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**Award® BIOS Setup**

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The mainboard uses Award® BIOS ROM that has a built-in Setup program to allow users to modify the basic system configuration. The information is stored in battery-backed RAM (CMOS RAM) so that it retains the Setup information when the power is turned off.

This chapter provides you with the overview of the BIOS Setup program. It contains the following topics:

Entering Setup	3-2	Frequency/Voltage Control	3-31
Control Keys	3-2	Load Fail-Safe Defaults	3-33
Getting Help	3-3	Load Optimized Defaults	3-34
The Main Menu	3-4	Set Supervisor/User Password	3-35
Standard CMOS Feature	3-6	Save & Exit Setup	3-37
Advanced BIOS Features	3-9	Exit without Saving	3-38
Advanced Chipset Features	3-13		
Integrated Peripherals	3-16		
Power Management Setup	3-22		
PnP/PCI Configurations	3-27		
PC Health Status	3-29		

# Entering Setup

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Power on the computer. When the below message appears briefly at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press <Ctrl>, <Alt>, and <Esc> keys to enter Setup.

TO ENTER SETUP BEFORE BOOT, PRESS <CTRL-ALT-ESC>  
OR <DEL> KEY

If the message disappears before you respond and you still wish to enter Setup, restart the system by turning it OFF then On or pressing the RESET button to try again. You may also restart by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys.

# Control Keys

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<↑>	Move to the previous item
<↓>	Move to the next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<Enter>	Select the item
<Esc>	Jumps to the Exit menu or returns to the main menu from a submenu
<+/PU>	Increase the numeric value or make changes
<-/PD>	Decrease the numeric value or make changes
<F1>	General help, only for Status Page Setup Menu and Option Page Setup Menu
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Load the default CMOS value from Fail-Safe default table, only for Option Page Setup Menu
<F7>	Load Optimized defaults
<F10>	Save all the CMOS changes and exit

## Getting Help

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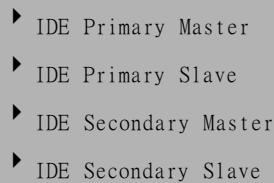
After entering the Setup menu, the first menu you will see is the Main Menu.

### Main Menu

The main menu lists the setup functions you can make changes to. You can use the control keys (  $\uparrow\downarrow$  ) to select the item. The on-line description of the highlighted setup function is displayed at the bottom of the screen.

### Sub-Menu

If you find a right pointer symbol (as shown in the right view) appears to the left of certain fields that means a sub-menu can be launched from this field. A sub-menu contains additional options for a field parameter. You can use control keys (  $\uparrow\downarrow$  ) to highlight the field and press <Enter> to call up the sub-menu. Then you can use the control keys to enter values and move from field to field within a sub-menu. If you want to return to the main menu, just pres the <Esc>.



- ▶ IDE Primary Master
- ▶ IDE Primary Slave
- ▶ IDE Secondary Master
- ▶ IDE Secondary Slave

### General Help <F1>

The BIOS setup program provides a General Help screen. You can call up this screen from any menu by simply pressing <F1>. The Help screen lists the appropriate keys to use and the possible selections for the highlighted item. Press <Esc> to exit the Help screen.

**Chapter 4**

**The Main Menu**

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Once you enter Award® BIOS CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from twelve setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to enter the sub-menu.

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<div>▸ Standard CMOS Features</div> <div>▸ Advanced BIOS Features</div> <div>▸ Advanced Chipset Features</div> <div>▸ Integrated Peripherals</div> <div>▸ Power Management Setup</div> <div>▸ PnP/PCI Configurations</div> <div>▸ PC Health Status</div>	<div>▸ Frequency/Voltage Control</div> <div>Load Fail-Safe Defaults</div> <div>Load Optimized Defaults</div> <div>Set Supervisor Passwor</div> <div>Set User Password</div> <div>Save &amp; Exit Setup</div> <div>Exit Without Saving</div>
Esc: Quit	↑ ↓ → ← Select Item
F10: Save & Exit Setup	
Time, Date, Hard Disk Type...	

**Standard CMOS Setup**

Use this menu for basic system configurations.

**Advanced BIOS Features**

Use this menu to set the items of Award special enhanced features.

**Advanced Chipset Features**

Use this menu to change the values in the chipset registers and optimize your system’s performance.

**Integrated Peripherals**

Use this menu to specify your settings for integrated peripherals.

**Power Management Setup**

Use this menu to specify your settings for power management.

**PnP/PCI Configuration**

This entry appears if your system supports PnP/PCI.

**PC Health Status**

This entry shows your PC health status.

**Frequency/Voltage**

Use this menu to specify your settings for frequency/voltage control.

**Load Fail-Safe Defaults**

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

**Load Optimized Defaults**

Use this menu to load the BIOS default values that are factory settings for optimal system performance operations.

**Supervisor/User Password**

Use this menu to set User and Supervisor Passwords.

**Save & Exit Setup**

Save CMOS value changes to CMOS and exit setup.

**Exit Without Saving**

Abandon all CMOS value changes and exit setup.

**Chapter 4**

**Standard CMOS Features**

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes none, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

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Standard CMOS Setup

Date(mm:dd:yy):	Thu., Nov 16,2000	Item Help
Time(hh:mm:ss):	16: 15 : 9	
▶IDE Primary Master		Menu Level ▶  Change the day, month, year and century
▶IDE Primary Slave		
▶IDE Secondary Master		
▶IDE Secondary Slave		
Drive A	1.44M, 3.5in.	
Drive B	None	
Video	EGA/VGA	
Halt On	All, But Keyboard	
Base Memory	640K	
Extended Memory	65472K	
Total Memory	1024K	
↑ ↓ → ←::Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

**Date**

This allows you to set the system to the date that you specify (usually the current date). The format is <day><month> <date> <year>.

<b>Day</b>	Day of the week, from Sun. to Sat., determined by BIOS. Read-only.
<b>month</b>	The month from Jan. through Dec.
<b>date</b>	The date from 1 to 31 can be keyed by numeric function keys.
<b>year</b>	The year, depends on the year of the BIOS

**Time**

This allows you to set the system to the time that you specify (usually the current time). The time format is <hour> <minute> <second>.

**PrimaryMaster/PrimarySlave  
SecondaryMaster/Secondary Slave**

Press PgUp/<+> or PgDn/<-> to select the hard disk drive category. The specification of hard disk drive will show on the right hand according to your selection. You can press <Enter> to enter the sub-menu. The sub-menu will appear as the following example:

IDE Primary Master		
IDE HDD Auto-Detection	Press Enter	Item Help
IDE Primary Master	Auto	Menu Level ►► To auto-detect the HDD's size, head...on this channel
Access Mode	Auto	
Capacity	15365MB	
Cylinder	29770	
Head	16	
Precomp	65535	
Landing Zone	29769	
Sector	63	

<u>Access Mode</u>	The settings are Auto, Normal, Large,LBA.
<u>Cylinder</u>	number of cylinders
<u>Head</u>	number of heads
<u>Precomp</u>	write precom
<u>Landing Zone</u>	landing zone
<u>Sector</u>	number of sectors

## **Chapter 4**

### **Drive A, Drive B**

This allows you to set the type of floppy drivers installed. Setting options: [None], [360K, 5.25in], [1.2M, 5.25in], [720k, 3.5in], [1.44M, 3.5in], [2.88M, 3.5in]. Drive A default value: [1.44M, 3.5in]. Drive B default value: [None].

### **Video**

This allows you to set the type of video card. Setting options: [EGA/VGA] [CGA40] [CGA80] [MONO]. Default value: [EGA/VGA].

### **Halt on**

This allows you to set the type of errors that will cause system halt on. Setting option: [All Errors] [No Errors] [All, But Keyboard] [All, But Diskette] [All, But Disk/Key]. Default value: [All, But Keyboard].

All Errors: The system will halt on and display the error message if any error happens.

No Errors: The system will not halt on no matter any error happens.

All, But Keyboard: The system will halt on if any error happens. But the system will not halt on if the keyboard function is not normal.

All, But Disk/Key: The system will halt on if any error happens. But the system will not halt on if the disk drive and keyboard function is not normal.



# Advanced BIOS Features

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Advanced BIOS Features

Anti-Virus Protection	Disabled	Item Help
CPU Internal Cache	Enabled	
External Cache	Enabled	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
CPU L2 Cache ECC Checking	Enabled	
Processor Number Feature	Enabled	
Quick Power On Self Test	Disabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	
Third Boot Device		
LS120		
Fourth Boot Device	Disabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
x Typematic Rate Setting	Disabled	
x Typematic Rate (Chars/Sec)	6	
Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM > 64MB	Non-OS2	
HDD S.M.A.R.T Capability	Disabled	
Report No FDD For WIN95	No	
↑ ↓ → ←: 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

Allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will show a warning message on screen and alarm beeps. Setting options: [Disabled] [Enabled]. Default value: [Disabled]

## **Chapter 4**

### **CPU Internal Cache**

This allows you to choose from the default of [Enabled] or choose [Disabled] to turn on or off the CPU's internal cache. Setting options: [Disabled] [Enabled].

■ **Note:** *The internal cache is built in the processor.*

### **External Cache**

This allows you to choose from the default of [Enabled] or choose [Disabled] to control the function of level 2 cache memory. Setting options: [Disabled] [Enabled]. Default value: [Enabled].

### **CPU L2 Cache ECC Checking**

This allows you to control the ECC (error check correction) capability in the CPU level 2 cache. Setting options: [Disabled] [Enabled]. Default value: [Enabled].

### **Processor Number Feature**

During "Enabled", the processor serial number will be shown on the POST boot up procedure. Setting options: [Disabled] [Enabled]. Default value: [Enabled].

### **Quick Power On Self Test**

This allows you to speed up Power On Self Test (POST) after you power on the computer. If this is set to Enabled, BIOS will shorten or skip some check items during POST. Setting options: [Disabled] [Enabled]. Default value: [Disabled].

### **First/Second/Third/Fourth Boot Device**

This allows you to set the sequence of boot device from that the BIOS attempts to load the operating system. Setting options: [Floppy], [LS120], [HDD-0], [HDD-1], [HDD-2], [HDD-3], [SCSI], [CDROM], [ZIP100], [LAN], [Disabled].

### **Swap Floppy Drive**

This allows you to choose from the default of [Disabled] or choose [Enabled] to switch the floppy disk drives between being designated as A and B. Setting options: [Disabled] [Enabled]. Default value: [Disabled].

### **Boot Up Floppy Seek**

This function allows the system to check if floppy installed or uninstalled when booting up the computer. Setting options: [Disabled] [Enabled]. Default value: [Enabled].

### **Boot Up NumLock Status**

This allows you to set the NumLock status when you boot up your computer. When you choose from the default of [On], the keypad is numeric keys. When you choose [Off], the keypad is arrow keys. Setting options: [On] [Off]. Default value: [On]

### **Gate A20 Option**

This allows you to set the Gate A20 status. When you choose from the default of [Fast], the Gate A20 is controlled by chipset. When you choose [Normal], a pin in the keyboard controller controls the Gate A20. Setting options: [Fast] [Normal]. Default value: [Fast]

### **Typematic Rate Setting**

This allows you to set the keystrokes repeat rate determined by keyboard controller. When you choose “Enabled”, the “Typematic Rate” and “Typematic Delay” can be selected. Default value: [Disabled].

### **Typematic Rate (Chars/Sec)**

This allows you to set the number of times a second to repeat a keystroke when you hold the key down. Setting options: [6], [8], [10], [12], [15], [20], [24], [30]. Default value: [6].

## **Chapter 4**

### **Typematic Delay (Msec)**

This allows you to set the delay time before the key begins to repeat the keystroke while holding down the key. Setting options: [250], [500], [750], [1000]. Default value: [250].

### **Security Option**

This allows you to limit access to the system and Setup, or just to Setup. When you choose from the default of [Setup], the system will boot, but access to Setup will be denied if the correct password is not entered at the prompt. When you choose [System], the system will not boot and access to Setup will be denied if the correct password is not entered at the prompt. Setting options: [Setup] [System]. Default value: [Setup].

### **OS Select For DRAM > 64MB**

This allows you to run the OS/2<sup>®</sup> operating system with > 64 MB of DRAM. When you choose from the default of [Non-OS2], you cannot run the OS/2<sup>®</sup> operation system with > 64 MB of DRAM. When you choose [OS2], it is possible. Setting options: [Non-OS/2] [OS2]. Default value: [Non-OS/2]

### **HDDS.M.A.R.T Capability**

This allows you to set the HDD S.M.A.R.T capability. S.M.A.R.T is a utility that monitors your disk hardware with the goal of identifying disks that have a strong possibility of crashing. This provides you a window of opportunity to gracefully remove data from a failing disk and take it offline before your disk drive takes you offline. Setting options: [Enabled] [Disabled]. Default value: [Disabled]

### **Report No FDD For WIN95**

This function is only used when you are testing HCT for Windows<sup>®</sup> 95 Logo. Setting options: [No] [Yes]. Default value: [No]

# Advanced Chipset Features

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Advanced Chipset Features

SDRAM CAS Latency Time    Auto	Item Help	
SDRAM Cycle Time Tras/Trc 7/9	Menu Level >	
SDRAM RAS-to-CAS Delay    3		
SDRAM RAS Precharge Time  3		
System BIOS Cacheable    Disabled		
Video BIOS Cacheable     Disabled		
Memory Hole At 15M-16M   Disabled		
CPU Latency Timer        Enabled		
Delayed Transaction       Enabled		
On-Chip Video Window Size 64MB		
AGP Graphics Aperture Size 64MB		
System Memory Frequency   Auto		
Display Cache Frequency   100 MHz		
*Onboard Display Cache Setting*		
CAS# Latency 3		
Paging Mode Control Open		
RAS-to-CAS Override by CAS#LT		
RAS# Precharge Timing Fast		

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

## SDRAM CAS Latency Time

This allows you to set the SDRAM CAS Latency time. Setting options:  
[Auto], [2], [3]. Default value: [Auto].

## SDRAM Cycle Time Tras/Trc

This allows you to control the number of SDRAM clocks used for SDRAM parameters Tras and Trc. Tras specifies the minimum clocks required between active command and prechange command. Trc specifies the minimum clocks required between active command and re-active command. Setting options: [5/7], [7/9]. Default value: [7/9].

## **Chapter 4**

### **SDRAMRAS-to-CAS Delay**

This allows you to control the latency between the SDRAM active command and the read/write command. Setting options: [3], [2]. Default value: [3].

### **SDRAM RAS Prechange Time**

This allows you to control the idle clocks after issuing a prechange command to the SDRAM. Setting options: [3], [2]. Default value: [3].

### **System BIOS Cacheable**

Selecting “Enabled” allows the caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result. Setting options:[Enabled] [Disabled]. Default value: [Disabled].

### **Video BIOS Cacheable**

Selecting “Enabled” allows caching of the video RAM, resulting in better system performance. However, if any program writes to this memory area, a system error may result. Setting options:[Enabled] [Disabled]. Default value: [Disabled].

### **Memory Hole at 15M-16M**

This allows you to reserve an address space for ISA expansion cards that require it. Setting options:[Enabled] [Disabled]. Default value: [Disabled].

### **CPU Latency Timer**

This allows you to control the GMCH's response to CPU deferrable cycles.

Setting options: [Disabled], [Enabled]. Default value: [Enabled].

### **Delayed Transaction**

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select "Enabled" to support compliance with PCI specification version 2.1. Setting options: [Disabled], [Enabled]. Default value: [Enabled].

### **On-Chip Video Window Size**

This allows you to select the size of mapped memory for AGP graphic data.

Setting options: [64MB], [32MB], [Disabled]. Default value: [64MB].

### **AGP Graphics Aperture Size**

This allows you to select the size of Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation. Setting options:[32] [64] . Default value: [64]

### **System Memory Frequency**

This allows you to set the system memory frequency. Setting options:

[100MHz], [133MHz], [Auto]. Default value: [Auto].

### **Display Cache Frequency**

This allows you to set the display cache frequency. Setting options: [100MHz], [133MHz]. Default value: [100MHz].

Integrated Peripherales

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	
AC97 Audio Auto	
AC97 Modem Auto	
Onboard LAN Chip Enabled	
LAN Boot ROM Enabled	
Onboard SCSI Chip Enabled	
IDE HDD Block Mode Enabled	
POWER ON Function Bottom ONLY	
KB Power ON Password Enter	
Hot Key Power ON Ctrl-F1	
Onboard FDC Controller Enabled	
Onboard Serial Port 1 3F8/IRQ4	
Onboard Serial Port 2 2F8/IRQ3	
UART Mode Select Normal	
RxD, TxD Active Hi, Lo	
IR Transmission Delay Enabled	
UR2 Duplex Mode Half	
Use IR Pins IR-Rx2Tx2	
Onboard Parallel Port 378/IRQ7	
Parallel Port Mode SPP	
EPP Mode Select EPP1.7	
ECP Mode Use DMA 3	
PWRON After PWR-Fail off	
Game Port Address 201	
Midi Port Address 330	
Midi Port IRQ 10	
Power Status Led Single	
↑ ↓ → ←: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults	



### **OnChip Primary/Secondary PCIIDE**

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Choose the default of [Enabled] to activate each channel separately. Setting options: [Enabled] [Disabled]. Default value: [Enabled].

### **IDE Primary/Secondary Master/Slave PIO**

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device. Settings options: [Auto], [Mode 0], [Mode 1], [Mode 2], [Mode 3], [Mode 4].

### **IDE Primary/Secondary Master/Slave UDMA**

Ultra DMA/33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third -party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/33 and Ultra DMA/66, select “Auto” to enable BIOS support. Setting options: [Auto], [Disabled]. Default Value: [Auto].

### **USB Controller**

This allows you to control the function of USB controller. When choosing “Enabled”, the USB controller can be used while choosing “Disabled” let USB has no function. Setting options: [Enabled] [Disabled]. Default value: [Enabled]

### **USB Keyboard Support**

Select Enabled if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard. Setting options: [Enabled] [Disabled]. Default value: [Disabled]

## **Chapter 4**

### **Init Display First**

This item allows you to decide to activate whether PCI Slot or AGP Slot. Setting options: [PCI Slot] [AGP]. Default value: [PCI Slot].

### **AC97 Audio/AC97 Modem**

[Auto] allows the motherboard's BIOS to detect whether you're using any audio/modem device. If it is, the onboard modem/audio controller will be enabled. If not, the onboard modem/audio controller will be disabled. If you want to use different controller cards to connect modem and audio connectors, set these fields to [Disabled]. Setting options: [Auto] [Disabled]. Default value: [Auto]

### **Onboard LAN Chip**

This item should be enabled if you want to use the onboard LAN function. Setting options: [Enabled] [Disabled]. Default value: [Enabled].

### **Lan Boot ROM**

This allows you to enable the Lan Boot ROM function. Setting options: [Enabled] [Disabled]. Default value: [Enabled].

### **Onboard SCSI Chip**

This item should be enabled if you want to use the onboard SCSI function. Setting options: [Enabled] [Disabled]. Default value: [Enabled].

### **IDE HDD Block Mode**

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select "Enabled" for automatic detection of the optimal number of block read/writes per sector the drive can support. Setting options: [Enabled] [Disabled]. Default value: [Enabled].

### **POWER ON Function**

This item allows you to choose the function from that the system is powered on. Setting options: [password] [Hot Key], [Mouse Left], [Mouse Right], [BUTTON ONLY], [keyboard 98]. Default value: [BUTTON ONLY].

### **Keyboard Power ON Password**

This allows you to set the password for keyboard power on function while the system is turned off.

### **Hot Key Power ON**

This allows you to set the hot key power on function while the system is turned off. Setting options: [Ctrl-F1/2/3/4/5/6/7/8/9/10/11/12]

Default value: [Ctrl-F1]

### **Onboard FDC Controller**

Select “Enabled” if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install add-on FDC or the system has no floppy drive, select “Disabled” in this field. Setting options: [Disabled], [Enabled]. Default value: [Enabled]

### **Onboard Serial Port 1/Port 2**

This allows you to select an address and corresponding interrupt for the first and second serial ports. Setting options: [3F8/IRQ4], [2E8/IRQ3], [3E8/IRQ4], [2F8/IRQ3], [Disabled], [Auto]. Default value: [3F8/IRQ4] for Port 1, [2F8/IRQ4] for Port 2.

### **UART Mode Select**

This allows you to select the UART mode. While choosing [Normal], the following four items will have no function. Setting options: [IrDA] [ASKIR] [Normal]. Default value: [Normal]

## **Chapter 4**

### **Onboard Parallel Port**

There is a built-in-parallel port on the onboard Super I/O chipset that provides Standard, ECP, and EPP features. Setting options: [Disabled] [3BC/IRQ7] [378/IRQ7] [278/IRQ5]. Default value: [378/IRQ7]

### **Parallel Port Mode**

This allows you to set the onboard parallel port mode. Setting options : [SPP] [EPP] [ECP] [ECP/EPP]. Default value: [SPP]

SPP: Standard Parallel Port

EPP: Enhanced Parallel Port

ECP: Extended Capability Port

### **EPP Mode Select**

This allows you to select the type of EPP mode. Setting options : [EPP1.7] [EPP1.9]. Default value: [EPP1.7]

### **ECP Mode Use DMA**

This allows you to select a DMA channel for the parallel port for use during ECP mode. Setting options : [1] [3]. Default value: [3]

### **PWRON After PWR-Fail**

This allows you to choose how the system will power on after a power failure. Setting options : [Off] [Former-Sts] [On]. Default value: [Off]

### **Game Port Address**

This allows you to set the Game Port address. Setting options : [Disabled] [201] [209]. Default value: [201]

**Midi Port Address**

This allows you to set the Midi Port address. Setting options : [Disabled] [330] [300] [290]. Default value: [330]

**Midi Port IRQ**

This allows you to set the Midi Port IRQ. Setting options : [5] [10]. Default value: [10]

**Power Status Led**

This allows you to choose the type of Power Status Led. Setting options : [Single] [Dual] [Blinking]. Default value: [Single]

Chapter 4

Power Management Setup

The Power Management Setup allows you to configure you system to most effectively save energy while operating in a manner consistent with your own style of computer use.

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Power Management Setup

ACPI Function	Enabled	Item Help
ACPI Suspend Type	S1 (POS)	
Power Management	User Define	Menu Level >
Video Off Methoud	DPMS	
Video Off In Suspend	Yes	
Suspend Type	Stop Grant	
MODEM Use IRQ	3	
Suspend Mode	Disabled	
HDD Power Down	Disabled	
Soft-Off by PWR-BTTN	Instant-Off	
Wake Up by PCI card	Disabled	
Power On by Ring	Enabled	
Wake Up On LAN	Enabled	
USB KB Wake-Up From S3	Disabled	
CPU Thermal-Throttling	50.0%	
Resume by Alarm	Disabled	
x Date (of Month) Alarm	0	
x Time (hh:mm:ss) Alarm	0 0 0	
** Reload Global Timer Events **		
Primary IDE 0	Disabled	
Primary IDE 1	Disabled	
Secondary IDE 0	Disabled	
Secondary IDE 1	Disabled	
FDD, COM, LPT Port	Disabled	
PCI PIRQ[A-D]#	Disabled	

↑ ↓ → ←: 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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**ACPIFunction**

This item allows you to set ACPI (Advanced Configuration and Power Management) function. Setting options: [Enabled] [Disabled]. Default value: [Enabled]

**ACPI Suspend Type**

This item allows you to set the ACPI suspend type you will use. Setting options: [S1 (POS)] [S3 (STR)]. Default value: [S1 (POS)]

S1 (POS)	The S1 sleeping state is low wake-up latency sleeping state. In this state, no system context is lost (CPU or chip set) and hardware maintains all system context.
S3 (STR)	The S3 state is a low wake-up latency sleeping state. In this state all system context is lost except system memory. CPU, cache, and chipset context are lost in this state. Hardware maintains memory context and restores some CPU and L2 configuration context.

**Power Management**

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

HDD Power Down    Doze Mode    Suspend Mode

There are three selections for Power Management, two of which have fixed mode settings.

Min. Saving	Minimum power management. Suspend Mode = 1hr., and HDD Power Down = 15 min.
Max. Saving	Maximum power management. Suspend Mode = 1 min., and HDD Power Down = 1min.
User Define (default)	Allow you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

## **Chapter 4**

### **Video Off Method**

This determines the manner in which the monitor is blanked.

V/H SYNC+Blank	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.
Blank Screen	This option only writes blanks to the video buffer.
DPMS Support (default)	Initial display power management signaling.

### **Video Off In Suspend**

This allows you to determine whether you want your monitor blanked for power management when entering suspend mode. Setting options: [Yes], [No]. Default value: [Yes].

### **Suspend Type**

This allows you to select the suspend type for system power management. Setting options: [Stop Grant], [PwrOn Suspend]. Default value: [Stop Grant].

### **Modem Use IRQ**

This determines the IRQ in which the MODEM can use. Setting options: [3] [4] [5] [7] [9] [10] [11] [NA]. Default value: [3].

### **Suspend Mode**

This allows you to set the time period before the system goes into suspend mode. Setting options: [1 Min] [2 Min] [4 Min] [8 Min] [12 Min] [20 Min] [30 Min] [Disabled]. Default value: [Disabled].



### **HDD Power Down**

This allows you to set the time period before the hard disk drive will be powered down while all other devices remain active. Setting options: [Disabled] [1/2/3/4/5/6/7 min]. Default value: [Disabled]

### **Soft-off by PWR-BTTN**

Choose the value of [Delay 4 Sec] to allow pressing the power button for more than 4 seconds to force the system to enter the Soft-Off state. Setting options: [Delay 4 sec] [Instant-Off]. Default value: [Instant-Off]

### **Wake-Up by PCI Card**

This function allows you to enable the system to wake up through PCI Card peripheral. Setting options: [Enabled] [Disabled]. Default value: [Disabled]

### **Power On by Ring**

This function allows you to enable the system to wake up through modem card while the telephone is ringed. Setting options: [Disabled] [Enabled]. Default value: [Enabled]

### **Wake Up On LAN**

To use this function, you need a LAN add-on card which supports power on functions. It should also support the wake-up on LAN jumper (JWOL1). This function allows your computer to be booted from another computer via a network by sending a wake-up frame or signal. Setting options: [Enabled] [Disabled]. Default value: [Enabled]

### **USB KB Wake-Up From S3**

When choosing the function of “Enabled”, pressing USB keyboard will wake up the system from shutdown in “Suspend to RAM” mode. Setting options: [Enabled] [Disabled]. Default value: [Disabled]

## Chapter 4

### CPU Thermal-Throttling

This allows you to select the CPU Thermal-Throttling rate. Setting options: [12.5%], [25.0%], [37.5%], [50.0%], [62.5%], [75.0%], [87.5]. Default value: [50.0]

### Resume by Alarm


This allows you to set the date and time alarm for your computer to boot up. During [Disabled], you cannot use this function. During the value of [Enabled], you can set the date and time alarm. Default value: [Disabled]

#### - Date (of Month) Alarm

You can choose which month the system will boot up. Setting “0” will allow you to boot the system every day.

#### - Time (hh:mm:ss) Alarm

You can choose what hour, minute and second the system will boot up.

 **Note:** *If you have change the setting, you must let the system boot up until it goes to the operating system, before this function will work.*

### Reload Global Timer Events

Reload Global Timer events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs to a device which is configured as *Enabled* , even when the system is in a power down mode.

## PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

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PnP/PCI Configuration

Reset Configuration Data	Disabled	Item Help
Resources Controlled By xIRQ Resources xDMA Resources	Auto (ESCD) Press Enter Press Enter	Menu Level >
PCI/VGA Palette Snoop	Disabled	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
INT Pin 1 Assignment	Auto	
INT Pin 2 Assignment	Auto	
INT Pin 3 Assignment	Auto	
INT Pin 4 Assignment	Auto	
↑ ↓ → ←: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-safe defaults F7:Optimized Defaults		

### Reset Configuraton Data

This allows you to reset the configuration data. Setting options: [Disabled] [Enabled]. Default value: [Disabled]

## **Chapter 4**

### **Resource Controlled By**

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®95/98. If you set this field to “manual” choose specific resources by going into each of the sub menu that follows this field (a sub menu is preceded by a “➤”). The settings are: Auto(ESCD), Manual. (If you choose “Auto”, the IRQ Resources and DMA Resources will not have function.)

### **IRQ Resources**

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

### **DMA Resources**

This sub menu can let you control the DMA resource.

### **PCI/VGA Palette Snoop**

Leave this field at *Disabled*. The settings are Enabled, Disabled.

PC Health Status

This section helps you to get more information about your system including CPU temperature, FAN speed and voltages. It is recommended that you contact with your motherboard supplier to get proper value about your setting of the CPU temperature.

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PC Health Status

CPU Warning Temperature Disabled	Item Help
Current System Temp.	
Current CPU Temperature	
Current Top Tech. III Temp.	
Current SYStem Fan	
Current Power Fan	
Current CPU Fan	
Vcore	
VTT	
3.3V	
+5V	
+12V	
- 12V	-
- 5V	-
VBRT(V)	
5VSB(V)	
Chassis Intrusion Detect Disabled	
Shutdown Temperature Disabled	
↑ ↓ → ←: Move Enter:Select +/-PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-safe defaults F7:Optimized Defaults	

CPU Warning Temperature

This allows you to set the CPU warning temperature. The system will beep while the CPU reaches the warning temperature. Default value: [Disabled]

Current CPU/Top Tech. III/SystemTemp.

This item shows the current CPU/Top Tech. III/System temperature.

Current CPUFANSpeed

This item shows the current CPUFAN speed.

## **Chapter 4**

### **Current SYSFAN Speed**

This item shows the current SYSFAN speed.

### **Vcore**

This item shows the current system voltage.

### **Chassis Intrusion Detect**

This function allows you to detect the chassis intrusion. If you set “Enabled”, any intrusion on the system chassis will be recorded. The next time you turn on the system, it will show a warning message. To be able to clear those warnings, choose “Reset”. After clearing the message it will go back to “Enabled”. Default value “Disabled”.

### **Shutdown Temperature**

This option allows you to set the shutdown temperature level for the processor. When the processor reach the temperature you set, this will shutdown the system. This function only works in Windows® 95/98 operation system. Setting options: [Disabled], [80°C/176°F], [85°C/185°F], [90°C/194°F]. Default Value: [Disabled]

## Frequency/Voltage Control

This section is for setting CPU Frequency/Voltage Control.

CMOS Setup Utility - Copyright(C) 1984-2000 Award Software  
Frequency/Voltage Control

Auto Detect DIMM/PCI Clk	Enabled	Item Help
Spread Spectrum	Enabled	
Clock By Slight Adjut	66	Menu Level >
CPU Clock Ratio	Auto	
Vcore Adjsut	1.30 V	
(May be dangerous if Vcore Adjust over 10%)		

↑ ↓ → ←: 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

This item allows you to enable/disable auto detect DIMM/PCI Clock.

Default value: [Enabled]. Setting options: [Enabled] [Disabled]

### Spread Spectrum Modulated

This item allows you to set the Spread Spectrum. Default value: [Enabled].

### Clock By Slight Adjust

This item allows the user to increment the clock by 1(MHz) per clock adjustment during OverClocking if the system hangs up. The WatchDog Timer will automatically reboot the system and set the Clock by Slight Adjust to its default setting. (100MHz)

### CPU Clock Ratio

This item allows you to set the CPU Clock Ratio.

## ***Chapter 4***

### **Vcore Adjust**

This item allows you to adjust the system voltage. Setting options: [1.30V], [1.35V], [1.40V], [1.45V], [1.50V], [1.55V]. Default value: [1.30V].



## Load Fail-Safe/Optimized Defaults

When you select this function, a message as below will appear on the screen:

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<ul style="list-style-type: none"> <li>▶ Standard CMOS Features</li> <li>▶ Advanced BIOS Features</li> <li>▶ Advanced Chipset Features</li> <li>▶ Integrated Peripherals</li> <li>▶ Power Management Setup</li> <li>▶ PnP/PCI Con</li> <li>▶ PC Health Status</li> </ul>	<ul style="list-style-type: none"> <li>▶ Frequency/Voltage Control</li> <li>Load Fail-Safe Defaults</li> <li>Load Optimized Defaults</li> <li>Set Supervisor Password</li> <li>Set User Password</li> <li>Load Fail-Safe Defaults (Y/N)? N</li> <li>Exit Without Saving</li> </ul>
Esc: Quit	
F10: Save & Exit Setup	
Time, Date, Hard Disk Type...	

Pressing 'Y' loads the BIOS default values for the most stable, minimal-performance system operations.

## Load Optimized Defaults

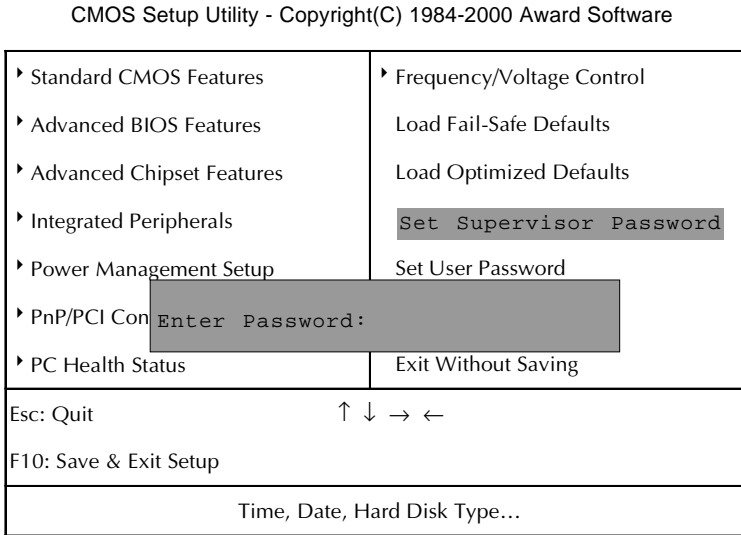
CMOS Setup Utility - Copyright(C) 1984-2000 Award Software

<ul style="list-style-type: none"> <li>▶ Standard CMOS Features</li> <li>▶ Advanced BIOS Features</li> <li>▶ Advanced Chipset Features</li> <li>▶ Integrated Peripherals</li> <li>▶ Power Management Setup</li> <li>▶ PnP/PCI Con</li> <li>▶ PC Health Status</li> </ul>	<ul style="list-style-type: none"> <li>▶ Frequency/Voltage Control</li> <li>Load Fail-Safe Defaults</li> <li><b>Load Optimized Defaults</b></li> <li>Set Supervisor Password</li> <li>Set User Password</li> <li>Load Optimized Defaults (Y/N)? N</li> <li>Exit Without Saving</li> </ul>
Esc: Quit	
F10: Save & Exit Setup	
Time, Date, Hard Disk Type...	

3-34

## Set Supervisor/User Password

When you select this function, a message as below will appear on the screen:



Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable a password, just press <Enter> when you are prompted to enter the password. A message will confirm the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

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

## Chapter 4

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

You determine when the password is required within the BIOS Features Setup Menu and its Security option. If the Security option is set to “System”, the password will be required both at boot and at entry to Setup. If set to “Setup”, prompting only occurs when trying to enter Setup.

### ***About Supervisor Password & User Password:***

*Supervisor password :* Can enter and change the options of the setup menus.

*User password:* Can only enter but do not have the right to change the options of the setup menus. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

## Save & Exit Setup

When you want to quit the Setup menu, you can select this function to save the data. A message as below will appear on the screen:

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<ul style="list-style-type: none"> <li>▶ Standard CMOS Features</li> <li>▶ Advanced BIOS Features</li> <li>▶ Advanced Chipset Features</li> <li>▶ Integrated Peripherals</li> <li>▶ Power Management Setup</li> <li>▶ PnP/PCI Con</li> <li>▶ PC Health Status</li> </ul>	<ul style="list-style-type: none"> <li>▶ Frequency/Voltage Control</li> <li>Load Fail-Safe Defaults</li> <li>Load Optimized Defaults</li> <li>Set Supervisor Password</li> <li>Set User Password</li> </ul>
SAVE to CMOS and Exit(Y/N)? Y	
Esc: Quit      ↑ ↓ → ←	
F10: Save & Exit Setup	
Time, Date, Hard Disk Type...	

Typing “Yes” will allow you to quit the Setup Utility and save the user setup value to RTC CMOS.

Typing “N” will allow you to return to Setup Utility.

## Exit without Saving

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<ul style="list-style-type: none"> <li>▸ Standard CMOS Features</li> <li>▸ Advanced BIOS Features</li> <li>▸ Advanced Chipset Features</li> <li>▸ Integrated Peripherals</li> <li>▸ Power Management Setup</li> <li>▸ PnP/PCI Con</li> <li>▸ PC Health Status</li> </ul>	<ul style="list-style-type: none"> <li>▸ Frequency/Voltage Control</li> <li>Load Fail-Safe Defaults</li> <li>Load Optimized Defaults</li> <li>Set Supervisor Password</li> <li>Set User Password</li> </ul>
Quit Without Saving(Y/N)? Y	
Exit Without Saving	

Esc: Quit                      ↑ ↓ → ←

F10: Save & Exit Setup

---

Time, Date, Hard Disk Type...

Typing “N” will allow you to return to Setup Utility.