

# **7KTR**

## **User's Manual Version 1.1**

The information presented in this publication has been made carefully for reliability; however, no responsibility is assumed for inaccuracies. Specifications are subject to change without notice.

IBM, PC/AT, and PC/XT are trademarks of International Business Machines Corporation.

Athlon is a trademark of AMD Corporation

AWARD is a registered trademark of Phoenix Software Inc.

MS-DOS and WINDOWS NT are registered trademarks of Microsoft Corporation.

**Trademarks and/or registered trademarks are the properties of their respective owners.**

# Table of Contents

## Introduction

## 1. Motherboard Description

1.1 Features	
1.1.1 Hardware	2
1.1.2 Software	4
1.2 Motherboard Installation	
1.2.1 Layout of Motherboard	5
1.3 Motherboard Connectors	
1.3.1 Front Panel Connector(J1)	7
1.3.2 Floppy Disk Connector(FDD1)	8
1.3.3 Hard Disk Connectors(IDE1/IDE2)	8
1.3.4 ATX 20-pin Power Connector(PW1)	9
1.3.5 Infrared Connector(IR)	9
1.4 Back Panel Connectors	
1.4.1 PS/2 Mouse/Keyboard CONN.	10
1.4.2 USB Connectors(RJ45+USB)	10
1.5 Serial and Parallel Interface ports	12
1.6 CPU Installation	
1.6.1 CPU Installation Product(Socket 462)	14
1.6.2 CPU Clock Setting(SW1)	15
1.7 Jumper Setting	
1.7.1 CPU Fan Connectors(FAN1/2/3)	16
1.7.2 Wake-On-Modem Header(WOM1)	17
1.7.3 Wake-On-LAN Header(WOL1)	17
1.7.4 AMR Code Select(JP1)	18
1.7.5 CMOS Function Select(JP2)	18
1.8 DRAM Installation	
1.8.1 DIMM	19
1.8.2 How to install a DIMM Module	19
1.9 Audio Subsystem	
1.9.1 CD-Audio-IN Connectors(CDIN1/CDIN2)	20

## Table of Contents

### 2. BIOS Setup

2.1 Main Menu	24
2.2 Standard CMOS Features	27
2.3 Advanced BIOS Features	30
2.4 Advanced Chipset Features	34
2.5 Integrated Peripherals	39
2.6 Power Management Setup	43
2.7 PnP/PCI Configurations	48
2.8 PC Health Status	52
2.9 Frequency/Voltage Control	53
2.10 Load Fail-Safe Defaults	54
2.11 Load Optimized Defaults	55
2.12 Set Supervisor/user Password	56
2.13 Save & Exit Setup	58
2.14 Exit Without Saving	59

## Introduction

### System Overview

This manual was written to help you start using this product as quickly and smoothly as possible. Inside you will find adequate explanations to solve most problems. In order for this reference material to be of greatest use, refer to the “expanded table of contents” to find relevant topics. This board incorporates the system board, I/O, and PCI IDE into one board that provides a total PC solution. The mainboard, AMD Athlon and Duron processor based PC ATX system, support single processors with ISA Bus, PCI Local Bus, and AGP Bus to support upgrades to your system performance. It is ideal for multi-tasking and fully supports MS-DOS, Windows, Windows NT, Windows 2000, Novell, OS/2, Windows95/98, UNIX, SCO UNIX etc.

This manual also explains how to install the mainboard for operation, and how to setup your CMOS configuration with the BIOS setup program

# 1. Motherboard Description

## 1.1 Features

### 1.1.1 Hardware

#### CPU

- Single AMD Socket 462 Athlon/Duron.
- 200MHz System Interface speed.

#### Speed

- Supports 33MHz PCI Bus speed.
- Supports 4X AGP Bus.

#### DRAM Memory

- Supports 8/16/32/64....MB DIMM module socket.
- Supports Synchronous DRAM(3.3V)
- Supports a maximum size of 1.536GB with SDRAM.

#### Shadow RAM

- A memory controller provide shadow RAM and supports 8-bit ROM BIOS.

#### Green Function

- Support power management operation via BIOS.
- Power down time from 15 mins.
- Wakes from power saving sleep mode at the press of any key or any mouse activity.

#### Bus Slots

- Provide one AGP slot and one AMR.
- Five 32-bit PCI bus and one 16-bit ISA.

#### Universal Serial Bus

- Supports two back Universal Serial Bus(USB)Ports and two front Universal serial Bus(USB)Ports.

#### Hardware Monitor Function

- CPU Fan Speed Monitor.
- System(Optional) and CPU Temperature Monitor.
- System Voltage Monitor.

### **Flash Memory**

- Support flash memory.
- support ESCD Function.

### **IDE Built-in on Board**

- Supports four IDE hard disk drives.
- Supports PIO Mode 4, Master Mode, high performance hard disk drives.
- Support Ultra DMA 33/66/100 Bus Master Mode.

### **(Ultra DMA 100 only for 7KAP)**

- Supports IDE interface with CD-ROM.
  - Supports high capacity hard disk drives.
  - Support LBA mode.
- PCI-Based AC 97 Digital Audio Processor (Optional)
- AC 97 2.1 interface.
  - 16 channels of high-quality sample rate conversion.
  - 16x8 channel digital filter.
  - Stereo 10 band graphic equalizer.
  - Sound Blaster and Sound Blaster Pro emulation.
  - S/PDIF output (allows standard interface to consumer electronics).
  - 64-voice wavetable.

### **I/O Built-in on Board**

- Supports one multi-mode Parallel Port.
  - (1) Standard Bidirectional Parallel Port
  - (2) Enhanced Parallel Port (EPP)
  - (3) Extended Capabilities Port
- Supports two serial ports, 16550 UART.
- Supports one Infrared transmission (IR).
- Supports PS/2 mouse and PS/2 Keyboard.
- Supports 360KB, 720KB, 1.2MB, 1.44MB, and 2.88MB floppy disk drivers.

### **1.1.2 Software**

#### **BIOS**

- AWARD legal BIOS.
- Supports APM 1.2.
- Supports USB Function.
- Supports ACPI

#### **Operation System**

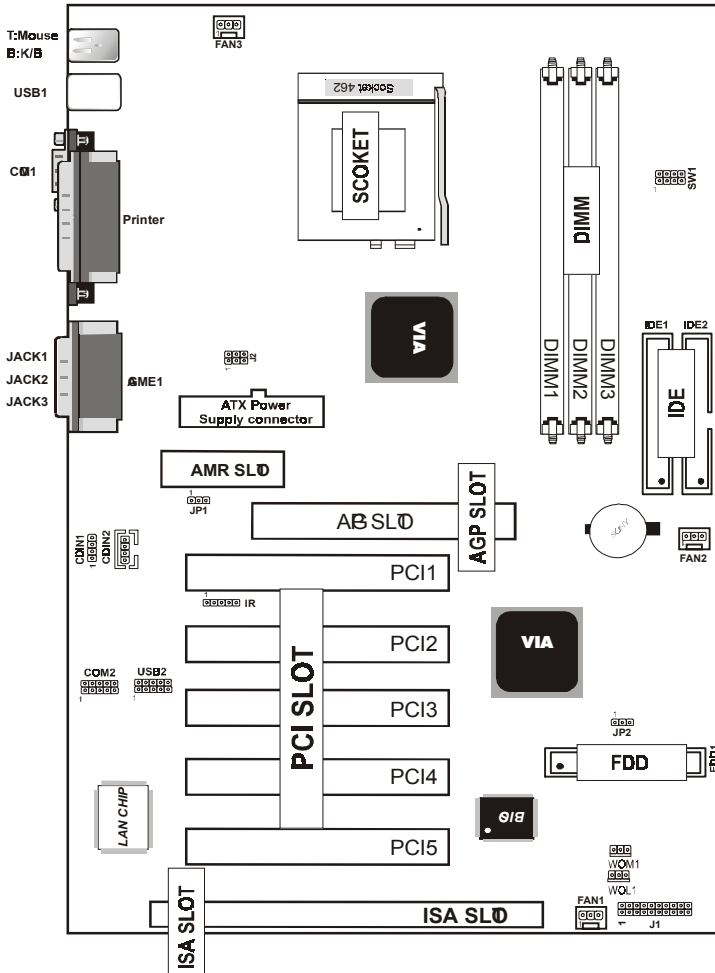
- Offers the highest performance for MS-DOS, Windows, Windows NT , Windows 2000, Novell, OS/2, Windows95/98, UNIX, SCO UNIX etc.

### **1.1.3 Attachments**

- HDD UDMA66/100 Cable.
- FDD Cable.
- Flash Memory Written for BIOS Update.
- USB2 Cable (**optional**) .
- COM2 Cable.
- Fully Setup Driver CD(Ghost, Anitivirus, Adobe Acrobat. . .).

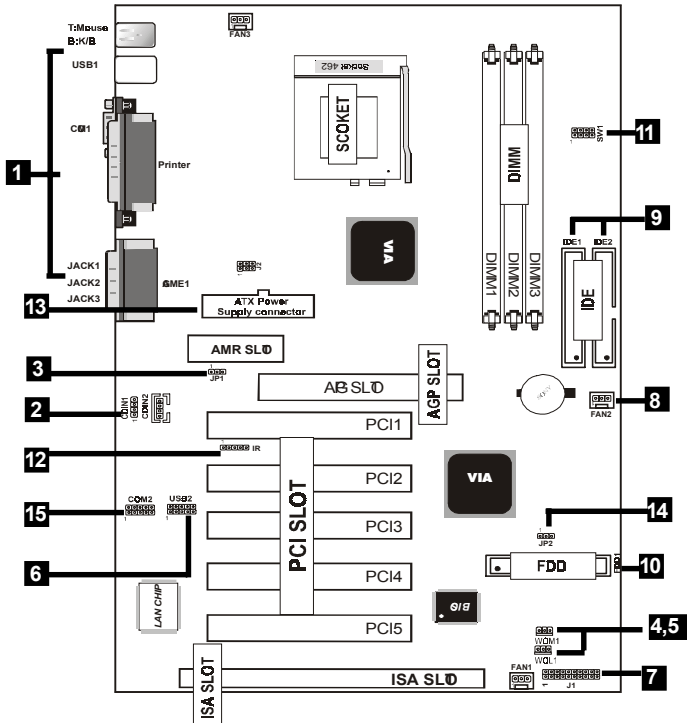
# 1.2 Motherboard Installation

## 1.2.1 Layout of Motherboard



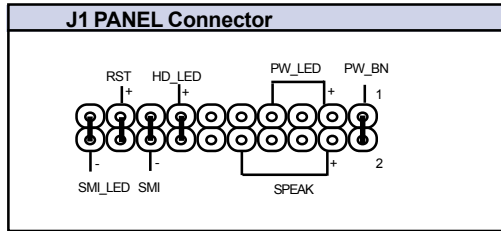


### 1.3 Motherboard Connectors



- 1.Back Panel I/O Connectors
- 2.CD Audio-In Connector
- 3.AMR CODEC Function(JP1)
- 4.Wake-On MODEM Connector
- 5.Wake-On-LAN Connector
- 6.Front Two USB Connector
- 7.Front Panel Connector
- 8.Fan connectors(Fan1/2/3)
- 9.IDE Connectors
- 10.Floppy Connector
- 11.CPU Clock Selection(SW1)
- 12.IR Connector
- 13.ATX Power Connector
- 14.CMOS Function Select(JP2)
- 15.Front Two COM Connector(COM2)

### 1.3.1 Front Panel Connector(J1)



#### Speaker Connector (SPEAKR)

An offboard speaker can be installed onto the motherboard as a manufacturing option. An offboard speaker can be connected to the motherboard at the front panel connector. The speaker (onboard or offboard) provides error beep code information during the Power Self-Test when the computer cannot use the video interface. The speaker is not connected to the audio subsystem and does not receive output from the audio subsystem.

#### Hard Drive LED Connector (H\_LED)

This connector supplies power to the cabinet IDE activity LED. Read and write activity by devices connected to the Primary or Secondary IDE connectors will cause the LED to light up.

#### SMI Suspend Switch Lead (SMI)

This allows the user to manually place the system into a suspend mode or Green mode where systematic activity will be instantly decreased to save electricity and expand the life of certain components when the system is not in use. This 2-pin connector (see the figure below) connects to the case-mounted suspend switch. If you do not have a switch for the connector, you may use the Turbo Switch instead since it does not have a function. SMI is activated when it detects a short to open circuit and therefore leaving it shorted will not cause any problem. It may require one or two pushes depending on the position of the switch. Wake-up can be controlled by settings in the BIOS but the keyboard will always allow wake-up (the SMI lead cannot wake-up the system). If you want to use this connector, "Suspend Switch" in the Power Management Setup of the BIOS SOFTWARE section should be on the default setting of Enable.

### **ATX Power Switch (PW\_BN)**

The system power is controlled by a momentary switch connected to this lead. Pushing the button once will switch the system ON. The system power LED lights when the system power is on .

### **Power LED Lead (PW\_LED)**

The system power LED lights when the system power is on.

### **SMI LED Lead (SMI\_LED)**

The system SMI LED lights when the system suspend is on.

### **Reset Switch Lead (RST)**

The connector can be connected to a momentary SPST type switch that is normally open. When the switch is closed, the motherboard resets and runs the POST.

## **1.3.2 Floppy Disk Connector(FDD1)**

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the board, connect the two plug on the other end to the floppy drives.

## **1.3.3 Hard Disk Connectors(IDE1/IDE2)**

These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk .

If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE) (Pin 20 is removed to prevent inserting in the wrong orientation when using ribbon cables with pin 20 plugged) .

### 1.3.4 ATX 20-pin Power Connector(PW1)

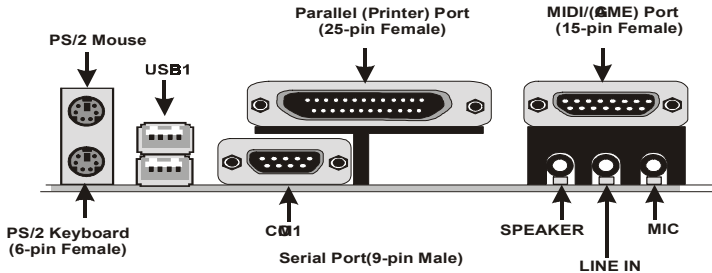
This connector supports the power button on-board. Using the ATX power supply, functions such as Modem Ring Wake-Up and Soft Power Off are supported on this motherboard. This power connector supports instant power-on functionality, which means that the system will boot up instantly when the power connector is inserted on the board.

Pin	Signal	Pin	Signal
1	3.3V	2	3.3V
3	⊘	4	5V
5	⊘	6	5V
7	⊘	8	PW-⊘
9	5VSB	10	12V
11	3.3V	12	-12V
13	⊘	14	PS-⊘
15	⊘	16	⊘
17	⊘	18	-5V
19	5V	20	5V

### 1.3.5 Infrared Connector(IR)

After the IrDA interface is configured, files can be transferred from to portable devices such as laptops, PDAS, and printers using application software.

## 1.4 Back Panel Connectors



### 1.4.1 PS/2 Mouse /Keyboard CON.

The motherboard provides a standard PS/2 mouse / Keyboard mini DIN connector for attaching a PS/2 mouse. You can plug a PS/2 mouse / Keyboard directly into this connector.

### 1.4.2 USB Connectors:USB1(RJ45+USB)

The motherboard provides a OHCI(Open Host Controller Interface)Universal Serial Bus Roots for attaching USB devices such as:keyboard, mouse and other USB devices. You can plug the USB devices directly into this connector.

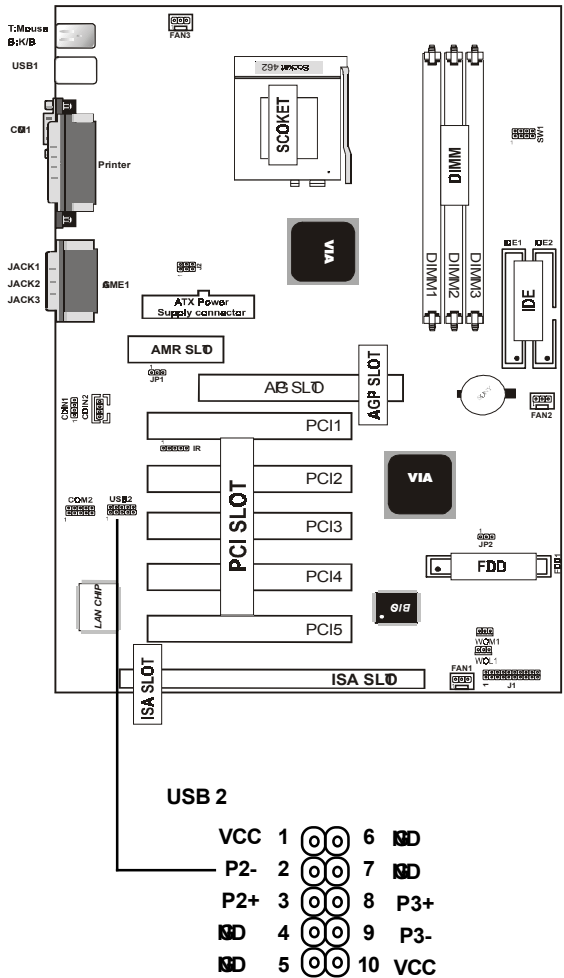


Pin	Signal
1	+5v
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	ND



Pin	Signal
1	+5v
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	ND
RJ45	10/100M LAN Port (option)

## Front Two USB Connectors:USB2



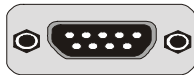
## 1.5 Serial and Parallel Interface Ports

This system is equipped with two serial ports and one parallel port. Both types of interface ports will be explained in this chapter.

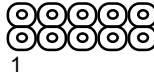
### The Serial Interfaces: COM1/COM2

The serial interface port is sometimes referred to as an RS-232 port or an asynchronous communication port. Mice, printers, modems and other peripheral devices can be connected to a serial port. The serial port can also be used to connect your computer system. If you wish to transfer the contents of your hard disk to another system it can be accomplished by using each machine's serial port.

COM1

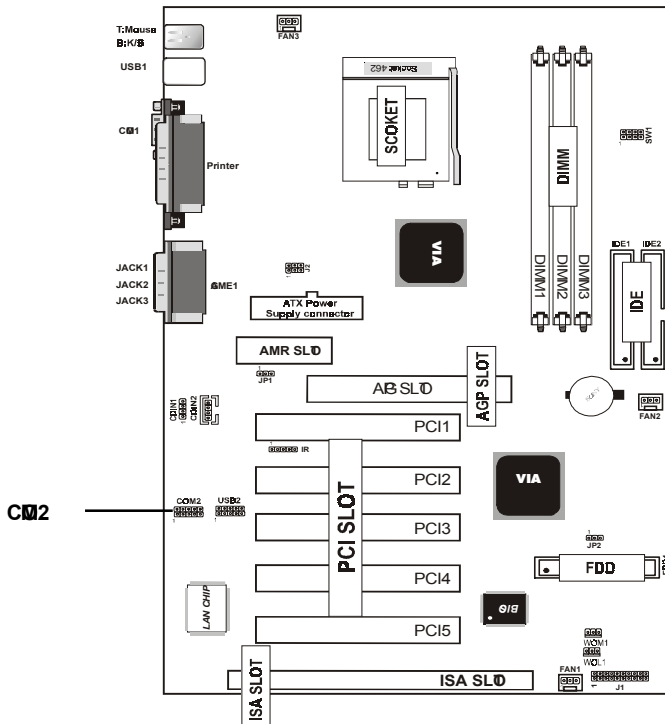


COM2



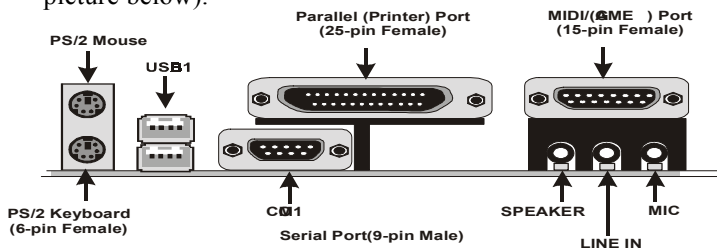
The serial port on this system has one 9-pin connector. Some older computer systems and peripherals used to be equipped with only 25-pin connectors. Should you need to connect your 9-pin serial port to an older 25-pin serial port, you can purchase a 9-to-25 pin adapter.

Signal	DB9 Pin	DB25 Pin
DCD	1	8
RX	2	3
TX	3	2
DTR	4	20
RD	5	7
DSR	6	6
RTS	7	4
CTS	8	5
RI	9	22



## Parallel Interface Port

Unlike the serial ports, parallel interface port has been standardized and should not present any difficulty interfacing peripherals to your system. Sometimes called Centronics port, the parallel port is almost exclusively used with printers. The parallel port on your system has a 25-pin, DB 25 connector (see picture below).

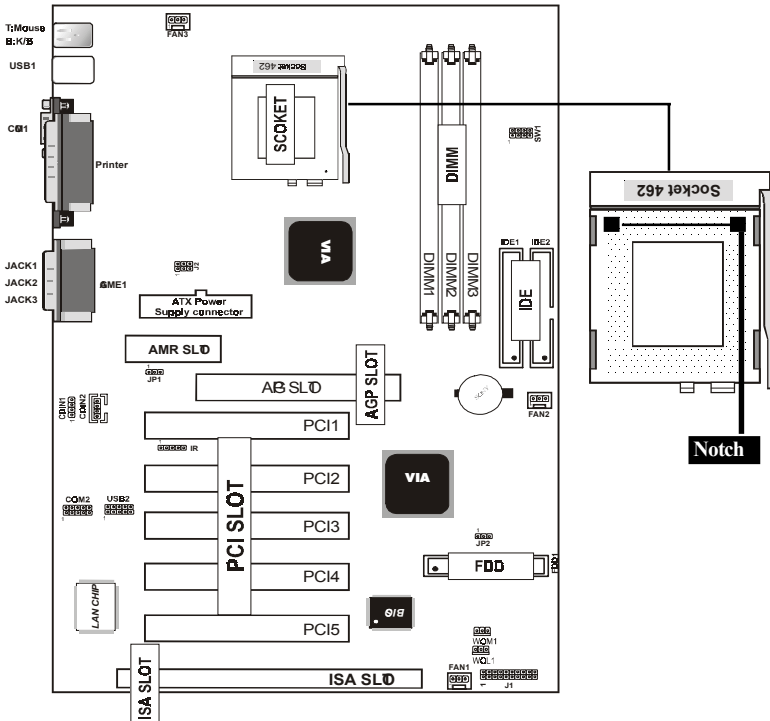




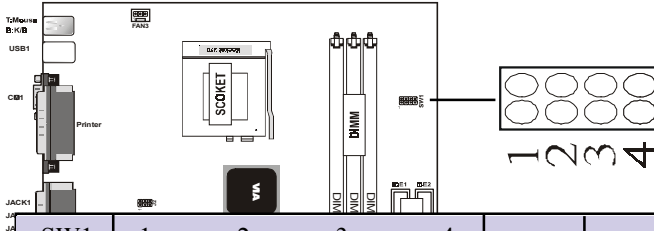
## 1.6 CPU Installation

### 1.6.1 CPU Installation Procedure:Socket 462

- 1.Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.
- 2.Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.
- 3.Press the lever down to complete the installation.
- 4.**Make sure the spec of heatsink is good enough.**



## 1.6.2 CPU Clock Selection:SW1



SW1	1	2	3	4	CPU(MHZ)	PCI(MHZ)
1234	1	0	1	1	100	33.33
1234	0	0	0	1	101	33.67
1234	0	0	1	1	102	34.00
1234	1	0	1	0	103	34.33
1234	1	0	0	1	105	35.00
1234	0	1	0	0	107	35.67
1234	0	1	1	0	109	36.33
1234	0	1	0	1	110	36.67
1234	0	1	1	1	111	37.00
1234	1	1	0	0	113	37.67
1234	1	1	1	0	115	38.33
1234	1	1	0	1	117	39.00
1234	1	1	1	1	133.3	33.33

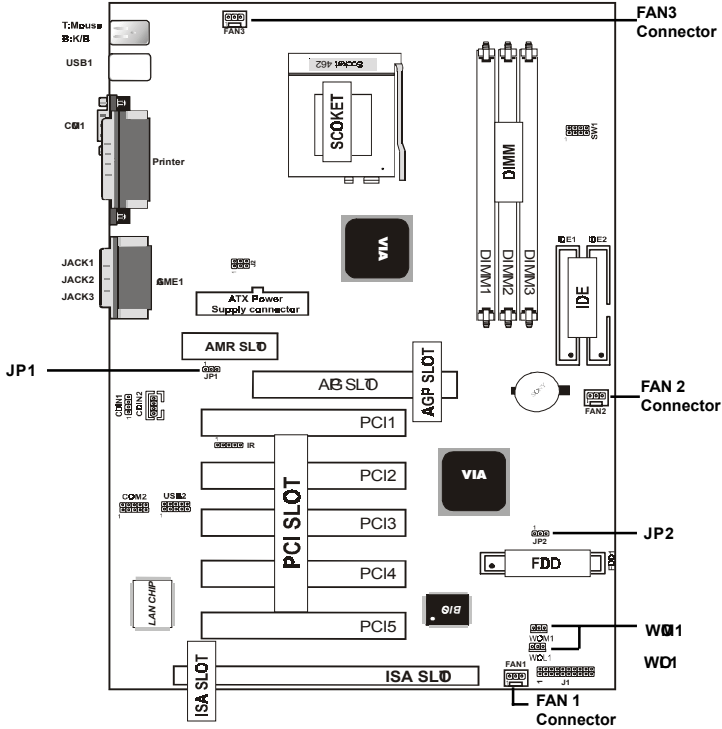
0:ON (Close)

1:OFF (Open)

***NØES:CPU clock speed over 100MHZ is not recommended.***

# 1.7 Jumper Setting

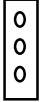
A jumper has two or more pins that can be covered by a plastic jumper cap, allowing you to select different system options.




## 1.7.1 CPU/System Fan Connectors:Fan1/3

Pin	Assignment
1	Ground
2	+12VDC
3	Signal


### 1.7.1 CPU/System Fan Connectors:Fan2

Pin	Assignment
 1	Ground
2	+12VDC
3	Ground

### 1.7.2 Wake-Ⓞ Modem Header:WⓄ1

Pin	Assignment
 1	5VSB
2	Ground
3	Signal

### 1.7.3 Wake-Ⓞ LAN Header:WⓄ1

Pin	Assignment
 1	5VSB
2	Ground
3	Signal

#### 1.7.4 AMR Code Function:JP1

Pin	Assignment
1-2	On board CODEC
2-3	AMR Primary CODEC

#### 1.7.5 CMOS Function Select:JP2

Pin	Assignment
1-2	Normal (Default)
2-3	Clear CMOS

#### **NOTE:**

**(Please follow the procedure as below to clear CMOS data.)**  
(1)Remove AC power line.(2)JP2(2-3)Closed.(3)Wait five seconds.(4)JP2(1-2) Closed.(5)AC Power on.(6)Reset your desired password or clear CMOS data.

## 1.8 DRAM Installation

### 1.8.1 DIMM

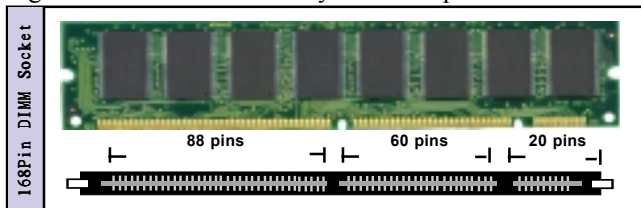
DRAM Access Time: 3.3V Unbuffered SDRAM/ PC66/ PC100 and PC133 Type required.

DRAM Type: 8MB, 16MB, 32MB, 64MB, 128MB, 256MB, 512MB DIMM Module. (168 pin)

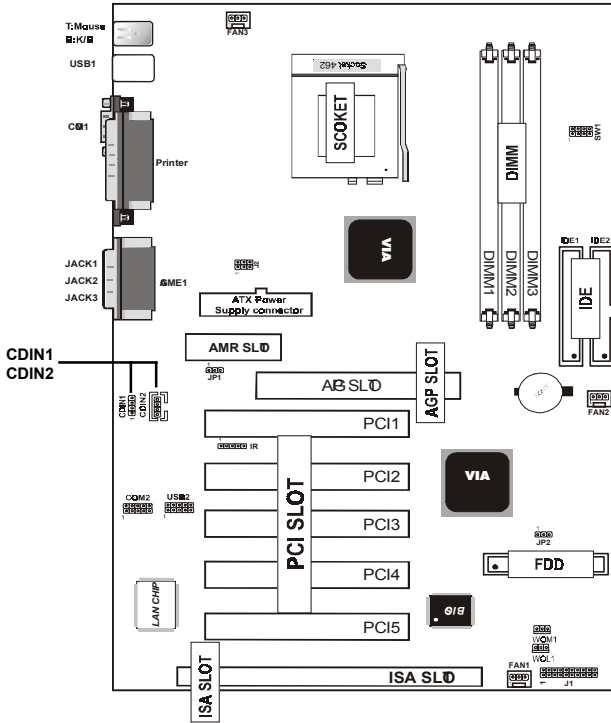
Bank	Memory module
DIMM 1 ( Bank 0-1 )	16MB, 32MB, 64MB, 128MB, 256MB, 512MB 168 pin, 3.3v SDRAM
DIMM 2 ( Bank 2-3 )	16MB, 32MB, 64MB, 128MB, 256MB, 512MB 168 pin 3.3v, SDRAM
DIMM 3 ( Bank 4-5 )	16MB, 32MB, 64MB, 128MB, 256MB, 512MB 168 pin 3.3v, SDRAM
	<b>Total System Memory(Max 1.536MB)</b>

### 1.8.2 How to install a DIMM Module

1. The DIMM socket has a “Plastic Safety Tab” and the DIMM memory module has an asymmetrical notch”, so the DIMM memory module can only fit into the slot in one direction.
2. Push the tabs out. Insert the DIMM memory modules into the socket at a 90-degree angle then push down vertically so that it will fit into place.
3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.



# 1.9 Audio Subsystem



## 1.9.1 CD Audio-In Connectors:CDIN1/CDIN2

Pin CDIN1	Assignment
1	CD-R
2	ND
3	ND
4	CD-L

Pin CDIN2	Assignment
1	CD-R
2	ND
3	CD-L
4	ND

## 2. BIOS Setup

### Introduction

This manual discussed Award Setup program built into the ROM BIOS. The Setup program allows user to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the setup information when the power is turned off.

The Award BIOS installed in your computer system ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports AMD-Athlon / Duron processors input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

### Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

### EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

### PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.



### **APM Support**

These AWARD BIOS supports Version 1.1&2 of the Advanced Power Management(APM) specification. Power management features are implemented via the System Management Interrupt(SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

### **DRAM Support**

SDRAM (Synchronous DRAM) are supported.

### **Support CPU**

This AWARD BIOS supports the AMD Athlon/Duron CPU.

### **Using Setup**

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

*Note:*

**(BIOS version 1.0 is for reference only. If there is a change in BIOS version, please use the actual version on the BIOS)**

<b>Stroke</b>	<b>Function</b>
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Esc	Main Menu: Quit without saving changes Submenu: Exit Current page to the next higher level menu
Move Enter	Move to item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+Key	Increase the numeric value or make changes
-Key	Decrease the numeric value or make changes
Esc Key	Main menu-Quit and not save changes into CMOS Status Page Setup Menu and option Page Setup Menu -Exit Current page and return to Main Menu
F1 Key	General help on Setup navigation keys.
F5 Key	Load previous values from CMOS
F6 Key	Load the fail-safe defaults from BIOS default table
F7 Key	Load the optimized defaults
F10 Key	Save all the CMOS changes and exit

## 2.1 Main Menu

Once you enter AWARD BIOS CMOS Set up Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup function. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

**“WARNING”**

*The information about BIOS defaults on manual (Figure 1,2,3,4,5,6,7,8,9,10,11,12,13,14) is just for reference, please refer to the BIOS installed on the board for update information.*

© **Figure 1. Main Menu**

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software

STANDARD CMOS FEATURES	FREQUENCY/VOLTAGE CONTROL
ADVANCED BIOS FEATURES	LOAD FAIL-SAFE DEFAULTS
ADVANCED CHIPSET FEATURES	LOAD OPTIMIZED DEFAULTS
INTEGRATED PERIPHERALS	SET SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	SET USER PASSWORD
PNP/PCI CONFIGURATIONS	SAVE & EXIT SETUP
PC HEALTH STATUS	EXIT WITHOUT SAVING
Esc : Quit F9 : Menu in BIOS ←→↑↓: Select Item	
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

### Standard CMOS Features

This setup page includes all the items standard compatible BIOS.

### **Advanced BIOS Features**

This setup page includes all the itemf BIOS special enhanced features.

### **Advanced Chipset Features**

This setup page includes all the itemf Chipset special enhanced features.

### **Integrated Peripherals**

This selection page includes all the itemf IDE hard drive and Program Input/Output features.

### **Power Management Setup**

This setup page includes all the itemf power management features.

### **PnP/PCI Configuration**

This setup page includes IRQ Setting by user define or default.

### **PC Health Status**

This page shows the hardware Monitor information of the system

### **Frequency / Voltage Control**

This setup page is control CPU's clock and frequency ratio.

### **Load Fail-Safed Defaults**

Use this menu to load the BIOS default values for the initial/stable performance for your system to operate.

### **Load Optimized Defaults**

These settings are more likely to configure a workable computer when something is wrong. If you cannot boot the computer successfully, select the BIOS Setup options and try to diagnose the problem after the computer boots. These settings do not provide optional performance.

### **Set Supervisor Password**

Change, set, or, disable password. It allows you to limit access to the system and Setup, or just to Setup.

### **Set User Password**

You can specify both a User and a Supervisor password. When you select either password option, you are prompted for a 1-6 character password. Enter the password and then retype the password when prompted.

### **Save & Exit Setup**

Save CMOS value changes to CMOS and exit setup.

### **Exit Without Saving**

Abandon all CMOS value changes and exit setup.

## 2.2 Standard CMOS Features

This item in Standard CMOS Setup Menu is divided into 10 categories. Each category includes no, one or more than one setup item. 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.

### ◎ Figure 2. Standard CMOS Features

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software standard CMOS Features

Date(mm:dd:yy)	Tue,Jun 6 2000	Item Help
Time (hh:mm:ss)	11:26:10	
IDE Primary Master	Press Enter None	Menu Level Change the day, month,year and century.
IDE Primary Slave	Press Enter None	
IDE Secondary Master	Press Enter None	
IDE Secondary Master	Press Enter None	
Drive A	1.44M,3.5 in	
Drive B	None	
Video	E/V/S	
Halt @	All,But Keyboard	
Base Memory	xxxx	
Extended Memory	xxxx	
Total	xxxx	

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

## Main Menu Selections

This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	Month DD YYYY	Set the system date. Note that the 'Day' automatically changes when you set the data.
IDE Primary Master	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
IDE Primary Slave	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
IDE Secondary Master	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
IDE Secondary Slave	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
Drive A Drive B	None 360K,5.25in 1.2M,5.25in 720K,3.5in 1.44M,3.5in 2.88M,3.5in	Select the type of floppy disk drive installed in your system
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

<b>Item</b>	<b>Options</b>	<b>Description</b>
Halt On	All Errors No Errors All,but Keyboard All,but Diskette All,but Disk/Key	Select the situation in which you want the BIOS to stop the POST process and notify.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of conventional memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system



## 2.3 Advanced BIOS Features

© Figure 3. Advanced BIOS Features

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software advanced BIOS Features

Anti-Virus Protection	Disabled	Item Help
CPU Internal Cache	Enabled	
External Cache	Enabled	Menu Level
CPU L2 Cache ECC Checking	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	Allows you to choose the VIRUS warning feature for IDE
Third Boot Device	CD-ROM	Hard Disk boot sector protection.
Boot Order Device	Enabled	If this function is enabled and
Swap Floppy Drive	Disabled	someone attempt
Boot Up Floppy Seek	Disabled	to write data into
Boot Up NumLock Status	On	this area, BIOS
Wake A20 Option	Fast	will show a
Typeomatic Rate Setting	Disabled	warning message
Typeomatic Rate (Chars/Sec)	6	on screen and
Typeomatic Delay (Msec)	250	alarm beep
Security Option	Setup	
Select For DRAM	Non-62	
Video BIOS Shadow	Enabled	

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

### Anti-Virus Protection

This option allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarmbeep.

**The Choices:**Disabled(default),Enabled.

### **CPU Internal Cache**

These two categories speed up memory access. However, it depends on CPU/chipset design.

- Enabled(default)** Enabled cache.
- Disabled** Disabled cache.

### **External Cache**

This fields allow you to Enable or Disable the CPU'S "Level 2" secondary cache. Caching allows better performance.

- Enabled(default)** Enabled cache.
- Disabled** Disabled cache.

### **CPU L2 Cache ECC Checking**

The item allows you to enable/disable CPU L2 Cache ECC Checking.

**The Choices:** Enabled(default), Disabled.

### **Processor Number Feature**

The item will show up when you install the Pentium III processor.

- Enabled(default)** Pentium Processor Number Feature.
- Disabled** Disabled.

### **Quick Power On Self Test**

This category seeds up Power on Self-Test(POST) after you power up the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

- Enabled(default)** Enabled quick POST.
- Disabled** Normal POST.

### **First/Secondary/Third/Boot Order Device**

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

**The Choices:** Floppy, LS120, HDD-0, HDD-1, HDD-2, HDD-3, SCSI, CDROM, Enabled, ZIP, LAN, Disabled.

### **Swap Floppy Drive**

If the system has two floppy drives, you can swap the logical drive name assignments.

**The Choices:** Enabled, Disabled (default).

### **Boot Up Floppy Seek**

Seek disk drives during boot up. Disabled speeds boot-up.

**The Choices:** Enabled (default), Disabled.

### **Boot Up NumLock Status**

Select power on state for Numlock.

**On (default)**

NumPad is number keys.

**Off**

NumPad is arrow keys.

### **Gate A20 Option**

Select if chipset or keyboard controller should control Gate A20.

**Normal**

A pin in the keyboard controller controls Gate A20.

**Fast (default)**

Lets chipset control Gate A20.

### **Typematic Rate Setting**

**Enabled**

Enabled this option to adjust the keystroke repeat rate.

**Disabled (default)**

Disabled.

### **Typematic Rate (Char/Sec)**

Range between 6 (default) and 30 characters per second.

This option controls the speed of repeating keystrokes.

### Typematic Delay (Msec)

This option sets the time interval for displaying the first and the second characters.

**The Choices:**250(default),500,750,1000

### Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

#### System

The system will not boot and access to Setup will be defined if the correct password is not entered in prompt.

#### Setup(default)

The system will boot, but access to Setup will be defined if the correct password is not entered in prompt.

### Select For DRAM

Select the operating system that is running with greater than 64MB of RAM on the system

**The Choices:**Non-62(default),62

### Video BIOS Shadow

Determines whether video BIOS will be copied to RAM for faster execution.

#### Enabled(default)

Optional ROM is enabled.

#### Disabled

Optional ROM is disabled.

C8000-CFFFF Shadow / D0000-DFFFF Shadow

Determines whether video BIOS will be copied to RAM for faster execution.

#### Enabled

Optional ROM is Shadowed.

#### Disabled(default)

Optional ROM is not Shadowed.

**Note:**For C8000-DFFFF option-ROM on PCI BIOS, BIOS will automatically enable the shadow RAM. User does not have to select the item

## 2.4 Advanced Chipset Features

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system resources, such as DRAM and external cache. It also coordinates communications on the PCI bus. It must be stated that these items should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. The only thing you might consider making any changes would be if you discovered that data was lost while using your system.

© **Figure 4. Advanced Chipset Features**

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software advanced Chipset Features

DRAM Timary By SPD	Enabled	Item Help
DRAM Clock	100	
SDRAM Cycle Length	3	
Bank Interleave	Disabled	Menu Level
Memory Hole	Disabled	
PCI Master Pipeline Req	Enabled	
P2C/C2P Concurrency	Enabled	
Fast R-W Turn Around	Disabled	
System BIOS Cache	Disabled	
Video RAM Cacheable	Disabled	
AB Aperture Size	64M	
AB-4X Mode	Enabled	
AB Driving Control	Auto	
AB Driving Value	DA	
K7 CLK-CTL Select	Optimal	
Chip USB	Enabled	
Chip USB2	Enabled	
USB Keyboard Support	Disabled	
Chip Sound	Auto	
Chip Modem	Auto	
CPU to PCI Write Buffer	Enabled	
PCI Dynamic Bursting	Enabled	
PCI Master 0 WS Write	Enabled	
PCI Delay Transaction	Enabled	
PCI #2 Access #1 Retry	Enabled	
AB Master 1WS Write	Disabled	
AB Master 1WS Read	Disabled	

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

### **DRAM Timary by SPD**

**The Choices:**Enabled(default),Disabled

### **DRAM Clock**

This item determines DRAM Clock following the CPU host clock, or .

**The Choices:**100(default),133,66.

### **SDRAM Cycle Length**

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

**The Choices:**3(default),2,Auto.

### **Memory Hole**

In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory's space below 16MB.

**The Choices:**Diablded(default),Enabled.

### **P2C/C2P Concurrency**

This item allows you to enable/disable the PCI to CPU to PCI concurrency.

**The Choices:**Enabled(default),Disabled.

### **Fast R-W Turn Around**

This item controls the DRAM timing. It allows you to enable/disable the fast read/write turn around.

**The Choices:**Disabled(default),Enabled.

### **System BIOS Cacheable**

When enabled, the access to the system BIOS ROM address at F0000H-FFFFFFH is cached.

**The Choices:**Diablded(default),Enabled.

### **Video RAM Cacheable**

When enabled, the access to the system VGA RAM address is cached.

**The Choices:** Disabled (default), Enabled.

### **AGP Aperture Size**

Select the size of the Accelerated Graphic Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycle that hit the aperture range are forwarded to the AGP without any translation.

**The Choices:** 64MB (default), 32M, 16M, 8M, 4M, 128M.

### **AGP-4X Mode**

This item allows you to enable/disable the AGP-4X Mode.

**The Choices:** Enabled (default), Disabled.

### **AGP Driving Control**

By choosing "Auto" the system BIOS will set the AGP output Buffer Drive strength P Ctrl by AGP Card. By choosing "Manual", it allows user to set AGP output Buffer Drive strength P Ctrl by manual.

**The Choices:** Auto (default), Manual.

### **CLKCTL Select**

Use this item to specify the clock control for the processor. Select default for a defaulted timer value, and optimum timer value which depends on different CPU ratio.

**The Choices:** Optimal (default).

### **On-chip USB/USB2**

This should be enabled if your system has a USB installed on the system board and you wish to use it. Even when so equipped, if you add a higher performance controller, you will need to disable this feature.

**The Choices:** Enabled (default), Disabled.

### **USB Keyboard Support**

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

**The Choices:**Disabled(default),Enabled.

### **Onchip Sound**

The default setting of this item initializes an onboard sound chip for audio output. There is no need to buy and insert a sound card. If sound card is installed, disable this item

**The Choices:**Auto(default),Disabled

### **Onchip Modem**

The item allows you to control the onboard MC97 Modem controller.

**The Choices:**Auto(default),Disabled.

### **CPU to PCI Write Buffer**

When this field is Enabled, write from the CPU to the PCI bus are buffered, to compensate for the speed differences between the CPU and the PCI bus. When Disabled, they are not buffered and the CPU must wait until the write is complete before starting another write cycle.

**The Choices:**Enabled(default),Disabled.

### **PCI Dynamic Bursting**

**The Choices:**Enabled(default),Disabled.

### **PCI Master 0 WS Write**

When this field is Enabled, write to the PCI bus are executed with zero wait states.

**The Choices:**Enabled(default),Disabled.

### **PCI Delay Transaction**

**The Choices:**Disabled(default),Enabled.



### **PCI #2 Access #1 Retry**

**The Choices:**Enabled(default),Disabled.

### **AGP Master 1WS Write**

When Enabled,write to the AGP (Accelerated Graphic Port) are executed with one wait states.

**The Choices:**Disabled(default),Enabled.

### **AGP Master 1WS Read**

When Enabled,read to the AGP (Accelerated Graphic Port) are executed with one wait states.

**The Choices:**Disabled(default),Enabled.

## 2.5 Integrated Peripherals

### © Figure 5. Integrated Peripherals

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software Integrated Peripherals

Chip IDE Channel 0	Enabled	Item Help
Chip IDE Channel 1	Enabled	
Primary Master PIO	Auto	Menu Level
Primary Slave PIO	Auto	
Secondary Master PIO	Auto	
Secondary Slave PIO	Auto	
Primary Master UDMA	Auto	
Primary Slave UDMA	Auto	
Secondary Master UDMA	Auto	
Secondary Slave UDMA	Auto	
Init Display First	PCI Solt	
IDE HDD Block Mode	Enabled	
Board FDC Controller	Enabled	
Board Serial Port 1	Auto	
Board Serial Port 2	Auto	
UART 2 Mode	Standard	
IR Function Duplex	Half	
RxD,TxD Active	No,Yes	
Board Parallel Port	378/IRQ	
Parallel Board Mode	ECP/EPP	
ECP Mode Use DMA	3	
EPP Mode Type	EPP1.9	
Board Legacy Audio	Enabled	
Sound Blaster	Disabled	
SB I/O Base Address	220H	
SB IRQ Select	IRQ	
SB DMA Select	DMA1	
MPU - 401	Disabled	
MPU - 401 I/O Address	330-333H	
Time Port (200-270H)	Enabled	

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

### **Chip IDE Channel 0**

**Enabled(default)**

Enabled onboard 1st channel IDE port.

**Disabled**

Disabled onboard 1st channel IDE port.

### **Chip IDE Channel 1**

**Enabled(default)**

Enabled onboard 2nd channel IDE port.

**Disabled**

Disabled onboard 2nd channel IDE port.

### **Primary Master PIO(for onboard IDE 1st channel)**

**Auto(default)**

BIOS will automatically detect the IDE HDD Accessing mode.

**Mode 0~4**

Manually set the IDE Accessing mode.

### **Primary Slave PIO(for onboard IDE 2nd channel)**

**Auto(default)**

BIOS will automatically detect the IDE HDD Accessing mode.

**Mode 0~4**

Manually set the IDE Accessing mode.

### **Secondary Master PIO(for onboard IDE 1st channel)**

**Auto(default)**

BIOS will automatically detect the IDE HDD Accessing mode.

**Mode 0~4**

Manually set the IDE Accessing mode.

### **Secondary Slave PIO(for onboard IDE 2nd channel)**

**Auto(default)**

BIOS will automatically detect the IDE HDD Accessing mode.

**Mode 0~4**

Manually set the IDE Accessing mode.

<b>Primary Master UDMA</b>	
<b>Auto(default)</b>	BIOS will automatically detect the IDE HDD Accessing mode.
<b>Disabled</b>	Disabled.
<b>Primary Slave UDMA</b>	
<b>Auto(default)</b>	BIOS will automatically detect the IDE HDD Accessing mode.
<b>Disabled</b>	Disabled.
<b>Secondary Master UDMA</b>	
<b>Auto(default)</b>	BIOS will automatically detect the IDE HDD Accessing mode.
<b>Disabled</b>	Disabled.
<b>Secondary Slave UDMA</b>	
<b>Auto(default)</b>	BIOS will automatically detect the IDE HDD Accessing mode.
<b>Disabled</b>	Disabled.
<b>Init Display First</b>	
<b>PCI Slot(default)</b>	Set Init Display First to PCI Slot.
<b>Onboard AGP</b>	Set Init Display First to onboard AGP.
<b>IDE HD Block Mode</b>	
<b>Enabled(default)</b>	Enabled.
<b>Disabled</b>	Disabled.
<b>Onboard FDC Controller</b>	
<b>Enabled(default)</b>	Enabled.
<b>Disabled</b>	Disabled.
<b>Onboard Serial Port1/Port2</b>	
Select an address and corresponding interrupt for the first and second serial ports.	
<b>The Choices:Auto(default),(3F8/IRQ4),(2F8/IRQ3),</b>	
<b>(3E8/IRQ4),(2E8/IRQ3).</b>	

## UART 2 Mode

This item allows you decide which Infra Red(IR) function of the onboard I/O chip, you wish to use.

**The Choices:** Standard (default), SCR, ASKIR.

## IR Function Duplex

This item allows you decide which Infra Red(IR) function of the onboard I/O chip.

**The Choices:** Half (default), Full.

## Parallel Port Mode

**SPP** Using Parallel port as Standard Parallel Port.

**EPP** Using Parallel port as Enhanced Parallel Port.

**ECP** Using Parallel port as Extended Capabilities Port.

**ECP+EPP(default)** Using Parallel port as ECP+EPP mode.

## Onboard Parallel Port

This item allows you decide access onboard parallel port controller with which I/O address.

**The Choices:** 378/IRQ (default), Disabled, 278/IR5, 3BC/IR7.

## Onboard Legacy Audio

**The Choices:** Enabled (default), Disabled.

## Sound Blaster

**The Choices:** Disabled (default), Enabled.

### MPU -401

**The Choices:** Disabled (default), Enabled.

### MPU -401 I/O Address(330-333H)

Change the SoundBlaster Pro MPU-401 I/O address.

### Game Port (200-270H)

Change the joystick connect address.

**The Choices:** Enabled (default), Disabled.

## 2.6 Power Management Setup

The Power Management Setup allows you to configure your system to most effectively save energy while operating in a manner consistent with your own style of computer use.

### © Figure 6. Power Management Setup

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software Power Management Setup

ACPI Function	Enabled	Item Help
Power Management	Press Enter	
ACPI Suspend Type	S1(P0)	Menu Level
PM Control by APM	Yes	
Video Option	Suspend->F8	
Video Method	V/H SYNC+Blank	
Modem Use IRQ	3	
Soft-Off by PWRBTN	Instant-Off	
Wake Up Events	Press Enter	

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

### ACPI Function

This item displays status of the Advanced Configuration and Power Management (ACPI).

### Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes.

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

If you highlight the literal “Press Enter” next to the “Power Management” label and then press the enter key, it will take you a submenu with the following options:

## Power Management

This option allows you to set each mode individually. When not disabled, each of the ranges are from min. to 1 hr. except for HDD Power Down which ranges from min. to 15 min. and disable.

**The Choices:**User Define (default), Min Saving, Max Saving.

### HD Power Down

By default, this is “Disabled”, meaning that no matter the mode the rest of system, the hard drive will remain ready. Otherwise, you have a range of choices from min. to 15 minutes or Suspend. This means that you can select to have your hard disk drive be turned off after a selected number of minutes or when the rest of the system goes into a suspend mode.

**Disabled**(default).

### Doze Mode/Suspend Mode

The **Doze Mode**, and **Suspend Mode** fields set the Period of time after each of these modes activates. At Max Saving, these modes activate sequentially (in the given order) after one minute; at Min Saving after one hour.

## ACPI Suspend Type

The item allows you to select the suspend type under ACPI operating system

**S1(PS)** (default)                      Power on Suspend.

**S3(STR)**                                      Suspend to RAM.

## PM Control by APM

**No**    System BIOS will ignore APM when Power Management is on.

**Yes**(default)                                      System BIOS will wait for APM'S prompt before it enters any PM mode.

### Video Off Option

This field determines when to activate the video off feature for monitor power management.

### Video Off Method

This determines the manner in which the monitor is blanked.

**V/HSYNC+Blank**  
(default)

This selection will cause the system to turn off the vertical and horizontal.

Synchronization ports and write blanks to the video buffer.

**Blank Screen**

This option only writes blanks to the video buffer.

**DPMS Support**

Initial display power management signaling.

### Modem Use IRQ

This determines the IRQ, which can be applied in Modem use.

3 (default)

4/5/7/9/10/11/NA

### Soft-Off by PWRBTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung".

**The Choices:** Instant-Off (default), Delay 4 Sec.



## Wake Up Events

If you highlight the literal “Press Enter” next to the “Wake Up Events” label and then press the enter key, it will take you a submenu with the following options:

### **VGA**

When set to On, any event occurring at a VGA port will awaken a system which has been powered down.

### **LPT & COM**

When set to On, any event occurring at a COM(serial) /LPT (printer) port will awaken a system which has been powered down.

### **HD & FDD**

When set to On (default), any event occurring at a hard or floppy drive will awaken a system which has been powered down.

### **PCI Master**

When set to On, any event occurring at a PCI port will awaken a system which has been powered down.

### **Modem Ring Resume**

To use this function, you need a LAN add-on card which support power on function. It should also support the wake-up on LAN jump. **The Choices: Disabled** (default).

### **RTC Alarm Resume**

When “Enabled”, you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.

## Primary INTR

When set to On(default),any event occurring at Primary INTR will awaken a system which has been powered down.

The following is a list of IRQ, Interrupt ReQuests, which can be exepeted uch as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating system it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request,it interrupt itself and perform the service. As above, the choices are On and Off.Off is the default. When set On, activity will neither prevent the system from going into a power management mode nor awaken it.

IRQ3	(COM1)
IRQ4	(COM2)
IRQ5	(LPT2)
IRQ6	(Floppy Disk)
IRQ7	(LPT1)
IRQ8	(RTC Alarm)
IRQ9	(IRQ2 Redir)
IRQ10	(Reserved)
IRQ11	(Reserved)
IRQ12	(PS/2 Mouse)
IRQ13	(Coprocessor)
IRQ14	(Hard Disk)
IRQ15	(Reserved)

## 2.7 PnP/PCI Configurations

This section describes configuring the PCI bus system (PCI or Personal Computer Interconnect), is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

### © Figure 7. PnP/PCI Configurations

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software PnP/PCI Configurations

PNP <input checked="" type="checkbox"/> Installed	No	Item Help
Reset Configuration Data	Disabled	Menu Level
Resources Controlled By	Auto(ESCD)	Select Yes if you are using a Plug and Play capable operating system select No if you need the BIOS to configure non-boot devices
IR $\text{\textcircled{R}}$ Resources	Press Enter	
DMA Resources	Press Enter	
PCI/ <input checked="" type="checkbox"/> Palette Snoop	Disabled	
Assign IR $\text{\textcircled{R}}$ or V $\text{\textcircled{S}}$	Enabled	
Assign IR $\text{\textcircled{R}}$ or USB	Enabled	

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

### PNP Installed

When set to YES, BIOS will only initialize the PnP cards used for booting (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Windows 95. When set to No, BIOS will initialize all the PnP cards. Therefore for non-PnP operating systems (DOS, Netware), this option must be set to No.

## Reset Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved at the system BIOS.

If Disabled (Default) is chosen, the system's ESCD will update only when the new configuration varies from the last one. If Enabled is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

IRQ3	assigned to:PCI/ISA PnP
IRQ4	assigned to:PCI/ISA PnP
IRQ5	assigned to:PCI/ISA PnP
IRQ6	assigned to:PCI/ISA PnP
IRQ7	assigned to:PCI/ISA PnP
IRQ8	assigned to:PCI/ISA PnP
IRQ9	assigned to:PCI/ISA PnP
IRQ10	assigned to:PCI/ISA PnP
IRQ11	assigned to:PCI/ISA PnP
IRQ12	assigned to:PCI/ISA PnP
IRQ13	assigned to:PCI/ISA PnP
IRQ14	assigned to:PCI/ISA PnP
IRQ15	assigned to:PCI/ISA PnP
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
DMA-4	assigned to:PCI/ISA PnP
DMA-5	assigned to:PCI/ISA PnP
DMA-6	assigned to:PCI/ISA PnP
DMA-7	assigned to:PCI/ISA PnP

The above settings will be shown on the screen only if “Manual” is chosen for the resources controlled by function.

Legacy is the term which signifies that a resource is assigned to the ISA Bus and provides for non-PnP ISA add-on cards. PCI/ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

### **Resources Controlled By**

By Choosing “Auto” (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing “Manual”, the user will need to assign IRQ & DMA for add-on cards. Be sure that there no IRQ/DMA and I/O port conflicts.

### **IRQ Resources**

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

### **DMA Resources**

When resources are controlled manually, assign each DMA channel a type, depending on the type of device using the DMA channel.

### **PCI / VGA Palette Snoop**

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the write access to the VGA palette and registers the snoop data. In PCI based systems where the bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forward to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

<b>Disabled</b> (default)	Disabled the function.
<b>Enabled</b>	Enabled the function.

### **Assign IRQ for VGA**

Lets the user choose which IRQ to assign for the VGA.

### **Assign IRQ for USB**

Lets the user choose which IRQ to assign for the USB.

## 2.8 PC Health Status

© Figure 8. PC Health Status

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software PC Health Status

Current CPU Temp. Current System Temp. Current CPU Fan Speed Current Sys Fan Speed Vcore AB +3.3V +5.0V +12.0V	Item Help Menu Level
--	-------------------------

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

### Current CPU Temp.

This field displays the current CPU temperature, if your computer contains a monitoring system

### Current System Temp.

This field displays the current system temperature, if your computer contains a monitoring system

### Current CPU Fan Speed

This field displays the current speed of up to CPU Fans, if your computer contains a monitoring system

### Current System Fan Speed

This field displays the current speed of up to System Fans, if your computer contains a monitoring system

### Current CPU Vcore VccSRAM,3.3V,5V,12V

Detect system voltage status automatically.

## 2.9 Frequency / Voltage Control

### © Figure 9. Frequency / Voltage Control

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

Auto Detect DIMM / PCI CLK	Disabled	Item Help
Spread Spectrum Modulated	Disabled	
Clock By Slight Adjust	100	Menu Level

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

#### Auto Detect DIMM / PCI CLK

This item allows you to enable/disable auto detect DIMM / PCI CLOCK.

**The Choices:** Disabled(default), Enabled.

#### Clock By Slight Adjust 100

This item allows you to select CPU Clock .

#### **NOTE:**

***If unfortunately, the system frequency that you are selected is not functioning, there are two methods od booting-up the system***

Method1: Clear the COMS data by setting the JP2((2-3) closed) as "On" status. All the COMS data will be loaded as default setting.

Method2: Press the <Insert> key and Power button simultaneously, after that keep-on pressing the <Insert> key until the Power-on screen showed. This action will boot-up the system according to FSB of the processor.

#### Spread Spectrum Modulated

This function id designed to EMI test only.

**The Choices:** Disabled(default), Enabled.

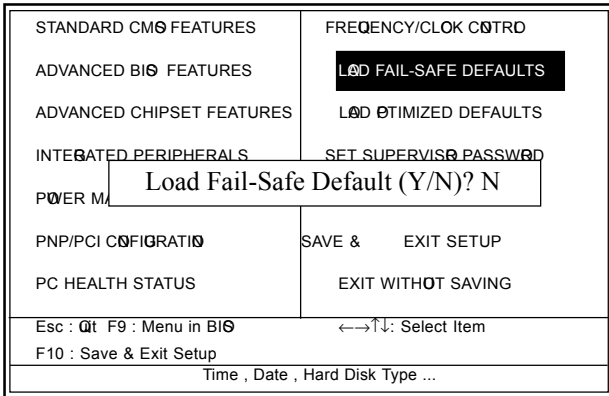


## 2.10 Load Fail-Safe Defaults

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

### © Figure 10. Load Fail-Safe Defaults

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software



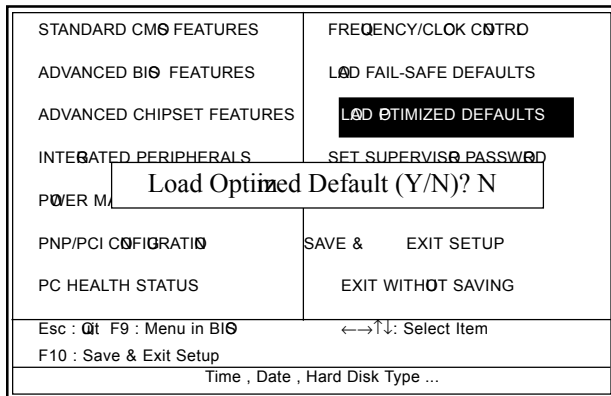
Pressing ‘Y’ loads the default values that are factory settings for optimal performance system operations.

## 2.11 Load Optimized Defaults

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

© **Figure 11. Load Optimized Defaults**

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software

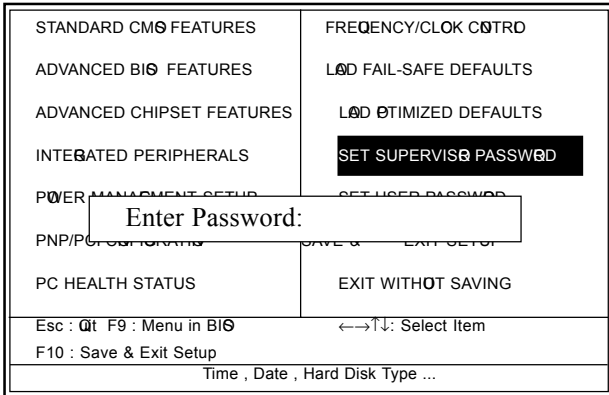


Pressing 'Y' loads the default values that are factory settings for optimal performance system operations.

## 2.12 Set Supervisor / User Password

© Figure 12. Set Supervisor / User Password

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software



When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

### Enter Password

Type the password, up to eight characters, and press <Enter>. The password you type now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <ESC> to abort the selection and not enter a password. To disable password, just press <Enter> when you are prompted to enter password. A message will confirm that you wish to disable the password. Once the password is disabled, the system will boot and you can enter setup freely.

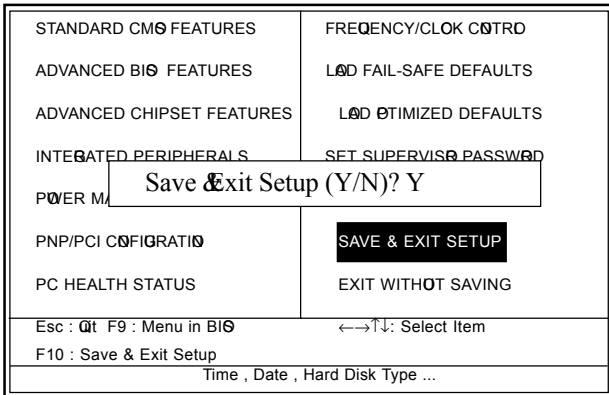
### **Password Disabled**

If you select “System” at the Security Option of BIOS Features Setup Menu, you will be prompted for the password every time when the system is rebooted, or any time when you try to enter Setup. If you select “Setup” at Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

## 2.13 Save & Exit Setup

### © Figure 13. Save & Exit Setup

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software



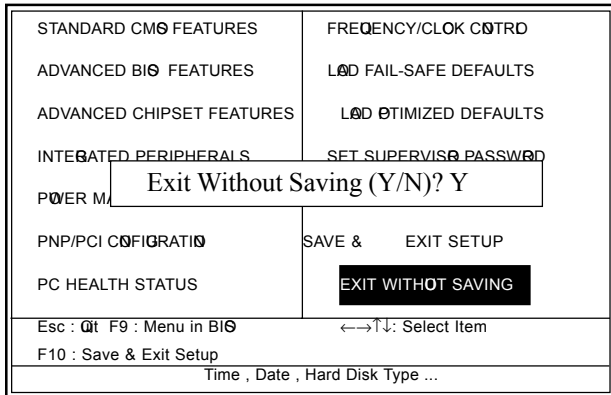
Type “Y” will quit the Setup Utility and save the user setup value to RTC CMOS RAM.

Type “N” will return Setup Utility.

## 2.14 Exit Without Saving

© Figure 14. Exit Without Saving

CMOS Setup Utility-Copyright(C) 1984-2000 Award  
Software



Type “Y” will quit the Setup Utility without saving to RTC CMOS RAM.

Type “N” will return Setup Utility.

Date :    /    /

## Warranty Card/Technical Fault Report

M/B Model No.: \_\_\_\_\_

Vender

Serial No. : \_\_\_\_\_

Date of Purchasing: \_\_\_\_\_

--

Hardware Configuration Used :

CPU	
RAM (Brand,MB )	
Video Card	
Hard Drive	
Other Card	

Diagnostic Software Used :

--

Fault Description :

--

# The 7KTA/AP Mainboard layout

