

**AI5TV**  
**Pentium PCI Baby AT Motherboard**  
**User's Manual**  
Version 2.2A



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## Chapter 1 Introduction

Your AI5TV manual is divided into the following sections:

- Introduction
- Specifications
- Hardware Description
- Configuring the Motherboard
- Installation
- BIOS User Guide

### Checklist

Please check that your package is complete and contains the items below. If you discover damaged or missing items, please contact your dealer.

The AI5TV Motherboard

This user's manual

1 IDE ribbon cable

1 floppy ribbon cable

2 serial ribbon cables\*

1 parallel ribbon cable

1 diskette containing Intel PCI Driver and Flash Memory utility

*\* Use the two serial cables provided to avoid compatibility problems.*

## Chapter 2 Specifications

The AI5TV is a high performance PCI system board. It is highly flexible in CPU frequency, L2 cache type and size, and main memory type and size. The main features of the motherboard are listed below.

### Main Processor

Intel Pentium/Pentium MMX\* 75/90/100/120/133/150/166/200/233  
Cyrix 6x86/6x86L P120<sup>+</sup>/P133<sup>+</sup>/P150<sup>+</sup>/P166<sup>+</sup>  
Cyrix 6x86MX PR166/PR200/PR233  
AMD K5 PR75/PR90/PR100/PR120/PR133/PR150/PR166  
AMD K6 PR2-166/PR2-200/PR2-233

\*Pentium MMX = P55C

### Processor Upgrade

Intel P6 based Over Drive

### L2 Cache

Size: 512K

Type: Pipelined Burst Synchronous SRAM onboard

### Main Memory

4x72-pin SIMM sockets and 2x168-pin DIMM socket  
Up to 128MB of total main memory using FPM or EDO  
Up to 64MB using SDRAM

**SIMM Size:** 4MB, 8MB, 16MB or 32MB

**SIMM Type:** Fast Page Mode or Extended Data Out (EDO)

**DIMM Size:** 8MB, 16MB or 32MB

**DIMM Type:** SDRAM (Synchronous DRAM), EDO, Fast Page Mode  
DRAM

### Chipset

Intel 82430VX chipset with built- in PCI-EIDE

### BIOS

Licensed Award BIOS with additional features:

- ISA Plug and Play (PnP) extension
- Power management: Advanced Power Management (APM) 1.2 compliant
- Symbios (NCR) 53C810 SCSI BIOS integrated

### **Expansion Slots**

Four 32-bit PCI slots  
Three 16-bit ISA slots

### **Onboard I/O**

Winbond 877 Super I/O for two serial ports (16550 UART compatible) and one parallel port (ECP/EPP compatible) and one floppy interface that support up to 2.88MB floppy.

### **CPU Temperature Overheat Protection (Option)**

When the CPU temperature exceeds the threshold value, the system automatically enters the Standby Mode where the CPU slows down to one third of the original speed. The system returns to 'Normal' Mode once the CPU temperature goes below the threshold value .

### **Form Factor**

Baby AT

## Chapter 3 Hardware Description

This chapter briefly describes each of the major features of the AI5TV system board. The layout of the board is shown in *Figure 1* which shows the locations of key components. The topics covered in this chapter are as follows:

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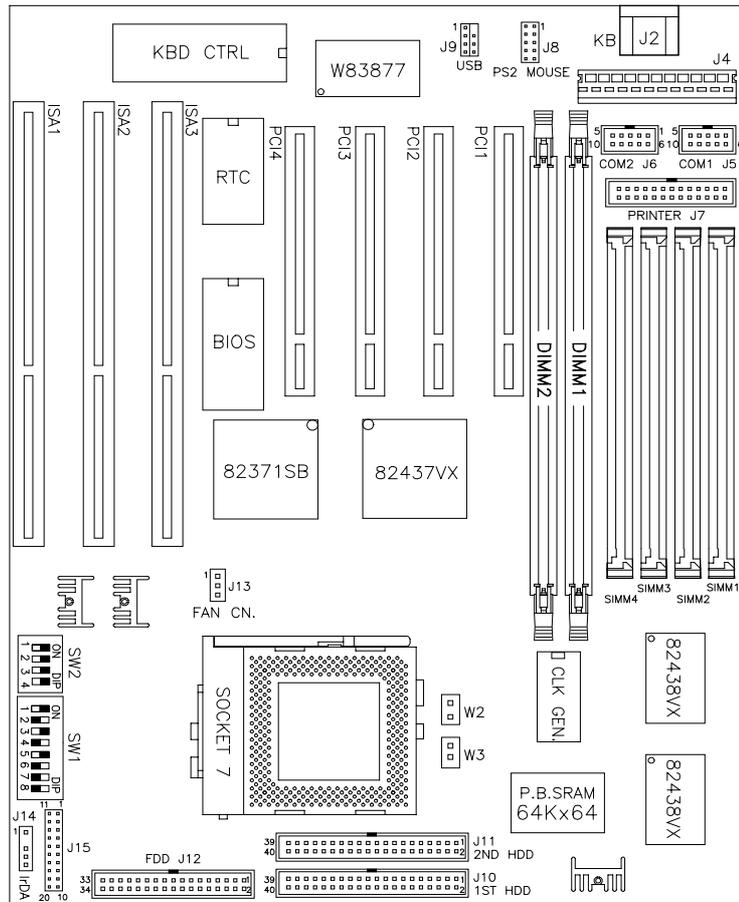


Figure 1: Layout of the AI5TV

### **3.1 Processor**

The AI5TV is designed to take a Pentium/Pentium MMX processor with a bus speed of 50, 60 and 66MHz. Since the internal clock of the CPU can be multiples of 1.5, 2, 2.5, 3 or 3.5 of the bus clock, the CPU frequency can be 75MHz to 233MHz.

### **3.2 L2 Cache**

The AI5TV supports 512K Pipelined Burst Synchronous Cache. The P.B. Synchronous Cache boosts the system performance 10% higher than regular Asynchronous Cache.

### **3.3 Main Memory**

The AI5TV provides two 64-bit memory banks for up to 128MB. Each bank consists of two SIMM sockets, SIMM1/SIMM2 and SIMM3/SIMM4. Both EDO and page mode DRAMs are supported. The size of the SIMMs can be 4MB, 8MB, 16MB and 32MB.

Each 64-bit memory bank can also be populated by using a DIMM (Dual In-line Memory Module). The DIMM size can be 8MB, 16MB, and 32MB. The DIMM types can be FPM, EDO or SDRAM (synchronous DRAM). Since SIMMs are not available in SDRAM, DIMMs must be used for SDRAM support.

The following are to be noted in populating SIMM and DIMM sockets:

1. Either SIMM1/SIMM2 or SIMM3/SIMM4 bank can be populated first. The same is true with DIMM2 and DIMM1.
2. Each bank should consist of the same size of SIMMs.
3. Each bank should consist of the same type of SIMMs. For example, *SIMM1 and SIMM2 are both EDO or page mode.*
4. SIMMs can be mixed by the bank. For example, *SIMM1/SIMM2 are page mode and SIMM3/SIMM4 are EDO.*
5. If SIMM1/SIMM2 or SIMM3/SIMM4 are occupied, then DIMM2 or DIMM1 cannot be populated. The reverse is also true.

**(1) 72-pin SIMM (5V)****Fast Page Mode / EDO DRAM**

<b>SIMM1/SIMM2 Bank0</b>	<b>SIMM3/SIMM4 Bank1</b>	<b>Total Memory</b>
4MBx2	----	8MB
8MBx2	----	16MB
16MBx2	----	32MB
32MBx2	----	64MB
4MBx2	4MBx2	16MB
4MBx2	8MBx2	24MB
4MBx2	16MBx2	40MB
4MBx2	32MBx2	72MB
8MBx2	8MBx2	32MB
8MBx2	16MBx2	48MB
8MBx2	32MBx2	80MB
16MBx2	16MBx2	64MB
16MBx2	32MBx2	96MB
32MBx2	32MBx2	128MB

**(2) 168-pin DIMM (3.3V)****SDRAM or Fast page mode / EDO DRAM**

<b>DIMM2 Bank0</b>	<b>DIMM1 Bank1</b>	<b>Total Memory</b>
8MB	----	8MB
16MB	----	16MB
32MB	----	32MB
8MB	8MB	16MB
16MB	8MB	24MB
32MB	8MB	40MB
16MB	16MB	32MB
32MB	16MB	48MB
32MB	32MB	64MB

**3.4 BIOS**

The Award BIOS on the AI5TV system board provides the standard BIOS functions plus the following additional features:

**1. ISA Plug and Play (PnP) extension**

Unlike PCI cards which are plug and play, ISA cards require setting jumpers to resolve hardware conflict. To make a computer system PnP, an ISA PnP standard is established and supported by new OSes, such as Windows 95. Under Windows 95, the system board BIOS must have ISA PnP extension to support the new ISA PnP cards.

**2. Power management**

The power management feature provides power savings by slowing down the CPU clock, turning off the monitor screen, and stopping the HDD spindle motor.

**3. NCR 53C810 SCSI BIOS**

NCR 53C810 is a PCI SCSI shipped from NCR. The BIOS required to run cards with the 53C810 chip is built-in the system BIOS. The BIOS will automatically detect the existence of a 53C810 chip and configure it accordingly.

**3.5 I/O Port Address Map**

Each peripheral device in the system is assigned a set of I/O port address which also becomes the identity of the device. There are a total of 1K port address space available. The following table lists the I/O port address used on the system board.

<b>Address</b>	<b>Device Description</b>
000h - 01Fh	DMA Controller #1
020h - 03Fh	Interrupt Controller #1
040h - 05Fh	Timer
060h - 06Fh	Keyboard Controller
070h - 07Fh	Real Time Clock, NMI
080h - 09Fh	DMA Page Register
0A0h - 0BFh	Interrupt Controller #2
0C0h - 0DFh	DMA Controller #2
0F0h	Clear Math Coprocessor Busy Signal
0F1h	Reset Math Coprocessor
1F0h - 1F7h	IDE Interface
2F8h - 2FFh	Serial Port #2(COM2)
378h - 3FFh	Parallel Port #1(LPT1)
3F0h - 3F7h	Floppy Disk Controller
3F8h - 3FFh	Serial Port #1(COM1)

### 3.6 DMA Channels

There are seven DMA Channels available on the system board. Only DRQ2 is used by the floppy controller. In the case that ECP mode on parallel port is used, DRQ1 or DRQ3 will be used.

### 3.7 Interrupt Request Lines (IRQ)

There are a total of 15 IRQ lines available on the motherboard. Peripheral devices use interrupt request to notify the CPU for the service required. The following table shows the IRQ used by the devices on the motherboard:

Level	Function	Level	Function
IRQ0	System Timer Output	IRQ8	Real Time Clock
IRQ1	Keyboard	IRQ9	Software Redirected to Int 0Ah
IRQ2	Interrupt Cascade	IRQ10	Reserved
IRQ3	Serial Port #2	IRQ11	Reserved
IRQ4	Serial Port #1	IRQ12	Reserved
IRQ5	Parallel Port #2	IRQ13	80287
IRQ6	Floppy Disk Controller	IRQ14	Primary IDE
IRQ7	Parallel Port #1	IRQ15	Secondary IDE

### 3.8 Onboard PCI-EIDE

The PCI-EIDE controller is part of the 430VX PCIset. It supports PIO mode 3/4 and bus mastering. The peak transfer rate of PIO mode 3/4 can be as high as 17MB/sec. Using HDDs that support bus mastering, the peak transfer rate can reach 22MB/sec. There are two IDE connectors, primary IDE and secondary IDE. With two devices per connector, up to four IDE drives are supported.

### 3.9 Onboard Multi-I/O

The onboard multi-I/O chip, Winbond W83877, provides two serial ports, one parallel port and one floppy controller. The serial ports are 16550 UART compatible. The parallel port supports high speed EPP/ECP mode.

The floppy controller supports up to 2.88 MB format. The I/O port addresses of the serial and parallel ports are programmable via BIOS setup. Each I/O can be individually disabled.

## Chapter 4 Configuring the Motherboard

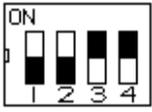
The following sections describe the necessary procedures and proper jumper settings to configure the AI5TV motherboard.

4.1	SW1(1-6): CPU Frequency Selector.....	12
4.2	W2, W3, SW2(1-4): CPU Voltage Selector .....	14
4.3	SW1(7): Clear CMOS Content.....	14

For the location of the jumpers, refer to Figure 2 on the following page.

The following examples show the conventions used in this chapter

	Jumper Open
	Jumper Closed

	Switch 1 and switch 2 are set to OFF. Switch 3 and switch 4 are set to ON.
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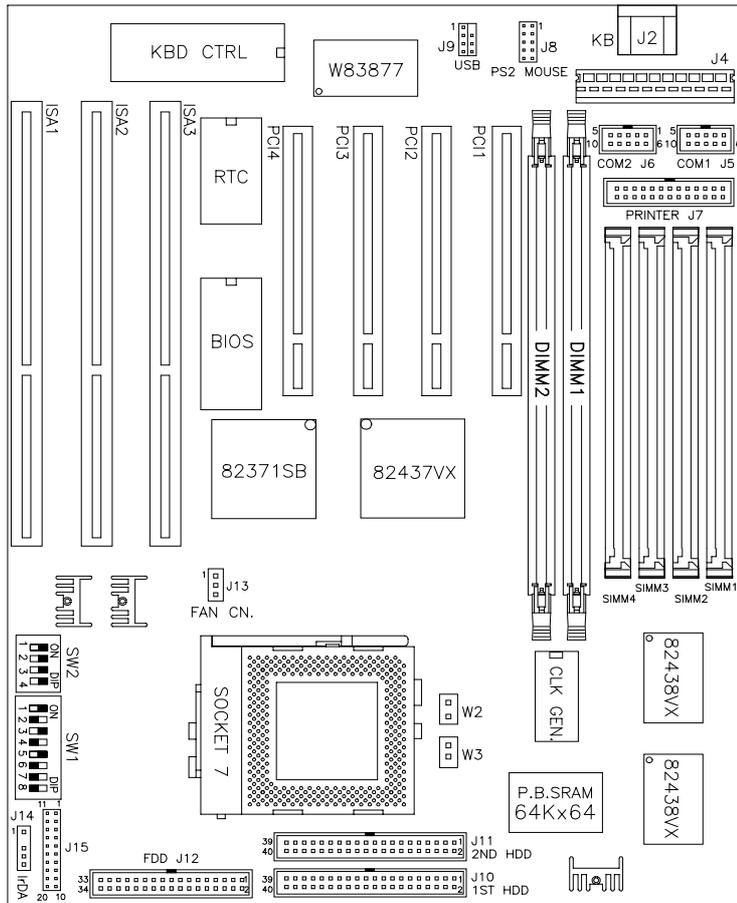
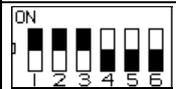
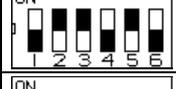


Figure 2: Jumper Location of the AI5TV

4.1 SW1(1-6): CPU Frequency Selector

For Intel Pentium CPU

SW1(1-6)	Bus Clock	Multiplier	CPU FREQ.
	50MHz	1.5x	P54C-75
	60MHz	1.5x	P54C-90
	66MHz	1.5x	P54C-100
	60MHz	2x	P54C-120
	66MHz	2x	P54C-133**
	60MHz	2.5x	P54C-150
	66MHz	2.5x	P54C/P55C-166
	66MHz	3x	P54C/P55C-200
	66MHz	3.5x	P55C-233

\*\* Default

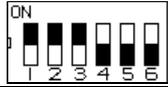
Note: P55C = Pentium with MMX technology

For Cyrix 6x86, 6x86L, 6x86MX CPU

SW1(1-6)	Bus Clock	Multiplier	CPU FREQ.
	50MHz	2x	P120+ (100MHz)
=	55MHz	2x	P133+ (110MHz)

=	60MHz	2x	P150+ (120MHz)
	66MHz	2x	P166+ (133MHz)
	60MHz	2.5x	6x86MX PR166 (150MHz)
	66MHz	2.5x	6x86MX PR200 (166MHz)
	66MHz	3x	6x86MX PR233 (200MHz)

For AMD K5, K6 CPU

SW1(1-6)	Bus Clock	Multiplier	CPU FREQ.
	50MHz	1.5x	PR75
	60MHz	1.5x	PR90
	66MHz	1.5x	PR100
	60MHz	1.5x	PR120
	66MHz	1.5x	PR133
	60MHz	1.75x	PR150
	66MHz	1.75x	PR166/PR2-166
	66MHz	3x	PR2-200
	66MHz	3.5x	PR2-233

4.2 W2, W3, SW2(1-4): CPU Voltage Selector

For Single Voltage CPU\*\*: Intel P54C, Cyrix 6x86, AMD K5

W2	W3	SW2(1-4)	V <sub>IO</sub>	V <sub>CORE</sub>	
			3.5V	3.5V	Default

For Dual Voltage CPU: Intel P55C, Cyrix 6x86L/MX, AMD K5/K6

W2	W3	SW2(1-4)	V <sub>IO</sub>	V <sub>CORE</sub>	CPU
			3.3V	3.5V	
			3.3V	3.2V	K6-233
			3.3V	3.1V	
			3.3V	3.0V	
			3.3V	2.9V	K5-166 K6-166; K6-200 6x86MX
			3.3V	2.8V	P55C 6x86L
			3.3V	2.7V	
			3.3V	2.6V	
			3.3V	2.0V	

4.3 SW1(7): Clear CMOS Content

SW1(7)	Function	SW1(7)	Function
	Clear CMOS Content		Normal Operation

## Chapter 5 Installation

This chapter describes the connectors and interface that the AI5TV provides for creating a working system. Refer to Figure 3 for the location of the connectors.

The following items are covered in this chapter:

5.1	<b>J2:</b> AT Keyboard Connector .....	17
5.2	<b>J4:</b> Power Supply Connector.....	17
5.3	<b>J5, J6:</b> Serial Ports Connectors .....	18
5.4	<b>J7:</b> Parallel (Printer) Port Connector .....	19
5.5	<b>J8:</b> PS2 Mouse Connector .....	19
5.6	<b>J9:</b> USB Connectors.....	19
5.7	<b>J10, J11:</b> EIDE Connectors.....	20
5.8	<b>J12:</b> Floppy Drive Connector.....	20
5.9	<b>J13:</b> CPU Fan Power Connector .....	20
5.10	<b>J14:</b> IrDA Connector.....	21
5.11	<b>J15:</b> Front Bezel Connectors.....	22

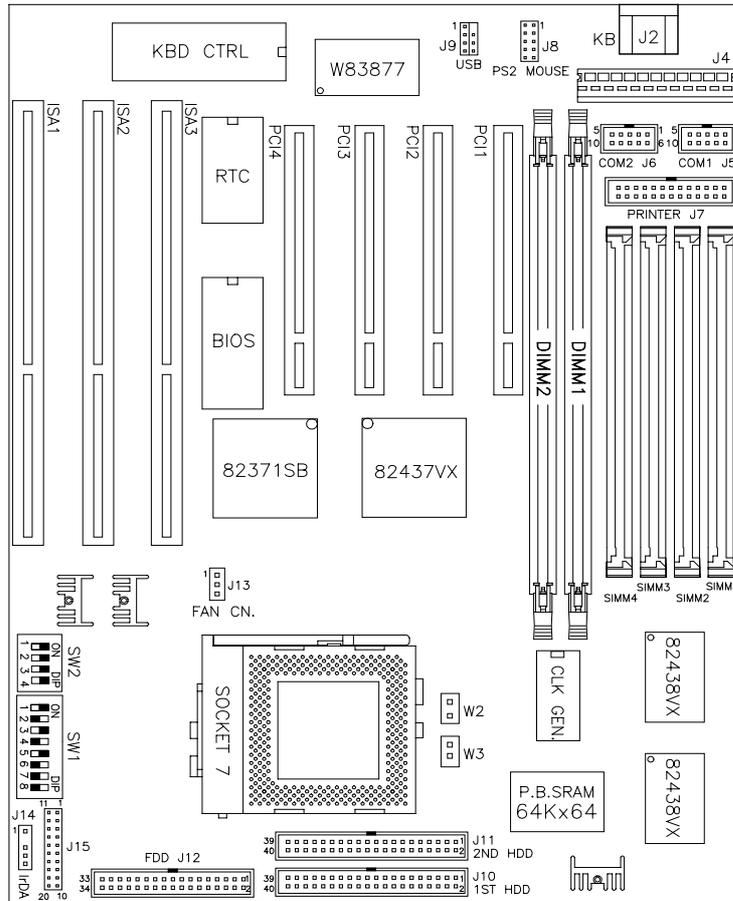
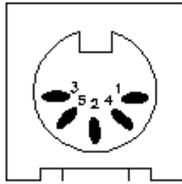


Figure 3: Connector Location of the AI5TV

### 5.1 J2: AT Keyboard Connector

The AI5TV motherboard comes with a 5-pin DIN connector for an AT keyboard. A manufacturing option for this connector is to have either two connectors for PS/2 keyboard and PS/2 mouse, or just one connector, for an AT keyboard.



J2 Pin #	Signal Name
1	Keyboard clock
2	Keyboard Data
3	N.C.
4	Ground
5	Vcc

### 5.2 J4: Power Supply Connector

When using an AT compatible power supply, plug both of the power supply connectors into J4. Make sure the power supply connectors are connected in the right orientation. The power supply connectors are connected in the right orientation, with the black wires of each power cable ADJACENT to each other. That is, the black wires of each connector should be aligned in the center of the J4 power supply connector.

The following table indicates the pin-out assignments of the power supply connectors.

<b>J4 Pin #</b>		<b>Description</b>	<b>Wire Color</b>
1	⊖	Power Good	Orange
2	●	+5V	Red
3	●	+12V	Yellow
4	●	-12V	Blue
5	●	Ground	Black
6	●	Ground	Black
7	⊖	Ground	Black
8	●	Ground	Black
9	●	-5V	White
10	●	+5V	Red
11	●	+5V	Red
12	●	+5V	Red

**5.3 J5, J6: Serial Ports Connectors**

The onboard serial ports of the AI5TV are 10 pin-header connectors. J5 is COM1 and J6 is COM2. The following table shows the pin out of the these connectors.

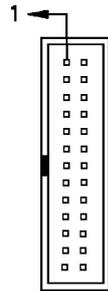


<b>Pin #</b>	<b>Signal Name</b>
1	DCD, Data carrier detect
2	RXD, Receive data
3	TXD, Transmit data
4	DTR, Data terminal ready
5	GND, ground
6	DSR, Data set ready
7	RTS, Request to send

8	CTS, Clear to send
9	RI, Ring indicator
10	Not Used

### 5.4 J7: Parallel (Printer) Port Connector

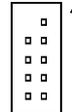
The following table describes the pin out assignments of this connector.



Signal Name	Pin #	Pin #	Signal Name
Line printer strobe	1	14	AutoFeed
PD0, parallel data 0	2	15	Error
PD1, parallel data 1	3	16	Initialize
PD2, parallel data 2	4	17	Select
PD3, parallel data 3	5	18	Ground
PD4, parallel data 4	6	19	Ground
PD5, parallel data 5	7	20	Ground
PD6, parallel data 6	8	21	Ground
PD7, parallel data 7	9	22	Ground
ACK, acknowledge	10	23	Ground
Busy	11	24	Ground
Paper empty	12	25	Ground
Select	13	N/A	N/A

### 5.5 J8: PS/2 Mouse Connector

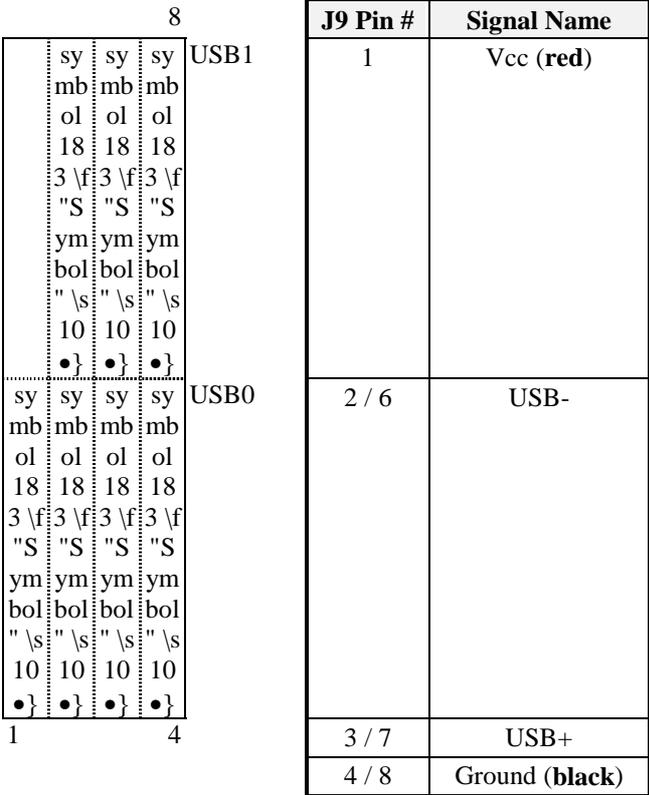
This connector is the headers for the optional PS/2 mouse connector cable, that attaches to the back panel of the system case.



Signal Name	Pin #	Pin #	Signal Name
N.C.	1		
N.C.	3	4	Mouse clock
N.C.	5	6	5V
Mouse data	7	8	N.C.
GND	9	10	N.C.

**5.6 J9: USB Connectors**

J9 is a 8-pin header that accommodates two USB connectors. One pin was removed on one side to avoid inadvertent wrong insertion.



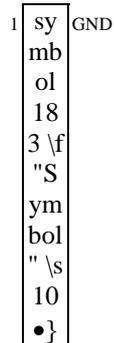
### 5.7 J12: Floppy Drive Connector

J12 is a 34-pin header and will support up to 2.88MB floppy drives.

Signal Name	Pin #	Pin #	Signal Name
Ground	1	2	RM/LC
Ground	3	4	No connect
Ground	5	6	No connect
Ground	7	8	Index
Ground	9	10	Motor enable 0
Ground	11	12	Drive select 1
Ground	13	14	Drive select 0
Ground	15	16	Motor enable 1
Ground	17	18	Direction
Ground	19	20	Step
Ground	21	22	Write data
Ground	23	24	Write gate
Ground	25	26	Track 00
Ground	27	28	Write protect
Ground	29	30	Read data
Ground	31	32	Side 1 select
Ground	33	34	Diskette change

### 5.8 J13: CPU Fan Power Connector

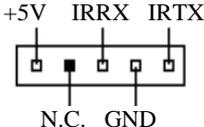
This 3-pin connector is an easy access connector for CPU fan power. The fan must be a 12V fan.



2 sy +12V  
 mb  
 ol  
 18  
 3 \f  
 "S  
 ym  
 bol  
 " \s  
 10  
 •}  
 3 sy GND  
 mb  
 ol  
 18  
 3 \f  
 "S  
 ym  
 bol  
 " \s  
 10  
 •}

**5.9 J14: IrDA Connector**

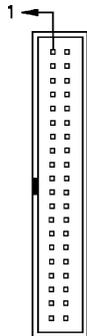
This connector is used for an IrDA connector.



J14 Pin #	Signal Name
1	+5V
2	No connect
3	Ir RX
4	Ground
5	Ir TX

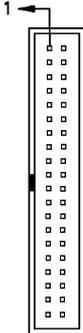
## 5.10 J10, J11: EIDE Connectors

## J10: Primary IDE Connector



Signal Name	J10 Pin #	J10 Pin #	Signal Name
Reset IDE	1	2	Ground
Host data 7	3	4	Host data 8
Host data 6	5	6	Host data 9
Host data 5	7	8	Host data 10
Host data 4	9	10	Host data 11
Host data 3	11	12	Host data 12
Host data 2	13	14	Host data 13
Host data 1	15	16	Host data 14
Host data 0	17	18	Host data 15
Ground	19	20	Key
DRQ0	21	22	Ground
Host IOW	23	24	Ground
Host IOR	25	26	Ground
IOCHRDY	27	28	Host ALE
DACK0	29	30	Ground
IRQ14	31	32	No connect
Address 1	33	34	No connect
Address 0	35	36	Address 2
Chip select0	37	38	Chip select 1
Activity	39	40	Ground

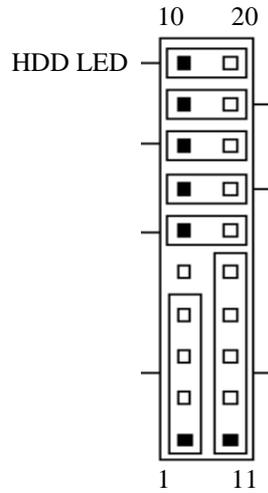
## J11: Secondary IDE Connector



Signal Name	J11 Pin #	J11 Pin #	Signal Name
Reset IDE	1	2	Ground
Host data 7	3	4	Host data 8
Host data 6	5	6	Host data 9
Host data 5	7	8	Host data 10
Host data 4	9	10	Host data 11
Host data 3	11	12	Host data 12
Host data 2	13	14	Host data 13
Host data 1	15	16	Host data 14
Host data 0	17	18	Host data 15
Ground	19	20	Key
DRQ0	21	22	Ground
Host IOW	23	24	Ground
Host IOR	25	26	Ground
IOCHRDY	27	28	Host ALE
DACK1	29	30	Ground
MIRQ0	31	32	No connect
Address 1	33	34	No connect
Address 0	35	36	Address 2
Chip select 0	37	38	Chip select 1
Activity	39	40	Ground

### 5.11 J15: Front Bezel Connectors

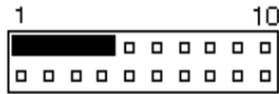
The front bezel of the case has a control panel which provides light indication of the computer activities and switches to change the computer status. J15 is a 20-pin header that provides interfaces for the following functions.



	Reset Switch
Turbo LED	
	Not Defined
Power Saving Switch	
	Keylock & Power LED
Speaker	

#### Speaker: Pins 1 - 4

This connector provides an interface to a speaker for audio tone generation. An 8-ohm speaker is recommended.



J15 Pin #	Signal Name
1	Speaker out
2	No connect
3	Ground
4	+5V

**Power LED and Keylock: Pins 11 - 15**

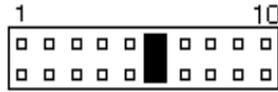
The power LED indicates the status of the main power switch. The keylock switch, when closed, will disable the keyboard function.



J15 Pin #	Signal Name
11	Power LED
12	No connect
13	Ground
14	Keylock
15	Ground

**Power-Saving Switch Connector: Pin 6 and 16**

This connector is the power-saving switch on the motherboard. Pressing the button allows the system to enter the suspend mode.

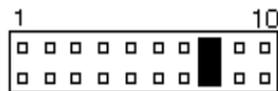


J15 Pin #	Signal Name
6	Sleep
16	Ground

**Pins 7 and 17: Not Defined**

**Turbo LED Connector: Pins 8 and 18**

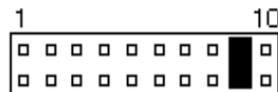
There is no turbo/deturbo function on the motherboard. The Turbo LED on the control panel will always be On when attached to this connector.



J15 Pin #	Signal Name
8	5V
18	Ground

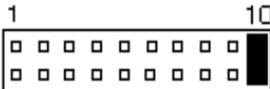
**Reset Switch: Pins 9 and 19**

The reset switch allows the user to reset the system without turning the main power switch Off and then On. Orientation is not required when making a connection to this header.



**Hard Disk Drive LED Connector: Pins 10 and 20**

This connector connects to the hard drive activity LED on control panel. This LED will flash when the HDD is being accessed.



## Chapter 6 BIOS User Guide

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## 6.1 BIOS Introduction

The Award BIOS (Basic Input/Output System) installed in your computer system's ROM supports Intel, Cyrix, and AMD processors in a standard IBM-AT compatible I/O system. The Award BIOS provides critical low-level support for standard devices such as disk drives, serial and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

## 6.2 BIOS Setup

The Award provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer the Award BIOS is immediately activated. Pressing the <Del> key immediately will allow you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST(Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing <Ctrl>, <Alt> and <Del> keys. You can also restart by turning the system off and back on again. The following message will appear on the screen:

**Press <DEL> to Enter Setup**

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

ROM PCI/ISA BIOS  
 CMOS SETUP UTILITY  
 AWARD SOFTWARE, INC.

<b>STANDARD CMOS SETUP</b> 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	symbol 225 \f "Wingdings" \s 8 symbol 226 \f "Wingdings" \s 8 symbol 224 \f "Wingdings" \s 8 symbol 223 \f "Wingdings" \s 8 : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type	

The section below the setup items of the Main Menu displays the control keys for this menu. Another section at the bottom of the Main Menu, just below the control keys section, displays information on the currently highlighted item in the list.

**NOTE:** *After making and saving system changes with Setup, you find that your computer cannot boot. Award BIOS supports an override to the CMOS settings that resets your system to its default.*

*We strongly recommend that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and your system manufacturer to provide the absolute maximum performance and reliability.*

### 6.3 Standard CMOS Setup

“Standard CMOS Setup” choice allows you to record some basic hardware configurations in your computer system and set the system clock and error handling. If the motherboard is already installed in a working system, you will not need to select this option. You will need to run the Standard CMOS option if you change your system hardware configurations, the onboard battery fails, or the configuration stored in the CMOS memory was lost or damaged.

ROM PCI/ISA BIOS  
STANDARD CMOS SETUP  
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : <b>Mon</b> , Aug 19 1996								
Time (hh:mm:ss) : 00 : 00 : 00								
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	Auto	0	0	0	0	0	0	Auto
Primary Slave	None	0	0	0	0	0	0	----
Secondary Master	None	0	0	0	0	0	0	----
Secondary Slave	None	0	0	0	0	0	0	----
Drive A	: 1.44M, 3.5in							
Drive B	: None							
Floppy 3 Mode Support	: Disabled							
Video	: EGA / VGA							
Halt On	: All Errors							
			Base Memory			: 640K		
			Extended Memory			: 15360K		
			Other Memory			: 384K		
			Total Memory			: 16384K		
ESC : Quit		symbol 225 \f "Wingdings" \s 6 PU / PD / + / - : Modify						
		symbol 226 \f "Wingdings" \s 6						
		symbol 224 \f "Wingdings" \s 6						
		symbol 223 \f "Wingdings" \s 6 :						
		Select Item						
F1 : Help		(Shift) F2 : Change Color						

At the bottom of the menu are the control keys for use on this menu. If you need any help in each item field, you can press the <F1> key. It will display the information to help you. The memory display at the lower right-hand side of the menu is read-only. It will adjust automatically according to the memory changed. The following describes each item of this menu.

**Date**

The date format is:

- Day :** Sun to Sat
- Month :** 1 to 12
- Date :** 1 to 31
- Year :** 1900 to 2099

To set the date, highlight the "Date" field and use the PageUp/ PageDown or +/- keys to set the current date.

**Time**

The time format is:

- Hour :** 00 to 23
- Minute :** 00 to 59
- Second :** 00 to 59

To set the time, highlight the "Time" field and use the <PgUp>/ <PgDn> or +/- keys to set the current time.

### Primary HDDs / Secondary HDDs

The onboard PCI IDE connectors provide Primary and Secondary channels for connecting up to four IDE hard disks or other IDE devices. Each channel can support up to two hard disks; the first is the “Master” and the second is the “Slave”.

To enter the specifications for a hard disk drive, you must select first a “Type”. There are 45 predefined types and four user definable types are for Enhanced IDE BIOS. Type 1 to 45 are predefined. Type “User” is user-definable. For the Primary Master/Slave as well as Secondary Master/Slave, you can select “Auto” under the TYPE and MODE fields. This will enable auto detection of your IDE drives and CD-ROM drive during POST.

Press <PgUp>/<PgDn> to select a numbered hard disk type or type the number and press the <Enter> key. The hard disk will not work properly if you enter improper information for this field. If your hard disk drive type is not matched or listed, you can use Type User to define your own drive type manually. If you select Type User, related information is asked to be entered to the following items.

**CYLS :**           Number of cylinders  
**HEAD :**           Number of read/write heads  
**PRECOMP :**       Write precompensation  
**LANDZ :**         Landing zone  
**SECTOR :**        Number of sectors  
**SIZE :**           Automatically adjust according to the configuration  
**MODE (for IDE hard disk only) :**   Auto  
                                  Normal (HD < 528MB)  
                                  Large   (for MS-DOS only)  
                                  LBA     (HD > 528MB and supports Logical Block Addressing)

*NOTE : The specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information in these fields. If your hard disk drive type is not matched or listed, you can use Type User to define your own drive type manually.*

### Drive A / Drive B

These fields identify the types of floppy disk drive A or drive B that have been installed in the computer.

The drive type options are:

360KB, 5.25in.	1.2MB, 5.25in.	
720KB, 3.5in.	1.44MB, 3.5in.	2.88MB, 3.5in.

### Floppy 3 Mode Support

This is the Japanese standard floppy drive. The standard stores 1.2MB in a 3.5in diskette. You have four options to choose from:

Disabled	No 3 mode floppy drive installed. (default)
Drive A	Installed 3 mode drive at drive A.
Drive B	Installed 3 mode drive at drive B.
Both	Installed 3 mode drive at drive A and B.

### Video

This field selects the type of video display card installed in your system. You can choose the following video display cards:

EGA/VGA	For EGA, VGA, SEGA, SVGA or PGA monitor adapters. (default)
CGA 40	Power up in 40 column mode.
CGA 80	Power up in 80 column mode.
MONO	For Hercules or MDA, includes high resolution monochrome adapters.

### Halt On

This field determines whether the system will halt if an error is detected during power up.

No errors	The system boot will not be halted for any error that may be detected. (default)
All errors	Whenever the BIOS detects a non-fatal error the system will be halted and you will be prompted.
All, But Keyboard	The system boot will not be halted for a keyboard error; it will stop for all other errors.
All, But Diskette	The system boot will not be halted for a disk error; it will stop for all other errors.
All, But Disk/Key	The system boot will not be halted for a keyboard or disk error; it will stop for all other errors.

### 6.4 BIOS Features Setup

This section allows you to configure and improve your system and to set up some system features according to your preference.

ROM / PCIISA BIOS BIOS FEATURES SETUP 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	: Disabled	D0000-D3FFF Shadow	: Disabled
Boot Sequence	: A, C	D4000-D7FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D8000-DBFFF Shadow	: Disabled
Boot Up Floppy Drive	: Enabled	DC000-DFFF Shadow	: Disabled
Boot Up Numlock Status	: On		
Boot Up System Speed	: High		
Gate A20 Option	: Fast		
Typematic Rate Setting	: Disabled		
Typematic Rate (chars/Sec)	: 6		
Typematic Delay (Msec)	: 250		
Security Option	: Setup		
PCI /VGA Palette Snoop	: Disabled		
OS Select For DRAM>64MB	: Non-OS2		
		ESC : Quit	symbol 225 \f "Wingdings" \s 6 symbol 226 \f "Wingdings" \s 6 symbol 224 \f "Wingdings" \s 6 symbol 223 \f "Wingdings" \s 6 : Select Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values	(Shift) F2 : Color
		F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

#### Virus Warning

This item protects the boot sector and partition table of your hard disk against accidental modifications. If an attempt is made, the BIOS will halt the system and display a warning message. If this occurs, you can either allow the operation to continue or run an anti-virus program to locate and remove the problem.

*NOTE: Many disk diagnostic programs which attempt to access the boot sector table can cause the virus warning. If you will run such a program, disable the Virus Warning feature.*

#### CPU Internal Cache / External Cache

These items allow you to Enable (speed up memory access) or Disable the cache function. By default, these items are *Enabled*.

**Quick Power On Self Test**

This choice speeds up the Power On Self Test (POST) after you power up the system. If it is set to *Enabled*, BIOS will skip some items. By default, this choice is *Enabled*.

**Boot Sequence**

This field determines the drive that the system searches first for an operating system. The options are :

A, C, SCSI	D, A, SCSI	SCSI, C, A
C, A, SCSI	E, A, SCSI	C only
C, CDROM, A	F, A, SCSI	LS120, C
D, A, SCSI	SCSI, A, C	

The default value is *A, C, SCSI*.

**Swap Floppy Drive**

This item allows you to determine whether to enable swap floppy drive or not. When enabled, the BIOS swaps floppy drive assignments so that Drive A becomes Drive B, and Drive B becomes Drive A. By default, this field is set to *Disabled*.

**Boot Up Floppy Seek**

When enabled, the BIOS will seek if the floppy drive installed has 40 or 80 tracks. 360K type has 40 tracks while 760K, 1.2M and 1.44M all have 80 tracks. By default, this field is set to *Disabled*.

**Boot Up NumLock Status**

This allows you to activate the NumLock function after you power up the system. By default, the system boots up with *NumLock on*.

**Boot Up System Speed**

This has no function and selects the default system speed (*High*).

**Gate A20 Option**

This field allows you to select how gate A20 is worked. The gate A20 is a device used to address memory above 1 MB. By default, this field is set to *Fast*.

**Typematic Rate Setting**

When disabled, continually holding down a key on your keyboard will generate only one instance. When enabled, you can set the two typematic controls listed next. By default, this field is set to *Disabled*.

**Typematic Rate (Chars/Sec)**

When the typematic rate is enabled, the system registers repeated keystrokes speed. You can select speed range from 6 to 30 characters per second. By default, this item is set to **6**.

**Typematic Delay (Msec)**

When the typematic rate is enabled, this item allows you to set the time interval for displaying the first and second characters. By default, this item is set to **250msec**.

**Security Option**

This field allows you to limit access to the System and Setup. The default value is **Setup**. When you select System the system prompts for the User Password every time you boot up. When you select Setup, the system always boots up and prompts for the Supervisor Password only when the Setup utility is called up.

**PCI/VGA Palette Snoop**

Some display cards that are non-standard VGA may not show colors properly. This field allows you to set whether MPEG ISA/VESA VGA Cards can work with PCI/VGA or not. When this field is enabled, a PCI/VGA can work with a MPEG ISA/VESA VGA card. When this field is disabled, a PCI/VGA cannot work with a MPEG ISA/VESA Card.

**OS Select for DRAM > 64MB**

This option allows the system to access greater than 64MB of DRAM memory when used with OS/2 that depends on certain BIOS calls to access memory. (Default setting is **NON-OS/2**)

**Video BIOS Shadow**

This item allows you to change the Video BIOS location from ROM to RAM. Video Shadow will increase the video speed.

**C8000 - CBFFF Shadow/DC000 - DFFFF Shadow**

Shadowing a ROM reduces the memory available between 640KB to 1024KB. These fields determine whether optional ROM will be copied to RAM or not.

### 6.5 Chipset Features Setup

This Setup menu controls the configuration of the motherboard chipset.

ROM PCI/ISA BIOS CHIPSET FEATURES SETUP AWARD SOFTWARE INC.			
<b>Auto Configuration</b>	<b>: Enable</b>		
DRAM Timing	60ns		
DRAM RAS# Precharge Time	3		
DRAM R/W Leadoff Timing	6		
Fast RAS To CAS Delay	3		
DRAM Read Burst (EDO/FP)	x222/x333		
DRAM Write Burst Timing	x3333		
Fast MA to RAS# Delay CLK	1		
Refresh Ras# Assertion	4CLKS		
ISA Bus Clock	PCI CLK/4		
Pipeline Cache Timing	Faster		
System BIOS Cacheable	Disabled		
Video BIOS Cacheable	Disabled	ESC : Quit	symbol 225 \f "Wingdings" \s 6 symbol 226 \f "Wingdings" \s 6 symbol 224 \f "Wingdings" \s 6 symbol 223 \f "Wingdings" \s 6 : Select Item
8 Bit I/O Recovery Time	1	F1 : Help	PU/PD/+/- : Modify
16 Bit I/O Recovery Time	1	F5 : Old Values	(Shift) F2 : Color
Memory Hole At 15M-16M	Disabled	F6 : Load BIOS Defaults	
Peer Concurrency	Enabled	F7 : Load Setup Defaults	

#### Auto Configuration

This field predefined values for DRAM, cache timing according to CPU type and system clock. When this field is enabled, the predefined items will become read-only.

#### DRAM Timing

The DRAM timing is controlled by the DRAM Timing Registers. The timing type is dependent on the system design. Slower rates may be required in some system designs to support loose layouts or slower memory.

#### DRAM RAS# Recharge Time

DRAM must continuously be refreshed or it will lose its data. This option allows you to determine the number of CPU clocks allocated for Row Address Strobe to accumulate its charge before DRAM is refreshed. If refreshed time is not enough, refresh may be incomplete and data will be lost.

#### DRAM R/W Leadoff Timing

This field allows you to set the number of CPU clocks before reads and writes to DRAM. By default, it is set to *7/6 Leadoff timing*.

**Fast RAS to CAS Delay**

When DRAM is refreshed, both rows and columns are addressed separately. This field allows you to determine the timing of transition from Row Address Strobe (RAS) to Column Address Strobe (CAS). By default, it is set to *3 CPU clocks*.

**Refresh RAS# Assertion**

This field allows you to determine the number of CPU clocks asserted for the Refreshed Row Address Strobe. By default, it is set to *5 CLKS*.

**ISA Bus Clock**

This field allows you to select the PCI clock type.

**Pipeline Cache Timing**

This field allows you to select two timing of pipeline caches, Faster and Fastest.

**System BIOS Cacheable**

When enabled, access to the system BIOS ROM addressed at F0000H-FFFFFH are cached, provided that the cache controller is Enabled.

**Video BIOS Cacheable**

When enabled, accesses to video BIOS addressed at C0000H to C7FFFH are cached, provided that the cache controller is Enabled.

**8-Bit I/O Recovery Time**

This field allows you to select the recovery time allowed for 8-bit I/O. By default, this field is set to *1 Clock*.

**16-Bit I/O Recovery Time**

This field allows you to select the recovery time allowed for 16-bit I/O. By default, this field is set to *1 Clock*.

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

In order to improve performance, certain space in memory can be reserved for ISA cards. This field allows you to reserve 15MB to 16MB memory address space to ISA expansion cards. This makes memory from 15MB and up unavailable to the system. Expansion cards can only access memory up to 16MB. By default, this field is set to *Disabled*.

**Peer Concurrency**

This field allows you to select the number of PCI devices to be activated at a time. The default value is *Enabled*.

### 6.6 Power Management Setup

The Power Management Setup allows you to save your system's energy effectively. It will shut down the hard disk and turn off video display after a period of inactivity.

ROM PCI/ISA BIOS CHIPSET FEATURES SETUP AWARD SOFTWARE INC.	
Power Management : Disabled	** Power Down & Resume Events **
PM Control by APM : Yes	IRQ3(COM2)
Video Odd Method : V/H SYNC +BLank	IRQ4(COM1)
	IRQ5(LPT2)
Doze Mode : Disabled	IRQ6(Floppy Disk)
Standby Mode : Disabled	IRQ7(LPT1)
Suspend Mode : Disabled	IRQ8(RTC Alarm)
HDD Power Down : Disabled	IRQ9(IRQ2 Redir)
	IRQ10(Reserved)
** Wake Up Events In Doze & Standby **	IRQ11(Reserved)
IRQ3 (Wake- Up Event)	IRQ12(PS/2 Mouse)
IRQ4 (Wake- Up Event)	IRQ13(Coprocessor)
IRQ8 (Wake- Up Event)	IRQ14(Hard Disk)
IRQ12 (Wake- Up Event)	IRQ15(Reserved)
	ESC : Quit
	symbol 225 \f
	"Wingdings" \s 6 symbol
	226 \f "Wingdings" \s 6
	symbol 224 \f
	"Wingdings" \s 6 symbol
	223 \f "Wingdings" \s 6 :
	Select Item
F1 : Help	PU/PD+/- : Modify
F5 : Old Values	(Shift) F2 : Color
F6 : Load BIOS Defaults	
F7 : Load Setup Defaults	

#### Power Management

This field allows you to select what type of power saving management modes. There are four selections for Power Management.

- Disable                                      No power management. (default)
- Min. Power Saving                        Minimum power management.
- Max. Power Saving                        Maximum power management. Only available for SL CPU.
- User Define                                Each of the ranges are from 1 min. to 1hr. Except for HDD Power Down which ranges from 1 min. to 15 min.

#### PM Control by APM

This field allows you to use Advanced Power Management device to enhance the Max. Power Saving mode and stop the CPU internal clock. If the Max. Power Saving is not enabled, this will be preset to NO.

### Video OFF Method

This field defines the video off features. There are three options available:

V/H SYNC + Blank	Default setting, blank the screen and turn off vertical and horizontal scanning.
DPMS	Allows the BIOS to control the video display card if it supports the DPMS feature.
Blank Screen	This option only writes blanks to the video buffer.

### Doze Mode

When enabled, and after the set time of system inactivity, the CPU clock will run at a slower speed while all other devices still operate at full speed.

### Standby Mode

When enabled, and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate at full speed.

### Suspend Mode

When enabled, and after the set time of system inactivity, all devices except the CPU will be shut off.

### HDD Power Down

When enabled, and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

### Wake Up Events In Doze & Standby

This section sets the wake-up call of the system. If activity is detected from any enabled IRQ channels in the left-hand group, the system wakes up from suspended mode.

### Power Down & Resume Events

I/O events can either prevent the system from entering power saving mode or can awaken the system from such a mode. When an I/O device wants to gain the attention of the operating system, it signals by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service. The default value is *Off*. When set as On, activity will neither prevent the system from going into a power management mode, nor awaken it.

### 6.7 PNP/PCI Configuration

This option configures the PCI bus system. All PCI bus systems on the system use INT#, thus all installed PCI cards must be set to this value.

ROM PCI/ISA BIOS  
CHIPSET FEATURES SETUP  
AWARD SOFTWARE INC.

Resources Controlled by	: Manual	PCI IRQ Activated By	: Level
Reset Configuration Data	: Disable	PCI IDE IRQ Map to	: PCI-Auto
		Primary IDE INT#	: A
IRQ-3 assigned to	: Legacy ISA	Secondary IDE INT#	: B
IRQ-4 assigned to	: Legacy ISA		
IRQ-5 assigned to	: PCI/ISA PnP		
IRQ-7 assigned to	: Legacy ISA		
IRQ-9 assigned to	: PCI/ISA PnP		
IRQ-10 assigned to	: PCI/ISA PnP		
IRQ-11 assigned to	: PCI/ISA PnP		
IRQ-12 assigned to	: PCI/ISA PnP		
IRQ-14 assigned to	: Legacy ISA		
IRQ-15 assigned to	: Legacy ISA		
DMA-0 assigned to	: PCI/ISA PnP		
DMA-1 assigned to	: PCI/ISA PnP		
DMA-2 assigned to	: PCI/ISA PnP		
DMA-3 assigned to	: PCI/ISA PnP	ESC : Quit	symbol 225 \f "Wingdings" \s 6 symbol 226 \f "Wingdings" \s 6 symbol 224 \f "Wingdings" \s 6 symbol 223 \f "Wingdings" \s 6 : Select Item
DMA-4 assigned to	: PCI/ISA PnP	F1 : Help	PU/PD/+/- : Modify
DMA-5 assigned to	: PCI/ISA PnP	F5 : Old Values	(Shift) F2 : Color
DMA-6 assigned to	: PCI/ISA PnP	F6 : Load BIOS Defaults	
DMA-7 assigned to	: PCI/ISA PnP	F7 : Load Setup Defaults	

#### Resources Controlled by

This PnP BIOS can configure all of the boot and compatible devices automatically. However, this capability needs you to use a PnP operating system such as Windows 95. The default value is **Manual**.

#### Reset Configuration Data

This field allows you to determine whether or not to reset the configuration data or not. The default value is **Disabled**.

#### IRQ3/4/5/7/9/10/11/12/14/15, DMA0/1/3/5/6/7 assigned to

These fields allow you to determine the IRQ/DMA assigned to the ISA bus and is not available to any PCI slot.

#### PCI IRQ Activated by

This field allows you to select which method the PCI bus uses to recognize that an IRQ service is being requested by a device. The default value is **Level**.

**PCI IDE IRQ Map To**

This field allows you to configure the type of IDE disk controller in your system. The default setup is *ISA*. If you have a PCI controller, you need to specify which slot has the controller and which PCI interrupt is associated with the connected hard drives. Selecting “PCI AUTO” allows the system to automatically determine your IDE disk system configuration.

### 6.8 Load BIOS Defaults

This option allows you to load the BIOS default values permanently stored in the BIOS ROM. These default settings are non-optimal and disable all high performance features.

ROM PCI/ISA BIOS  
 CMOS SETUP UTILITY  
 AWARD SOFTWARE, INC.

STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP/PCI CONFIGURATION <b>LOAD BIOS DEFAULTS</b> LOAD SETUP DEFAULTS	INTEGRATED PERIPHERALS SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION SAVE & EXIT SETUP EXIT WITHOUT SAVING
ESC : Quit	symbol 225 \f "Wingdings" \s 8 symbol 226 \f "Wingdings" \s 8 symbol 224 \f "Wingdings" \s 8 symbol 223 \f "Wingdings" \s 8 : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Load BIOS Defaults except Standard CMOS Setup	

To load BIOS defaults value to CMOS SRAM, enter “Y”. If not, enter “N”.

### 6.9 Load Setup Defaults

This option allows you to load the default values to your system configuration. These default settings are Optimal and Enable all high performance features.

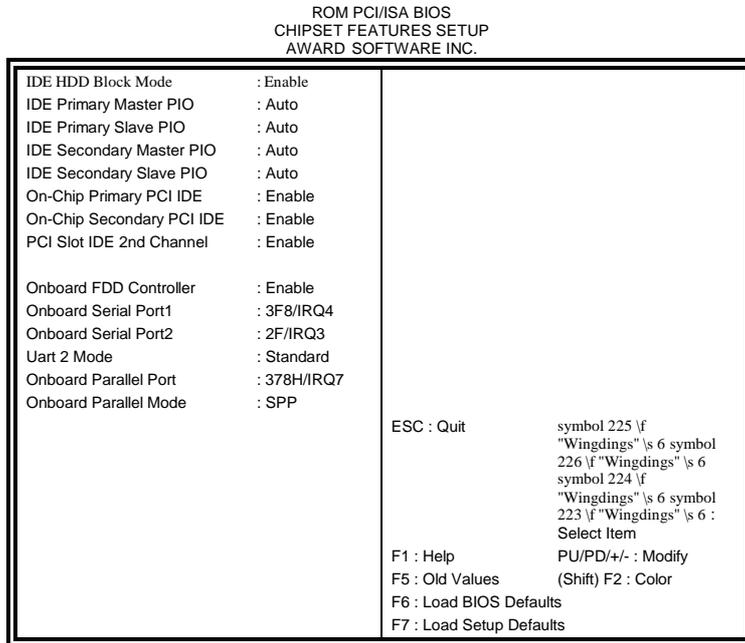
ROM PCI/ISA BIOS  
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STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP/PCI CONFIGURATION LOAD BIOS DEFAULTS <b>LOAD SETUP DEFAULTS</b>	INTEGRATED PERIPHERALS SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION SAVE & EXIT SETUP EXIT WITHOUT SAVING
ESC : Quit	symbol 225 \f "Wingdings" \s 8 symbol 226 \f "Wingdings" \s 8 symbol 224 \f "Wingdings" \s 8 symbol 223 \f "Wingdings" \s 8 : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Load BIOS Defaults except Standard CMOS Setup	

To load SETUP default value to CMOS SRAM, enter “Y”. If not, enter “N”.

### 6.10 Integrated Peripherals

This option allows you to determine your hard disk configuration, mode and port.



#### IDE HDD Block Mode

This field allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive.

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

These fields allow your system hard disk controller to work faster. Rather than have the BIOS issue a series of commands that transfer to or from the disk drive, PIO (Programmed Input/Output) allows the BIOS to communicate with the controller and CPU directly. This way will make work more efficiently.

The system supports five modes, numbered from 0 (default) to 4, which primarily differ in timing. When Auto is selected, the BIOS will select the best available mode.

#### **On-Chip Primary/Secondary PCI IDE**

These fields allow you either to enable or disable the Primary/Secondary controller. You might choose to disable the controller if you were to add a higher performance or specialized controller.

#### **PCI Slot 2nd Channel**

This field allows you designate an IDE controller board inserted into one of the physical PCI slots as your secondary IDE controller. The default value is Disabled.

- Enabled            External IDE controller designated as the secondary controller.
- Disabled         No IDE controller occupying a PCI slot.

#### **Onboard FDD Controller**

This option allows you to select the onboard FDD port.

#### **Onboard Serial/Parallel Port**

These fields allow you to select the onboard serial/parallel port and its address. The default value for these ports are:

- Serial Port 1     3F8/IRQ4
- Serial Port 2     2F8/IRQ3
- Parallel Port     378H/IRQ7

#### **Onboard Parallel Mode**

This field allows you to determine parallel port mode function.

- SPP                Normal Printer Port.
- EPP                Enhanced Parallel Port.
- ECP                Extended Capabilities Port.

### **6.11 Supervisor / User Password**

These two options set the system password. "Supervisor Password" sets a password that will be used to protect the system and Setup utility. "User Password" sets a password that will be used exclusively on the system. To specify a password, highlight the type you want and then press the <Enter> key. The "**ENTER PASSWORD:**" message prompts on the screen. Type the password, up to eight characters in length, and press <Enter> key. The system confirms your password by asking you to type it again. After setting a password, the screen automatically returns to the main screen.

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

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STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP/PCI CONFIGURATION LOAD BIOS DEFAULTS LOAD SETUP DEFAULTS	INTEGRATED PERIPHERALS <b>SUPERVISOR PASSWORD</b> USER PASSWORD IDE HDD AUTO DETECTION SAVE & EXIT SETUP EXIT WITHOUT SAVING
ESC : Quit  F10 : Save & Exit Setup	symbol 225 \f "Wingdings" \s 8 symbol 226 \f "Wingdings" \s 8 symbol 224 \f "Wingdings" \s 8 symbol 223 \f "Wingdings" \s 8 : Select Item (Shift) F2 : Change Color
Change / Set / Disable Password	

### 6.12 IDE HDD Auto Detection

This option detects the parameters of an IDE hard disk drive, and automatically enters them into Standard CMOS Setup screen.

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STANDARD CMOS SETUP  
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HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master:								
Select Primary Master Option (N=SKIP) : N								
1 (Y)	0	0	0	0	0	0	0	NORMAL
NOTE: Some Oases (like SCO-UNIX) must use "NORMAL" for installation								

Up to four IDE drives can be detected, with parameters for each appearing in sequence inside a box. To accept the displayed entries, press the "Y" key; to skip to the next drive, press the "N" key. If you accept the values, the parameters will appear listed beside the drive letter on the screen.

### 6.13 Save & Exit Setup

This option allows you to determine whether to accept the modifications or not. If you type “Y”, you will quit the setup utility and save all changes into the CMOS memory. If you type “N”, you will return to Setup utility.

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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 <b>SAVE &amp; EXIT SETUP</b> EXIT WITHOUT SAVING
ESC : Quit	symbol 225 \f "Wingdings" \s 8 symbol 226 \f "Wingdings" \s 8 symbol 224 \f "Wingdings" \s 8 symbol 223 \f "Wingdings" \s 8 : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Save Data to CMOS & Exit Setup	

### 6.14 Exit Without Saving

Type “Y” to quit the Setup utility without saving to the CMOS memory. Type “N” to return to Setup utility.

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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	symbol 225 \f "Wingdings" \s 8 symbol 226 \f "Wingdings" \s 8 symbol 224 \f "Wingdings" \s 8 symbol 223 \f "Wingdings" \s 8 : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Abandon all Data & Exit Setup	