EXHIBIT C

User Manual

User's Guide

Mini Book PC

For Intel & Windows Compatible
Operating Systems

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FCC Notice

This equipment generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This has been tested and found to comply with the limits of a Class B computing device in accordance with the specifications in Part 15 of FCC Rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. 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.

⇨ *The use of shielded I/O cables is required when connecting this equipment to any and all optional peripheral or host devices. Failure to do so may violate FCC rules. Changes or modification not covered in this manual must be approved in writing by the manufacturer's Regulatory Engineering department. Changes or modifications made without written approval may void the user's authority to operate this equipment.*

Canadian Doc Notice

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class B prescrites dans le Reqlement sur le brouilage radioelectrique edicte par le Ministere des Communications du Canada.

Telephone and modem information

Some telephone companies require that you notify the local business office when you hook up a modem to their lines.

The internal modem complies with part 68 of the FCC rules.

Welcome to Your User's Guide

Welcome to the Mini-Book PC

User's Guide. This manual covers everything you need to know in learning how to use your Mini Book personal computer. This manual also assumes that you know the basic concepts of DOS, Windows and the PC.

Note that your computer comes in different configurations and options so some of the features mentioned in this manual might not be included or slightly different from the one you got. Contact your dealer for more information and latest update.

What Does This Manual Covers?

This manual covers the following information:

Chapter 1	Gives introduction on the features and parts of your computer.
Chapter 2	Provides instructions on how to prepare your computer for immediate use.
Chapter 3	Describes how to operate the built-in features of your computer.
Chapter 4	Illustrates how to connect external desktop devices to your computer.
Chapter 5	Explains how to use the System BIOS Setup program.
Chapter 6	Offers instructions on how to maintain and troubleshoot your computer.

Where to Find Additional Information

To find additional information and technical support for your computer, please first contact your dealer.

Accompanying Your Computer

Congratulations for having purchased your new Mini-Book PC. You will start doing a lot of great and fun things with your computer. Along with your computer comes several items which you need to check inside the box. See photo below and compare:

Figure 0-1 Standard Out-of-the-Box Computer Items

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CHAPTER 1

Getting Acquainted

This chapter provides a quick tour of the Mini-Book PC and identify its important parts. Becoming familiar with these terms and locations will help as you read the rest of the manual.

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1.1 Introduction

Your Computer is a full-featured Mini-Book PC that is small, lightweight and compact. This PC runs on a whole wide range of general business and personal productivity applications, making it ideal for use in the office, at home.

1.2 Inside Features of the Computer

Before we go on identifying each part of your PC, let us first summarize its other notable features.

Processing Unit

- Runs on the latest Intel Socket 370 Pentium III CPU that includes 256KB Advanced Transfer Cache. Available in CPU clock speeds starting at 500MHz.
- Also can run on Intel Socket 370 Celeron CPU that includes 128KB L2 cache with several clock speeds starting at 550MHz.
- System bus frequency at 66MHz, 100MHz and 133MHz.
- Intel processor ensures your PC is fully compatible with an entire library of PC software based on several operating systems especially Windows 98, Windows ME, Windows NT, Windows 2000, and Linux.

Main Memory

- Provides one 144-pin SODIMM (Small Outline Dual Inline Memory Module) memory slot for main system memory configuration up to maximum 256MB.
- Uses PC-100 SDRAM SODIMM module at 64MB, 128MB, and 256MB module.

Audio System

- Built-in 16-bit stereo Sound Blaster compatible, full duplex 3D Stereo Sound.
- Built-in Speaker
- One 3.5mm microphone input jack
- One 3.5mm Line-out jack for external speaker.

Flash BIOS

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

Storage

- Built-in high-capacity 2.5-inch (9.5mm high) Hard Disk Drive and supports Ultra-DMA 33/66.
- Built-in CD-ROM or DVD-ROM or CD-RW drive.
- Parallel port External Floppy Disk Drivr.

Video

- Built-in full-motion video accelerator.
- Hardware motion compensation for Software MPEG-2 (DVD playback).
- Integrated 4MB shared Memory.
- Supports up to 1280 by 1024 pixel resolution at 24-bit color.
- 15-pin mini D-sub VGA connector for external monitor.
- S Video Port.
- AV Video Port.

I/O Ports

- Two USB ports.
- One 9-pin Serial Port (RS-232).
- One 25-pin Parallel port (EPP/ECP).

- One 6-pin PS/2 Mouse Port.
- One 6-pin PS/2 Keyboard Port.

Communications

- Built-in Internal 10/100Base-T Ethernet LAN (RJ-45 port).
- Built-in internal 56K V.90 modem card (RJ-11 port).

1.3 Overall View of the Computer

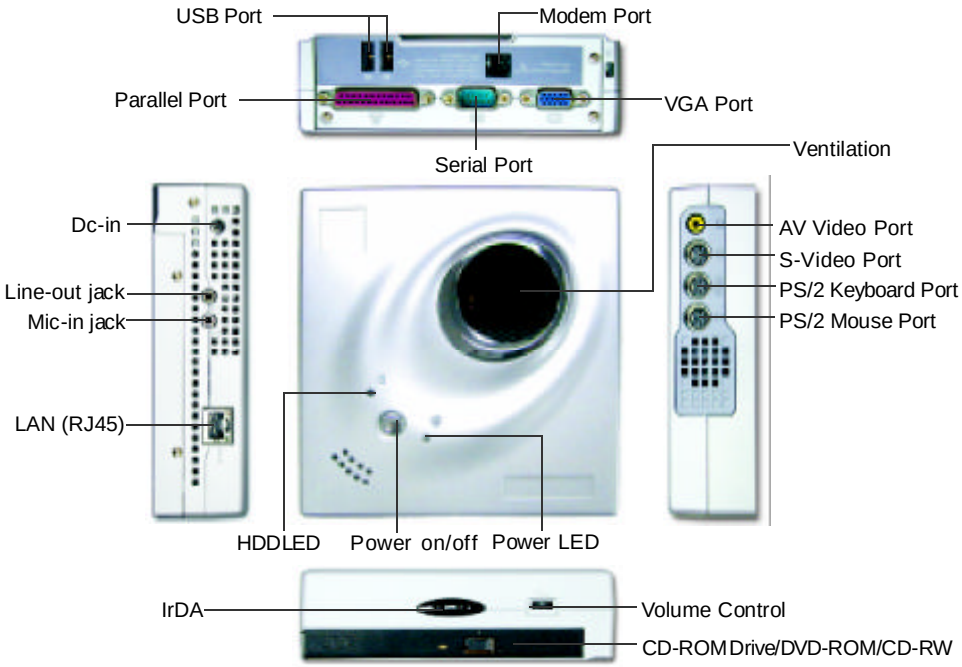

Figure 1-3 Overall View of the Computer

1.4 Front and Top of the Computer

The front of the computer has the following functions:

Power Button

- For turning on or off the power of the computer.

Built-in Speaker

- Built-in speaker for audio playback output.

Ventilation

- CPU fan exhaust ventilation for emitting hot air produced inside by the computer.

Built-in CD-ROM / DVD-ROM

- Built-in high-speed CD-ROM or DVD-ROM drive with enhanced IDE interface. Also provides optional CD-RW drive.

- Compatible with MPEG CD, Video CD, Photo CD, Karaoke CD, and Audio CD or CD-DA.

Volume Control

- Manual volume control knob for adjusting the volume output.

IrDA, Infrared Data Association

- IrDA compliant transceivers 115Kb/s IrDA devices provide walk-up, point-to-point methods of data transfer that is adaptable to a broad range of computing and communicating devices.(Ex: notebook PC's, cellular phones, PDA's, printers, digital cameras and industrial handheld devices etc..).

1.5 Left Side of the Computer

The left of the computer has the following functions:

LAN Port (RJ45)

- Built-in 10/100Base-T Fast-Ethernet LAN with RJ-45 jack.

MIC-In Jack

- One MIC-IN jack for connecting an external microphone.

Line Out Jack

- One Audio LINE-OUT jack for connecting a two-way stereo speaker, earphone, or headphone.

DC-In Jack

- For connecting the AC power adapter in supplying continuous power to your computer. (DC18V,3A).

1.6 Right Side of the Computer

The right side of the computer has the following functions:

PS/2 Mouse Port

- For connecting an external PS/2 mouse.

PS/2 Keyboard Port

- For connecting an external PS/2 keyboard. You can also connect an IBM PC/AT-compatible enhanced keyboard by adding a keyboard adapter.

S-Video Port

- Provides one S-Video jack for VGA output display to NTSC/PAL television systems.

AV Video Port

- Provides one AV (RCA) jack for VGA output display to NTSC/PAL television systems.

1.7 Rear View of the Computer

The rear side of the computer has the following functions:

VGA Port

- Connects to external 15-pin VGA color desktop monitor with up to 1280x1024 resolution at 24-bit true color.

Serial Port

- One 9-pin Serial Port (COM1) for connecting external pointing device and high-speed modem. Conforms to IEEE UART RS-232 standard.

Parallel Port

- One 25-pin enhanced bi-directional parallel LPT Port for connecting parallel devices and network adapters. This port can also be used to connect the optional external Floppy Disk Drive.

Modem Port (RJ11)

- Built-in internal modem for connecting to the Internet or sending fax.

USB Port

- Built-in two external USB ports for connecting USB devices like mouse, printer keyboard, camera, FDD, and file link cable etc,...

1.8 Underside of the Computer

The underside of the computer has the following functions:

Internal Modem Compartment

- This compartment houses the Built-in internal 56K/V.90 modem.

1.9 Accessories and Options

It is also important to understand the accessories that come along with your Mini-Book PC and how they help make you work efficiently. This section describes briefly what these accessories can do for you and what other options you have.

Figure 1-9 Accessories

AC Adapter and Power Cord

The AC Adapter supplies external power to your PC. The AC adapter has an auto-switching design that can connect to 100-120VAC ~ 220-240VAC(60Hz/1.8A) power outlets. Connect the adapter to the AC wall outlet using the power cord.

External Floppy Disk Drive (FDD)

Your computer supports a parallel external port floppy drive for using diskettes.

CHAPTER 2

Getting Started

This chapter provides quick and easy steps on setting up your computer for immediate use. This also includes what external devices you need to attached to make a full operating PC. You also need to learn how to install the needed device drivers for using the built-in features of your PC. You are advised to read through Chapters 1 and 3 first before operating your computer. Chapter 3 tells more on how to use the basic features of your computer.

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2.1 Devices You Need to Get Started

Before you can actually use your computer, you need first to connect the following devices:

- External Keyboard.
- External Mouse.
- External Monitor.
- AC Adapter.

2.2 Connecting the Keyboard

At the right of your computer, you will find the 6-pin mini-DIN PS/2 keyboard port. This port allows you to connect an external full-sized PS/2 desktop keyboard.

To connect the external keyboard:

1. Make sure the computer is turned off.
2. Connect the keyboard directly to the PS/2 keyboard port.
3. When turning on your computer later, check the LEDs of the external keyboard if they flash or activates.

Figure 2-2 Connecting an External Keyboard

⇨*Do not disconnect or connect the external keyboard when power is on. Turn off the computer first.*

2.3 Connecting the Mouse

Also at the right of your computer, you will find the 6-pin mini-DIN PS/2 mouse port for connecting an external PS/2 mouse.

To connect the external PS/2 mouse:

1. Make sure the computer is turned off.
2. Connect the PS/2 mouse directly to the PS/2 mouse port. Make sure not to connect the mouse to the PS/2 keyboard port.
3. When turning on your computer later, your operating system should be able to instantly detect your mouse for immediate use. You do not need to install the mouse driver except when you want to install its additional software.

Figure 2-3 Connecting an External Mouse

⇨*Do not disconnect or connect the external mouse when power is on. Turn off the computer first.*

2.4 Connecting the Monitor

Your computer has a 15-pin VGA port for connecting any external VGA color monitor with maxi-

mum display resolution of 1280x1024 resolution at 24-bit true colors.. You need to connect an external monitor to see the output display of your computer. The external monitor should have its own external powersource.

To connect an external monitor:

1. Make sure that the computer is turned off.
2. Plug in the power of your monitor. Make sure to use a monitor with external power.
3. Connect the connector cable of the monitor to the VGA port at the rear of your computer. Turn on the power of your monitor.
4. When you turn on the power of your computer later, you should see the display in your monitor screen. You can adjust the brightness and contrast controls in your monitor to suit your viewing level.

Figure2-4 Connecting an External Monitor

2.5 Connecting the AC Power Source

The AC adapter provides external power source to your computer. The AC adapter also has an auto-switching design that can connect to 100-120VAC ~ 220-240VAC power outletss.

To connect the power adapter:

1. Plug the AC power cord into the power socket of the AC power adapter.
2. Plug the other end of the AC power cord to a live AC wall outlet. The power LED on the power adapter should be turned on.
3. Plug the connector of the AC adapter to the DC-IN port found at the left side of the computer.

Figure 2-5 Connecting the AC Adapter

⇨ *Do not remove the AC adapter when the computer is on as this will abruptly shut off the computer and may damage your computer parts.*

2.6 Starting Your Computer

Press the power button to start your computer and check if the CPU fan turns on.

Figure 2-6 Power Button

After a few seconds, the display monitor will turn on and your computer will begin to execute the Power On Self Test or POST to check if all system components are running properly. Any errors found during the test will be displayed on the screen and may generate short beeping sound as well.

During the test, the screen will also display a message **Press the <Del> key to run SETUP program"**. You do not need to run this program at the moment as your dealer already made the necessary settings for optimal operation. Refer to Chapter 5 on running the SETUP program later.

After the test has completed, your computer will start to search and boot up the operating system from your hard drive. The computer normally comes with a Windows operating system pre-installed in your hard drive. Consult the Windows operating system manual on how to use the program. If not, contact your dealer for assistance.

⇨ *To avoid overheating the computer, do not place any objects close to an air intake or fan, and do not allow any objects to cover up an intake or fan.*

2.7 Installing the PC Device Drivers

If you already have an operating system installed into your computer, it is best to install the needed device drivers for using the built-in devices of your computer like sound and VGA display support. Before installing the drivers, check with your dealer first if they have already installed all the drivers along with the operating system.

The device drivers of your PC are stored in a supplement CD that comes along with the computer package.

The device drivers provided inside the CD are for the following Operating Systems (stored in directory name):

- Windows 98 Second Edition **(Win98SE).**
- Windows NT **(WinNT).**
- Windows 2000 **(Win2K).**
- Windows Millennium Edition **(WinME).**

The supplied device drivers are the following:

- Intel 810x INF Upguade Driver (for Win98SE only).
- Intel 810x Chipset VGA Driver.
- Intel 810x Chipset Ultra DMA Driver .
- Integrated Digital Audio Driver.
- Internal LAN Driver.
- Internal Modem Driver.

Follow the steps below to auto-install the drivers:

1. Power on your Computer and boot Windows. Place the Driver CD into the CD-ROM drive.
2. The Driver CD will automatically be detected and will pop-out a menu window (see next Figure). It will also detect what Operating System you are using so it will only show you the drivers needed to be installed. It is important that you install each drivers before you start using your computer.
3. Click on the first device driver to install.
4. Follow the prompt instructions shown on the display to complete each driver installation. You may also be prompted to restart your PC after each driver installation, remember to go back to the menu window to install the next device driver.

VGA Driver Installation

If you want to install the VGA driver separately, you can follow the steps below:

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - RUN - BROWSE**.
3. Click to your CD-ROM drive and browse to the **\810\<OS directory>\VGADrv\Graphics** subdirectory.
4. Double-click on **SETUP**. Follow the prompt instructions appearing on the screen.

If your CD-ROM Drive letter is E: and you are installing under Windows 98 Second Edition, you should run the following command:

E:\810\Win98\VGADrv\Graphics\Setup.exe

If you are installing under Windows NT:
E:\810\WinNT\VGADrv\Graphics\Setup.exe

If you are installing under Windows 2000:
E:\810\Win2K\VGADrv\Graphics\Setup.exe

If you are installing under Windows Millennium Edition:
E:\810\WinME\VGADrv\Graphics\Setup.exe

Audio Driver Installation

If you want to install the audio driver separately, you can follow the steps below:

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - RUN - BROWSE**.
3. Click to your CD-ROM drive and browse to the **\810\<OS directory>\SoundDrv** subdirectory.
4. Double-click on **SETUP**. Follow all the prompt instructions appearing on the screen.

If your CD-ROM Drive letter is E: and you are installing under Windows 98 Second Edition, you should run the following command:

E:\810\Win98\SoundDrv\Setup.exe
then restart the computer, when the "Insert Disk" dialog box appear. Click on [Browse] to the SoundDrv driver subdirectory of the OS or enter E:\810\Win98\Soundrv then Click [Ok] button.

If you are installing under Windows NT:
E:\810\WinNT\SoundDrv\Setup.exe

If you are installing under Windows 2000:
E:\810\Win2K\SoundDrv\Setup.exe

If you are installing under Windows Millennium Edition:
E:\810\WinME\SoundDrv\Setup.exe

Ultra DMA Driver Installation

If you want to install the Ultra DMA driver separately, you can follow the steps below based on your installed operating system.

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - RUN - BROWSE**.
3. Click to your CD-ROM drive and browse to the **\810\< OS directory >\ATADrv** subdirectory.
4. Double-click on **CD**.

For example, if your CD-ROM Drive letter is E: and you are installing under Windows 98 Second Edition, you should run the following command:

E:\810\Win98\ATADrv\CD.exe

If you are installing under Windows NT:
E:\810\WinNT\ATADrv\CD.exe

If you are installing under Windows 2000:
E:\810\Win2K\ATADrv\CD.exe

If you are installing under Windows Millennium Edition:
E:\810\WinME\ATADrv\CD.exe

LAN Driver Installation

If you want to install the LAN driver separately, you can follow the steps below based on your installed operating system.

Windows 98 Second Edition:

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - SETTINGS - CONTROL PANEL- SYSTEM**.
3. When the System Properties appear, click on the **Device Manager** folder tab.
4. Double-click the **PCI Ethernet Control** device under the **Other Device**.

5. Click on the **Driver** folder tab and click on the **Update Driver** button found below the folder tab.
6. When the **Update Device Driver Wizard** appears, click **Next**.
7. Click on **Search for a better driver than the one your device is using now (Recommended)** and click **Next**.
8. Click on **Specify a location** and browse to the LAN driver subdirectory of the OS or enter **E:\810\Win98\LANDrv**.
9. Click **Next** and follow succeeding prompt instructions to finish driver installation. Click **Finish**.

Windows NT:

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - SETTINGS - CONTROL PANEL- Network**.
3. When the Network Properties appear, click on the **Adapters** folder tab and click the **Add** button.
4. Click the **Have Disk** button and **browse** to the LAN driver subdirectory of the OS or enter **E:\810\WinNT\LANDrv**.
5. Click **Realtek RTL8139(A/B/C/8130) PCI Fast Ethernet Adapter**.
6. Click the **OK** button until you finish driver installation.
7. Enter your IP address, Subnet Mask, and default Gateway settings.
8. Click the **OK** button to restart your computer.

Windows 2000:

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - SETTINGS - CONTROL PANEL- SYSTEM**.
3. When the System Properties appear, click on the **Device Manager** folder tab.
4. Double-click the **Realtek RTL8139(A) PCI Fast Ethernet Adapter device** under the **Network Adapters**.

5. Click on the **Driver** folder tab and click on the **Update Driver** button found below the folder tab.
6. When the **Update Device Driver Wizard** appears, click **Next**.
7. Click on Search **for a better driver than the one your device is using now (Recommended)** and click **Next**.
8. Click on **Specify a location** and browse to the LAN driver subdirectory of the OS or enter **E:\810\Win2K\LANDrv**.
9. Click **Next** and follow succeeding prompt instructions to finish driver installation. Click **Finish**.

Windows Millennium Edition (ME):

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - SETTINGS - CONTROL PANEL- SYSTEM**.
3. When the System Properties appear, click on the **Device Manager** folder tab.
4. Double-click the **Realtek RTL8139(A) PCI Fast Ethernet Adapter** device under the **Net work Adapters**.
5. Click on the **Driver** folder tab and click on the **Update Driver** button found below the folder tab.
6. When the **Update Device Driver Wizard** appears, click **Next**.
7. Click on **Specify the location of the driver (Advanced)** and click **Next**.
8. Browse to the LAN driver subdirectory of the OS or enter **E:\810\WinME\LANDrv**.
9. Click **Install one of the driver** and select the first listed driver. Click **Next**.
10. Windows will detect the **Realtek RTL8139(A/B/C/8130) PCI Fast Ethernet NIC**. Click **Next**.
11. Browse to the LAN driver subdirectory or enter **E:\810\WinME\LANDrv**. Click **Next**.
12. Follow succeeding prompt instructions to finish driver installation. Click Finish to **finish** the driver installation.
13. Click **Yes** to restart Windows.

Modem Driver Installation

If you want to install the modem driver separately, you can follow the steps below based on your installed operating system.

⇨*There is no driver supported for Windows NT.*

Windows 98 Second Edition:

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - SETTINGS - CONTROL PANEL- SYSTEM**.
3. When the System Properties appear, click on the **Device Manager** folder tab.
4. Double-click the **PCI Card** device under the **Other Device**.
5. Click on the **Driver** folder tab and click on the **Update Driver** button found below the folder tab.
6. When the **Update Device Driver Wizard** appears, click **Next**.
7. Click on **Search for a better driver than the one your device is using now (Recommended)** and click **Next**.
8. Click on **Specify a location** and browse to the Modem driver subdirectory of the OS or enter **E:\810\Win98\ModemDrv**.
9. Click **Next** and follow succeeding prompt instructions to finish driver installation. Click **Finish**.

Windows 2000:

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - SETTINGS - CONTROL PANEL- SYSTEM**.
3. When the System Properties appear, click on the **Device Manager** folder tab.
4. Double-click the **PCI Card** device under the **Other Device**.
5. Click on **Reinstall Driver** button.
6. When the **Update Device Driver Wizard** appears, click **Next**.

7. Click on **Search for suitable driver for my device (Recommended)** and click **Next**.
8. Click on **Specify a location** and browse to the Modem driver subdirectory of the OS or enter **E:\810\Win2K\ModemDrv**.
9. Click **Next** and follow succeeding prompt instructions to finish driver installation.

   Click **Finish**.

Windows Millennium Edition (ME):

1. Place the Driver CD into the CD-ROM drive.
2. Click **START - SETTINGS - CONTROL PANEL- SYSTEM**.
3. When the System Properties appear, click on the **Device Manager** folder tab.
4. Double-click the **PCI Card** device under the **Other Device**.
5. Click on **Reinstall Driver** button.
6. When the Update **Device Driver Wizard** appears, click **Next**.
7. Click on **Specify the location of the driver (Advanced)** and click **Next**.
8. Click on **Specify a location** and browse to the Modem driver subdirectory of the OS or enter **E:\810\WinME\ModemDrv**.
9. Windows will detect the modem device **HSP56MR WDM COMMUNICATION DEVICE**. Click **Next** to continue.
10. Click **Finish** to finish the driver installation.
11. Click **Close** to return to Windows.

2.8 Turning Off Your Computer

Before turning off the power, you need to close first all application programs and shutdown the operating system.

If the operating system can't shut down properly press the power bottom for five seconds to hardware shut down.

Do this only if you can't shut down properly, otherwise some data may be lost.

CHAPTER 3

Learning the Basics

This chapter describes how to operate the standard disk drives of your computer. If you are new to computers and to your operating system, you also need to read the manual for the operating system on how to work with your computer. It is very important to familiarize yourself well with the operating system. The succeeding chapters lets you know how to go beyond the basics and try other exciting features.

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3.1 Starting Your Operating System

The operating system is a must ingredient in using your computer. Without an operating system, it is like playing chess without the chessboard. It is the platform for all your software application programs to run on. The most popular operating system today is Microsoft Windows. You should have one installed by your dealer unless you are an expert computer user and would need a more powerful operating system. If you have an operating system already installed in your computer, then you would be up and running after you power on your computer and boot up the system. Check your operating system manual on how to run it.

3.2 Using the External Floppy Disk Drive

The external floppy disk drive is probably one of the most used legacy devices on a computer. The other disk drives on your computer are the hard disk drive and the CD-ROM drive. Disk drives are designated with drive letters with the floppy drive usually assigned as Drive A: and the hard drive and CD-ROM drive as Drive C: and Drive D: respectively.

The external floppy disk drive (FDD) of your computer is attached into the parallel port. You must use the correct cable to attach the external FDD.

Insert the diskette with the arrow and label facing up and the shutter cover towards the drive. Slide the diskette into the drive until it is totally inserted and the eject button pops out. Remember to format new diskettes first using your operating system before you can use it. To eject or remove the diskette, make sure that the system is not accessing the diskette drive.

Figure 3-2 Connecting the External FDD via the Parallel Port

3.3 Working with the Built-in Hard Disk

Your computer is equipped with a large capacity 2.5 inch IDE hard disk drive where you store or install the operating system and all application software programs. Like floppy diskette, you also need to format the hard disk before using. Your dealer should already have done all this for you. You can refer to Chapter 5 on how to run the BIOS SETUP program.

3.4 How to Access the CD-ROM Drive

You would normally use the CD-ROM drive for installing operating system and software application programs. Unlike the two disk drives, you can only read from the CD-ROM drive.

The CD-ROM drive is found in front of the computer. To insert and remove a disc on the drive:

1. Make sure the computer is turned on. Press the eject button found on the door cover of the CD-ROM drive. The CD tray mechanism will pop-out slightly and slowly pull the whole length of the tray out.

Figure 3-4a Releasing the CD-ROM Drive Tray

2. Place the disc on top of the CD tray with the label side facing up. Gently press the compact disc onto the center spindle to secure the disc.

Figure 3-4b Placing the Compact Disc Inside

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

Figure 3-4c Removing the Compact Disc Inside

4. To close the CD-ROM drive, simply push the CD tray inside. The CD-ROM LED will activate when the disc is detected. Wait until the LED has turn off do you start to read the disc.

Figure 3-4d Closing the CD-ROM Drive Tray

3.5 Using the Built-in Modem

Your computer includes a built-in modem for connecting to the Internet. You need to have an Internet Service Provider (ISP) account first to be able to access the Internet. The internal modem is a standard 56Kbps data/fax modem which can also be used to send and receive faxes. The internal modem is found at the back of your computer.

Before you can use the internal modem, you need first to install the device driver. Ask your dealer first if the internal modem driver is already setup properly. If not, you can follow the steps below for installing the modem driver.

To install the modem device driver:

1. Make sure the internal modem module is already attached inside your PC.
2. Once your internal modem is assembled, power on your PC and boot Windows.

3. Windows will automatically detect the internal modem and will install the proper device driver. Place the Driver CD into your CD-ROM drive and refer the device driver files to your CD-ROM drive letter. Windows will search the needed driver inside the Driver CD and will display the needed driver.
4. Follow succeeding instructions to complete modem driver installation.

To setup the internal modem:

1. Make sure the internal modem is properly setup in your computer.
2. Plug the phone line supplied with your computer into the built-in modem RJ-11 jack and plug the other end into your telephone line jack.
3. Setup your Internet Dial-Up Network. Contact your Internet Service Provider (ISP) on how to setup your Internet.

Figure 3-5 Connecting to the Modem

3.6 Using the Built-in LAN

Your computer includes a built-in 10/100Mbps Ethernet to connect to the Internet. You need to contact your network manager for domain first to be able to access the Internet/ Intranet and remote links to the outside world (WAN). The RJ45 Port is found at the left side of your computer. Before you can use the internal LAN, you need first to install the device driver. Ask your dealer first if the internal LAN driver is already setup properly. If not, you can follow the steps below for LAN driver installation (refer to chapter 2.7).

To setup the internal LAN:

1. Make sure the internal LAN is properly setup in your computer.
2. Plug the Unshielded twisted-pair cable supplied with your computer into the built-in LAN RJ-45 jack and plug the other end into your Network Hub connector.
3. Setup your Network. Contact your network manager for how to setup your network account (network info.: IP address, Subnet, Gateway, DNS etc.).

Figure 3-6 Connecting to the LAN

CHAPTER 4

Connecting to Other Devices

Your computer was designed to include several external ports to make your Mini-Book PC work as a full-sized desktop PC. This chapter guides you on how to connect a number of devices. Chapter 2 already mentioned some necessary devices you need to connect to make your computer working like external monitor, mouse, and keyboard.

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4.1 Using a Serial Port

Your computer has one 9-pin male serial port for connecting an external serial mouse or modem. The serial (RS232) port of your computer is normally referred to as COM1. You would normally use the serial port to connect a serial modem for Internet dial-up connection. However, your computer may come with a built-in internal modem so you do not need to install one.

Figure 4-1 Connecting a Serial Device

4.2 Connecting to a Parallel Printer

The parallel (LPT1) port has a 25-pin female connector at the back of your computer. You would always connect to this whenever you are going to print out to a parallel printer.

To connect to a printer:

1. Connect the printer to the parallel port using the 25-pin male connector cable of the printer.
2. Power on both computer and printer.

3. Check the printer by doing a self-test operation.
4. Set the printer type of your software to recognize the connected printer.
5. If your printer is not listed in the software you are using, consult your printer dealer for available drivers or any compatible ones.
6. Press the Online function of the printer.

Figure 4-2 Connecting a Printer

⇨ *You can switch between printer and external FDD without shut down your computer.*

4.3 Connecting to Your TV

Also found at the right side of your computer is the TV out jack. This feature allows you to connect an RCA jack cable or S-video cable and hook your computer to any NTSC or PAL system television set for big screen presentation or video games.

To display your computer screen on the TV:

1. Turn off your computer. There are two TV ports at the right side of your computer. One is an AV port and another is a S-video port. Use the cable supplied with your TV set to connect to either one of the TV ports.
2. Turn on your computer and your television set.

3. Press the **Start** menu on the task bar and then select **Settings**.
4. Choose **Control Panel** and click on the **Display** icon.
5. Select the **Intel** folder tab and change the setting tab click on advance choose Graphics properties , Device Tab choose **Display Mode** to **TV**. Then click video standard select TV mode (NTSC or PAL)
6. After you have changed the Display Mode to TV, the TV Options will then be activated. Set your desired TV options.

Figure 4-3 Connecting to Your TV

4.4 Using the USB Devices

USB or Universal Serial Bus is a peripheral bus standard developed by Compaq, DEC, IBM, Intel, Microsoft, NEC and Northern Telecom. PCs equipped with USB will allow computer peripherals to automatically configure as soon as they are physically attached - without the need to reboot or run setup. USB will also allow multiple devices — up to 127 — to run

simultaneously on a computer, with peripherals such as mouses and keyboards acting as additional plug-in sites, or hubs. Your computer comes with two USB port.

Windows 98 or later comes equipped with the drivers that allows your PC to recognize USB peripherals. However, you may still receive a diskette with your USB peripheral containing updated driver information. Consult the manual of the USB device you are connecting for more information.

To install a USB device:

1. Connect the USB device to your computer.
2. Windows will automatically detect the USB device attached to the computer. Insert the diskette driver that comes from the USB device and install the device driver to finish the installation.

Figure 4-4 Connecting USB Devices

CHAPTER 5

The BIOS Setup Program

Your computer uses the AMI BIOS Setup program that allows you to set several system configuration in changing the way your computer performs. This includes your system time and date, disk drive configuration, I/O device controls, and power management settings. These information are then stored in the BIOS CMOS chip and will remain permanent unless you change it again. This chapter discusses on how you will activate the BIOS Setup program and change the system configuration to suit your desired operation. You must be careful to set the configuration properly in order for your computer to run smoothly. If you are not sure of any settings, contact your dealer.

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Using the System Password / 55
Auto Configuration with Optimal Settings / 56
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5.1 Entering the BIOS Setup Program

To enter into the AMI BIOS Setup program:

1. Turn on or reboot your computer.
2. Wait until the "Press <Del> if you want to run SETUP" message to appear on your screen and press the <Del> key on your keyboard.
3. The BIOS Setup program menu will appear on your display screen.

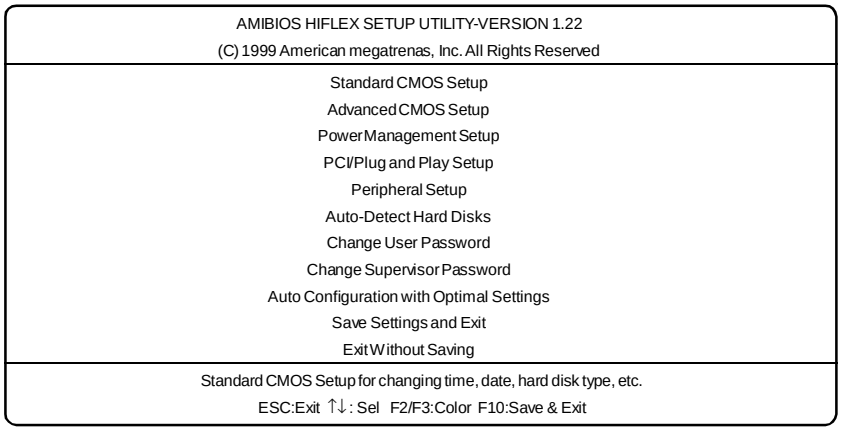

Figure 5-1 BIOS Setup Menu

4. Move the highlighted bar by selecting the option you want to run and press the <Enter> key.

➪*The BIOS Setup program is subject to change by the manufacturer without notice so not all items mentioned inside the Setup menu are valid on your computer. Consult your dealer or manufacturer for support.*

5.2 Using the Standard CMOS Setup

The Standard CMOS Setup menu contains the settings for the time and date as well as disk drive configuration and virus boot sector protection. Use the PgUp and PgDn keys to change settings for each item.

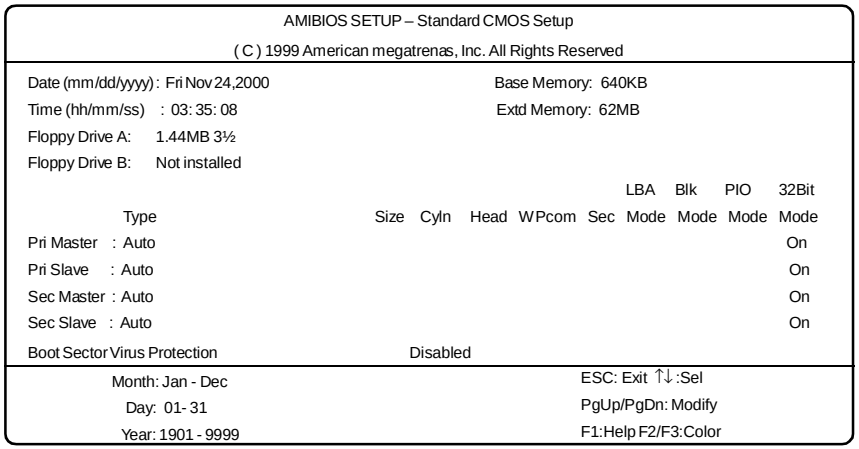

Figure 5-2 Standard CMOS Setup Menu

Inside the Standard Setup menu is the following items:

Item	Function
Date	Allows you to set the system date (month, day, year) of the computer.
Time	Allows you to set the system time clock of your computer.
Floppy Drive A	This item enables or disables the External floppy disk drive.
Floppy Drive B	This item should always be set to **Disabled**.
Pri Master	This item defines the internal hard disk drive (Drive C:) type settings. You can set this to **AUTO** to let your computer automatically detect hard disk during power on.
Pri Slave	This item is not used by your computer.
Sec Master	This item is normally reserved for the CD-ROM drive. Set this item to **AUTO** to let your computer detect the drive by itself during power on.
Sec Slave	This item is normally reserved for the CD-ROM drive. Set this item to **AUTO** to let your computer detect the drive by itself during power on.
Boot Sector Virus Protection	This item, when Enabled, will warn you of any attempt to write or change the Boot Sector. Do not enable this when installing operating system.

5.3 Using the Advanced CMOS Setup

The Advanced CMOS Setup menu contains the settings for several system functions and features.

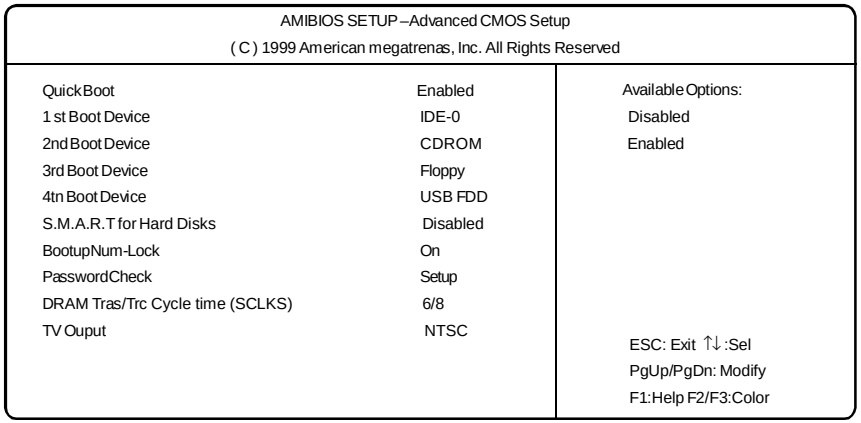

Figure 5-3 Advanced CMOS Setup Menu

The Advanced CMOS Setup menu includes the following:

Item	Function
Quick Boot	This item when **Enabled** will bypass the POST (Power-On Self Test) check that allows faster boot to OS.
1st Boot Device	This item allows you to set the first boot device. Choose from the available options found on the right side of the display. The default is **IDE-0** (hard disk).
2nd Boot Device	This item allows you to set the second boot device if the first boot device fails. Choose from the available options found on the right side of the display. The default is **CDROM**.

3rd Boot Device	This item allows you to set the third boot device if the preceding boot device fails. Choose from the available options found on the right side of the display. The default is **Floppy** (FDD via Parallel port).
4th Boot Device	This item allows you to set the fourth boot device if the preceding boot device fails. Choose from the available options found on the right side of the display. The default is **USB FDD.**
S.M.A.R.T. for Hard Disks	This item when **Enabled** allows the computer to report any potential hard disk problems. S.M.A.R.T. is short for "Self-Monitoring Analysis and Reporting Technology.
BootUp Num-Lock	This item when **On** automatically activate the Num-Lock key everytime you boot up the computer.
Password Check	This item allows you to set the way your computer checks for password. Set this item to **Setup** when you want your computer to check for password only when entering the BIOS Setup program. If you set this item to **Always**, your computer will always ask for the password every time you restart your computer.
DRAM Tras/Trc Cycle time (SCLKs)	This item allows you to set the DRAM timing. The default is **6/8**.
TV Output	This item allows you to set your TV mode system. You need to set this properly if you are connecting the computer to a TV set. The default is **NTSC**.

5.4 Using the Power Management Setup

The Power Management Set up allows you to configure the power saving controls of your computer.

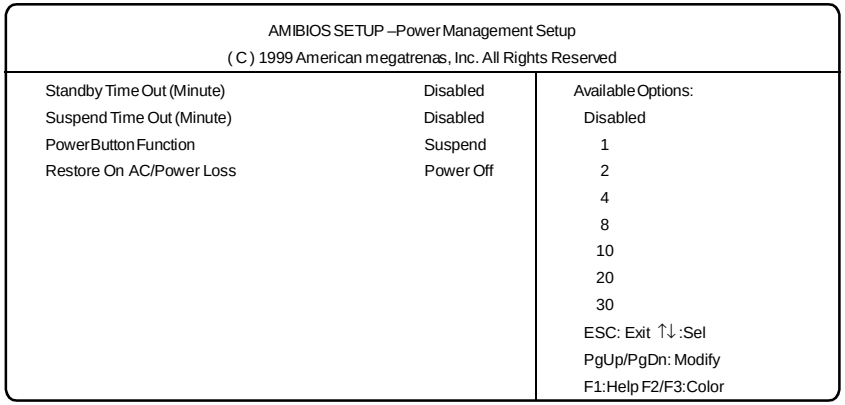

Figure 5-4 Power Management Setup Menu

Item	Function
Standby Time Out (Minute)	This item allows you to set the timer for the system to activate Standby Mode.
Suspend Time Out (Minute)	This item allows you to set the timer for the system to activate Suspend Mode.
Power Button Function	This item allows you to set the power button function to either **On/Off** or **Suspend/Resume** function.
Restore On AC/Power Loss	This allows you to set whether you want your system to reboot after the power has been interrupted.「Power Off」 leaves your system off and 「Power on」 reboots your system.「Last state」 sets your system back to the state it is before the power interruption. The default is Power off.

5.5 Using the PCI / Plug and Play Setup

The PCI/Plug and Play Setup allows you to set the configuration for the PCI Bus IRQ and DMA Channels.

AMIBIOS SETUP – PCI/Plug and Play Setup
(C) 1999 American megatrenas, Inc. All Rights Reserved

Plug and Play Aware O/S	No	Available Options:
PCI IDE Busmaster	Disabled	No
DMA Channel 0	PnP	Yes
DMA Channel 1	PnP	
DMA Channel 3	PnP	
DMA Channel 5	PnP	
DMA Channel 6	PnP	
DMA Channel 7	PnP	
IRQ3	PCI/ PnP	
IRQ4	PCI/ PnP	
IRQ5	PCI/ PnP	
IRQ7	PCI/ PnP	
IRQ9	PCI/ PnP	
IRQ10	PCI/ PnP	ESC: Exit ↑↓:Sel
IRQ11	PCI/ PnP	PgUp/PgDn: Modify
IRQ14	PCI/ PnP	F1:Help F2/F3:Color
IRQ15	PCI/ PnP	

Figure 5-5 PCI / Plug and Play Setup Menu

Item	Function
Plug and Play Aware O/S	This item allows you to set the type of Operating System installed in your computer. The default is **No**.
PCI IDE BusMaster	This item allows you to **Enable** or **Disable** the PCI IDE BusMaster.
DMA Channel 0	This item allows you to set this DMA Channel to **PnP** or **ISA/EISA**. Set this to **PnP**.
DMA Channel 1	This item allows you to set this DMA Channel to **PnP** or **ISA/EISA**. Set this to **PnP**.

DMA Channel 3	This item allows you to set this DMA Channel to **PnP** or **ISA/EISA**. Set this to **PnP**.
DMA Channel 5	This item allows you to set this DMA Channel to **PnP** or I**SA/EISA**. Set this to **PnP**.
DMA Channel 6	This item allows you to set this DMA Channel to **PnP** or **ISA/EISA**. Set this to **PnP**.
DMA Channel 7	This item allows you to set this DMA Channel to **PnP** or **ISA/EISA**. Set this to **PnP**.
IRQ3	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ4	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ5	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ7	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ9	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ10	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ11	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ14	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.
IRQ15	This item allows you to set this IRQ to **PCI/PnP** or **ISA/EISA**. Set this item to **PCI/PnP**.

5.6 Using the Peripheral Setup

The Peripheral Setup allows you to set the configuration for the serial and parallel ports.

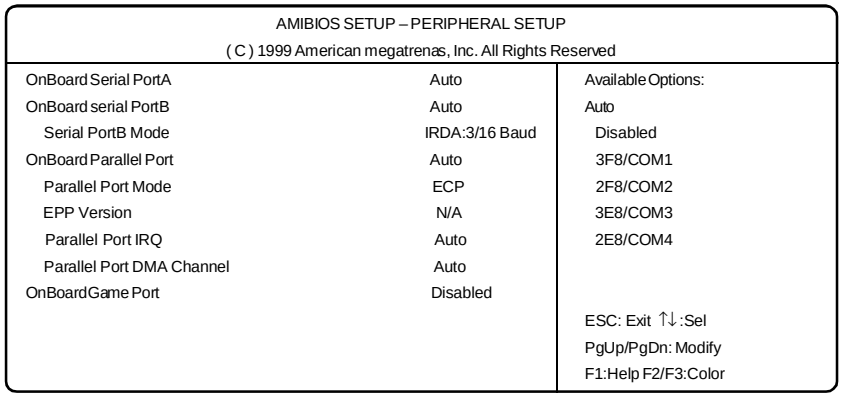

Figure 5-6 Peripheral Setup Menu

Item	Function
OnBoard Serial PortA	This item allows you to disable or set the I/O address for the serial COM1 port. Set this item to **Auto**.
OnBoard Serial PortB	This item allows you to disable or set the I/O address for the serial COM2 port. Set this item to **Auto**. You will only use the COM2 port for the IR function.
Serial PortB Mode	This item allows you to set the mode of COM2 port. Set this item to **IRDA:3/16 Baud**.
OnBoard Parallel Port	This item allows you to disable or set the I/O address for the parallel LPT1 port. Set this item to **AUTO** for automatic settings.
Parallel Port Mode	This item allows you to select the parallel port mode. For connecting fast parallel devices, set this item to **EPP** or **ECP**. The default is **ECP**.
EPP Version	If you set the Parallel Port Mode to EPP, you need to set this item to either **1.9** or **1.7** EPP version.
Parallel Port IRQ	This item allows you to set the IRQ for the parallel LPT1 port. The default is **7**.
Parallel Port DMA Channel	This item is only used when you set the parallel Port Mode to **ECP**. The default is DMA channel **3**.
OnBoard Game Port	This item allows you to set the Game Port address. The default is **Disabled**.

5.7 Using Auto-Detect Hard Disks

Running **Auto-Detect Hard Disks** option allows you to bypass setting the Primary and Secondary Master disk on the Standard CMOS Setup menu. It detects all IDE disk drive types and automatically configures the required parameters. It includes detecting the fastest PIO mode supported by the disk drive as well as 32-bit disk transfer.

5.8 Using System Password

Your computer provides two levels of system password to prevent others from accessing your system or the BIOS Setup configuration. The first level is the **User Password** which only provides standard BIOS Setup configuration and does not allow the user to modify much. The second level is the **Supervisor Password** which allows the user to access the entire BIOS Setup configuration menus and make changes.

Your computer also provides an option on the Advanced CMOS Setup menu to either always check the password before system boot up or check the password only when accessing the BIOS SETUP program. If you set the Password Check to SETUP, then your computer will only prompt you for the password when you press the <Del> key to enter the BIOS SETUP program.

The system password works this way:

1. Upon booting your computer, the user is given three chances to enter the correct password which you have set.

2. Once the user is not able to enter the correct password, a blinking face character will appear beside the prompt and your computer halts operation.
3. If the user is able to enter the correct password, he or she may then proceed to use the computer.

It is important to remember the password you have set especially the Supervisor password. If you have forgotten the password, the only way to delete the password is by resetting the CMOS battery. Contact your dealer for assistance.

5.9 Auto Configuration with Optimal Settings

Running the **Auto Configuration with Optimal Settings** option allows you to set the default optimal settings. This option is useful when you want to return all settings to its default value.

5.10 How to Exit the Setup Program

There are two ways of leaving the SETUP program:

- Save Settings and Exit - this option saves all changes made while running the BIOS Setup program and restarts your computer. You may also press the **<F10>** key to activate this option.
- Exit Without Saving - this option allows you to discard all changes made while running the BIOS Setup program and restarts your computer. You may also press the **<Esc>** key to activate this option. When system restarts, the last saved CMOS configuration will be used.

5.11 How to Upgrade the BIOS

Your computer uses EPROM Flash BIOS chip that allows you to easily upgrade the BIOS program by using the **FLASH827.COM** utility program without the need to set any hardware jumper switch.

To upgrade the BIOS:

1. Boot your computer to MS-DOS mode. If you have Windows 98SE, simply press the <F5> key during system boot up to go to DOS mode.
2. Copy the FLASH827.COM program to your hard disk or run it from the floppy disk drive. Makes sure you also have the BIOS file you want to program.
3. On the DOS prompt, type the command:

   FLASH827<BIOSfilename>
4. The FLASH program will automatically prompt you if you want to continue. The process will first erase the BIOS program inside the EPROM chip and programs the new BIOS on your disk into the chip.
5. Restart your computer when programming is finished.

CHAPTER 6

Troubleshooting & Maintenance

This chapter provides a simple guide in caring and maintaining your computer for optimal performance and longer use. Always remember that although your computer was designed to meet the everyday rigors of work, you need not abuse it and should always use it properly.

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General Safety Guidelines

Portable computers take the most beating from end users. You can maintain its condition and performance by following a few simple guidelines:

- Follow all safety instructions and warnings that apply to your system.
- Do not attempt to open the computer's case. There are no user serviceable parts inside. Take your computer to an authorized dealer for repair or upgrade services.
- Do not drop or jar your computer.
- Turn off your computer before connecting or disconnecting any devices.
- Use only the power adapters supplied with your computer. Others may not work with your computer and may damage the computer.
- Keep dirt and liquids away from the I/O port panel and the CPU fan outlet. If you spill anything unto the computer, shut it down immediately and unplug the power adapter. Depending on what you spilled and how much, you may bring your computer to an authorized dealer for checking.
- If the computer has been in a cold place for several hours, let it warm up to room temperature before using it.
- Do not expose your computer to very low (less than -20^{o}C) or very high (more than 50^{o}C) temperatures.
- Do not move the computer when you hear the hard disk spinning. When you want to power off your computer, first close all programs and shutdown operating system.
- Power off all external devices when your computer is not in use.
- Do not place heavy objects on top of the computer.
- Install your computer near the power outlet where it is easily accessible.

6.2 Protecting Against Static Electricity

Static electricity can harm electronic components inside your computer. To prevent static damage, discharge static electricity from your body before you touch any of your computer's electronic components, such as a memory module. You can discharge static electricity by touching an unpainted metal surface on the computer's input/output (I/O) panel.

6.3 Maintaining Your Hard Disk

Losing your data has the same consequences as a system break down. Users must make it a habit of doing hard disk maintenance every week or so. Here is some maintenance you could do:

- Always back up your data files from your hard disk.
- Install a virus detecting program to monitor virus that could tamper your files.
- When you want to power off your computer, first close all programs and shutdown operating system.
- Never move or raise the computer while the hard disk is being accessed, most especially don't jar the hard disk as this may cause a hard disk crash.
- Use hard disk maintenance programs like **DEFRAG** or Norton Utilities **SPEEDISK**. These reorganize your hard disk by eliminating fragmentation and improving your hard disk access time.
- Install a system password in your computer so others won't be able to use the hard disk.

6.4 Troubleshooting For Starters

If you encounter a problem with your computer or any software application problem, go through the following list first before calling for support and service:

- Is there any external power source connected?
- Is the computer turn on and the Power LED activated?
- Are all cables connected properly and securely?
- Are all needed device drivers been installed properly?

6.5 Basic System Troubleshooting

This section provides you with some basic system troubleshooting techniques which you may apply when encountering problems with your computer. If you are using Windows operating system, you can run the Help command and refer to Windows Troubleshooter. You can also go to the Windows Control Panel System Properties to check if all devices of your computer are properly detected and configured. Refer to Windows operating guide or run Windows Help command.

System Power Problems

- Check if AC adapter inserted properly. Make sure there is power on the AC adapter by checking if the LED on the adapter is turned on.
- Consult your dealer if still not able to power on.

System Boot Problems

- If system can power on but cannot boot, check if there is any BIOS error messages and refer it to your dealer. Try to run BIOS Setup and reload the default optimal settings.
- If there is no display and there is beeping sound, check if the memory modules are

properly inserted.

- If you have upgraded the CPU or memory, check if it is properly installed. Check proper jumper settings for the CPU.
- Check if the hard disk drive is inserted properly. Run BIOS Setup and set hard disk settings to Auto.

Built-in Keyboard Problems

- Check if the keyboard is properly connected.
- Run diagnostic program to check keyboard function.

CD-ROM Drive Problems

- Run **Auto-Detect Hard Disks** under the BIOS Setup program and check if the CD-ROM device is detected and configured on the Standard CMOS Setup menu.
- Check if you have properly installed the CD-ROM driver and if the CD-ROM drive is detected. You don't need to install the driver under Windows.
- Check the CD-ROM drive mechanism by loading and unloading CD. Check if the CD-ROM LED on its cover panel is turned on.
- Check the disc you are using if it is damaged. Use another disc and test again. Make sure the disc you are using corresponds to the supported format of the CD-ROM drive.
- Check also additional drivers and application programs you need to install in order to read inserted disc like audio CD or MPEG CD.

Audio Problems

- Check if the audio drivers are properly installed. Check IRQ and I/O address summary for any conflict with the audio drivers. Consult technical support.

- Check if external speaker is properly plug into the correct audio jack.
- Check if the volume controls are disabled. Adjust all volume controls.

External Floppy Drive Problems

- Run BIOS Setup program and check at Standard setup menu if the floppy disk drive is enabled and set to 3.5" 1.44MB drive type.
- Check if you properly attached the FDD into the parallel port.
- Make sure that the floppy diskette is not damaged or infected with virus. Also check if the diskette is formatted.
- Remove the diskette and insert again to realign diskette to drive.

6.6 Preparing For Computer Service

Before calling your dealer for computer service, please do the following things first:

- Back up all needed files from your hard disk if possible.
- List down the problem associated with the computer's use including the operating system, external device, and software application.
- If you kept the original packing, place unit inside and make sure packing is secure and safe. Include a list inside the package of all accessories you have return for service.

Owner's Record

The serial number of your computer is located at the base of the computer unit. Record the information below and refer to it whenever you call your dealer for service and support.

Model Name:

Model Number:

Serial Number:

CPU Speed:

Hard Disk Type:

Memory RAM size:

Date of Purchase:

Dealer's Name:

Place of Purchase: