

## BIOS Setup

The motherboard comes with the 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 motherboard's components. This section explains the information contained in the Setup program and tells you how to modify the settings according to your system configuration.

### CMOS Setup Utility

ROM PCI/ISA BIOS (2A5LEF09) CMOS SETUP UTILITY AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP/PCI CONFIGURATION LOAD BIOS DEFAULTS LOAD SETUP DEFAULTS	INTEGRATED PERIPHERALS SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION SAVE & EXIT SETUP EXIT WITHOUT SAVING
Esc : Quit F10 : Save & Exit Setup	↑ ↓ → ← : Select Item (Shift)F2 : Change Color
Time, Date, Hard Disk Type...	

A Setup program, built into the system BIOS, is stored in the CMOS RAM. This Setup utility program allows changes to the motherboard 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 PCI/ISA BIOS (2A5LEF09)									
STANDARD CMOS SETUP									
AWARD SOFTWARE, INC.									
Date (mm:dd:yy) : Mon, Mar 30 1998									
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	0	Auto
Primary Slave	: Auto	0	0	0	0	0	0	0	Auto
Secondary Master	: Auto	0	0	0	0	0	0	0	Auto
Secondary Slave	: Auto	0	0	0	0	0	0	0	Auto
Drive A : 1.44M, 3.5 in.					Base Memory: 640K Extended Memory: 31744K Other Memory: 384K Total Memory: 32768K				
Drive B : None									
Floppy 3 Mode Support: Disabled									
Video : EGA/VGA									
Halt On : All Errors									
Esc : Quit			↑ ↓ → ← : Select Item			PU/PD/+/- : 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 PCI/ISA BIOS (2A5LEF09)	
BIOS FEATURES SETUP	
AWARD SOFTWARE, INC.	
Virus Warning	: Disabled
Detect Boot Virus By Trend	: Enabled
CPU Internal Cache	: Enabled
External Cache	: Enabled
Quick Power On Self Test	: Enabled
Boot From LAN First	: Enabled
Boot Sequence (LS120/ZIP100)	: A, C, SCSI
Boot Up Floppy Seek	: Enabled
Boot Up NumLock Status	: On
Gate A20 Option	: Fast
Typematic Rate Setting	: Disabled
Typematic Rate (Chars/Sec)	: 6
Typematic Delay (Msec)	: 250
Security Option	: Setup
OS Select For DRAM > 64MB	: Non-OS2
Video BIOS Shadow	: Enabled
C8000 - CBFFF Shadow	: Disabled
CC000 - CFFFF Shadow	: Disabled
D0000 - D3FFF Shadow	: Disabled
D4000 - D7FFF Shadow	: Disabled
D8000 - D8FFF Shadow	: Disabled
DC000 - DFFFF Shadow	: Disabled
Esc : Quit	↑↓←→ : Select Item
F1 : Help	PU/PD/+/- : Modify
F5 : Old Values (Shift)	F2 : Color
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. If the operating system is installed for the first time, keep this feature at Disabled to prevent the errors.  
The options are: Enabled, Disabled (Default).

### Detect Boot Virus By Trend

This feature starts the virus scan tool to detect if boot virus in boot sector of the first hard disk drive when booting up.  
The options are: Enabled (Default), Disabled.

#### 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. This feature allows you to disable the cache function when the system performance is unstable to run some software.

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 From LAN First

This feature makes the system bootable by the remote server via LAN.

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, SCSI (Default); C, A, SCSI; C, CDROM, A; CDROM, C, A; D, A, SCSI; E, A, SCSI; F, A, SCSI; SCSI, A, C; SCSI, C, A; C Only; LS/ZIP, C.

#### 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.

#### Gate A20 Option

When set at Fast, allows a faster access response under Protected mode.

The options are: Fast (Default), Normal.

#### 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.

The options are: Disabled (Default), Enabled.

#### Typematic Rate (Chars/Sec)

This feature is available only if the above item, Typematic Rate Setting, is set at Enabled. 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)

This feature is available only if the item, Typematic Rate Setting, is set at Enabled. 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.

#### OS Select For DRAM > 64MB

If your operating system (OS) is OS/2, 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 PCI/ISA BIOS (2A5LEF09) CMOS SETUP UTILITY CHIPSET FEATURES SETUP			
Video BIOS Cacheable	: Enabled	Spread Spectrum Modulated:	Enabled
System BIOS Cacheable	: Disabled	CPU Warning Temperature	: Disabled
Memory Hole At 15Mb Addr.	: Disabled	Current CPU Temperature	: 29 °C/ 84 °F
DRAM Page-Mode	: Enabled	Current System Temp.	: 28 °C/ 82 °F
Sustained 3T Write	: Enabled	Current Chassis Fan Speed	: 0 RPM
Write Cache Pipeline	: Disabled	Current CPU Fan Speed	: 0 RPM
DRAM Read Pipeline	: Enabled		
Read Around Write	: Disabled	VCORE : 2.25 V	+3.3 (V) : 3.32 V
Memory ECC Check	: Disabled	+5.0 (V) : 4.94 V	+12 (V) : 11.85 V
		-12 (V) : -11.41 V	-5.0 (V) : -5.01 V
Bank 0/1 DRAM Timing	: Fast		
Bank 2/3 DRAM Timing	: Fast		
Bank 4/5 DRAM Timing	: Fast		
SDRAM Cycle Length	: 3		
SRAM Bank Interleave	: Disabled	Esc: Quit	↑↓→← : Select Item
SDRAM MD-to-HD Pop + 1T	: Enabled	F1 : Help	PU/PD/+/- : Modify
SDRAM Sustain 4T Cycle	: Disabled	F5 : Old Values (Shift)F2	: Color
Aperture Size	: 64M	F6 : Load BIOS Defaults	
AGP-2X Mode support	: Enabled	F7 : Load Setup Defaults	

### 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.

### System BIOS Cacheable

When enabled, allows the ROM area F000H-FFFFH to be cacheable when cache controller is activated. The options are: Disabled (Default), Enabled.

### Memory Hole At 15M Addr.

When you install a Legacy ISA card, this feature allows you to select the memory hole's address range of the ISA cycle when the processor accesses the selected address area. Please read your card manual for detail information. When disabled, the memory hole at the 14MB (or 15MB) address will be treated as a DRAM cycle when the processor accesses the 14~16MB (or 15~16MB) address area.

The options are: 15M-16M, 14M-16M, Disabled (Default).

### DRAM Page-Mode

It saves the time to resend CAS if DRAM access in the same page (RAS); therefore, increases the system performance.

The options are: Enabled (Default), Disabled.

#### Sustained 3T Write

When enabled, allows the CPU to complete the memory writes in 3 clocks.

The options are: Enabled (Default), Disabled.

#### Write Cache Pipeline

When enabled, it makes the read/write speed between the CPU and the cache RAMs faster. The options are: Enabled, Disabled (Default).

#### DRAM Read Pipeline

When enabled, it makes the data read speed from memory modules to cache RAMs faster. The options are: Enabled (Default), Disabled.

#### Read Around Write

This feature speeds up data read performance when it stays Enabled.

The options are: Enabled, Disabled (Default).

#### Memory ECC Check

Set at Enabled, if the RAM modules support ECC function.

The options are: Enabled, Disabled (Default).

#### Linear Burst

If a Cyrix/IBM CPU installed, this feature appears and it allows you to configure the CPU to SRAM data read/write mode. If you use a Cyrix/IBM CPU, select Enabled; if you use an IDT WinChip, Intel CPU, or AMD CPU, please stay with the default value, Disabled. Please refer to SRAM, Page 11, Chapter 2.

#### Bank 0/1 DRAM Timing;

#### Bank 2/3 DRAM Timing;

#### Bank 4/5 DRAM Timing

This feature allows you to select the DRAM read/write speed.

The options are: Fast (Default), Normal, Turbo.

#### SDRAM Cycle Length

This feature appears only when SDRAM DIMM/s is installed (BIOS auto detection). If the CAS latency of your SDRAM DIMM is 2, set at 2 to enhance the system performance. If the CAS latency of your SDRAM DIMM is 3, stay with the default setting, 3.

The options are: 2, 3 (Default).

#### SDRAM Bank Interleave

This feature appears only when SDRAM DIMM/s is installed (BIOS auto detection). It allows you to select 2 or 4 banks when the DIMM supported to achieve a better data transaction performance. The DIMM's manual or manufacturer will provide the specification how many banks the DIMM supported. The options are: Disabled (Default), 2 Bank, 4 Bank.

#### SDRAM MD-to-HD Pop + 1T

When set at Enabled, the required time period of DATA from SDRAM to CPU will be added 1T for the system stability and compatibility. The options are: Enabled (Default), Disabled.

#### SDRAM Sustain 4T Cycle

This feature allows user to decide the SDRAM write cycle timing. The options are: Disabled (Default), Enabled.

#### Aperture Size

It allows you to select the main memory frame size for AGP use. The options are 4, 8, 16, 32, 64MB (Default).

#### AGP-2X Mode Support

This feature allows user to select the AGP mode be to 1x or 2x when an AGP add-in card installed. However, when set at Enabled and the AGP card only support 1x mode, the system will fall back 1x mode automatically. The options are: Enabled (Default), Disabled.

#### Spread Spectrum Modulated

This feature is used to set the spread Spectrum to be center spread type or down spread type. The options are: Enabled (Default), Disabled.

#### CPU Warning Temperature

This feature allows you to set the temperature to slow down the CPU clock frequency. The options are: Disabled (Default), MaxCooling, 53°C/127°F, 56°C/133°F, 60°C/140°F, 63°C/145°F, 66°C/151°F, 70°C/158°F.

#### Current CPU Temperature; Current System Temp.; Current CPU Fan Speed; Current Chassis Fan Speed; VCORE (all optional)

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



## Power Management Setup

ROM PCI/ISA BIOS (2A5LEF09)	
POWER MANAGEMENT SETUP	
AWARD SOFTWARE, INC.	
Power Management : Disable	Soft-Off by PWR-BTTN : Delay 4 Sec.
PM Control by APM : Yes	IRQ3 (COM2) : Primary
Video Off Option : Suspend ->Off	IRQ4 (COM1) : Primary
Video Off Method : DPMS Support	IRQ5 (LPT2) : Primary
MODEM Use IRQ : NA	IRQ7 (LPT1) : Primary
<b>** PM Timers **</b>	
HDD Power Down : Disable	IRQ8 (RTC Alarm) : Disabled
Doze Mode : Disable	IRQ9 (IRQ2 Redir) : Disabled
Suspend Mode : Disable	IRQ10 (Reserved) : Disabled
<b>** PM Events **</b>	
VGA I/O & MEMORY : OFF	IRQ11 (Reserved) : Disabled
LPT & COM I/O : LPT/COM	IRQ12 (PS/2 Mouse) : Primary
HDD & FDD I/O : ON	IRQ14 (Hard Disk) : Primary
Resume by Ring & LAN : Enabled	IRQ15 (Reserved) : Disabled
RTC Alarm Resume : Disabled	
Esc : Quit      **-- : Select Item	
F1 : Help      PU/PD +/- : Modify	
F5 : Old Values (Shift)F2 : Color	
F6 : 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 Define 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: Disable (Default), User Define, 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 Option

This feature provides the selections of the video display power saving mode. The option Suspend - Off allows the video display to go blank if the system enters Suspend mode. The option All Modes - Off allows the video display to go blank if the system enters Doze mode or Suspend mode. The option Always On allows the video display to stay in Standby mode even when the system enters Doze or Suspend mode.

The options are: Suspend - Off (Default), All Modes - Off, Always On.

### 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 Support 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 Support (Default), Blank Screen.

### MODEM Use IRQ

This feature allows you to select the IRQ# to meet your modem's IRQ#.

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

### HDD Power Down

The option lets the BIOS turn the HDD motor off when system is in Suspend mode. Selecting 1 Min..15 Min allows you define the HDD idle time before the HDD enters the Power Saving Mode.

The options 1 Min..15 Min 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.

### 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.

### 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.

### VGA I/O & MEMORY

*ON* enables the power management timers when a no activity events is detected in the VGA. *OFF* disables the PM timer even if a no activity event is detected. The options are: OFF (Default), ON.

### LPT & COM I/O

*LPT/COM* enables the power management timers when a no activity event is detected in the LPT and COM ports. *LPT (COM)* enables the power management timers when a no activity event is detected in the LPT (COM) ports. *NONE* to disable the PM timer even if a no activity event is detected. The options are: LPT/COM (Default), LPT, COM, NONE.

### HDD & FDD I/O

*ON* will enable the power management timers when no activity event is detected in the hard drive and floppy drive. *OFF* disables the PM timer even if no activity event is detected. The options are: OFF, ON (Default).

### Resume on Ring & LAN

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state. The options are: Enabled (Default), Disabled.

### RTC Alarm Resume

*Enabled* allows you to set the time the system will be turned on from the system power-off status. The options are: Enabled, Disabled (Default).

### Soft-Off by PWR-BTTN

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. (Default), or Instant-Off.

#### IRQ# Activity

After the time period which you set at in Suspend Mode Feature, the system advances from Doze Mode to Suspend Mode in which the CPU clock stops and the screen display is off. At this moment, if the IRQ activity which is defined as Primary occurs, the system goes back to Full-on Mode directly.

If the IRQ activity which is defined as Secondary takes place, the system enters another low power state, Dream Mode, in which the system will act as Full-on Mode except that the screen display remains off until the corresponding IRQ handler finishes, then back to Suspend Mode.

The options of IRQ 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15 are: Primary, Secondary, Disabled. The options of IRQ 12 are: Primary, Secondary.

The default values of IRQ 8, 9, 10, 11, 15 are: Disabled.

The default value of IRQ 3, 4, 5, 7, 12, 14 are: Primary.

## PNP/PCI Configuration

ROM PCI/ISA BIOS (2A5LEF09) PNP/PCI CONFIGURATION AWARD SOFTWARE, INC.	
PNP OS Installed : No	CPU to PCI Write Buffer : Enabled
Resources Controlled By : Auto	PCI Dynamic Bursting : Enabled
Reset Configuration Data : Disabled	PCI Master 0 WS Write : Enabled
IRQ Sequence : 9, 10, 11, 5, 7, 4, 3, 12, 15, 14	PCI Delay Transaction : Enabled
	PCI Master Read Prefetch : Disabled
	PCI#2 Master 1 WS Write : Enabled
	PCI#2 Master 1 WS Read : Disabled
	PCI IRQ Activated By : Level
	Assign IRQ For VGA : Enabled
Esc: Quit      ↑↓→←: Select Item F1: Help      PU/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).

### CPU to PCI Write Buffer

When enabled, allows data and address access to the internal buffer of the system controller; so the processor can be released from the waiting state. The options are: Enabled (Default), Disabled.



#### PCI Dynamic Bursting

When enabled, the PCI controller allows Bursting PCI transfer if the consecutive PCI cycles come with the address falling in same 1KB space. This improves the PCI bus throughput.  
The options are: Enabled (Default), Disabled.

#### PCI Master 0 WS Write

When enabled, allows a zero-wait-state-cycle delay when the PCI master drive writes data to DRAM.  
The options are: Enabled (Default), Disabled.

#### PCI Delay Transaction

Enable this feature to abort the current CPI 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.  
The options are: Disabled, Enabled (Default).

#### PCI Master Read Prefetch

When set at Enabled, the memory controller will prefetches data DRAM if the PCI bus master reads data from DRAM.  
The options are: Enabled, Disabled (Default).

#### PCI#2 Master 1 WS Write

When set at Enabled, it allows a one-wait-state TRDY# response if PCI bus master writes data to target.  
The options are: Enabled (Default), Disabled.

#### PCI#2 Master 1 WS Read

When set at Enabled, it allows a one-wait-state TRDY# response if PCI bus master reads data from target.  
The options are: Enabled, Disabled (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; therefore, an IRQ can be released for the system use.  
The options are: Enabled (Default), Disabled.

## Load BIOS Defaults

ROM PCI/ISA BIOS (2A5LEF09) 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
Load BIOS Defaults (Y/N)? N	
UT SAVING	
Esc : Quit F10 : Save & Exit Setup	
↑ ↓ → ← : Select Item (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 PCI/ISA BIOS (2A5LEF09) 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
Load SETUP Defaults (Y/N)? N	
UT SAVING	
Esc : Quit F10 : Save & Exit Setup	
↑ ↓ → ← : Select Item (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 (2A5LEF09) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.			
IDE HDD Block Mode	: Enabled	Onboard FDD Controller	: Enabled
On-Chip Primary PCI IDE	: Enabled	Onboard Serial Port 1	: 3F8/IRQ4
On-Chip Secondary PCI IDE	: Enabled	Onboard Serial Port 2	: 2F8/IRQ3
IDE Primary Master PIO	: Auto	UART 2 Mode	: Standard
IDE Primary Slave PIO	: Auto		
IDE Secondary Master PIO	: Auto	Onboard Parallel Port	: 378/IRQ7
IDE Secondary Slave PIO	: Auto	Onboard Parallel 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	Esc: Quit	↑↓ →← : Select Item
		F1 : Help	PU/PD/+/- : Modify
USB Controller	: Disabled	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 harddisk must be S.M.A.R.T-comptiblel in order to use this feature.

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).

#### Onboard FDD 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 2 Mode

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

#### IR Function Duplex

This feature is available only if the above item, UART 2 Mode, is set at ASKIR or HPSIR. It allows you to select the infrared data transaction way.  
The options are: Half (Default), Full.

#### RxD , TxD Active

This feature is available only if the item, UART 2 Mode, is set at ASKIR or HPSIR. 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.

#### Onboard Parallel Port

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

#### Onboard Parallel Mode

Allows you to connect with an advanced printer. Select SPP for standard parallel port (SPP) used on IBM PC/XT, PC/AT and bi-directional parallel port found on PS/2 system. Select EPP/SPP mode for enhanced parallel port and the standard parallel port. Select ECP mode for Microsoft and HP Extended Capabilities Parallel Port. Select ECP/EPP mode for both ECP and EPP modes.

The options are: SPP (Default), EPP/SPP, ECP, ECP/EPP.

#### ECP Mode Use DMA

If you set the above item, Onboard Parallel Mode, to be ECP or ECP/EPP, this feature allows you to select Direct Memory Access (DMA) channel.

The options are: 3 (Default), 1.

#### Parallel Port EPP Type

If you set the above item, Onboard Parallel Mode, to be EPP/SPP or ECP/EPP, this feature allows you to select the EPP type version.

The options are: EPP1.9 (Default), EPP1.7.

## 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. To disable password, press Enter twice when you are prompted to enter a 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.

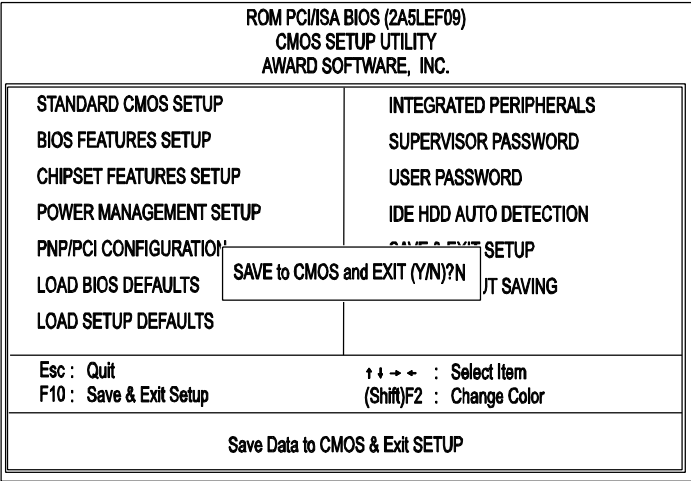
### Clear Password

If you forget your password, turn off the system power first and remove the system unit cover. Locate Jumper CPS and cap it. Remove Jumper CPS 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)?**



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