

# 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 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 (2A5LHF0A) 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	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
Esc : Quit	↑ ↓ ← → : Select Item
F10 : Save & Exit Setup	(Shift)F2 : change Color

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. The **F5: Menu in BIOS** is a convenient feature for users to refer the board settings in this BIOS top level menu.

## Standard CMOS Setup

ROM PCT/ISA BIOS (2A5LHF0A)									
STANDARD CMOS SETUP									
AWARD SOFTWARE, INC.									
Date (mm:dd:yy) : Mon, Apr 12 1999									
Time (hh:mm:ss) : 15 : 27 : 22									
HARD DISKS		TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	:	0	0	0	0	0	0	0	NORMAL
Primary Slave	:	0	0	0	0	0	0	0	NORMAL
Secondary Master	:	0	0	0	0	0	0	0	NORMAL
Secondary Slave	:	0	0	0	0	0	0	0	NORMAL
Drive A : None									
Drive B : None									
Floppy 3 Mode Support : Disabled									
Video : EGA/VGA									
Halt On : All Errors									
						Base Memory: 640K			
						Extended Memory: 31744K			
						Other Memory: 384K			
						Total Memory: 32768K			
ESC : Quit									
F1 : Help									
				↑ ↓ → ← : Select Item		PU/PD/+/- : Modify			
				(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 User to fill the remaining fields. Select Auto to detect the HDD type automatically (recommended).

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 current.

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: Disabled (Default), Drive A.

#### *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 (2A5LHF0A) BIOS FEATURES SETUP AWARD SOFTWARE, INC.		
Anti-Virus Protection	: Enabled	Video BIOS Shadow : Enabled
CPU Internal Cache	: Enabled	Cyrix 6x86/MI CPUID: Enabled
External Cache	: Enabled	
Quick Power On Self Test	: Enabled	
Boot From LAN First	: Enabled	
Boot Sequence	: A,C,SCSI	
Swap Floppy Drive	: Disabled	
Boot Up Floppy Seek	: Enabled	
Boot Up NumLock Status	: On	
Gate A20 Option	: Fast	
Memory Parity/ECC Check	: Disabled	
TypeMatic Rate Setting	: Disabled	
TypeMatic Rate (Chars/Sec)	: 6	
TypeMatic Delay (Msec)	: 250	
Security Option	: Setup	
PCI/VGA Palette Snoop	: Disabled	ESC : Quit             ← : Select Item
OS Select For DRAM > 64MB	: Non-OS2	F1 : Help            PU/PD/+/- : Modify
HDD S.M.A.R.T. capability	: Enabled	F5 : Old Values (Shift)F2 : Color
Report No FDD For WIN 95	: Yes	F6 : Load BIOS Defaults
		F7 : Load Setup Defaults

### Anti-Virus Protection

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: Disabled, Enabled (Default).

### Boot From LAN First

This feature makes the system bootable by the remote server via LAN. The options are: Disabled, Enabled (Default).

### Boot Sequence

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.

### 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.

### Gate A20 Option

When set at Fast, allows a faster access response under Protected mode.  
The options are: Normal, Fast (Default).

### Memory Parity Check

This feature enables BIOS to perform automatic memory checking upon detection of ECC or parity DRAM. The options are: Disabled (Default), Enabled.

### 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.

### PCI/VGA Palette Snoop

Set this feature to be enabled if any ISA adapter card installed in the system requires the VGA palette snoop function.

The options are: Disabled (Default), Enabled.

### 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.

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

S.M.A.R.T. stands for Self-Monitoring and Analysis Reporting Technology which allows your hard disk drive to report any read/write errors and issues a warning with LDCM installed.

The options are: Disabled; Enabled (Default).

#### Report No FDD For WIN 95

When the field under the Standard CMOS Setup Menu for Drive A and/or Drive B is set at None, users must set this field is set at Yes for it to function properly. Otherwise, set at No, even if field for Drive A and/or Drive B is set at None, system will still detect and recognize of a floppy drive(s).

The options are: No, Yes (Default).

#### 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.

#### Cyrix 6x86/MII CPUID

For Cyrix 6x86/MII CPU the system cannot install Netware 5.0 if CPUID is enabled. Software cannot use MMX instructions if CPUID is disabled.

The options are: Enabled (Default), Disabled.

## Chipset Features Setup

ROM PCI/ISA BIOS (2A5LHF0A) CHIPSET FEATURES SETUP AWARD SOFTWARE, INC.	
Bank 0/1 DRAM Timing : SDRAM 10ns	Auto Detect DIMM/PCI Clk : Enabled
Bank 2/3 DRAM Timing : SDRAM 10ns	Spread Spectrum : Enabled
Bank 4/5 DRAM Timing : SDRAM 10ns	CPU Host Clock (CPU/PCI) : Default
SDRAM Cycle Length : 3	Current CPU Temp. :
DRAM Read Pipeline : Enabled	Current System Temp. :
Sustained 3T Write : Enabled	Current CPUFAN1 Speed :
Cache R/CPU W Pipeline: Enabled	Current CPUFAN2 Speed :
Cache Timing : Fast	Vcore : 2.5V :
Video BIOS Cacheable : Enabled	3.3V : 5V :
System BIOS Cacheable : Enabled	12V :
Memory Hole : Disabled	
Init Display First : PCI Slot	
Frame Buffer Size : 8M	
AGP Aperture Size : 64M	
Fan On/Off On Suspend : OFF	
OnChip USB : Enabled	ESC : Quit     -- : Select Item
OnChip USB 2 : Enabled	F1 : Help PU/PD/+/- : Modify
USB Keyboard Support : Disabled	F5 : Old Values (Shift)F2 : Color
OnChip Sound : Enabled	F6 : Load BIOS Defaults
	F7 : Load Setup Defaults

### 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: SDRAM 10ns (Default), SDRAM 8ns, Normal, Medium, Fast, Turbo.

### SDRAM Cycle Length

This item allows you to set the CAS latency timing. The options are: 3 (Default), 2.

### DRAM Read Pipeline

When enabled, it makes the data read speed from memory modules to cache RAMs faster. 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.

### Cache R/CPU W Pipeline



When enabled, it makes the cache RAMs read and the data write to CPU faster.

The options are: Enabled (Default), Disabled.

#### Cache Timing

The feature allows users to select the cache timing.

The options are: Fast (Default); Fastest.

#### Video BIOS Cacheable

As with caching the System BIOS above, enabling the Video BIOS cache will cause access to the video BIOS addressed at C0000H to C7FFFH to be cached, if the cache controller is also enabled.

The options are: Disabled, Enabled (Default).

#### 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 options are: Disabled, Enabled (Default).

#### Memory Hole

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information peripherals that need to use this area of system memory usually discusses their memory requirements. The options are: Disabled (Default); Enabled.

#### Init Display First

When you install an AGP VGA card and/or a PCI VGA card on the board, this feature allows you to select the first initiation of the monitor display from which card. The options are: PCI Slot (Default), AGP.

#### Frame Buffer Size

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This option allows you to specify the frame biffer size of the AGP VGA card and/or PCI VGA card on the board.  
The options are: 8M (Default), 4M, NA.

### AGP Aperture Size

It allows you to select the main memory frame size fo AGP use.  
The options are 128, 4, 8, 16, 32, 64M (Default).

### Fan On/Off On Suspend

It allows you to turn off system fan when is suspend mode.  
The options are OFF (Default), ON.

### OnChip USB

When enabled, this feature allows you to use the onboard USB feature. The options are: Enabled (Default), Disabled.

### OnChip USB2

When enabled, this feature allows you to use the onboard USB2 feature. The options are: Enabled (Default), Disabled.

### USB Keyboard Support

This feature will appear only if the above item Onchip USB is set at Enabled. Set this feature to Enabled to use a USB keyboard with your system. The options are: Disabled (Default), Enabled.

### OnChip Sound

When set at Enabled, this feature activated the onboard audio feature. The options are: Enabled (Default), Disabled.

### Auto Detect DIMM/PCI Clk

Set this field at Enabled to allow auto detection of DIMM clock speed.  
The options are: Enabled (Default), Disabled.

### Spread Spectrum

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This feature is used to set the spread Spectrum to be center spread type or down spread type.

The options are: Disabled, Enabled (Default).

#### CPU Host Clock

Select *Default* or select a timing combination for the CPU and the PCI bus. When set to *Default*, BIOS uses the actual CPU and PCI bus clock values.

The options are: Default (Default), 60/30 MHz, 66/33 MHz, 70/35 MHz, 75/25 MHz, 75/37 MHz, 80/26 MHz, 80/40 MHz, 83/27 MHz, 83/41 MHz, 95/31 MHz, 100/33 MHz, 105/35 MHz, 110/36 MHz, 115/38 MHz, 120/40 MHz.

#### Current CPU Temp. / Current System Temp. / Current CPUFAN1 Speed / Current CPUFAN2 Speed/ Vcore / 3.3V /12V / 5V

These items allow end users and technicians to monitor data provided by the BIOS on this mainboard. It is not user-configurable.

## Power Management Setup

ROM PCI/ISA BIOS (2A6LHF0A) POWER MANAGEMENT SETUP AWARD SOFTWARE, INC.			
Power Management	: User Define	Primary INTR	: ON
PM Control by APM	: Yes	IRQ3 (COM2)	: Primary
Video Off Method	: DPMS Support	IRQ4 (COM1)	: Primary
Video Off After	: Suspend	IRQ6 (LPT2)	: Primary
MODEM Use IRQ	: 3	IRQ6 (FDD)	: Primary
Doze Mode	: Disable	IRQ7 (LPT1)	: Primary
Suspend Mode	: Disable	IRQ8 (Alarm)	: Disabled
HDD Power Down	: Disable	IRQ9 (Rsv)	: Secondary
Soft-Off by PWRBTN	: Instant-Off	IRQ10 (Rsv)	: Secondary
PWRON After PWR-Fail	: Former-Sts	IRQ11 (Rsv)	: Secondary
VGA	: OFF	IRQ12 (PS/2)	: Primary
LPT & COM	: LPT/COM	IRQ13 (CoPro)	: Primary
HDD & FDD	: ON	IRQ14 (HDD)	: Primary
DMA/master	: OFF	IRQ15 (Rsv)	: Disabled
RTC Alarm Resume	: Disabled	Esc: Quit	→ ← : Select Item
Wake Up On LAN/Ring	: Enabled	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 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: User Define (Default), 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 Supported 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.

#### Video Off After

This feature allows you to select under which mode to power off your monitor.

The options are: Doze, NA, 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: Disable (Default), 10, 20, 30, 40 Sec, 1, 2, 4, 6, 8, 10, 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 Disable (Default), 10, 20, 30, 40 Sec, 1, 2, 4, 6, 8, 10, 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.

#### Soft-Off By PWR-BTTN

This item is designed for the system case that uses an ATX power supply. The option Delay 4 Sec. allows the system to have a power-off delay of 4 seconds upon pressing the power button. The option Instant-Off allows the system to shutdown immediately upon pressing the power button.

The options are: Delay 4 Sec., Instant-Off (Default).

#### PWRON After PWR-Fail

When the system is shut down owing to the power failure, the system will not be back to power on by itself. This feature allows you to set the system back to which power status of the system when the system power is resumed.

The options are Former-Sts (Default), Off, On.

#### VGA

*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

*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

*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).

#### PCI/master

To set this feature at ON activates that Power Management feature (PM) wake-up event for the DMA or bus master (of the LAN card or/and SCSI card). The options are: OFF (Default), ON.

#### 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).

#### Wake Up On LAN/Ring

When set at Enabled, an input signal comes from the other client/server on the LAN awakes the system from a soft off state if connected over LAN.

The options are Disabled or Enabled (Default).

#### Primary INTR

When the Primary interrupt (the Primary option in the feature of IRQ# Activity) generates will make the Power Management feature (PM) wake-up event on. If set at OFF, all the primary interrupt will not wake-up the system. The options are: OFF, ON (Default).

#### 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.

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

The default value for IRQ 3, 4, 5, 6, 7, 12, 13, 14 is: Primary.

The default value for IRQ 9, 10, 11 is: Secondary.

## PNP/PCI Configuration

ROM PCI/ISA BIOS (2A5LHF0A) 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
	PCI Delay Transaction : Disabled
	PCI#2 Access #1 Retry : Enabled
	AGP Master 1 WS Write : Disabled
	AGP Master 1 WS Read : Disabled
	Assign IRQ For USB : Enabled
	Assign IRQ For VGA : Enabled
	Assign IRQ For ACPI : IRQ10
	Slot 1 Use IRQ No. : Auto
	Slot 2 Use IRQ No. : Auto
	Slot 3 Use IRQ No. : Auto
	Slot 4 Use IRQ No. : Auto
	ESC : Quit             I-- : 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 for 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).

#### 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: Disabled (Default), Enabled .

#### 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

The chipset has an embedded 32-bit posted write buffer to support delay transaction cycles. Select Enabled to support compliance with PCI specification version 2.1.  
The options are: Disabled (Default), Enabled.

#### PCI#2 Access #1 Retry

When enabled, the AGP (PCI#2) access to PCI (PCI#1) will be retried until the maximum count. The options are: Disabled; Enabled (Default).

#### AGP Master 1 WS Write

When enabled, the AGP bus master write access to DRAMs will add one wait-state cycle.  
The options are: Disabled (Default); Enabled.

**AGP Master 1 WS Read**

When enabled, the AGP bus master read access to the DRAMs will add one wait-state cycle.

The options are: Disabled (Default); Enabled.

**Assign IRQ For USB**

If your USB device does not need an IRQ, select Disabled; therefore, an IRQ can be released for the system use.

The options are: Disabled; Enabled (Default).

**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: Disabled; Enabled (Default).

**Assign IRQ For ACPI**

If your ACPI device does not need an IRQ, select Disabled; therefore, an IRQ can be released for the system use.

The options are: IRQ9, IRQ10 (Default), IRQ11.

**Slot 1/2/3/4 Use IRQ No.**

Some PCI devices would need to use an IRQ on the PCI bus. Selecting Auto allows the PCI controller to automatically allocate an IRQ.

The options are: Auto (Default); 3 to 5; 7; 9 to 12; 14; 15.

Load BIOS Defaults

ROM PCI/ISA BIOS (2A5LHF0A)  
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	LOAD BIOS Defaults (Y/N)? N
LOAD BIOS DEFAULT	ETUP
LOAD SETUP DEFAULTS	SAVING

Esc : Quit  
F10 : Save & Exit Setup

↑ ↓ → ← : Select Item  
(Shift)F2 : Change Color

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.

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ROM PCI/ISA BIOS (2A5LHF0A)
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 CONFIGURA        ETUP
LOAD BIOS DEFAULT         SAVING
LOAD SETUP DEFAULTS

Esc : Quit
F10 : Save & Exit Setup

| | - - : Select Item
        (Shift)F2 : Change Color
  
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Integrated Peripherals

ROM PCI/ISA BIOS (2A5LHF0A) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.	
OnChip IDE Channel0 : Enabled	Onboard Parallel Mode : Normal
OnChip IDE Channel1 : Enabled	Onboard Parallel Port : 378/IRQ7
IDE Prefetch Mode : Enabled	
IDE HDD Block Mode : Enabled	
Primary Master PIO: Auto	Onboard Legacy Audio : Enabled
Primary Slave PIO: Auto	Sound Blaster : Disabled
Secondary Master PIO: Auto	SB I/O Base Address : 220H
Secondary Slave PIO: Auto	SB IRQ Select : IRQ 5
Primary Master UDMA: Auto	SB DMA Select : DMA 1
Primary Slave UDMA: Auto	MPU-401 : Disabled
Secondary MasterUDMA: Auto	MPU-401 I/O Address : 330-333H
Secondary Slave UDMA: Auto	FM Port (388-38BH) : Disabled
	Game Port (200-207H) : Enabled
Onboard FDD Controller: Enabled	
Onboard Serial Port 1 : Auto	ESC : Quit
Onboard Serial Port 2 : Auto	+- : Select Item
UART 2 Mode : Standard	F1 : Help
	PU/PD/+/- : Modify
	F5 : Old Values (Shift)F2 : Color
	F6 : Load BIOS Defaults
	F7 : Load Setup Defaults

OnChip IDE Channel0

When enabled, allows you to use the onboard primary PCI IDE. If a hard disk controller card is used, set at Disabled.  
The options are: Enabled (Default), Disabled.

OnChip IDE Channel1

When enabled, allows you to use the onboard secondary PCI IDE. If a hard disk controller card is used, set at Disabled.  
The options are: Enabled (Default), Disabled.

IDE Prefetch Mode

When set at Enabled, it allows data to be posted to and prefetched from the primary IDE data ports. Data prefetching is initiated when a data port read occurs. The read prefetch eliminates latency to the IDE data ports and allows them to be performed back to back for the highest possible PIO data transfer rates. The first data port read of a sector is called the demand read. Subsequent data port reads from the sector are called prefetch reads. The demand read and all prefetch reads must be of the same size (16 or 32 bits).  
The options are: Disabled, Enabled (Default).

**IDE HDD Block Mode**

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

**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.

**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.

**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.

**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.

**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: Disable, Auto (Default).

#### 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: Disable, Auto (Default).

#### 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:

Disable, Auto (Default).

#### 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:

Disable, Auto (Default).

#### 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: Auto (Default), 3F8/IRQ4, 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: Auto (Default), 2F8/IRQ3 (Default), 3E8/IRQ4, 2E8/IRQ3, 3F8/IRQ4, Disabled.

#### UART2 Mode

Select an operating mode for the second serial port. Set at Standard, if you use COM2 as the serial port as the serial port,

instead as an IR port.

The options are: Standard (Default), ASK-IR, HPSIR.

#### Parallel Port Mode

Allows you to connect with an advanced printer.

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

#### 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.

#### Onboard Legacy Audio

Select an operating mode for the second serial port. Set at Standard, if you use COM2 as the serial port as the serial port, instead as an IR port.

The options are: Enabled (Default), Disabled.

#### Sound Blaster

This feature allows you to select the Sound Blaster, if the onboard Legacy audio chosen.

The options are: Enabled, Disabled (Default).

#### SB I/O Base Address

This feature allows you to select the SB I/O base address, if the onboard Legacy audio chosen.

The options are: 220H (Default), 240H, 260H, 280H.

#### SB IRQ Select

This feature allows you to select the SB IRQ, if the onboard Legacy audio chosen.

The options are: IRQ 5 (Default), IRQ 7, IRQ 9, IRQ 10.

#### SB DMA Select

This feature allows you to select the SB DMA channel, if the onboard Legacy audio chosen.



The options are: DMA 1 (Default), DMA 2, DMA 3, DMA0.

#### MPU-401

This feature allows you to select MPU-401, if the onboard Legacy audio chosen.

The options are: Disabled (Default), Enabled.

#### MPU-401 I/O Address

This feature allows you to select the MPU-401 I/O address, if the onboard Legacy audio chosen.

The options are: 310-313H, 320-323H, 330-333H (Default), 300-303H.

#### FM Port (388-38BH)

This feature allows you to select the FM port (388-38BH), if the onboard Legacy audio chosen.

The options are: Enabled, Disabled (Default).

#### Game Port (200-207H)

This feature allows you to select the game port (200-207H), if the onboard Legacy audio chosen.

The options are: Enabled (Default), Disabled.

ROM PCI/ISA BIOS (2A5LHF0A) 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	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	<input type="text" value="Enter Password:"/> <input type="button" value="OUT SAVING"/>
LOAD SETUP DEFAULTS	
Esc : Quit F10 : Save & Exit Setup	
F1 : -- : Select Item (Shift)F2 : Change Color	

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 *Setup* is selected under the Security Option field and the Supervisor/User Password is enabled, you will be prompted password every time you try to enter the CMOS Setup Utility. If *System* is selected and the Supervisor/User Password is enabled, you will be requested to enter the Password every time when you reboot the system or enter the CMOS Setup utility.

IDE HDD Auto Detection

ROM PCI/ISA BIOS (2A5LHF0A)  
BIOS FEATURES SETUP  
AWARD SOFTWARE, INC.

HARD DISKS	TYPE	SIZE	CYCLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
------------	------	------	-------	------	---------	-------	--------	------

PRIMARY MASTER :

Select Primary Master    Option (N=Skip) : N

OPTIONS	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
2(Y)	851	825	32	0	1650	63	LBA
1	852	1651	16	65535	1650	63	NORMAL
3	851	825	32	65535	1650	63	LARGE

Note: Some OSes (Like SCO-UNIX) must use "Normal" for installation

| ESC : Skip |

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.

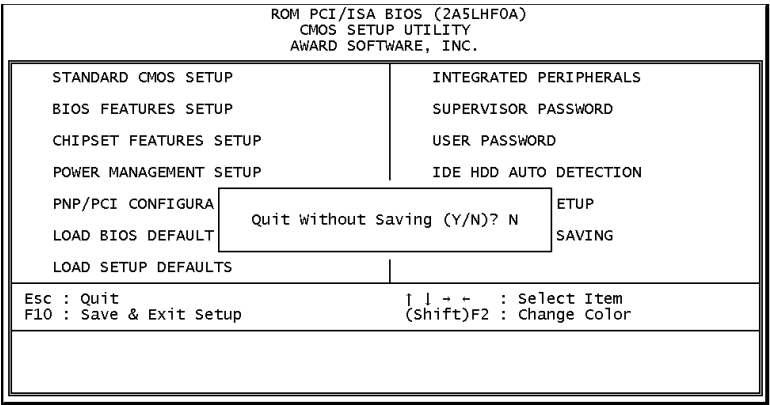
## Save and Exit Setup

ROM PCI/ISA BIOS (2A5LHF0A) 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 CONFIGURA	ETUP
LOAD BIOS DEFAULT	SAVE to CMOS and EXIT (Y/N)? N
LOAD SETUP DEFAULTS	SAVING
Esc : Quit F10 : Save & Exit Setup	
↑ ↓ → ← : Select Item (Shift)F2 : Change Color	

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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