

### ***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 using the <Fn> + <F4> hot-key or by setting the Suspend timer on the BIOS setup program. 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 Suspend mode to “Save to Disk” on the BIOS Setup program. To resume full-on state, you can press the power button.

☞ *You must run the PHDISK utility first before you can activate Suspend-to-Disk.*

### *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.

## 3.7 Using the FDD

The floppy disk drive (FDD) is probably one of the most used device on a computer. Your system ships with a standard 3.5-inch 1.44-MB diskette drive already installed in the left side of the system. The other disk drives on your computer are the hard disk drive and the CD-ROM or DVD-ROM drive. Disk drives are designated with drive letters with the floppy drive usually assigned as Drive A: and the hard drive and CD-ROM or DVD-ROM drive as Drive C: and Drive D: respectively.

The floppy disk drive (FDD) is a 3.5” diskette drive that can read and write to high-density 1.44MB diskettes or double-density 720KB diskettes. The diskette has an imprinted arrow on the front upper left corner, and a sliding write-protect tab on the bottom left corner of the diskette. When opened, the write-protect tab prevents any data from being written to or erased from the diskette. This also


protects your diskette from getting infected by virus when used on other computers.


Insert the diskette with the arrow and label facing up and the shutter cover towards the drive. Slide the diskette into the drive until it is totally inserted and the eject button pops out. Remember to format new diskettes first using your operating system.

## Graphic 15

To eject or remove the diskette, make sure that the system is not accessing the diskette drive. Check the Status LED Indicator panel if the Drive Folder icon is activated or not. If not, then press the eject button on the drive to release the diskette.

## Graphic 16

 *Always remove the diskette whenever you are placing the notebook computer into the carrying case for transport.*

 *Always check the inserted diskette for virus before using it.*

 *Always back up original diskette copies of your software programs.*

## 3.8 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. The hard disk unit is located on the left side of your computer just underneath the palm-rest panel assembly. Like floppy diskette, you also 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 (up to 10GB), 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 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 might damage the computer and the hard disk. Avoid jarring or moving the computer while the hard disk is still being accessed.*

## 3.9 How to Access the CD-ROM/DVD-ROM Drive

Your system ships with either a 24X CD-ROM or 4X DVD-ROM drive installed on the left side of your computer. You would normally use the CD-ROM drive




for installing operating system and software application programs. Unlike the disk drives, you can only read from the CD-ROM drive. You also need to install first the CD-ROM device driver before being able to access it. Refer to Section 5 “Installing the Notebook Device Drivers” of Chapter 2 in this manual, on how to install the driver or contact your dealer for assistance.

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 CD-ROM drive. The CD tray mechanism will pop-out slightly and slowly pull out the whole length of the tray.
2. Place the disc on top of the CD tray with the label side facing up. Gently press the compact disc onto the center spindle to secure the disc.

## Graphic 17

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

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

4. To close the CD-ROM drive, simply push the CD tray inside. The CD-ROM LED will activate when the disc is detected. Wait until the LED has turned off, 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 the side of the CD that has no printing or writing on it.
- Do not write on or apply labels to 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 CD-ROM reader is a Class 1 Laser Product.*

## 3.10 Using PCMCIA Cards

### **WHAT IS PCMCIA?**

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PCMCIA or Personal Computer Memory Card International Association is a non-profit trade association and standards body composed of over 500 member companies that defines the industry standard for the PC Card technology. The goal of PCMCIA is to ensure that any PC Card can work in any mobile computer built with a PCMCIA slot.

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

Today, PCMCIA promotes the interoperability of PC Cards not only in mobile computers, but in such diverse products as digital cameras, cable TV, set-top boxes, and automobiles.

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) High-End Communication 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 battery backed Static Random Access Memory (SRAM), Read Only Memory (ROM), 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.
- **Communication Cards**  
Both network PC cards and fax/modem cards can use with your notebook computer. You can insert a fax/modem in either slot. Always insert the fax/modem card before using your fax/modem software application. If you start the application before inserting the fax/modem card, the application typically does not find the card.
- **Storage Cards**  
When you insert a storage card or small hard drive card in the notebook computer, it appears as a unique drive depending on the type of card and the slot 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
E:	CD-ROM reader
F:	Slot 1, IDE/ATA hard drive
G:	Slot 0, high-speed memory card
H:	Slot 1, high-speed memory card

### ***Type III Cards***


Type III cards are thicker (10.5 mm) than Type II cards and allow no extensions. Type III card uses include advanced function I/O cards with added features such as multimode cards (cards with more than one function such as a combined modem and LAN card) and small hard drive cards.

### ***Other Cards***

Other kinds of PC cards are available to notebook computer users.

- Global Positioning System (GPS)  
enable the tracking of remote units (for example, delivery trucks)
- Paging  
receiving remote paging messages
- Serial  
adding an extra serial communications port
- Multimedia  
combining animation and sound
- Video  
recording, displaying, and capturing full-motion video

- Audio  
enable the use of sound

 For more *PCMCIA* information on the Internet, visit the *PCMCIA* home page at <http://www.pc-card.com>.

## WHAT IS CARDBUS?

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CardBus is the next generation, 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 with a double deck PCMCIA slot that supports one Type III card or two Type II cards at the same time. Aside from 3.3V CardBus PC cards, you can also insert existing 5V 16-bit PC cards which can also be detected and used by your computer. Another new type of PC card that has come out with the CardBus is the Zoomed Video or ZV port card. See section below.

## WHAT IS ZV PORT?


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Zoomed Video Port or ZV Port, is an adaptation of the PCMCIA port to allow a new type of PC card called "ZV Port Card" to be inserted into your computer. The proposed ZV Port PCMCIA standard eliminates sending large amounts of multimedia (video and audio) through the CPU or system bus, allowing for much higher overall system performance during multimedia usage. ZV Port technology is the enabling platform for the implementation of multimedia capabilities on notebook PCs. These capabilities include: video playback of MPEG1 and MPEG2 full motion video, video capture.

### *ZV Port - How it Works*

With a ZV Port card inserted in your computer, compressed video data flows from hard disk, CD-ROM, LAN or other source. Across the system bus to the

PCMCIA Cardbus controller, which passes it to the MPEG decoder in the PC Card slot, which returns uncompressed video data back to the PC Card controller. Using the ZV Port interface, the PC Card controller sends the uncompressed video stream directly to the video/graphics controller and to the audio chip, and on to the display screen and speakers. In a PC without the ZV Port interface, there is no direct connection between the PC Card controller and the graphics controller, so the uncompressed data must wind back through the system bus, and possibly through the CPU, to get from the one component to the other.

 *The 32-bit card bus also has zoomed video support in the top slot only. Also, this 32-bit structure is backward compatible, but also accepts new cards.*

## **SETTING UP THE PCMCIA CONTROLLER**

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In order for your computer to identify inserted PC cards and configure them to work, you need first to make sure that you have the Card and Socket Services software loaded properly into your operating system. Refer to Chapter 2, Section 5 “Installing the Notebook Device Drivers” for installing the PCMCIA controller.

## **INSERTING AND REMOVING A PCMCIA CARD**

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The double-deck PCMCIA slot built in at your computer supports either two PCMCIA Type II cards at the same time or one Type II card and one Type III card at the same time. The double-deck PCMCIA slot compartment includes a top slot and a bottom slot. Your computer also 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. You can insert any single Type II or Type III card on both top and bottom slots. When inserting one Type II card, you should insert the Type III card on the top slot.
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.

# Graphic 18

## *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:

6. Click the **Start** button, then point to **Settings**, and click **Control Panel**.
7. Double-click on **PC Card** icon to appear the **PC Card Properties** box.
8. Select the socket from the list that you want to remove on the **Socket Status** folder tab, and click **Stop** button. The system then disables the function of PCMCIA card.


9. Then you can remove the inserted PC card, push the button found on the left side of the PC slot to release the eject button. Then push it again to release the PC card. The upper left button releases the card on the top slot while the lower left button releases the card on the bottom slot.
10. When the PC card has moved out a space out of the slot, hold the edges of the card and slowly slide it out.

# Graphic 19

## **MAKING PC CARDS WORK**

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Since PC cards come in different types and brands, making every card work on your computer may not that be easy. Except for memory cards and fax/modem cards, other 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 95/98 that Windows will try to detect and prompts you if you want to install the driver. If the driver is not included under Windows 95/98, you will need to insert the driver diskette provided by the PC card manufacturer into the floppy disk drive and install to Windows 95/98. 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 IR port, USB port, or the 56K internal modem. Check the Windows 98 device manager to ensure that one of these devices is disabled before inserting a PC card.*



## HOT SWAPPING PC CARDS


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Just like floppy disk drive, your PCMCIA slots allow you to replace one PC card with another even while your computer is on. However, you need to remember the rule that if the PC card is in use, you must not remove it. Below are some examples on how to handle PC cards when hot swapping:

- Do not remove a network card while your system is connected to the network.
- Do not remove fax/modem card while the card is transferring data into or from your computer.
- Do not remove a hard disk or ATA card while your computer is accessing the card.

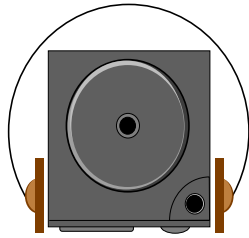
To remove PC cards under Windows 95/98 while the computer is on, you need to stop the PC card device first under the PC Card properties box. Follow these steps:

1. In the Control Panel, double-click on **PC Card (PCMCIA)**. If there is a PC card icon on your Windows taskbar, you can also click on it to immediately go to the PC Card properties box.
2. Click on the PC card you want to remove and click **Stop**.
3. Wait until your system has prompted you that the PC card can already be removed.

 *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. You can leave the card in the slot while it is disconnected for easy storage.*



## 4 Fun with Multimedia



**T**his 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, CD-ROM or DVD-ROM, and ZV port technology in creating an exciting full multimedia presentation.

## 4.1 Notebook Multimedia Features

Your notebook computer is rich in multimedia features that makes your computing fun, comfortable, exciting and easy. Exceeding the specification set for the Multimedia Personal Computer or MPC, your computer is well able to perform all multimedia tasks through the following:

- AMD-K6-2/AMD-K6-3
- 32MB RAM or more
- 24X-Speed CD-ROM Drive or 4X DVD-ROM Drive (option)
- 32bit AGP 2X VGA Graphics Controller
- 16-bit Plug-and-Play Audio Sound System with built-in speaker and microphone
- ZV Port Capability (for MPEG cards)

## 4.2 Audio Sound System Features

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

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

- External 1/8-inch microphone jack that supports full-duplex monophonic mode or half-duplex stereo mode

- Earphone or headphone jack for personal listening
- Line-out jack for connecting external amplified speakers, headphones, or earphone set
- Line-in jack for connecting external audio devices like CD audio player, tape deck or synthesizer
- External thumb-wheel volume control

## 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 95 or 98. 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 95 or 98.

## 4.4 Windows Multimedia Programs

Windows provides several multimedia programs which you can run with the built-in features of your computer. The Multimedia programs group is found by clicking the Start button, then pointing to Programs, then Accessories, and Multimedia.

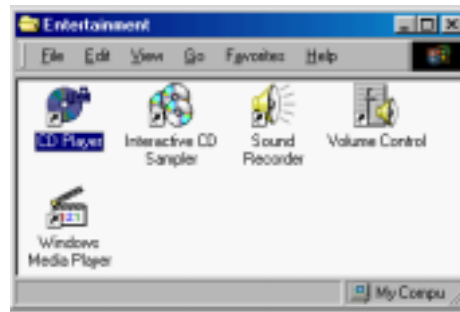


Figure 4-1 Multimedia Programs Group

The standard multimedia components are as follows:

- External volume control buttons
- CD Player - for playing audio compact discs
- Media Player - for playing sound video and animation files
- Sound Recorder - for recording sounds and playback
- Volume Control - for adjusting the volume of mixer

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

## 4.5 Recording Sounds

Your computer allows you to record voice and other sounds in several ways and stores them as files on your hard disk. These voice or sound files can then be played back through the internal speaker or external line-out and earphone jack using either an external speaker, headphone, or earphone set. You can also use

the files as voice annotations on many applications for more real presentation. This section will describe briefly how you can record sounds under Windows operating system.

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



Figure 4-2 Sound Recorder

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

- From the built-in microphone
- From the external microphone
- From the CD-ROM drive
- From the Line-In audio jack

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

1. Double-click on the Volume Control on the taskbar or click Start button, then point to Programs, Accessories, Multimedia, and then click on Volume Control.
2. Click Options and Properties.
3. Click the round button for Recording and select to show all volume controls for each component.

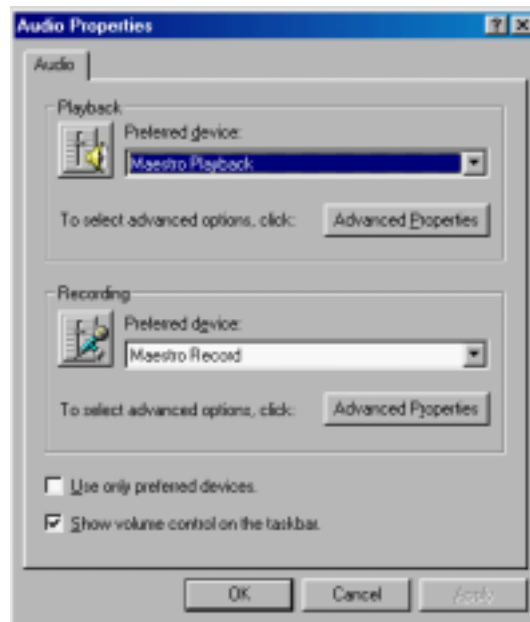


Figure 4-3 Audio Volume Properties



4. Click OK and the Recording Control dialog box will appear. Here, you will select the input device for the recording source. The default is the microphone which will record sound from the microphone only. If you want to record from the CD-ROM drive with audio music, you must click on CD Audio.

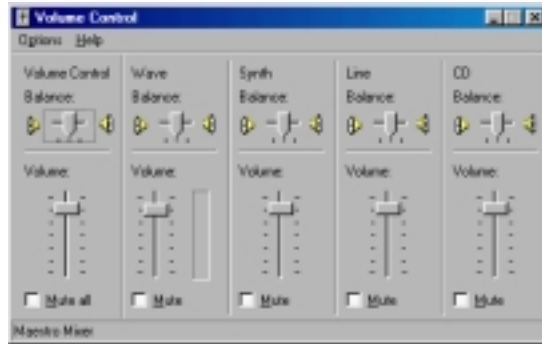


Figure 4-4 Recording Volume Control

## USING THE BUILT-IN MICROPHONE

You would normally use the microphone for recording voice and save the file for voice annotations in your application programs. Your computer comes with a built-in microphone located on the front side of your computer.

To start recording from the built-in microphone:

1. Enable microphone volume on the Recording Control as discussed previously.
2. Run the Sound Recorder program and press the Record button.
3. Start to speak towards the built-in microphone and press the Stop button when you want to stop recording.
4. Press the Play button to hear what you have recorded.
5. To save to file, click Save from the File menu.

### **USING AN EXTERNAL MICROPHONE**

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Your computer also allows you to connect an external microphone for higher quality recording. The external microphone jack is found on the front side of your computer and automatically disables the built-in microphone when connected. Use only microphone with 1/8-inch mini-jack connector. Follow the same procedure for recording voice.

### **USING THE BUILT-IN CD-ROM/DVD-ROM DRIVE**

---

You would normally use the CD-ROM drive for recording audio music from the compact disc. Follow these steps:

1. Activate CD Audio volume on the Recording Control as discussed earlier.
2. Run the Sound Recorder program.
3. Insert the audio CD into the CD-ROM drive. Unless you have disabled the CD auto-insertion notification for supporting Suspend mode, the CD Player should automatically run after you have inserted an audio compact disc and will start playing the audio CD.

4. Click on the CD Player and press the Pause button first.

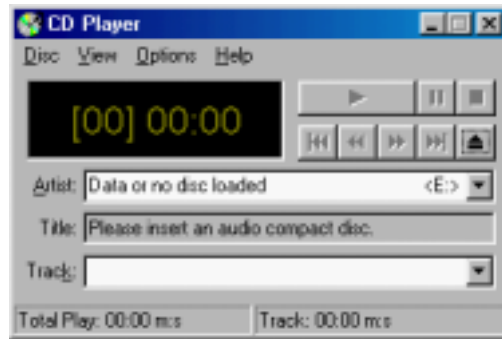


Figure 4-5 CD Player

5. Set the starting point where you want to start recording.
6. Switch to the Sound Recorder and press the Record button.
7. Switch immediately to the CD Player and press the Play button. You can adjust the volume control so you can also hear the recording.

## **USING AN EXTERNAL AUDIO INPUT DEVICE**

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You can also record sound from an external audio device such as stereo amplifier or tape recorder by connecting them to the Line-In audio jack

Use the same procedure as above by setting the Recording Control to enable the line-in volume. Run the Sound Recorder and press the Record button. Start playing the external audio device to begin recording.

## 4.6 Playing Audio and Sound

Your computer has a built-in twin speaker to playback audio and sound. You can also adjust the volume manually by adjusting the thumb-wheel volume control found on the front side of your computer.

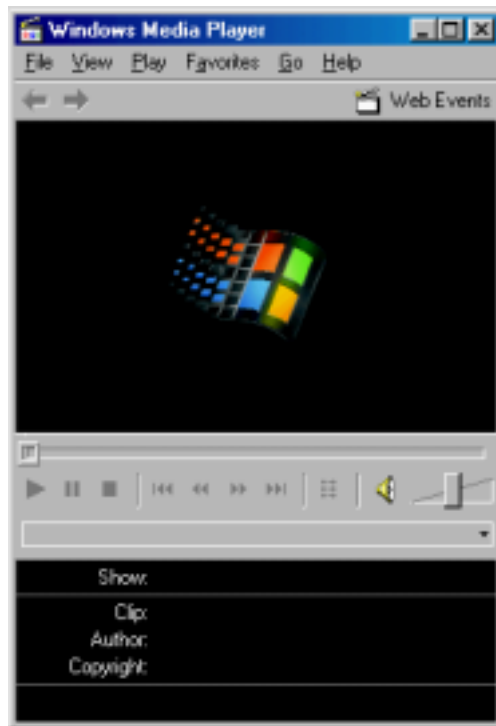
For more quality sound output, you can choose to connect an external amplified speaker that connects to the Line-out jack on the front of your computer. You can also connect earphone or headphone set. Always minimize the volume first before placing the phone set to your ear.

### **USING THE MEDIA PLAYER**

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

1. Click on Start, then point to Programs, Accessories, and Multimedia.
2. Click on Media Player to start program.



**Figure 4-6 Media Player**

3. Click on the Device menu to select the sound device type you want to play or you can directly open the file on the File menu.
4. When the file is recognized and open, click on the Play button to start playback.
5. For playing audio CD, it is better to run the CD Player as discussed earlier.

## 4.7 Playing Video and MPEG Files

Your computer is capable of running video motion files as well as MPEG (Motion Picture Expert Group) files on CD or DVD. By using a software MPEG program, you can watch real full-motion picture on your computer. You can also run the ActiveMovie Player under the Multimedia programs group or the Media Player as well to show all media device programs.

## 4.8 Using PC Cards with ZV Port

Although running software MPEG programs allows you to watch movies and video CD, the quality and speed is still not at par when watching motion picture on TV or movie theaters. Your computer is equipped with the latest ZV port technology that dramatically speeds up video playback. By inserting a ZV port-capable MPEG PC card into the PCMCIA slot, you can watch smooth full-screen motion picture just like in TV or at the movies. Consult your dealer on how to get a ZV port MPEG card and read the card user manual for installation.

## 4.9 Using DVD

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

To playback DVD titles, you would need a MPEG-2 compatible PCMCIA card or software MPEG-2 program and the optional DVD-ROM Device Pack.

For software MPEG-2 program, the performance in media playing will be implemented successfully only when this computer is complied with Intel Pentium II - 266MHz CPU or above. Otherwise, any computer that equipped under Intel Pentium II - 266MHz CPU can not guarantee the performance in media playing.

MPEG-2 cards provide audio and video jack, so you can connect it to your wide-screen TV for the best home entertainment. Consult your dealer for more information.