

## Chapter 3: Setup

### About the Setup Utility

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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.

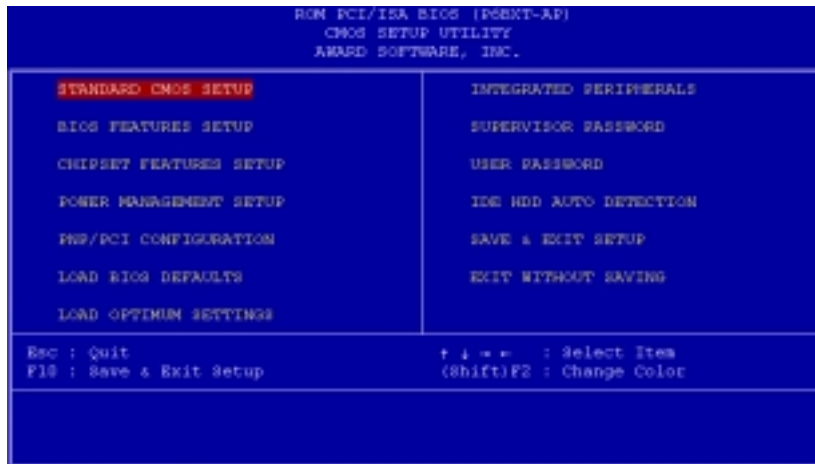
### *Starting the Setup Utility*

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 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.

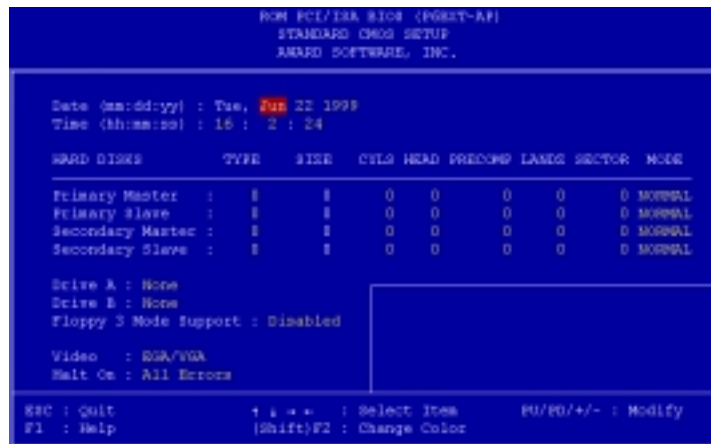
When you are in the main menu, you can exit the utility by pressing the **Escape** key. You can save the current selections and exit the utility by pressing the **F10** key. You can change the color scheme of the utility by pressing the **F2** key while holding down the **Shift** key. When you are in 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 **F1** key. You can change the color scheme of the utility by pressing the **F2** key while holding down the **Shift** key. 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 default values. Press **F7** to load the displayed items with a high-performance list of default values.

## Standard CMOS Setup Option

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



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### ***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.

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### ***Hard Disks***

### ***Defaults: None***

These items show the characteristics of hard disk drives on the two available IDE channels. (Note that SCSI hard disk drives do not appear here.) You can automatically install most hard disks using the IDE HDD Auto Detect Option from the main menu. If you find that a drive cannot be automatically detected, you can use these items to select USER, then manually enter the characteristics of the drive. The documentation provided with your drive provides the data you need to fill in the values for CYLS (cylinders), HEAD (read/write heads), and so on.

The drive documentation drive may not tell you what value to use under the MODE heading. If the drive is smaller than 528 MB, set MODE to Normal. If the drive is larger than 528 MB and it supports Logical Block Addressing, set MODE to LBA. Very few high-capacity drives do not support Logical Block Addressing. If you have such a drive, you might be able to configure it by setting the MODE to Large. If you're not sure which MODE setting is required by your drive, set MODE to Auto and let the setup utility try to determine the mode automatically.

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**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.

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**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.

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**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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## BIOS Feature 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.

ROM PCI/ISA BIOS (INHERIT-AP) BIOS FEATURES SETUP AWARD SOFTWARE, INC.	
CPU Internal Core Speed : <b>350MHz</b>	OS Select For DRAM > 64MB : Non-OS2
CPU Core Voltage : Default	HDD S.M.A.R.T. capability : Disabled
CPU clock failed reset : Disabled	Report No FDD For WIN 95 : Yes
Anti-Virus Protection : Disabled	Video BIOS Shadow : Enabled
CPU Internal Cache : Enabled	CDROM-CMSTP Shadow : Disabled
External Cache : Enabled	CDROM-CMSTP Shadow : Disabled
CPU L2 Cache ECC Checking : Enabled	CDROM-EDTFF Shadow : Disabled
Processor Number Feature : Enabled	D4810-D48FF Shadow : Disabled
Quick Power On Self Test : Enabled	D4810-D48FF Shadow : Disabled
Boot From LAN First : Enabled	D4810-D48FF Shadow : Disabled
Boot Sequence : A,C,SCSI	D4810-D48FF Shadow : Disabled
Swap Floppy Drive : Disabled	D4810-D48FF Shadow : Disabled
Boot Up NumLock Status : On	D4810-D48FF Shadow : Disabled
Gate A20 Option : Normal	D4810-D48FF Shadow : Disabled
Security Option : Setup	D4810-D48FF Shadow : Disabled
PCI/VGA Palette Snoop : Disabled	D4810-D48FF Shadow : Disabled
ESC : Quit F10 : Select Item	
F1 : Help F9/F10/+/- : Modify	
F5 : Old Values (Shift)F2 : Color	
F6 : Load BIOS Defaults	
F7 : Load Optimus Settings	

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**CPU Internal Core Speed****Default: 350MHz**

This item should be installed with the rated internal core speed of the Pentium-II class processor that is installed in your system. The setup utility will then automatically configure the system with the correct host bus speed, and bus frequency multiplier.

If you set this item to Manual, two new items will appear: *CPU Host BUS Frequency* and *CPU Core:Bus Freq. Multiple*. You can use these two items to manually configure the mainboard for the speed of the processor. The values

available in these two items will vary, according to the kind of Pentium-II processor that is installed.

**Note:** *Using the three items above, you can configure the mainboard so that it runs a processor faster than the rated clock speed. We strongly recommend that you do not overclock the processor. Overclocking can introduce excess heat, recurring instability, or even complete failure in your system.*

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**CPU Core Voltage****Default: Default**

This item can be used to set a core voltage for different kinds of processors. Leave this item at the default value and your system will automatically assign the correct voltage.

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**CPU Clock Failed Reset****Default: Disabled**

If this item is enabled, and your system crashes three times because you have overclocked the processor, this item will automatically adjust the speed of the processor to the system bus speed multiplied by two.

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**Anti-Virus Protection****Default: Enabled**

When "Anti-Virus Protection" 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 Enabled as a default. You might 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 of the processor cartridges that can be installed in this mainboard have (level 2) external cache memory (the Celeron-266 MHz is an exception). Only enable this item if your processor cartridge has external cache memory.

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

This item can be used to enable ECC (Error Checking Code) for the level-2 cache memory. We recommend that you leave this item at the default value Enabled.

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

Some new processors (the Pentium-III) are installed with a unique processor identification number. If you disable this item, the number will be suppressed so that it cannot be read by other systems on the network.

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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.

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<b>Boot from LAN First</b>	<b>Default: Enabled</b>
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This item lets you specify that the system will try to load an operating system from a network server first, before booting from any of the local drives.

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<b>Boot Sequence</b>	<b>Default: A, C, SCSI</b>
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This item defines where the system will look for an operating system, and the order of priority. You can boot an operating system from many locations including a SCSI device, a ZIP drive, a floppy diskette drive, or an LS-120 high-capacity diskette drive.

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<b>Swap Floppy Drive</b>	<b>Default: Disabled</b>
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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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<b>Boot Up NumLock Status</b>	<b>Default: On</b>
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This item defines if the keyboard Num Lock key is active when your system is started.

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<b>Gate A20 Option</b>	<b>Default: Normal</b>
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This option provides compatibility with older software written for the 286 processor. Leave this item at the default value Normal.

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<b>Memory Parity/ECC Check</b>	<b>Default: Disabled</b>
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This mainboard supports memory modules that have error checking using a parity bit, or using ECC (Error Correction Code). If your memory modules have this function, you can enable this feature for greater reliability.

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

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<b>PCI/VGA Palette Snoop</b>	<b>Default: Disabled</b>
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This item can help overcome problems that are caused by some non-standard VGA cards. We recommend that you leave this item at the default value Disabled.

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<b>OS Select For DRAM &gt; 64 MB</b>	<b>Default: Non-OS2</b>
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This item is 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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<b>HDD S.M.A.R.T Capability</b>	<b>Default: Disabled</b>
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S.M.A.R.T is an industry acronym for Self-monitoring, Analysis and Reporting Technology. If the documentation of your hard disk states that S.M.A.R.T. is supported, you can enable this item.

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<b>Report No FDD For WIN 95</b>	<b>Default: Yes</b>
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When the item is enabled, the IRQ-6 can be reserved for another device if you don't install FDD.

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**Video BIOS Shadow****Default: Enabled**

This item allows the video BIOS to be copied to system memory for faster performance.

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**XXXXX-XXXXX Shadow****Default: Disabled**

These items allow the BIOS of other devices to be copied to system memory for faster performance.

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## Chipset Features Option

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This option displays a table of items that define critical timing parameters of the mainboard components including the CPU, 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.

ROM PCI/ISA BIOS (POST-AP) CHIPSET FEATURES SETUP AWARD SOFTWARE, INC.	
Auto Configuration : <b>Enabled</b>	Auto Detect DIMM/PCI Clk : Enabled
EDO DRAM Speed Selection : 60ns	Spread Spectrum : Disabled
EDO CAS# MA Wait State : 2	
EDO RAS# Wait State : 1	Current CPU Temperature :
SIRAM RAS-to-CAS Delay : 2	Current System Temp. :
SIRAM RAS Precharge Time : 2	Current CPU FAN Speed :
SIRAM CAS latency Time : 2	Current CAS FAN Speed :
SIRAM Precharge Control : Disabled	Analog(V) :
DRAM Data Integrity Mode : Non-ECC	I/O (V) :
System BIOS Cacheable : Disabled	+12 (V) :
Video BIOS Cacheable : Disabled	CPU (V) :
Video RAM Cacheable : Disabled	
8 Bit I/O Recovery Time : 1	
16 Bit I/O Recovery Time : 1	
Memory Hole At 15M-16M : Disabled	
Passive Release : Enabled	ESC : Quit F1+- : Select Item
Delayed Transaction : Disabled	F1 : Help F0/F0/+/- : Modify
AGP Aperture Size (MB) : 64	F5 : Old Values (Shift)F2 : Color
Cs Board Sound : Enabled	F6 : Load BIOS Defaults
Cs Board Modem : Disabled	F7 : Load Optimum Settings

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**Auto Configuration****Default: Enabled**

Leave this item at the default value Enabled. Auto configuration installs preset default values for some of the timing parameters for EDO RAM memory.

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**EDO DRAM Speed Selection****Default: 60ns**

Defines the speed of EDO DRAM chips. The default value of 60ns ensures reliability if you have slower chips installed.

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**EDO CAS# MA Wait State****Default: 2****EDO RAS# Wait State****Default: 1**

These items set the timing of the Column Address Strobe and Row Address Strobe for EDO RAM. We recommend that you leave these items at the default.

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<b>SDRAM RAS-to-CAS Delay</b>	<b>Default: 3</b>
<b>SDRAM RAS Precharge Time</b>	<b>Default: 3</b>
<b>SDRAM CAS latency Time</b>	<b>Default: 3</b>

These items set the timing of the Column Address Strobe and Row Address Strobe for SDRAM. We recommend that you leave these items at the default.

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<b>DRAM Data Integrity Mode</b>	<b>Default: Non-ECC</b>
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Use this item to define if your memory supports ECC (Error Correction Code) error checking.

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

These two items allow the system BIOS and Video BIOS to be cached for faster performance. We recommend that you leave these item at the default values.

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<b>8 Bit I/O Recovery Time</b>	<b>Default: 1</b>
<b>16 Bit I/O Recovery Time</b>	<b>Default: 1</b>

These two items set timing parameters for 8-bit and 16-bit ISA expansion cards. We recommend that you leave these items at the default value 1.

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<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 cards that require it. We recommend that you leave this item at the default value Disabled.

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<b>Passive Release</b>	<b>Default: Enabled</b>
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When enabled. CPU to PCI bus accesses are allowed during passive release.

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<b>Delayed Transaction</b>	<b>Default: Disabled</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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<b>AGP Aperture Size</b>	<b>Default: 64MB</b>
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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.

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<b>On Board Sound</b>	<b>Default: Enabled</b>
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Use this item to enable or disable the sound system that is integrated on this mainboard.

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<b>On Board Modem</b>	<b>Default: Disabled</b>
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Use this item to enable or disable the fax/modem that is integrated on this mainboard.

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<b>Auto Detect DIMM/PCI Clk</b>	<b>Default: Enabled</b>
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When this item is enalbed, it can be used to detect the clock whether you install the DIMM/PCI on your mainbord or not in order to avoid the clock interference.

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<b>Spread Spectrum</b>	<b>Default: Disabled</b>
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When this item is enabled, it modulates the system clock generator pulses and can significantly reduce the EMI (electrical magnetic interference) that your



system generates. However, it can introduce timing problems for some clock sensitive devices. We recommend that you leave this item at the default value.

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***Current CPU Temperature, Current System Temp., etc.***

These items on the right side of the Chipset Features Setup screen can be used to set hardware monitoring parameters for your system.

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## Power Management Setup Option

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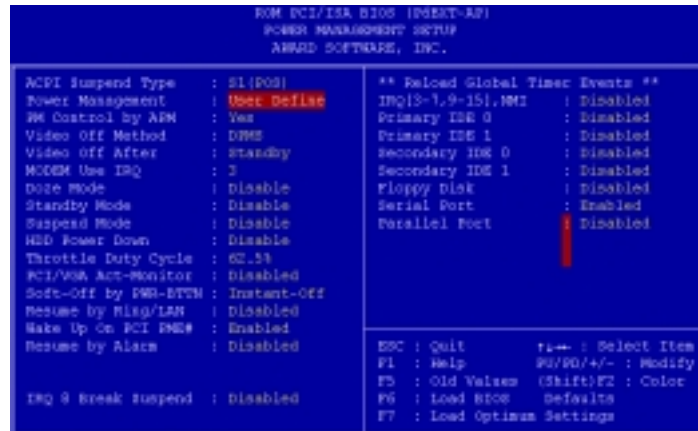
This option displays items which let you control the system power management. Modern operating systems take care of much of the power management. This mainboard supports ACPI (advanced configuration and power interface). This system supports three power-saving modes; doze mode, standby mode, and suspend mode. Standby mode uses less power than doze mode and suspend mode uses the least power.

***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 restart the timeout counters.

***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 or LAN card, or a fixed alarm on the system realtime clock.




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**ACPI Suspend Type** **Default: (S1)POS**

If you set this item to S3 will enter the STR ( Suspend to RAM) mode.

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**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, doze, standby, and suspend mode, will occur after a short timeout. If this item is set to Min Saving, doze, standby, and suspend mode will occur after a longer timeout. If the item is set to User Define, you can insert your own timeouts for the power-saving modes.

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**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).

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**Video Off After** **Default: Standby**

This option defines the level of power-saving mode required in to power down the video display. As a default, the video powers down both in standby 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 suspend mode, use this item to specify the interrupt request line (IRQ) that is used by the modem. You must connect the fax/modem to the mainboard Wake On Modem connector for this feature to work.

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**Doze Mode** **Default: Disabled**

If you have selected User Define for the Power Management item, you can set this item to a timeouts from 10 seconds to 4 hours. The system will go into the power-saving doze mode if the timeout passes without any system activity.

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**Standby Mode** **Default: Disabled**

If you have selected User Define for the Power Management item, you can set this item to a timeouts from 10 seconds to 4 hours. The system will go into the power-saving standby mode if the timeout passes without any system activity.

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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 10 seconds to 4 hours. 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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**Throttle Duty Cycle****Default: 62.5%**

This item defines what percentage of time the system will halt the processor clock when it is in power-saving mode.

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**VGA Active Monitor****Default: Disabled**

When this item is Enabled. It means that any activity on the active monitor will restart the standby mode timeout counter.

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**PCI-VGA Act-Monitor****Default: Disabled**

When this item is Enabled, it means that any activity on the active monitor will restart the standby mode timeout counter.

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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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**Resume by Ring/LAN****Default: Disabled**

If this item is enabled, it allows the system to resume from a software powerdown whenever there is an incoming call to an installed fax/modem. For this feature to operate, the fax/modem card must be connected to the Wake On Modem connector on the mainboard.

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**Wake Up On PCI PME#****Default: Enabled**

If this item is enabled, it allows the system to enable the LAN Power On Function when you use the PCI Ver 2.2 PCI LAN card.

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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.

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**IRQ 8 Break Suspend****Default: Disabled**

When this item is enabled, any activity through the system interrupt request line 8 can reset power-saving mode timeouts to zero, or resume the system from a power saving mode. IRQ 8 is normally used by the system realtime clock.

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<b>IRQ[3-7, 9-15], NMI</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 system interrupts (IRQs) and the non-masked interrupt (NMI).

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<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>
<b>Floppy Disk</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, or any of the drives connected to the floppy disk drive controller

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<b>Serial Port</b>	<b>Default: Enabled</b>
<b>Parallel Port</b>	<b>Default: Disabled</b>

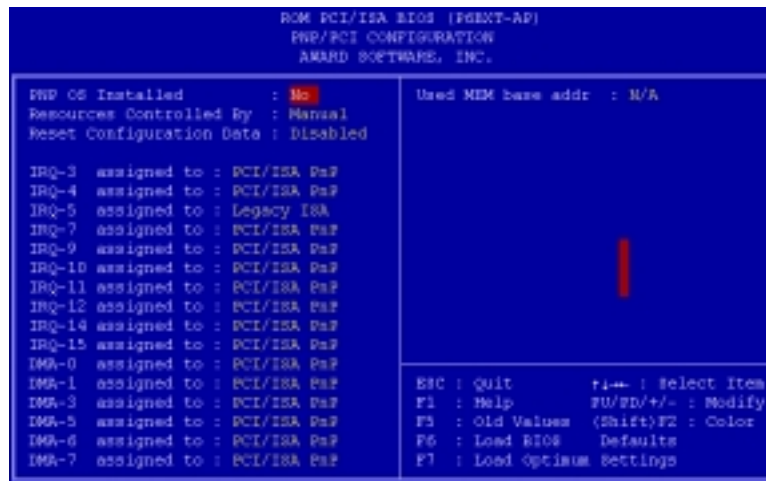
When these items are enabled, the system will restart the power-saving timeout counters when any activity is detected through the system's serial ports, or the parallel port.

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## PNP/PCI Configuration Option

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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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<b>PNP OS Installed</b>	<b>Default: No</b>
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If you have installed a Plug and Play operating system such as Windows 95 or 98, you can change this item to Yes. When the item is set to Yes you can use

the Device Manager utility in the operating system to make changes to the configuration of expansion cards.

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<b><i>Resources Controlled By</i></b>	<b><i>Default: Manual</i></b>
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You should leave this item at the default Manual. If you find that you cannot get a particular expansion card to work properly, you might be able to solve the problem by changing this item to Manual, and defining the characteristics of the card in the new items which appear.

In the default Manual, the display will list a series of items that allow you to define the assignments of the system interrupt lines (IRQs) and Direct Memory Access (DMA) channels. As a default, these items are set to PCI/ISA PnP. If you install an ISA-bus card that does not support PNP, and it requires a special IRQ and DMA, you can modify the list of assignments. Change the values of the IRQ and DMA that are required to Legacy ISA.

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

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<b><i>Used MEM base addr</i></b>	<b><i>Default: N/A</i></b>
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This item lets you choose 6 different types UMB (Upper Memory Block) base address and then you can set the memory size from 8K to 64K.

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## Load BIOS Defaults Option

This option opens dialog box that lets you install BIOS 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 BIOS defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the BIOS defaults as a first step in getting your system working properly again. If you only want to install BIOS defaults for a specific option, select and display that option, and then press the **F6** key.

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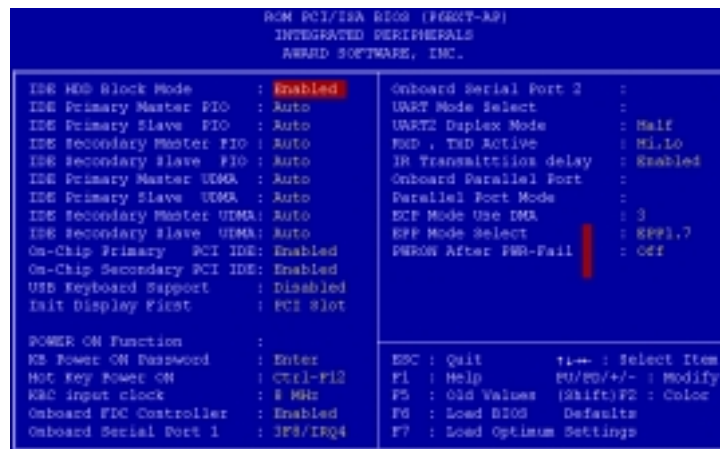
## Load Optimum Settings Option

This option opens dialog box that lets you install optimum 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 optimum 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 setup 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.

## Integrated Peripherals Option

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



### **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.

### **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.

### **IDE Primary Master UDMA** **Default: Auto**

### **IDE Primary Slave UDMA** **Default: Auto**

### **IDE Secondary Master UDMA** **Default: Auto**

### **IDE Secondary Slave UDMA** **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.

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<b>On-Chip Primary PCI IDE</b>	<b>Default: Enabled</b>
<b>On-Chip Secondary PCI IDE</b>	<b>Default: Enabled</b>

---

These items allow you to enable or disable the primary and secondary IDE channels built into 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 if you have installed an AGP graphics adapter into the AGP slot.

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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. If you set it to Hot Key, you can then use the item Hot Key Power On to choose which hot keys are installed.

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<b>KBC input clock</b>	<b>Default: 8 MHz</b>
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This item sets the clock speed for the keyboard controller. Leave this item at the default value of 8 MHz.

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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: 2F8/IRQ3</b>
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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).

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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 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, two items appear, RxD, TxD Active and IR Transmission delay, which let you set the duplex and transmission parameters for the Infrared port. See the documentation of your infrared port for help on these items.

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<b>UART2 Duplex Mode</b>	<b>Default: Half</b>
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This item lets you choose two types Half Duplex/Full Duplex Duplex Mode.

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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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**Parallel Port Mode****Default: SPP**

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 change the parallel port to EPP or ECP, new items appear to let you configure the EPP and ECP modes.

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**AC Resume After PWR-Loss****Default: Off**

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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## Supervisor and User Password Settings

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

1. Highlight the item Password Settings 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.

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## IDE HDD Auto Detection Option

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This item automatically detects and installs any hard disk drives installed on the primary and secondary IDE channel. Most modern drives can be detected. If you are using a very old drive that can't be detected, you can install it manually using the Standard CMOS Setup option.

Setup will check for two devices on the primary IDE channel and then two devices on the secondary IDE channel. At each device, the system will flash an N in the dialog box. Press **Enter** to skip the device and proceed to the next device. Press **Y**, then **Enter** to tell the system to auto-detect the device.



## 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.