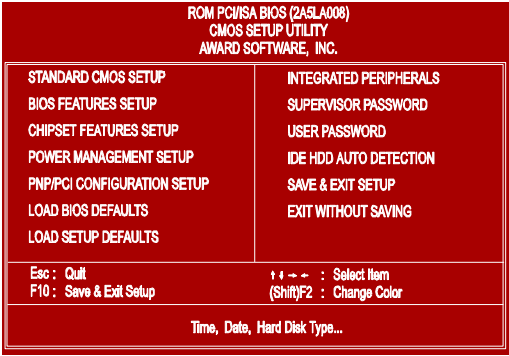


## BIOS Setup

The mainboard comes with an Award BIOS chip that contains the ROM Setup information of your system. This chip serves as an interface between the processor and the rest of the mainboard's components. This chapter explains the information contained in the Setup program and tells you how to modify the settings according to your system configuration.

## CMOS Setup Utility



A Setup program, built into the system BIOS, is stored in the CMOS RAM. This Setup utility program allows changes to the mainboard configuration settings. It is executed when the user changes system configuration; user changes system backup battery; or the system detects a configuration error and asks the user to run the Setup program. Use the arrow keys to select and press Enter to run the selected program.

## Standard CMOS Setup

ROM BIOS (2A5LA008)								
STANDARD CMOS SETUP								
AWARD SOFTWARE, INC.								
Date (mm:dd:yy) : Mon, Dec. 15 1997								
Time (hh:mm:ss) : 15:37:55								
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	: Auto	0	0	0	0	0	0	Auto
Primary Slave	: Auto	0	0	0	0	0	0	Auto
Secondary Master	: Auto	0	0	0	0	0	0	Auto
Secondary Slave	: Auto	0	0	0	0	0	0	Auto
Drive A : 1.44M, 3.5 in.					Base Memory: 640K			
Drive B : None					Extended Memory: 7168K			
Floppy 3 Mode Support : Disabled					Other Memory: 384K			
Video : EGA/VGA					Total Memory: 8192K			
Halt On : All Errors								
Esc : Quit			↑↓→← : Select Item			PUP/DN+/- : Modify		
F1 : Help			(Shift)F2 : Change Color					

The Standard CMOS Setup screen is displayed above. Each item may have one or more option settings. The system BIOS automatically detects memory size, thus no changes are necessary. 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.

### Hard Disk Configurations

**TYPE:** Select from 1 to 45 to fill remaining fields with predefined values of disk drives. Select User to fill the remaining fields. Select Auto to detect the HDD type automatically.

**SIZE:** The hard disk size. The unit is Mega Bytes.

**CYLS:** The cylinder number of the hard disk.

**HEAD:** The read/write head number of hard disk.

**PRECOMP:** The cylinder number at which the disk drive changes the write timing.

**LANDZ:** The cylinder number that the disk drive heads (read/write) are seated when the disk drive is parked.

**SECTOR:** The sector number of each track defined on the hard disk.

**MODE:** Select *Auto* to detect the mode type automatically. If your hard disk supports the LBA mode, select *LBA* or *Large*. However, if your hard disk cylinder is more than 1024 and does not support the LBA function, set at *Large*. Select *Normal* if your hard disk supporting cylinders is below 1024.

#### **Floppy 3 Mode Support**

This feature allows you to install a 3.5" (1-2MB) NEC 9801™ floppy drive.  
The options are: Both , Disabled (Default), Drive A, Drive B.

#### **Software Turbo Speed**

The BIOS supports Software Turbo Speed feature. Instead of pressing the Turbo Speed Button on the front panel, simply press the **Alt, Ctrl, and +** keys at the same time to enable the Turbo Speed feature; and press the **Alt, Ctrl, and -** keys at the same time to disable the feature.

## BIOS Features Setup

ROM PC/ISA BIOS (2A51A006) BIOS FEATURES UTILITY AWARD SOFTWARE, INC.			
Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000 - CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000 - CFFFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D0000 - D3FFF Shadow	: Disabled
Boot Sequence (LS120/ZIP100)	: A, C, SCSI	D4000 - D7FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D8000 - DBFFF Shadow	: Disabled
Boot Up Floppy Seek	: Enabled	DC000 - DFFFF Shadow	: Disabled
Boot Up NumLock Status	: On		
Boot Up System Speed	: High		
Typematic Rate Setting	: Disabled		
Typematic Rate (Char/Sec)	: 6		
Typematic Delay (Msec)	: 250	Esc: Quit	↑↓←→: Select Item
Security Option	: Setup	F1: Help	PU/PD/+/=: Modify
PS/2 mouse function control	: Enabled	F5: Old Values (Shift)F2	: Color
OS Select for DRAM > 64MB	: Non-OS2	F6: Load BIOS Defaults	
		F7: Load Setup Defaults	

### Virus Warning

When enabled, assigns the BIOS to monitor the master boot sector and the DOS boot sector of the first hard disk drive. The options are: Enabled, Disabled (Default).

### CPU Internal Cache

When enabled, improves the system performance. Disable this item when testing or trouble-shooting. The options are: Enabled (Default), Disabled.

### External Cache

When enabled, supports an optional cache SRAM.  
The options are: Enabled (Default), Disabled.

### Quick Power On Self Test

When enabled, allows the BIOS to bypass the extensive memory test.  
The options are: Enabled (Default), Disabled.

### Boot Sequence (LS120/ZIP100)

Allows the system BIOS to first try to boot the operating system from the selected disk drive. The options are: A, C; C, A; C, CDROM, A; CDROM, C, A; C Only; LS/ZIP, C; A, C, SCSI (Default).

#### Swap Floppy Drive

Allows you to switch the order in which the operating system accesses the floppy drives during boot up. The options are: Enabled, Disabled (Default).

#### Boot Up Floppy Seek

When enabled, assigns the BIOS to perform floppy diskette drive tests by issuing the time-consuming seek commands.  
The options are: Enabled (Default), Disabled.

#### Boot Up Numlock Status

When set to On, allows the BIOS to automatically enable the Num Lock Function when the system boots up. The options are: On (Default), Off.

#### Boot Up System Speed

Allows you to adjust the system speed when the system boots up.  
The options are: High (Default), Low.

#### Typematic Rate Setting

The term *typematic* means that when a keyboard key is held down, the character is repeatedly entered until the key is released. When this item is enabled, you may change the typematic repeat rate.  
The options are: Disabled (Default), Enabled.

#### Typematic Rate (Chars/Sec)

Sets the rate of a character repeat when the key is held down.  
The options are: 6 (Default), 8, 10, 12, 15, 20, 24, 30.

#### Typematic Delay (Msec)

Sets the delay time before a character is repeated.  
The options are: 250 (Default), 500, 750, 1000 millisecond.

#### Security Option

Allows you to set the security level of the system.  
The options are: Setup (Default), System.

#### PS/2 Mouse Function Control

When enabled, allows you to release IRQ12 for using the PS/2 mouse.  
The options are: Enabled (Default), Disabled.

#### OS Select For DRAM > 64MB

If your operating system (OS) is OS2, select the option OS2. Otherwise, stay with the default setting Non-OS2.

The options are: Non-OS2 (Default), OS2.

#### Video BIOS Shadow

Allows the BIOS to copy the video ROM code of the add-on video card to the system memory for faster access. The options are: Enabled (Default), Disabled.

#### C8000-CBFFF to DC000-DFFFF Shadow

Allows the BIOS to copy the BIOS ROM code of the add-on card to system memory for faster access. It may improve the performance of the add-on card.

Some add-on cards will not function properly if its BIOS ROM code is shadowed. To use these options correctly, you need to know the memory address range used by the BIOS ROM of each add-on card.

The options are: Enabled, Disabled (Default).

## Chipset Features Setup

ROM PC/MISA BIOS (2469AF-09) CHIPSET FEATURES SETUP AWARD SOFTWARE, INC.			
Auto configuration	: Enabled	CPU Clock Frequency	: 66 Mhz
DRAM Speed Selection	: 60ns	Spread Spectrum	: Disabled
MA Wait State	: Slow	CPU Warning Temperature	: Disabled
EDO RAS# To CAS# Delay	: 3	Current CPU Temperature	:
EDO RAS# Precharge Time	: 3	Current System Temp.	:
EDO DRAM Read Burst	: x333	Current CPU Fan Speed	:
EDO DRAM Write Burst	: x222	Current Chassis Fan Speed	:
DRAM Data Integrity Mode	: Non-ECC		
System BIOS Cacheable	: Enabled	VCORE :	+3.3 (V) :
Video RAM Cacheable	: Enabled	+5.0 (V) :	+12 (V) :
8 Bit I/O Recovery Time	: 1	-12 (V) :	-5.0 (V) :
16 Bit I/O Recovery Time	: 2		
Memory Hole At 15M-16M	: Disabled		
Delayed Transaction	: Disabled		
AGP Aperture Size (MB)	: 64	Esc: Quit	↑↓→←: Select Item
SDRAM CAS latency Time	: 3	F1 : Help	PUPD/+/=: Modify
		F5 : Old Values	(Shift)F2 : Color
		F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

### Auto Configuration

When set at Enabled, it allows you to configure the features that from the third one, Fast RAS To CAS Delay, to the eighth one, Refresh RAS# Assertion. The options are: Enabled (Default), Disabled.

### DRAM Speed Selection

Allows you to select the speed of data access to EDO DRAM.  
The options are: 60 ns (Default), 70 ns.

### MA Wait State

Allows you to select the memory address wait state.  
The settings are Slow or Fast. The default setting is Slow.

### EDO RAS# to CAS# Delay

When Auto Configure DRAM Timing set at Disabled, allows you to define the delay time that from the DRAM RAS# active to CAS# active.  
The settings are 2 Clocks or 3 Clocks. The default setting is 3 Clocks, depends on the CPU frequency and DRAM type.

### EDO RAS# Precharge Timing

Allows you to select the DRAM RAS# Precharge Time (unit: clock).  
The options are: 4, 3 (Default).

#### EDO DRAM Read Burst

When Auto Configure DRAM Timing set at Disabled, allows you to define the DRAM read burst timing.

The settings are x333 or x222. The default setting is x333, depends on the CPU frequency and DRAM type.

#### EDO DRAM Write Burst

When Auto Configure DRAM Timing set at Disabled, allows you to define the DRAM write burst timing.

The settings are x333 or x222. The default setting is x222, depends on the CPU frequency and DRAM type.

#### DRAM Data Integrity Mode

This feature provides software configurability of selecting between ECC (ECC generation and checking/correction) mode, EC-only (error checking only) mode, or non-ECC mode of operation of the DRAM interface.

The settings are Non-ECC, EC-only or ECC.

The default setting is Non-ECC.

#### System BIOS Cacheable

When enabled, allows the ROM area F000H-FFFFH to be cacheable when cache controller is activated.

The options are: Disabled, Enabled (Default).

#### Video BIOS Cacheable

When enabled, allows the system to use the video BIOS codes from SRAMs, instead of the slower DRAMs or ROMs.

The options are: Enabled (Default), Disabled.

#### 8 Bit I/O Recovery Time

Allows you to set the 8-bit ISA I/O recovery time.

The options are: 1 (Default), 2, 3, 4, 5, 6, 7, 8, NA. Unit: Bus clock.

#### 16 Bit I/O Recovery Time

Allows you to set the 16-bit ISA I/O recovery time.

The options are: 1, 2 (Default), 3, 4, NA. Unit: Bus clock.



**Memory Hole At 15M-16M**

When enabled, the memory hole at the 15MB address will be relocated to the 15~16MB address range of the ISA cycle when the processor accesses the 15~16MB address area.

When disabled, the memory hole at the 15MB address will be treated as a DRAM cycle when the processor accesses the 15~16MB address area.

The options are: Enabled, Disabled (Default).

**Delayed Transaction**

Enable this feature to abort the current PCI master cycle and to accept the new PCI master request, it reaccepts the original PCI master and returns the PCI data phase to the original PCI master. It will enhance the system performance. The options are: Enabled, Disabled (Default).

**AGP Aperture Size (MB)**

It allows you to select the main memory frame size for AGP use.

The options are 4, 8, 16, 32, 64 (Default), 128, 256MB.

**SDRAM CAS latency Time**

If any DIMM is installed, this feature allows you to select the CAS Latency.

The settings are 2 Clocks or 3 Clocks. The default setting is 3 Clocks.

**System Hardware Monitor -**

(CPU Clock Frequency, Spread Spectrum, CPU Warning Temperature, Current CPU Temperature, Current System Temp., CPU Fan Speed, Current Chassis Fan Speed, VCORE)

This feature allows end users and technicians to monitor the data provided by the LDCM function of this mainboard.

## Power Management Setup

ROM PCI/ISA BIOS (2A69JF09) POWER MANAGEMENT UTILITY AWARD SOFTWARE, INC.		
Power Management	: Disable	↔ Reload Global Timer Events ↔
PM Control by APM	: Yes	IRQ (3-7, 9-15), NMI
Video Off Method	: DPMS	: Enabled
Video Off After	: Suspend	Primary IDE 0
MODEM Use IRQ	: 3	: Disabled
Doze Mode	: Disable	Primary IDE 1
Standby Mode	: Disable	: Disabled
Suspend Mode	: Disable	Secondary IDE 0
HDD Power Down	: Disable	: Disabled
Throttle Duty Cycle	: 62.5%	Secondary IDE 1
VGA Active Monitor	: Disabled	: Disabled
Soft-Off by PWR-BTTON	: Instant-Off	Floppy Disk
CPU/FAN Off In Suspend	: Enabled	: Disabled
IRQ 8 Break Suspend	: Disabled	Serial Port
Resume by Ring	: Enabled	: Enabled
Resume by Alarm	: Disabled	Parallel Port
		: Disabled
		Esc: Quit    F4: Select Item
		F1: Help    PUP/DOWN: Modify
		F5: Old Values    (Shift)F2: Color
		F8: Load BIOS Defaults
		F7: Load Setup Defaults

### Power Management

This item allows you to adjust the power management features. Select *Disable* for disabling global power management features. Select *User Defined* for configuring your own power management features. *MIN Saving* initiates all predefined timers in their minimum values. *MAX Saving*, on the other hand, initiates maximum values.

The options are: Disabled (Default), User Defined, MIN Saving, MAX Saving.

### PM Control by APM

The option *No* allows the BIOS to ignore the APM (Advanced Power Management) specification. Selecting *Yes* will allow the BIOS wait for APM's prompt before it enters Doze mode, Standby mode, or Suspend mode. If the APM is installed, it will prompt the BIOS to set the system into power saving mode when all tasks are done.

The options are: No, Yes (Default).

#### Video Off Method

The option *V/H SYNC+Blank* allows the BIOS to blank off screen display by turning off the V-Sync and H-Sync signals sent from add-on VGA card. *DPMS* allows the BIOS to blank off screen display by your add-on VGA card which supports DPMS (Display Power Management Signaling function). *Blank Screen* allows the BIOS to blank off screen display by turning off the red-green-blue signals.

The options are: V/H SYNC+Blank, DPMS (Default), Blank Screen.

#### Video Off After

This feature allows you to select under which mode to power off your monitor. The options are: Standby, Doze, N/A, Suspend (Default).

#### MODEM Use IRQ

This feature allows you to select the IRQ# of the system that is the same IRQ# as the modem use.

The options are: NA, 3 (Default), 4, 5, 7, 9, 10, 11.

#### Doze Mode

When disabled, the system will not enter Doze mode. The specified time option defines the idle time the system takes before it enters Doze mode.

The options are: Disabled (Default), 1, 2, 4, 8, 12, 20, 30, 40 Min, 1 Hr.

#### Standby Mode

When disabled, the system will not enter the Standby mode. The specified time option defines the idle time before enters Standby mode.

The options are: Disabled (Default), 1, 2, 4, 8, 12, 20, 30, 40 Min, 1 Hr.

#### Suspend Mode

When disabled, the system will not enter Suspend mode. The specified time option defines the idle time the system takes before it enters Suspend mode.

The options are: Disabled (Default), 1, 2, 4, 8, 12, 20, 30, 40 Min, 1 Hr.

#### HDD Power Down

Selecting *Disable* will turn off the hard disk drive (HDD) motor. Selecting *1 Min..15 Min* allows you define the HDD idle time before the HDD enters the Power Saving Mode. The option *When Suspend* lets the BIOS turn the HDD motor off when system is in Suspend mode.

The options *1 Min..15 Min* and *When Suspend* will not work concurrently. When HDD is in the Power Saving Mode, any access to the HDD will wake the HDD up.

The options are: Disable (Default), 1 Min..15 Min, When Suspend.

#### Throttle Duty Cycle

This option specifies the speed at which the system clock runs in power saving modes. The settings are expressed as a ratio between the normal clock speed and the power down clock speed.

The settings are 12.5 %, 25 %, 37.5 %, 50 %, 62.5 % (Default), 75%, 87.5%.

#### VGA Active Monitor

Enable this feature to check if your VGA monitor can enter power-saving modes. The options are: Disabled (Default), Enabled.

#### Soft-Off by PWR-BTTN

This feature is designed for the case when you use an ATX power supply. The selection Delay 4 Sec. will allow the system shut down after 4 seconds after the power button is pressed. The selection Instant-Off will allow the system shut down immediately once the power button is pressed.

The settings are Delay 4 Sec. or Instant-Off (Default).

#### CPUFAN Off In Suspend

Enabling this feature will allow the CPU fan stop running when the system enters Suspend mode.

The options are Disabled or Enabled (Default).

#### IRQ8 Break Suspend

Enable this feature will keep the system not in the Suspend mode when IRQ8 is active. The settings are Disabled (Default) or Enabled.

#### Resume by Ring

If an ATX power supply is installed and this feature is enabled, the system will be turned on from the power-off by a remote phone call via the modem.

The options are Disabled or Enabled (Default).

#### Resume by Alarm

When set at Enabled, it allows you to set the time when the system to be turned on from the system power-off status.

The settings are Disabled or Enabled. The default setting is Disabled.

#### Date (of Month) Alarm

If Resume by Ring is set at Enabled, this feature allows you to set the day of the alarm starts when the RTC Alarm Resume From Soft Off is set to be Enabled.

The options are: 0 (Default), 1..31.



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

If Resume by Ring is set at Enabled , this feature allows you to set the time of the alarm starts when the RTC Alarm Resume From Soft Off is set to be Enabled.

The options are: 7: 0: 0 (Default). hh (*hour*) - 0, 1, 2,..., 23; mm (*minute*) - 0, 1, 2,...,59; ss (*second*) - 0, 1, 2,...,59.

#### IRQ[3-7,9-15], NMI

Enable this feature will keep the system not in the Suspend mode when IRQ3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15 is active.

The settings are Disabled or Enabled. The default setting is Enabled.

#### Primary IDE 0, Primary IDE 1, Secondary IDE 0, Secondary IDE 1, Floppy Disk, Serial Port, Parallel Port

Enable this feature will keep the system not in the Suspend mode when the selected device is active. The settings are Disabled or Enabled. The default setting is Disabled, except Serial Port.

### PNP/PCI Configuration Setup

ROM PCI/ISA BIOS (2A68JF09) PNP/PCI CONFIGURATION SETUP AWARD SOFTWARE, INC.	
PNP OS Installed : No Resources Controlled By : Auto Reset Configuration Data : Disabled IRQ Sequence : 9, 10, 11, 5, 7, 4, 3, 12, 15, 14	PCI IRQ Activated By : Level Assign IRQ For VGA : Disabled
Esc: Quit      F4: Select Item F1: Help      PUP/PD: Modify F5: Old Values      (Shift)F2: Color F6: Load BIOS Defaults F7: Load Setup Defaults	

#### PNP OS Installed

If your operating system is a Plug-and-Play one, such as Windows NT, Windows 95, select Yes. The options are: No (Default), Yes.

#### Resources Controlled By

If set at Auto, the BIOS arranges all system resources. If there exists conflict, select Manual. The options are: Auto (default), Manual. The manual options of IRQ- / DMA- assigned to are: Legacy ISA, PCI/ISA PnP.

#### Reset Configuration Data

When enabled, allows the system to clear the last BIOS configuration data and reset with the default data. The options are: Enabled, Disabled (default).

#### IRQ Sequence

This feature allows you to select the PCI IRQ sequence. The options are: 15, 11, 10, 9, 12, 14, 5, 7, 3, 4; 9, 10, 11, 5, 7, 4, 3, 12, 15, 14 (Default).

#### PCI IRQ Activated By

We suggest that you set this to its default configuration unless you are a qualified technician. The options are: Level (Default), Edge.

#### Assign IRQ For VGA

If your PCI VGA card does not need an IRQ, select Disabled to release an IRQ for system use. The options are: Enabled, Disabled (Default).

## Load BIOS Defaults

ROM PC/ISA BIOS (2A5LA008) CMOS SETUP UTILITY AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	Load BIOS Defaults (Y/N)? N
LOAD SETUP DEFAULTS	UT SAVING
Esc : Quit      ↑ ↓ → ← : Select Item F10 : Save & Exit Setup      (Shift)F2 : Change Color	
Load BIOS Defaults except Standard CMOS SETUP	

BIOS defaults contain the most appropriate values of the system parameters that allow minimum system performance. The OEM manufacturer may change the defaults through MODBIN before the binary image burns into the ROM.

## Load Setup Defaults

ROM PC/ISA BIOS (2A5LA008) CMOS SETUP UTILITY AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION SETUP	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	Load SETUP Defaults (Y/N)? N
LOAD SETUP DEFAULTS	UT SAVING
Esc : Quit      ↑ ↓ → ← : Select Item F10 : Save & Exit Setup      (Shift)F2 : Change Color	
Load Setup Defaults except Standard CMOS SETUP	

Selecting *this field* loads the factory defaults for BIOS and Chipset Features which the system automatically detects.



## Integrated Peripherals

ROM PCI/ISA BIOS (2A69JF09) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.			
IDE HDD Block Mode	: Enabled	KBC input clock	: 8 Mhz
On-Chip Primary PCI IDE	: Enabled	Onboard FDC Controller	: Enabled
On-Chip Secondary PCI IDE	: Enabled	Onboard Serial Port 1	: 3F8/IRQ4
IDE Primary Master PIO	: Auto	Onboard Serial Port 2	: 2F8/IRQ3
IDE Primary Slave PIO	: Auto	UART Mode Select	: Normal
IDE Secondary Master PIO	: Auto	Onboard Parallel Port	: 378/IRQ7
IDE Secondary Slave PIO	: Auto	Parallel Port Mode	: SPP
IDE Primary Master UDMA	: Auto		
IDE Primary Slave UDMA	: Auto		
IDE Secondary Master UDMA	: Auto		
IDE Secondary Slave UDMA	: Auto		
HDD S.M.A.R.T. Capability	: Disabled		
USB Controller	: Disabled		
		Esc : Quit	↑↓ : Select Item
		F1 : Help	PU/PD/+/ : Modify
		F5 : Old Values	(Shift)F2 : Color
		F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

### IDE HDD Block Mode

When enabled, the system executes read/write requests to hard disk in block mode. The options are: Enabled (Default), Disabled.

### On-Chip Primary PCI IDE

When enabled, allows you to use the onboard primary PCI IDE.  
The options are: Enabled (Default), Disabled.

### On-Chip Secondary PCI IDE

When enabled, allows you to use the onboard secondary PCI IDE.  
The options are: Enabled (Default), Disabled.

### IDE Primary Master PIO

Allows an automatic or a manual configuration of the PCI primary IDE hard disk (master) mode.  
The options are: Auto (Default), Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

### IDE Primary Slave PIO

Allows an automatic or a manual configuration of the PCI primary IDE hard disk (slave) mode.  
The options are: Auto (Default), Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

#### IDE Secondary Master PIO

Allows an automatic or a manual configuration of the PCI secondary IDE hard disk (master) mode.

The options are: Auto (Default), Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

#### IDE Secondary Slave PIO

Allows an automatic or a manual configuration of the PCI secondary IDE hard disk (slave) mode.

The options are: Auto (Default), Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

#### IDE Primary Master UDMA

Allows you to select the first PCI IDE channel of the first master hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto (Default), Disabled.

#### IDE Primary Slave UDMA

Allows you to select the first PCI IDE channel of the first slave hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto (Default), Disabled.

#### IDE Secondary Master UDMA

Allows you to select the second PCI IDE channel of the secondary master hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto (Default), Disabled.

#### IDE Secondary Slave UDMA

Allows you to select the second PCI IDE channel of the secondary slave hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto (Default), Disabled.

#### HDD S.M.A.R.T. Capability

“S.M.A.R.T.” is the abbreviation of “Self-Mointoring, Analysis and Reproting Technology”. To enable it will assist you in preventing some (but not all) system down time due to hard disk drive failure.

The options are: Enabled, Disabled (Default).

#### USB Controller

If you do not use the onboard USB feature, it allows you to disable it.

The options are: Enabled, Disabled (Default).

#### BIOS Support USB Keyboard

If Enabled is selected in the above feature, this feature will appear.

If your USB devices cannot be detected automatically by the system BIOS or some driver diskettes came with your USB devices, please set at DOS for allowing you to install the driver. The options are: Setup (Default), DOS.

#### KBC input clock

This feature allows you to select different KBC input clocks which your keyboard actually supported. Please read your keyboard manual also for more information. The options are: 6, 8 (Default), 12, 16 MHz.

#### Onboard FDC Controller

When enabled, the floppy diskette drive (FDD) controller is activated.

The options are: Enabled (Default), Disabled.

#### Onboard Serial Port 1

If the serial port 1 uses the onboard I/O controller, you can modify your serial port parameters. If an I/O card needs to be installed, COM3 and COM4 may be needed.

The options are: 3F8/IRQ4 (Default), 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3, Disabled.

#### Onboard Serial Port 2

If the serial port 2 uses the onboard I/O controller, you can modify your serial port parameters. If an I/O card needs to be installed, COM3 and COM4 may be needed.

The options are: 2F8/IRQ3 (Default), 3E8/IRQ4, 2E8/IRQ3, 3F8/IRQ4, Disabled.

#### UART Mode Select

Allows you to select the IR modes if the serial port 2 is used as an IR port. Set at Normal, if you use COM2 as the serial port as the serial port, instead as an IR port. The options are: Normal (Default), IrDA, ASKIR.

#### RxD , TxD Active

The feature allows you to select the active signals of the reception end and the transmission end. This is for technician use only.

The options are: Hi, Hi (Default); Hi, Lo; Lo, Hi; Lo, Lo.

#### IR Transmission Delay

When Enabled, the transmission delays 4 characters-time (40 bit-time) if SIR is changed from RX mode to TX mode. When Disabled, no transmission delay if SIR is changed from RX mode to TX mode.  
The options are: Enabled (Default), Disabled.

#### Onboard Parallel Port

Allows you to select from a given set of parameters if the parallel port uses the onboard I/O controller.  
The options are: 378/IRQ7 (Default), 278/IRQ5, 3BC/IRQ7, Disabled.

#### Parallel Port Mode

Allows you to connect with an advanced printer.  
The options are: SPP (Default), EPP, ECP, ECP+EPP.

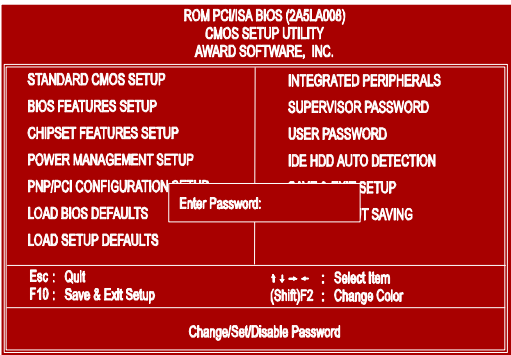
#### EPP Mode Select

If your select EPP or ECP+EPP in Parallel Port Mode, this feature allows you to select the EPP type version.  
The options are: EPP1.9, EPP1.7 (Default).

#### ECP Mode Use DMA

If your select ECP or ECP+EPP in Parallel Port Mode, this feature allows you to select Direct Memory Access (DMA) channel.  
The options are: 3 (Default), 1.

Supervisor/User Password



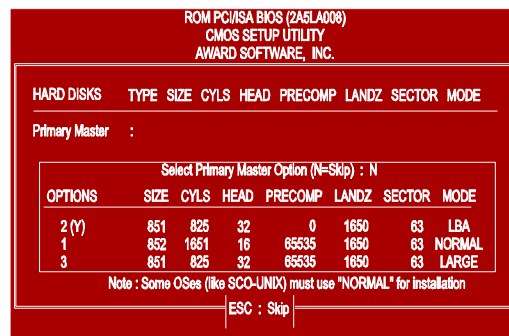
To enable the Supervisor/User passwords, select the item from the Standard CMOS Setup. You will be prompted to create your own password. Type your password up to eight characters and press Enter. You will be asked to confirm the password. Type the password again and press Enter. You may also press Esc to abort the selection and not enter a password. To disable password, press Enter when you are prompted to enter password. A message appears, confirming the password is disabled.

Under the BIOS Feature Setup, if System is selected under the Security Option field and the Supervisor Password is enabled, you will be prompted for the Supervisor Password every time you try to enter the CMOS Setup Utility. If System is selected and the User Password is enabled, you will be requested to enter the User Password every time you reboot the system. If Setup is selected under the Security Option field and the User Password is enabled, you will be prompted only when you reboot the system.

Clear Password

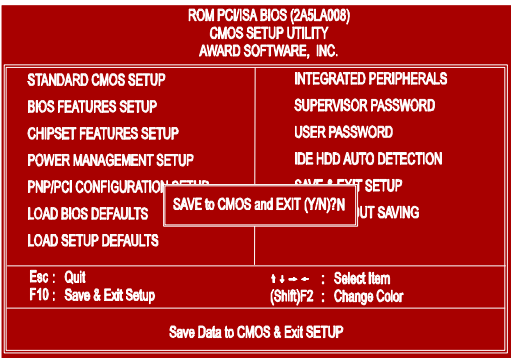
If you forget your password, turn off the system power first and remove the system unit cover. Locate Jumper CPW and cap it. Remove Jumper CPW and reset the system. At this point, you will not be asked for the password to enter Setup.

## IDE HDD Auto Detection



The IDE Hard Disk Drive Auto Detection feature automatically configures your new hard disk. Use it for a quick configuration of new hard drives. This feature allows you to set the parameters of up to four IDE HDDs. The option with (Y) are recommended by the system BIOS. You may also keys in your own parameters instead of setting by the system BIOS. After all settings, press Esc key to return the main menu. For confirmation, enter the Standard CMOS Setup feature.

Save and Exit Setup



After you have made changes under Setup, press Esc to return to the main menu. Move cursor to Save and Exit Setup or press F10 and then press Y to change the CMOS Setup. If you did not change anything, press Esc again or move cursor to Exit Without Saving and press Y to retain the Setup settings. The following message will appear at the center of the screen to allow you to save data to CMOS and exit the setup utility:

SAVE to CMOS and EXIT (Y/N)?

Exit without Saving

If you select this feature, the following message will appear at the center of the screen to allow you to exit the setup utility without saving CMOS modifications:

Quit Without Saving (Y/N)?

**NOTE :** Default values of the various Setup items on this chapter may not necessarily be the same ones.