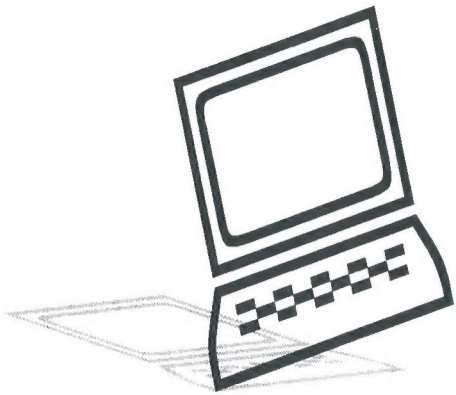
User's Manual

CTX Notebook



CTX

Note: The ENERGY STAR ™ emblem does not represent EPA endorsement of any product or service.

Electronic Emission Notice

Federal Communications Commission (FCC) Statement

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

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

NOTICE :

(1) The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canadian Department of Communications Compliance Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

European Community Directive Conformance Statement

This product is in conformity with the protection requirements of EC Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electro-magnetic compatibility.

A declaration of Conformity with the requirements of the Directive has been signed by Veridata Electronic Inc., No. 441, Tao Ying Road, Tao Yuan, Taiwan, R.O.C.

Safety Instructions

Computer

1. Follow all warnings and instructions marked on the Notebook PC.
2. Do not open the computer in a vertical position. Always use the computer in a horizontal position.
3. Do not use the Notebook PC near water or in rainy/moist situations.
4. Do not place the Notebook PC on an unstable cart, stand, or table. The Notebook may fall, causing serious damage to the computer.
5. Never push objects of any kind into the Notebook PC through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.
6. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
7. Do not press on or store any object on the LCD cover when it is closed since it may cause the LCD to break.
8. Do not attempt to service the Notebook PC yourself. Unplug this product from the wall outlet and refer servicing to the authorized dealer.
9. When replacement of components is required, be sure to replace all components recommended by the manufacturer or the authorized dealer. Unauthorized substitutions may result in safety hazards.

Power

1. This electronic device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
2. This computer is shipped with its own AC adapter. Do not use the computer with a different adapter.
3. Do not allow anything to rest on the power cord. Do not place the Notebook PC where people will walk on the cord.
4. If an extension cord is used with this Notebook PC, make sure that the total ampere ratings of the products plugged into the extension cord do not exceed the extension cord ampere rating. Also, make sure that the total current of all products plugged into the wall outlet does not exceed 15 amperes.

The Battery

1. Do not disassemble the battery. The chemicals inside can damage skin and clothing.
2. Keep the battery pack away from fire.
3. Do not soak the battery pack in water or expose it to rain.
4. Replace only with the same or equivalent type of battery recommended by the manufacturer or the authorized dealer.
5. The battery will lose its charge when stored for a long time. Fully charge the battery before you use it again.

CAUTION : Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions. Don't place the battery contacts near metal objects.

ATTENTION : Il y a danger d'explosion s'il y a remplacement incorrect de la batteries. Remplacer uniquement avec une batteries du méme type ou d'un type recommandé par le constructeur. Mettre au rébut les batteries usagées conformement aux instructions du fabricant.

Personal Inventory

This notebook computer system is designed for years of productive and pleasurable computing. Use this section to keep notes about details of your purchase. Update this section when you add new options.

Date of Purchase : _____

Dealer's Name : _____

Phone : _____

Address : _____

Type of LCD screen display *Noted on the outside box

- ☐ Color Dual Scan LCD
- ☐ Color TFT LCD
- ☐ Others : _____

Serial Number : _____

Hard Disk Capacity : _____

Memory Capacity : _____

Optional Equipment : _____

_____

_____

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Chapter 1

Getting Started

Unpacking Your Notebook PC

Carefully remove the Notebook computer and its accessories from the shipping box. Place all the components on a flat and firm surface. If any component is missing or looks damaged, contact your dealer immediately. Your Notebook PC package should contain the following components. (Other accessories may also be included, depending upon the model.)

- ❑ Notebook PC
- ❑ Hard Disk Drive (installed)
- ❑ Floppy Disk Drive (installed)
- ❑ CD-ROM Drive (installed)
- ❑ Battery Pack
- ❑ AC Adapter
- ❑ AC Power Cord
- ❑ Utility CD
- ❑ User's Manual
- ❑ Windows 95 Operating System

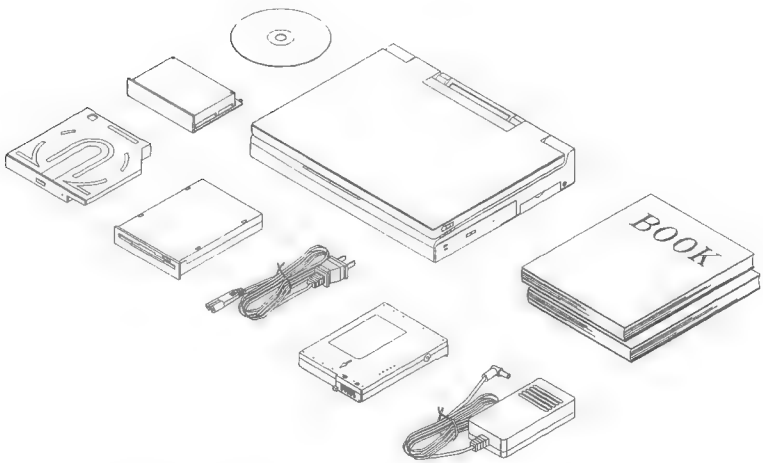

Figure 1-1: Notebook Accessories

Quick Set Up

After checking all the components, you are ready to set up and start your computer.

Opening the Computer

Slide the latches on the sides of the computer forward and lift the LCD screen.

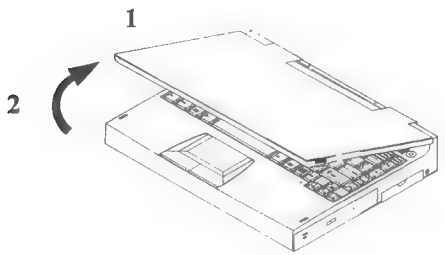

Figure 1-2: Opening the Computer

The opened computer is like Figure 1-3 below.

Figure 1-3: The Opened System

Connecting the AC Adapter

The AC adapter is an alternating current to direct current (AC/DC) converter that supplies power to your computer. To connect the AC adapter to your computer, follow the steps below:

1. Connect the power cord to the AC adapter.
2. Connect the other end of the power cord to a ground outlet.
3. Plug the AC adapter power cable into the DC-IN jack on the right side of the computer.

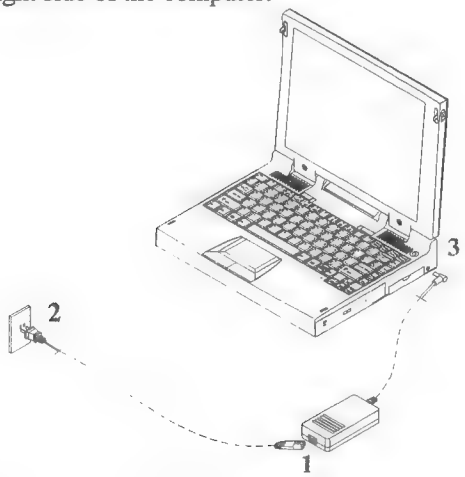

Figure 1-4: Connecting to AC Power

When the AC adapter is set up the green indicator on the adapter should glow and the **AC-IN** icon (a plug symbol) on the computer status indicator panel comes on. If you have battery installed, the **Battery** icon will appear to show the battery capacity.

If the **AC-IN** icon is not on, check if the AC adapter is correctly connected to the computer power jack.

Getting Started with Windows 95

☞ The information in this section applies only to Notebooks with the Windows 95 operating system already installed. If Windows 95 is not installed on your Notebook, please go directly to Chapter 4, pages 4-21~4-22, for instructions on how to install the operating system.

With Windows 95, you do not need the video, audio, or PCMCIA utility diskettes as mentioned in this personal computer operation manual. Please refer to the Windows 95 user's manual on how to setup your PCMCIA cards and change display settings.

The following section gives you a step by step procedure to properly set up your Notebook computer and Windows 95.

Windows 95 requires you to go through a series of procedures the first time you use your computer. It may take up to 30 minutes to complete the installation of Windows 95.

☞ You don't need the Windows 95 CD or diskettes. Make sure you remove any CDs or diskettes from the drives before you turn on the computer.

1. Turn on your computer. Press the [Enter] key to continue set up when you see the Welcome to Windows Set up screen.

2. ***Regional Settings***
   Select the Language you would like to use and press [Enter] to continue (default setting is American English).

☞ If you want to change any previous setting, click the < Back button located on the bottom of the set up screen.

3. ***Keyboard Layout***
   Press [Enter] to select United States.

4. ***User information***
   Type your Name and Company name in the boxes. Press [Enter] to Continue.

5. ***Windows 95 License***
   After reading the content, press [Enter] to continue.

6. ***License Agreement***
   Click "I accept the agreement" and press [Enter] to continue.

7. ***Certificate of Authenticity***
   A certificate of Authenticity is attached to the front page of the Windows 95 User's Manual. Type the Product ID number from the certificate in the box, and press [Enter] to continue.

8. ***Configuring the Computer***
   Windows 95 will now start to configure your Notebook computer. Press [Enter] to continue.

9. ***Installing devices***
   You don't need to do anything to install devices. Windows 95 will automatically install all the devices for you. It may take a few minutes.

10. ***Finishing Setup***
    Your system has finished the initial setup process. Press [Enter] to restart the computer.

After the computer restarts itself, Windows 95 will automatically set up all the Windows 95 program Icons. The process will take a few minutes.

11. ***Add Printer Wizard***
    When you see the "Add Printer Wizard" screen, you may choose to install a printer. Click to set up a printer or *Cancel* to skip the printer installation. Follow the instructions on the screen to select and test your printer. If you choose to skip the printer set up, you can install your printer at a later time.

12. ***Date/Time Properties***
    Select and set up Date & Time and Time Zone. Click *OK* or *Close* to continue.

13. ***Create System Disks***
    Press Next > to create system disks. We encourage you to create a Microsoft Windows 95 Setup Disk and a Windows 95 Startup Disk. You may need the Startup Disk to restore the system if the software is damaged on your computer. Follow the instructions on the screen to create disks or click Cancel to skip to the next screen.

After you finish creating Setup Disks and a Startup Disk, click the Finish button to restart the computer. Make sure you remove the disk in the floppy disk drive before you continue.

This concludes Chapter 1. Chapter 2 provides an introduction to your new Notebook and describes each of the external components.

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Chapter 2

Introduction

Hardware Features

- Intel Pentium™ with MMX 120/133/150 MHz Processor
- Phoenix BIOS with Power Management, supports APM 1.2 and PnP architecture
- PCI Bus with 128-bit GUI Accelerator with MPEG Video Scalar
- 1.5MB EDO Video RAM
- 8MB EDO RAM standard on board memory, expandable to 40MB
- Synchronous 256K RAM Level 2 Cache
- Removable 2.5-inch Hard Disk (810MB or above)
- Removable 3.5-inch, 1.44MB FDD
- Removable 5.25-inch, IDE interface CD-ROM Drive
- 12.1" TFT Active Matrix LCD with SVGA (800x600 resolution), 64k colors

  OR

  12.1" DSTN LCD with SVGA (800x 600 resolution), 64k colors
- Simultaneous LCD & CRT operation
- Built-in I/O ports including one RS-232 Serial Port, one EPP/ECP-compliant Parallel Port, a 15-pin CRT port, an IR port supporting the IrDA standard, a 6-pin PS/2 type keyboard connector, a 15-pin MIDI/Game Port, a 200-pin Docking port, and an RCA jack TV port
- Two PCMCIA slots (supporting two Type II or one Type III PC card)
- 87-key full function keyboard with Windows™ 95 function keys
- Built-in touch-sensitive TouchPad
- Status LCD indicators with Power on, PM status, PCMCIA, CD-ROM, FDD, HDD, NumLock, CapLock, ScrollLock, Battery gauge and charge, and AC-IN icons
- Full SMI power management with Doze, Stand-by, Device Power Down, Suspend and Power Low Audio Warning
- NiMH Battery Pack, Optional Lithium-Ion Battery Pack
- AC Adapter (100~240V AC, 50/60 Hz), battery charging auto-sensing
- 16-bit stereo Sound Card supports internal microphone and speaker
- Kensington™ lock support
- Microsoft Windows 95, System Utilities and Drivers

Notebook Overview

Location

Push the latches on both sides of the computer toward the front and then lift the LCD panel (Figure 2-1).

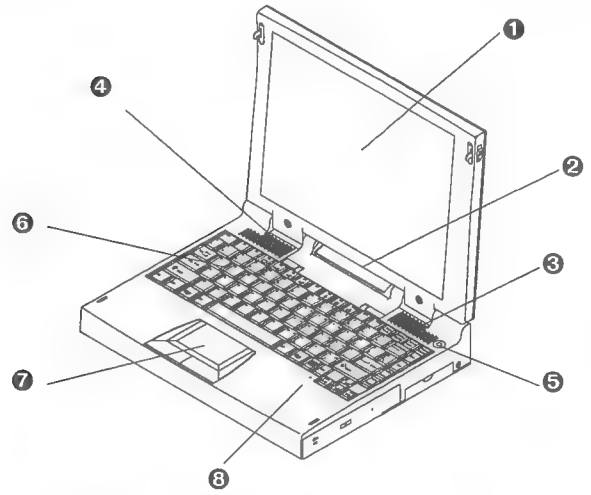


Figure 2-1: Front View

Front View

❶ **LCD Display** which displays the computer output

❷ **Status Indicator Panel** includes 13 indicator symbols which indicate the computer's operating status. A detailed explanation of these indicators will be given later.

❸ **Stereo Speakers** provide stereo sound for your application programs.

❹ **PM Switch** is used to enter Suspend mode, either by pressing it, or by closing the Notebook.

❺ **Power Button** is the computer's power switch. To turn on the computer, press the power button and hold it for about 2 seconds.

❻ **87-key Keyboard** is a full function keyboard with palm-rest feature, inverse T direction keys, embedded numeric keypad, and Windows 95 function keys.

❼ **TouchPad** is a built-in pointing device that provides a function similar to that of a mouse. The TouchPad includes a touch pad and two click buttons below the keyboard.

❽ **Built-in Microphone** is a small internal microphone which provides the audio capture function.

Left Side View

Viewed from the left side, you can see two removable packs: the Hard Disk Drive and the Floppy Disk Drive:

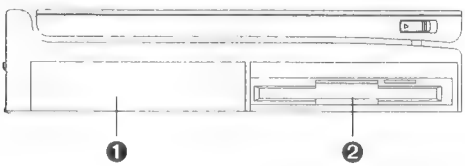


Figure 2-2: Left Side View

❶ **Hard Disk Drive** is removable and can be replaced with one of a different capacity.

❷ **Floppy Disk Drive** is a standard 3.5-inch 1.44MB floppy disk drive, which can be replaced with a battery pack.

The Battery Pack can be installed on the left or right side of the computer, or on both sides simultaneously. With the battery installed on the left side, it occupies the space of the Floppy Disk Drive. If installed on the right, it replaces the CD-ROM Drive.

Right Side View

Viewed from the right side, you can see the CD-ROM Drive, PCMCIA slots, and DC-IN jack:

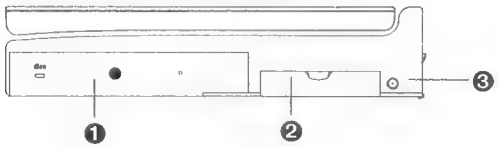


Figure 2-3: Right Side View

❶ **CD-ROM Drive** allows data to be read from a 5.25-inch CD-ROM. A battery can also be installed in the bay it occupies.

❷ **PCMCIA Slots** allow you to plug in PC cards to expand your computer functionality. The upper slot is a Type II slot which can use a Type I or Type II card. The lower one is a Type III slot which allows Type I, Type II or Type III card insertion. (However, if a type III device is inserted, you can't use the upper slot)

❸ **DC-IN Power Input Jack** Plug your AC adapter into this jack.

Rear View

There are several I/O ports inside the rear cover of the computer. Open the cover by pulling the upper latch outwards.

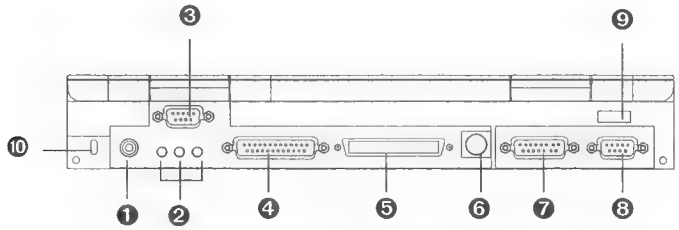


Figure 2-4: Rear View

❶ **TV display Jack** allows you to connect a TV for use as a secondary display.

❷ **Three Audio I/O Jacks** The right jack can be connected to the audio source; the middle one to the stereo microphone and the left one to an external earphone or speaker.

❸ **External CRT Connector** is a 15-pin analog connector which can be connected to any external monitor. (Supports DDC-2.)

❹ **Parallel Port** is a 25-pin port with a parallel interface (EPP/ECP compliant) to which you can connect a printer.

❺ **Expansion Port** can be connected to a Port Replicator to expand your computer.

❻ **External Keyboard/Mouse Connector** is a 6-pin PS/2 style connector for an external keyboard or mouse.

❼ **MIDI/Game Port** connects to the MIDI or Joystick connector.

❽ **Serial Port** is a standard 9-pin serial port to which you can attach a variety of serial devices, such as a mouse or modem.

❾ **Infrared Port** for Infrared (IR) transfers to send and receive data between your Notebook and IR equipped computers, printers or networks.

❿ **Kensington™ Security Lock** allows you to attach a *Kensington™ Security System* (or compatible) lock to secure your computer.

Bottom View

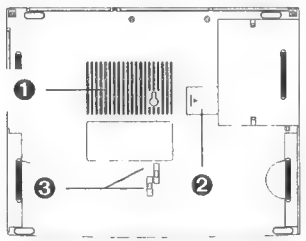


Figure 2-5: Bottom View

❶ **Air Way** is designed to release heat when the computer is running.

❷ **BIOS Cover** where the BIOS ROM is located. To swap the BIOS ROM, just remove the cover and the ROM can be easily taken out.

❸ **Device Security Latch** is used to keep the FDD, CD-ROM, or Battery pack secure.

The Power System

The Notebook PC can run with the supplied AC adapter when an external power source is available. The Notebook PC can also run with the battery pack for mobile operation.

The AC Adapter

The AC adapter automatically senses and adjusts the input AC voltage (100V to 240V) to a suitable voltage and is compatible with almost any international electrical system standard.

☞ AC adapters are designed for specified equipment and are not interchangeable. In other words, you cannot use a different make or different manufacturer replacement of Notebook adapter.

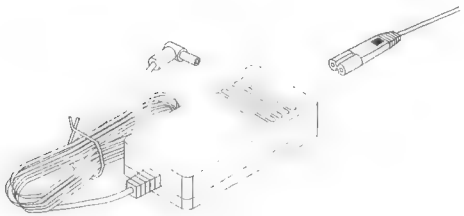


Figure 2-6: The AC Adapter

☞ The LED will glow green when the AC adapter is receiving power from an outside AC source.

The Battery Pack

The battery pack is an internal power source for the computer when the AC adapter is not available. It is a removable Nickel Metal Hydride (NiMH) or Lithium-Ion (Li-Ion) battery pack which can be recharged via the AC adapter. You can install it in the FDD or CD-ROM bay in place of the FDD or CD-ROM drive.

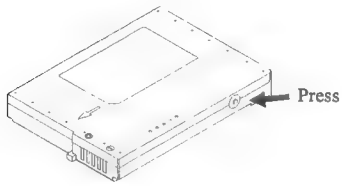


Figure 2-7: The Battery Pack

The Status Indicator Panel

The Status Indicator Panel is a liquid crystal display module which contains a number of symbols which indicate the current status of your computer.

AC-IN: This symbol appears when AC power is accessed. It shows that your computer is drawing electrical power from the AC adapter. In other words, the battery is not being used as a power source at the moment.

Battery Capacity: This symbol appears to show the battery's remaining power capacity. Each segment of this symbol represents 20% of the remaining charge. When the battery is low on power, it will flash with an alarm beep (depending on the system setup setting which is explained later).

Scroll Lock: This icon appears when the scroll lock is engaged which is useful in some applications. With this light on, the Arrow keys are used as screen-scroll function keys and the cursor cannot be moved with the Arrow keys.

Caps Lock: The symbol appears when the Caps Lock function is on. With Caps Lock on, all alphabetic characters (A-Z) are entered in capital letters without pressing the shift key. You can enable and disable Caps Lock mode by pressing the [Caps Lock] key.

Num. Lock: This symbol comes on when the numeric keypad is enabled.

PC Card Insertion: This symbol comes on when a PCMCIA card is inserted.

CD-ROM Activity: The symbol comes on when the CD-ROM is accessed.

HDD Activity: The symbol comes on when data is read from or written to the Hard Disk. *Never turn off the power when this light is on.

FDD Activity: The icon comes on when the FDD is accessed. Never eject the floppy disk when this symbol is on.

Power Management: This icon comes on when the Power Management function is enabled.

Power Consumption Situation: The faucet together with the drips indicate the power usage of your computer. The size of the drip shows the amount of power being consumed.

System Suspend: When the system is in Suspend mode, this icon appears.

Power on: This symbol appears to show that the computer power is turned on.

Chapter 3

Starting and Configuring Your Computer

Power On

Turning Your Computer On

After setting up your computer, you can now turn your computer on. The power button is on the upper right side of the keyboard. Press the power button and hold it for about 2 seconds.

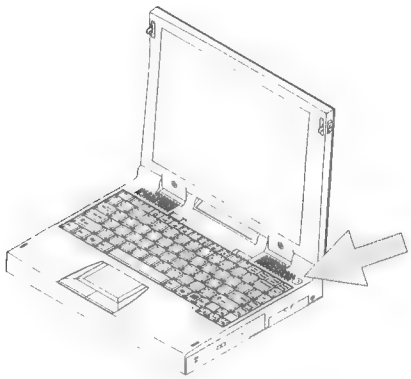


Figure 3-1: Turning the Computer On

☞ After the power is on, the Indicator Panel will show all of the symbols (except the FDD, HDD and PCMCIA) for about one second, and then show the normal status display.

Power On Self Test (POST)

When you turn on your computer, it will first go through a Power On Self Test (POST). This test will check the status of various components of your computer including the Processor, Memory, Interrupt Controller, Keyboard, I/O Ports, DMA Controller, Timer, and Video Controller.

This test also checks the existing hardware configurations according to the configurations that the computer keeps in an internal record. In most cases the computer record should be correct when you receive the computer. If the POST encounters a discrepancy in the current configuration or an error (but not a fatal error) with the hardware, the computer will give error messages and ask you to resume. If the POST detects fatal errors (errors that can stall your system), the computer will prompt you with a "RUN SETUP" message. You can press the [F2] key to access the BIOS setup program and then press the [F1] key to resume.

Setup Program

The BIOS (Basic Input Output System) is a special ROM-resident program that allows you to manipulate the settings of your configuration. It should already be pre-configured to its default values, but you may need to change some settings when you upgrade or expand your equipment. If you are a conventional computer user, you can keep the default values without making any changes. If you hope to further customize your computer, read this subject carefully. In any event, selecting *Exit Without Saving Changes* is always recommended unless you are very sure you want any changes to take effect.

Warning: Before attempting to configure the BIOS, make sure you have the configuration information supplied by the manufacturer of your peripheral devices. Incorrect settings can cause your system to malfunction.

Accessing the Setup Program

During the Power On Self Test, press the [F2] key to enter the Setup Program if you want to access Setup. The Setup Program has 5 main menus: *Main*, *Advanced*, *Security*, *Power* and *Exit*. At the bottom of each page, a sub-menu advises you which keys to press to activate various functions of the program. You can press [F1] to display a general help screen in which the details about the functions for each item of the bottom menu will be introduced.

Main

The Main menu shows the hardware records tested by the POST and provides some peripheral control features. The column on the right provides item specific help which can be easily followed to set configuration items.

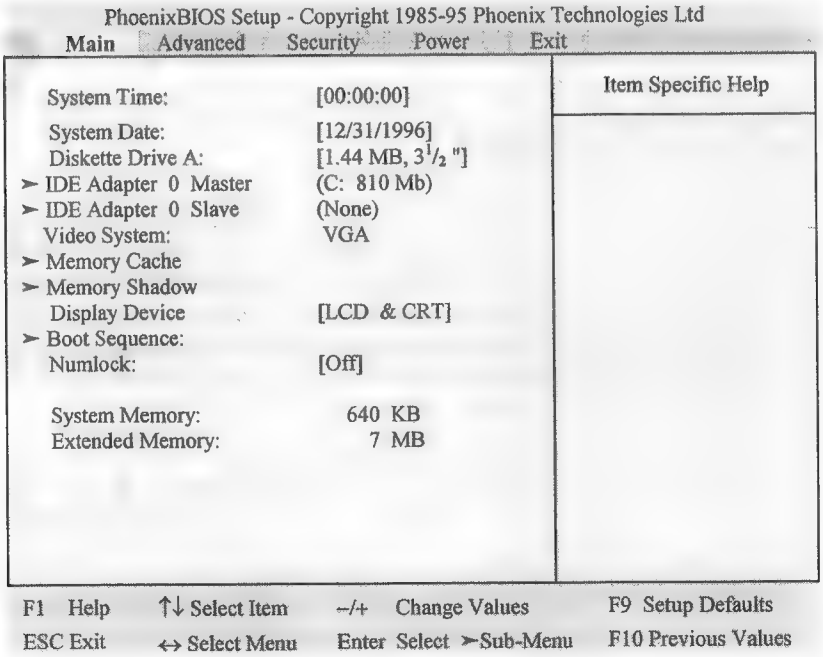


Figure 3-2: The Main Menu

System Time, System Date
The system has a real-time clock/calendar which is powered by the on-board CMOS battery. If the date and time need changing, highlight the field by using the [↑] [↓] arrow keys, and select the field by using the [Tab], [Shift] + [Tab] or [Enter] keys. Use the [+] [–] keys to change the value.

Diskette Drive A
Select the diskette drive A type. The Notebook comes with a 1.44MB, $3^1/_2$" diskette drive. If you change the diskette drive with one of a different type, change the drive type setting by using the [+] [–] keys.

▶IDE Adapter 0 Master
This feature refers to your master Hard Disk Drive type. Pressing [Enter] allows you to enter a sub-menu to select the proper hard disk type. Highlight the Type field and use the [–] [+] keys to select the drive type corresponding to the hard disk installed in your Notebook. If you don't know which type your hard disk is, simply choose "Auto" and the system will detect your hard disk and set the following items automatically.

Autotype Fixed Disk
Pressing [Enter] automatically detects the hard disk drive type in the setup.

Type
Determines the boot-up procedure as follows:

Auto — all hard disk information will be retrieved automatically during system boot.

None — Specifies that no hard disk is installed.

User — If type *User* is selected, all related fields can be edited or selected directly.

CD — You can also choose *CD* if you are using a bootable CD-ROM instead of an installed hard disk drive as your main drive.

Multi-Sector Transfers
This setting determines the number of sectors per block for multiple sector transfers.

LBA Mode Control
LBA (Logical Block Addressing) mode enables your system to access hard disk storage beyond 528MB. The traditional storage mode (prior to LBA) cannot allow access of the data beyond 528MB on a drive. Keep this item enabled for drives larger than 528MB.

32 Bit I/O
Allows 32 bit input/output data transfers.

Transfer Mode
This item allows you to select the method for moving data to and from the drive. When Autotype drive is set, it will select the optimum transfer mode.

▶IDE Adapter 0 Slave

If you have another hard disk installed, you should select the hard disk type, just as you did for the master hard disk. If you have a bootable CD-ROM installed, set this feature to *CD*.

Video System
This item shows you the system video type, which is a detected value and cannot be changed.

▶Memory Cache

This feature allows you to set the external cache and the related cache mode. Highlight the field and press [Enter] to access the following sub-menu fields:

External Cache
You can set the external cache to *Enable* or *Disable*.

Cache Memory Region
You can set the following addresses as Cache Memory Regions

C800-CBFF:
CC00-CFFF:
D000-D3FF:
D400-D7FF:
D800-DBFF:
DC00-DFFF:

▶Memory Shadow

This feature allows you to shadow some BIOS ROM to RAM. To shadow means to relocate the BIOS functions from the ROM BIOS chip, which is relatively slow, to the faster RAM in order to improve performance.

System shadow
Shadows the System BIOS ROM to RAM to accelerate the System BIOS.

Video shadow
Shadows the Video BIOS ROM to RAM to accelerate the Video BIOS.

Display Device
Allows you to specify display devices such as the Notebook LCD, or the CRT (external monitor) or both current output devices.

NumLock
The Number Lock key enables the embedded numeric keypad. Change the setting to *On* if you want your computer to have the keypad available whenever you first start your system.

▶Boot sequence

This feature allows you to specify the system boot priority. There are three items for you to set: the floppy disk, the CD-ROM, and the hard disk. Use the [↑] [↓] keys to select the desired item and use the [+] key to upgrade the priority, and the [–] key to lower the priority.

☞ There is another way to specify the boot sequence. When you turn on your computer, it will first run the Power On Self Test (POST). During the POST press ESC. After the POST has finished a boot menu will appear allowing you to set the boot priority.

System Memory

This shows you the size of your basic RAM (640K). This is an automatically detected value which cannot be changed by the user.

Extended Memory

This displays the size of the extended memory. This is also a detected value which cannot be changed by the user.

Advanced

This menu allows you to set the I/O port address and the local bus transit mode.

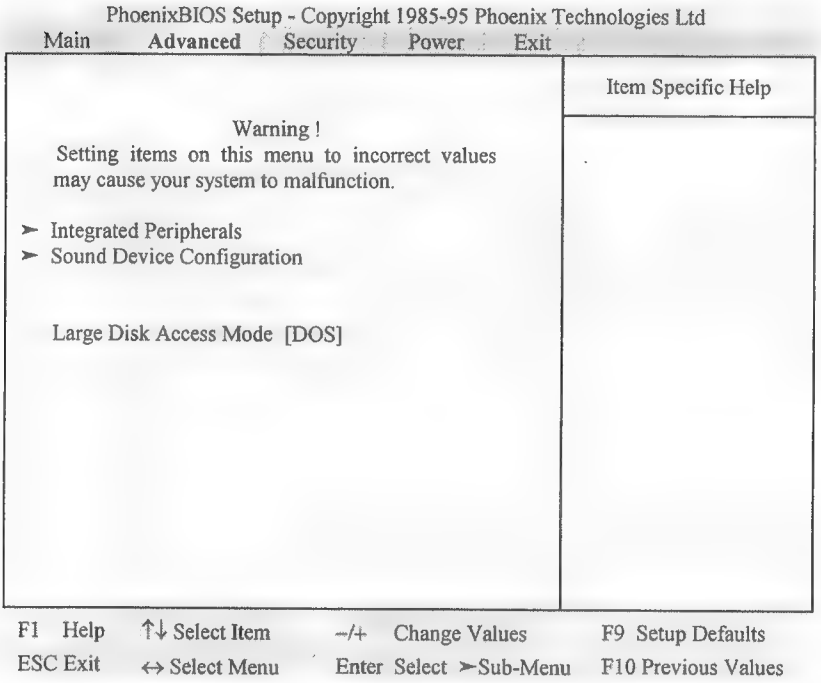


Figure 3-3: The Advanced Menu

▶Integrated Peripherals

This feature allows you to set port addresses. You can press [Enter] to enter a Sub-Menu to set the addresses of the **Serial** ports and the **Parallel** ports.

COM Port
This feature allows you to set the address for Serial Port A (COM 1). Generally speaking, keep it on the default setting unless the application or the peripheral device requires a different setting.

IrDA Port
The system sets the IrDA on COM port B. This field allows you to select the B port address and IRQ.

Parallel Port
This allows you to set the address and IRQ for the parallel port.

Parallel Port Mode
The parallel port is usually used as a printer port. In most cases, you can set it on the printer mode. Some peripherals may request a different transfer mode. The system supports the extended communication modes: EPP, ECP, Standard and Bi-directional. You can select the preferred communication mode. If you set this on *ECP* Mode, you can also set the ECP DMA channel. The ECP DMA channel setting is from DMA 1 to DMA 7 and the default is DMA 3. When set to *EPP* mode, you can choose the EPP mode version, either 1.9 or 1.7.

UART 2 MODE
The Serial Port B contains two transfer interfaces. One is the standard for traditional serial transfer. The other is called IrDA (Infrared Data Association) for Infrared transfer. To enable IR communication, you should set this feature to *IrDA* mode.

On-board IDE adapter
Allows you to enable or disable the on-board IDE adapter.

Diskette controller
Allows you to enable or disable the internal diskette controller.

Pointing Device: (PS/2 Mouse)
The built-in TouchPad is a PS/2 Device. Setting this item to *Enabled* enables the built-in TouchPad and the external PS/2 mouse. You can set this to *Disabled* if you want to use an external serial mouse.

▶ **Sound Device Configuration**

This feature allows you to enable or disable on-board stereo sound. Press the [Enter] key to enter the sub-menu.

On-Board Sound Chip
When this feature is enabled, you can then set the *I/O Channel, MPU Address, IRQ, DMA Low, DMA High,* and *Joystick Port* fields. If your software doesn't require any special values, keep the default values.

Large Disk Access Mode
If you are using DOS, Windows, or OS/2 operating systems, set this feature to *DOS*. If your operating system is UNIX, NOVELL or some other type, choose *Other*.

Security

In order to prevent unauthorized access to your system data, you can set a password. There are two levels of password security: Supervisor level, and User level. The Supervisor password holder can determine which item the user can access and which item the user cannot access. Be sure to use a password which is easy for you to remember. If you need to use this feature, write the password down in a secure place and keep it handy.

Set Supervisor Password

- A Supervisor password prevents unauthorized people from accessing the BIOS Setup Program to change the current settings. When a Supervisor password is set, you are prompted for a password to enter the BIOS Setup Program.

- The Supervisor password also allows you to set a User Password.

Set User Password

When this password is set, you can enable or disable the security feature "Password on boot" and "Diskette access."

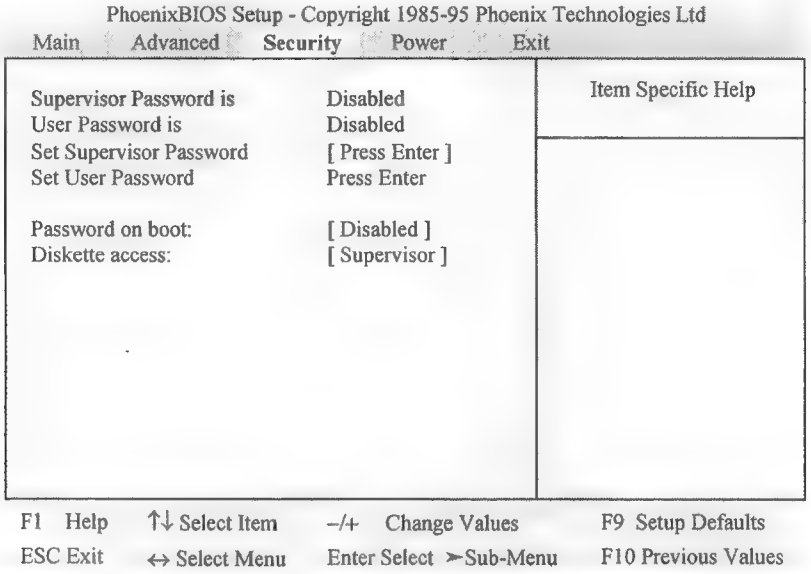


Figure 3-4: The Security Menu

Password on boot
Enabling this setting will cause a request for a user password when you try to reboot your computer.

Diskette access
Specifies who can access the floppy diskette. Setting this item to *User* will cause a User password to be requested to access the floppy diskette. When *Supervisor* is selected, the floppy diskette can be accessed only if the Supervisor password is entered upon booting the system.

Power

This menu provides you with some power management options that help your system avoid unnecessary power consumption. There is one standard power-saving mode available for your convenience. However you can customize your own power-saving mode by setting different time-out values.

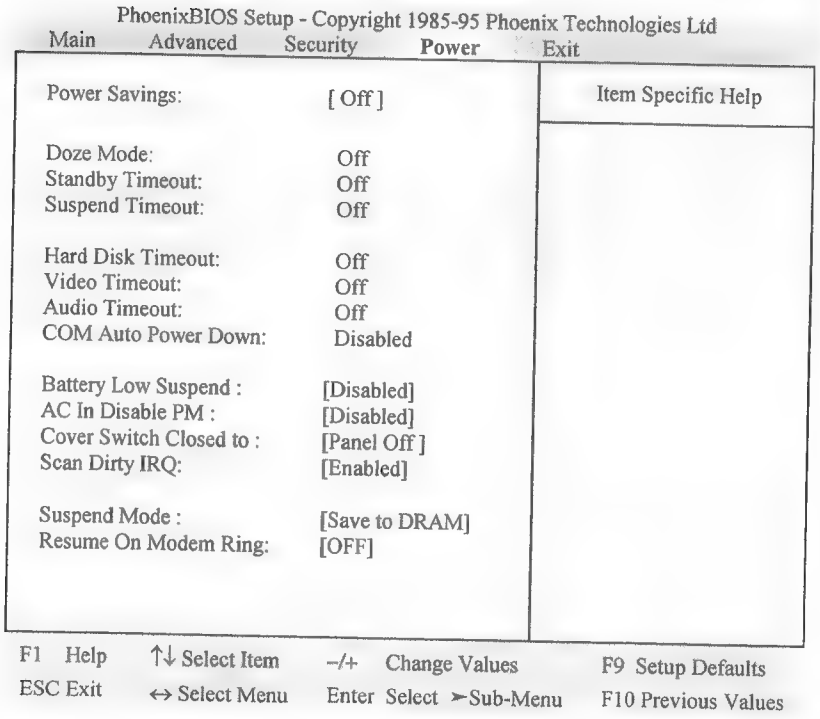


Figure 3-5: The Power Menu

Power Savings
This item allows you to select the power-saving modes *Customize* or *Maximum Battery Life*. The *Maximum Battery Life* mode has a default time-out setting which can't be changed. The *Customize* mode allows you to set the default features individually. To turn off the power management, choose *OFF*.

- **Maximum Battery Life**

Doze Mode	Auto Clock Throttle
Standby Timeout	2 min
Suspend Timeout	1min
Hard Disk Timeout	1min
Video Timeout	1min
Audio Timeout	1min
COM Auto Power Down	Enabled

- **Off**
  All of the above power management time-out values and responses are disabled.

- **Customize**
  You can set the above time-out values to customize your own power-saving mode.

Doze Mode
You can select three Doze Modes: *Auto Clock Throttle*, *Clock Throttle* and *Disable*. With *Auto Clock Throttle* set, the CPU will lower its speed when the system is inactive for a specified time; while with *Clock Throttle*, the CPU lowers its speed whenever the specified time is reached.

Standby Timeout
Sets a specified time for the system to transit from Full power mode to Standby mode. The item can be selected only when Power Saving is set to *Customize*.

Suspend Timeout
A specified time elapses for the system to make a transition from Full power mode or Standby mode to Suspend mode. The suspend timer will start counting in Full power mode if the Standby timer is disabled. The suspend timer will start counting after the system enters Standby mode if the Standby timer is enabled. The item can be selected only when Power Saving is set to *Customize*.

Hard Disk Timeout
This is the amount of inactive time the hard disk encounters before its power is turned off. This timer counter is independent from the other Standby or Suspend timer counters. Hard Disk accesses cause it to go active again.

Video Timeout
Allows you to specify a time-out value if the keyboard, PS/2 mouse and display memory are inactive. If a time-out value is specified, the LCD and backlight are powered off after the specified time of inactivity is reached. The LCD and backlight come back on at the next access of the keyboard, PS/2 mouse or display memory.

Audio Timeout
Allows you to specify a time-out value if the Audio is inactive. If a time-out value is specified, the Audio is powered down after the specified time of inactivity is reached. The Audio turns back on at the next access of the audio I/O.

COM Auto Power Down
Allows you to activate the auto power down function of the COM port. When the system detects the COM port is inactive for a specified time, the COM port is powered down. The COM port will be powered on again the next time it is accessed.

Battery Low Suspend
Your Notebook has two battery low warnings. Turning this item on will force your system to enter *Suspend to Disk* mode when battery low 2 comes in. We suggest you keep this item set to *Enabled* to protect your data from loss when the power is shut down.

AC In Disable PM
Enable this field if you think Power Management is inconvenient or unnecessary when the AC adapter is connected. When enabled the system pauses the Power Management function when the AC adapter is plugged in.

Cover Switch Closed to
Setting this feature to *Suspend* will make the system enter suspend mode when the LCD cover is closed. Setting to *Panel OFF* will disable the LCD display when the LCD cover is closed.

Scan Dirty IRQ Timer
Setting this feature to [*Time Value*] will scan and clean the abnormal IRQ. When running test programs, please keep this setting disabled.

Suspend Mode
The Suspend Mode can be defined as *Suspend to Dram* or *Suspend to Disk*. With *Suspend to DRAM* you can press the PM switch (or wait for the suspend time-out) to have the system status saved in DRAM. Pressing the PM switch will bring the system back. With *Suspend to Disk*, the system will save the system status to the Hard Disk and turn the power off. You can't toggle the PM switch to wake up your computer; you should power on your computer again and it will bring you back to the screen where you were working before *Suspend to Disk* was activated.

☞ The *Suspend to Disk* mode needs space equivalent to your RAM memory size plus 2MB on your hard disk. When you format your hard disk with FDISK, be sure to leave this space un-partitioned for the *Suspend to Disk* section. After leaving the requested un-partitioned space on your hard disk, you need to run a program called PHDISK to recognize this space. Refer to Chapter 7 for more detailed information on the PHDISK program.

Resume On Modem Ring
With *Suspend to DRAM* enabled, setting this feature to *ON* will wake up your system when an incoming call is detected on your modem. This feature will not work if the suspend mode is set to *Suspend to Disk.*

Exit

When all configuration settings are confirmed, select the Exit menu to exit the Setup Program.

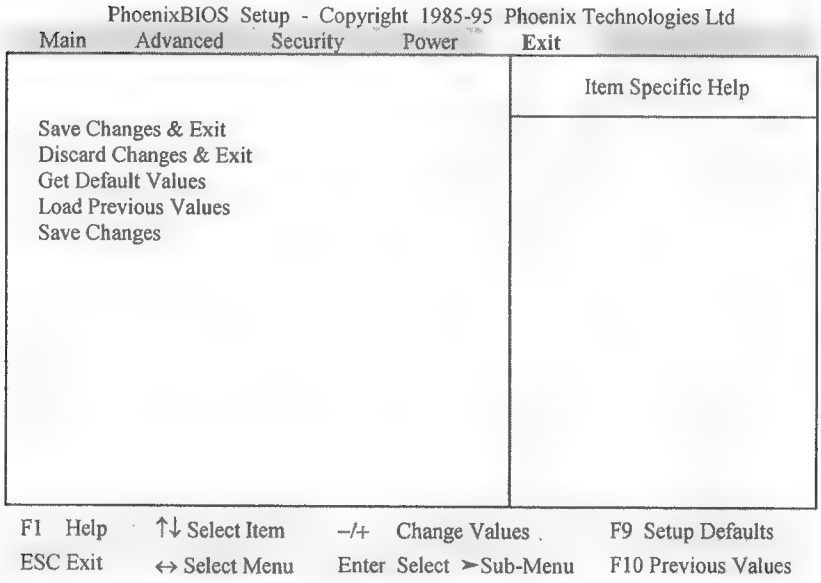


Figure 3-6: The Exit Menu

Save Changes & Exit
If you feel that all the desired changes are correct and you want to save the changes to the system for later usage, choose Save Changes & Exit and the system will save the settings and exit the BIOS program.

Exit Without Saving Changes
If you do not want to change the changes you have made, choose *Exit Without Saving Changes* to quit the BIOS program without saving.

Get Default Values
This setting causes default values to be loaded for all Setup Program settings.

Load Previous Values
Selecting this item will load the previously saved values.

Save Changes
All of the Setup changes will be saved to CMOS without exiting the Setup program.

Restarting Your Computer

Occasionally it may become necessary to restart (or re-boot) the computer because of problems encountered while running a software program (such as becoming caught in an infinite loop). There are two methods to restart your PC, usually referred to as resetting your computer.

Warm Reset

The warm reset (also called a warm boot) is the preferred method for resetting your computer because it requires less power, takes less time, and does not involve using the power switch. Execute a warm reset by pressing the following key combination simultaneously:

[Ctrl] + [Alt] + [Del]

This command will cause all the Random Access Memory (RAM) to be cleared and will reload the operating system.

Cold Reset

If a warm reset fails, you may employ a cold reset (also called a cold boot), which involves turning the computer off and then back on. The power should be left off for several seconds before turning the computer back on.

This concludes Chapter 3. The next chapter covers the operation of your Notebook.

Chapter 4

Operating Your Computer

The Display Device

Liquid Crystal Display (LCD)

The Notebook PC comes with a built-in Dual Scan or TFT LCD display panel with an SVGA (800 x 600) display mode. The LCD screen display quality can be adjusted by changing the LCD panel angle, adjusting the brightness, and on DSTN passive matrix displays, by adjusting the contrast.

☞ To further improve the display resolution for some software applications, refer to Chapter 7 regarding installing SVGA drivers.

Adjusting the LCD Screen

▶ **Viewing Angle Control**

The LCD panel is adjustable through an 180-degree angle. You can adjust the LCD screen to get the best viewing results.

▶ **Brightness & Contrast Control**

Screen brightness and contrast can be adjusted by the following key combinations.

- **[Fn]** + **[↑]** Brightness Increase
- **[Fn]** + **[↓]** Brightness Decrease
- **[Fn]** + **[→]** Contrast Increase
- **[Fn]** + **[←]** Contrast Decrease

You can adjust them to obtain the best view depending on the angle of the screen and the lighting conditions.

☞ If your computer has a TFT LCD, Contrast is fixed.

LCD Care

LCD screens are delicate devices that need careful handling. Please heed the following advice:

- When you are not using the computer, keep the LCD screen closed to prevent dust from damaging the screen.
- If you need to clean your LCD screen, use a soft tissue to wipe the LCD surface gently.
- Do not put your fingers or sharp objects directly on the surface and never spray cleaner directly onto the display.
- Do not press on, or store any object on the cover when it is closed. It may break the LCD.

External CRT Display

You can hook up an external monitor through the 15-pin CRT connector. With the monitor connected, you can toggle [Fn] + [F3] to switch display output from the LCD to the CRT display. For details on connecting an external display, please refer to Chapter 6.

External TV Display

On the rear of the Notebook, there is a TV jack which can change the computer's output signal into a TV input signal (NTSC). If you connect the system to a TV set via this port you can use your Television as a display device. For details about connecting a Television display, please refer to the Chapter 6 section called "Connecting a Television."

Multimedia Features

Sound System

The Notebook comes with a Stereo Sound Card and 3 audio jacks to support a true 16-bit stereo sound system. The stereo sound card enables you to record, store, and play back voices, music and other sounds on your PC. The audio jacks are for external audio device connection.

Audio Input/Output Features

Stereo Speakers
Two stereo speakers function as the system's built-in audio output devices.

Internal Microphone
An internal microphone located at the upper right of the TouchPad is for recording voice, sound and music on the computer.

Earphone jack
There are three audio jacks located on the rear of the computer. The left one is for an earphone or external speaker. The internal speaker is disabled whenever an external output device is connected to the earphone jack.

External Microphone jack
The jack in the middle is for an external microphone. When the external Mic is connected, the internal Mic will be disabled automatically.

Line in jack
The jack on the right is for audio input and can be connected with an audio player or other audio devices.

Audio Control

You can control the audio input and output sources in the following two ways:

▶ Hot Key Volume Control

The following key combinations function as the volume control for the audio input/output.

- **[Fn] + [F4]** Volume Mute
- **[Fn] + [F5]** Volume Decrease
- **[Fn] + [F6]** Volume Increase

▶ Software Volume Control

In Windows 95, you will find a **Volume Control** program for audio control that looks like this.

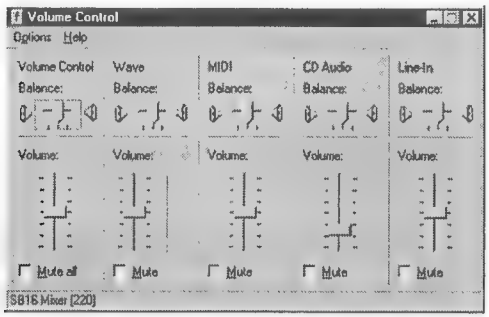


Figure 4-1: Windows 95 Software Volume Control

You can adjust the volume level of a device using the volume slider.

- Drag the volume control slider up to raise the volume and down to lower the volume.
- To change the balance between the left and right speakers, drag the balance left or right.

Another volume control program called "Mixer Control" allows you to combine and manipulate sound from various audio sources. You can select and mix different audio sources during playback and recording.

Figure 4-2: Windows 95 Mixer Control

Playing Multimedia Files

Windows 95 and Windows 3.1 provide several multimedia programs for multimedia file playback. The **Media Player** can play Video CD, Audio CD, and MIDI Sequencer files.

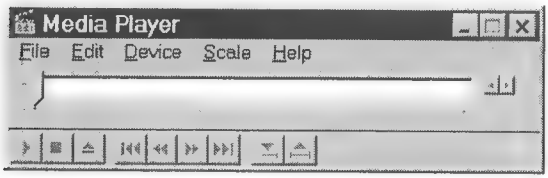


Figure 4-3: Windows 95 Media Player

The **Sound Recorder** allows you to record, edit, and playback sound or music.

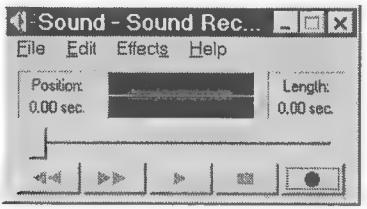


Figure 4-4: Windows 95 Sound Recorder

Your system also comes with similar multimedia programs in the Audio Application. After installing the audio application, you can click the **Audio Application** program groups to open the following playing programs. Program Groups appear as folders on the **Program Menu**, visible after clicking the *Start* button in Windows 95.

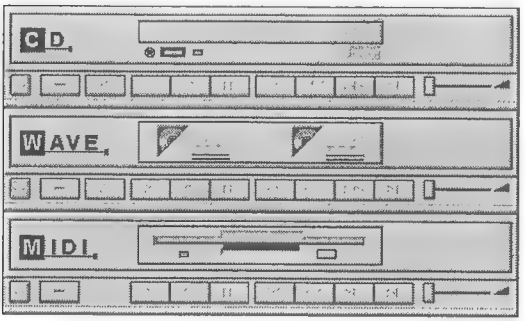


Figure 4-5: Audio Application

You can click the button on the left to access the control menu.

Playing MIDI Files

To play MIDI sequencer files, you can use the Windows **Media Player** as follows:

1. In Windows, open the **Media Player**. Press *Start*, go to *Programs*, *Accessories*, *Multimedia*, and then click on the *Media Player* icon.
2. In the **Media Player** window, select **MIDI Sequencer** from the **Device** menu bar.
3. Pull down the **File** menu bar; then click **Open** to select your favorite MIDI file.
4. To begin playing the MIDI file, click on the  button.

Playing a Video CD with MPEG files

The VGA Controller supports software MPEG-1. You can play a video CD with MPEG encoding after installing the SoftMPEG Driver.

After Installing the SoftMPEG Driver, you can use the Windows **Media Player** to play a video CD with MPEG files

1. In Windows, open the **Media Player** as described above in "Playing Media Files."
2. In the **Media Player** window, select **XXX MPEG Driver** from the **Device** menu bar.
3. Pull down the **File** menu bar; then click **Open** to select your favorite MPEG file.
4. To begin playing the MPEG file, click on the  button.

▶ Instead of the **Media Player**, you can use the installed SoftMPEG program to play MPEG files as well.

Using the MIDI/Game Port

The Notebook provides a standard MIDI/Game port at the rear of the computer for using MIDI equipment or a joystick.

You can connect a Joystick directly to the Notebook for playing games. For connecting MIDI equipment, you have to purchase a MIDI connector to connect the external musical device with the MIDI port. For a detailed connection diagram, refer to "Connecting MIDI equipment or a Joystick" in Chapter 6.

Keyboard Usage

Keyboard Layout

After lifting your screen to an upright position, the keyboard should be visible directly in front of you. It looks like this:

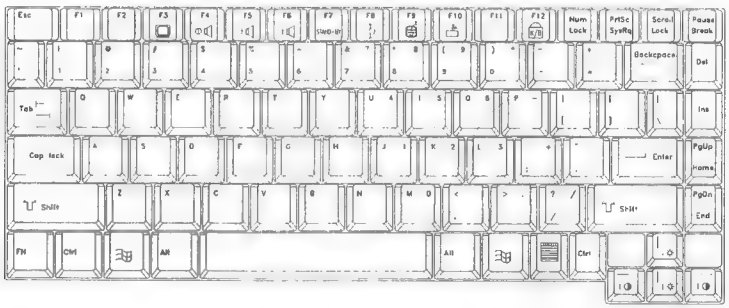


Figure 4-6: The Keyboard Layout

The general layout of the keyboard can be divided by function into four categories as follows:

- alphanumeric (typewriter) keys
- function keys
- cursor and screen control keys
- general control keys

Keyboard Operation

Following is a detailed explanation of your Notebook PC keyboard. If you are already familiar with the operation of standard AT compatible keyboards, you may not need to read this section. However, this keyboard differs from the standard type of desktop computer keyboard in one important respect. Whereas a full-size keyboard has an independent numeric keypad, the Notebook keyboard uses a numeric keypad integrated into the main keyboard layout.

Typewriter Keys

The typewriter key area preserves the same general appearance and layout as a normal typewriter keyboard. However, there are several important differences which should be noted.

Caps Lock: The [Caps Lock] key is functionally similar to the shift lock key on a typewriter. However, the [Caps Lock] key on the computer only affects the letter keys. The shift key must still be used to access the special symbols above the numbers and various punctuation marks.

Shift: The two [Shift] keys located on either side of the keyboard function similar to typewriter shift keys with one exception. While [Caps Lock] is engaged, holding the [Shift] key and pressing a letter will produce the letter in lower case.

Enter: The [Enter] key is similar to a typewriter's carriage return. Some software may reserve special functions for the [Enter] key. In this case, please consult your software documentation for details.

Backspace: This key is on the right side, second row from the top. When you press this key, you will move back one space and delete whatever was in that space.

The Embedded Numeric Keypad

The keypad, as shown below, allows you to access numeric and cursor functions in a keypad configuration.

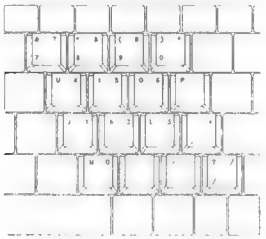


Figure 4-7: The Embedded Numeric Keypad

There are two keys of particular note involved with the use of the embedded keypad:

Num Lock: Located near the upper right side of the keyboard, the Number Lock key is used to activate the embedded keypad function. Activating the embedded keypad will enable you to use the numbers and symbols that are written across the bottom of the keys. To activate the embedded keypad function, you have to press the [Num Lock] key. To deactivate the embedded keypad function, just press it again.

Fn: The [Fn] (Function) key located in the lower left corner of the keyboard, enables the use of the embedded keypad. This key is not a toggle key, which means you must continuously depress this key to use the various control keys.

General Control Keys

Ctrl & Alt: The [Ctrl] (Control) and [Alt] (Alternate) keys, located on both sides of the space bar, are unique to computer keyboards and have no typing function. They are used in combination with other keys, usually simultaneously, to perform various functions. The specific functions you can accomplish with these keys are usually determined by the program you are currently using. For information on their use, you should consult your application software manuals.

Esc: The [Esc] (Escape) key is used by the system and by software for various functions, often for exiting a program or backing out of a command. It is located in the upper left corner of the keyboard.

Enter: Analogous to a carriage return on a typewriter, pressing this key is useful for creating a new line of text and is often used to send an "OK" signal to the computer.

Num Lock: The Number Lock is used to enable the embedded numeric keypad. When you press the [Num Lock] key, the Num Lock icon lights up on the Status Indicator Panel.

PrtSc/SysRq: The [PrtSc/SysRq] (Print Screen/System Request) key, located to the right of the Num Lock key, has two modes. When used alone, it calls a screen dump to the printer. That is, it causes the contents of the screen to be sent to the printer and printed. Some software may use this key in conjunction with the [Alt] key to perform a function similar to a Break. Consult your software manual for details.

Scroll Lock: The [Scroll Lock] key is located at the upper right of the keyboard. When engaged, the Scroll Lock icon on the Status Panel Indicator lights up, the arrow keys become screen-scroll function keys, and the cursor can't be moved with the arrow keys. Pressing the [Scroll Lock] key again will disengage this function.

Pause/Break: The [Pause/Break] key, at the upper right corner of the keyboard, causes a DOS scrolling operation to pause. For example, if you enter "dir" at the prompt (causing a list of files in the current directory of the current drive to be displayed) and the resulting display contains more than one screen of data, the data will scroll up and off the screen. Pressing the [Pause/Break] key pauses the scrolling. Hitting any other key resumes the scrolling. The [Pause/Break] key can be used repeatedly with the same effect. To use Break instead of Pause, ending the current operation, you must press the [Ctrl] key simultaneously ([Ctrl] + [Pause/Break]).

Del: The [Del] (Delete) key, located below the [Pause/Break] key, is similar to the [Ins] key but is used to delete rather than insert text.

Ins: The [Ins] (Insert) key, located below the [Del] key, is software dependent and is usually used by text editing and word processing programs to insert text.

Cursor Control Keys

Arrow keys: The cursor control area is located on the lower right corner of the keyboard. It consists of four keys marked by directional arrows. Pressing one of these keys results in cursor movement in the direction indicated. Holding the key down causes continued movement of the cursor. Some software programs may assign special functions to the cursor control keys. Check your software documentation for more information.

PgUp, PgDn: These two keys allow you to move the cursor on the screen from the page top to the page bottom.

Home, End: These two keys are embedded in the [PgUp], [PgDn] keys, which should be operated together with the [Fn] key. Pressing [Fn] + [Home] will quickly move the cursor to the beginning of a document or a line. In contrast, pressing [Fn] + [End] will quickly move the cursor to the end of a document or a line.

Function Keys

The computer has 12 dedicated function keys across the top of the keyboard. Function keys are software dependent. In other words, they are used in different ways by different software programs and you should consult your software documentation for information on how to use them.

Hot Keys

The system provides some key combinations as a short cut for some specified functions, which can temporarily change the system setup.

PgUp

Fn + PgUp: Home
Pressing this hot key moves the cursor to the beginning of a document or a line.

PgDn

Fn + PgUp: End
Pressing this hot key will quickly move the cursor to the end of a document or a line.

Fn + ← : Display Contrast Decrease
Pressing this hot key decreases the LCD contrast level.

Fn + → : Display Contrast Increase
Pressing this hot key increases the LCD contrast level.

☞ The Display Contrast control is available only when your LCD is a Dual Scan model. TFT displays lack this adjustment.

Fn + ↑ : Display Brightness Increase
Pressing this hot key increases the LCD brightness level.

Fn + ↓ : Display Brightness Decrease
Pressing this hot key decreases the LCD brightness level.

Fn + F3: Display Device Switching
If you connect an external CRT monitor, you can use this key combination to switch among LCD, CRT and LCD/CRT displays.

Fn + F4: Volume Mute
Pressing this hot key mutes the system audio output.

Fn + F5: Volume Decrease
Each time this combination is pressed, the system's sound level is decreased by a single increment.

Fn + F6: Volume Increase
Each time this combination is pressed, the system's sound level is increased by a single increment.

STAND-BY

Fn + F7: Standby Mode
Pressing this hot key sends the system into Standby mode.

Fn + F8: Suspend to DRAM Mode
Instead of pressing the PM Button or awaiting the timer, you can press this hot key to enter the *Suspend to DRAM* mode. However, pressing this key combination again can NOT resume the computer. You should press the PM Button to resume normal operation.

Fn + F9: Suspend to Disk Mode
Pressing this hot key sets your system to *Suspend to Disk* mode.

☞ If you do not leave the un-partitioned space for PHDISK (described in Chapter 7, "Driver and Utilities") and you do not run the PHDISK program, the *Suspend to Disk* mode won't execute. Every time you try to enter *Suspend to Disk* mode, it will enter *Suspend to DRAM* mode instead.

Fn + F10: Pause Battery Warning Beep
When the main battery capacity is less than 5%, a warning beep begins. You can stop the beep by pressing this hot key. Pressing the hot key again will allow the beep to continue.

Fn + F12: Lock the Keyboard
Pressing this hot key will suspend keyboard data transfers. Setting this function can protect your data from unexpected access when you leave your working machine unattended for a while. To resume the keyboard function, key in the user's password.

☞ If you connect an external keyboard, the hot key functions are unavailable on the external keyboard.

Windows Application Keys

Windows logo keys
For the Microsoft Windows 95 operating system, use one of the logo keys in combination with other keys to perform various tasks. In Windows 95, you can press it to launch the task menu instead of clicking the *Start* button.

Application key
This key provides quick access to shortcut menus and help assistants with Windows 95-based applications.

Using the TouchPad

The system is equipped with a TouchPad pointing device, which provides a function similar to that of a mouse.

The TouchPad includes a touch pad and two click buttons. Put one finger tip on the touch pad surface and the cursor on the screen will move concurrently with your finger movement. The two buttons below act just like the left and right buttons of a mouse.

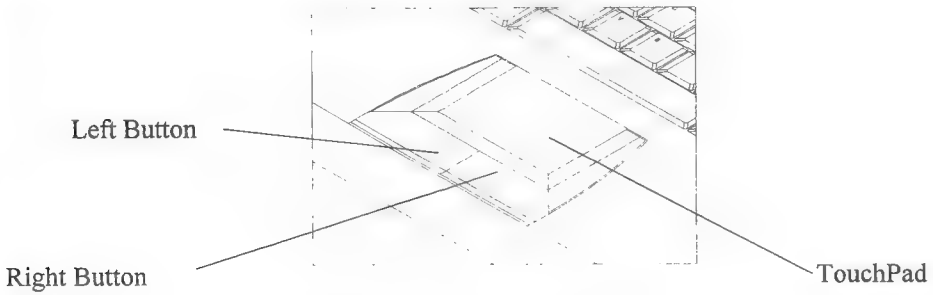
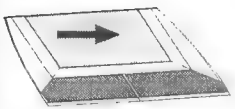


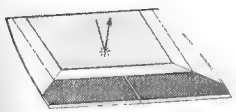
Figure 4-8: The TouchPad

TouchPad Operation

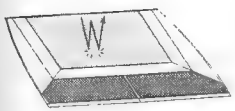
There are four modes of TouchPad operation:



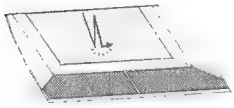
Move and Point
You can move the cursor on the screen by softly moving your finger across the touch pad surface. The cursor will become a pointer when you move it to the item of choice.



Single-Tap
Single-tapping puts an insertion point into your work area. It also can help you to display an optional function or select an item from a display. Move the cursor to the expected workplace or optional item and lightly tap the touch pad surface once. This action can also be accomplished by pressing the left button when you move your cursor to the expected work place or option.



Double-Tap
Double-tapping is generally used when you want to open an icon or to execute a certain item in a list of files. Move your cursor to the desired object and tap the pad twice in rapid succession. The same effect can be achieved by moving the cursor to the desired object and double clicking the left button.



Drag
You can drag an object on the screen by double-tapping, keeping your finger on the pad after the second tap, and moving your finger from the tapped place to the desired place. This dragging operation can also be done by holding down the left button while you move your finger on the touch pad surface.

TouchPad Care

- Use your finger instead of a pen or other sharp object.
- Make sure your fingers are clean and dry before using the TouchPad.
- Use one finger only. If more than one point on the pad is sensed by the TouchPad, it can cause erratic results.
- Finger movement on the TouchPad should be soft and light. The TouchPad is not pressure-sensitive and requires very little force.

The Floppy Disk

The 3.5" 1.44MB floppy disk drive can be removed to install a battery pack in its place. Note that the floppy drive is encased in a special housing unique to the system, hence we will refer to the floppy drive and its enclosure as the "Floppy Disk Pack." If you are ordering a replacement floppy drive for your Notebook, consider whether or not you need the drive housing as well. When purchasing floppy disks (also called diskettes), we recommend you purchase high quality 3.5" high density type disks sometimes labeled "DSHD" for Double-Side, High Density. These are the 1.44MB capacity type.

Inserting and Removing the Floppy Disk Drive

▶ **To remove the Floppy Disk Drive**, do the following:

1. Make sure the computer power is off.
2. Gently place the computer upside down.
3. Slide the security latch to the unlocked position.
4. Keeping the security latch released, pull the Floppy Disk Drive out.

▶ **To install the Floppy Disk Drive**, slide the Floppy Disk Drive into the slot until the security latch locks.

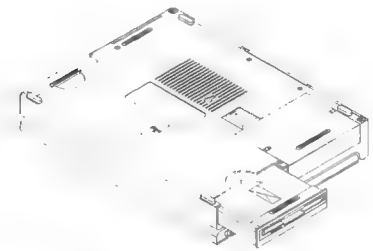


Figure 4-9: The Floppy Disk Drive

Inserting and Removing Floppy Disks

The Floppy Disk Drive is normally set as drive A. To insert a floppy disk, hold the disk with the label facing up and push it into the drive until you hear a click. To remove a floppy disk, make sure the drive is not active and press the eject button to eject the disk. Do not insert a diskette at an angle since it may cause damage to the front of the diskette drive.

Floppy Disk Care

Normal care when using floppy disks consists of keeping them away from dust, magnetic fields and high humidity. For important data, always keep the disk's protective lock on and make a backup copy.

The Hard Disk

The Hard Disk, which is removable, is installed on the left side of the computer and can be upgraded. Note that the hard drive is encased in a special housing unique to the system, hence we will refer to the hard drive and its enclosure as the "Hard Disk Pack" If you are ordering a replacement hard drive for your Notebook, consider whether or not you need the drive housing as well.

Inserting & Removing the Hard Disk Pack

▶ **To remove the Hard Disk Pack:**

1. Turn off the computer.
2. Gently place the computer upside down.
3. Slide the hard disk security latches inward to the unlocked position.
4. With the hard disk security latches released, pull the Hard Disk Pack out.

▶ **To install the Hard Disk Pack:**

1. Make sure the computer power is off.
2. Slide the Hard Disk Pack into the slot.
3. Press the two security latches on the Hard Disk Pack outwards.
4. Check to see if the Hard Disk Pack is firmly locked by trying to remove the Hard Disk Pack. If it can't be moved, you have securely installed it.

☞ If you get a new Hard Disk Pack that is a different capacity than the previous one, don't forget to run the BIOS SETUP Program to change the Hard Disk type.

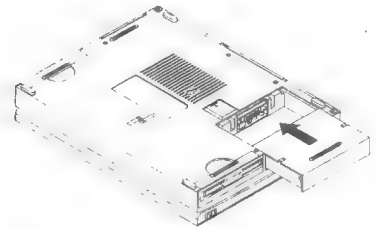


Figure 4-10: The Hard Disk Drive

Hard Disk Setup

The Notebook is completely ready for use out of the box. However, if you want to try an operating system other than the one the system comes with, or if you are starting fresh with a new hard drive, you must first define how the system will use the hard disk. Both Windows 95 and MS-DOS use a program called FDISK to define the partitions and name the logical drives. Check your operating system startup boot disk for the presence of FDISK or a similar partition program. Refer to your software instructions for specific information on how to proceed.

When defining hard drive partitions, you should always make un-partitioned space equivalent to the amount of your system's main RAM memory plus 2 MB. For example, if you have 8 MB RAM, you should at least leave 10 MB free. (Of course, you will want to leave a larger space if you are about to upgrade your RAM.) This space is left for the *Suspend to Disk* mode which is explained in the "Setup Program" section.

Running PHDISK

After leaving the requested un-partitioned space on your hard disk, you need to run a program called PHDISK to recognize this space. If you do not run this program, you will get a nagging error message whenever you boot the system requesting you to run this program. To install the PHDISK Utility, refer to Chapter 7, "Drivers and Utilities."

Installing Operating Systems

An operating system (OS) is the basic software you should install on the hard disk drive. This computer comes with Windows 95. Since operating systems are commercially competing products whose manufacturers sometimes have little vested interest in making their products work with other manufacturers' products, software manufacturers claims of interoperability should be treated with skepticism. You should never install more than one operating system on the hard disk at the same time. Similarly do not attempt to use an application or file "Cross-platform," that is, between competing operating system/hardware standards.

Windows 95 Help

Windows 95 has fairly good online help built in to the program itself. Access Windows 95 online help by clicking *Start*, then *Help*. Consult user groups, online forums and websites. There are numerous classes, books, study aids, and seminars on Windows 95 and Microsoft products in general. Microsoft maintains a wealth of up-to-date information on their Internet website at *www.microsoft.com*. For other operating systems, call their respective manufacturers or consult online forums and user groups.

For help with application software such as word processors, databases, spreadsheets and so on, you may call the respective program manufacturers. Please do not call Notebook dealer for assistance with software other than the software your system originally came with.

Starting From Floppy Disk

You often will start the system software installation with a floppy disk (refer to your OS software manual). Insert the bootable disk of the operating system in drive A to start. The computer will boot and load the system files from the floppy disk.

Hard Disk Format

After creating a partition or partitions on the hard disk, you need to format the hard disk. In MS-DOS, you can use the FORMAT program. Then copy the rest of the operating system files to the hard disk.

☞ Your computer probably has Windows 95 installed. If so, you can skip the above procedure and go on to install your other applications directly.

Installing Other Applications & Utilities

Once you have installed an operating software, you may need to install other application programs or utility programs. Most of these programs are installed automatically.

The best way to install programs in Windows 95 is to use the Add/Remove program feature. Installing programs with this method allows Windows 95 to keep track of installed programs for later deletion. Click *Start*, *Settings*, *Control Panel*, and *Add/Remove Programs*.

These days, most programs install automatically. In automatic installations, you are given a set order in which to insert your diskettes, and each diskette guides you with wizards, offers advice and options, and prompts you to insert subsequent diskettes. "Automatic installation" means the installation software prompts you to make choices and insert diskettes.

Please check with your software installation manuals for further information about installing and running application software.

The CD-ROM

The system is equipped with a removable 5.25" CD-ROM Drive for reading CDs. Like the FDD (Floppy Disk Drive), the CD-ROM Drive can be removed to install a battery. Note that the CD-ROM drive is encased in a special housing unique to the system, hence we will refer to the CD-ROM drive and its enclosure as the "CD-ROM Pack." If you are ordering a replacement CD-ROM drive for your Notebook, consider whether or not you need the drive housing as well.

CD-ROM Driver

Unlike hard disks or floppy disks, you cannot read CD data directly. Prior to reading the CD data, you must install a CD-ROM driver. The utility CD provides a CD-ROM driver which can be installed in both DOS and Windows 3.1 environments. If you are using Windows 95, you may not have to install any CD-ROM driver. Click on *Start*, then *Settings*, *Control Panel*, *Add New Hardware*. For other operating systems, please refer to the manual that comes on the CD included in your Notebook package for driver installation as needed.

Inserting & Removing the CD-ROM Drive

▶ **To remove the CD-ROM Drive**, do the following:

1. Power off the computer.
2. Gently place the computer upside down.
3. Slide the CD-ROM security latches into the unlocked position.
4. With the security latch released, pull the CD-ROM Drive out.
5. When the CD-ROM Drive is withdrawn, the Notebook's spring-loaded CD-ROM slot cover will pop into place.

▶ **To install the CD-ROM Drive**, slide the CD-ROM Drive into the slot. The slot cover will retract. Push the CD-ROM Drive into the component bay until the security latch locks.

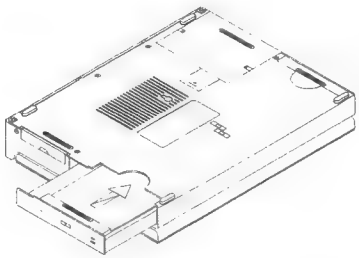


Figure 4-11: The CD-ROM Drive

Inserting CDs

To insert a CD into the CD-ROM Drive, the system's power should be on. Push the CD-ROM eject button. The CD tray will open. Put the CD on the plate with the label side up. Push the CD tray back in. Whether you are inserting or removing a CD, keep your fingers off the CD surface. Handle it by the edges.

☞ The CD-ROM is equipped with a manual release backup mechanism for opening the drive in case it fails to open by normal means. To extend the CD tray, straighten a paper clip (or similar pin) and insert it into the small hole on the front of the drive. The CD tray should extend by itself.

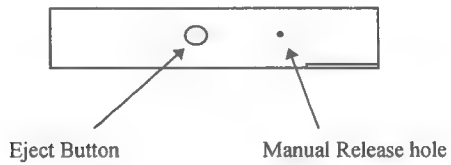


Figure 4-12: Manually Ejecting a CD

Reading CDs

The CD-ROM Drive is drive D by default. However, the CD-ROM is treated as a low priority device by the system. For instance, if you have PCMCIA drivers installed, they take precedence over the CD-ROM. The CD-ROM will always surrender to the designated next priority drive. (See the "How to Use PCMCIA" section later in this chapter.)

CD Types

There are a variety of CD products on the market. They go by various names, such as I-CD, CD-Title, Audio-CD or Video-CD, to name but a few. Before playing a CD, you should determine what type of CD it is, and run a playback program capable of running that type of CD.

Windows 95 comes with an applet (a mini application) that will run different types of CDs. Try it by clicking *Start*, *Applications*, *Multimedia*, and *Media Player*.

Playing an Audio CD

If you haven't done so already, install an Audio-CD playback program and then run the program to display a control panel for you to play the Audio-CD.

Playing a Video CD

☞ If your Video-CD is MPEG encoded, you can install software complying with MPEG standard-1 to playback an MPEG encoded Video CD.

If you haven't already done so, install a Video-CD playback program and run it to execute the file(s) you want to play. When a control panel appears, pull down the file menu to select a file to play.

Reading a CD-Title

To use a CD called "*CD-Title*", usually you install programs designed for CD-Titles to the hard disk. The CD-Title will provide the installation instructions.

CD Care

Compact discs are composed of high density media that must be handled with care and kept clean to ensure that they remain readable. Keep in mind the following to ensure their reliability.

- Always keep your CD enclosed to prevent dust.
- Hold CDs by their edges. Do not touch the surface of the CD.
- Keep the CD surfaces from touching or scraping anything. Do not flex or bend the CD.
- Do not use benzene, thinners, or other cleaners to clean the CD. Use a CD-ROM cleaner kit designed specifically for CDs.
- Do not store or place CDs in direct sunlight.

PCMCIA Use

PCMCIA Slots

PCMCIA cards (also called "PC cards") provide your Notebook with a wealth of computing capabilities. Popular PCMCIA devices include fax modem cards, network cards, PCMCIA hard disks, SRAM cards and flash memory cards. Your Notebook provides two sockets for PCMCIA card insertion. There are three types of PCMCIA cards, identifiable by their thickness. Type I cards are 3.3 mm thick; Type II cards are 5.0mm thick; Type III cards are 10.5 mm thick. The upper socket on your Notebook is called a "Type II slot," and can be used with Type I and Type II cards. The lower one, called a Type III slot, is available for Type I, Type II or Type III cards.

PCMCIA Device Drivers

The included Phoenix PCMCIA drivers provide the end-user all the interfaces and resources that are required for running PCMCIA devices. These drivers are Plug and Play solutions for both the DOS and Windows environment. These drivers will be on your SYSTEM DISK. Please refer to Chapter 7 to install the drivers before using the PCMCIA cards.

How to Use PCMCIA Cards

Inserting PCMCIA Cards

There are two sockets (slots) and two eject buttons for PCMCIA cards in the compartment on the right side of your Notebook.

- The lower socket (Socket 0): You can insert a Type I, Type II or Type III PCMCIA card into this socket.

- The upper socket (Socket 1): you can insert a Type I or Type II PCMCIA card into this socket.

When a PCMCIA card is properly inserted,  will appear in the Status Indicator Panel after 1-second and an audible beep can be heard.

- The PCMCIA card is configured as
  Socket 0 (lower socket) = Drive D.
  Socket 1 (upper socket) = Drive E.

- If your CD-ROM Drive was originally set as D, it will surrender to the next available drive when either PCMCIA socket is accessed. In this case, the CD-ROM becomes Drive F.

If it does not surrender to the next available drive and always shows an error message saying there are not enough LETTERS for your drives when you try to access drive F, then you should go to your CONFIG.SYS file to change the command line to read

LASTDRIVE = *X*

Where X should be the at least the same as the last drive needed on the system (for example, F).

Card and Socket Services

The System's accompanying Phoenix Utility provides Card Services and Socket Services for you to verify your system socket status and the installed card type. You can install the Utility and view the recognition of your PCMCIA cards in Windows 3.1 or Windows 95. Following are examples for both Windows 3.1 and Windows 95.

▶ **Windows 3.1:**

Double click the PhoenixCard Manager icon in Program Manager. Open the "PCM Card Comp Utility" icon. The following display occurs to show the socket status and the PCMCIA card type:

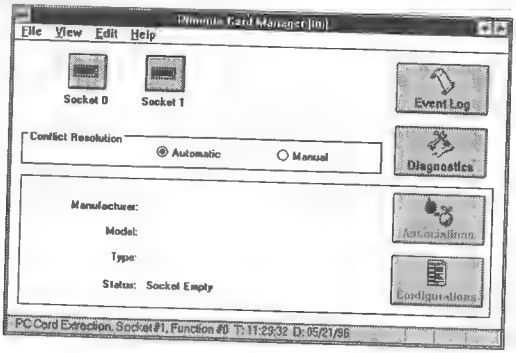


Figure 4-13: The PhoenixCard Manager

▶ **Windows 95:**

Click *Start*, then *Setting*, then *Control Panel*, then double click the *PC Card* (PCMCIA) icon. The screen that appears will describe the PC Card configuration.

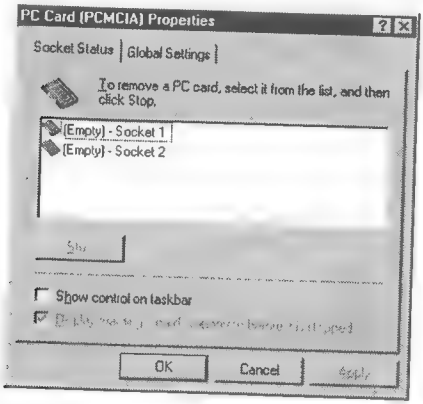


Figure 4-14: PC Card Properties

Infrared (IrDA)

Your computer is equipped with an infrared communication port that allows point-to-point communication with other computers or devices equipped with an infrared port. The port inlet is a small black square on the back of the system that looks like an infrared port for controlling a VCR with a hand remote.

Preparing for Infrared Communications

The Infrared Device Driver

Before using the infrared communication feature of your Notebook, you must first install an infrared device driver and an infrared communication program. At the time of this writing, W95IR.EXE infrared drivers for Windows 95 are available from Microsoft (http://www.microsoft.com). Your IR devices may provide different device drivers. Please refer to the user manual of your IR device to install the driver or consult your IR device dealer for assistance.

Setting the IrDA Port in Setup

The IR port shares the same address with Serial Port B (COM 2). To enable IR communications, you should set the Serial Port B as an IR interface. Go to the PhoenixBIOS Setup Program; choose the "Advanced" menu; highlight the "Integrated Peripherals" field and press [Enter] to go to a sub-menu with several port address setting features. Select the address and IRQ for **IrDA Port**. You can choose AUTO to let the computer set them automatically.

Using Infrared

After installing the IrDA device driver and communication program, your computer is equipped for IR communication. IR data transfers use infrared rays instead of connecting cables. When using this feature, please consider the following:

1. Make sure your IR ports **face each other directly** within a maximum communicating distance of 3.3 feet. Avoid placing objects between the two IR ports. Objects between the IR ports will block the signal.
2. Please run the same version of the application software to communicate between your computer and other devices. Note: Infrared communications software technology is still under development at the time of this writing. You may encounter glitches.
3. There is a possibility of interference from ambient light. Avoid the use of IR communication during bright sunshine or artificial lighting conditions.

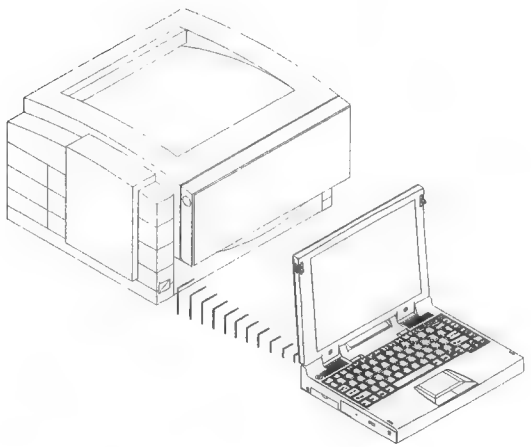


Figure 4-15: Using Infrared

Using Security Locks

Device Security Latch

Use the Device Security Latches to protect the removable devices of the Battery, CD-ROM Drive and Floppy Disk Drive from sliding from the bays. Two Security Latches on the bottom of the computer are designed to keep component bay devices secure. To remove the device, you should slide the latch to its other end to release the device lock.

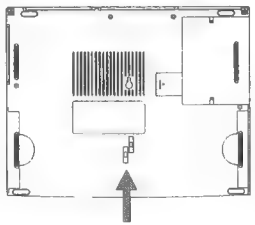


Figure 4-16: The Device Security Latch

Kensington™ Security Lock

To protect your computer against theft, attach a Kensington™ security lock or comparable lock to the Lock keyhole on the rear of the computer; then secure the chain on the lock to a stationary object, like a desk.

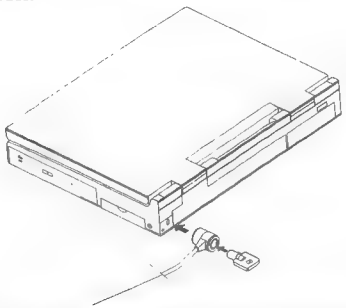


Figure 4-17: The Kensington™ Security Latch

This concludes Chapter 4. Chapter 5 covers Power Management.

Chapter 5

Power Management

Power is precious. One of the key features that distinguishes Notebook computers from stationary computers is the ability to run under their own power. This power is not generated internally, but comes from a battery, which can be removed and exchanged with another fresh battery. It can be charged with the system off; it can even be charged while the system is running (slow charging) or charged with a special external charger. However, the main battery is not critical for running your system. You can remove the battery and run it straight from the AC power (what the British call "the mains"). With proper care, batteries can last a long time. Keep your battery charged. Never keep a dead or damaged battery in the system, which can cause corrosion and be expensive to repair.

AC Power

You can run your computer with an AC adapter drawing its operating power from any standard electrical outlet. The AC adapter automatically senses the incoming voltage and adjusts it to the suitable voltage accordingly. It serves the dual function of providing power to the system and providing power to the battery pack for charging. If a non-fully charged battery pack is installed, the AC adapter can charge the battery and simultaneously power your computer.

Setting Up the AC Adapter

The AC adapter contains two parts. One is the adapter, which has a cable attached, the other is the power cord. To set up the adapter, connect the power cord to the adapter; then plug the other end of the power cord to a grounded outlet; finally connect the power cable to the DC-IN jack on the right side of the computer.

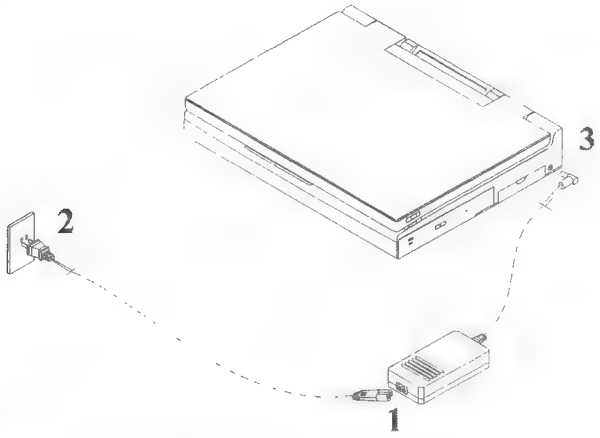


Figure 5-1: Connecting the AC Adapter

☞ To remove the AC adapter cable from your computer, it's better to pull from the connector. Pulling the cable may result in connector damage.

When Accessing AC Power

When you connect the AC power cord to a grounded outlet, you will see the "AC-IN" icon (represented by a plug) light up on the Status Indicator Panel. If the icon doesn't come on, check if you have properly connected the power cable to the computer's power jack.

☞ Some AC adapters have one LED indicator which will glow green when AC power is being drawn upon.

The Battery Power

If an external power source is not handy, you can run your computer with a battery pack specially designed for it.

The Battery Pack

Nickel Metal Hydride Battery Pack

The computer comes with a removable Nickel Metal Hydride (NiMH) battery pack which can be installed in place of the floppy disk drive or CD-ROM drive. A fully charged battery can provide power to your Notebook for at least 90 minutes without any external power source. With the use of additional power saving features, it can provide power for a much longer period of time.

The Optional Battery Pack

Second Battery Pack
The computer comes with an optional second battery pack. You can install one battery in the place of a floppy disk drive and a second battery in the CD-ROM drive bay. With two batteries installed, the Notebook can work about twice as long without an external power source.

Lithium-Ion Battery Pack
Your Notebook can use another battery called the Lithium-Ion type battery pack, which is lighter and has a higher capacity than the NiMH battery. For optional battery packs, contact your dealer.

Charging the Battery

Charging via AC Adapter

The battery can be charged via AC adapter regardless of whether the power switch is on or off. Simply keep the empty battery in your Notebook with the AC adapter attached and charging will occur. It takes about two hours to fully charge an empty battery with computer power off, and about three hours (depending on how intensively you are using your computer) with the computer on.

You don't need to worry that the battery will over-charge because the charger automatically terminates charging when the battery is fully charged.

Before Charging a New Battery

Before charging a new battery, please verify its power capacity. First check the indicator lights on the battery icon on the Status Indicator Panel to determine the level of any existing charge. If the charge is greater than 20% (and more than one indicator light will be lit if it is), please discharge the battery (the last indicator light will be flashing). This action can help the new battery become charged to maximum capacity on the first charging.

Breaking in a Battery

The first few times you charge a battery, charge and discharge to its fullest capacity. Charging and discharging your battery fully is a good habit, because it will let your battery "remember" its full status and its depleted status for its maximum capacity and usefulness.

The Charging Sequence

If you have two batteries installed, the adapter will charge the higher capacity battery first, and then the lower one. With one battery charged, if you insert the other battery, it will charge the first battery to its full capacity and then will charge the other battery to its full capacity. When the battery being charged is removed, the system will charge the other battery or stop charging if the battery is full.

Battery Charge Indicator Lights

When the battery is being charged, the frame of the battery icon on the status panel will flash. Also you can check the 5 indicator lights on the battery pack indicating the current battery power level. Each light represents 20% of the whole battery charge capacity. When you take the battery out and press the button on the battery pack, the indicator lights will be lit to the current battery power level.

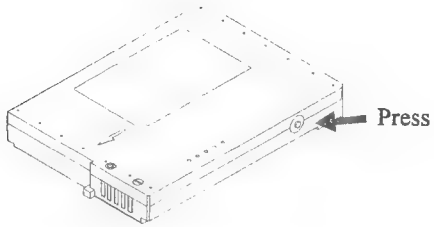


Figure 5-2: Battery Charge Indicator Lights

Recharging an Over-exhausted Battery

When your battery goes to critical low capacity, you should exchange it with a fresh battery immediately to continue your work. If you don't intend to continue your work, save the work and take the low capacity battery out. Never keep a low capacity battery in your Notebook for over two weeks since your system will keep drawing power from the battery until the battery is totally exhausted, and it takes a long time to recharge an over-exhausted battery.

If you have an over-exhausted NiMH battery, follow this sequence to attempt to revive it so that it will accept a charge.

1. Plug in the AC adapter to recharge the battery for at least half an hour.
2. Check to see if at least one of the battery indicator lights flashes.

☞If there is no reaction after a half hour of charging, try it for another half hour. If the battery still doesn't react, you must assume your battery is completely dead, and beyond reviving. Contact your dealer for assistance.

3. If the battery appears to be charging, keep charging the battery to its full capacity, then disconnect the AC adapter.

Battery Low Warning

The Notebook is designed to provide two levels of warning when the battery is low on power. These warnings remind you to stop operating and save your work so you won't lose any of your data. The two levels of warning are explained as follows:

Battery Low Level 1

The first level of warning occurs when there is 5% remaining power left, which can supply the system for 10-15 minutes' worth more power. When this level is reached, the speaker will beep every 8 seconds. Stop and save your data to your hard disk or floppy disk as soon as possible.

Battery Low Level 2

The second level of warning occurs when critical low power level is reached. At this level, the system will give a *Beep* warning, and then enter *Suspend to Disk* mode. At this stage you are forced to stop your work. Insert a fresh battery or use the AC adapter to continue your work.

☞ The battery low warning beep may be distracting when you want to complete the work directly. In this case, you can disable the warning beep by pressing [Fn] + [F10]

Battery Low Suspend

Your Notebook supplies you with two battery low warnings to prompt you to reach a new power source or save current data. To further protect data loss by power shut down, you can set Battery Low Suspend [Enabled]. When battery low 2 comes on the system will be forced to enter *Suspend to Disk* mode. Your data will be saved to disk before powering down.

In case you do not partition your Hard Disk for *Suspend to Disk*, when Battery Low 2 is reached, your system will be forced to *enter Suspend to DRAM* instead of *Suspend to Disk*. However you must replace the battery or reach the AC adapter as soon as possible, since the remaining power cannot sustain your computer in *Suspend to DRAM* mode too long. Otherwise when the battery power is consumed, the data suspended in DRAM will be lost too.

Exchanging the Battery

When battery power is depleted, you can exchange a fresh battery pack to continue your work. Take a fully charged battery pack and follow the steps below to exchange the battery pack.

1. Save your work and quit the program you are running. Exit your operating system.
2. Turn off the computer.
3. Remove the depleted battery.
4. Insert the fully charged battery with the label side up.
5. Turn on the computer to continue.

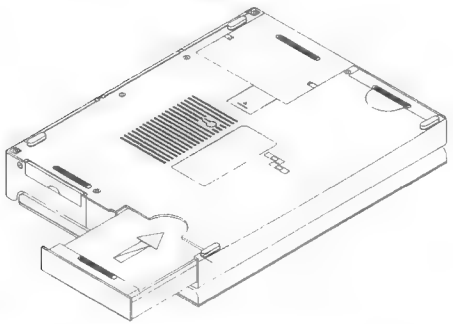


Figure 5-3: Exchanging the Battery

Power Management

Your Notebook has a number of Power Management functions which can be adjusted from within the BIOS Setup Program. You can set the time-out to a specified Power Management mode for some components, or you can set those modes for special situations, like low battery capacity, or key reassignment.

Power Management Modes

There are 5 Power Management modes: Full Power, Doze Mode, Standby Mode, Device Power Down Mode, and Suspend Mode. Different situations (such as battery low) and component configurations with those modes will have different power saving effects.

Full Power

In this mode, each component operates on full power.

Doze Mode

When the doze mode is enabled, the CPU runs at full frequency for a pre-defined time period and then stops for a pre-defined time period. Any system break event will reload the timer and resume the system back to full power status.

Device Power Down

The back light, LCD panel and hard disk can be set to power down after they have been inactive for a specified time. When any of these devices are re-accessed, they will resume to full power operation immediately.

Standby Mode

In Standby mode, your hard disk stops and the LCD turns off. When any key is pressed, it will resume to full power operation.

You can enter Standby mode by

- setting the Standby timer
- pressing hot keys [Fn] + [F7]

Suspend Mode

There are two types of Suspend mode that the user can select in the BIOS Setup program.

Suspend to DRAM
When this mode is entered, all tasks are stopped and stored in DRAM and most devices are turned off. Pressing the PM switch will resume the computer to full power mode and all tasks will be restored immediately.

Suspend to Disk
In *Suspend to Disk* mode, the system saves the current tasks to the hard disk and powers down. To resume your system you must turn on your computer again. When you turn your computer on, all tasks you were working on before the system entered Suspend to Disk will be restored from the hard disk. Remember to create the *Suspend to Disk* file space before using this mode (see "*Suspend to Disk* Mode" on the following pages).

You can enter the Suspend Mode by:

- Setting the Suspend timer
- Pressing the PM switch
- Pressing [Fn] + [F8] to enter "*Suspend to Dram*"
- Pressing [Fn] + [F9] to enter "*Suspend to Disk*"
- Setting Battery Low Suspend to enabled

BIOS Power Management Options

With the aforementioned power management modes, you can set the computer to enter power saving mode automatically when the computer is inactive for a specified period of time. You can also choose which Suspend mode your computer will enter when the specified time-out is reached. The system is already pre-set with one standard power-saving mode for your convenience. You can also choose *Customize* to set the timer for each feature independently as you prefer.

- **Maximum Battery Life**

Doze Mode	Auto Clock Throttle
Standby Timeout	2 min
Suspend Timeout	1min
Hard Disk Timeout	1min
Video Timeout	1min
Audio Timeout	1min
COM Auto Power Down	Enabled

- **Off**

  All above power management time-outs and responses are disabled.

- **Customize**

  You can set the above time-out to customize your own power-saving mode.

PM Switch

Function as Button Switch

To maximize power savings when you want to leave the system alone for a short while, press the PM (Power Miser) switch to launch the power-saving mode immediately. If you want your computer to take a break whenever you take a break, you can set up your Notebook so that depressing this switch causes the system to enter *Suspend to DRAM* mode. When you are ready to use your Notebook again, just press the PM switch. Everything will return to the previous state in about 2 seconds.

If you want to turn off your computer whenever you are away, you can set this switch to *Suspend to Disk.* In *Suspend to Disk* mode, when you press the PM switch the system will save your present data to the hard disk and power off. Unlike the *Suspend to DRAM* mode, you can't simply toggle the PM switch to resume your computer; you must turn on the power again. Doing this will bring you back to the screen where you were working before entering *Suspend to Disk.*

If you prefer, instead of pressing the PM switch, you can use hot keys to enter *Suspend to DRAM* mode or *Suspend to Disk* mode.

- [Fn] + [F8] Enters *Suspend to DRAM* Mode
- [Fn] + [F9] Enters *Suspend to Disk* Mode

Function as Cover Switch

When you close the Notebook cover (or press the PM switch for over 3 seconds) your system will enter Suspend mode or Panel Off status.

In Panel Off status, the LCD panel turns off and the CRT display turns on. When you re-open the Notebook cover, the LCD display comes back. This function is convenient when you operate the Notebook with an external monitor. You can close the cover to save space.

For "Suspend to Disk" Mode

Leaving Un-partitioned Space

☞For more information about FDISK, please refer to the user's manual of your Operating System

The use of *Suspend to Disk* mode requires space on the hard disk. Figure on allowing space on the hard disk equal to the amount of RAM in your system plus 2MB on your hard disk. When you format your hard disk with FDISK, be sure to leave this space un-partitioned for the *Suspend to Disk* function. Remember this easy formula:

MBs of RAM + 2MB= Megabytes of hard disk space needed.

e.g.,
Using the above formula with 8MB RAM

8MB + 2MB= 10MB

☞ Remember to reserve more space if you are going to upgrade the Notebook's memory capacity. Use the same formula.

Running PHDISK

This program is used to recognize the un-partitioned space for the *Suspend to Disk* power savings function mentioned above. If this program has not been run on your system, an error will always occur to request you to run this program whenever re-booting. To install the PHDISK Utility, refer to Chapter 7 "Utilities and Drivers."

☞ If you didn't leave the un-partitioned space and didn't run PHDISK, the *Suspend to Disk* mode won't execute. Every time you try to enter *Suspend to Disk* mode, it will enter *Suspend to DRAM* mode instead.

Advanced Power Management

APM (Advanced Power Management) is a power saving system which comes with your operating system. Each operating system has its own APM. APM allows you to reduce power consumption when your applications or devices are not active within a specified time.

APM Under DOS

If you are using OS/2 or DOS, APM is automatically installed when the installation program detects that the power-management function is installed on your computer. When you are using DOS, type "power" at the command prompt and press [Enter]. A screen similar to the following appears showing the APM status.

```
Power Management Status
-----------------------------------
Setting = ADV: MAX
CPU:  idle 95% of time.

AC Line Status : OFF LINE

Battery status : High

Battery life (%) :
```

If APM is not installed, when you type "power" it will advise

```
Power Management (POWER.EXE) not installed.
```

Go to the CONFIG.SYS file to add the following command line:

```
DEVICE = C:\DOS\POWER.EXE   ADV:MAX
```

APM Under Windows

If you are using Windows, you should enter the Windows Setup to enable APM.

Windows 95

Windows 95 will set APM to its default value automatically upon installation. If you need to change the setting value, open the **Control Panel**; select *Power* to change the value:

1. Click *Start*, then go to *Settings*, then *Control Panel.*
2. Double click the *Power* icon.
3. After the setting change, the system will reboot automatically.

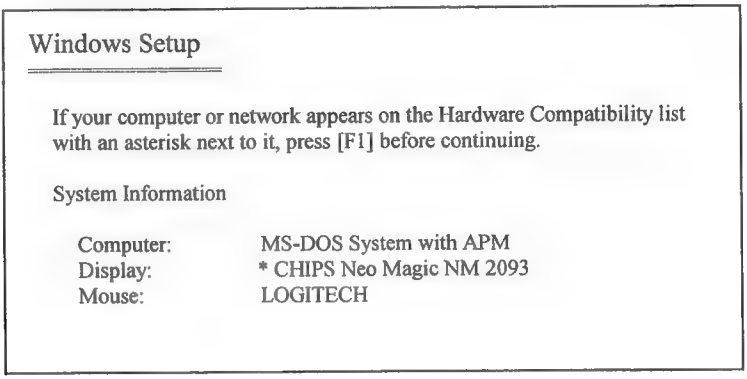
Windows 3.1

When using Windows 3.1 or earlier versions, go to Windows Setup and select the APM feature to set the APM function.

1. Change the active directory to Windows.
2. Type SETUP at the command prompt and press [Enter]. You will enter Windows Setup.
3. Use [↑] [↓] to highlight

   Computer: MS-DOS System

   and press [Enter].
4. Use the [↑] [↓] keys to search the MS-DOS System with APM. When you find it, highlight it and press [Enter].
5. The item "Computer" changes to MS-DOS with APM on the screen.
6. Press [Enter] and follow the instructions to insert Windows disks to load the necessary files for APM. Then reboot your computer.



Important Notice

Due to global environmental concerns, this computer has "Green PC" power savings features such as APM (Advanced Power Management). Unfortunately, some application programs do not support APM features. In such cases, these programs might fail to install or operate properly. If you still need to install such non APM-compliant programs, please disable the APM before installing them.

This concludes Chapter 5. Chapter 6 covers the Notebook's expansion options.

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Chapter 6

Expansion Options

Connecting Peripheral Devices

External Serial Mouse or Other Pointing Devices

Some people prefer to use a traditional mouse instead of the built-in TouchPad. In some graphics applications, you may need other pointing devices. Your Notebook allows you to connect an external serial mouse/pointing device to the serial port. The connecting procedure is as follows:

1. Connect the external mouse/pointing device to the serial port on the rear of the Notebook.
2. Access the BIOS Setup program. In the "Advanced" menu, in the Integrated Peripherals item, set the Pointing Device (PS/2 Mouse) to *Disabled.*
3. Install the mouse/pointing device driver software.
4. Reboot your computer. The computer will activate the external pointing device.

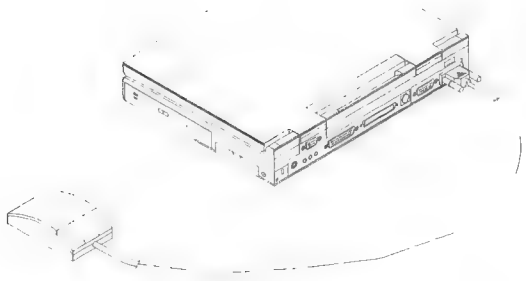


Figure 6-1: Connecting an External Mouse

Printers

Almost any parallel printer with the standard Centronics interface can be connected to the 25-pin parallel port at the rear of the computer.

1. Turn off the computer.
2. Connect the printer's parallel male connector to the 25-pin parallel port at the rear of the computer.
3. Turn on the computer and the printer.

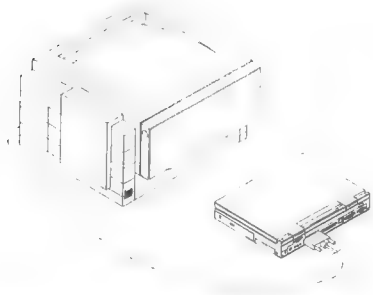


Figure 6-2: Connecting a Printer

If your printer has an IrDA port, you can use Infrared communication instead of a cable connection to do transfer data for printing. For more details about IrDA, refer to Chapter 4.

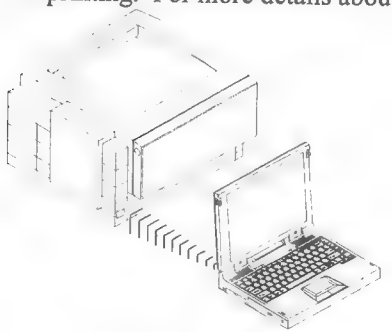


Figure 6-3: Using IrDA

MIDI Equipment or Joystick

Turn off the computer and connect the Joystick to the MIDI/Game port. MIDI equipment needs a MIDI connector to connect musical instruments to the MIDI/Game port.

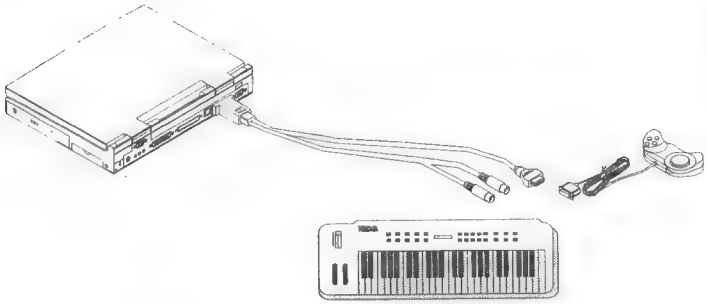


Figure 6-4: Using MIDI Equipment

Audio I/O Jacks

Three audio jacks are located at the rear of the computer. The left one is for an earphone or external speaker. The jack in the middle is for an external stereo microphone (**mono** support is not available). The jack on the right is for audio input which can be connected with an audio player or other audio devices.

☞The internal speaker will be disabled whenever an external output device is connected to the earphone jack.

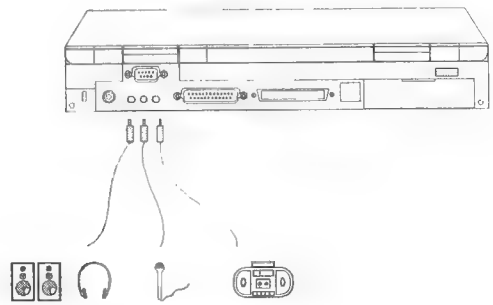


Figure 6-5: The Audio I/O Jacks

External PS/2 Keyboard/Mouse

A 6-pin connector on the rear of the Notebook is available for an external PS/2 keyboard/mouse. You can connect the external keyboard/mouse to the port and the computer will automatically detect the system to activate the device.

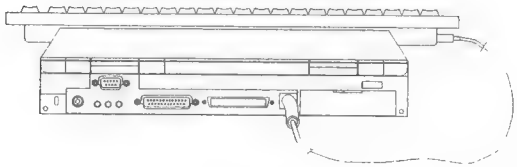


Figure 6-6: The External PS/2 Keyboard

Television Display

To use the TV jack for connecting a Television set for use as an auxiliary computer output device, do the following:

1. Turn off the computer. Remove the battery. Disconnect all power sources.
2. Connect the video in/out cable to the Notebook TV jack; then connect the other end to the video input of your television.
3. Install the TV device driver to activate the TV display.

External CRT Monitor

You can connect virtually any external VGA or SVGA PC monitor to this computer. The port you use is a standard 15-pin analog connector located at the rear of the computer. To connect a desktop monitor, follow these instructions:

1. Position the monitor on the desk beside your Notebook PC.
2. Connect the monitor's 15-pin male connector via the monitor's video cable to the CRT connector on the Notebook.
3. Connect the monitor to a suitable power source and turn it on.
4. Turn the Notebook power on. The system will detect and select the CRT display. You can use the Display switch keys [Fn] + [F3] to toggle between the LCD display and the CRT display.

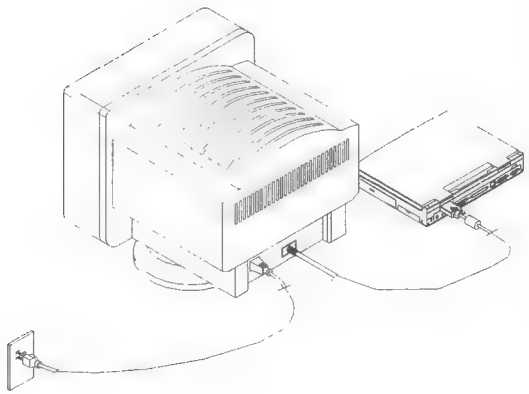


Figure 6-7: Connecting an External Monitor

Port Replicator

Port Replicator

Combine the words "replace" and "duplicate" and you get "replicate." With a port replicator, you don't need to remove attached devices like printers and monitors one by one. The Port Replicator duplicates all the device ports on the Notebook and replaces them with a centralized unit that you can detach from the Notebook, saving the user from having to contend with a Gordian knot of wires. Attach all the device cables to the ports on the Replicator and the Replicator attaches to your computer through an expansion port. To remove all the attached devices, simply detach the Notebook from the Port Replicator. Very convenient.

☞ If you are interested in a Port Replicator, consult your dealer for further information.

Upgrading Components

CPU

To improve your computer's performance, you can replace the CPU with a faster one. Since the CPU is an expensive and easily damaged part of a computer, we suggest that it be removed by experienced technicians only. Call your dealer for assistance.

Warning: Never force anything. Damage to your system caused by replacing your CPU will void your system's warranty. Read the follow section fully before attempting a CPU upgrade.

Removing the CPU

1. Slide the keyboard latches outwards and lift the keyboard panel.
2. Remove the heat sink.

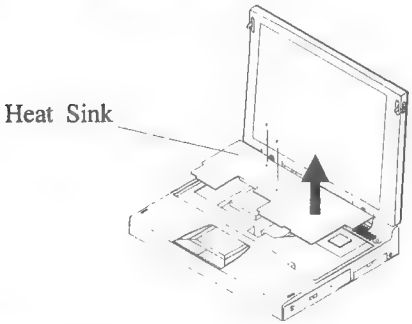


Figure 6-8: Removing the Heat Sink

1. Locate the CPU position.
2. The CPU is installed in a CPU socket. The socket has two notches marked OPEN and CLOSE respectively.

3. Insert a screwdriver into the OPEN notch and push it towards the left.
4. A quiet popping sound is heard when the CPU is released from the socket.

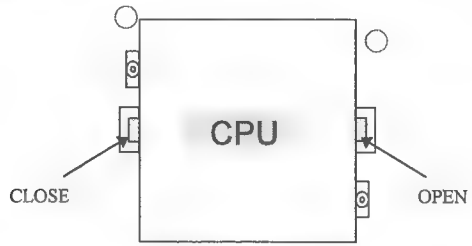


Figure 6-9: Removing the CPU

Inserting the CPU

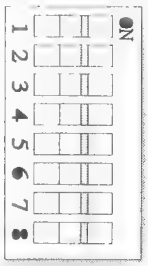
1. Place the CPU on the socket with the notched edge on the upper left side.
2. Insert a screwdriver into the CLOSE notch and push it towards the right.
3. Make sure the CPU is firmly installed.
4. Adjust the DIP switch on the lower right side of the RAM socket, according to the new CPU's specifications.

CPU DIP Switch Adjusting Table

CPU Type	Switch Position			
	1	2	3	4
90 MHz 60 x 1.5	ON	-	-	-
100 MHz 66 x 1.5	-	-	-	-
120 MHz 60 x 2	ON	-	-	ON
133 MHz 66 x 2	-	-	-	ON
150 MHz 60 x 2.5	ON	-	ON	ON

CPU Voltage	Switch Position			
	5	6	7	8
2.5V	-	-	-	ON
2.9V	-	-	ON	-
3.1V	-	ON	-	-
3.3V	ON	-	-	-

DIP Switch



Hard Disk

You may find that you need a higher capacity hard disk. Your Notebook provides an easy way to replace the hard disk. You can replace your hard disk by following these instructions

1. Be sure the computer power is off. Remove the battery. Disconnect the system from any power source.
2. Take the hard disk pack out.
3. Loosen the two screws on both sides of the hard disk connector to separate the cover case from the hard disk.
4. Loosen the screws on the bracket and separate the bracket from the hard disk.
5. Remove the interface connector from the hard disk.
6. Reconnect the interface to the new hard disk and place the new hard disk in the computer.

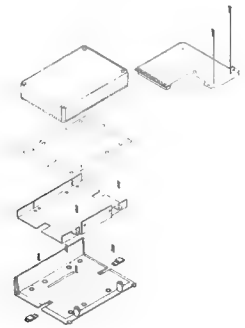


Figure 6-10: Replacing the Hard Disk Drive

7. Before you can use your new hard disk you may need to change the hard disk setting in the BIOS SETUP program and install the operating system. If you have chosen **AUTO** (autodetect) for your hard disk setting, you don't have to reset the hard disk — the system will detect it automatically.

RAM

You may need to add to your system's RAM (Random Access) memory. To add more memory, you can simply plug in RAM cards which are available in 8, 16, 32MB capacities. If you are an experienced computer user, refer to the following procedures to install a memory card.

Warning: Never force anything. Damage to your Notebook caused by replacing your memory will void your system's warranty. Read the following section fully before attempting a memory upgrade.

Removing the RAM Cards

You will not have to remove any RAM cards if you only have a total of 8MB RAM.

1. First of all, make sure the computer power is off. Remove the battery. Disconnect the computer from any power source.
2. Open the keyboard panel.
3. Remove the heat sink, which is the flat aluminum plate secured by several screws.

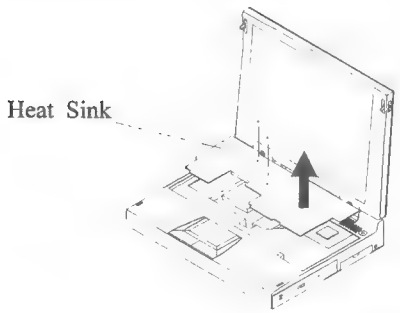


Figure 6-11: Removing the Heat Sink

4. Locate the RAM socket.

5. Press the edges of the slot outwards until the front of the card pops up. Then the RAM card can be taken out by sliding it towards you. After removing the upper RAM card, the lower one can be removed in the same way.

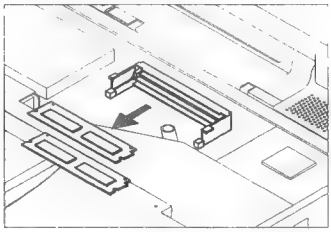


Figure 6-12: Removing a RAM Card

Installing RAM Cards

1. The RAM card has one notched end. Hold the new RAM card with the gold pins towards the socket and the notched end to the right. Insert the card into the connector of the lower slot at an angle (approximately 35 degrees from horizontal) and then push it down into the slot.

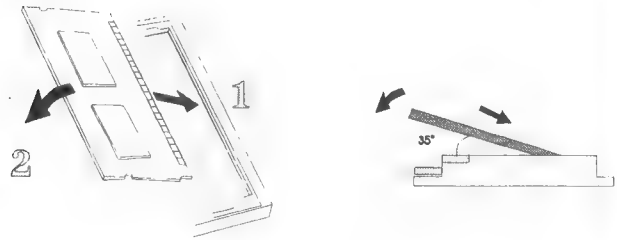


Figure 6-13: Installing a RAM Card

2. Follow the same method to insert another RAM card into the upper slot.

☞The system supports 3.3V standard/EDO DIMM RAM. Please be aware that the two installed RAM cards should be of the same size and composition. That is to say if the first RAM card is 16MB and composed of 2MB x 8. The second one not only should have the same capacity, 16MB, but also should be composed the same way, 2MB x 8. (1MB x 16 would not work properly.) Call your Notebook dealer if you have questions about the correct RAM for your system.

This concludes Chapter 6. Chapter 7 covers the Notebook's Utilities and Drivers.

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Chapter 7

Utilities & Drivers

Installing System Utilities

Running PHDISK

After leaving the required un-partitioned space on your hard disk, you need to run a program called PHDISK to recognize this space. If you don't run this program, an error will always occur on boot up requesting that you run this program.

To install the PHDISK Utility, follow these steps:

1. Go to the DOS prompt. (Windows 95—Click *Start* move the cursor to *Programs*, then click the MS DOS Prompt icon.)
2. Insert the utility CD into the CD-ROM drive.
3. Your CD-ROM drive is normally defined as drive D. If that is the case, then change the directory to **D:\Utility.**
4. Type PHDISK and press [Enter]. Some system status and option information will appear instructing you how to proceed with the partition setting.

   For Example:

   If you want to Create a Save to Disk partition, type

   PHDISK /Create /Partition

   If you want to Delete the partition, type

   PHDISK /Delete /Partition

   If you want Save to Disk partition information, type

   PHDISK /INFO

Installing Device Drivers

For complete information on installing device drivers, please refer to the user's manual located on the CD-ROM that comes with the Notebook computer.

The NMG3 TV Function

The NMG3 TV function adds a new multimedia dimension to your Notebook by converting the computer graphics output signals to a standard video signal and displaying this signal on a television for viewing or recording to videotape.

For further information about the NMG3 TV function, please refer to Chapter 7 of the Manual included on your Driver and Utility CD-ROM.

This concludes Chapter 7. Chapter 8 covers maintenance and troubleshooting of the Notebook computer.

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Chapter 8

Maintenance & Troubleshooting

Maintenance

Follow these steps and you will increase the working lifetime of your Notebook. You will also reduce the chance of damage to your computer and personal injury to yourself.

- Make sure the computer is turned off before unplugging it.
- When you disconnect cords, remember to pull them by the plugs and not by the cords themselves. This will prevent damage to the cords, plugs, ports, and jacks.
- If possible, use a high-quality electrical surge protector when your computer is powered by the AC adapter. It is also a good idea to unplug your computer when it is not in use.
- Do not operate your computer near a source of high heat or in direct sunlight.
- Do not use the computer in a wet or damp environment.
- Do not use the computer in a potentially flammable work area.
- Do not use the computer in a dusty or dirty work area. Dust can cause contamination of the unit which can result in malfunction or damage.
- Do not use your computer on an unstable working surface. This will prevent your computer from falling or being knocked over and damaged.
- Do not store objects on the top of your computer. Do not exert pressure on the computer. It may damage the LCD display.
- If you spill liquid into your computer, turn it off and take it to your dealer for inspection.
- Ensure that your hands are clean when you use the TouchPad to prevent oil and dirt build-up which can impair TouchPad operation.

- Clean your computer's exterior casing occasionally with a soft cloth. If you use a cleanser, make sure that it is only a mild detergent. Never use solvents like thinner or benzine, or abrasive cleanser because these may damage the cabinet. Make sure that the computer's power is off when you clean it. After cleaning, allow 30 minutes drying time.
- Remember to clean your display at regular intervals. Spray window cleanser onto a soft cloth and then wipe the display. Do not spray the cleanser directly onto the display.
- Clean your keyboard when needed. This can be done with a soft cloth as well with as a keyboard vacuum cleaner.
- If you are traveling with your computer, remember to carry your computer as hand luggage. Do not check it in as baggage.

Troubleshooting

What follows are some helpful tips to solve common problems that you may encounter while using your notebook. Skim these frequently asked questions to find a solution for the problem you are encountering. If you still need help, contact your dealer, or CTX Notebook Customer Service at:

Ezbook 700 Series for USA:
CTX International Inc.
Toll free: 800-888-2017
Local: 909-595-6146
Fax: 909-595-6293
BBS: 909-595-6096
E-mail: techsupp@ctxintl.com
Website: http://www.ctxintl.com

Cybernote Series for Europe
CTX Europe Ltd.
Local: 44-1-923-818461
Fax: 44-1-923-816030
Tech support:
Tel: 31-40-2909700
Fax: 31-40-2909707
Email: techsup@ctxnl.com

Q : My computer won't start when I turn on the power.

A : 1. Ensure your battery is installed correctly and that it is fully charged. If you are using dual batteries, make sure at least one battery is charged.

2. If you are using an AC adapter, make sure it is hooked up correctly to your computer and plugged into the electrical outlet.

3. If the problem persists, take your computer your dealer for help.

Q : When I turn on the computer, I can hear it working, but there is no display on the LCD screen.

A : 1. If your computer has a Dual Scan LCD display, try adjusting the hot keys [Fn] + [↑] and [Fn] + [↓] to get the best display result.

2. Press the hot keys [Fn] + [F3] to change the display mode if your computer is set to CRT display

3. Consult your dealer for help if the problem persists.

Q : I cannot boot from my hard disk.

A : 1. Check if the hard disk drive is securely installed in the computer.

2. Enter the setup menu to auto detect your hard disk type.

3. Boot from a floppy disk, use FDISK.EXE to check if your Hard Disk Drive partition parameters are set up correctly.

4. If the problem persists, consult your dealer for help.

Q : I cannot boot from my CD-ROM.

A : 1. Check if the CD-ROM drive is securely installed in the computer.

2. Ensure that your CD is a bootable CD by trying it in another system's CD-ROM drive.

3. Turn on the computer and enter the Setup menu, then check if your "IDE Adapter 0 Slave" is set to *CD* and [CD-ROM] is set as the first priority in "boot sequence".

4. If the problem persists, consult your dealer for help.

Q : I cannot use the CD-ROM as a specified disk drive.

A : 1. Check to ensure the CD-ROM drive is correctly installed in your computer.

2. Ensure the CD-ROM device driver is installed in your system.

3. If the problem persists, consult your dealer for help.

Q : The System does not recognize the CD-ROM drive and displays the error message "Not enough drive letters"

A : 1. Check the last drive statement in the CONFIG.SYS file

device=c:\dos\lastdrive=z

2. If the problem persists, consult your dealer for help.

Q : I couldn't record any sound with my computer.

A : 1. Ensure your microphone volume setting in the mixer is set to a high enough volume.

2. If you are using an external microphone, ensure it is hooked up correctly at the microphone jack on your computer.

3. If you hear a loud noise after replaying the sound you recorded, try turning down the volume of the microphone via mixer program. (Some recording programs provide a monitor function when recording a sound, however, we strongly suggest you disable it.)

4. If the problem persists, consult your dealer for help.

Q : I hear nothing from my computer while running sound programs.

A : 1. Ensure the sound card driver has been installed.

2. Try adjusting the volume hot key until you can hear digital sounds or music from your computer.

3. If you are using an external speaker, ensure that your speaker is hooked up correctly to the jack on the computer.

4. Ensure your software and hardware volume and mixer settings are set up correctly.

If you still have no luck after following the above procedures, try the following steps :

1. If you are running under a DOS/Windows 3.1 based program, remove the Intel PnP Driver from your CONFIG.SYS file.

Remove or remark (rem) the following line :

device=c:\plugplay\drivers\dos\dwcfgmg.sys

2. If you are running under a Windows 95 based program, go to **Control Panel**, double-click the **System** icon to show the **System Properties** dialog box. Select the **Device Manager** tab in the **System Properties** dialog box. Double-click *TEAC CD-4xE* to enter properties. Click the **Setting** option to disable the Audio insert notification.
3. If the problem persists, consult your dealer for help.

Q : I cannot read from or write to floppy disks with my floppy disk drive.

A : 1. Make sure that the floppy disk drive is correctly installed in your computer.
2. Turn on the computer, enter the setup menu, and check to see if the floppy disk drive setting is correct.
3. Consult your dealer for help if the problem persists.

Q : After installing RAM Card(s), I can not turn on my computer.

A : 1. Make sure the RAM Card(s) are correctly installed in your computer.
2. Ensure that both RAM Cards are 3.3V standard/EDO type and are the same size with the same composition.
3. Consult your dealer for help if the problem persists.

Q : The computer cannot communicate with other IR devices using the infrared port on the computer.

A : 1. Turn on the computer, enter the setup menu, and check if the "UART 2 MODE" is set to IrDA mode.

2. Ensure there are no cables or electrical devices between the computer and the communicating device.

3. Ensure the distance and angle between the computer and the communicating device are correct.

4. Consult your dealer for help if the problem persists.

Q : The computer cannot play MPEG files or CD Movies smoothly.

A : 1. Make sure the SoftMPEG Driver is properly installed.

2. If you are running under Windows 95, try the following steps to improve playing results.

   a. In the **Control Panel** folder, double-click **Add New Hardware**. Don't let Windows search your hardware; choose *No* to select new hardware manually.

   b. Choose "Hard Disk Controller" from the Hardware type list.

   c. Click 

to install new device drivers from the TEAC CD-ROM Driver diskette.

   d. After the installation is finished, restart Windows 95 to run the new driver.

   e. In the **Control Panel** folder, double-click the **System** icon to show the **System Properties** dialog box.

   f. Select the **Device Manager** tab in the **System Properties** dialog box.

   g. Double-click "Hard Disk Controller" to display the devices installed in your system.

h. Remove the IDE/ESDI Hard Disk Controller device and restart your computer.

i. Go to **Control Panel, System, Device Manager**, click Hard Disk Controller, and you will find IDE/ESDI Hard Disk Controller (TEAC Supplied Driver) listed.

3. Consult your dealer for help if the problem persists.

Q : After resuming from Suspend to DRAM mode, my mouse does not work smoothly.

A : 1. Restart (cold boot) your computer.

2. After resuming from Suspend to DRAM mode, wait 30 seconds before operating your mouse.

3. If the problem persists, consult your mouse dealer for help.

Q : After one hour of power-off charging, the discharged NiMH battery pack gives no response at all.

A : 1. Your battery pack may be over-discharged. Refer to "Recharging an Over-exhausted Battery" in Chapter 5 to recharge the battery.

2. If the problem persists, your battery may be completely dead. Consult your dealer for help or to purchase a new battery.

Q : The printer does not work.

A : 1. Check that the printer is turned on and ready to print.

2. Check that the printer cable is connected to the correct connector on the computer. Refer to "Connecting a Printer" in Chapter 6

3. Ensure that the proper printer driver for your printer has been selected.

4. If the problem persists, consult your printer dealer or manufacture for help. If new drivers are available, download them or request that they be mailed to you.

Appendix A

Specifications & Features

Specifications

Physical Dimensions

- Depth: 11.69" (297mm)
- Length: 8.97" (230mm)
- Height: 1.88" (48mm)

Weight

- 2.95 kg (6.5lb)

Environment Requirements

- Temperature
  - Operating: 5° to 35° C
  - Non-operating: -20° to 60° C
  - Wet Bulb: 25 ° C
- Relative Humidity
  - Operating: 20% to 80%
  - Non-operating: 20% to 80%

Power Requirements

- AC Adapter : 100~240V AC, 50/60 hertz
- DC Jack IN : 20V DC, 2 A
- Battery IN : 12V (1.2V per cell), 2800~3500mAH

Specifications subject to change without notice

Features

Processor

- Intel Pentium CPU

ROM

- 256KB for BIOS

RAM

- 8MB Standard on board (built-in) memory
- Optional memory expansion to 16/24/40/72 MB

Cache

- Synchronous 256K L2 Cache

Mass Storage

- 2.5-inch removable hard disk drive
- 3.5-inch removable diskette drive
- 5.25-inch removable CD-ROM drive

Display

- Dual Scan or TFT LCD
- SVGA (800 by 600 resolution), supporting 64k colors
- Simultaneous CRT/LCD display at 640x480.

Keyboard

- 87-key, full function, with embedded numeric keypad.
- System Function keys
- Windows™ 95 Function keys

Pointing Device

- Built-in TouchPad

Status LCD

- AC IN
- Battery Capacity
- Scroll Lock
- Cap Lock
- Num Lock
- PC Card Insertion
- HDD/CD-ROM Activity
- FDD Activity
- Power Management
- Power Consumption
- System Suspend
- Power On

Interface Ports

- 9-pin RS-232 serial port
- 25-pin parallel port
- 15-pin CRT output port
- Infrared port supporting IrDA standard
- One PCMCIA 2.0 type III slot or two type II slots
- 6-pin mini-DIN connector

- 200-pin Docking port
- 15-pin MIDI/Game port
- DC-IN power input jack
- RCA TV jack
- 3 Audio jacks

Power Supply Unit

- Battery
  - Removable NiMH battery pack
  - Optional Lithium Ion battery pack
- AC Adapter

Software

- Microsoft Windows 95
- BIOS Setup program
- Hot-key function
- Power Management
  - Built-in BIOS support SMI power management
  - LCD, HDD and peripheral power down control
  - CPU doze mode control
  - Standby mode control
  - Suspend mode control
  - Battery low audio warning
- Utilities and Drivers
  - System utilities
  - Mouse driver
  - CD-ROM driver
  - Display drivers
  - Sound Card drivers
  - PCMCIA device drivers

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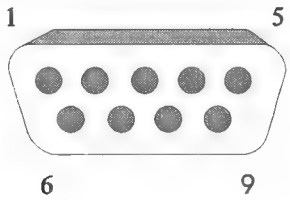
Appendix B

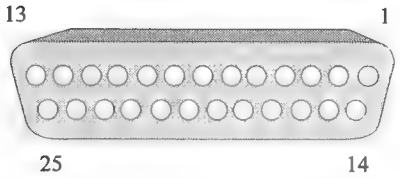
Connector Pin Assignment

RS-232 Serial Port Connector



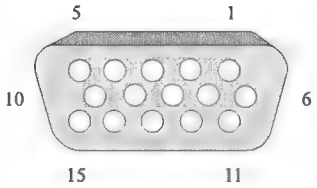
PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
1	DCD	I	6	DSR	I
2	SIN	I	7	RTS	O
3	SOUT	O	8	CTS	I
4	DTR	O	9	RI	I
5	GND	GND			

Printer Connector



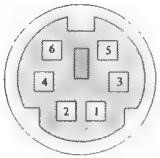
PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
1	-STROBE	O	14	AUTO FD-	O
2	PD0	I/O	15	ERROR-	I
3	PD1	I/O	16	INIT-	O
4	PD2	I/O	17	SLCTIN-	I
5	PD3	I/O	18	GND	GND
6	PD4	I/O	19	GND	GND
7	PD5	I/O	20	GND	GND
8	PD 6	I/O	21	GND	GND
9	PD 7	I/O	22	GND	GND
10	ACK-	I	23	GND	GND
11	BUSY	I	24	GND	GND
12	PE	I	25	GND	GND
13	SLCT	I			

External CRT Connector



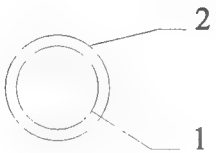
PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
1	Red Video	O	9	NC	NC
2	Green Video	O	10	GND	I
3	Blue Video	O	11	CRTSENSE	I
4	NC	NC	12	DDCDATA	I
5	GND	GND	13	HSync	O
6	GND	GND	14	VSync	O
7	GND	GND	15	DDCCLK	I
8	GND	GND			

External Keyboard Connector



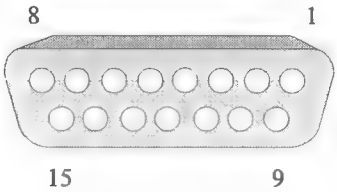
PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
1	KBDATA	I/O	4	VCC55	PWR
2	MCLK	I/O	5	KBCLK	I/O
3	GND	GND	6	MDATA	I/O

DC Power Cord Connector



PIN	SIGNAL	I/O
1	DC-IN	I
2	GND	GND

MIDI/Game Port



PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
1	VCC5A1	PWR	9	VCC5A1	PWR
2	JOYF0	I/O	10	JOYF2	I/O
3	JRC0	I/O	11	JRC2	I/O
4	GND	GND	12	MIDIOUT	O
5	GND	GND	13	JRC3	I/O
6	JRC1	I/O	14	JOYF3	I/O
7	JOYF1	I/O	15	MIDIIN	I
8	VCC5A1	PWR			

Infrared Port

PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
1	NC	I/O	5	NC	NC
2	IRRX2	I	6	NC	NC
3	VCC5	PWR	7	IRTX2	O
4	GND	GND	8	PH	PH

*PH : Pull-High

PCMCIA Device Card Connector

PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
1	GND	GND	21	A12	O
2	D3	I/O	22	A7	O
3	D4	I/O	23	A6	O
4	D5	I/O	24	A5	O
5	D6	I/O	25	A4	O
6	D7	I/O	26	A3	O
7	CE1-	O	27	A2	O
8	A10	O	28	A1	O
9	OE-	O	29	A0	O
10	A11	O	30	D0	I/O
11	A9	O	31	D1	I/O
12	A8	O	32	D2	I/O
13	A13	O	33	WP	
14	A14	O	34	GND	GND
15	WE-	O	35	GND	GND
16	RDY-IRQ	I	36	CD1-	I
17	VCCSLOT	PWR	37	D11	I/O
18	VPP	PWR	38	D12	I/O
19	A16	O	39	D13	I/O
20	A15	O	40	D14	I/O

PCMCIA Device Card Connector (cont.)

PIN	SIGNAL	I/O	PIN	SIGNAL	I/O
41	D15	I/O	55	A24	O
42	CE2-	O	56	A25	O
43	VS1	I	57	5VDET-	I
44	IORD	I	58	RESET	O
45	IOWR	O	59	WAIT-	I
46	A17	O	60	INPACK	I
47	A18	O	61	REG-	O
48	A19	O	62	BVD2	I
49	A20	O	63	BVD1	I
50	A21	O	64	D8	I/O
51	VCCSLOT	PWR	65	D9	I/O
52	VPP	PWR	66	D10	I/O
53	A22	O	67	CD2-	I
54	A23	O	68	GND	GND

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E2 Book 700 Series
AMD-K6 tm
72 MB RAM

FAX + Modem
PCMCIA 56K bps

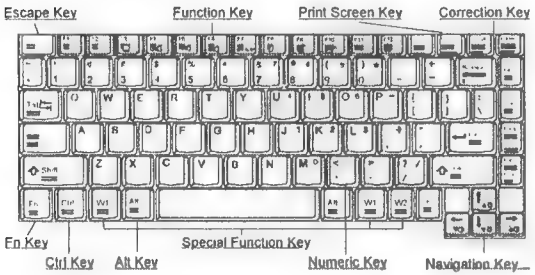
This document provides last-minute modifications to the User's Manual for your reference. For the best performance of your notebook computer, please read on.

Chapter 2 Page 2-2, Appendix A A-3

- Intel Pentium™ with MMX CPU or AMD K6.

Chapter 4 Page 4-9, 4-16

Keyboard Layout



Special Function Key

W1: Equivalent to the Win95 Key function
W2: Equivalent to the Applications Key

Chapter 6 Page 6-9

Inserting the CPU

We suggest you not to remove the installed CPU; this notebook does not support any CPU upgrade flexibility.

User's Manual Addendum

Manual Version 3.0

This manual have following changes;

Page 2-2

Hardware Features

- ☐ Intel Pentium® 120/133/150 or with MMX™ 166/200 MHz Processor
- ☐ 8MB EDO RAM standard on board memory, expandable to 72MB

Page 4-11 (Last paragraph)

Fn: The [Fn] (Function) key located in the lower left corner of the keyboard, enables the use of the 12 dedicated function keys. This key is not a toggle key, which means you must continuously depress this key to use the various control keys. For details of usage please referring to the page 4-14.

Page 4-29 (Second paragraph)

PCMCIA Device Drivers

The included SystemSoft Inc., PCMCIA drivers provide the end-user all the interfaces and resources that are required for running PCMCIA devices. These drivers are Plug and Play solutions for both the DOS and Windows environment. These drivers will be on your Utility & Driver Disk. Please refer to Chapter 7 to install the drivers before using the PCMCIA cards.

Page 4-30 (Last two paragraphs)

Card and Socket Services

Due to the changed of SystemSoft PCMCIA driver, this section are no longer valid.

Page 6-5

Television Display

To use the TV jack for connecting a Television set for use as an auxiliary computer output device, do the following:

1. Turn off the computer. Disconnect all power sources.
2. Connect the video in/out cable to the Notebook TV jack; then connect the other end to the video input of your television.
3. Install the NMG3 TV driver, please refer to Chapter 7 for details.

Page 6-9 (Last chart)

CPU DIP Switch Adjusting Table

CPU Type		Switch Position			
		1	2	3	4
120 MHz	60 x 2	ON			ON
133 MHz	66 x 2				ON
150MHz	60 x 2.5	ON		ON	ON
166 MHz	66 x 2.5			ON	ON
200 MHz	66 x 3			ON	

CPU Voltage	Switch Position			
	5	6	7	8
2.5V				ON
2.9V			ON	
3.1V		ON		
3.3V	ON			

Page A-2 (Last paragraphs)

- ◆ Battery IN: 12V (1.2V per cell), 2800~4050mAH. Please referring to the sticker on battery pack

Utility & Driver Addendum

U&D Version 1.7

This unit may come with 20X CD ROM Drive
Please check on the CD ROM Drive panel, if 20X wording were in placed, the Teac Drive with round eject button, the Sanyo Drive with the square eject button

Chapter 7 Page 7-2 D:\95x_menu

The Notebook computer comes with Windows 95 pre-installed. The CD-ROM drive should be set up and ready to go. In case you need to install the driver for Windows 95, Windows 3.1 or DOS, the instructions are given in the Utility & Driver Disk D:\95x_menu

The drivers update for the different CD-ROMs available with your Notebook are found in the folders listed below.

Manufacturer	Speed	Directory
Sanyo	10X	D:\CDROM\Sanyo\10X
	20X	D:\CDROM\Sanyo\20X
TEAC	6X	D:\CDROM\TEAC\36E
TEAC	8X	D:\CDROM\TEAC\38E
TEAC	16X	D:\CDROM\TEAC\316E
TEAC	20X	D:\CDROM\TEAC\220E

Chapter 7 Page 7-7 D:\95x_menu

This unit may come with Logitech touchpad
The Notebook computer comes with Windows 95 pre-installed. The mouse driver should be set up and ready to go. In case you need to install the driver, the driver is given in the Utility & Driver Disk D:\Mouse\Logitech

Chapter 7 Page 7-9 D:\95x_menu

This unit may come with NeoMagic 2160 VGA chip
The Notebook computer comes with Windows 95 pre-installed. The VGA driver should be set up and ready to go. In case you need to install the driver, the driver is given in the Utility & Driver Disk D:\ VGA\2160

Important Notice

Touchpad Driver Installation Procedure

We have modified the version of TouchPad driver. Please follow steps below for the installation of the new driver.

1. Click on **Start** and choose **Run**....
2. Insert "MouseWare 95 Version 2.3a TouchPad Driver Installation Diskette" into Drive A.
3. Key in "**a:\setup.exe**" in the command line and click on **OK**.
4. This will start the installation of touchpad driver. The *MouseWare 95 Version 2.3a Setup* window will appear on the screen. Choose **Express Setup** to proceed the installation.
5. As the installation is completed, click on **Restart** to allow the newly installed driver taking effect.

033009-003-A0

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