

## Chapter 3: Setup

### About the Setup Utility

This chapter explains how to use and modify the BIOS setup utility that is stored on the mainboard. The setup utility stores data about the mainboard components and the configuration of devices that are connected to it. This information is used to test and initialize components at start-up time and to make sure everything runs properly when the system is operating.

The setup utility is installed with a set of default values. You will probably have to make changes to the setup utility whenever you add new components to your system such as new disk drives. You may be able to generate increased performance by changing some of the timing values in the setup, but this can be limited by the kind of hardware you are using, for example the rating of your memory chips. In certain circumstances, the system may generate an error message that asks you to make changes to the setup utility. This happens when the system finds an error during the POST (Power On Self Test) that it carries out at start up.

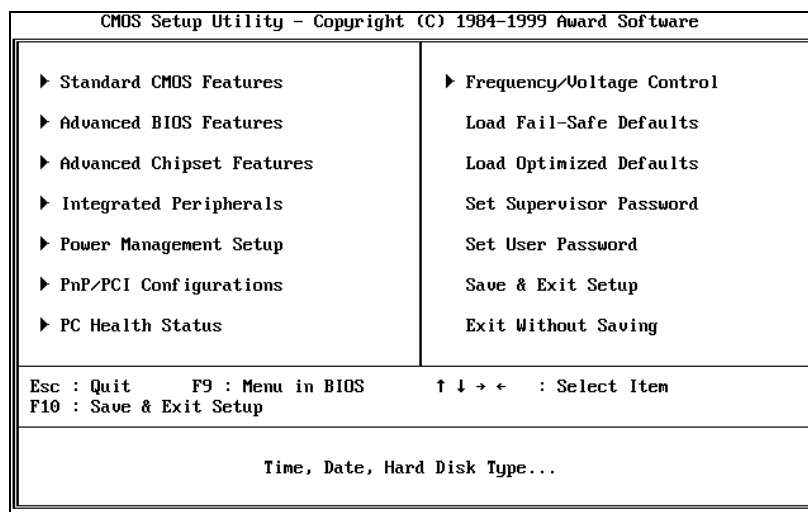
#### ***Starting the Setup Utility***

You can only start the setup utility shortly after the computer has been turned on. A prompt appears on the computer display which says “*Press DEL to run Setup*”. When you see this prompt, press the **Delete** key, and the system will start the setup utility and display the main menu of the utility.

#### ***Using the Setup Utility***

When you start setup, the main menu appears. The main menu of the setup utility shows a list of the options that are available. A highlight shows which option is currently selected. You can use the cursor arrow keys to move the highlight to other options. When an option is highlighted, you can execute the option by pressing the **Enter** key.

Some options lead to dialog boxes which ask you verify that that you wish to execute that option. You usually answer these dialogs by typing **Y** for yes and **N** for no. Some options lead to dialog boxes which ask for more information. Setting passwords have this kind of dialog box.



Some options (marked with a triangle) lead to tables of items that usually have a value on the right side. The value of the first item is highlighted, and you can use the cursor arrow keys to select any of the other values in the table of items. When an item is highlighted, you can change the value by pressing the **PageUp** or **PageDown** keys, or the **Plus** or **Minus** keys. The **PageUp** and **Plus** keys cycle forward through the available values, the **PageDown** and **Minus** keys cycle backwards through the values.

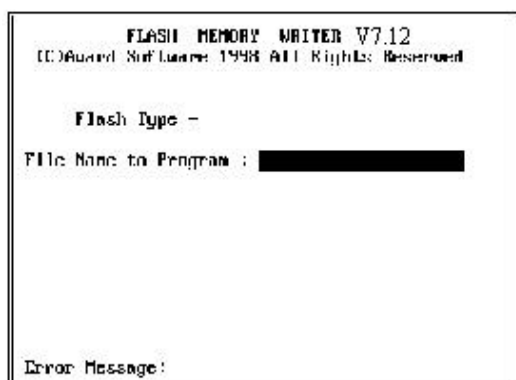
When you are in the main menu, you can exit the utility by pressing the **Escape** key. You can save the current selections and exit the utility by pressing the **F10** key. When you are in one of the options that displays a dialog box, you can return to the main menu by pressing the **Escape** key.

When you are in an option that displays a table of items, you can return to the main menu by pressing the **Escape** key. For some items, you can display a help message by pressing the **F2** key. You can display a general help screen by pressing **F1**. Press **F5** to discard any changes you have made and return all items to the value that they held when the setup utility was started. Press **F6** to load the displayed items with a standard list of fail-safe values. Press **F7** to load the displayed items with a high-performance list of default values.

## ***How to Flash a New BIOS***

You can install an updated BIOS for this motherboard that you can download from the manufacturer's website. New BIOS may provide support for new peripherals, improvements in performance or fixes to address known bugs. Install a new BIOS as follows:

1. Some mainboards have a Flash BIOS jumper that protects the current BIOS from being changed or overwritten. If your mainboard has this jumper, change the setting to allow flashing a new BIOS.
2. Some Setup programs have an item called Firmware Write Protect that prevents the BIOS from being overwritten. If your BIOS has this item (check the Advanced BIOS Features Setup page) disable it for the present.
3. Your computer must be running in a real-mode DOS environment, not the DOS window of Windows NT or Windows 95/98. We recommend that you create a new formatted DOS system floppy diskette.
4. Locate the flash memory utility on the support CD-ROM. It's called AWD712.EXE. Copy this file to the new system diskette.
5. Copy the new BIOS file that you downloaded from the manufacturer's website to the newly formatted system diskette.
6. Turn off your computer and insert the newly formatted DOS diskette in your computer's diskette drive.
7. You might need to run the setup utility and change the boot priority items on the Advanced BIOS Features Setup page, to force your computer to boot from the floppy diskette drive first.
8. At the A:\ prompt, after your computer has booted a clean DOS from the diskette, type in the filename AWD712 and press **Enter**.



9. In the opening dialog box, type in the filename of the new BIOS and follow the onscreen directions to flash the new BIOS to the motherboard.
10. When the installation is complete, remove the floppy diskette from the diskette drive and restart your computer. If your mainboard has a Flash BIOS jumper, don't forget to reset the jumper to protect the newly installed BIOS from being overwritten.

## Standard CMOS Features Option

This option displays a table of items which defines basic information about your system.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software Standard CMOS Features		
Date (mm:dd:yy)	Wed, Jun 23 1999	Item Help
Time (hh:mm:ss)	13 : 47 : 52	Menu Level ▶
▶ IDE Primary Master	Press Enter None	Change the day, month, year and century
▶ IDE Primary Slave	Press Enter None	
▶ IDE Secondary Master	Press Enter None	
▶ IDE Secondary Slave	Press Enter None	
Drive A	1.44M, 3.5 in.	
Drive B	None	
Floppy 3 Mode Support	Disabled	
Video	EGA/UGA	
Halt On	All Errors	
Base Memory	640K	
Extended Memory	31744K	
Total Memory	32768K	

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

### **Date and Time**

The Date and Time items show the current date and time held by your computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

### **IDE Devices**

### **Defaults: None**

Your computer has two IDE channels (Primary and Secondary) and each channel can be installed with one or two devices (Master and Slave). Use these items to configure each device on the IDE channel. Press **Enter** to display the IDE sub-menu.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		
IDE Primary Master		
IDE HDD Auto-Detection	Press Enter	Item Help
IDE Primary Master Access Mode	Auto Auto	Menu Level >>
Capacity	0 MB	To auto-detect the HDD's size, head... on this channel
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	
↑↓:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

#### IDE HDD Auto-Detection

Press **Enter** while this item is highlighted if you want the setup utility to automatically detect and configure a hard disk drive on the IDE channel.

#### IDE Primary/Secondary Master/Slave

If you leave this item at *Auto*, the system will automatically detect and configure any IDE devices it finds. If it fails to find a hard disk, change the value to *Manual* and then manually configure the drive by entering the characteristics of the drive in the items below (Capacity, Cylinder, Head, Precomp, etc.). If you have no device installed change the value to *None*.

#### Access Mode

This item defines some special ways that can be used to access IDE hard disks such as LBA (Large Block Addressing). Leave this value at *Auto* and the system will automatically decide the fastest way to access the hard disk drive.

Press **Esc** to close the IDE device sub-menu and return to the Standard CMOS Features page.

#### Drive A and Drive B

**Default: 1.44M, 3.5 in., None**

These items define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

#### Floppy 3 Mode Support

**Default: Disabled**

Floppy 3 mode refers to a 3.5" diskette with a capacity of 1.2 MB. Floppy 3 mode is sometimes used in Japan.

#### Video

**Default: EGA/VGA**

This item defines the video mode of the system. This mainboard has a built-in VGA graphics system so you must leave this item at the default value.

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**Halt On****Default: All Errors**

This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which kind of errors in the POST are sufficient to halt the system.

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**Base Memory, Extended Memory, Total Memory**

These items are automatically detected by the system at start up time.

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## Advanced BIOS Features Setup Option

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This option displays a table of items which defines more advanced information about your system. You can make modifications to most of these items without introducing fatal errors to your system. Note that the page has a scroll-bar to scroll down to more items.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		
Advanced BIOS Features		
Anti-Virus Protection	Disabled	<div>▲</div> <div>▼</div>
CPU Internal Cache	Enabled	
External Cache	Enabled	
CPU L2 Cache ECC Checking	Enabled	
Processor Number Feature	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	
Third Boot Device	LS/ZIP	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	Normal	
FirmWare Write Protect	Disabled	
Chassis Open Warning	Disabled	
Typeomatic Rate Setting	Disabled	
		Item Help
		Menu Level ▶
		Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep
↑↓:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

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**Anti-Virus Protection****Default: Disabled**

When this item is enabled it provides some protection against viruses which try to write to the boot sector and partition table of your hard disk drive. This item is *Disabled* as a default. You need to disable it so that you can install an operating system. We recommend that you enable Anti-Virus Protection as soon as you have installed your disk with an OS.

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**CPU Internal Cache****Default: Enabled**

All the processors that can be installed in this mainboard use internal (level 1) cache memory to improve performance. Leave this item at the default value *Enabled* for better performance.

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**External Cache****Default: Enabled**

Most processors that can be installed in this system use external (L2) cache memory to improve performance. The exceptions are older SEPP Celeron CPUs running at 266 or 300 MHz. Enable this item for all but these two processors.

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**CPU L2 Cache ECC Checking****Default: Enabled**

This item enables or disables ECC (Error Correction Code) error checking on the CPU cache memory. We recommend that you leave this item at the default value.

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**Processor Number Feature****Default: Enabled**

Each Pentium-III processor cartridge is installed with a unique processor number. This number may be used for verification in internet transactions and e-commerce. If you prefer not to use or distribute the unique processor number, use this item to suppress the processor number.

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**Quick Power On Self Test****Default: Enabled**

You can enable this item to shorten the power on testing and have your system start up a little faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.

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**First/Second/Third Boot Device****Default: Floppy/HDD-0/LS/ZIP**

Use these three items to select the priority and order of the devices that your system will search for an operating system at start-up time.

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**Boot Other Device****Default: Enabled**

If you enable this item, the system will search all other possible locations for an operating system if it fails to find one in the devices specified under the first, second and third boot devices.

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**Swap Floppy Drive****Default: Disabled**

If you have two floppy diskette drives in your system, this item allows you to swap around the assigned drive letters so that drive A becomes drive B, and drive B becomes drive A.

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**Boot Up Floppy Seek****Default: Enabled**

If this item is enabled, it checks the geometry of the floppy disk drives at start-up time. You don't need to enable this item unless you have a old diskette drive with 360K capacity.

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**Boot Up NumLock Status****Default: On**

This item defines if the keyboard Num Lock key is active when your system is started.

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**Gate A20 Option****Default: Normal**

This item defines how the system handles legacy software that was written for an earlier generation of processors. Leave this item at the default value.

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**Firmware Write Protect****Default: Disabled**

If you enable this item, it protects the firmware (BIOS) from being overwritten. Disable this item if you plan to flash a new BIOS to the system.

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**Chassis Open Warning****Default: Disabled**

If you have connected a chassis open circuit to the Chassis Open detect connector on the mainboard, use these items to enable or disable the feature and determine the setting of the feature.

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**Typematic Rate Setting****Default: Disabled**

If this item is enabled, you can use the following two items to set the typematic rate and the typematic delay settings for your keyboard.

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**Typematic Rate (Chars/Sec)****Default: 6**

If the item Typematic Rate Setting is enabled, you can use this item to define how many characters per second are generated by a held-down key.

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**Typematic Delay (Msec)****Default: 250**

If the item Typematic Rate Setting is enabled, you can use this item to define how many milliseconds must elapse before a held-down key begins generating repeat characters.

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**Security Option****Default: Setup**

If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the setup utility.

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**OS Select For DRAM > 64 MB****Default: Non-OS2**

This item is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default Non-OS2.

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**Report No FDD for WIN 95****Default: Yes**

If you are running a system with no floppy drive and using the Windows 95 OS, select Yes for this item to ensure compatibility with the Windows 95 logo certification.

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## Advanced Chipset Features Option

This option displays a table of items that define critical timing parameters of the mainboard components including the memory, and the system logic. Generally, you should leave the items on this page at their default values unless you are very familiar with the technical specifications of your system hardware. If you change the values incorrectly you may introduce fatal errors or recurring instability into your system. Note that the page has a scroll-bar to scroll down to more items.



CMOS Setup Utility - Copyright (C) 1984-1999 Award Software Advanced Chipset Features		
SDRAM CAS Latency Time	3	Item Help
SDRAM Cycle Time Tras/Trc	6/8	Menu Level ▶
SDRAM RAS-to-CAS Delay	3	
SDRAM RAS Precharge Time	3	
System BIOS Cacheable	Enabled	
Video BIOS Cacheable	Enabled	
Memory Hole At 15M-16M	Disabled	
Delayed Transaction	Enabled	
On-Chip Video Window Size	64MB	
* Onboard Display Cache Setting *		
Initial Display Cache	Enabled	
CAS# Latency	3	
Paging Mode Control	Close	
RAS-to-CAS Override	by CAS# LT	
RAS# Timing	Slow	
RAS# Precharge Timing	Slow	
↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

<b>SDRAM CAS latency Time</b>	<b>Default: 3</b>
<b>SDRAM Cycle Time Tras/Trc</b>	<b>Default: 6/8</b>
<b>SDRAM RAS-to-CAS Delay</b>	<b>Default: 3</b>
<b>SDRAM RAS Precharge Time</b>	<b>Default: 3</b>

These four items set the timing and wait states for SDRAM memory. We recommend that you leave these items at the default value.

<b>System BIOS Cacheable</b>	<b>Default: Enabled</b>
<b>Video BIOS Cacheable</b>	<b>Default: Enabled</b>

These items allow the video and/or system BIOS to be cached in memory for faster execution. We recommend that you leave these items at the default value.

<b>Memory Hole at 15M-16M</b>	<b>Default: Disabled</b>
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This item can be used to reserve memory space for some ISA expansion cards that require it.

<b>Delayed Transaction</b>	<b>Default: Enabled</b>
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If the chipset has an embedded 32-bit write buffer to support delay transaction cycles, you can enable this item to provide compliance with PCI Ver. 2.1 specifications. We recommend that you leave this item at the default value.

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**On-Chip Video Window Size**      **Default: 64 MB**

This item defines the size of the aperture if you use an AGP graphics adapter. It refers to a section of the PCI memory address range used for graphics memory. We recommend that you leave this item at the default value.

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**\* On Board Display Cache Setting \***

The items under this heading are used to set the parameters for Display cache memory which may be optionally installed on your mainboard. If you have display cache memory, we recommend that you leave these items at the default setting.

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## Integrated Peripherals Option

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This option displays a list of items which defines the operation of some peripheral items on the system's input/output ports.

CMOS Setup Utility – Copyright (C) 1984-1999 Award Software			Integrated Peripherals	
On-Chip Primary	PCI IDE	Enabled	▲ ▼	Item Help
On-Chip Secondary	PCI IDE	Enabled		
IDE Primary Master	PIO	Auto		Menu Level ▶
IDE Primary Slave	PIO	Auto		
IDE Secondary Master	PIO	Auto		
IDE Secondary Slave	PIO	Auto		
IDE Primary Master	UDMA	Auto		
IDE Primary Slave	UDMA	Auto		
IDE Secondary Master	UDMA	Auto		
IDE Secondary Slave	UDMA	Auto		
USB Controller		Enabled		
USB Keyboard Support		Disabled		
Init Display First		PCI Slot		
Hardware Reset		Enabled		
Onboard PCI Audio		Enabled		
Onboard PCI Modem		Disabled		
AC97 Audio		Disabled		
AC97 Modem		Disabled		
IDE HDD Block Mode		Enabled		
↑↓←→:Move   Enter:Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1:General Help				
F5:Previous Values   F6:Fail-Safe Defaults   F7:Optimized Defaults				

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**On-Chip Primary PCI IDE**      **Default: Enabled****On-Chip Secondary PCI IDE**      **Default: Enabled**

Use these items to enable or disable the Primary and Secondary PCI IDE channels that are integrated on this mainboard.

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**IDE Primary Master PIO**      **Default: Auto****IDE Primary Slave PIO**      **Default: Auto****IDE Secondary Master PIO**      **Default: Auto****IDE Secondary Slave PIO**      **Default: Auto**

Each IDE channel supports a master device and a slave device. These four items let you assign which kind of PIO (Programmed Input/Output) is used by

IDE devices. You can choose Auto, to let the system auto detect which PIO mode is best, or you can install a PIO mode from 0-4.

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<b>IDE Primary Master UDMA</b>	<b>Default: Auto</b>
<b>IDE Primary Slave UDMA</b>	<b>Default: Auto</b>
<b>IDE Secondary Master UDMA</b>	<b>Default: Auto</b>
<b>IDE Secondary Slave UDMA</b>	<b>Default: Auto</b>

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Each IDE channel supports a master device and a slave device. This motherboard supports UltraDMA. UltraDMA technology provides faster access to IDE devices. If you install a device which supports UltraDMA, change the appropriate item on this list to Auto. You may have to install the UltraDMA driver supplied with this motherboard in order to use an UltraDMA device.

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<b>USB Controller</b>	<b>Default: Enabled</b>
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Use this item to enable the USB ports that are integrated on this mainboard.

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<b>USB Keyboard Support</b>	<b>Default: Disabled</b>
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Enable this item if you are using a keyboard connected through the USB Port.

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<b>Init Display First</b>	<b>Default: PCI Slot</b>
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Use this item to define if your graphics adapter is installed in one of the PCI slots or select Onboard if you have a graphics system integrated on the mainboard.

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<b>Hardware Reset</b>	<b>Default: Enabled</b>
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If you enable this item, you can reset the system by pressing a hardware reset button if you have connected this function to the mainboard.

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<b>Onboard PCI Audio</b>	<b>Default: Enabled</b>
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If your mainboard has an integrated PCI audio system, use this item to enable or disable it.

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<b>Onboard PCI Modem</b>	<b>Default: Enabled</b>
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If your mainboard has an integrated PCI modem, use this item to enable or disable it.

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<b>AC97 Audio</b>	<b>Default: Disabled</b>
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We recommend that you set this item to Enabled when you use an AMR card.

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<b>AC97 Modem</b>	<b>Default: Disabled</b>
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We recommend that you set this item to Enabled when you use an MR/AMR card.

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<b>IDE HDD Block Mode</b>	<b>Default: Disabled</b>
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Block mode transfers can improve the access to IDE devices. Enable this item if your IDE devices support block mode transfers.

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<b>Power On Function</b>	<b>Default: Hot KEY</b>
<b>KB Power ON Password</b>	<b>Default: Enter</b>
<b>Hot Key Power ON</b>	<b>Default: Ctrl-F12</b>

---

The Power On Function item allows you to power on the system by pressing hot-keys, or typing a password. If you choose Password, you can use the item KB Power On Password to install a power on password. Press Enter to display the Password dialog box. If you set it to Hot Key, you can then use the item Hot Key Power On to choose which hot keys are used to power on the system.

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<b>Onboard FDC Controller</b>	<b>Default: Enabled</b>
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Use this item to turn on or off the floppy disk controller that is built into this mainboard.

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<b>Onboard Serial Port 1</b>	<b>Default: 3F8/IRQ4</b>
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This item lets you disable the built-in serial port 1, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

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<b>Onboard Serial Port 2</b>	<b>Default: Disabled</b>
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If you have installed an optional second serial port, this item lets you disable the built-in serial port 1, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

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<b>UART Mode Select</b>	<b>Default: IrDA</b>
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This item defines the operation of serial port 2. In the Normal setting, serial port 2 is assigned to the (optional) COM2 connector. If you have installed an optional infrared port, you must change the setting of this item to one of the Infrared settings (usually IrDA or FIR). These settings will disable the external COM2 serial port connector and assign the resources to the infrared device. If you have selected an IR mode, use the following item *UR2 Duplex Mode* to define if the IR port is full duplex or half duplex.

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<b>Onboard Parallel Port</b>	<b>Default: 378/IRQ7</b>
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This item lets you disable the built-in parallel port, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

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<b>Parallel Port Mode</b>	<b>Default: SPP</b>
<b>ECP Mode Use DMA</b>	<b>Default: 3</b>

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This item defines the operation of the parallel port. As a default it is set to SPP (standard parallel port). If you are connected to a parallel device that supports the higher-performance EPP (enhanced parallel port) or the ECP (extended capabilities port) make the appropriate changes to this item. If you have changed the parallel port to ECP mode, use the following item *ECP Mode Use DMA* to assign a DMA channel to the port.

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<b>PWRON After PWR-Fail</b>	<b>Default: Off</b>
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If this item is enabled, the system will automatically resume when power is restored after an interruption in the power supply.

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<b>Game Port Address</b>	<b>Default: 201</b>
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This item lets you disable the built-in game port, or enable it by assigning an I/O address.

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***Midi Port Address***  
***Midi Port IRQ***

***Default: 300***  
***Default: 10***

This item lets you disable the built-in MIDI port, or enable it by assigning an I/O address. If you enable the MIDI port, use the following item *Midi Port IRQ* to assign an Interrupt Request line to the port.

## **Power Management Setup Option**

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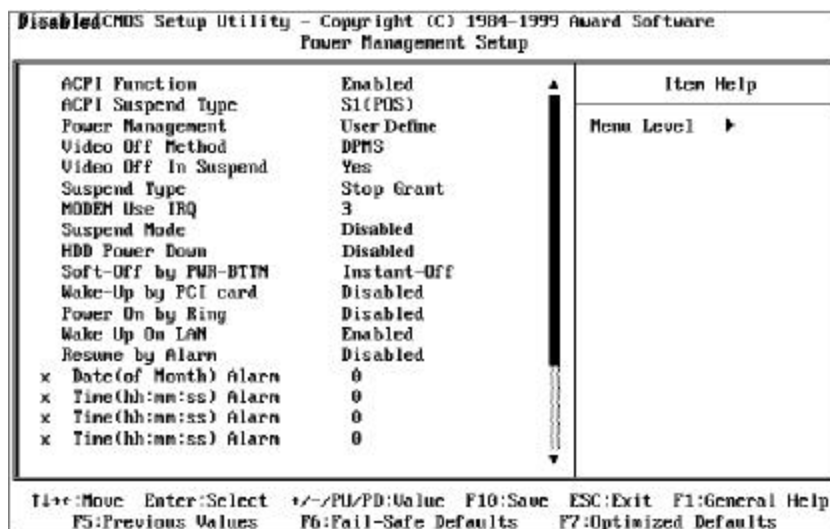
This option displays items that let you control the system power management. Modern operating systems take care of much of the power management. This mainboard supports ACPI (advanced configuration and power interface). The system has various power saving modes including powering down the hard disk, turning off the video, suspending to RAM, and a software power down that allows the system to be automatically resumed by certain events.

### ***Power Management Timeouts***

The power-saving modes can be controlled by timeouts. If the system is inactive for a time, the timeouts begin counting. If the inactivity continues so that the timeout period elapses, the system enters a power-saving mode. If any item in the list of *Reload Global Timer Events* is Enabled, then any activity on that item will reset the timeout counters to zero.

### ***Wake Up Calls***

If the system is suspended, or has been powered down by software, it can be resumed by a wake up call that is generated by incoming traffic to a modem, a LAN card, a PCI card, or a fixed alarm on the system realtime clock.



#### **ACPI Function**

**Default: Enabled**

This mainboard supports ACPI (Advanced Configuration and Power management Interface). Use this item to enable or disable the ACPI feature.

#### **ACPI Suspend Type**

**Default: S1 (POS)**

Use this item to define how your system suspends. In the default, S1(POS), the suspend mode is equivalent to a software power down. If you select S3 (STR), the suspend mode is a suspend to RAM – the system shuts down with the exception of a refresh current to the system memory.

#### **Power Management**

**Default: User Define**

This item acts like a master switch for the power-saving modes and hard disk timeouts. If this item is set to Max Saving, power-saving modes occur after a short timeout. If this item is set to Min Saving, power-saving modes occur after a longer timeout. If the item is set to User Define, you can insert your own timeouts for the power-saving modes.

#### **Video Off Method**

**Default: DPMS**

This item defines how the video is powered down to save power. As a default, this is set to DPMS (display power management software).

#### **Video Off In Suspend**

**Default: Yes**

This option defines if the video is powered down when the system is put into suspend mode.

#### **Suspend Type**

**Default: Stop Grant**

If this item set to Default "Stop Grant", the CPU will go into the Idle Mode.

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**Modem Use IRQ****Default: 3**

If you want an incoming call on a modem to automatically resume the system from a power-saving mode, use this item to specify the interrupt request line (IRQ) that is used by the modem. You might have to connect the fax/modem to a mainboard Wake On Modem connector for this feature to work.

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**Suspend Mode****Default: Disabled**

If you have selected User Define for the *Power Management* item, you can set this item to a timeout from 1 Min to 1 Hour. The system will go into the power-saving suspend mode if the timeout passes without any system activity.

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**HDD Power Down****Default: Disabled**

If you have selected User Define for the *Power Management* item, you can set this item to a selection of timeouts from 1 to 15 minutes. The hard disk drive will power down if the selected timeout passes without any activity on the hard disk.

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**Soft-Off by PWR-BTTN****Default: Instant-Off**

Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the normal power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay 4 Sec. Then you have to hold the power button down for four seconds to cause a software power down.

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**Wake Up by PCI Card****Default: Disabled**

If you enable this item, it allows activity on an add-in card in one of the PCI slots to resume the system from a power-saving mode.

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**Power On by Ring****Default: Disabled**

If this item is enabled, it allows the system to resume from a software powerdown or a power-saving mode whenever there is an incoming call to an installed fax/modem. You might have to connect the fax/modem to a mainboard Wake On Modem connector for this feature to work.

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**Wake Up On LAN****Default: Enabled**

If this item is enabled, it allows the system to resume from a software powerdown or a power-saving mode whenever there is an incoming traffic to a network (LAN) adapter. You might have to connect the LAN card to a mainboard Wake On LAN connector for this feature to work.

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**Resume by Alarm****Default: Disabled**

If this item is Enabled, it allows you to set a date and time alarm that will automatically resume the system from a software power down. When you enable this feature, new setup items appear to let you set the alarm. Date (of Month) Alarm lets you select a day from 1 to 31. Time Alarm lets you select a time for the alarm in hours, minutes, and seconds.

<b>Primary IDE 0</b>	<b>Default: Disabled</b>
<b>Primary IDE 1</b>	<b>Default: Disabled</b>
<b>Secondary IDE 0</b>	<b>Default: Disabled</b>
<b>Secondary IDE 1</b>	<b>Default: Disabled</b>

When these items are enabled, the system will restart the power-saving timeout counters when any activity is detected on any of the drives or devices on the primary or secondary IDE channels.

<b>FDD,COM,LPT Port</b>	<b>Default: Disabled</b>
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When this item is enabled, the system will restart the power-saving timeout counters when any activity is detected on the floppy diskette drives, the serial ports, or the parallel port.

<b>PCI PIRQ[A-D]#</b>	<b>Default: Disabled</b>
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When this item is enabled, the system will restart the timeout counters when any activity is detected on the Interrupt request lines used over the PCI bus.

## PNP/PCI Configuration Option

This option displays a table of items that configures how PNP (Plug and Play) and PCI expansion cards operate in your system.

CMOS Setup Utility – Copyright (C) 1984-1999 Award Software PnP/PCI Configurations		
Reset Configuration Data	Disabled	Item Help
Resources Controlled By	Auto(ESCD)	Menu Level ▶
x IRQ Resources	Press Enter	Default is Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot
x Memory Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	
↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

<b>Reset Configuration Data</b>	<b>Default: Disabled</b>
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If you enable this item and restart the system, any PNP configuration data stored in the BIOS setup is cleared from memory. New updated data is created.



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**Resources Controlled By** **Default: Auto(ESCD)**

You should leave this item at the default Auto(ESCD). Under this setting, the system dynamically allocates resources to plug and play devices as they are required. If you cannot get a legacy ISA (Industry Standard Architecture) expansion card to work properly, you might be able to solve the problem by changing this item to Manual, and then opening up the *IRQ Resources* and *Memory Resources* sub-menus.

In the *IRQ Resources* sub-menu, if you change any of the IRQ assignments to Legacy ISA, then that Interrupt Request Line is reserved for a legacy ISA expansion card. Press **Esc** to close the IRQ Resources sub-menu.

In the *Memory Resources* sub menu, use the first item Reserved Memory Base to set the start address of the memory you want to reserve for the ISA expansion card. Use the second item Reserved Memory Length to set the amount of reserved memory. Press **Esc** to close the Memory Resources sub-menu.

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**PCI/VGA Palette Snoop** **Default: Disabled**

This item is designed to overcome some problems that can be caused by some non-standard VGA cards. This board includes a built-in VGA system that does not require palette snooping so you must leave this item disabled.

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## PCI Health Status Option

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On mainboards which support hardware monitoring, this item lets you set parameters for critical voltages, critical temperatures, and fan speeds.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software	
PC Health Status	
VCOREIN +1.800V +3.300V +5.000V +12.00V -12.00V -5.000V Voltage Battery System Temperature PPGA CPU Temperature SLOT1 CPU Temperature CPU Fan Speed Case Fan Speed Power Fan Speed	Item Help Menu Level ▶
↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults	

If this option is active on your system, we recommend that you accept the default values for these items that are installed by the manufacturer. The system will alert you whenever the manufacturer's safe operating parameters are exceeded.

## Frequency / Voltage Control Option

This item allows you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		
Frequency/Voltage Control		
Auto Detect DIMM/PCI Clk	Disabled	Item Help
CPU Internal Core Speed	233MHz	Menu Level ▶
CPU Clock/Spread Spectrum	Default	
CPU Ratio	X 3.5	
CPU Core Voltage	1.70V	

Auto Detect DIMM/PCI Clk

Default: Disabled

When this item is enabled, the BIOS will disable the clock generator signal for unused DIMM and PCI slots.

CPU Internal Core Speed

Default: 300 MHz

Use this item to automatically set up the mainboard for the kind of processor that you have installed. Set this item to the rated internal clock speed of the installed processor. If you set this to Manual, two new items appear: CPU/DRAM/SPECTRUM Freq. and CPU Core: Bus Freq.Multiple.

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#### ***CPU/Clock/SPECTRUM Freq.***

#### ***CPU Ratio: Bus Freq. Multiple***

These items appear if you have set the *CPU Internal Core Speed* to Manual. Use the *CPU Host Bus Frequency* to set the system bus frequency for the installed processor (usually 100 MHz or 66 MHz). Then use *CPU Frequency* to set a multiple. The multiple times the system bus must equal the core speed of the installed processor e.g. **3.5 (multiple) x 100 MHz (system bus) = 350 MHz (installed processor clock speed)**.

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## **Load Fail-Safe Defaults Option**

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the whole setup utility. Press the **Y** key and then **Enter** to install the defaults. Press the **N** key and then **Enter** to not install the defaults. The fail-safe defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly again. If you only want to install a fail-safe defaults for a specific option, select and display that option, and then press the **F6** key.

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## **Load Optimized Defaults Option**

This option opens dialog box that lets you install optimized defaults for all appropriate items in the whole setup utility. Press the **Y** key and then **Enter** to install the defaults. Press the **N** key and then **Enter** to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press the **F7** key.

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## **Set Supervisor and User Passwords**

These items can be used to install a password. A Supervisor password takes precedence over a User password, and the Supervisor can limit the activities of a User. To install a password, follow these steps:

1. Highlight the item Set Supervisor/User password on the main menu and press **Enter**.
2. The password dialog box appears.

3. If you are installing a new password, carefully type in the password. You cannot use more than 8 characters or numbers. The password will differentiate between upper case and lower characters. Press **Enter** after you have typed in the password. If you are deleting a password that is already installed just press **Enter** when the password dialog box appears.
4. The system will ask you to confirm the new password by asking you to type it in a second time. Carefully type the password again and press **Enter**, or just press **Enter** if you are deleting a password that is already installed.
5. If you typed the password correctly, the password will be installed.

## Save And Exit Setup Option

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Highlight this item and press **Enter** to save the changes that you have made in the setup utility and exit the setup program. When the Save and Exit dialog box appears, press **Y** to save and exit, or press **N** to return to the setup main menu.

## Exit Without Saving Option

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Highlight this item and press **Enter** to discard any changes that you have made in the setup utility and exit the setup program. When the Exit Without Saving dialog box appears, press **Y** to discard changes and exit, or press **N** to return to the setup main menu.