

Award BIOS Setup

This chapter describes how to configure the BIOS for the system.

Starting setup

The Award BIOS is immediately activated when you first turn on the computer. The BIOS reads system configuration information in CMOS RAM and begins the process of checking out the system and configuring it through the power-on self test (POST).

When these preliminaries are finished, the BIOS seeks an operating system on one of the data storage devices (hard drive, floppy drive, etc.). The BIOS launches the operating system and hands control of system operations to it.

During POST, you can start the Setup program in one of two ways:

1. By pressing Del immediately after switching the system on, or
2. By pressing Del or pressing Ctrl-Alt-Esc when the following message appears briefly at the bottom of the screen during POST:

TO ENTER SETUP BEFORE BOOT PRESS DEL KEY

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the RESET button on the system case. You may also restart by simultaneously pressing Ctr-Alt-Del. If you do not press the keys at the correct time and the system does not boot, an error message appears and you are again asked to

PRESS F1 TO CONTINUE, DEL TO ENTER SETUP

Setup keys

These keys help you navigate in Award BIOS:

| | |
|-------------|--|
| Up arrow | Move to previous item |
| Down arrow | Move to next item |
| Left arrow | Move to the item in the left hand |
| Right arrow | Move to the item in the right hand |
| Esc | Main Menu: Quit and not save changes into CMOS RAM Other pages: Exit current page and return to Main Menu |
| PgUP/+ | Increase the numeric value or make changes |
| PgDn/- | Decrease the numeric value or make changes |
| F1 | General help, only for Status Page Setup Menu and Option Page Setup Menu |
| F2 | Item Help |
| F3 | Reserved |
| F4 | Reserved |
| F5 | Restore the previous CMOS value from CMOS, only for Option Page Setup Menu |
| F6 | Load the default CMOS RAM value from BIOS default table, only for Option Page Setup Menu |
| F7 | Load the default |
| F8 | Reserved |
| F9 | Reserved |
| F10 | Save all the CMOS changes, only for Main Menu |

Getting help

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press Esc or the F1 key again.

In Case of Problems

If, after making and saving system changes with Setup, you discover that your computer no longer is able to boot, the **Award BIOS** supports an override to the CMOS settings that resets your system to its default configuration.

You can invoke this override by immediately pressing Insert; when you restart your computer. You can restart by either using the ON/OFF switch, the RESET button or by pressing Ctrl-Alt-Delete.

The best advice is to alter only settings that you thoroughly understand. In particular, do not change settings in the Chipset screen without a good reason. The Chipset defaults have been carefully chosen by Award Software or your system manufacturer for the best performance and reliability. Even a seemingly small change to the Chipset setup may cause the system to become unstable.

PnP/PCI Configuration

This entry appears if your system supports PnP/PCI.

PC Health Status

This menu allows you to set the shutdown temperature for your system.

Frequency/Voltage Control

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 performance system operations. While AWARD has designated the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

Set Supervisor/User Password

Use this menu to set User and Supervisor Passwords.

Save and Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

Standard CMOS Features

| CMOS Setup Utility - Copyright (C) 1984-2000 Award Software Standard CMOS Features | | |
|---|----------------------|--|
| Date (mm:dd:yy) | Thu, May 3 2001 | Item Help Menu Level ▶ Change the day, month, year and century |
| Time (hh:mm:ss) | 11 : 43 : 34 | |
| IDE Primary Master | | |
| IDE Primary Slave | | |
| IDE Secondary Master | | |
| IDE Secondary Slave | | |
| Drive A | [1.44M, 3.5 in.] | |
| Drive B | [None] | |
| Video | [EGA/UGA] | |
| 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

This standard setup menu allows users to configure system components such as the date, time, hard disk drive, floppy drive, display, and memory. Online help for each field can be accessed by pressing F1.

Date and Time Configuration

The BIOS determines the day of the week from the other date information. This field is for information only.

Press the left or right arrow key to move to the desired field (date, month, year). Press the PgUp/- or PgDn/+ key to increment the setting, or type the desired value into the field.

The time format is based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00 hours. Press the left or right arrow key to move to the desired field. Press the PgUp/- or PgDn/+ key to increment the setting, or type the desired value into the field.

HARD DISKS

The BIOS supports up to four IDE drives. This section does not show information about other IDE devices, such as a CD-ROM drive, or about other hard drive types, such as SCSI drives.

NOTE: We recommend that you select type AUTO for all drives.

The BIOS can automatically detect the specifications and optimal operating mode of almost all IDE hard drives. When you select type AUTO for a hard drive, the BIOS detects its specifications. If you do not want to select drive type AUTO, other methods of selecting the drive type are available:

1. Match the specifications of your installed IDE hard drive(s) with the preprogrammed values for drive types 1 through 45.
2. Select USER and enter values into each drive parameter field.
3. Use the IDE HDD AUTO DETECTION function in Setup.

Here is a brief explanation of drive specifications:

Type: The BIOS contains a table of predefined drive types. Each defined drive type has a specified number of cylinders, number of heads, write precompensation factor, landing zone, and number of sectors. Drives whose specifications do not accommodate any predefined type are classified as type USER.

Size: Disk drive capacity (approximate). Note that this size is usually slightly greater than the size of a formatted disk given by a disk-checking program.

Cyls: Number of cylinders

Head: Number of heads

Precomp: Write precompensation cylinder

Landz: Landing zone

Sector: Number of sectors

Mode: Auto, Normal, Large, or LBA

- **Auto:** The BIOS automatically determines the optimal mode.
- **Normal:** Maximum number of cylinders, heads, and sectors supported are 1024, 16, and 63.
- **Large:** For drives that do not support LBA and have more than 1024 cylinders.

- **LBA** (Logical Block Addressing): During drive access, the IDE controller transforms the data address described by sector, head, and cylinder number into a physical block address, significantly improving data transfer rates. For drives with greater than 1024 cylinders.

Drive A

Drive B

Select the correct specifications for the diskette drive(s) installed in the computer.

| | |
|---------------|---|
| None | No diskette drive installed |
| 360K, 5.25 in | 5-1/4 inch PC-type standard drive; 360 kilobyte capacity |
| 1.2M, 5.25 in | 5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity |
| 720K, 3.5 in | 3-1/2 inch double-sided drive; 720 kilobyte capacity |
| 1.44M, 3.5 in | 3-1/2 inch double-sided drive; 1.44 mega byte capacity |
| 2.88M, 3.5 in | 3-1/2 inch double-sided drive; 2.88 mega byte capacity |

Video

Select the type of primary video subsystem in your computer. The BIOS usually detects the correct video type automatically. The BIOS supports a secondary video subsystem, but you do not select it in Setup.

EGA/VGA Enhanced Graphics Adapter/Video Graphics Array.
For EGA, VGA, SEGA, SVGA, or PGA monitor adapters.

CGA 40 Color Graphics Adapter, power up in 40 column mode

CGA 80 Color Graphics Adapter, power up in 80 column mode

MONO Monochrome adapter, includes high resolution
monochrome adapters

Halt On

During the power-on-self-test (POST), the computer stops if the BIOS detects a hardware error. You can tell the BIOS to ignore certain errors during POST and continue the boot-up process.

These are the selections:

No errors: POST does not stop for any errors.

All errors If: the BIOS detects any nonfatal error, POST stops and prompts you to take corrective action.

All, But Keyboard: POST does not stop for a keyboard error, but stops for all other errors

All, But Diskette: POST does not stop for diskette drive errors, but stops for all other errors.

All, But Disk/Key: POST does not stop for a keyboard or disk error, but stops for all other errors.

Memory

You cannot change any values in the Memory fields; they are only for your information. The fields show the total installed random access memory (RAM) and amounts allocated to base memory, extended memory, and other (high) memory. RAM is counted in kilobytes (KB: approximately one thousand bytes) and megabytes (MB: approximately one million bytes).

RAM is the computer's working memory, where the computer stores programs and data currently being used, so they are accessible to the CPU. Modern personal computers may contain up to 64 MB, 128 MB, or more.

Base Memory

Typically 640 KB. Also called conventional memory. The DOS operating system and conventional applications use this area.

Extended Memory

Above the 1-MB boundary. Early IBM personal computers could not use memory above 1 MB, but current PCs and their software can use extended memory.

Other Memory

Between 640 KB and 1 MB; often called High memory. DOS may load, terminate-and-stay-resident (TSR) programs, such as device drivers, in this area, to free as much conventional memory as possible for applications. Lines in your CONFIG.SYS file that start with LOADHIGH, load programs into high memory.

Advanced BIOS Features

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Advanced BIOS Features

| | |
|------------------------------|------------|
| Virus Warning | [Disabled] |
| 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 | [LS120] |
| Fourth Boot Device | [Disabled] |
| 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] |

Item Help

Menu Level ▶

Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will show a warning message on screen and alarm be

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

The displayed configuration is based on the manufacturer's SETUP DEFAULTS settings.

Virus Warning

When enabled, you receive a warning message if a program (specifically, a virus) attempts to write to the boot sector or the partition table of the hard disk drive. You should then run an anti-virus program. Keep in mind that this feature protects only the boot sector, not the entire hard drive.

NOTE: Many disk diagnostic programs that access the boot sector table can trigger the virus warning message. If you plan to run such a program, we recommend that you first disable the virus warning.

CPU Internal Cache/External Cache

Cache memory is additional memory that is much faster than conventional DRAM (system memory). CPUs from 486-type on up contain internal cache memory, and most, but not all, modern PCs have additional (external) cache memory. When the CPU requests data, the system transfers the requested data from the main DRAM into cache memory, for even faster access by the CPU.

The External Cache field may not appear if your system does not have external cache memory.

CPU L2 Cache ECC Checking

When you select Enabled, memory checking is enable when the external cache contains ECC SRAMs.

Processor Number Feature

This option is for Pentium III processor. During Enabled, this will check the CPU Serial number. Disabled this option if you don't want the system to know the serial number.

Quick Power On Self Test

Select Enabled to reduce the amount of time required to run the power-on-self-test (POST). A quick POST skips certain steps. We recommend that you normally disable quick POST. Better to find a problem during POST than lose data during your work.

First/Second/Third/Fourth Boot Device

The BIOS attempts to load the operating system from the devices in the sequence selected in these items.

The choices: Floppy, LS/ZIP, HDD, SCSI, CDROM, Disable.

Swap Floppy Drive

This field is effective only in systems with two floppy drives. Selecting enabled assigns physical drive B to logical drive A, and physical drive A to logical drive B.

Boot Up Floppy Seek

When Enabled, the BIOS tests (seeks) floppy drives to determine whether they have 40 or 80 tracks. Only 360-KB floppy drives have 40 tracks; drives with 720 KB, 1.2 MB, and 1.44 MB capacity all have 80 tracks. Because very few modern PCs have 40-track floppy drives, we recommend that you set this field to Disabled to save time.

Boot Up NumLock Status

Toggle between On or Off to control the state of the NumLock key when the system boots. When toggled On, the numeric keypad generates numbers instead of controlling cursor operations.

Gate A20 Option

Gate A20 refers to the way the system addresses memory above 1 MB (extended memory). When set to Fast, the system chipset controls Gate A20. When set to Normal, a pin in the keyboard controller controls Gate A20. Setting Gate A20 to Fast improves system speed, particularly with OS/2 and Windows.

Typematic Rate Setting- Key strokes repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be selected.

The choice: Enabled/Disabled

Security Option

If you have set a password, select whether the password is required every time the System boots, or only when you enter Setup.

OS Select For DRAM>64MB-Select the operating system that is running with greater than 64MB or RAM on the system.

The choice: Non-OS2, OS2

HDD S.M.A.R.T Capability

Hard disk drives have built in problem detection capability (Self-Monitoring Analysis and Reporting Technology). If a foreseen problem is about to take place, the computer will give a you a warning signal. The choice: **Enable, Disable**

Report No FDD For WIN 95- Report no FDD for Win 95 or not. The choice: Yes, no

Advanced Chipset Features

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Advanced Chipset Features

| | | | |
|----------------------------|-------------|---|--------------|
| SDRAM CAS Latency Time | [3] | ▲ ▼ | 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] | | |
| AGP Graphics Aperture Size | [64MB] | | |
| Display Cache Frequency | [100 MHz] | | |
| System Memory Frequency | [Auto] | | |
| On-Chip Video Window Size | [64MB] | | |
| GFX Scaling | [Auto/EDID] | | |
| Show UBIOS Message | [Disabled] | | |
| TU Format | [NTSC] | | |
| Output Device Synchronous | [Disabled] | | |
| Output Device Priority | [CRT/FP/TU] | | |

++: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

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Do not reset this field from the default value specified by the system designer.

SDRAM Cycle Time Tras/Trc

Select the number of SCLKs for an access cycle.
The choices: 5/7, 7/9 disable.

SDRAM RAS-to-CAS Delay

This field lets you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. Fast gives faster performance; slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

SDRAM RAS Precharge Time

If an insufficient number of cycles is allowed for the RAS to accumulate its charge before DRAM refresh, the refresh may be incomplete and the DRAM may fail to retain data. Fast gives faster performance; slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

System BIOS Cacheable

Selecting Enabled allows 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. The choices:

Enabled, Disabled

Video BIOS Cacheable

Selecting Enabled allows caching of the video BIOS ROM at C0000h to C7FFFh, resulting in better video performance. However, if any program writes to this memory area, a system error may result. The choices:

Enabled, Disabled Memory

Hole At 15-16m

In order to improve performance, certain space in memory is reserved for ISA cards. This memory must be mapped into the memory. The choices:

15-16 M, disabled

CPU Latency Timer

During enable, a deferrable CPU cycle will only be Deferred after it has been in Snoop Stall for 31 clocks and another ADS# has arrived. During disable, a deferrable CPU cycle will be deferred immediately after the GMCH receives another ADS#.

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.

AGP Graphics Aperture Size

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. The choices: **32M, 64M.**

Display Cache Frequency

Display cache frequency will allow for the level the of the share memory provided by the Intel 815E chipset to be adjusted.

The settings are 100MHz and 133 MHz.

System Memory Frequency

Select the onboard display cache frequency. The settings are auto, 100MHz and 133MHz.

On-Chip Video Window Size

Select the on-chip video window size for VGA drive use.

The choices: **32MB, 64MB, Disabled**

Initial Display Cache

Cas# Latency

Select the local memory clock period. The number of clock cycles of CAS# Latency depends on the Onboard Display Cache timing. The choice: **2,3**

Paging Mode Control

Select the paging mode control. The choice: **open, close**

RAS-to-CAS Override

This item allows you to insert a timing delay between the CAS and RAS strobe signals, used when Onboard display cache is written to, read from, or refreshed.

During by CAS#LT, this will depend on the Onboard Display Cache CAS# Latency setting. During Override (2), RAS-to-CAS time = 2

Ras# Timing

This item controls RAS# active to Precharge, and refresh to RAS# active delay (in local memory clock). The choices: **Fast, Slow**

Ras# Precharge Timing

This item controls RAS# precharge (in loca memory clocks). The choices: **Fast, slow**

Integrated Peripherals

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Integrated Peripherals

| | Item Help |
|-------------------------------------|-----------|
| On-Chip Primary PCI IDE [Enabled] | |
| On-Chip Secondary PCI IDE [Enabled] | |
| IDE Primary Master PIO [Auto] | |
| 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] | |
| Onboard/CNR LAN selection [Auto] | |
| 8-bit I/O Recovery Time [4 SYSCLK] | |
| 16-bit I/O Recovery Time [1 SYSCLK] | |
| IDE HDD Block Mode [Enabled] | |
| POWER ON Function [BUTTON ONLY] | |

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

On-Chip Primary PCI IDE

The system chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the primary and/or secondary IDE interface. Select Disabled to deactivate this interface, if you install a primary and/or secondary add-in IDE interface.

On-Chip Secondary PCI IDE

The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the secondary IDE interface. Select Disabled to deactivate this interface.

The choices: Enable, Disable

IDE Primary/Secondary Master/Slave PIO

The four IDE PIO (Programmable Input/Output) fields let you set a PIO mode (0-1) 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.

The choices: 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, select Auto to enable BIOS support.

The choices: Auto, disable

USB Controller

Select Enabled if your system contains a Universal Serial Bus controller and you have USB peripherals.

USB Keyboard Support

Select Enabled if your system contains a Universal Serial Bus controller and you have a USB keyboard.

Init Display First

This item allows you to active PCI slot or onboard first.

The choice: PCI slot, onboard

AC97 Audio

The default setting of Auto enables the AC97 audio if it is detected onboard

Onboard/CRN LAN selection

Testing purposes only. **Leave this function in the AUTO setting.**

8-bit I/O Recovery Time

The I/O recovery mechanism adds bus clock cycles between PCI-originated I/O cycles to the ISA bus. This delay takes place because the PCI bus is much faster than the ISA bus. This field lets you add recovery time (in bus clock cycles) for 8-bit I/O.

The choice: 0-7 SYSCLK

16-bit I/O Recovery Time

The I/O recovery mechanism adds bus clock cycles between PCI-originated I/O cycles to the ISA bus. This delay takes place because the PCI bus is much faster than the ISA bus. This field lets you add recovery time (in bus clock cycles) for 16-bit I/O.

The choice: 1 SYSCLK, 2SYSCLK, 3SYSCLK, 4 SYSCLK

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/write per sector the drive can support.

Power on Function

Select the different manners for powering on the system.

The choices: **Keyboard 98, password, any key, hot key, button only, mouse click, mouse move.**

KB Power on Password

The system will ask for a password, after entering the correct password the keyboard can then be used.

Ir Transmission Delay

The system IR component transmits and retrieves data from its working environment, if enabled the IR system will detect or transmit information. If disabled the IR system will be unable to operate.

Use IR Pins

Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals.

Hot Key Power On

Simply pressing on the pre-selected keyboard key the system will power on.

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 an add-in FDC or the system has no floppy drive, select Disabled in this field.

UART Mode Select

Select an operating mode for the second serial port:

| | |
|----------|---|
| Normal | RS-232C serial port |
| IrDA 1.0 | Infrared port compliant with IrDA 1.0 specification |
| IrDA SIR | IrDA-compliant serial infrared port |
| IrDA MIR | 1 MB/sec infrared port |
| IrDA FIR | Fast infrared standard |
| ASK IR | Amplitude shift keyed infrared port |
| SCR | |

RxD, TxD Active

Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals

UR2 Duplex Mode

Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time. If no infrared port is present in the system, select disabled.

Use IR Pins

Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals.

Onboard Serial Ports (1, 2)

Normally, the main board's I/O chips will occupy a certain portion of memory space. For each I/O device the computer provides an I/O address. The more devices attached the more address needed to organize the memory storage areas. If all the I/O devices were run through the same address, your devices would come to a near halt. By providing the end user with four serial ports this allows devices to run more efficiently if needed. Also the corresponding interrupt needs to be selected.

Selections of logical COM port addresses are as follows. (3F8/IRQ4, 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3)

Onboard Parallel Port

Select a logical LPT port address and corresponding interrupt for the physical parallel port

The Choice: 378/IRQ7, 278/IRQ5, 3BC/IRQ7, disabled

Parallel Port Mode

Two bidirectional parallel ports. Supports SPP, ECP, EPP, ECP + EPP.

EPP Mode Select

Select the EPP port type 1.7 or 1.9

ECP Mode Use DMA

Select a DMA channel for the port.

PWRON After PWR-Fail

This option will determine how the system will power on after a power failure.

The choice: **off, on , former status**

Watch Dog Timer

You can enable the system watchdog timer, a hardware timer that generates either an NMI or a reset when the software that it monitors does not respond as expected each time the watch dog polls it (select the time period in a separate field) The choice: **Disabled, 20 sec, 30 sec, 40 sec, 50 sec, 1 min, 2 min, 4 min.**

Power Management Setup

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Power Management Setup

| | | | |
|------------------------|---------------|---|--------------|
| ACPI Function | [Disabled] | ▲ | Item Help |
| ACPI Suspend Type | [S1(POS)] | | |
| Power Management | [Min Saving] | | Menu Level ▶ |
| Video Off Method | [DPMS] | | |
| Video Off In Suspend | [Yes] | | |
| Suspend Type | [Stop Grant] | | |
| MODEM Use IRQ | [3] | | |
| Suspend Mode | [Disabled] | | |
| HDD Power Down | 15 Min | | |
| Soft-Off by PWR-BTTN | [Instant-Off] | | |
| Wake-Up by PCI card | [Disabled] | | |
| Power On by Ring | [Enabled] | | |
| USB KB Wake-Up From S3 | [Disabled] | | |
| PWRON After PWR-Fail | [Former-Sts] | | |
| CPU Thermal-Throttling | [50.0%] | | |
| Resume by Alarm | [Disabled] | | |
| x Date(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
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

ACPI Function

This item allows you to enable/disable the Advanced Configuration and Power Management (ACPI). **The Choices: Enable/Disable**

ACPI Suspend Type

This item will set which ACPI suspend type will be used.

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 where all system context is lost expect 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:

1. HDD Power Down
2. Doze Mode
3. Suspend Mode

| | |
|-------------------|--|
| Disable (Default) | No power management. Disable all four modes. |
| Min. Power Saving | Minimum power management. Doze mode = 1 hour. Standby mode = 1 hour. Suspend mode = 1 hour. HDD Power Down =15 minutes. |
| Max.Power Saving | Maximum power management--ONLY AVAILABLE FOR SL CPU'S. Doze mode = 1 min., Standby mode = 1 min., Suspend mode = 1 min., and HDD Power Down = 1 min. |
| User Defined | Allows you to set each mode individually. When not disabled, each of the tanges are from 1 min. to 1 hour except for HDD Power Down which ranges from 1 min. to 15 min. and disable. |

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 | Initial display power management signaling |

Video Off In Suspend

After the selected period of system inactivity, the chipset enters a hardware suspend mode, stopping the CPU clock and possibly causing other system devices to enter power management modes. In this case the video hardware can be selected to shut off after a period of system inactivity. This determines the manner in which the monitor is blanked.

Suspend Type

Select the suspend type. The choice: **PWRON suspend, Stop Grant**

MODEM use IRQ

This determines the IRQ in which the MODEM can use.

The choices: **3, 4, 5, 7, 9, 10, 11, NA**

Suspend Mode

After the selected period of system inactivity, the chipset enters a hardware suspend mode, stopping the CPU clock and possibly causing other system devices to enter power management modes.

Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has hung. The choice: **Delay 4 seconds, Instant-Off.**

Wake Up On PCI Card

This will enable the system to wake up through PCI card peripheral. The choice: **Enable/Disable**

Power On By Ring

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) boots the system from a soft off state.

USB KB Wake-up From S3

This option is used to Enabled/Disabled USB keyboard wake up with suspend to RAM. The Choice: Enabled/Disabled

Power On after Power Fail

After initial power failure, the system will attempt to power up again in the setting that the end user has selected.

The Choice: ON/OFF/Former status

CPU Thermal-Throttling

Select the CPU Thermal-Throttling rate for your system.

The choice: 12.5%, 25%, 37.5%, 50%, 62.5% 75%, 87.5%

Resume By Alarm

This option is used to Enable/Disable USB keyboard wake up with suspend to RAM.

The choices: **Enable, disable**

Date Alarm

You can choose which month the system will boot up. Set to 0 to boot everyday.

Time Alarm

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

<Reload Global Timer Events>

PM 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.

Primary IDE 0

Primary IDE 1

Secondary IDE 0

Secondary IDE 1

FDD, COM, LPT Port

PCI PIRQ (A-D)#

PnP/PCI Configurations

| CMOS Setup Utility - Copyright (C) 1984-2000 Award Software PnP/PCI Configurations | | |
|--|--------------|---|
| PNP OS Installed | [Yes] | Item Help |
| Reset Configuration Data | [Disabled] | |
| Resources Controlled By | [Auto(ESCD)] | Menu Level ▶ Select Yes if you are using a Plug and Play capable operating system Select No if you need the BIOS to configure non-boot devices |
| IRQ Resources | Press Enter | |
| DMA Resources | Press Enter | |
| PCI/UGA Palette Snoop | [Disabled] | |
| 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 | | |

PNP OS Installed

This item allows you to determine whether the PnP OS is installed or not. Select Yes if the system operating environment is Plug and Play aware. The settings are Yes or No.

Reset Configuration Data

Normally, you leave this field 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 operating system can not boot. **The choices: Enabled, Disabled**

Resources 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. 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 proceeded by a “>”. **The choices: Auto, Manual.**

PCI/VGA Palette Snoop

Leave this field at Disabled. Choices: Enabled, Disabled.

PC Health Status

| CMOS Setup Utility - Copyright (C) 1984-2000 Award Software PC Health Status | |
|---|--------------|
| CPU Warning Temperature | [Disabled] |
| Current System Temp. | |
| Current CPU1 Temperature | |
| Current CPUFAN1 Speed | |
| Current CPUFAN2 Speed | |
| Current CPUFAN3 Speed | |
| IN0(V) | |
| IN1(V) | |
| IN2(V) | |
| + 5 V | |
| +12 V | |
| -12 V | |
| - 5 V | |
| VBAT(V) | |
| 5USB(V) | |
| Shutdown Temperature | [Disabled] |
| | Item Help |
| | Menu Level ▶ |

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

CPU Warning Temperature

During enabled, this will warn the user when the CPU temperature reach a certain temperature.

Options: Disabled, 75°C/167°F, 70°C/158°F, 65°C/149°F, 60°C/140°F

Shutdown Temperature

Your system can be configured to shutdown once reaching a certain temperature. To protect your system from overheating or damage, select a certain temperature level in the PC Health Status menu.

Options: Disabled, 75°C/167°F, 70°C/158°F, 65°C/149°F, 60°C/140°F

Frequency/Voltage Control

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

| | |
|--------------------------|------------|
| Auto Detect DIMM/PCI Clk | [Enabled] |
| Spread Spectrum | [Disabled] |
| Clock By Slight Adjust | [70] |
| CPU Clock Ratio | [X 3] |

Item Help

Menu Level ▶

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General
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. **The choices: Enable/Disable**

Spread Spectrum

This allows you to enable/disable the spread spectrum modulate. When the system clock generator pulses, the extreme values of the pulse generate excess EMI. Enabling pulse spectrum spread modulation changes the extreme pulse spikes to flat curves thus reducing EMI.

The choices: Enable, Disable

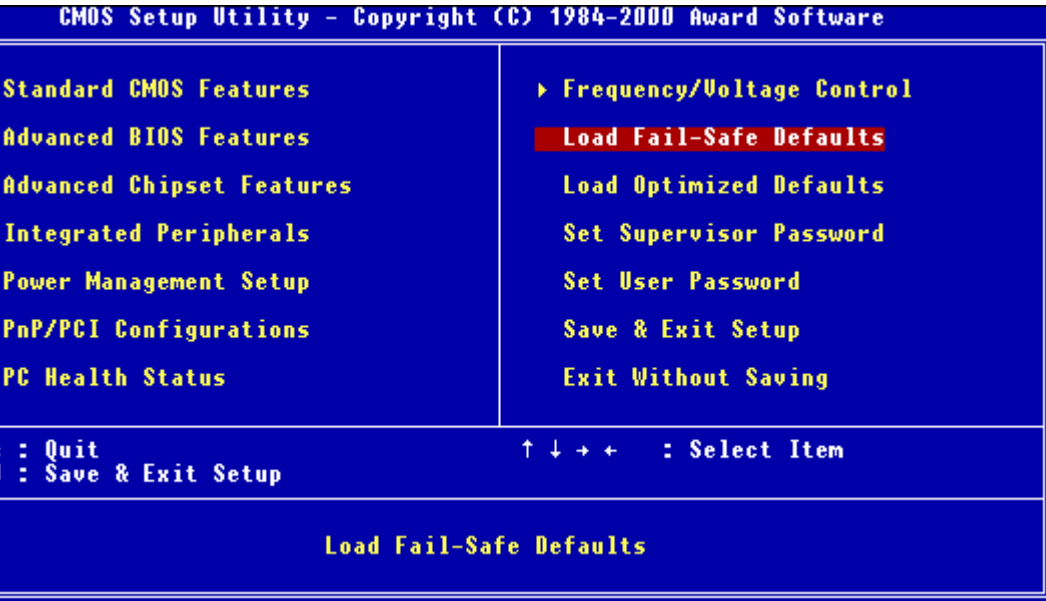
Clock By Slight Adjust

This item allows you to select the CPU clock from 166 MHz to 100 MHz or 99 MHz to 66 MHz depending on the CPU host clock.

CPU Clock Ratio

This item allows you to select the CPU ratio. When using an Intel CPU this item will be hidden.

Load Fail-Safe Defaults



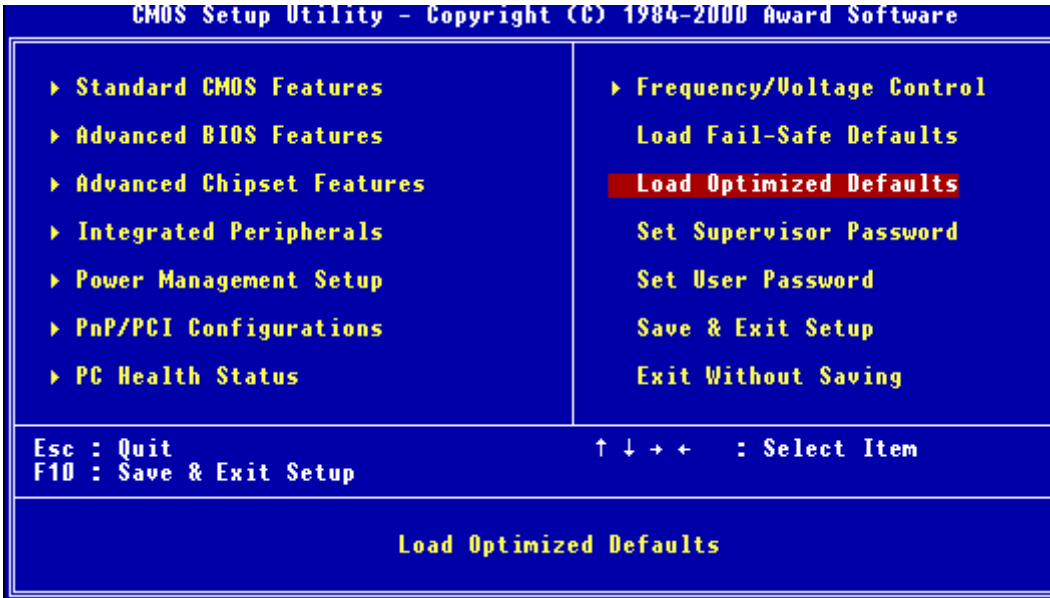
Load Fail-Safe Defaults

When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Fail-Safe Default (Y/N)?

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

Load Optimized Default



Load Optimized Default

When you press <Enter> on this item you get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N)?

Pressing “Y” loads the default values that are factory settings for optimal performance system operations

Set Supervisor Password



When you select this function, a message appears at the center of the screen:

ENTER PASSWORD:

Type the password, up to eight characters, and press Enter. Typing a password clears any previously entered password from CMOS memory.

Now the message changes:

CONFIRM PASSWORD:

Again, type the password and press Enter.

To abort the process at any time, press Esc.

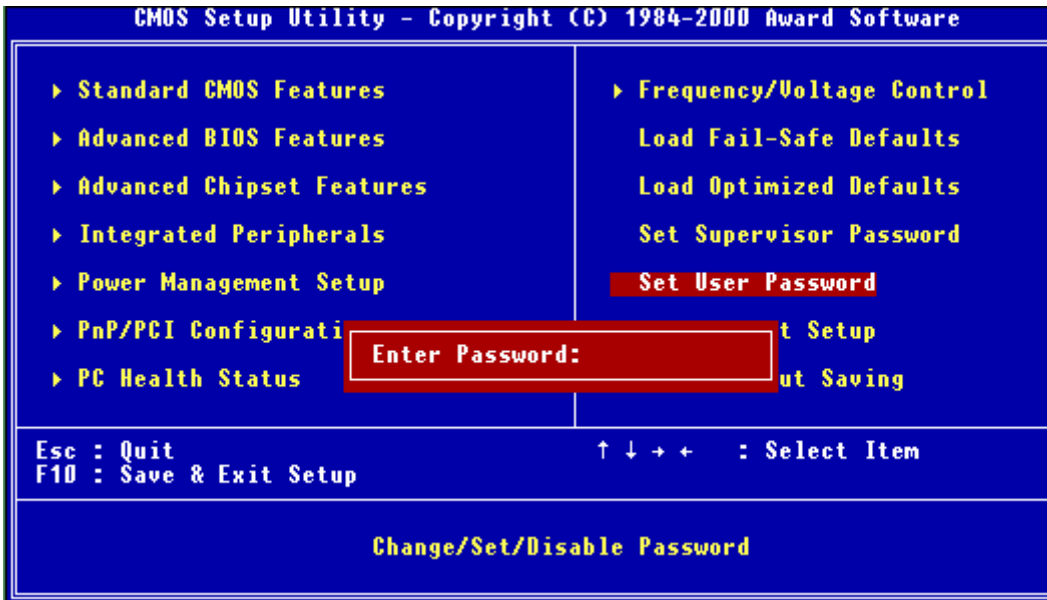
In the Security Option item in the BIOS Features Setup screen, select System or Setup:

System Enter a password each time the system boots and when ever you enter Setup.

Setup Enter a password when ever you enter Setup.

***NOTE:** To clear the password, simply press Enter when asked to enter a password. Then the password function is disabled.*

Set User Password



When you select this function, a message appears at the center of the screen:

ENTER PASSWORD:

Type the password, up to eight characters, and press Enter. Typing a password clears any previously entered password from CMOS memory.

Now the message changes:

CONFIRM PASSWORD:

Again, type the password and press Enter.

To abort the process at any time, press Esc.

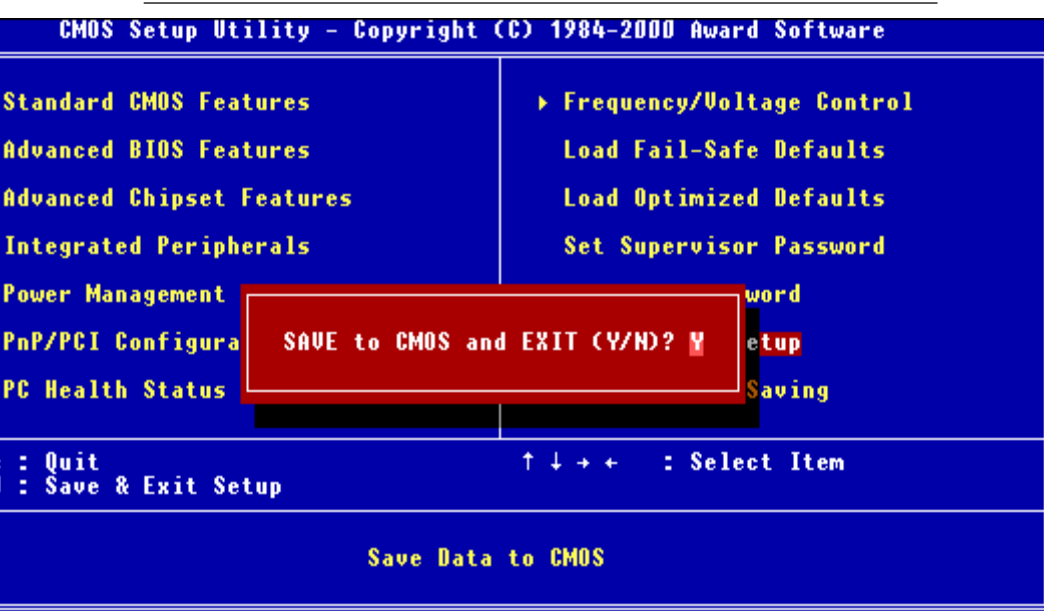
In the Security Option item in the BIOS Features Setup screen, select System or Setup:

System Enter a password each time the system boots and when ever you enter Setup.

Setup Enter a password when ever you enter Setup.

NOTE: To clear the password, simply press Enter when asked to enter a password. Then the password function is disabled.

Save to CMOS and EXIT



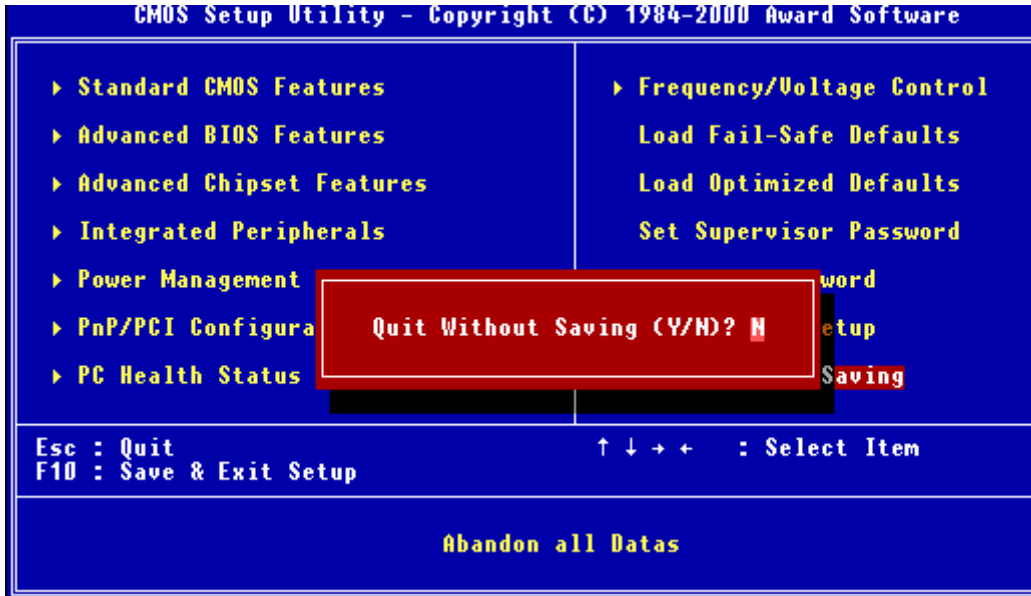
Save to CMOS and EXIT

Pressing <Enter> on this item asks for confirmation:

Save to CMOS and Exit (Y/N)?

Pressing “Y” stores the selections made in the menus in CMOS, a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

Quit without Saving



Exit Without Saving

Pressing <Enter> on this item asks for confirmation:

Quit Without Saving (Y/N)?

This allows you to exit Setup without storing in CMOS any change. The previous selections remain in effect. This exits the Setup utility and restarts your computer.