

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.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software	
<ul style="list-style-type: none"> ▶ Standard CMOS Features ▶ Advanced BIOS Features ▶ Advanced Chipset Features ▶ Integrated Peripherals ▶ Power Management Setup ▶ PnP/PCI Configurations ▶ PC Health Status 	<ul style="list-style-type: none"> ▶ Frequency/Voltage Control Load Fail-Safe Defaults Load Optimized Defaults Set Password Save & Exit Setup Exit Without Saving
Esc : Quit F9 : Menu in BIOS ↑ ↓ → ← : Select Item F10 : Save & Exit Setup	
Time, Date, Hard Disk Type...	

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.

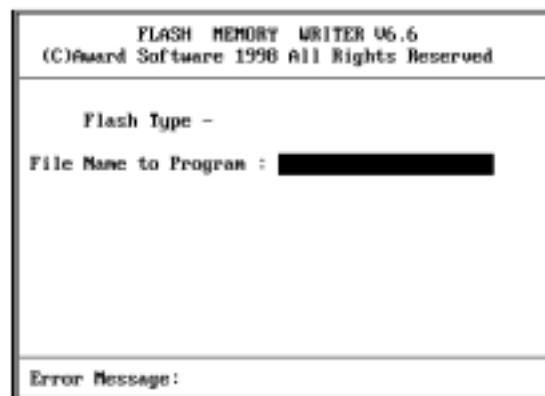
When you are in the main menu, you can exit the utility by pressing the **Escape** key. You can save the current selections and exit the utility by pressing the **F10** key. When you are in one of the options that displays a dialog box, you can return to the main menu by pressing the **Escape** key.

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.
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 AWD752.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 AWD752 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.

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Standard CMOS Features

Date (mm:dd:yy)	Mon, Dec 20 1999	Item Help
Time (hh:mm:ss)	18 : 15 : 38	
► IDE Primary Master	Press Enter None	Menu Level ►
► IDE Primary Slave	Press Enter None	
► IDE Secondary Master	Press Enter None	Change the day, month, year and century
► 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	Menu Level ▶▶
	Auto	
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.

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.

Base Memory, Extended Memory, Total Memory

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

Advanced BIOS Features Setup Option

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.

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Advanced BIOS Features		
Anti-Virus Protection	Disabled	<div>Item Help</div> <div>Menu Level ▶</div> <div>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</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	Fast	
Typematic Rate Setting	Disabled	
x Typematic Rate (Chars/Sec)	6	
x Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM > 64MB	Non-OS2	
↑↓←→:Move Enter:Select +/~/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

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.

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.

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 <i>Enabled</i> for better performance.	
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.	
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.	
Processor Number Feature	Default: Enabled
Some of the new generation of socket-370 processors are 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.	
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.	
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.	
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.	
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.	
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.	
Boot Up NumLock Status	Default: On
This item defines if the keyboard Num Lock key is active when your system is started.	
Gate A20 Option	Default: Fast
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.	

<i>Typematic Rate Setting</i>	<i>Default: Disabled</i>
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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.

<i>Typematic Rate (Chars/Sec)</i>	<i>Default: 6</i>
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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.

<i>Typematic Delay (Msec)</i>	<i>Default: 250</i>
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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.

<i>Security Option</i>	<i>Default: Setup</i>
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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.

<i>OS Select For DRAM > 64 MB</i>	<i>Default: Non-OS2</i>
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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.

<i>Report No FDD for WIN 95</i>	<i>Default: Yes</i>
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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.

<i>Video BIOS Shadow</i>	<i>Default: Enabled</i>
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This item allows the video BIOS to be copied to system memory for faster performance.

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.

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Advanced Chipset Features

Auto Configuration	Auto	▲	Item Help
SDRAM RAS Active Time	7T		
SDRAM RAS Precharge Time	2T		Menu Level ▶
RAS to CAS Delay	3T		
Dram Background Command	Delay 1T		
LD-Off Dram RD/WR Cycles	Delay 1T		
Write Recovery Time	2T		
UCM REF To ACT/REF Delay	10T		
UCM ACCT - ACT/REF Delay	9T		
Early CKE Delay 1T Cntrl	Normal		
Early CKE Delay Adjust	2ns		
Mem Command Output Time	Delay 1T		
SDRAM/UCM CAS Latency	SPD		
System BIOS Cacheable	Enabled		
Video RAM Cacheable	Enabled		
Memory Hole at 15M-16M	Disabled		
AGP Aperture Size	64MB		
Graphic Window WR Combin	Enabled		
Concurrent function(MEM)	Enabled	▼	

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

Auto Configuration

Default: Auto

Auto Configuration installs preset default values for some of the timing parameters for RAM memory. We recommend that you leave these items at the default value Auto.

SDRAM RAS Active Time	Default: 7T
SDRAM RAS Precharge Time	Default: 2T
RAS-to-CAS Delay	Default: 3T
DRAM Background Command	Default: Delay 1T
LD-Off DRAM RD/WR Cycles	Default: Delay 1T
Write Recovery Time	Default: 2T
VCM REF To ACT/REF Delay	Default: 10T
VCM ACCT – ACT/REF Delay	Default: 9T
Early CKE Delay 1T Cntrl	Default: Normal
Early CKE Delay Adjust	Default: 2ns
Mem Command Output Time	Default: Delay 1T
SDRAM/VCM CAS Latency	Default: SPD

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

System BIOS Cacheable	Default: Enabled
Video BIOS Cacheable	Default: Enabled

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

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

AGP Aperture Size	Default: 64MB
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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.

Graphic Window WR Combin	Default: Enabled
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Use this item to enable or disable CPU support for WR Combin feature.

Concurrent Function(MEM)	Default: Enabled
Concurrent Function(PCI)	Default: Enabled

Use these items to enable or disable concurrent memory/PCI and CPU action.

CPU Pipeline Control	Default: Enabled
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This item sets a timing parameter for CPU access. Since the CPU timing is determined by the system hardware, you can set this item to Disabled.

SDRCLK Control	Default: +2.0 ns
SDRCLK Control CS#/CKE	Default: +2.0 ns
SDRCLK Control MA/SRAS	Default: +2.0 ns
SDRCLK Control DQM/MD	Default: +2.0 ns
EGMRCLK Control	Default: +1.5 ns
EGMWCLK Control	Default: +2.5 ns

These items set timing parameters for the CPU access. We recommend that you leave these items at the default value.

PCI Delay Transaction***Default: Enabled***

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.

Memory Parity Check***Default: Enabled***

This item enables a parity check during boot-up memory testing. Only set this item to enabled if you are using DRAM memory with parity.

Integrated Peripherals Option

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

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Integrated Peripherals

Internal PCI/IDE	Both	▲	Item Help
IDE Primary Master PIO	Auto		
IDE Primary Slave PIO	Auto		Menu Level ▶
IDE Secondary Master PIO	Auto		
IDE Secondary Slave PIO	Auto		
Primary Master UltraDMA	Auto		
Primary Slave UltraDMA	Auto		
Secondary Master UltraDMA	Auto		
Secondary Slave UltraDMA	Auto		
IDE Burst Mode	Enabled		
USB Controller	Enabled		
USB Keyboard Support	Disabled		
Onboard LAN	Enabled		
Onboard Sound	Enabled		
Onboard Modem	Enabled		
IDE HDD Block Mode	Enabled		
Onboard FDC Controller	Enabled		
Onboard Serial Port 1	3F8/IRQ4		
Onboard Serial Port 2		▼	

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

Internal PCI/IDE

Default: Both

Use this item to enable or disable the PCI IDE channels that are integrated on this mainboard.

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.

Primary Master UltraDMA

Default: Auto

Primary Slave UltraDMA

Default: Auto

Secondary Master UltraDMA

Default: Auto

Secondary Slave UltraDMA

Default: Auto

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.

IDE Burst Mode	Default: Enabled
Use this item to enable a buffer for bus master PCI IDE transfers.	
USB controller	Default: Enabled
This item enables the onboard USB controller, so you can connect USB devices to the standard two USB ports on the board.	
USB Keyboard Support	Default: Disabled
This item enables the use of a USB keyboard.	
Onboard LAN	Default: Enabled
This item enables the integrated Ethernet capabilities. Your mainboard might have an optional integrated PCI LAN (network adapter), use this item to enable or disable it.	
Onboard Sound	Default: Enabled
This item enables the integrated audio capabilities.	
Onboard Modem	Default: Enabled
This item enables the integrated software modem capabilities.	
IDE HDD Block Mode	Default: Enabled
Block mode transfers can improve the access to IDE devices. Enable this item if your IDE devices support block mode transfers.	
Onboard FDC Controller	Default: Enabled
Use this item to turn on or off the floppy disk controller that is built into this mainboard.	
Onboard Serial Port 1	Default: 3F8/IRQ4
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).	
Onboard Serial Port 2	Default: Disable
This item lets you disable the built-in serial port 2, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).	
UART Mode Select	Default: IrDA
UR2 Duplex Mode	Default: Half
This item defines the operation of serial port 2. In the Normal setting, serial port 2 is assigned to the external 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 <i>UR2 Duplex Mode</i> to define if the IR port is full duplex or half duplex.	
Onboard Parallel Port	Default: 378/IRQ7
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).	

Parallel Port Mode	Default: SPP
ECP Mode Use DMA	Default: 3

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.

Init Display First	Default: PCI Slot
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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.

System Share Memory Size	Default: 8 MB
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This item defines the amount of system memory that will be shared and uses as video memory.

Extended Graphics Memory

This item displays the size of the extended A-DIMM memory used by the Video system for frame buffering.

Power Management Setup Option

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,

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Power Management Setup

ACPI Suspend Type	S1(POS)	Item Help
Video Off Option	Susp,Stby → Off	Menu Level ▶
Video Off Method	DPMS Supported	
Switch Function	Break/Wake	
MODEM Use IRQ	3	
Hot Key Function As	Disable	
HDD Off After	Disable	
IRQ [3-7,9-15],NMI	Enabled	
IRQ 8 Break Suspend	Disabled	
Power Button Override	Instant Off	
RING/WOL/WOM WakeUp/PwrOn	Disabled	
PCI PME WakeUp/PwrOn	Disabled	
KB Power ON Password	Enter	
Power Up by Alarm	Disabled	
x Month Alarm	NA	
x Day of Month Alarm	0	
x Time (hh:mm:ss) Alarm	0 0 0	

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

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.

Video Off Option

Default: Susp,Stby → Off

This item defines how the video is powered down to save power. As a default, this is set to Susp,Stby → Off, which means the video system will turn off whenever the system is suspended or in standby mode.

Video Off Method

Default: DPMS Supported

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

Switch Function

Default: Break/Wake

This item defines if pressing the power switch will cause the system to wake up from suspend or standby mode.

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.

Hot Key Function As

Default: Disable

This item defines the function of an auxiliary power hot key on the system keyboard. Your keyboard must feature such a hot key for this function to work. When enabled, It can be set to power off or suspend the system.

HDD Off After**Default: Disable**

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.

IRQ [3-7,9-15], NMI**Default: Enabled**

You can set this item to enabled if you want the system to wake up from suspend or standby mode when activity is detected on a device using any of these IRQ addresses.

IRQ 8 Break Suspend**Default: Disabled**

You can set this item to enabled if you want the system to wake up from suspend mode when activity is detected on a device using IRQ 8.

Power Button Override**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.

Ring/WOL/WOM WakeUp/PwrOn**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 call to an installed fax/modem or network adapter. You might have to connect the fax/modem and /or network adapter to a mainboard Wake On Modem and Wake On LAN connector for this feature to work.

KB Power ON Password**Default: Enter**

This item can be used to prompt the user for a password when the system power is resumed by keyboard action.

Power Up 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.

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.

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PnP/PCI Configurations

Reset Configuration Data	Disabled	Item Help
Resources Controlled By	Auto(ESCD)	Menu Level ▶ 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 IRQ Resources	Press Enter	
PCI/UGA 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

Reset Configuration Data

Default: Disabled

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.

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.

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.

PCI Health Status Option

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

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PC Health Status

	Item Help
	Menu Level ▶
Vcore	
2.5V	
Vcc3	
Vcc	
+12V	
SB3V	
-12V	
SB5V	
Voltage Battery	
CPU Temperature	
Board Temperature	
CPU Fan Speed	
Case Fan Speed	

↑↓←→: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.

Frequency 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.

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Frequency/Voltage Control

Auto Detect DIMM/PCI Clk	Enabled	Item Help
Spread Spectrum	Disabled	
CPU Host/SDRAM/PCI Clock	Default	Menu Level ▶
CPU Clock Ratio Jumpless	By H/W	

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

Auto Detect DIMM/PCI Clk **Default: Enabled**

When this item is enabled, BIOS will disabled the clock signal of free DIMM and PCI slots.

Spread Spectrum **Default: Disabled**

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

CPU Host/SDRAM/PCI Clock **Default: Default** **CPU Clock Ratio Jumpless** **Default: by H/W**

Use the *CPU Host/SDRAM/PCI Clock* to set the system bus frequency for the installed processor (usually 100 MHz or 66 MHz). Then use *CPU Clock Ratio* 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)**. We recommend that you leave these items to there default values Default and H/W (Hardware defined)

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.

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.

Set Password

This item can be used to install a password. To install a password, follow these steps:

1. Highlight the item Set 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

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

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.