790S
Socket 370 Notebook PC
User's Manual

Table Of Contents

Important

Federal Communications Commission Statement

This Equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the Federal Communications Commission (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 and outlet on a circuit different from that to which the receiver is connected.
◆ Consult the dealer or a experienced radio/TV technician for help.

Warning

A shielded-type power cord is required in order to meet FCC emission limits and to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Chapter 1 - Welcome

Main Features

◆ Intel Pentium II Celeron 366 ~ 433 MHz (Socket 370)
◆ Intel Pentium III Processor 500 ~ 750 for the PGA370 socket. (Flip-Chip Pin Grid Array, FC-PGA)
◆ Support 3D/AGP 2x Graphics Solution
◆ Provide two standard 144 pin S.O.DIMM sockets to expand memory to 512MB
◆ 32 bit Concurrent PCI bus
◆ Support 13.3/14.1 inch XGA TFT LCD
◆ Support Video Scaling and ZV port bus for video in and MPEG solution on PCMCIA Socket A (Upper Socket)
◆ Display with LCD/CRT/TV switching
◆ TV-Out solution for NTSC/PAL
◆ PCI Card-bus, including ZV port (Upper Slot), two type II slots or one type III slot
◆ Removable 24X speed or above 5.25" CD-ROM /4Xor6X DVD-ROM (Optional) with enhanced IDE local bus
◆ Stereo Sound Blaster-Pro compatible 16-bit FM-synthesis and 3D effect stereo speaker with speaker-out, line-in, and built-in internal microphone
◆ Support EPP/ECP mode
◆ Power Management Unit with full-On, doze, power-on suspend, suspend to RAM or suspend to Disk and support APM 1.2, ACPI 1.0.
◆ Built-In Fax/Modem. (Optional)
◆ Built-In 10/100 Ethernet.

Identifying External Components

Please refer to the text and diagrams below to identify all external components and accessories of the Notebook computer.

Front Right View
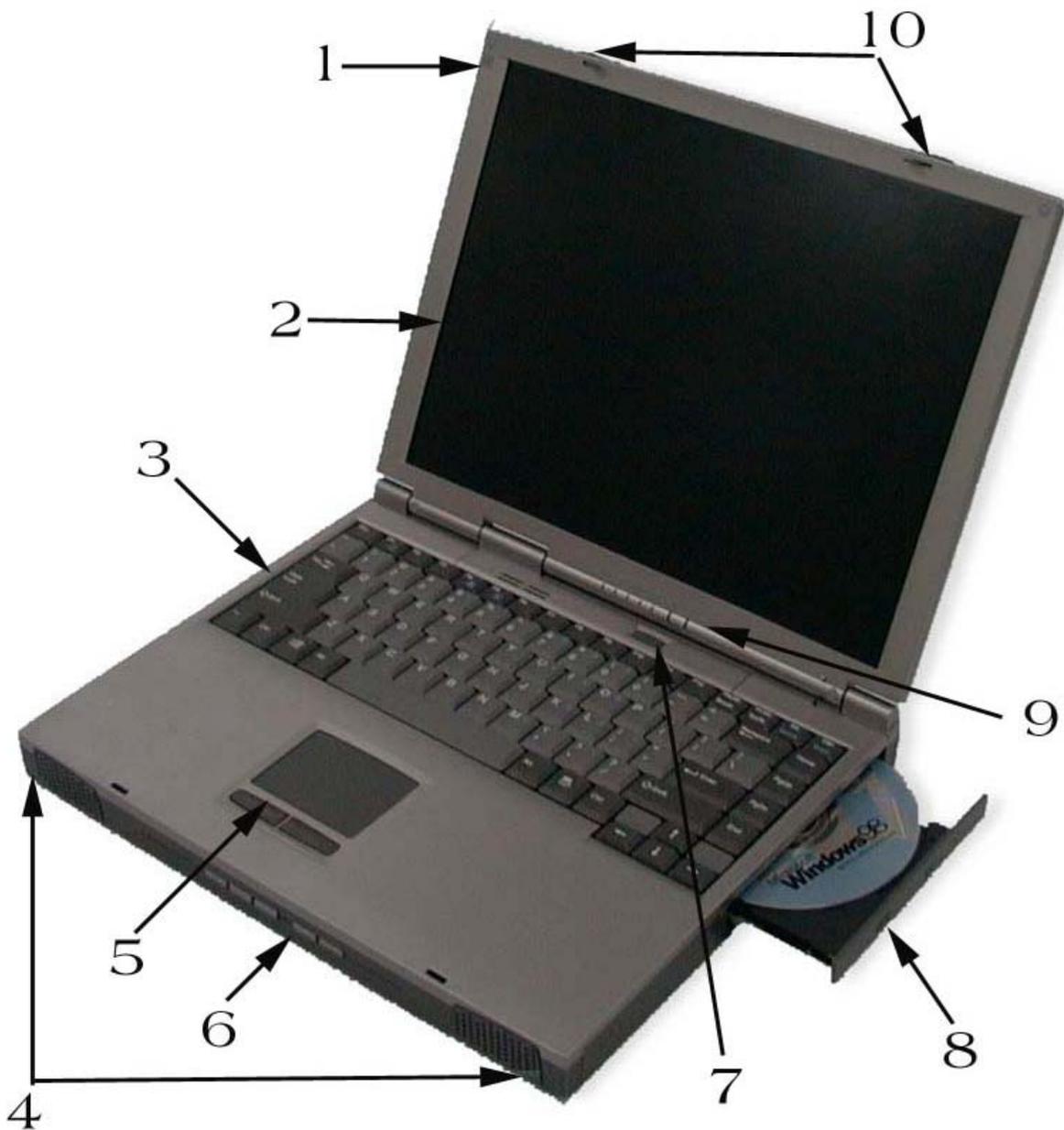
Figure 1-1: Front Right View of the Notebook

1. **Built-in Microphone**

   The microphone allows you to record voice annotations, music or other sound files.

2. **Display—14.1"/13.3" XGA LCD Screen**

   The 14.1"/13.3" TFT XGA LCD panels support resolutions up to 1024 x 768, 24bit ture colors.

3. **Keyboard**

   The low-profile keyboard emulates all the functions of a full-size keyboard including an embedded keypad and a full array of special function keys. The keyboard also includes Windows 95/98 keys. The Notebook keyboard is available in several languages.

4. **Built-in Stereo Speakers**

5. **Touchpad**

   The pressure sensitive Touchpad provides all the functions of a two-button mouse and can be used concurrently with an external PS/2 mouse.

6. **Security Function Keys.**

   5 button pure hardware solution, 800K possible combination passwords.

7. **Power Button**

   Press this button to turn the computer on or off, ACPI compatible power management function under Windows 98/2000.

8. **CD-ROM/DVD ROM Module**

   The built-in CD-ROM/DVD-ROM module allows you to take advantage of the variety of multimedia CD/DVD titles now available on the market. You can also listen to audio CDs.

9. **System Status LED**

   This LED informs you of the computer's current operating status at a glance.   The different LED that may appear are: AC-IN,Suspend, FDD activity, HDD activity, Caps Lock, Scroll Lock, Number Lock.

10. **Display Panel Latch**

    This latch is used with the display panel latch to release the display panel from its locked or closed position.

Front Left View

Please refer to *Figure 1-2* and the descriptions that follow to identify the components on the left side of the Notebook.

Figure 1-2: Front Left View of the Notebook

1. **Kingston Security Lock**

   You can use the Kingston Security Lock to lock your Notebook to a desk or other large stationary object to protect against theft.

2. **Built-In Ethernet Jack**

3. **Built-In Fax/Modem Jack. (Optional)**

4. **PCMCIA Slots**

   Two PCMCIA Type II cards can be inserted into these slots. The lower slot also supports one Type III PCMCIA.

5. **Built-in FDD Module**

   The Notebook comes with a 3 Mode FDD module, 720KB double density or 1.44MB high density 3.5" floppy diskette, with 1.2MB format support for NEC PC compatibility.

Rear View

Please refer to *Figure 1-3* and the descriptions that follow to identify the components on the rear side of the Notebook.

Figure 1-3: Rear View of Notebook

Open the two protective port covers located on the rear of the Notebook. Please see *Figure 1-3.*

1. **DC-In Jack**

   Connect the AC Adapter power lead to this jack

2. **Fast Infrared Communication Module (FIR)**

   The FIR Module allows wireless communication between the Notebook and another IrDA compliant computer or device.

3. **Serial (COM1) Port**

   This port is used to connect RS-232 serial devices of external mice, fax/modems to the Notebook.

4. **Parallel (LPT1) Port**

   This port is normally used to connect a printer to the Notebook.

5. **VGA Display Port**

   This port is used to connect an external monitor (CRT).

6. **FAN Out**

   This area will bring the heat out.

7. **USB Ports**

   These ports was designed in full compliance with the Universal Serial Bus specification 1.0.

8. **TV Out Port**

   This port allows you to view the Notebook's Video output on a television monitor.

9. **External keyboard or PS/2 mouse Port**

   This port is for connecting an external PS/2 mouse or a keyboard to the Notebook.

10. **Audio Line Out Jack**

    This stereo jack is used to connecting external stereo speakers to the Line out port for high quality sound.
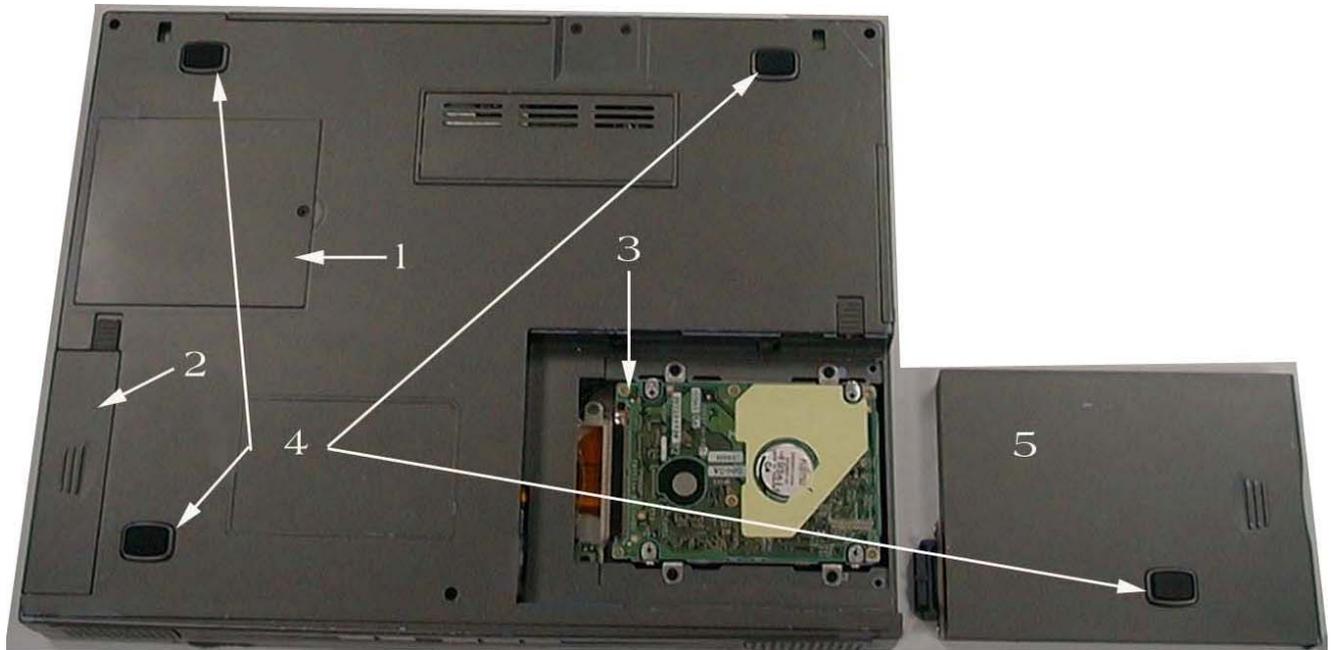
11. **Audio Line In Jack**

    This stereo jack is used to connect external audio sources. If enable four-speaker, the Line-in will become a rear output. You can connect 4 speakers such as Front and Rear.

The Bottom View

Please refer to *Figure 1-4* and the descriptions that follow to identify the components on the bottom of the Notebook.

Figure 1-4: Bottom View of Notebook

1. **RAM Cover**

2. **Removable Battery Module**
   Your Notebook comes equipped with a factory-installed battery pack module.　After the battery shuts down, the module can be removed and replaced with a charged battery. Additional battery packs are optional.

3. **Built-in Hard Drive**
   The built-in 2.5" (9.5mm max. height) HDD supports Ultra-DMA/33 module with storage capacity 2~12GB or above.

4. **Rubber Stand**

   This rubber stand was to lift up the machine because heat-dissipation must go through the bottom of notebook. If this rubber stand was removed, please DO NOT use this machine & contact your dealer immediately !!!

5. **Built-in FDD Module**
   The Notebook comes with a 3 Mode FDD module, 720KB double density or 1.44MB high density 3.5" floppy diskette, with 1.2MB format support for NEC PC compatibility.

- **The CPU should only be replaced by a qualified service technician.   It is recommended that you don't remove the CPU yourself.   You could damage the CPU.**

- **This system need fresh air to dissipate the heat of system, please make sure that the bottom of Notebook have a space for heat-exchange. If your Rubber stand was removed, STOP to use & contact your dealer for repairing.**

Chapter 2 – <u>System Status LED</u> & <u>HOT-KEYS</u>

System Status LED

Located below of the LCD panel, the System Status LED informs you of the Notebook's current operating status at a glance. Upon activating a certain function, a symbol or icon corresponding to that function will appear in the LED until you deactivate that feature. The symbol will remain in the LED indicating that the feature is engaged.

Figure 2-1 shows the "System Status LED" with all the symbols that can be displayed.   A description of each of the icons is listed below.

Figure 2-1: The System Status LED

The icons are explained from left to right.

Power Status
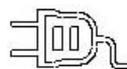
There are three colors to show the power status. When the Green LED lit, that means the AC Adaptor is being plugged-in the notebook. When the Orange LED lit, that means the notebook is using battery power. When the LED shows orange and flash, that means the battery is being charge.

Suspend

The faucet icon indicates that the system status is in standby mode. The power management system is set using the system BIOS on boot-up and also defined under OS' power management of ACPI.

FDD Activity

Indicates when lit that means the system is accessing the floppy disk drive.

HDD Activity
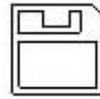
Indicates lit that means the hard disk or CD/DVDROM is being accessed.

Scroll Lock

Upon pressing the [Scroll Lock] key, this icon appears in the system window indicating the scroll lock is engaged.   Press the [Scroll Lock] key again to deactivate this feature and turn off the icon.

Caps Lock

Upon pressing the [Caps Lock] key, this icon appears in the system window indicating that the Caps Lock feature is engaged.   Press the [Caps Lock] key again to deactivate this feature and turn off the icon.

Num Lock

Upon pressing the [Num Lock] key, this icon appears in the system window indicating the embedded keypad's numeric feature is activated.   Press the [Num Lock] key again to deactivate this feature and turn off the icon.

HOT-KEYS

Our system provides the followings Hot-Keys:

FN+F5   **Disable/Enable system sound generation**
FN+F7   **Increase Volume**
FN+F8   **Decrease Volume**
FN+F9   **Increase LCD brightness**
FN+F10   **Decrease LCD brightness**

Chapter 3 - Installing Device Drivers

This chapter covers the installation of device drivers for Windows 98 / NT / Windows 2000. Your Notebook may come with the Disk Operating System (DOS) already installed. This chapter will help you install and configure the ATI driver, , PCMCIA slots, Audio chip and DirectX 6 program.

Zero-Volt Data-Suspend Utility

In order to use the Save to Disk function you must first create a Save to Disk (STD) partition on the Notebook hard disk. The Zero-Volt Data-Suspend Utility (ZVHDD.EXE) is used to create this partition. During the Save to Disk operation the system state is written to this STD partition. When you restart your system, the system returns to the state it was in when you suspended to disk. You can resume work from where you left off.

Figure 3-1: The Zero-Volt Partition Utility

```
ZVHDD 2.22 -- Award NoteBIOS v4.51GP(tm) Zero-Volt Partition Utility
Copyright (c) Award Software Inc. 1996. All rights reserved.

Usage:    ZVHDD [options]

Options :
      /C (/FILE or /PARTITION) [/M:memsize]   -- Create OV file or partition
      /D (/FILE or /PARTITION)                -- Delete OV file or partition
      /R                                      -- Reformat OV partition


Parameters
      /M:memsize       Specifies the memory size (MB) of the notebook system
                       Available size is from 1 to 256
```

A simple procedure is outlined below.

1. Insert a diskette with the Zero Volt Utility program (ZVHDD.EXE) into drive A.

> **You can run the utility from the Hard Disk or from a diskette. We recommend that you run the utility from a diskette if you plan to store session data in a separate partition. Create a bootable diskette and run ZVHDD from the bootable diskette; partitioning the hard drive may destroy all existing data on the drive.**

2. When you install ZVHDD, you can choose to create either a binary file or a hard drive partition in which to store a suspend to disk session.

3. Type the following at the DOS prompt.

    `Zvhdd/C/file|/partition/M:`*`memory_size + VRAM_size + 3MB`* where

`/C`	Creates a file or a disk partition for a suspend to disk session data storage.
`/file`	Specifies a storage file name SAVE2DSK.BIN. This is a hidden file.
`/partition`	Specifies a disk partition for storage of session data.
`/M:`*`memory_size`*	Specifies a number from 1 to 256 to select the size in megabytes of the file or partition.

> **Creating a disk partition may cause loss of existing data on the hard drive. We recommend this method only for new systems with no data on the hard drive.**

Creating a Storage File

Here is an example of creating a storage file. For our example, we specify an 64MB memory size and 4MB VRAM.

1. At the DOS command line, type

    `zvhdd /c /file /m:71 (64+4+3)`

    and press [Enter]

2. A screen similar to the following appears:

```
ZVHDD 2.22--Award EliteBIOS(TM) v4.51PGM Zero-Volt Partition Utility   Copyright (c) Award Software Inc.
1998.  All Rights Reserved.

The file c:\SAVE2DSK.BIN has been created.

The system will now be reset to allow the BIOS to recognize the     changes.  If the system fails to reboot,
please power off the     power.

Press any key to reset the system......
```

3. Press any key to reboot the computer to allow BIOS to recognize the changes.

Creating a Storage Partition on the Hard Disk

Here is an example of creating a storage partition on the hard disk. We use 64MB of memory, 4MB VRAM in our example.

1. At the DOS command line, type

   ```
   zvhdd  /c  /partition  /m:71 (64+4+3)
   ```

   and press [Enter].

2. If you have enough space on your hard drive to create a storage partition, a screen similar to the following appears:

```
ZVHDD 2.22--Award EliteBIOSTM v4.51PGM Zero-Volt Partition Utility

Copyright (c) Award Software Inc. 1998. All Rights Reserved.

Formatting xxxxxxxxxxxxxx Bytes.

Press any key to reset the system......
```

3. If you don't have enough free space on your hard drive to create a save to disk storage

partition, a screen similar to the following appears:

```
ZVHDD 2.22--Award EliteBIOSTM v4.51PGM Zero-Volt Partition Utility

Copyright (c) Award Software Inc. 1998.  All Rights Reserved.


Warning: Not enough free disk space exists to create the        partition.


If you wish to make space for the partition, that will DESTROY ALL  the data on your hard disk!


OK to proceed, Answer Yes / No?
```

4. Press [Y] to proceed with the disk partitioning.   After your hard disk has been partitioned you will have to install an operating system on your main partition.

For further information on creating a Save to Disk partition, please refer to the ZVHDD131 Word Document found on the ZVHDD.EXE Utility Diskette or CD-ROM bundled with your Notebook.

Using the Zero-Volt Partition Utility to create a separate partition on your HDD may cause data loss on the HDD.   We recommend that you ONLY use the Zero-Volt Partition Utility to create a separate partition on new systems that have no data on the HDD.   Please consult the ZVHDD131 document on your CD-ROM or utility diskettes for details.

Driver Install

VGA Installation

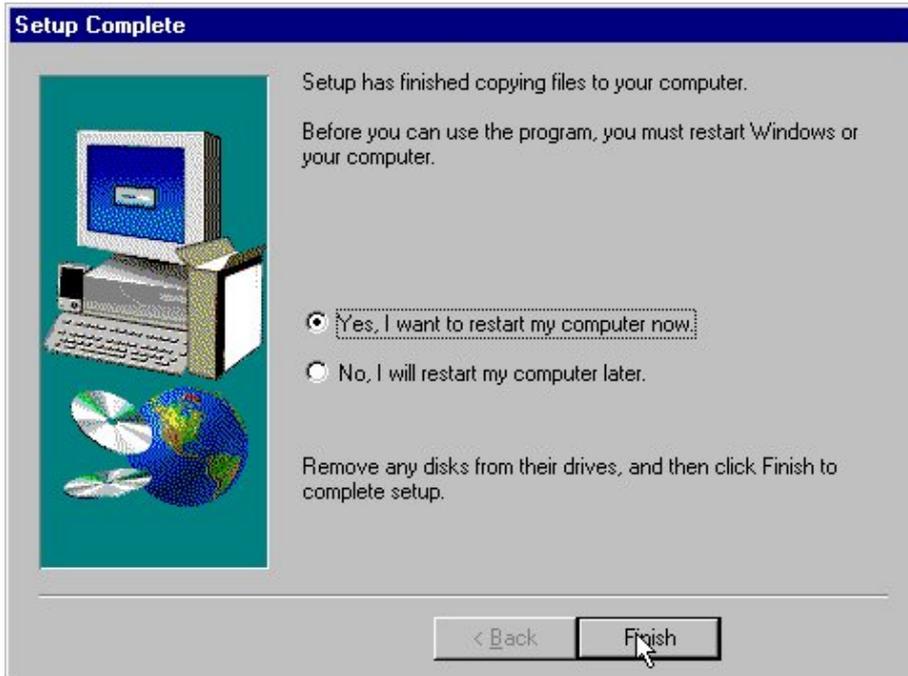### Microsoft DirectX Installation   (Win9X)

1. DirectX6.1 must be installed before ATI video driver under win9x.
2. DirectX6.1 is a program that Microsoft developed to enhance the performance of 3D multimedia application and is required to fully utilize the multimedia function of this notebook. The driver for DirectX6.1 is not included in the software bundle for Win98. Win98 Second Edition has already bundle DirectX 6.1. For further latest update, please go to Microsoft's Web site : www.microsoft.com to download the program.

ATI Driver Installation   (Win9X)

1. Insert Driver CD, the Autorun screen will show up as the following picture. Click "**Windows 98**" then click "**VGA**" to install VGA driver.

2. After the installation is completed, click the "**Finish**" button.

3. Windows needs to restart for the changes to take effect. Click the "**Finish"**button to restart windows and complete the installation of VGA driver.

ATI Driver Installation (WinNT)

1. Microsoft NT Service Pack 4 or above must be installed before install VGA driver for NT.
2. Insert Driver CD into CD/DVDROM device, click "**Windows NT"** then click "**VGA"** to install driver.
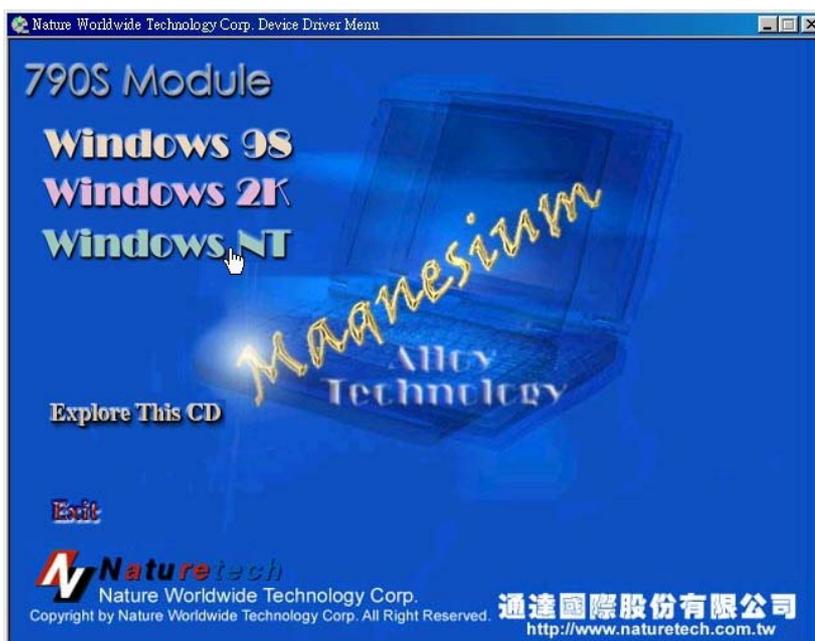
3   There are three disks folder in the VGA folder. Windows will install the ATI Driver from disk0 to disk2. Follow the installation request and locate to disk1 to disk2 step by step.
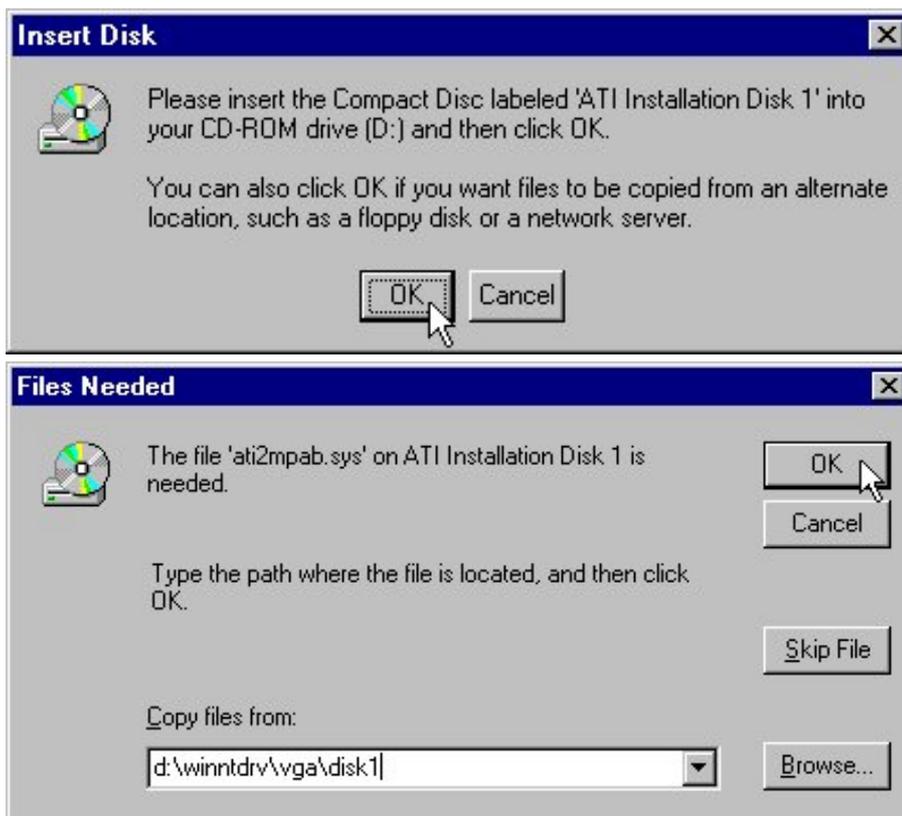
4   After the installation is completed, click the "**Finish**" button.

PCI Audio Driver Installation

Win9X Installation

1. In order to install Audio driver, you have to execute **uinstdrv** first.

2. Insert Driver CD into CD/DVDROM device, click "**Explore This CD**" as the blowing picture. Select CD\DVDROM, select "**W98drv**", "**Sound**", "**W95-98**", "**drv**". Double click "**uinstdrv**" icon then click "**Unistall Driver**" and restart Windows .
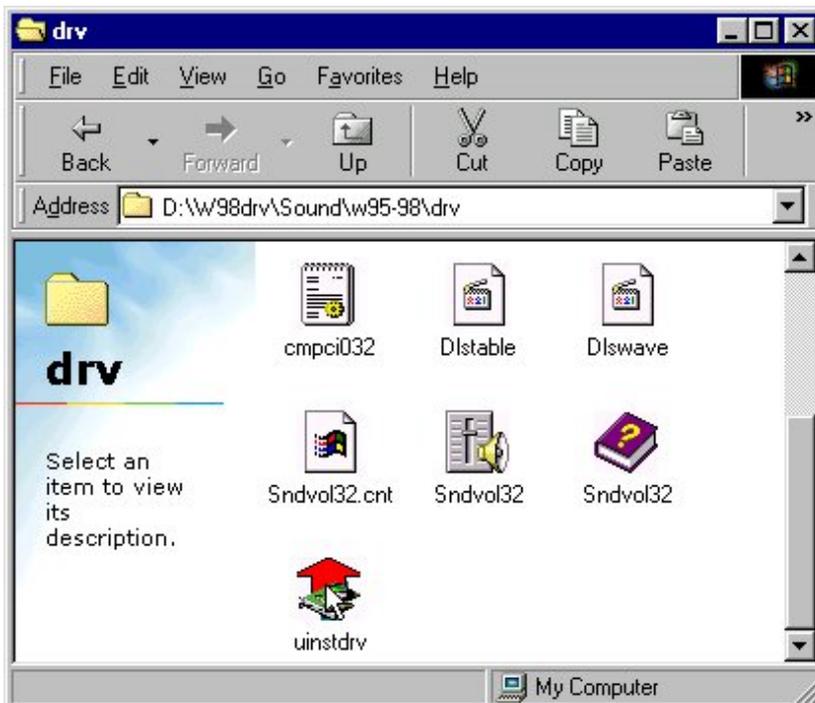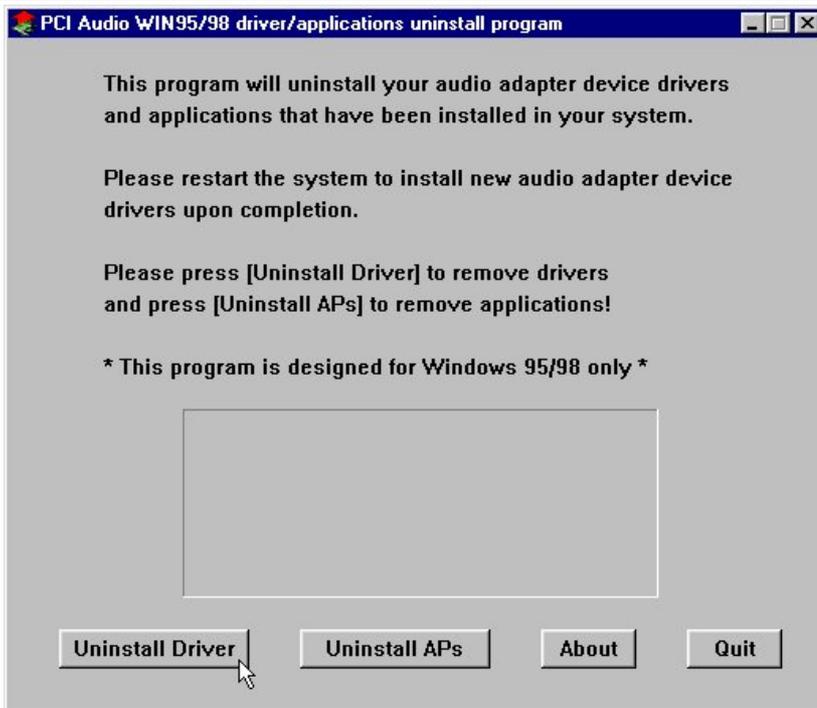
3   System will detect "**PCI Multimedia Audio Device**". Insert Driver CD into
      CD/DVDROM device, click **"Next"** and then locate to the path as
      "**D:\w98drv\sound\w95-98\drv**". Follow the installation procedure.

4   System will also find "**Gameport Joystick**" after installed Audio driver. You have to insert
      Windows 98 CDROM to install the device. You can also install Gameport driver in another
      way. Locate to the path as "**C:\windows\system**" to install driver.
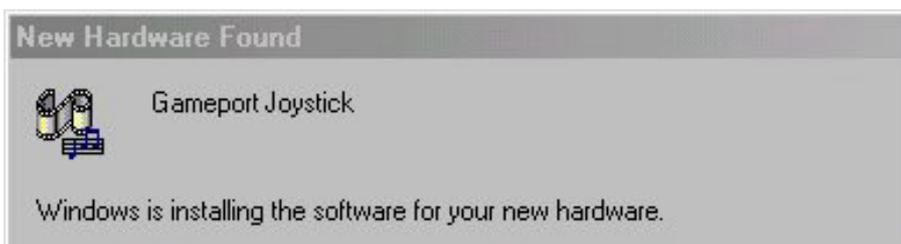
Audio Application Installation (Win9X)

1. After Audio driver be installed, system will ask to install Audio application, locate to "**D:\w98drv\sound**" to install Audio application.
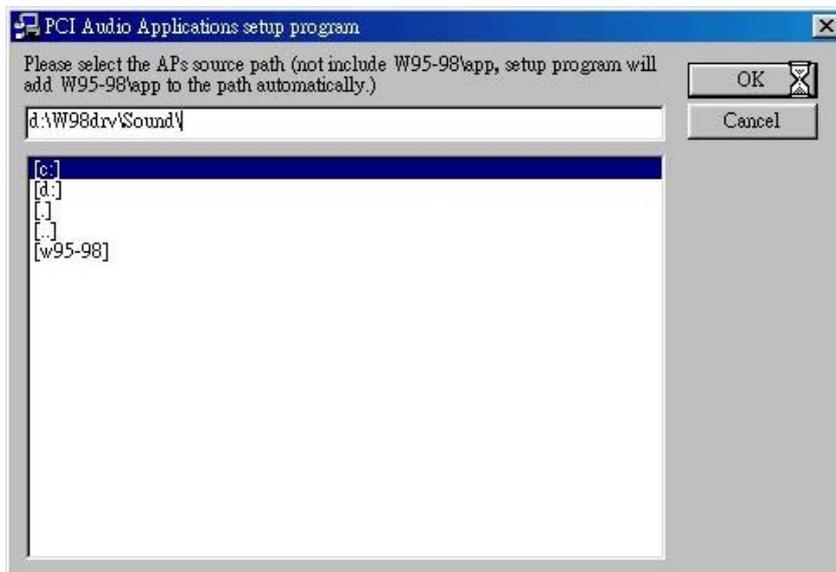
2. Language Setup. Select your own language, then click "**OK"** to install.
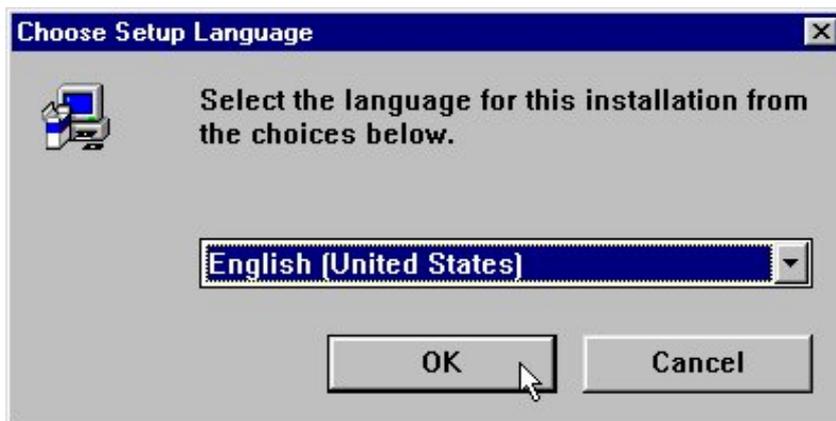
3. You can install Audio Application manual, locate to your CD/DVDROM device, click "**Explore This CD**", select "**W98drv"**, "**Sound"**, "**w95-98"**, "**app"**, double click **"Setup"** icon to install.

Windows 2000 Installation

1. Click "**Start"**, "**Settings"** , "**Control Panel"** , "**System"**, "**Hardware"**, "**Device manager"**, double click "**Multimedia Audio Controller"**.

2. Click "**Device"**, "**Driver"**, "**Update Driver"**, select "**Specify a location"**, locates to the path of your CD/DVDROM device, such as "**E:\W2000drv\sound**".

3. Follow the update procedure to complete audio driver update.
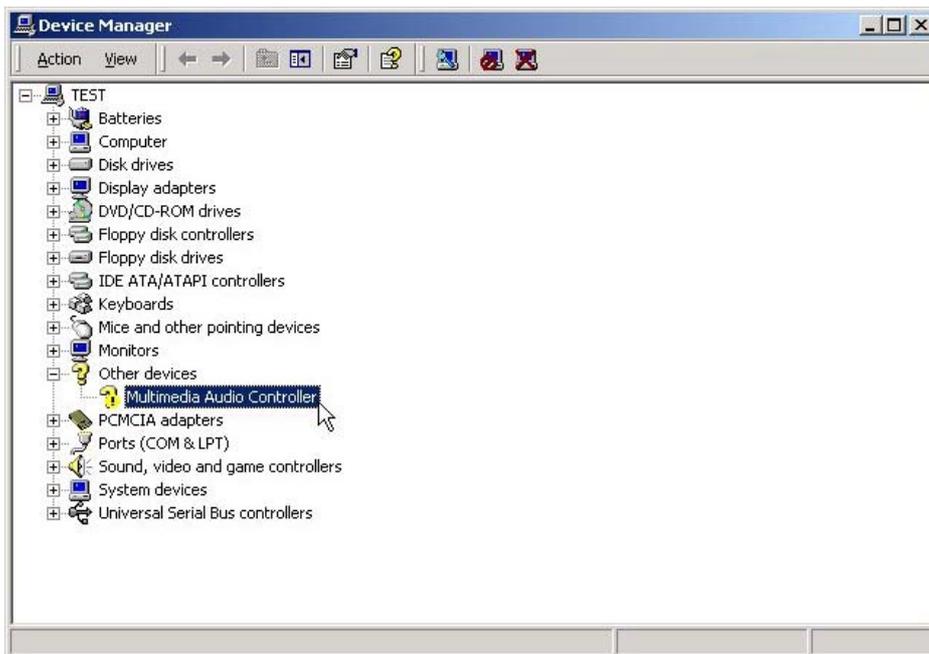
Windows NT 4.0 Installation

1. Click "**Start"** button, move the highlight bar to "**Setting"** item, and select the "**Control Panel"**. Double-click "**Multimedia"** icon.

2. Select "**Devices"** page, and click "**Add"** button.
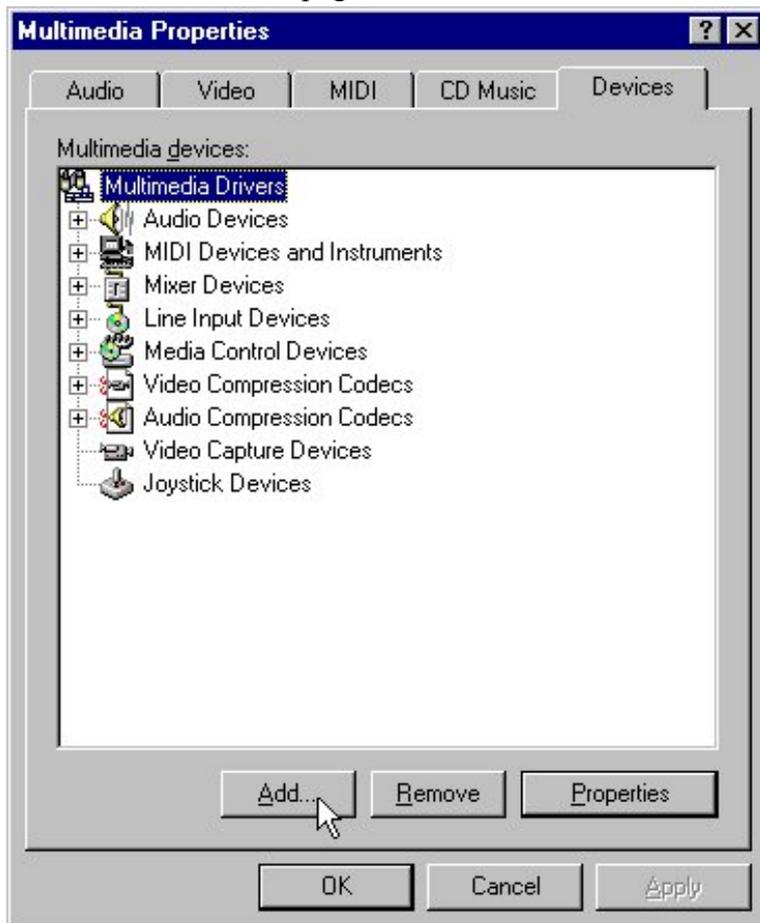
3. Select "**Unlisted or Updated Driver"** item of "**List of Drivers"** and click "**OK"**.

4. Click "**Have Disk"** and locate to the path of Driver CD such as "**D:\WinNTdrv\Sound \DRV**".
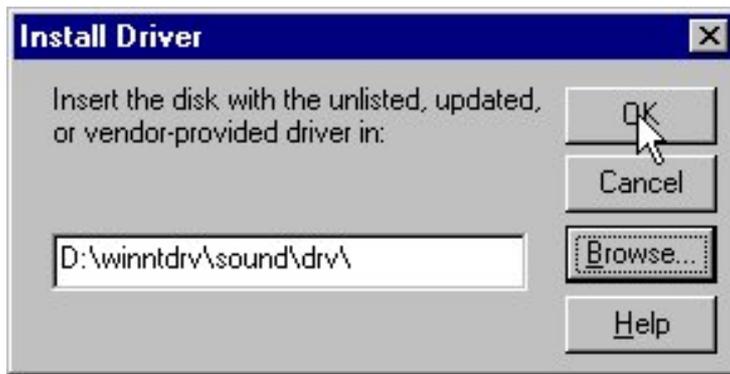
5. Select "**C-Media PCI Device**" item and press "**OK"** button.

6. Restart the system when being asked.

Now, you have already installed the PCI Audio Adapter under Microsoft Windows NT 4.0 successfully. If you want to install the Windows applications, continue the following steps:

Audio Application Installation (WinNT)

1 Explore the Driver CD, select "**Winntdrv"**, "**Sound"**, "**app"**, double click "**Setup"** icon to install.

2 Select your own language

1. Click "**OK"** to start the installation procedure, and follow the on-screen instructions to finish the installation. Then click "**Finish"** to complete setup procedure.

PCMCIA Driver Installation

Win9X Installation

1. Insert Driver CD into the CD/DVDROM, click "**Windows98**" then click "**PC CARD**".
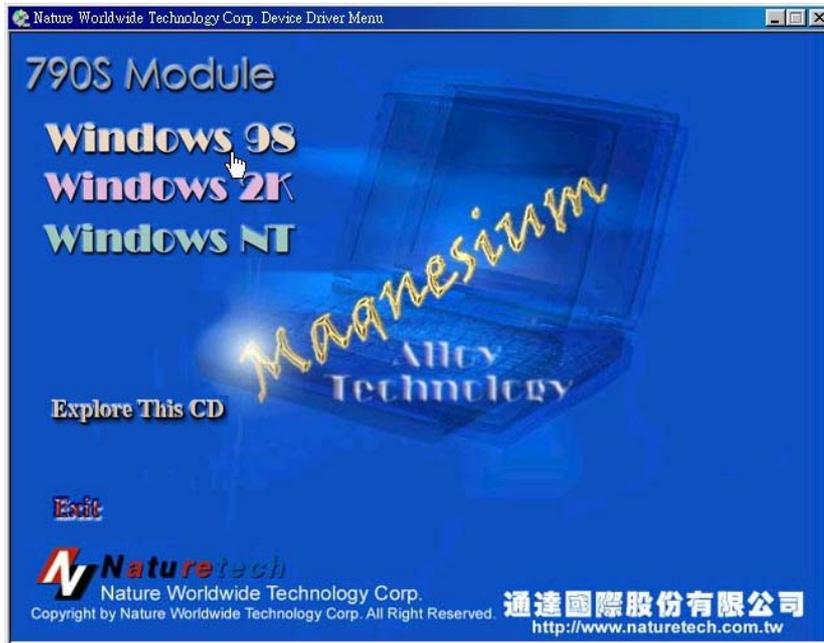
2. Click "**Install, then restart**",

2. System will find "**O2Micro OZ6832/6833 CardBus Controller**" after Windows restart, follow the on-screen instructions, locate to the path as "**D:\W98drv\PCMCIA\WIN98SE**" , click "**Finish"** to complete the installation.

PS : This model support PCMCIA ZOOM Video (ZV) Port **ONLY** on Socket A (Upper Socket).

PCI Communication Driver Installation

Win9X Installation

1. In order to install the modem driver, you have to check whether the device had detected under control panel. Please click "**Start**", "**Settings**" , "**Control Panel**" , "**System**" , "**Device Manager**". The "**PCI Communication Device**" should be shown up. You have to remove it before install driver.
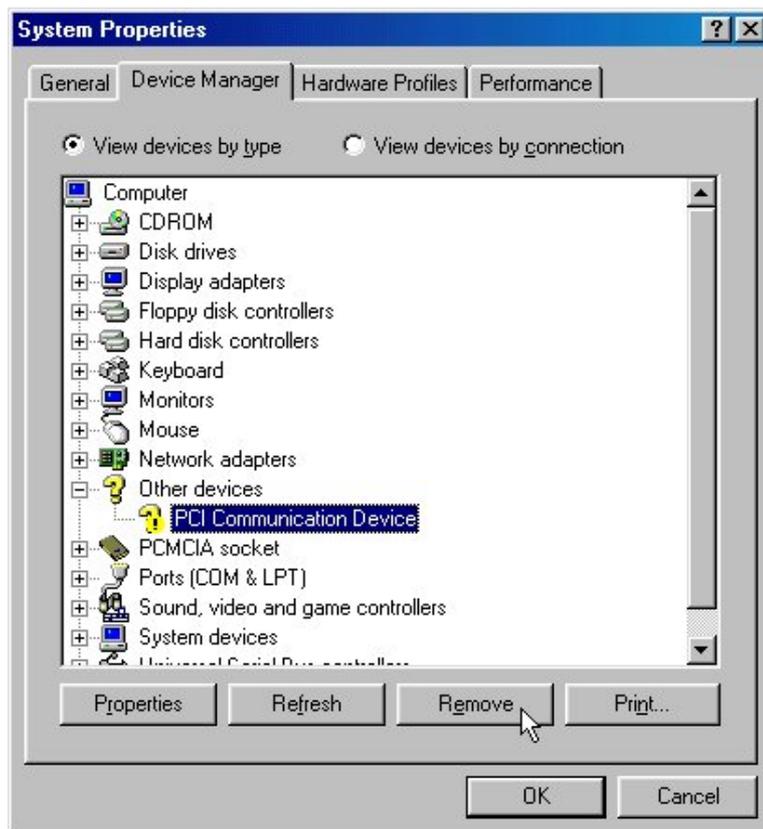
2. Insert Driver CD into CD/DVDROM device, click "**Windows98**" then click "**Fax/Modem**" to install modem driver.

Windows 2000 Installation

1. Click "**Start"**, "**Settings"** , "**Control Panel"** , "**System"**, **"Hardware"**, **"Device manager"**, double click "**PCI Simple Communications Controller**". Click "**Driver"** and then click "**Update Driver"**
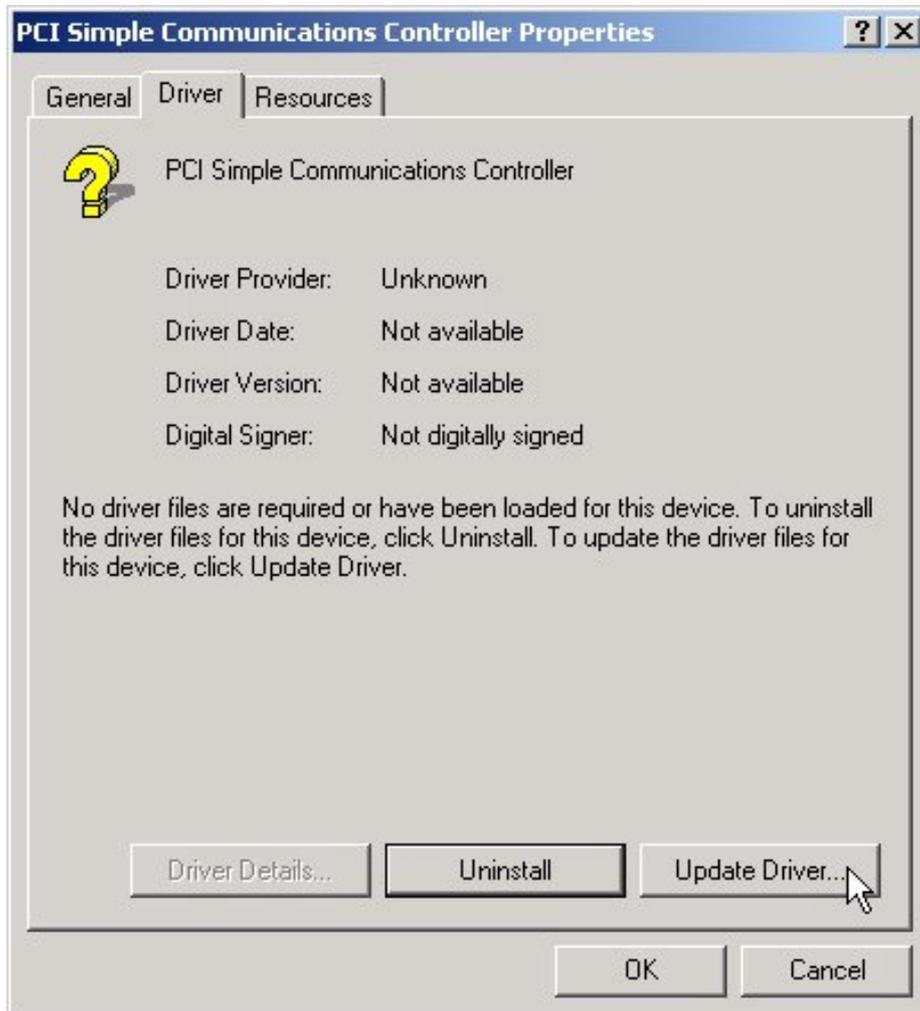
2. Click "**Specify a location**", locates to the path of your CD/DVDROM device, such as "**E:\W2000drv\modem**". Follow the on-screen instructions to finish the installation. Then click "**Finish"** to complete driver installation of   PCI Simple Communication Controller.

Win NT Installation

1　　Insert the Driver CD, click "**Windows NT**" then click "**Fax/Modem**" to install modem driver.

PCI Ethernet Driver Installation

Win9X Installation

1   Click "**Start**", "**Settings**", "**Control Panel**", "**System**", "**Device Manager**". Double click "**PCI Ethernet Controller**".
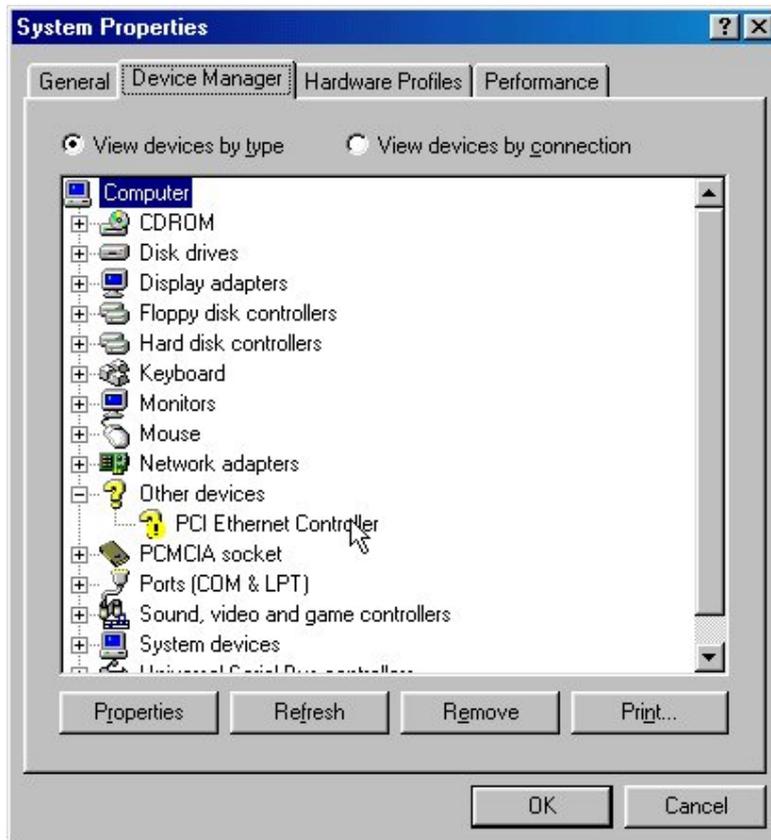
2   Click "**Driver**", then click "**Update Driver**". Locate to the path of Driver CD such as "**D:\W98drv\Lan**". Follow the on-screen instruction to complete the driver installation of PCI Ethernet Controller.

Windows 2000 Installation

1   Click "**Start"**, "**Settings"** , "**Control Panel"** , "**System"**, "**Hardware"**, "**Device manager"**, double click "**Ethernet Controller"**. Click "**Driver"** and then click "**Update Driver".**
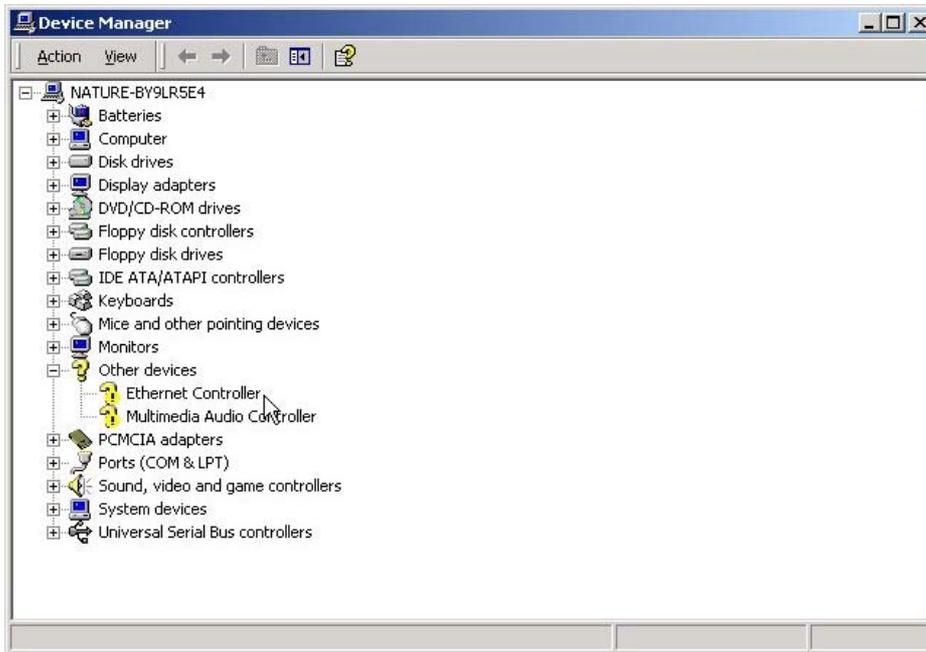
2   Click "**Specify a location**", locates to the path of your CD/DVDROM device, such as "**E:\W2000drv\Lan**". Follow the on-screen instructions to finish the installation. Then click "**Finish"** to complete driver installation of Ethernet Controller.

Windows NT Installation

1   Select "**Start"**, "**Settings"** , "**Control Panel"** , "**Network"**, select "**Wired to Network"**
     then click   "**Next"**, "**Select from list"**, "**Have Disk"**.

2   Locate to the path of Driver CD as "**D:\winntdrv\lan**". Follow the installation procedure
     and complete the driver install. Then setup your network settings after install Ethernet
     device.
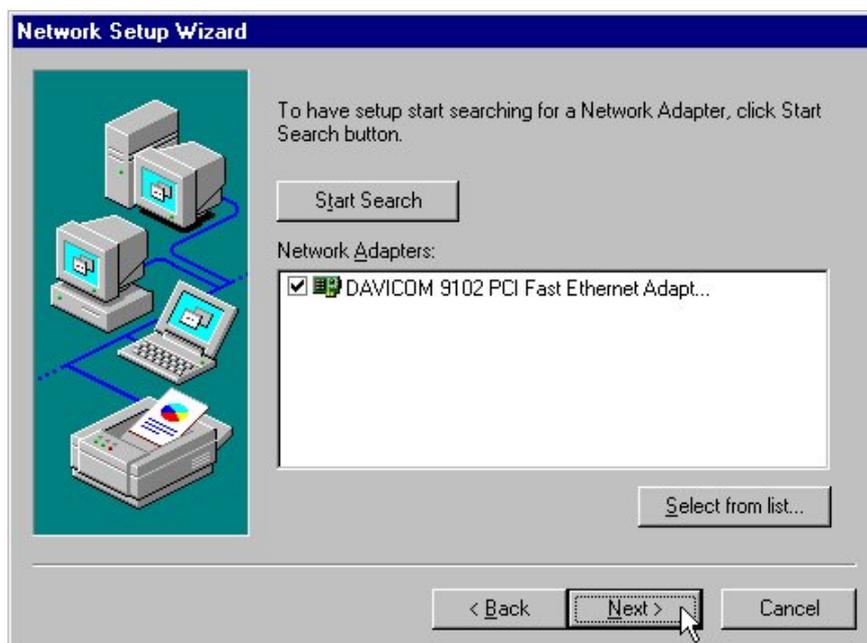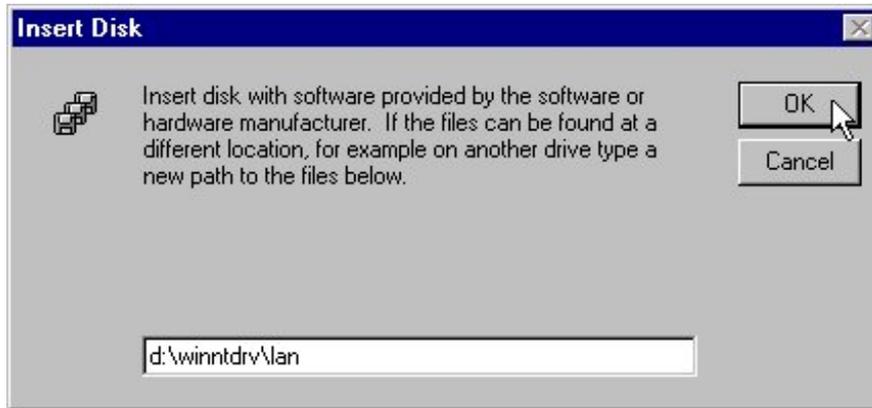
Chapter 4 - The CMOS Setup Program

A built-in Setup program allows you to customize the Notebook to suit your personal work habits. This program gives you control over the Notebook power management and security system, allowing you to configure the Notebook for different working environments such as the home, the office, or on the road. The Setup program, or more specifically the Award BIOS (Basic Input and Output System) Setup program, employs a menu driven graphical user interface. This intuitive program can be controlled by keyboard input. With easy-to-use menus, you can configure such items as:

- Hard drives and peripherals

- Bootup Drive Sequence

- Password protection

- Power Management Features

A more technical way of describing the function of the Setup program is that it enables you to make changes to the system configuration and tailor your system to reflect installed hardware or alter system performance. It is a ROM-based configuration utility that displays the system configuration status and provides you with a tool to set system parameters. These parameters, which include system configuration and chipset internal register data, are stored in non-volatile battery backed-up CMOS RAM which retains this information even when the power is turned off. When the Notebook is turned back on, the system is configured with the values stored in CMOS.

The settings made in the BIOS Setup program intimately affect how the Notebook performs. Incorrect settings can cause the Notebook to malfunction. When set properly, the Notebook will perform at optimal efficiency for your individual work habits and environment. It is important, therefore, to first try to understand all the Setup options, and second, to make settings appropriate for the way you use the Notebook.

You should run the Setup program under the following conditions:

- You have set up the computer for the first time and you get a message prompting you to run the BIOS Setup program

- You want to configure the Notebook to use a different booting device

- You want to reset the system clock

- You want to redefine the communication ports to prevent any conflicts

- You want to make changes to the Power Management configuration

- You want to change the password or make other changes to the security setup

The above items are only a few examples and are by no means a complete list.

This chapter will guide you through the Setup program by providing clear explanations for all Setup options. A standard configuration has already been set in the Setup Program, so you will very likely have little to worry about for now.   However, we recommend that you read this chapter just in case you need to make any changes in the future.

The next section discusses how to move around in the BIOS Setup program, as well as how to specify and save your new settings. A brief discussion of the optional settings among the different submenus follows.

Navigating through the BIOS Setup Program

The Setup program has been designed to make it as easy to use as possible. It is a menu driven program, which means you can scroll through the various sub-menus and make your selections among the various predetermined choices. If you accidentally make a setting and don't know which one to switch back to, the Setup program has a hot key that allows you to return to the previous value. The hot keys are discussed in more detail later in this chapter.

When turning on the Notebook for the first time you may get a message prompting you to run the BIOS Setup program. A warning message may appear on the screen if the hardware configuration is changed or the POST fails. This message will inform you of any errors or invalid settings and prompt you to run the Setup program to correct the problem.

Even if you are not prompted by a message instructing you to use the Setup program, at some time in the future you may want to change the configuration of your computer.   For example, you may want to enable the Security Password Feature or make changes to the Power Management settings. It will then be necessary to reconfigure your system using the Setup program so that the computer can recognize these changes.

The Award BIOS has been customized by adding important, but non-standard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

Getting Help

After you have highlighted a field, pressing [F1] will pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item.   To exit the Help Window, press [Esc] or the [F1] key again.

In Case of Problems

If you make and save system changes to the CMOS and find that your computer is no longer able to boot up, you can use the use the function key [F5] to load the previous values of CMOS. Alternatively, you can use the

function keys [F6] or [F7] to load BIOS default settings.

Only alter settings which you thoroughly understand.   We strongly recommend that you avoid making any changes to the chipset defaults.   These defaults have been carefully chosen by both Award and the Notebook manufacturer to provide the absolute maximum performance and reliability.

Award BIOS Setup

Enter the Award Setup program Main Menu as follows:

1. Turn on or reboot the system. After a series of diagnostic checks, a copyright screen appears.

Award Modular BIOS v4.51PGM, An Energy Star Ally

Copyright (C) 1984-99, Award Software, Inc.

590S xxxxxxxxx

INTEL® CELERON™ CPU at xxxMHz

Memory Test: 65536K OK

Press   DEL to enter SETUP

xx/xx/xx-xxxxxxxxxxxxxxxxxxxxxxxx

---

2. Press the [DEL] key to enter the Award BIOS setup program and the following screen appears:
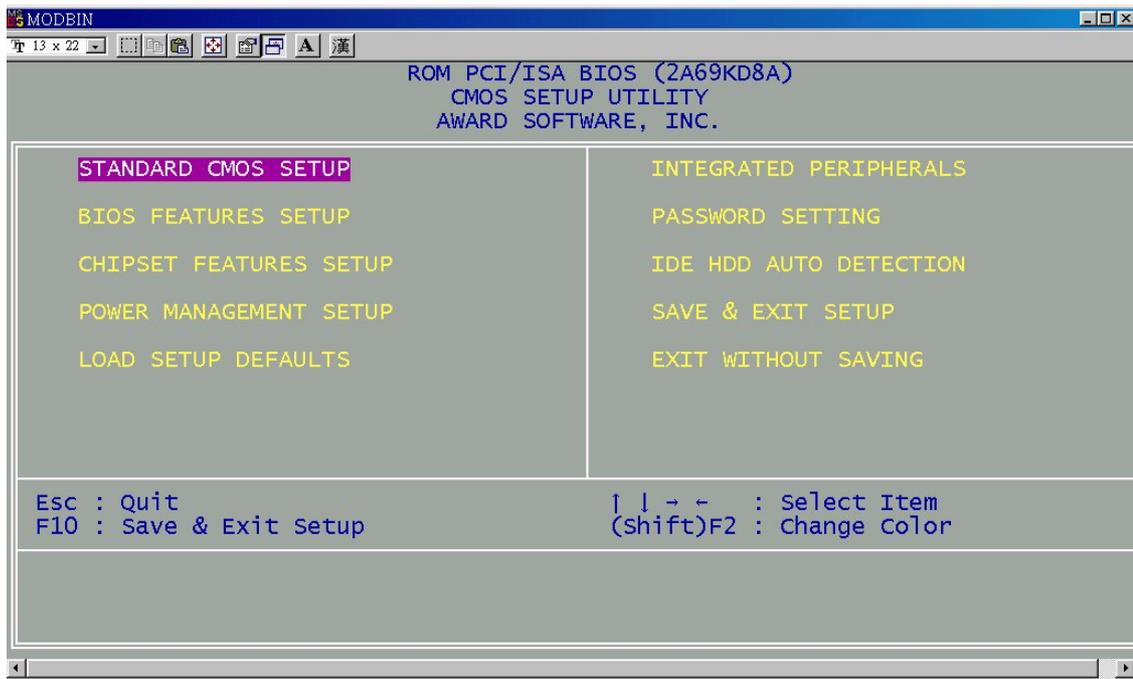
Use the cursor (arrow) keys to highlight items.   Press [Enter] to select a field item.   Use the PageUp and PageDown keys to change entries in a field.   You can press [F1] any time for context sensitive help.   Press [Esc] at any time to quit without saving any changes.

The following table provides more detail about how to navigate in the Setup program using the keyboard.

Function Key	Function Key Explanation
Up arrow [↑]	Move to previous item
Down arrow [↓]	Move to next item
Left arrow [←]	Move the cursor to the left item
Right arrow [→]	Move the cursor to the right item
[Esc] key	**Main Menu** -- Quit without saving any changes to CMOS **Other Menus** -- Exit current page and return to Main Menu
[PgDn] key	Increase the numeric value or make changes
[PgUp] key	Decrease the numeric value or make changes
[+] key	Increase the numeric value or make changes
[-] key	Decrease the numeric value or make changes
[F1] key	General help, only for Status Page Setup Menu and Option Page Setup Menus
[Shift] + [F2] key	Change the Setup program screen colors. You can choose from a total of 16 colors. Press [F2] to scroll forwards through the available colors. Press [Shift] + [F2] to scroll backwards through the available colors.

[F5] key	Pressing [F5] restores the previous CMOS values from CMOS (only available in Option Page submenus).
[F7] key	Pressing [F7] loads the default setup values.
[F10] key	Save all the CMOS changes, only for Main Menu

The Main Menu

The Main Menu options of the BIOS are briefly described below.

Option	Description
Standard CMOS Setup	This setup page allows you to change such items as the date and time and HDD designation.
BIOS Features Setup	This setup page allows you to set the Award BIOS special enhanced features.
Chipset Features Setup	This setup page allows you to make changes to the Award BIOS chipset special features.
Power Management Setup	This page allows you to make changes to the Power Management of the Notebook.
Load Setup Defaults	The Setup defaults are settings which provide maximum system performance.
Integrated Peripherals	This page allows you to make changes to I/O device settings.
Password Setting	You can change, set, or disable the Supervisor Password with this field.
IDE HDD Auto Detection	This field allows you to automatically detect and configure hard disk parameters. Award BIOS includes this feature just in case you are uncertain of your hard disk parameters.
Save & Exit Setup	Saves CMOS value changes to CMOS and exits setup.
Exit Without Save	Discards all CMOS value changes and exits setup.

Standard CMOS Setup

To enter this page, select "Standard CMOS Setup" from the Main menu and press [Enter]. The following menu appears:

```
ROM PCI/ISA BIOS (2A69KD8A)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Wed, Oct 13 1999
Time (hh:mm:ss) : 15 :  8 : 27

HARD DISKS          TYPE    SIZE   CYLS HEAD PRECOMP LANDZ SECTOR  MODE

Primary Master   :   0       0      0    0      0      0      0   AUTO
Secondary Master :   0       0      0    0      0      0      0   AUTO

Drive A : 1.44M, 3.5 in.

Floppy 3 Mode Support : Drive A

LCD&CRT : Both
TV Mode : NTSC
Halt On : All Errors

ESC : Quit              ↑ ↓ → ←  : Select Item       PU/PD/+/- : Modify
F1  : Help              (Shift)F2 : Change Color
```
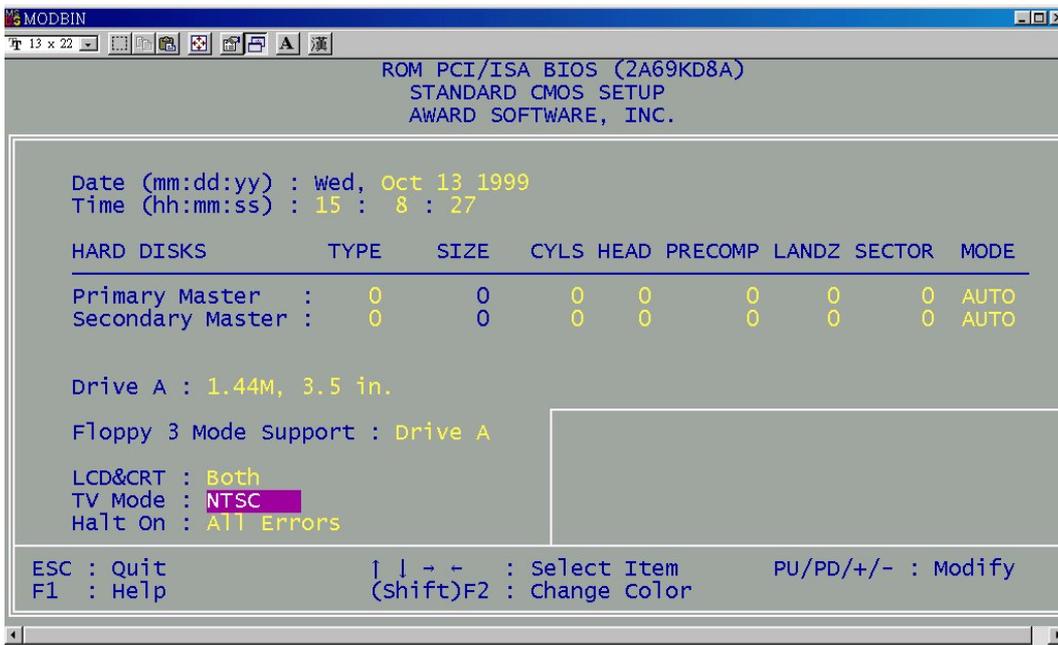
There are 8 fields to be set in the Standard CMOS Setup Menu. Use the arrow keys to highlight the item and then use the [PgUp] or [PgDn] keys to select the value you want in each item.

- *Date*

- *Time*

- *Primary Master/Secondary Master*

- *Drive A Type*

- *Floppy 3 Mode Support*

- *LCD&CRT*

- *TV Mode*

- *Halt On*

In these items, you must pay more attentions specially on two items :
- **LCD&CRT**: If you want to connect a CRT to system, you must be sure to change the value to "Both" or "CRT".
- **TV Mode**: If you want to connect a TV to system, you must be sure to enable this item. Also you need to make change on Win98.

BIOS Features Setup

This section allows you to configure your system for basic operation. You have the opportunity to select the system speed, boot-up sequence, shadowing and security. To enter this page, select "BIOS Features Setup" from the Main menu and press [Enter].   The following menu appears:
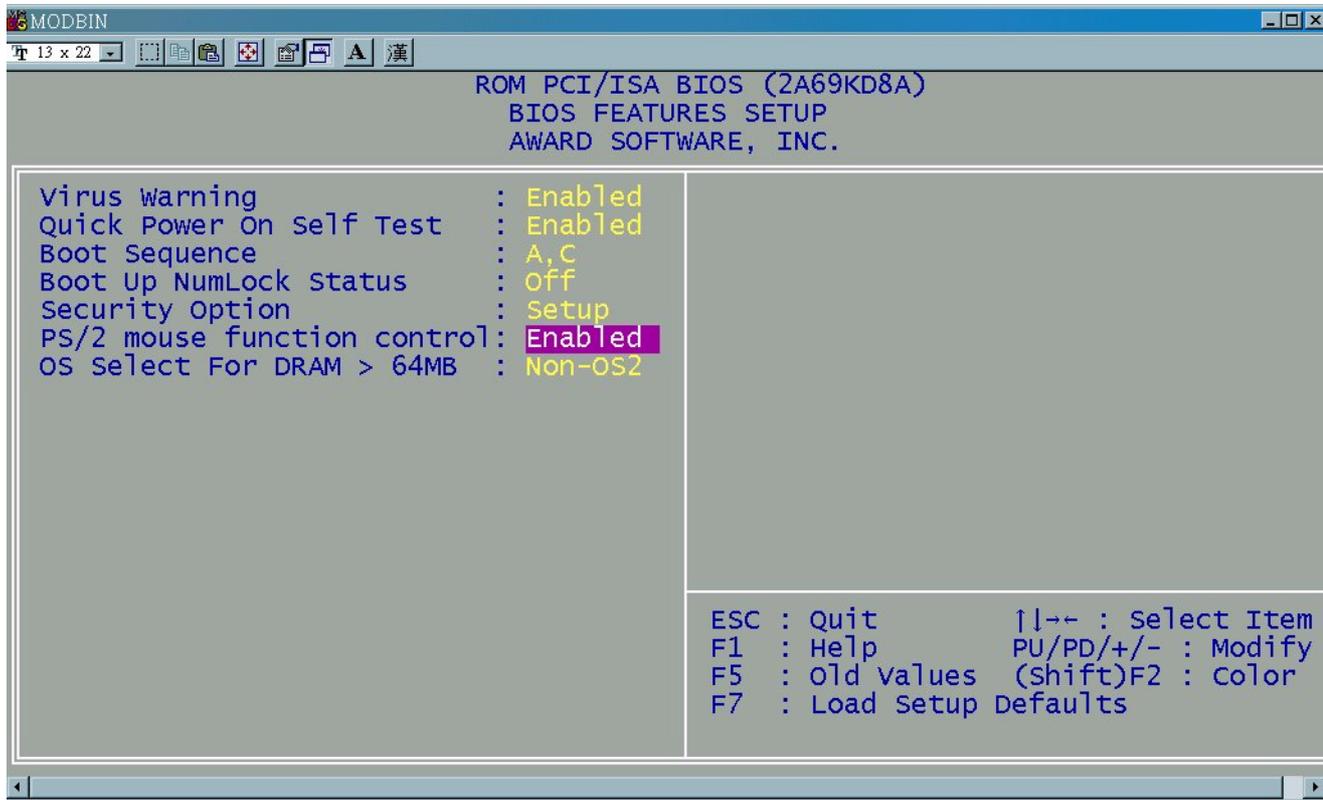
A short description of the screen items follows:

- *Virus Warning*

- *Quick Power On Self Test*

- *Boot Sequence*

- *PS/2 Mouse Function Control*

In these items, you must pay more attentions especially on two items:

- Virus Warning: Many disk diagnostic programs which attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you first disable Virus Protection beforehand.

- Quick Power On Self Test: Switch to adjust the speed of POST. You can made the speed of POST faster when enable this item.
- Boot Sequence: You can boot from floppy, hard disk or CD-ROM.
- PS/2 Mouse Function Control: This switch control Touchpad & PS/2 port. **If you want to connect a COM1 mouse, you must first disable this category.**

Chipset Features Setup

This section allows you to configure the system based on the specific features of the installed chipset.   This chipset performs the following functions:

- Manages the bus speed and access to system memory resources, such as DRAM and the external cache

- Coordinates communications between the conventional ISA bus and the PCI bus

We recommend that you **do not** alter the default settings. The default settings have been chosen because they provide the best operating conditions for your system.   The only time you might consider making any changes would be if you discovered that data was being lost while using your system.

Power Management Setup

The Power Savings menu of the Setup program allows you to enable and adjust the Notebook sophisticated power-saving features. Enabling these features will extend the life of the battery pack between charges. To make changes to power management settings, select "Power Management Setup" from the Main menu and press [Enter].   The following menu appears:

Power Management

This category allows you to select the type (or degree) of power saving. There are three selections for Power Management.
- **Maximum Performance**: System will get the best performance when you choose this selection. If you want to run some Benchmark programs, please remember to choose "Maximum Performance" to get better performance & higher score.
- **Maximum Battery Life**: System will get longer battery life when you choose this selection. If you want to run some Battery Mark programs, please remember to choose "Maximum Battery Life" for getting longer battery life.
- **User Define**: Allows you to set each mode individually.

```
MODBIN                                                        [_][□][×]
13 x 22    [][][] [] [] [A] [漢]
                    ROM PCI/ISA BIOS (2A69KD8A)
                      POWER MANAGEMENT  SETUP
                       AWARD SOFTWARE, INC.

    Power Management      : User Define


    Doze Mode             : Disable
    CPU IDLE Type         : Disable


    Suspend Mode Option   : POS
    Battery Low Suspend   : Disabled


                              ESC : Quit          ↑↓→← : Select Item
                              F1  : Help           PU/PD/+/- : Modify
                              F5  : Old Values  (Shift)F2 : Color
                              F7  : Load Setup Defaults
```
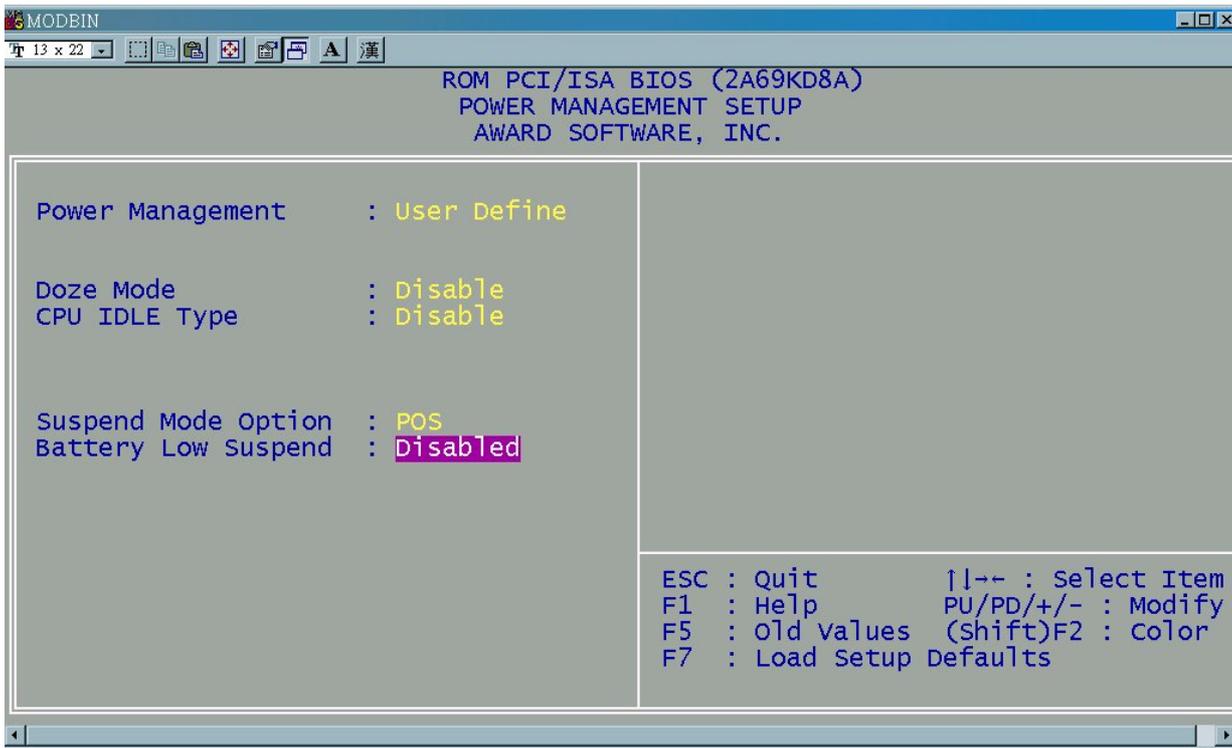
CPU Idle Type

There are two selections for CPU Idle Type.
- **Stop GRT**: When you choose "Maximum Battery Life" in the Power Management item, this category will be defined as "Stop GRT" automatically. This setting will make your system to save more power runtimely.
- **Disabled**: When you choose "Maximum Performance" in the Power Management item, this category will be defined as "Disabled" automatically. This setting will make your system to run as full-speed.

Suspend Mode Option

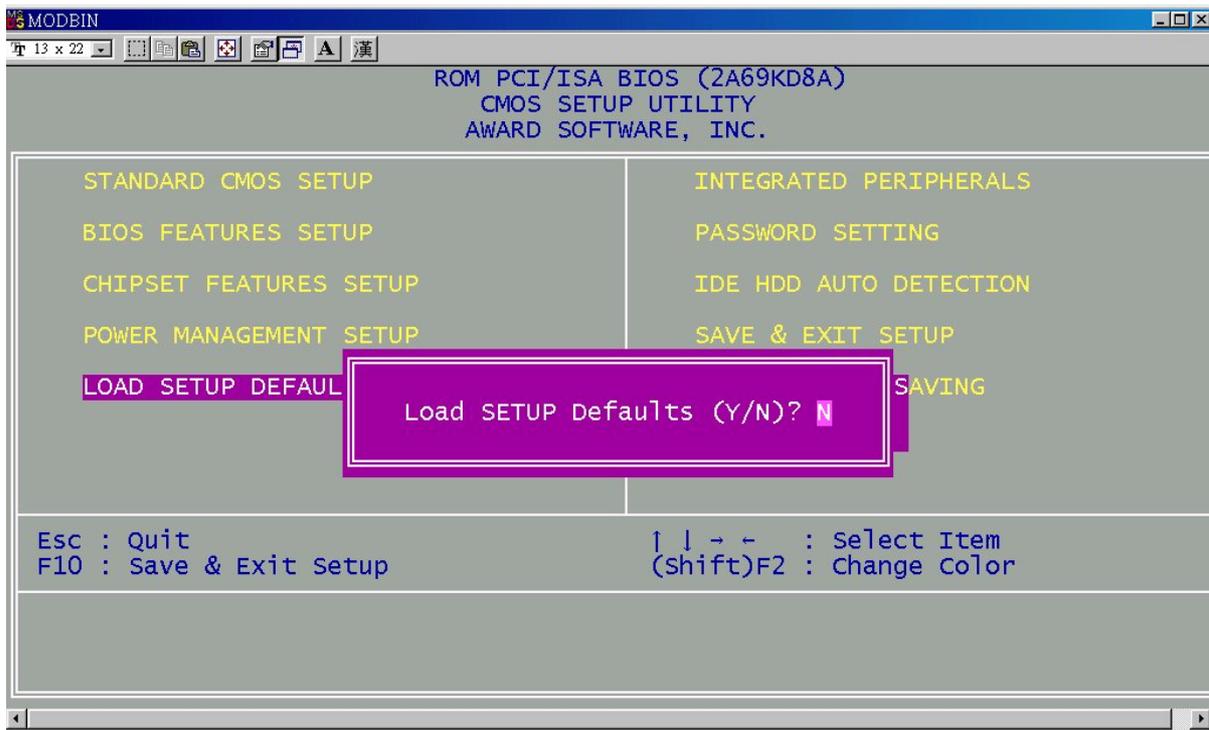There are two selections for this item.
- **POS**: **P**ower **O**n **S**uspend.
- **STD**: **S**uspend **T**o **D**isk.

Battery Low Suspend

- **Enable** : System will suspend when battery low occur.
- **Disable** : System will not suspend when battery low occur.

Load Setup Defaults

Select "Load Setup Defaults" from the Main menu and press [Enter].   The following screen appears.

Selecting this field loads the factory defaults for BIOS and Chipset features which the system automatically detects.   This field allows the optimum system configuration for your system.   If the CMOS is corrupted the defaults are loaded automatically.
To use the Setup defaults, change the prompt to "Load SETUP Defaults" and press [ENTER]

Integrated Peripherals

This section covers the Integrated Peripherals page. On this page you can set the Interrupt Requests (IRQs) for serial and parallel ports, set the parallel port mode. Select "Integrated Peripherals" from the Main menu and press [Enter].   The following screen appears.
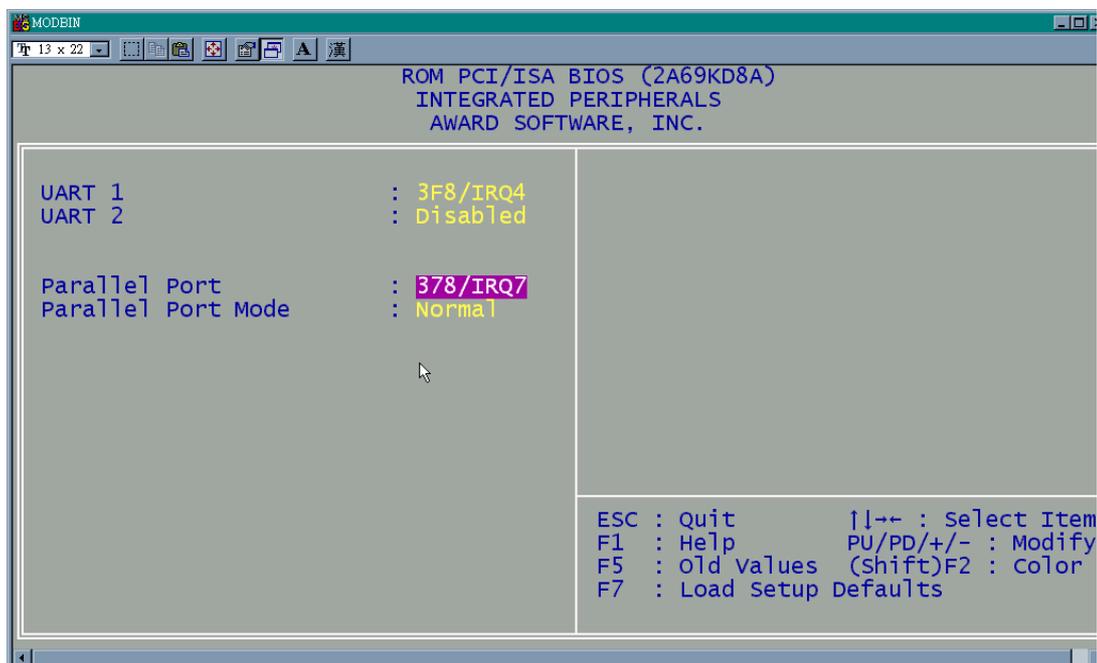
Among these items, you may pay more attentions on the following items:

UART 1

This item allows you determine the IRQ and I/O address of Serial Port 1. Options are 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Disabled. The default setting is 3F8/IRQ4.

UART 2

This item was a switch for Enable/Disable **Infrared Port**. If you want to use **IR port (Infrared)**, please remember to **ENABLE** this item.(The default value was Disabled.) If you enabled UART 2, you'll get the following screen:

Options are 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Disabled. If you want to use IR port, we recommend that you choose **2F8/IRQ3**. After you did so, there was a item happened "**UART 2 Mode**". In this item, options are **HPSIR**, **Fast SIR**. We recommend that you choose **Fast SIR**. After you did so, there was another item happened "FIR Mode Use DMA". This item will assign DMA 3 for FIR to use.
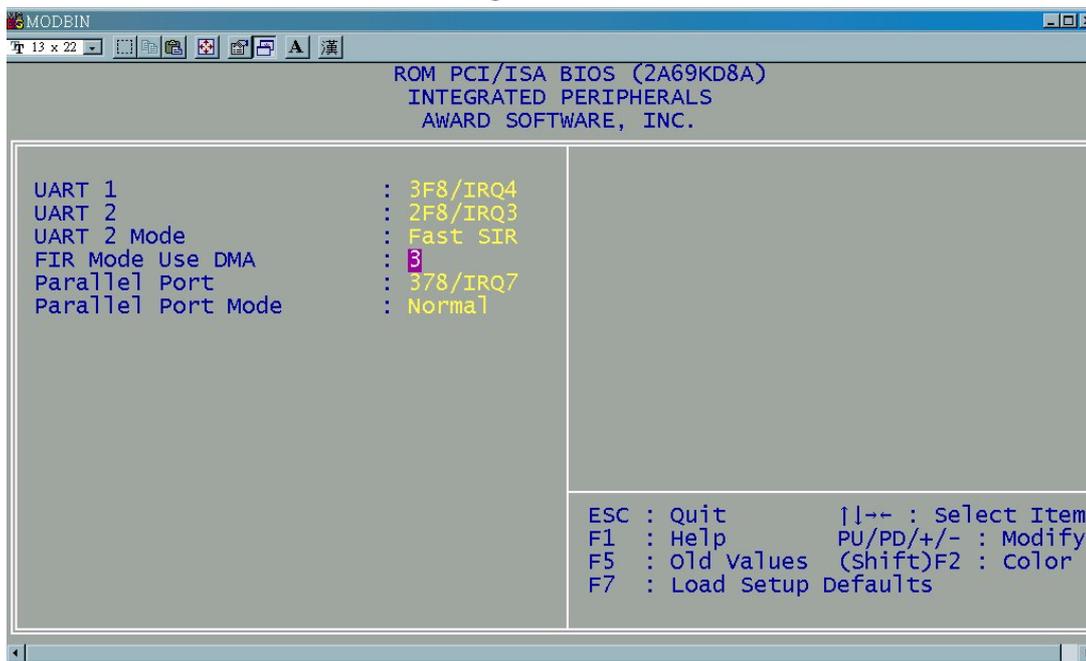
Parallel Port

This item allows you to set the I/O address and IRQ of the parallel port. Options are 378/IRQ7, 3BC/IRQ7, and Disabled. The default value is 378/IRQ7.

Parallel Port Mode

This item allows you to set the I/O address and IRQ depending on Device you use. Options are ECP, EPP, and Normal. The default value is Normal. When you set to EPP, there is option for EPP type: EPP1.7.

IDE HDD Auto Detection

You can use this utility to automatically detect the characteristics of most hard drives. Select "IDE HDD Auto Detection" from the Main menu and press [Enter]. You will see a screen prompting you to select a Primary Master. Press [Y] to accept the BIOS detected Primary Master hard disk drive. Press [N] to skip detection. After detecting your Primary Master HDD, BIOS will attempt to detect your Secondary Master, Primary Slave, and Secondary Slave drives.

Password Setting

This Main Menu item lets you configure the system so that a password is required each time the system boots or an attempt is made to enter the setup program. The Password Setting allows the user to boot up and also allows access to the BIOS Setup program. Follow these instructions to enable a Password Setting.

1. From the Main menu, select "Password Setting" and press [Enter]. You will see the following message:

```
ENTER PASSWORD:
```

2. Type the password, up to eight characters in length, and press [Enter].

3. You will be prompted to confirm the password. Type the password again and press [Enter]. You may also press [Esc] to abort the process.

4. To disable a password, just press [Enter] when you are prompted to enter the password. A message will confirm that the password is disabled.

```
PASSWORD DISABLED !!!
Press any key to continue…
```

5. Once the password is disabled, the system will boot and you can enter Setup freely.

When a password has been enabled, you will be prompted to enter it every time you try to enter CMOS Setup. This prevents an unauthorized person from changing any part of your

system configuration. Additionally, when a password is enabled, you can also require the BIOS to request a password every time the system reboots. This would prevent unauthorized use of your computer.

Save & Exit Setup

From the Main menu, move your cursor to "Save & Exit Setup" and press [Enter].   The following screen will appear.
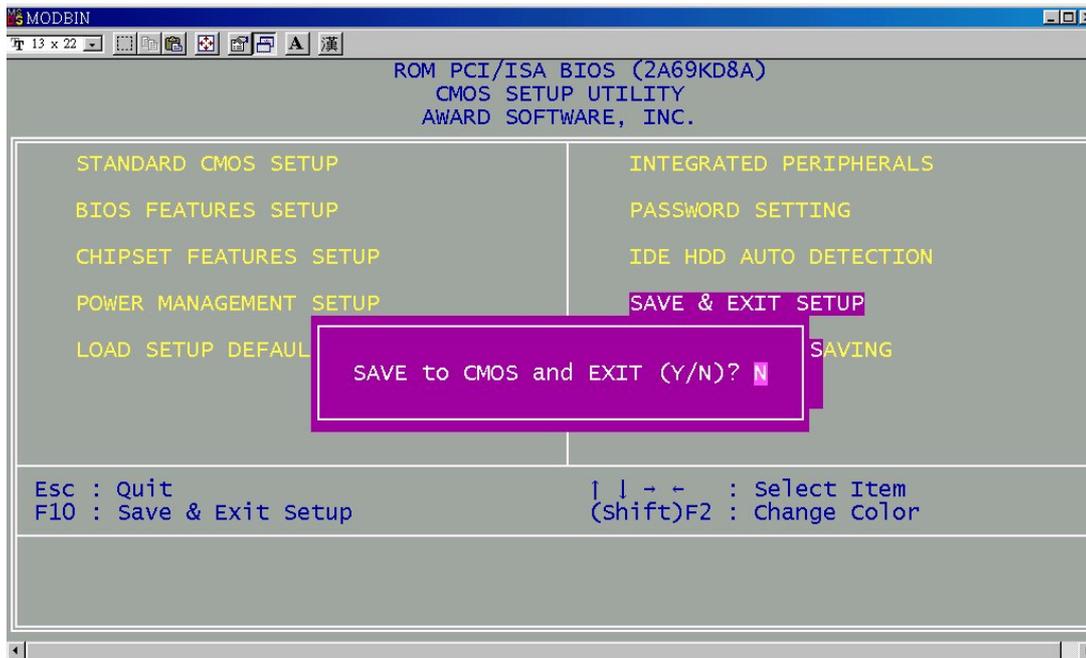
After you have made changes under Setup, press [Esc] to return to the Main menu.   Move the cursor to "Save and Exit Setup" or press "F10" and then press [Y] to change the CMOS Setup. If you did not change anything, press [Esc] again or move the cursor to "Exit Without Saving" and press [Y] to retain the old Setup settings.
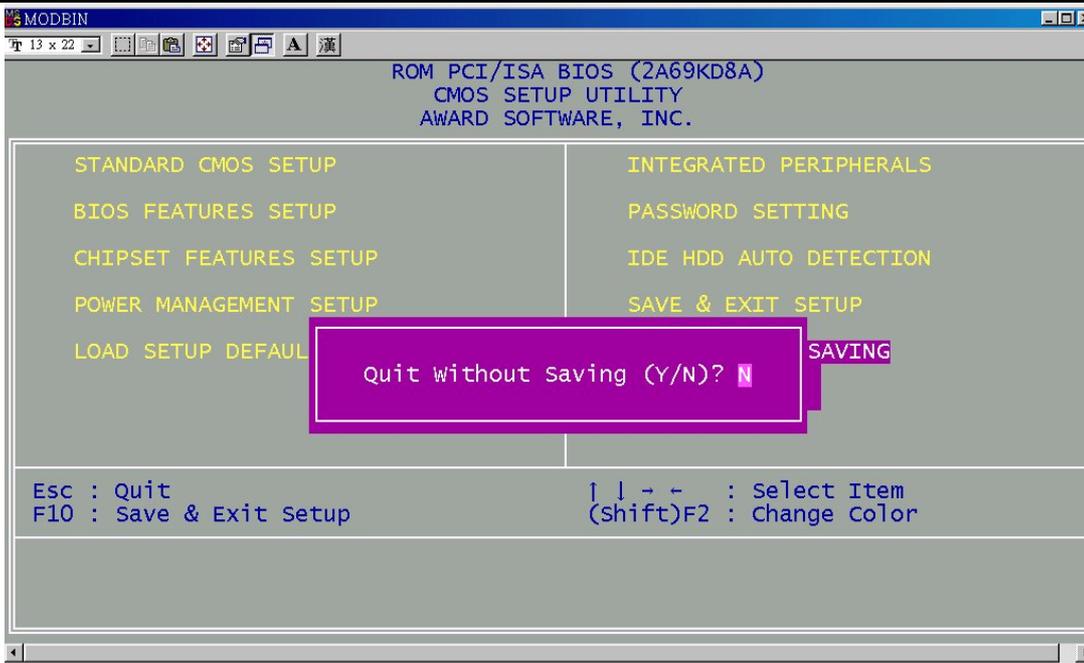
Exit Without Saving

From the Main menu, move your cursor to "Exit Without Saving" and press [Enter].   The following screen will appear.

After you have made changes under Setup, press [Esc] to return to the Main menu.   Move the cursor to "Exit Without Saving" and then press [Y] to exit the CMOS Setup without making any changes.

Chapter 5 - The Power System

This chapter contains information on the Notebook's power system, including the AC Adapter, the battery system, recharging the battery, and tips for conserving battery power. Also included is a detailed description of power management and each of the power modes.

The power system is comprised of two parts, the AC Adapter and the battery system. The AC Adapter converts AC power from a wall outlet to the DC power required by the computer. There is one pack inserted in the battery housing at the side of the computer.

This section will go over AC and battery power operation and explain the software power saving features that are built into the computer.

The Battery Power System

- *A new battery should be fully charged before using.*
- *We suggest you, if possible, always plug in the AC adapter whether the Notebook is in use or not to keep your battery power full.*
- *When the battery power is low and causing the system "Save to Disk" (S2D), please plug-in the AC adapter to charge the battery immediately.*

A fully charged battery will provide approximately two & half hours of battery life before you have to recharge the battery. Battery can be recharged during operation but at a slower rate. The average recharge time for battery is about three and half hours when the notebook is off.

Before using the computer on battery power for the first time, make sure the battery is fully charged.

It takes three and half hours to recharge the battery when the system is off. If possible, always charge the battery completely.

A safety feature automatically stops the charging process after the battery has reached its full charging capacity. This prevents dangerous conditions from occurring if there is a fault somewhere in the charging circuitry.

Removing the Battery Pack

To remove the battery pack from its housing, refer to the following instructions

1. Turn off the Notebook's power. Never remove a battery module while the Notebook is on.

2. The battery pack located on the right side.

3. Gently pull the module out of its housing by the latch.

Inserting the Battery Pack

For inserting the charged battery pack into the Notebook, and the following:

1. Turn the Notebook power off.

2. Slide the battery into the battery bay.

Automatic Battery Pack Charging Function

You can automatically charge the battery pack by using the AC Adapter. When the AC power is plugged to the notebook, the inserted battery pack will automatically be recharged. When system turns on, the charge time for battery is about 5 hours. When system turns off, the charge time for

battery is about 2 hours. When Battery was charging, the charge LED will light. When Battery was fully charged, the charge LED will off.

- *Do not allow a battery power to go below 10% charge level. If a battery goes below 10%, then you should charge it as soon as possible. If you let the battery go without being charged, even if the Notebook is not being used, the battery will continue to discharge. It will take an extra long recharge time to recover battery power to capacity.*

- *If you let the battery power goes to low, sometimes you will experience the difficulty to fully charged the battery, or you will find the battery's LED indicators indicate wrong.   This problems can be easily solved: first you should fully discharge the Battery by (1) Removing the HDD from the Notebook and turning-on the Notebook to discharge the battery, or (2) Discharging the Notebook under DOS Mode, till the Battery power completely runs out, then recharge the Battery.*

Using Battery Power

The battery system will provide approximately 2.5 hours of power life when Power Management is enabled. This figure may vary depending on how you use the power saving features, your general work habits, and the CPU and LCD type of your Notebook. We recommend you use the AC Adapter as often as possible to conserve battery power.

Caution

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions.

Power Management

This section contains information on the power management features of the Notebook. Your Notebook computer has a number of automatic power conservation features you can use to minimize the computer's power consumption. You can control many of these features through the Power menu in the Setup program. Refer to Chapter 4 for a detailed description of the BIOS Setup program.

The Notebook computer is made up of electronic components and all of them consume electricity to operate. Yet, some components consume much more power than others. The power management features are designed to conserve as much electricity as possible by putting these components into a low power consumption mode as often as possible.

The system monitors certain actions which are treated as power events. The power consumption status of the computer varies according to the events detected by the system. Power events include:

- keystrokes
- HDD activity
- mouse movement
- printing
- serial port access
- display activity
- IRQ events

With the exception of display activity, all of these events are treated as *primary activity*. When primary activity events are detected, the system automatically transits to full power mode. Display activity can also be configured as a primary activity.
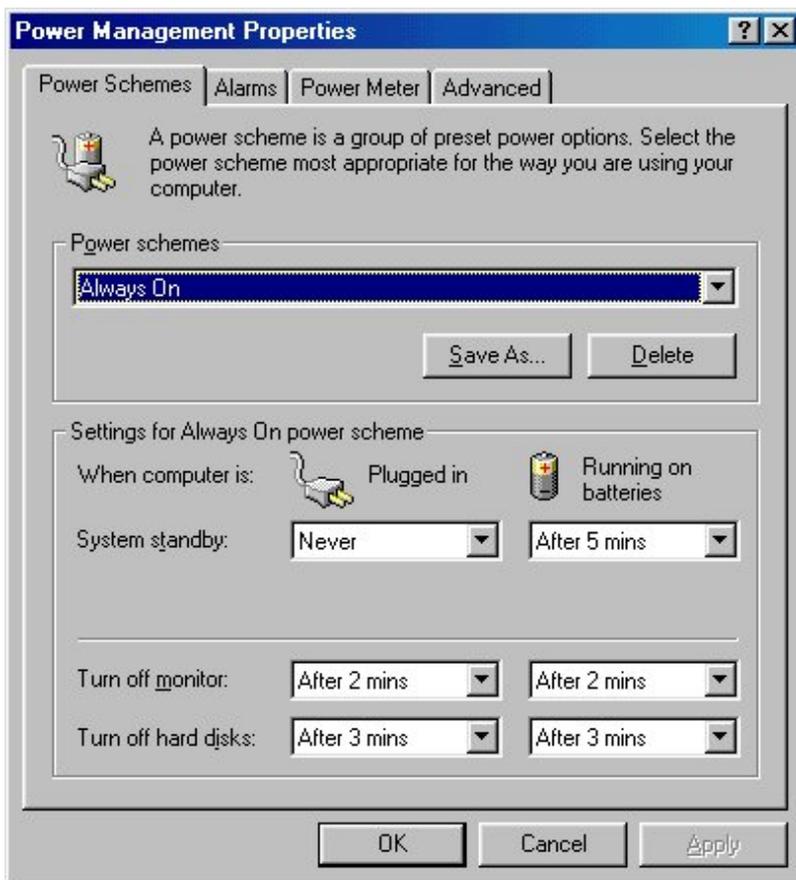
Power Management Habits

While operating the Notebook on battery power, it is important to develop good power saving habits to maximize battery life. Although the Notebook provides automatic power saving features that can be enabled, you can still improve on them by keeping power conservation in mind.

Power Management Properties

Actually, nowadays' operating system take over the control of power management function. For example, Microsoft Windows 98 & Windows 2000 take good care of system's power. In Windows 98, there was a icon called "Power Management properties" under control panel. This was the heart of system power management unit. The following figure will give you more detail's information.

Using power management, you can reduce the power consumption of any number of your computer devices or of your entire system. You do this by choosing a power scheme, which is a collection of settings that manages the power usage by your computer.

You can also adjust the individual settings in a power scheme. For example, depending on your hardware, you can:

- **System Standby**

    When system is idle for a period of time, Win98 will enter standby mode according to the Power Management properties setting. In our system, standby mode was equal to Suspend mode. In this mode, your LCD panel & hard disks turn off, and your computer uses less power. When you want to use the computer again, it comes out of standby quickly, and your computer is restored exactly as you left. Standby is particularly useful for conserving battery power. In followings figure, the system standby setting was 5 minutes. It means that when you didn't press any key or didn't move your touchpad/mouse within 5 minutes, system will enter suspend mode.

● **Turn off monitor & Hard disks**
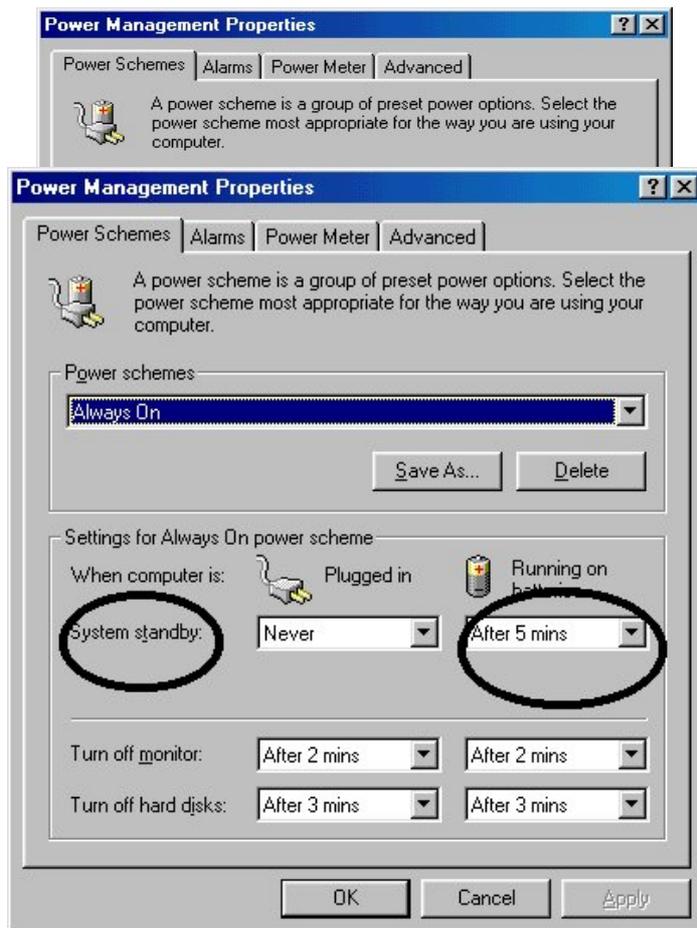
When system is idle for a period of time, Win98 will turn off LCD panel & turn off hard disks according to the Power Management properties setting.

Maximum Battery Life

In our system, there was another way for conserving battery power. It was "Maximum Battery Life". In the CMOS setup, enter the Power Management Setup menu, there was a item called "Power Management". Change the value to "Maximum Battery Life". After you did so, you'll get the maximum battery life. Actually, when you choose "Maximum Battery Life" in the Power Management item, the CPU idle type will be set as "STOP Grant". What is Stop Grant ?! Before I make explanation on this, I would like to clarify some facts on power conserving. When you used notebook PC, I believe that the most of time was idle. And the idle time was almost 90%. For example, the biggest usage for PC was to edit a document. On your editing, you may be interrupted by phone or meeting or thinking. Our system could detect this idle time & let the CPU to enter "STOP Grant" mode for conserving energy. Since your system have any activities, CPU could wakeup & work on full speed. The detecting for system idle was very quick & was about 0.5 second. It means that CPU will enter "STOP Grant" mode when system idle for 0.5 seconds. This is Run-Time energy conserving. It is very useful for power saving. You don't have to force the system

to enter Suspend mode & you could save your power runtimely.
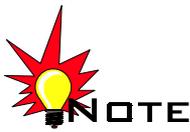
- *If you want to run some system benchmark programs, please change the power management setting to "Maximum Performance".*
- *If you want to run Battery benchmark program, please change the power management setting to "Maximum Battery life" for getting good result.*

Lid Switch

Our system provides a **Lid Switch** which also could save power & protect your panel. When you close the cover, the **Lid Switch** will be enabled & will turn off LCD. You can also define the Lid function with OS which include the APCI mode. The Lid can define as standby, hibernate or power off.

The AC Adapter

The most obvious way to conserve battery power is to avoid using the battery when there is an available AC power source.   The AC Adapter is lightweight and compact, so it is very convenient to bring while traveling.   By using the AC Adapter as much as possible, you can ensure you will have a charged battery whenever you really need it.

The Suspend/Resume Feature

The Suspend/Resume is one of the Notebook's most useful non-automatic features.   If you need to temporarily step away from the computer, click start➡shutdown➡standby or set power button or lid switch to standby under power management of control panel, put the computer into its maximum power saving mode while maintaining your work.   When you return, press any key to restore the system to the point where you stopped.

The Serial Ports

The computer has one serial port which draws some power if *Enabled*, even though no serial device is being used with the computer. If you are not using a serial device, you can turn the COM port off by using the BIOS program to conserve battery power.   Please see Chapter 4 for a complete discussion of enabling and disabling the Notebook's ports.

The Floppy Disk Drive

The floppy disk drive consumes a substantial amount of battery power. Use the FDD as little as possible when you are operating the computer on battery power.

Chapter 6 – Security Function

Operation Instruction

1. First create password:

   Step 1: Power on system

   Step 2: Press key#1 & Enter key for more than 5 seconds, until the LED green color flash.

   Step 3: Input the password what you want.

   Step 4:Power off system

2. Erase old password:

   Step 1: Power on system

   Step 2: Press key#3 & Enter key for more than 5 second, until the LED green color flash.

   Step 3: Input old password.

   Step 4: Power off system.

3. Change old password:

   Step 1: Power on system

   Step 2: Press key#3 & Enter key for more than 5 seconds, until the LED green color flash.

   Step 3: Input old password

   Step 4: Press key#1 & Enter key for more than 5 seconds, until the LED green color flash.

   Step 5: Input the password what you want to change.

   Step 6: Power off system.

Remark : Security Instruction

1. If the Password do not be setting, system will boot up when press Power Button, and the Green LED will not be enable.

2. If the Password be setting, the Green LED will be enable when press Power Button. The Password mode will be enable, the LED will show orange and flash when press wrong password. After press wrong password for three times, the orange LED will always on. If you press the correct password, system will boot up and LED will be disable.

3. If the password be setting and press power button, the Green LED will turn off when you do not press any key for 30 seconds.

Key combination

A much more powerful security hardware than our commonly build in Award password utility. This security function allows you can protect your personal notebook's information than ever.

When you get your N790s, the security function is without any setting password. We have to initial its function.

We provide this function with multiple degrees to setup password. At most, there are five degrees. It have another mean, at least, you must setup one degree. Every degree, you got choice to setup four bits. Its combination has sixteen selections.

The list of choice:

1	2	3	4
1 2	2 3	3 4	
1 3	2 4		
1 4	2 3 4		
1 2 3			
1 2 3			
1 3 4			
1 2 3 4			

Where is Sixteenth choice? That's push none button. Let's count how much combination we got.

16*15*15*15*15=810000

Please!! The reason refers to combination mathematics.

⬤ SIMULTANENOUSLY PUSHING KEYCOMBINATION

Pushing key-sets separately causes the majority of problems. If we can key in free our combination's is much more than we have now.

Every degree we have four button 1 2 3 4 ,you can press each combination of above list. Such as, 1, 3 4, 1 2 3 4.

Since we have 5 degree, let's have full degree.

1234　1234　1234　1234　1234

DEGREE1　　　**DEGREE2**　　　**DEGREE3**　　　**DEGREE4**　　　**DEGREE5**

you can input freely, such as 5 full degrees

1234　34　　2　　234　24

or 3 degree

34　　34　　23

But let me remind you again , you have to push key combination **simultaneously.**

Chapter 7 – Japan System Support

Keyboard

In order to using Japan keyboard. You have to update the keyboard driver under Win98. Because the default keyboard which Win98 installed is "Standard 101/102-key or Microsoft Natural keyboard". Follow the instruction to update keyboard.

1. Click Start➡Settings➡Control Panel➡System➡Device Manager, double click "Keyboard", double click "Standard 101/102-key or Microsoft Natural keyboard".

2. Click Driver➡Update Driver➡Next➡Display a list of all driver……➡Show all hardware➡Select "Model" to fit in with your system needs. (Japan keyboard type, for example: **106 日本語 (A01)keyboard**)

3-Mode Floppy

In order to using 3-mode floppy. You have to update the floppy disk controller driver under Win98. Because the default floppy disk controller which Win98 installed is "Standard Floppy Disk Controller". Follow the instruction to update keyboard.

1.Click Start➡Settings➡Control Panel➡System➡Device Manager, double click "Floppy disk controller", double click "Standard Floppy Disk Controller".

2.Click Driver➡Update Driver➡Next➡Display a list of all driver……➡Show all hardware➡Select "Model" to fit in with your system needs. (3-mode floppy, for example: AT&T 3-mode Floppy(Globalyst 200S) driver)

3. There are "Floppy 3 Mode Support" item in the BIOS setup. This item have to set "Drive A" to enable the 3-Mode floppy support.
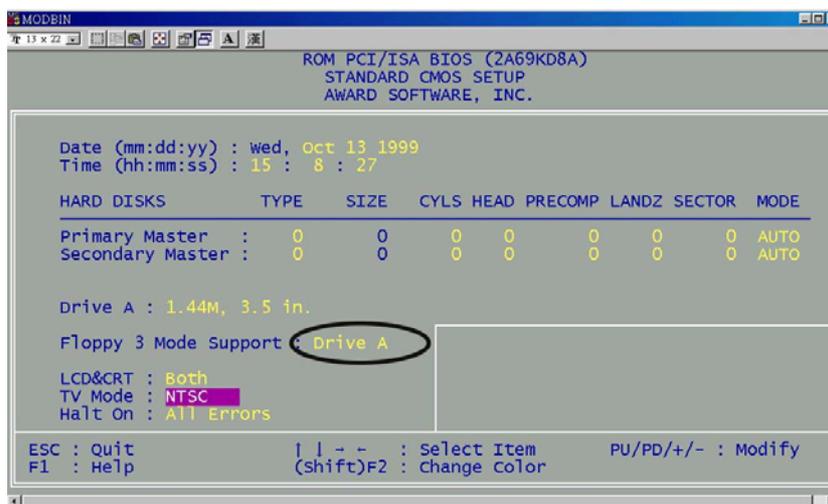
Chapter 8 – Safety Instructions

Safety Instructions

1. Please read these safety instructions carefully.

2. Please keep this User's Manual for later reference.

3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.

4. For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessiable.

5. Please keep this equipment from humidity.

6. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.

7. The openings on the enclosure are for air convection hence protect the equipment from overheating. DO NOT COVER THE OPENINGS.

8. Make sure the voltage of the power source when connect the equipment to the power outlet.

9. Place the power cord such a way that people can not step on it. Do not place anything over the power cord.

10. All cautions and warnings on the equipment should be noted.

11. If the equipment is not use for long time, disconnect the equipment from mains to avoid being damaged by transient overvoltage.

12. Never pour any liquid into opening, this could cause fire or electrical shock.

13. Never open the equipment. For safety reason, the equipment should only be opened by qualified service personnel.

14. If one of the following situations arises, get the equipment checked by a service personnel:

   A: The power cord or plug is damaged.

   B: Liquid has penetrated into the equipment.

   C: The equipment has been exposed to moisture.

D: The equipment has not work well or you can not get it work according to user's manual.

E: The equipment has dropped and damaged

F: If the equipment has obvious sign of breakage.

15. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT UNCONDITIONED; STORAGE TEMPERATURE ABOVE $60^{O}C(140^{O}F)$, IT MAY DAMAGE THE EQUIPMENT.

Wichtige Sicherheitshinweise

1. Bittle lessen Sie diese Hinweis sorgfaeltig durch.

2. Heben Sie diese Anleitung fuer den spaeteren Gebrauch auf.

3. Vor dem Reinigen ist das Geraet vom Stromnetz trennen. Verwenden Sie keine Fluessig-order Aerosolreiniger. Am besten eignet ein angefeuchtetes Tuch zur Reinigung.

4. Die Netzanschlubsteckdose soll nahe dem Geraet angebraucht sind leicht zugaenglich sein.

5. Das Geraet ist vor Feuchtigkeit zu schuetzen

6. Bei der Aufstellung des Geraetes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen koennte Beschaedigungen hervorrufen.

7. Die Belueftungsoeffnungen dienen der Luftzirkulation, die das Geraet vor Ueberhitzung schuetzt. Sorgen Sie dafuer, dass diese Oeffnungen nicht abgedeckt werden.

8. Beachten Sie beim Anschluss an das Stromnetz die Anschlusswerte.

9. Verlegen Sie die Netzanschlussleitung so, dass niemand darueber fallen kann. Es sollte auch nichts auf der leitung abgestellt werden.

10. Alle Hinweise und Warnungen, die sich am Geraet befinden, sind zu beachten.

11. Wird das Geraet ueber einen laengeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer. Ueberspannung eine Beschaedigung vermieden.

12. Durch die Lueftungsoeffnungen duerfen niemals Gegenstaende oder. Fluessigkeiten in das Geraet gelangen. Dies koennte einen Brand bzw. Elektrischen Schlag ausloesen.

13. Oeffnen Sie niemals das Geraet. Das Geraet darf aus Gruenden der elektrischen Sicherheit nur von

authorisiertem Servicepersonal geoeffnet werden.

14. Wenn folgende Situationen auftreten ist das Geraet vom. Stromnetz zu trennen und von einer qualifizierten Servicestelle zur Ueberpruefung:

A: Netzkabel oder Netzstecker sind beschaedigt.

B: Fluessigkeit ist in das Geraet eingedrungen.

C: Das geraet war Feuchtigkeit ausgesetzt.

D: Wenn das Geraet nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.

E: Das Geraet ist gefallen.oder das Gehaeuse ist beschaedigt.

F: Wenn das Geraet deutliche Anzeichen eines Defektes aufweist