

VXZA
Socket 370 ATX
Motherboard
USER' S MANUAL

Model : **VXZA**
Manual Version : **English, version 1.2**
Release Date : **July 28th , 2000**

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FCC & DOC Compliance

Federal communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- ◆ This device may not cause harmful interference.
- ◆ This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Re-orient or relocate the receiving antenna.
- ◆ Increase the separation between the equipment and the receiver.
- ◆ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- ◆ Consult the dealer or an experienced radio/TV technician for help.

Warning

The use of shielded cables for the connection of the monitor to the graphics card is required to assure compliance with FCC regulations changes or modifications to this authority to operate this equipment.

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Chapter 1

Overview

General Description

Thanks for purchasing **VXZA Socket 370** motherboard. **VXZA** is based on VIA chipset (North Bridge VT82C694X & South Bridge VT82C686A). Its new features include that it support AGP 2x/4x, super I/O, and voltage, temperature, and fan speed hardware monitoring, and there are four USB connectors on board as well. It includes all of the required specifications like Ultra DMA 66 interface, meanwhile it supports PC 133 system memory. **VXZA** provides you perfect function to be the same with your system operation and end user. This user's manual contains all the information and features that show you how to use the **VXZA** motherboard. Please take a moment to familiarize yourself with the design and organization of this manual.

Check Your Items

This **VXZA** motherboard package contains the following items. Please inspect the package contents and confirm that everything is there. If anything is missing or damaged, call your vendor for instructions before operating.

The Package includes:

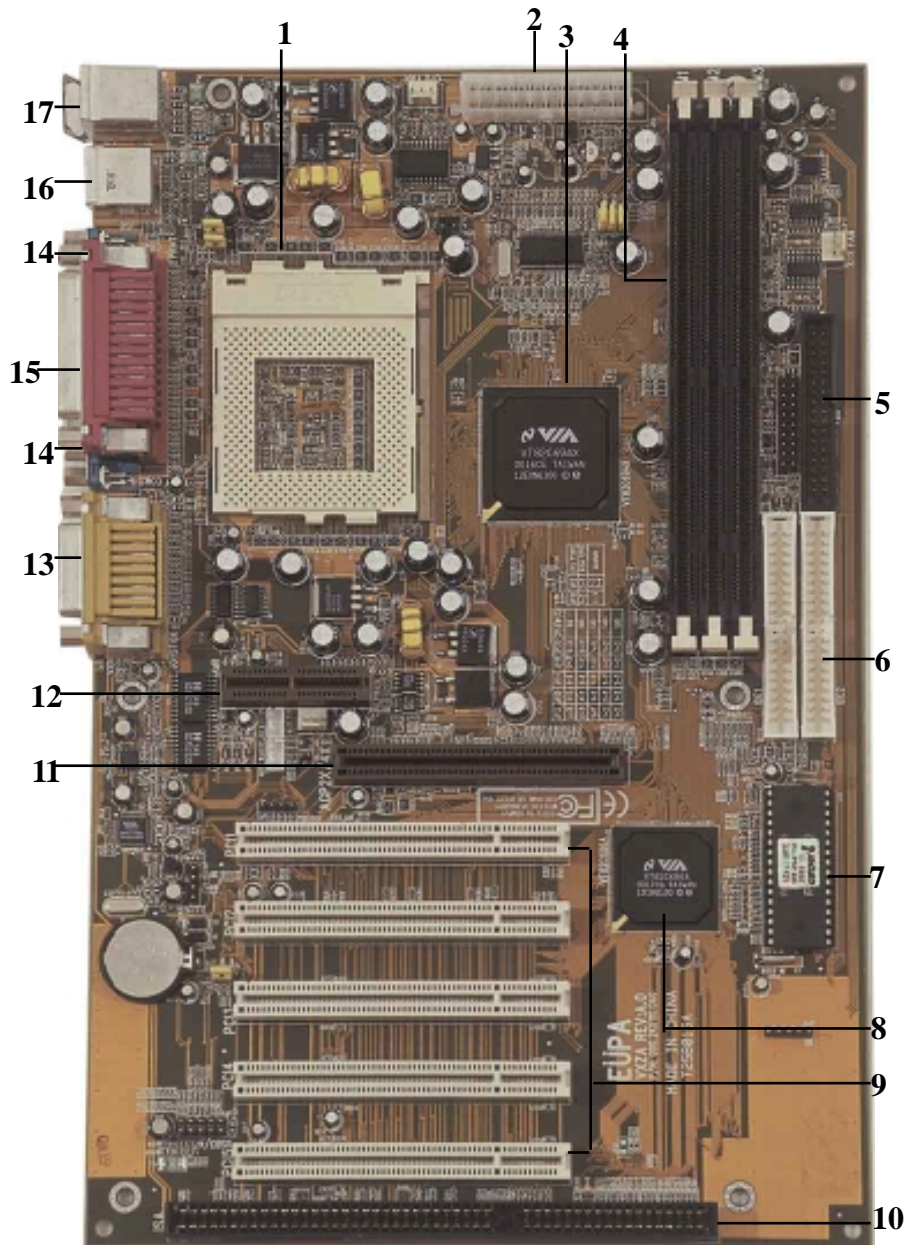
- ☞ **One VXZA motherboard**
- ☞ **One Floppy Interface Cable**
- ☞ **One IDE Interface Cable**
- ☞ **One Motherboard Resource CD**
- ☞ **One User's Manual**

VXZ A Specifications:

Form Factor	<ul style="list-style-type: none"> • ATX form factor
Board Size	<ul style="list-style-type: none"> • 30.5cm x 19.7cm
CPU	<ul style="list-style-type: none"> • Supports Socket 370 Intel P!!! & Celeron (PPGA), Celeron (FC-PGA) and VIA Cyrix III • Supports CPU Clock Frequency: 66/100/133MHz
System Memory	<ul style="list-style-type: none"> • DIMM 168-pin x 3 SDRAM maximum 1.5G • Supports 64M-bit SDRAM technology
Chipset	<ul style="list-style-type: none"> • VIA Chipset including: <ul style="list-style-type: none"> - VIA VT82C694X (North bridge) - VIA VT82C686A (South bridge)
Expansion Slots	<ul style="list-style-type: none"> • 1 x AGP Slot • 5 x PCI Slots • 1 x ISA Slot. • 1 x AMR Slot
Serial Port	<ul style="list-style-type: none"> • Two serial ports UART 16550 compatible
Parallel Port	<ul style="list-style-type: none"> • One parallel port supports: <ul style="list-style-type: none"> - SPP-standard parallel port - EPP-enhanced parallel port - ECP-extended capabilities port
Floppy Interface	<ul style="list-style-type: none"> • Support drivers inches / format with <ul style="list-style-type: none"> - 3.5 inches-720KB/1.44MB/2.88MB - 5.25 inches-360KB/1.2MB
IDE Interface	<ul style="list-style-type: none"> • The VT82C686A includes dual channel master mode PCI support 4 IDE devices. • Support PIO Mode 4, ULTRA DMA /33 & ULTRA DMA/66
USB Port	<ul style="list-style-type: none"> • Four USB ports supported • Support USB Legacy Keyboard function
PS/2 Mouse	<ul style="list-style-type: none"> • PS/2 mouse supported by connector onboard
PS/2 keyboard	<ul style="list-style-type: none"> • PS/2 keyboard supported by connector onboard
Sound Function	<ul style="list-style-type: none"> • On-board AC'97 System • VT1611A Audio Codec
Fuse	<ul style="list-style-type: none"> • Supports Recoverable fuse for USB, KB & MOUSE
RTC and Battery	<ul style="list-style-type: none"> • Built in South Bridge • Lithium (CR-2032) battery
Power Connector	<ul style="list-style-type: none"> • ATX
Wake up Function	<ul style="list-style-type: none"> • Modem ring wake up • LAN wake up • RTC Alarm wake up
Hardware Monitor	<ul style="list-style-type: none"> • System fan speed monitor • Voltage monitoring • Over temperature monitoring
BIOS	<ul style="list-style-type: none"> • Award BIOS • Supports Suspend TO RAM (optional) • Supports APM, DMI and ACPI • Supports virus warning • Supports Flash / Upgrade BIOS functions
LED Indicator	<ul style="list-style-type: none"> • System Power LED • HDD activity LED

Overview

VXZA Components:

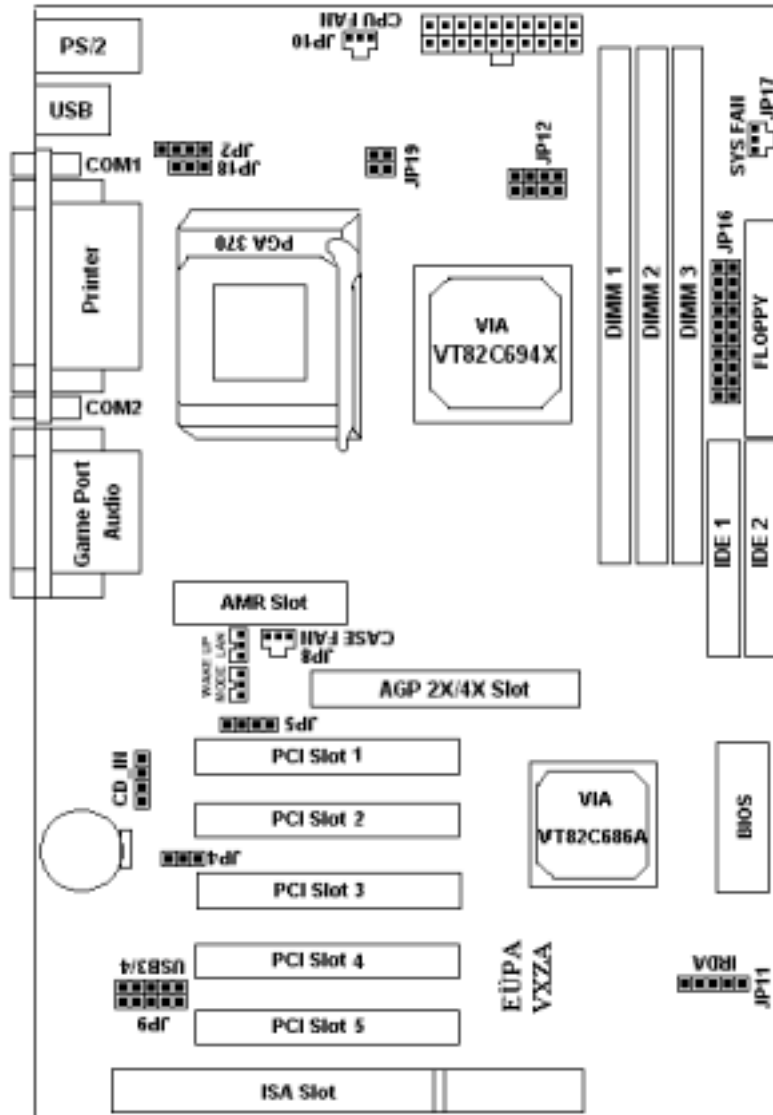


Please refer to next two pages about each component, and this manual will explain every important one at the following chapter.

1. Socket 370 processors socket
2. ATX Power Port
3. North Bridge VIA VT82C694X
4. DIMM sockets
5. Floppy Port
6. IDE Ports
7. BIOS
8. South Bridge VIA VT82C686A
9. Peripheral Component Interface (PCI) Slots
10. Industry Standard Architecture (ISA)
11. Accelerated Graphics Port (AGP) slot
12. Audio Modem Riser Card (AMR) slot
13. Audio Port --Mic in(pink), Line in(blue), Line out(green)
& Joystick Game Port
14. COM1 & COM2
15. Printer Port
16. USB devices ports
17. PS/2 Keyboard (purple) / Mouse (green)

Overview

Motherboard Layout:



Jumpers

- | | | |
|----|------------|---------------------------|
| 1. | JP4 | Clear CMOS |
| 2. | JP2, JP18 | Select CPU's type |
| 3. | JP12, JP19 | CPU Clock Frequency |
| 4. | JP5 | AMR & AC97 jumper setting |

Expansion Slots

- | | | |
|----|--------------------|--|
| 1. | AGP | AGP Expansion slot |
| 2. | PCI slot1 to slot5 | 32-bit PCI Bus Expansion slot |
| 3. | ISA slot | 16-bit ISA Bus Expansion slot |
| 4. | AMR | AMR Expansion Slot for AC'97 and MC'97 |
| 5. | DIMM 1 to DIMM 3 | Support 168-pin DIMM Memory |

Connectors

- | | | |
|-----|-------------------|---|
| 1. | IDE 1/ IDE 2 | Primary IDE Connector / Secondary IDE Connector |
| 2. | Floppy | Floppy Drive Connector |
| 3. | IrDA (JP11) | Infrared Ray Port Connector |
| 4. | SYS Fan (JP17) | System Fan Connector |
| 5. | CPU Fan (JP10) | CPU Fan Connector |
| 6. | Chassis Fan (JP8) | Chassis Fan Connector |
| 7. | Wake on LAN | LAN Wake Up Connector |
| 8. | Wake on MODEM | MODEM Wake Up Connector |
| 9. | ATX Power | ATX Power Connector |
| 10. | COM1/COM2 | Serial Port1/Serial Port2 Connector |
| 11. | CD_IN (JP1) | Audio CD-IN Connector |
| 12. | Audio/Game Port | Audio / Game Port Connector |
| 13. | Printer | Printer (Parallel) Port Connector |
| 14. | USB | Universal Serial Bus Port1 and Port2 |
| 15. | PS/2 connectors | PS/2 Mouse & PS/2 Keyboard Connectors |
| 16. | JP9 | USB Connector 3/4 |
| 17. | Panel | |
-
- | | |
|------------|---------------------------------------|
| -PowerOn | ATX Power on / off switch (2-pin) |
| -Reset | Reset Switch Connector (2-pin) |
| -HDD LED | HDD LED Connector (3-pin) |
| -Power LED | ATX Power LED Connector (3-pin) |
| -Speaker | Chassis Speaker Connector (4-pin) |
| -KBLCK | Keyboard Lock Switch Connector(2-pin) |

Chapter 2

Hardware Installation

This chapter gives you a step-by-step procedure on how to install your system and set jumper. The motherboard has several user-adjustable jumpers on the board that allow you to configure your system to suit your requirements.

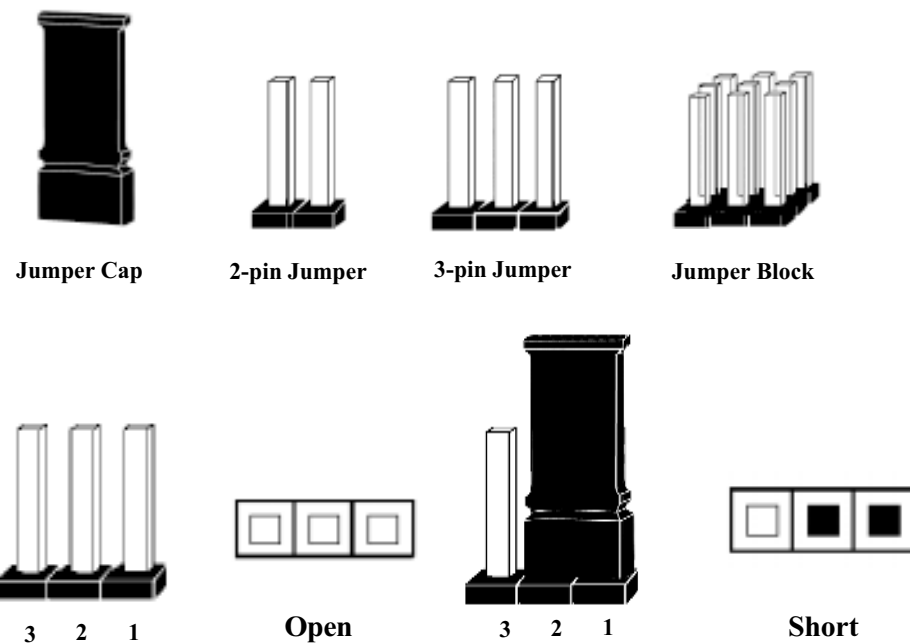
Cautions: **Protecting Against Electrostatic Discharge**

Static electricity can harm delicate components inside your system. To prevent static damage, discharge static electricity from your body before you touch any of your motherboard electronic components, such as the microprocessor. Observe the following precautions:

- Do not remove the motherboard from its anti-static packaging until you are ready to install it into a computer case.
- Before you handle the motherboard in any way, touch a grounded, antistatic surface, such as an unpainted portion of the system chassis, for a few seconds to discharge any built-up static electricity.
- Handle add-in cards and modules by the edges or mounting bracket.

Set Jumpers:

Jumpers are used to select the operation modes for your system. Some jumpers on the board have three metal pins with each pin representing a different function. A “1” is written besides pin 1 on jumpers with three pins. To set a jumper, a black cap containing metal contacts is placed over the jumper pin/s according to the required configuration. A jumper is said to be shorted when the black cap has been placed on one or two of its pins. The types of jumpers used in this manual are shown below:



Note:

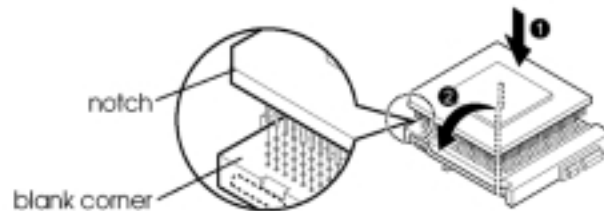
Users are not encouraged to change the jumper settings not listed in this manual. Changing the jumper settings improperly may adversely affect system performance.

Hardware Installation

Install CPU

The CPU module resides in the socket 370 on the motherboard. Please following the steps introduced below to complete the CPU installation.

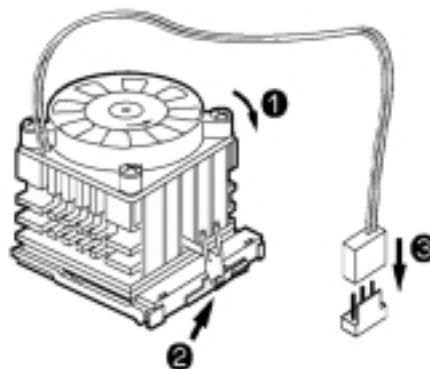
- 1) Locate the new processor you are installing over the socket so that the notched corner on the processor (pin 1) can be aligned with the blank corner on the socket. Then gently push the processor straight into the socket until its pins are completely inserted into the holes of the socket.



Caution:

If you install the processor chip in the wrong orientation, you may burn the chip and void your warranty. So you should install it careful deeply.

- 2) Press the ZIF handle back to close it.
- 3) Attach the heat sink to the processor socket and then connect a fan connector cable from the CPU fan to the CPU fan connector.



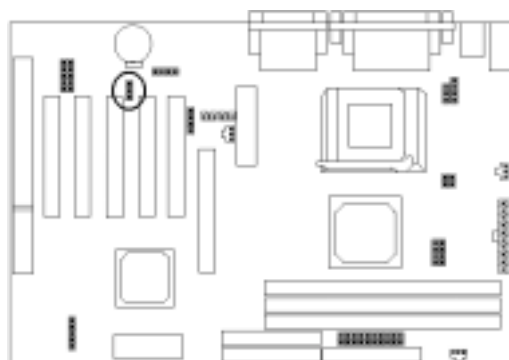
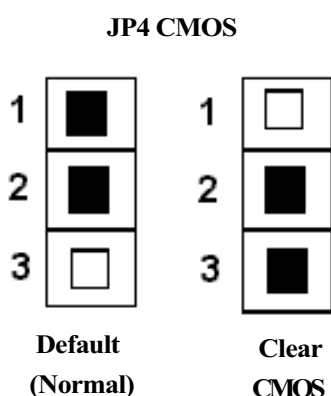
CPU Setting (*jumperless & jumper setting*)

After installing the CPU, you must set the clock selection jumpers to match the frequency of the CPU. There are two ways for CPU setting: *jumper setting and jumperless*. Find the jumpers labeled **JP12**, **JP19**, set these jumpers according to the figure below and table for CPU Clock Frequency.

Caution: we don't recommend user to try overclock, it may damage your CPU and result in a slower speed. Please think carefully before you use overclock function.

We introduce you how to clear CMOS, and enter into system BIOS, it could help you accomplish CPU setting in BIOS easily.

Clear CMOS: JP4

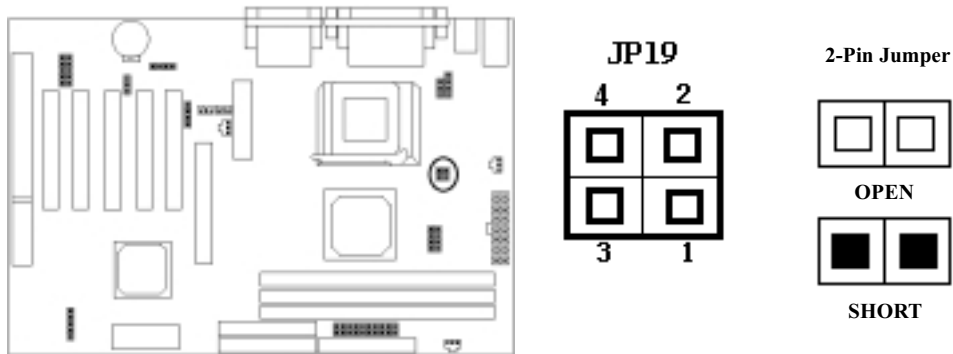


To Clear CMOS, please follow the steps below:

1. Power off the system and unplug the chassis AC power cord.
2. Short JP4 at pin 2-3 for few seconds.
3. Set JP4 back to its Normal position at pin1-2
4. Plug the AC power cord to the chassis.
5. Power on the system and load the BIOS set up default.

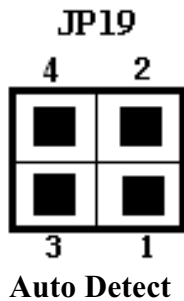
Hardware Installation

Jumperless setting: JP19



Caution:

JP12 must be open when adjusting CPU setting by jumperless(JP19).



Auto Detect is default for CPU of JP19. You need not set this jumper except you want to over-clock.

We recommend you to keep the default, it will guarantee your system working stability.

Meanwhile, the jumperless mode allow processor settings to be made through the BIOS setting. (Frequency / Voltage Control)

How to enter the BIOS?

While the BIOS is in control, the Setup program can be activated by pressing the key during the POST (Power On Self-Test).

Hardware Installation

- If your CPU is **66MHz clock frequency (Celeron)**, you may select CPU host clock from the BIOS for overlock.

Frequency / Voltage Control

Auto Detect DIMM / PCI Clk	Enabled	Item Help
Spread Spectrum	Disabled	
CPU Host Clock (CPU / PCI)	Default	Menu Level »
Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

CPU Host Clock (CPU/PCI)

Default.....	()
66/33 MHz.....	()
75/37.5MHz.....	()
83/41.7MHz.....	()

- If your CPU is **100MHz clock frequency (FC-PGA Coppermine & VIA CyrixIII)**, you may select CPU host clock from the BIOS for over-clock.

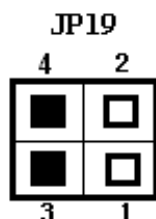
Frequency / Voltage Control

Auto Detect DIMM / PCI Clk	Enabled	Item Help
Spread Spectrum	Disabled	
CPU Host Clock (CPU / PCI)	Default	Menu Level »
Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

CPU Host Clock (CPU/PCI)

Default.....	()
100/33 MHz.....	()
103/34MHz.....	()
112/37MHz.....	()
124/41MHz.....	()

If you decide to make 66MHz CPU over-clock to 100MHz CPU, you may set **JP19 pin 3-4** short as following:



Caution!!

Frequencies above 100MHz exceed the specifications for the CPU and are not guaranteed to be stable and results in damaging your peripheral devices.

Hardware Installation

3. If your CPU is 133MHz clock frequency (FC-PGA Coppermine & CyrixIII), you may select CPU host clock from the BIOS for over-clock.

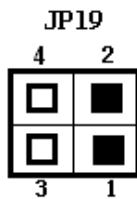
Frequency / Voltage Control

Auto Detect DIMM / PCI Clk	Enabled	Item Help Menu Level »
Spread Spectrum	Disabled	
CPU Host Clock (CPU / PCI)	Default	
Enter: Select F5 : Previous Values +/-PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

CPU Host Clock (CPU/PCI)

Default.....	()
133/33 MHz.....	()
140/35MHz.....	()
150/37MHz.....	()

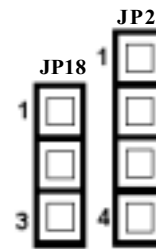
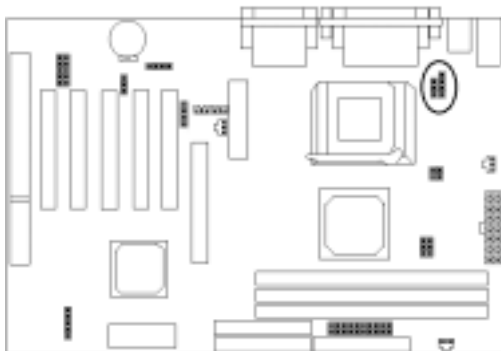
If you decide to make 66MHz CPU or 100MHz CPU to 133MHz CPU or high, you may set **JP19 pin1-2** short as following:



Caution!!

Frequencies above 133MHz exceed the specifications for the CPU and are not guaranteed to be stable and results in damaging your peripheral devices.

CPU Type Selection: JP18, JP2



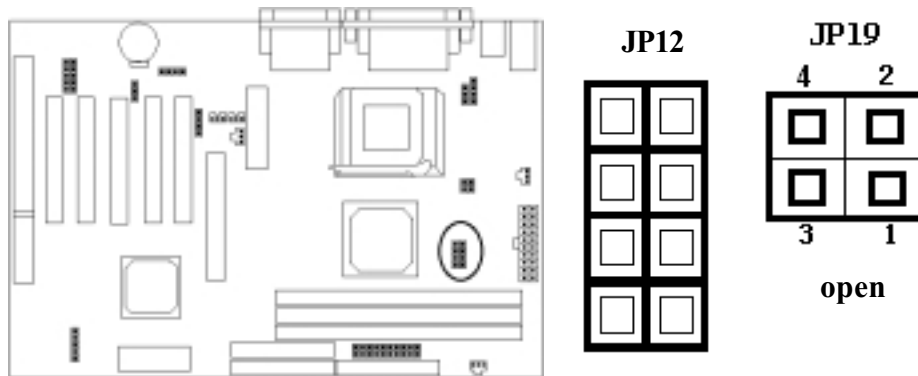
JP2	JP18	CPU TYPE
2-3	1-2	Intel, CyrixIII
1-2, 3-4	2-3	Joshua

Hardware Installation

Jumper setting: JP12

You can set JP12 to adjust the frequency manually according to the figure below and table which is fit for you most.

Note: Jumperless mode(JP19) must be opened when adjusting CPU setting manually.



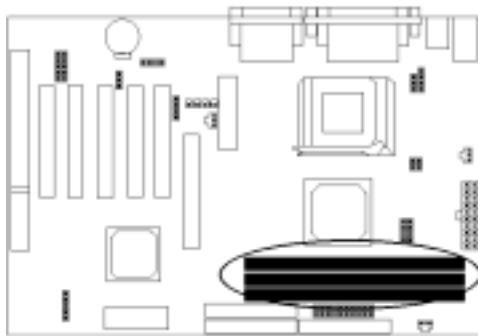
JP12				CPU Freq (MHz)	PCI Freq (MHz)
7-8	5-6	3-4	1-2		
Open	Open	Open	Open	133.3	33.3 (CPU/4)
Open	Open	Open	Short	124	31 (CPU/4)
Open	Open	Short	Open	150	37.5(CPU/4)
Open	Open	Short	Short	140	35 (CPU/4)
Short	Open	Open	Open	100	33.3 (CPU/3)
Short	Open	Open	Short	133.3	44.43 (CPU/3)
Short	Open	Short	Open	112	37.3 (CPU/3)
Short	Open	Short	Short	103	34.3 (CPU/3)
Short	Short	Open	Open	66.8	33.4(CPU/2)
Short	Short	Open	Short	83.3	41.7 (CPU/2)
Short	Short	Short	Open	75	37.5 (CPU/2)
Short	Short	Short	Short	124	41.3 (CPU/3)

Hardware Installation

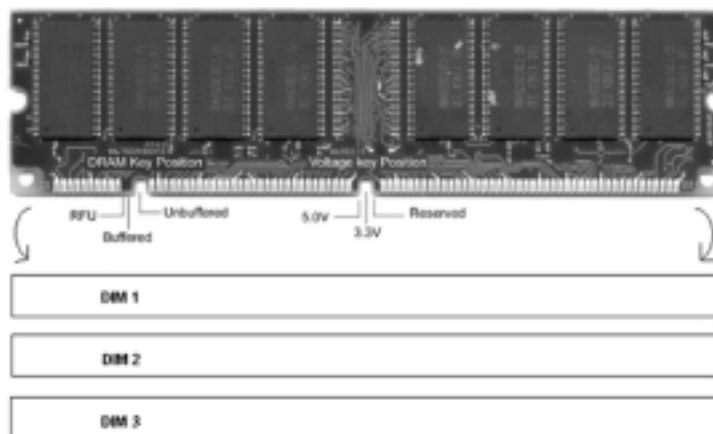
System Memory Installation

There are 3 pieces 168-pin DIMM (Dual Inline Memory Module) sockets on the motherboard which support SDRAM and EDO DRAM memory.

- ◆ To ensure reliability, it is recommended to use PC 100 SDRAM or PC 133 SDRAM for your high clock SDRAM performance requirement.
- ◆ If you are using low clock SDRAMs, you should set the SDRAM clock option of the BIOS's Chipset Feature Setup to HCLK-33 to ensure stability.
- ◆ DIMM Sizes supported: **8MB, 16MB, 32MB, 64MB, 128MB, 256MB.**
- ◆ Total Memory Size = DIMM1 + DIMM2 + DIMM3, maximum up to 1.5GB.



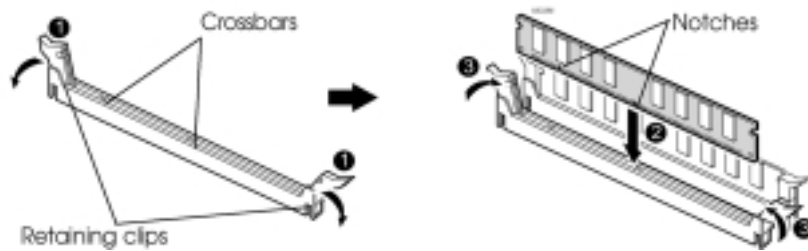
There are 3x168-pin DIMM slots (DIMM1, DIMM2, DIMM3) that allow you to install the system memory max up to 1.8GB SDRAM.



Hardware Installation

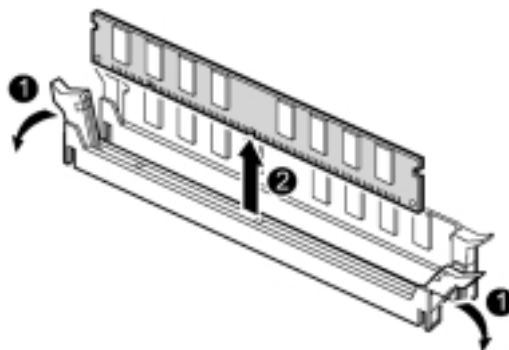
1. Install DIMM

- 1) After remove the cover, install the DIMM in the sockets marked with DIMM2, if the DIMM has been installed in the DIMM1 socket. Release the plastic retaining clips at each end of the socket by pressing the clips outward until they snap open.
- 2) Orient a DIMM to the socket so the two notches in the DIMM connector are aligned with the crossbars in the socket.
- 3) Press the DIMM straight into the socket until the retaining clips snap into place around the ends of the DIMM.



2 Removing a Memory Module

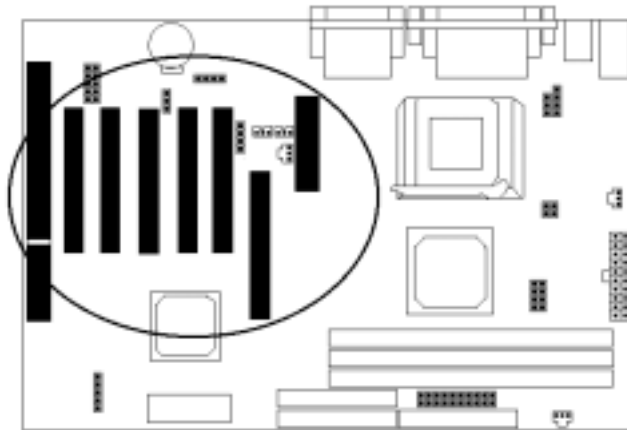
To remove memory modules, press the retaining clips outward simultaneously until the DIMM disengages from the socket and then carefully remove the DIMM from the socket.



Hardware Installation

Install Expansion Cards

This section describes how to connect an expansion card to one of your system's expansion slots. Expansion cards are printed circuit boards that, when connected to the mainboard, increase the capabilities of your system. VXZA features 5 PCI bus, one AGP bus, one AMR and 1 ISA bus expansion slots.



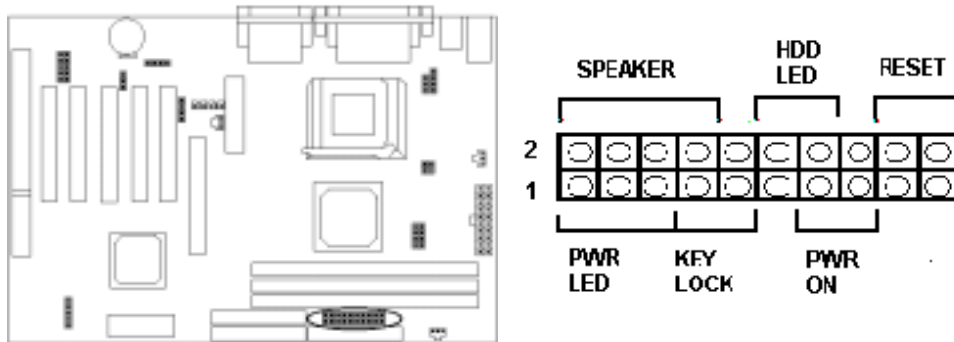
Caution:

Adjust any switches or jumpers on the expansion card, if necessary. When you handle the card, be careful not to touch any components on the circuit board or the gold-edged connector.

- 1) After removing the cover, insert a flat blade screwdriver into a hole of the slot cover you wish to remove.
- 2) Move the screwdriver up and down until the slot cover breaks away from the chassis. Then lift the slot cover out of the chassis.
- 3) Hold the card along the top corners and guide it into the slot. When the expansion card reaches the slot on the motherboard, push the card in firmly to insert it fully.
- 4) Secure the end of the card to the computer with retaining screw.
- 5) Connect any cables that should be attached to the card, and replace the system cover.

Connector Devices

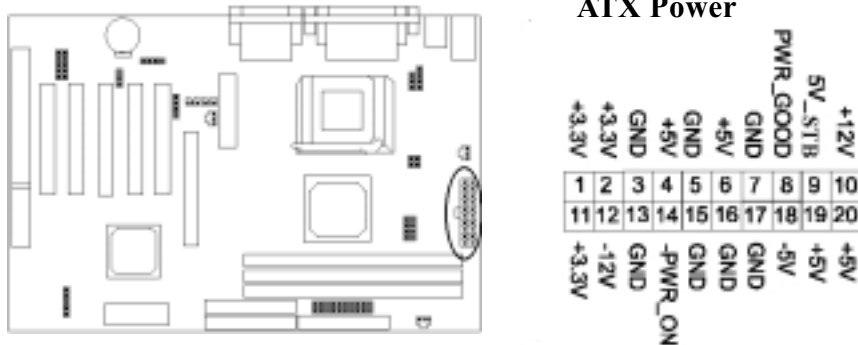
1. Pannel Connector



- **PWR ON** ATX Power Swith Connector(3 pins)
- **RESET** Reset Swith Connector (2 pins)
- **HDD LED** HDD LED Connector (2 pins)
- **PWR LED** ATX Power LED Connector (3 pins)
- **SPEAKER** Chassis Speaker Connector (4 pins)
- **KEY LOCK** Keyboard Lock Connector (2 pins)

2. Power Connector

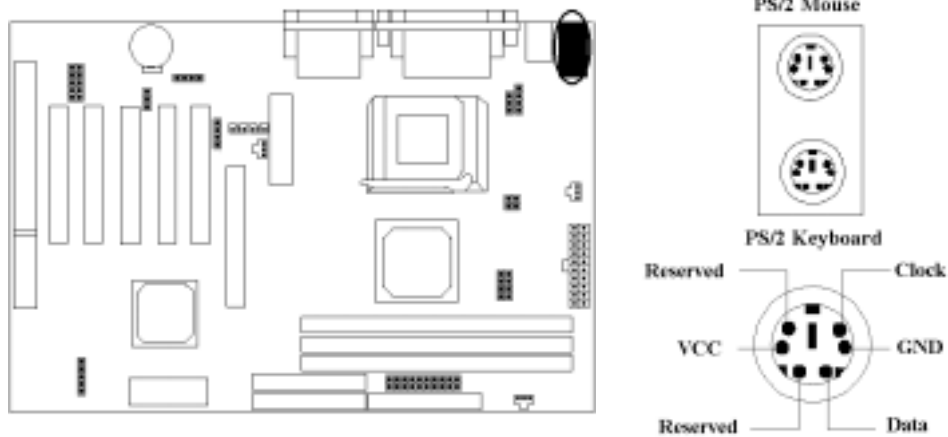
Connect the 20-pin ATX power supply cable to this power connector. Make sure the right plug-in direction and the power supply is off before connecting or disconnecting the power cable.



Hardware Installation

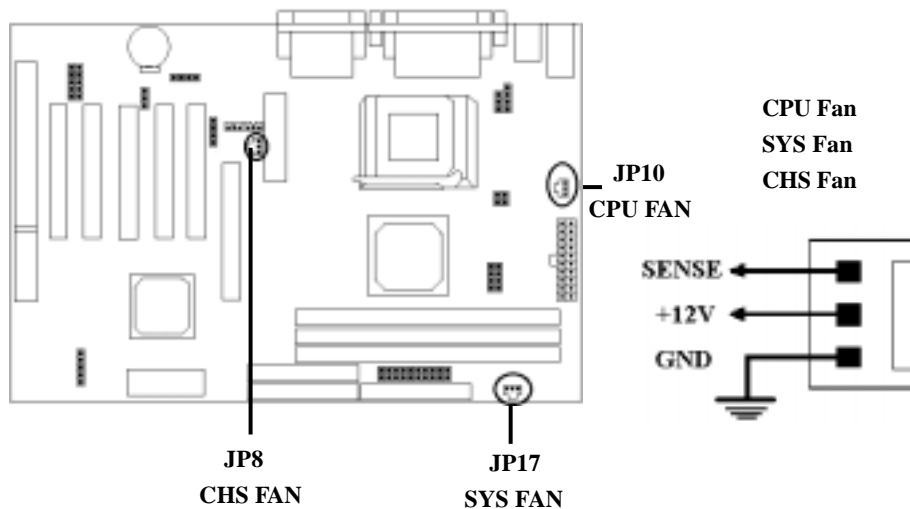
3. PS/2 Mouse & Keyboard Connectors

Connect the PS/2 mouse and keyboard to the onboard 6-pin Mini-Din connector marked as **MOUSE** and **KB**.



4 FAN Connectors

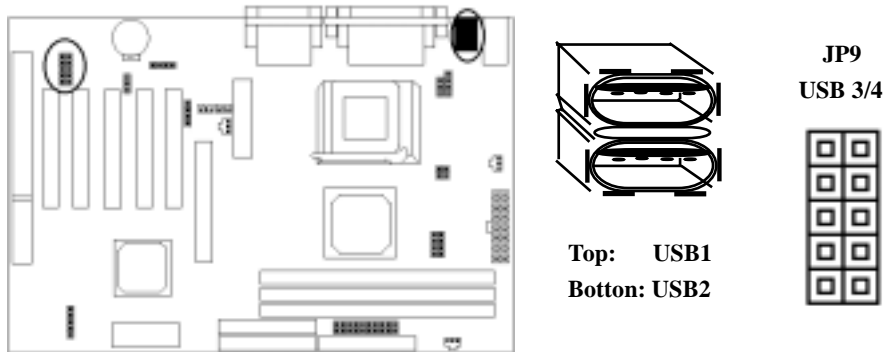
Connect the CPU and SYS fan cables to the fan connectors shown below. The fan connectors are marked as: **CPUFAN**, **SYSEFAN** and **CHS FAN** on the motherboard.



Hardware Installation

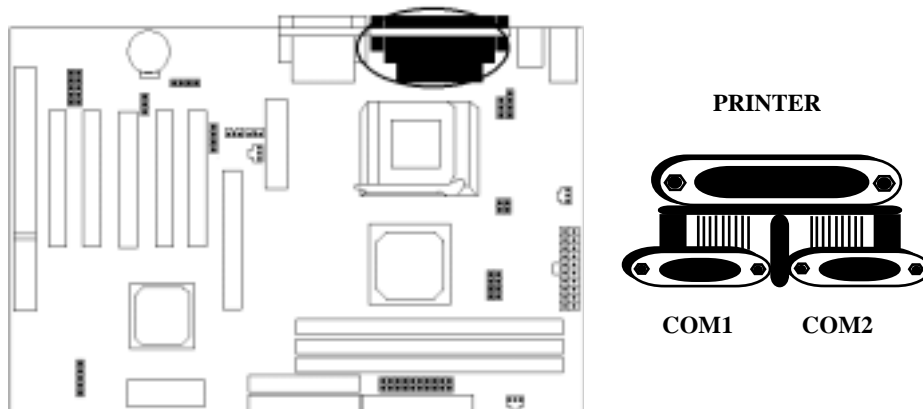
5. USB Connectors: JP9

Connect your USB devices to the USB connector onboard marked as **USB**.



6. Serial Device (COM1/COM2) and Printer Connectors

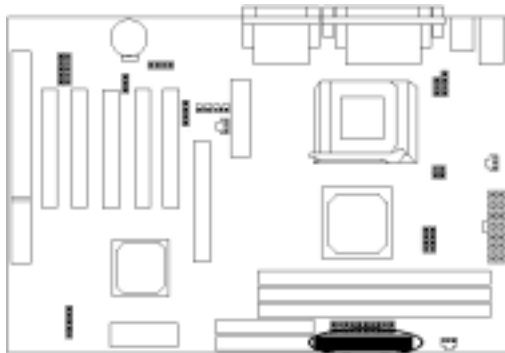
Connect your serial device(s) to the onboard 9-pin serial connectors marked as **COM1** and **COM2**. Connect your local printer to the onboard 25-pin printer connector marked as **PRINTER**.



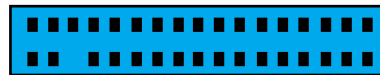
Hardware Installation

7. Floppy Drive Connector

Connect the floppy drive cable to the onboard 34-pin floppy drive connector marked as **FDD**.

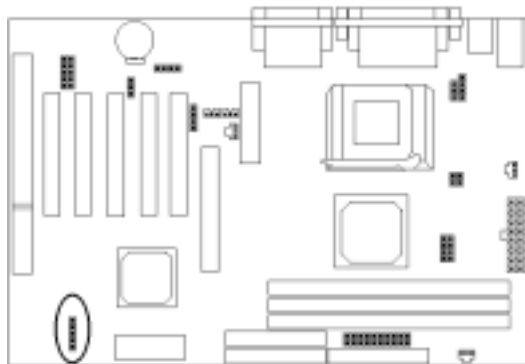


FLOPPY



8. IrDA Connector

Connect your IR device to the IrDA connector onboard marked as **JP11**.



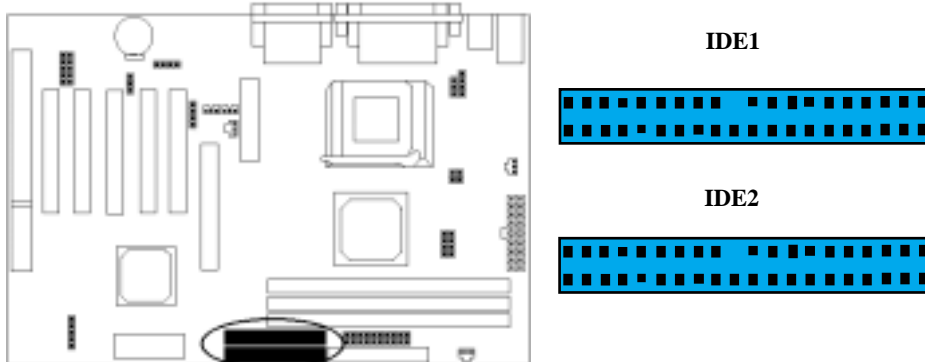
JP11 IrDA

Pin	Description
5	IRTX
4	GND
3	IRRX
2	NC
1	+5V

IR

9. IDE Hard Drives Connector

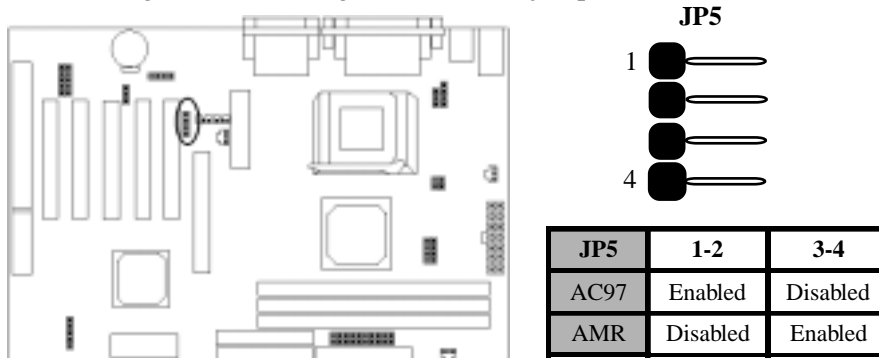
Connect your IDE devices to the 40-pin IDE connectors onboard marked as **IDE1** and **IDE2**.



Each IDE channel, either Primary or Secondary, supports two IDE devices which must be set differently to master mode and slave mode. (Refer to your hard disk and CD-ROM user manual for detailed settings of IDE master and slave mode.)

10. AMR & AC97Connectors: JP5

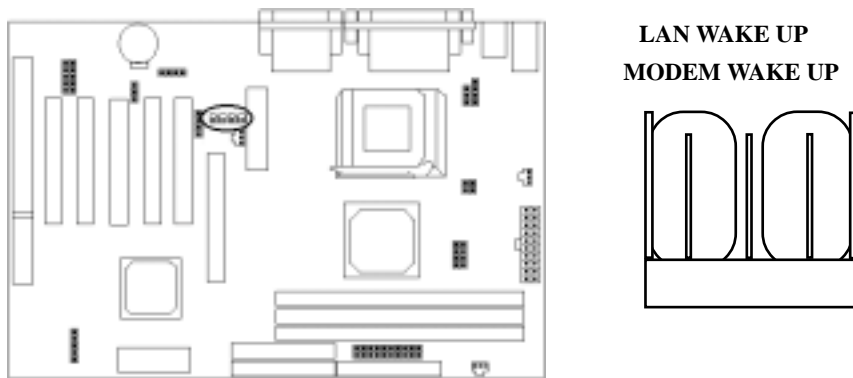
Connect the AMR card to the onboard AMR connector marked as **JP5**. According to the following table, sets JP5 jumper.



Hardware Installation

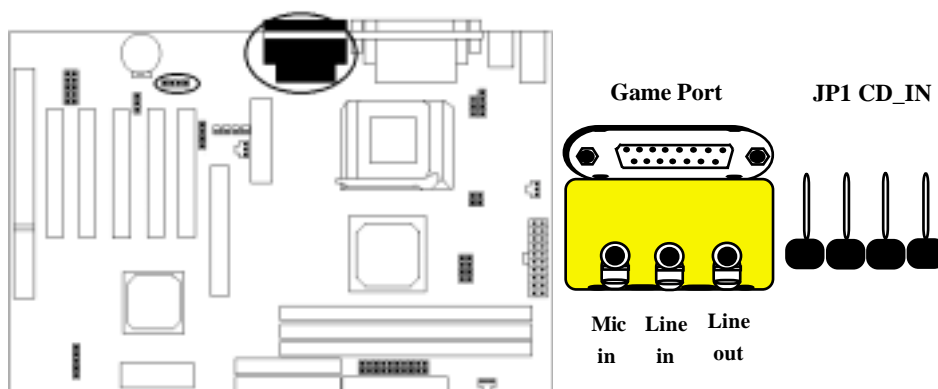
10. LAN & Modem Wake Up Connectors

This motherboard supports LAN wake up and MODEM wake up functions. To use these two functions, you need a **LAN Wake Up & Modem Wake Up** supported network cards and softwares. (**Wake on LAN & Wake on Modem functions should be supported by Network Card and Modem Card.**) To use the functions, you must enable the Power On By Ring/LAN field in the Power Management Setup of the Award BIOS.



11. Game / MIDI & CD_IN Connectors:JP1

Connect the game device to the onboard Game / Audio connector marked as **GAME PORT**. The onboard CD_IN connector marked as **CD-IN JP1**.



Chapter 3

CMOS Setup Utility

The rest of this manual is intended to guide you through the process of configuring your system using Setup. While the BIOS is in control, the Setup program can be activated by pressing the key during the POST (Power On Self-Test).If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the “ RESET ” button on the system case. You may also restart by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys.

CMOS Setup Main Menu

Once you enter the BIOS setup utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions . the arrow keys to select among the items and press <Enter> to accept and enter the submenu.

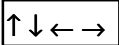
CMOS Setup Utility - Copyright (C) 1984-2000 Award Software


■ 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 Passoword
■ PnP / PCI Configuration	Save & Exit Setup
■ PC Health Status	Exit Without Saving
Esc : Quit	↑↓←→: Select Item
F10 : Save & Exit Setup	
Abandon all datas	

CMOS Setup Utility


The main menu includes the following main setup categories, which defines basic information about your system. Below are the keyboard function keys you can use under the menu.


Menu function keys:

 : To Move around the screen. An item is highlighted if it is selected.


 : Help.

 : Save CMOS Changes & Exit.

 : To select or enter a submenu.

 : To quit the BIOS Setup Utility.


Standard CMOS Setup

The items in Standard CMOS Setup Menu are divided in 10 categories. Each catalogue includes one or more than one setup items. Use the keys to highlight the item and then use the  / <PgUp> / <PgDn> keys to select the value you want in each item.

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

Date (mm:dd:yy): Time (hh:mm:ss):	Mon, Mar 29 2000 16:19:20	Item Help
▶▶ IDE Primary Master ▶▶ IDE Primary Slave ▶▶ IDE Secondary Master ▶▶ IDE Secondary Slave		Menu Level ▶▶ Change the day, month, year and century
Drive A Drive B	1.44M. 3.5in None	
Video Halt On	EGA / VGA All, But Keyboard	
Base Memory Extended Memory Total Memory	640K 65472K 1024K	
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6: Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

Date & Time

To set the date and time, highlight the date area. Press  <PgUp> / <PgDn> to set the current date. The date format is month: Jan. ~ Dec; date: 1 ~ 31; year: 1994 ~ 2079; hour: 00 ~ 23; and second: 00 ~ 59.

- **Hard Disks** → IDE Primary Master
- **Hard Disks** → IDE Primary Slave
- **Hard Disks** → IDE Secondary Master
- **Hard Disks** → IDE Secondary Slave

CMOS Setup Utility

Access Mode

Choose the access mode for this hard disk.

The optional are: Normal, LBA, Large, **Auto (Default)**.

Capacity

Disk drive capacity (approximated). Note that this size is usually slightly greater than the size of the formatted disk given by a disk checking program.

The optional are: Auto display your drive size.

Drive A / Drive B

Select the floppy drive type installed in your system. The available options for Drive A and Drive B.

The optional are: 360K 5.25 in, 1.2M 5.25 in, 720K 3.5 in, 1.44M 3.5 in(**Drive A default**), 2.88M 3.5 in and NONE (**Drive B default**).

Video

Select the video display card type installed in your system.

The optional are: **EGA/VGA (Default)**, CGA 40, CGA 80 and Mono.

Halt On

This item defines the operation of the system POST (Power On Self-Test). You can use this item to select which kind of errors will cause the system to halt during POST.

The optional are: All Errors, No Errors, **All But Keyboard (Default)**, All But Diskette and All But Disk / Key

Advanced BIOS Features

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

Virus Warning	Disabled	<p style="text-align: center;">Item Help</p> <p>Menu Level ▶</p> <p>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 alarm beep.</p>
CPU Internal Cache	Enabled	
External Cache	Enabled	
CPU L2 Cache ECC Checking	Enabled	
Processor Number Feature	Enabled	
Quick Power On Self Test	Disabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	
Third Boot device	LS/ZIP	
Boot other device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Enabled	
Boot Up Numlock Status	On	
Gate A20 Option	Normal	
Typematic Rate Setting	Disabled	
* Typematic Rate (Chars/Sec)	6	
* Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM > 64MB	Non-OS2	
Video BIOS shadow	Enabled	
C8000-CBFFF shadow	Disabled	
CC000-CFFFF shadow	Disabled	
D0000-D3FFF shadow	Disabled	
D4000-D7FFF shadow	Disabled	
D8000-DBFFF shadow	Disabled	
DC000-DFFFF shadow	Disabled	
<p>↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults</p>		

Virus Warning

If this function enabled and someone attempt to write data into this area, BIOS will automatically show a warning message on screen and alarm beep.

The optional are: Enabled, **Disabled (Default)**

CPU Internal / External cache

These two items controls Enable / Disable the CPU internal / external cache.

The optional are: **Enabled (Default)**, Disabled

CPU L2 Cache ECC Checking

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

The optional are: **Enabled (Default)**, Disabled

CMOS Setup Utility

Processor Number Feature

This item allows you to enable / disable Processor Number.

The optional are: **Enabled (Default)**, Disabled

Quick Power On Self Test

This item speeds 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.

The optional are: Enabled, **Disabled (Default)**

First / Second / Third Boot Device

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

The optional are: **Floppy (First Default)**, **HDD-0(Second Default)**, **LS /ZIP (Third Default)**, HDD-1/2/3, ZIP 100, SCSI, CDROM, LAN, Disabled.

Boot Other Device

Select your Boot Device Priority.

The optional are: **Enabled (Default)**, Disabled

Swap Floppy Drive

If the system has two floppy drives, choose enable to assign physical drive B to logical drive A and vice-versa.

The optional are: Enabled, **Disabled (Default)**

Boot Up Floppy Seek

Seeks disk drives during boot up.

The optional are: **Enabled (Default)**, Disabled

Boot Up NumLock Status

Selects power on state for NumLock.

The optional are: Off, **On (Default)**

Gate A20 Option

Normal-a pin in the keyboard controller controls Gate A20.

Fast- lets chipset control Gate A20.

The optional are: **Normal(Default)**, Fast

Typematic Rate Setting

Keystrokes repeat at a rate determined by the keyboard controller, when enabled, the typematic rate and typematic delay can be selected.

The optional are: Enabled, **Disabled(Default)**

Typematic Rate (Chars/Sec)

Sets the number of times a second to repeat a key stroke when you hold the key down.

The optional are: **6 (Default)**, 8, 10, 12, 15, 20, 24, 30

Typematic Delay (Msec)

Select the delay time after the key is held down before it begins to repeat the key strokes.

The optional are: **250 (Default)**, 750, 1000

Security option

Select whether the password is required every time when you enter setup.

Setup -- The system will boot up.

System -- The system will not boot and access to setup will be denied if the correct password is not entered at the prompt.

The optional are: **Setup (Default)**, System

OS Select for DRAM > 64MB

Select OS2 only if you are running OS/2 operating system with greater than 64MB of RAM on the system.

The optional are: **Non-OS/2 (Default)**, OS/2

CMOS Setup Utility

Video BIOS Shadow

This item defines if you leave default setting, video BIOS memory will be copied from ROM into DRAM area to enhance system performance as DRAM access time is faster than ROM.

The optional are: **Enabled (Default)**, Disabled

C8000-CBFFF to DC000-DFFFF Shadow

Set Enabled if you know the address that your add on card ROM used to shadow them. If the item is Enabled, BIOS will copy the selected area from ROM to RAM to increase system performance.

The optional are: SDRAM 10ns(Default), SDRAM 8ns, **Normal, Medium, Fast, Turbo**

Advanced Chipset Features

This item allows you to configure the system based on the specific features of the chipset. This chipset manages bus speed and access to system memory resources, and external cache. It must be stated that these items should never need to be altered. The default settings have been chosen because they provide you the best operating conditions for your system. The only time you might consider making any changes if you discovered that the data were being lost while control your system.

CMOS Setup Utility

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

Bank 0/1 DRAM Timing	SDRAM 8/10ns	Item Help
Bank 2/3 DRAM Timing	SDRAM 8/10ns	
Bank 4/5 DRAM Timing	SDRAM 8/10ns	Menu Level ▶
SDRAM Cycle Length	3	
DRAM Clock	Host CLK	
Memory Hole	Disabled	
P2C/C2P Concurrency	Enabled	
System BIOS Cacheable	Disabled	
Video RAM Cacheable	Disabled	
AGP Aperture Size	64M	
AGP-4x Mode	Enabled	
AGP Driving Control	Auto	
* AGP Driving Value	DA	
AGP Fast Write	Disabled	
Onchip USB	Enabled	
USB Keyboard Support	Disabled	
USB Mouse Support	Disabled	
Onchip Sound	Auto	
Onchip Modem	Auto	
CPU to PCI Write Buffer	Enabled	
PCI Dynamic Bursting	Disabled	
PCI Master 0 WS Write	Enabled	
PCI Delay Transaction	Disabled	
PCI#2 Access #1 Retry	Disabled	
AGP Master 1 WS Write	Enabled	
AGP Master 1 WS Read	Enabled	
Memory Parity / ECC Check	Disabled	
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

Bank 0/1 2/3 4/5 DRAM Timing

This item allows you to select the value in this field, depending on whether the board has paged DRAMs or EDO (extended data output) DRAMs.

The optional are: **SDRAM 8/10ns(Default)**, Normal, Medium, Fast, Turbo

SDRAM Cycle Length

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

The optional are: **3(Default)**, 2

CMOS Setup Utility

DRAM Clock

This item allows you to control the DRAM speed.

The optional are: **Host CLK(Default)**, Host-33M, Host+33M

Memory Hole

In order to improve performance, certain space in memory is reserved for ISA cards.

This memory must be mapped into the memory space below 16MB.

The optional are: 15M-16M, **Disabled(Default)**

P2C/C2P Concurrency

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

The optional are: **Enabled(Default)**, Disabled

System BIOS Cacheabled

Selecting *Enabled* allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

The optional are: Enabled, **Disabled(Default)**

Video RAM Cacheabled

Selecting *Enabled* allows caching of the Video RAM, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

The optional are: Enabled, **Disabled(Default)**

AGP Aperture Size

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

The optional are: 128M, **64M(Default)**, 32M, 16M, 8M, 4M

AGP - 4X Mode

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

The optional are: **Enabled(Default)**, Disabled

AGP Driving Control

This item allows you to adjust the AGP Driving force. Choose Manual to key in a AGP driving Value in the next selection. This field is recommended to set in Auto for avoiding any error in your system.

The optional are: **Auto(Default)**, Manual

AGP Fast Write

This item allows you to enable / disable the AGP Fast Write.

The optional are: Enabled, **Disabled(Default)**

On Chip USB

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

The optional are: **Enabled (Default)**, Disabled

USB Keyboard Support

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

The optional are: **Disabled (Default)**, Enabled

USB Mouse Support

Select Enabled if your system contains a Universal Serial Bus Controller and you have a USB Mouse.

The optional are: **Disabled (Default)**, Enabled

CMOS Setup Utility

Onchip Sound

This item allows you to control the onboard AC97 audio.

The optional are: **Auto (Default)**, Disabled

Onchip Modem

This item allows you to control the onboard MC97 modem.

The optional are: **Auto (Default)**, Disabled

CPU to PCI Write Buffer

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

The optional are: **Enabled (Default)**, Disabled

PCI Dynamic Bursting

When Enabled, every write transaction goes to the write buffer. Burstable transactions then burst on the PCI bus and nonburstable transactions do not.

The optional are: **Disabled (Default)**, Enabled

PCI Master 0 WS Write

When Enabled, writes to the PCI bus are executed with zero wait state.

The optional are: **Enabled (Default)**, Disabled

PCI Delay Transaction

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select *Enabled* to support compliance with PCI specification version 2.1.

The optional are: Enabled, **Disabled(Default)**

CMOS Setup Utility

PCI #2 Access #1 Retry

When disabled, PCI#2 will not be disconnected until access finishes (default).
When enable, PCI#2 will be disconnected if max retries are attempted without success.

The optional are: **Disabled (Default)**, Enabled

AGP Master1 WS Write

When Enabled, writes to AGP(Accelerated Graphics Port) are executed with one wait states.

The optional are: **Disabled (Default)**, Enabled

AGP Master1 WS Read

This item enabled to detect the memory parity and error checking & Correcting.

The optional are: **Disabled (Default)**, Enabled

Memory Parity / ECC Check

Enable adds a parity check to the boot-up memory tests. Select Enabled only if the system DRAM Contains parity.

The optional are: **Disabled(Default)**, Enabled

CMOS Setup Utility

Integrated Peripherals

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Integrated Peripherals

		Item Help
OnChip IDE Channel 0	Enabled	
OnChip IDE Channel 1	Enabled	
IDE Prefetch Mode	Enabled	Menu Level ▶▶
Primary Master PIO	Auto	
Primary Slave PIO	Auto	
Secondary Master PIO	Auto	
Secondary Slave PIO	Auto	
Primary Master UDMA	Disabled	
Primary Slave UDMA	Disabled	
Secondary Master UDMA	Disabled	
Secondary Slave UDMA	Disabled	
Init Display First	PCI Slot	
IDE HDD Block Mode	Disabled	
Onboard FDD Controller	Enabled	
Onboard Serial Port1	Auto	
Onboard Serial Port1	Auto	
UART 2 Mode	Standard	
* IR function Duplex	Half	
* TX, RX inverting enable	No, Yes	
Onboard Parallel Port	378/IRQ7	
Onboard Parallel Port Mode	Normal	
ECP Mode Use DMA	3	
Parallel Port EPP Type	EPP1.9	
Onboard Legacy Audio	Enabled	
Sound Blaster	Disabled	
SB I/O Base Address	220H	
SB IRQ Select	IRQ 5	
SB DMA Select	DMA 1	
MPU-401	Disabled	
MPU-401 I/O Address	330-333H	
Game Port (200-207)	Enabled	

F4←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save
F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults

On-Chip IDE Channel 0 / 1

The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the primary IDE interface. Select Disabled to deactivate this interface.

The optional are: **Enabled (Default)**, Disabled

IDE Prefetch Mode

The onboard IDE drive interfaces supports IDE prefetching for faster drive accesses. If you install a primary and/or secondary add-in IDE interface, set this field to *Disabled* if the interface does not support prefetching.

The optional are: **Enabled (Default)**, Disabled

CMOS Setup Utility

Primary / Secondary Master / Slave PIO

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

The optional are: **Auto (Default)**, Mode 0, Mode 1, Mode 2, Mode3, Mode 4

Primary / Secondary Master / Slave UDMA

Ultra DMA/66 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 98 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/66, select Auto to enable BIOS support.

The optional are: Auto, Disabled(**Default**)

Init Display First

This item allows you to decide to active whether PCI Slot of VGA card or AGP first.

The optional are: **PCI Slot (Default)**, AGP

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read/writes per-sector the drive can support.

The optional are: **Enabled (Default)**, Disabled

Onboard FDD Controller

Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you want to use it. If you install add-in FDC or the system has no floppy drive, select Disabled in this field.

The optional are: Enabled (**Default**), Disabled

CMOS Setup Utility

Onboard Serial Port 1/2

Select an address and corresponding interrupt for the first and second serial ports.

The optional are: **Auto (Port 1 & Port 2 Default)**, Disabled, 3F8 / IRQ4, 2F8 / IRQ3, 3E8 / IRQ4, 2E8 / IRQ3

UART 2 Mode

This item allows you to select which mode for the Onboard Serial Port 2.

The optional are: **Standard (Default)**, HPSIR, ASKIR

IR Function Duplex

This item allows you to select the IR half/full duplex function.

The optional are: Half (**Default**), Full

TX, RX inverting enable

This item allow you to enable the TX, RX inverting which depends on different H/W requirement. This field is not recommended to change its default setting for avoiding any error in your system

The optional are: No & No, **No & Yes(Default)**, Yes & No, Yes & Yes.

Onboard Parallel Port

Select a logical LPT port address and corresponding interrupt for the physical parallel port.

The optional are: **378/IRQ7(Default)**, 278/IRQ5, 3BC/IRQ7, Disabled

Onboard Parallel Mode

Select an operating mode for the onboard parallel (printer) port. Select *Normal*, *Compatible*, or *SPP* unless you are certain your hardware and software both support one of the other available modes.

The optional are: **Normal (Default)**, EPP, ECP, ECP/EPP

ECP Mode Use DMA

Select a DMA channel for the parallel port for use during ECP mode.

The optional are: **3 (Default)**, 1

EPP Parallel Port EPP Type

Select EPP port type 1.7 or 1.9.

The optional are: **EPP 1.9(Default)**, EPP 1.7

Onboard Legacy Audio

This field controls the onboard legacy audio.

- Sound Blaster : **Disabled(Default)**
- SB I/O Base Address : **220H(Default)**
- SB IRQ Select : **IRQ 5(Default)**
- SB DMA Select : **DMA 1(Default)**
- MPU-401 : **Disabled(Default)**
- MPU-401 I/O Address : **330-333H(Default)**
- Game Port (200-207H) : **Enabled(Default)**

CMOS Setup Utility

Power Management Setup

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

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

ACPI function	Enabled	Item Help
▶Power Management	Press Enter	
PM Control by APM	Yes	Menu Level ▶▶
Video Off Option	Suspen →Off	
Video Off Method	V/H SYNC+ Blank	
MODEM Use IRQ	3	
Soft-Off by PWR-BTTN	Instant-Off	
▶Wake up event	Press Enter	
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

ACPI Function

This item allows you to enable/disable the Advanced Configuration and Power Management (ACPI).

The optional are: **Enabled(Default)**, Disabled

Power Management

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Power Management

Power Management	User Define	Item Help
HDD Power Down	Disabled	
Doze Mode	Disabled	Menu Level ▶▶
Suspend Mode	Disabled	
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

CMOS Setup Utility

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

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.

The optional are: **Disable (Default)**, 1 Min--15 Min

Doze Mode

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

The optional are: **Disable(Default)**, 1Min, 2Min, 4Min, 6Min, 8Min, 10Min, 20Min, 30Min, 40Min, 1Hour

Suspend Mode

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

The optional are: **Disable(Default)**, 1Min, 2Min, 4Min, 6Min, 8Min, 10Min, 20Min, 30Min, 40Min, 1Hour

There are four selections for Power Management, three of which have fixed mode settings.

Min. Power Saving	Minimum power management. Doze Mode = 1 hr. Standby Mode = 1 hr., Suspend Mode = 1 hr., and HDD Power Down = 15 min.
Max. Power Saving	Maximum power management ONLY AVAILABLE FOR SL CPU'S. Doze Mode = 1 min., Standby Mode = 1 min., Suspend Mode = 1 min., and HDD Power Down = 1 min.
User Defined	Allows you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

CMOS Setup Utility

PM Control by APM

When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock. If Advance Power Management (APM) is installed on your system, selecting Yes gives better power savings.

The optional are: No, **Yes(Default)**

Video Off Option

When enabled, this feature allows the VGA adapter to operate in a power saving mode.

Always On	Monitor will remain on during power saving modes.
Suspend →Off	Monitor blanked when the systems enters the Suspend mode.
All Modes→Off	Monitor blanked when the system enters any power saving mode.

The optional are: Always On, **Suspend →off (Default)**, All Modes →Off

Video Off Method

This determines the manner in which the monitor is blanked.

V/H SYNC+Blank	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	Select this option if your monitor supports the Display Power Management Signaling (DPMS) standard of the Video Electronics Standards to select video power management values.

The optional are: **V/H SYNC + Blank (Default)**, Blank Screen, DPMS Support

MODEM User IRQ

This determines the IRQ in which the MODEM can use.

The optional are: NA, **3(Default)**, 4, 5, 7, 9, 10, 11

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 optional are: Delay 4 sec, **Instant-Off (Default)**

Wake Up Events(PM events)

PM events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs to a device which is configured as *On*, even when the system is in a power down mode.

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Wake Up Events

VGA	Off	Item Help
LPT & COM	LPT/COM	
HDD & FDD	On	Menu Level ▶
PCI Master	Off	
Wake Up on LAN	Disabled	
Modem Ring Resume	Disabled	
RTC Alarm Resume	Disabled	
* Date (Of Month)	0	
* Resume Time (hh:mm:ss)	0 4 11	
Primary INTR	On	
IRQs Activity Monitoring	Press Enter	
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

VGA

When *On*, you can set the VGA awakens the system.

The optional are: **Off (Default)**, On

LPT & COM

When *On of* LPT & COM, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

The optional are: NONE, LPT, COM, **LPT/COM (Default)**

CMOS Setup Utility

HDD & FDD

When *On of HDD & FDD*, any activity from one of the listed system peripheral devices wakes up the system.

The optional are: **On(Default)**, Off

PCI Master

When *On of PCI Master*, any activity from one of the listed system peripheral devices wakes up the system.

The optional are: **Off(Default)**, On

Wake Up on LAN

The item lets you select Wake Up on LAN.

The optional are: Enabled, **Disabled(Default)**

Modem Ring Resume

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

The optional are: Enabled, **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.

The optional are: Enabled, **Disabled(Default)**

Primary INTR

This item lets you on / off primary INTR.

The optional are: **On(Default)**, Off

CMOS Setup Utility

IRQs Activity Monitoring

The following is a list of IRQ's, interrupt ReQuests, which can be exempted much 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 interrupts itself and performs the service.

When set *On*, activity will neither prevent the system from going into a power management mode nor awaken it.

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IRQs Activity Monitoring

IRQ3 (COM2)	Enabled	Item Help Menu Level ▶▶	
IRQ4 (COM1)	Enabled		
IRQ5 (LPT 2)	Enabled		
IRQ6 (Floppy disk)	Enabled		
IRQ7 (LPT 1)	Enabled		
IRQ8 (RTC Alarm)	Disabled		
IRQ9 (IRQ2 Redir)	Disabled		
IRQ10 (Reserved)	Disabled		
IRQ11 (Reserved)	Disabled		
IRQ12 (PS/2 Mouse)	Enabled		
IRQ13 (Coprocessor)	Disabled		
IRQ14 (Hard Disk)	Enabled		
IRQ15 (Reserved)	Disabled		
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults			

CMOS Setup Utility

PnP / PCI Configurations

This section describes configuring the PCI bus system. PCI- Peripheral Component Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of CPU itself using when communicates 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.

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

PNP OS Installed	No	Item Help
Reset Configuration Data	Disabled	
Resources Controlled By	Auto(ESCD)	Menu Level ▶▶
* IRQ Resources	Press Enter	Select Yes if you are using a
* DMA Resources	Press Enter	Plug and Play capable
PCI/VGA Palette Snoop	Disabled	operating system. Select No
Assign IRQ For VGA	Enabled	if you need the BIOS to
Assign IRQ For USB	Enabled	configure non-boot devices
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

PNP OS Installed

This item allows you to determine PnP OS is installed or not.

The optional: Yes, **No (Default)**

Reset Configuration Data

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system cannot boot.

The optional are: Enabled, **Disabled(Default)**

Resources controlled By

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®98.

The optional are: **Auto(ESCD) (Default)**, Manual

PCI/VGA Palette Snoop

Leave this field at Disabled.

The optional are: Enabled, **Disabled(Default)**

Assign IRQ For VGA & USB

Enable/Disable to assign IRQ for VGA & USB.

The optional are: **Enabled(Default)**, Disabled

CMOS Setup Utility

PC Health Status

This section helps you to get more information about your system including CPU temperature, FAN speed and voltages. It is recommended that you contact with your motherboard supplier to get proper value about your setting of the CPU temperature.

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

Current CPU Temp. Current System Temp. Current CPUFAN1 Speed Current CPUFAN2 Speed Vcore 2.5V 3.3V 5V 12V	Item Help Menu Level ▶▶
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults	

Current CPU Temp.

Show you the current CPU temperature.

Current System Temp.

Show you the current system temperature.

Current CPU FAN1 Speed

Show you the current CPUFAN 1 speed.

Current CPU FAN2 Speed

Show you the current CPUFAN2 speed.

Vcore

Show you the current system voltage.

Frequency / Voltage Control

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Frequency / Voltage Control

Auto Detect DIMM / PCI Clk	Enabled	Item Help Menu Level ▶▶
Spread Spectrum.	Disabled	
CPU Host Clock (CPU / PCI)	Default	
↑↓←→: Move Enter: Select F5 : Previous Values +/-/PU/PD: Value F10: Save F6 : Fail-safe defaults Esc:Exit F1: General Help F7 : Optimized Defaults		

Auto Detect DIMM / PCI Clk

To reduce the occurrence of electromagnetic interference (EMI), the BIOS detects the presence or absence of components in DIMM and PCI slots and turns off system clock generator pulses to empty slots.

The optional are: **Enabled(Default)**, Disabled

Spread Spectrum

when the system clock generator pulses, the extreme values of the pulse generate excess EMI. Enabling pulse spectrum spread modulation changes the extreme values from spikes to flat curves, thus reducing EMI. This benefit may in some cases be out weighed by problems with timing-critical devices, such as a clock-sensitive SCSI device.

The optional are: Enabled, **Disabled(Default)**

CPU Host Clock (CPU/PCI)

Setup CPU Host Clock (CPU / PCI).

The optional are: **Default(Default)**, 66/33, 75/37, 83/41, 100/33, 103/34, 112/37, 124/41, 133/33, 140/35, 150/37

CMOS Setup Utility

Load Fail-Safe Defaults

This option allows you load Fail-Safe Defaults settings. To load setup default, press <Y> key to confirm the operation when you see the below display.

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
■ Inte	Load Fail - Safe Defaults (Y / N)? N
■ Pow	
■ PnP / PCI Configuration	Save & Exit Setup
■ PC Health Status	Exit Without Saving
Esc : Quit ↑↓←→: Select Item	
F10 : Save & Exit Setup	
Abandon all datas	

Load Optimized Defaults

This option allows you load Optimized Defaults settings to optimize your system. To load optimized default, press <Y> key to confirm the operation when you see the below display.

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
■ Inte	Load Optimized Defaults (Y / N)?
■ Pow	
■ PnP / PCI Configuration	Save & Exit Setup
■ PC Health Status	Exit Without Saving
Esc : Quit ↑↓←→: Select Item	
F10 : Save & Exit Setup	
Abandon all datas	

Set Supervisor / User Password

Password prevents unauthorized use of your computer. If you set a password, the system prompts for the correct password before boot or access to setup. The main difference between Supervisor Password and User Password is the privilege. Because Supervisor Password allows you to modify all CMOS setup but User password only some of them.

Their steps all as follows:

1. Highlight the item Set Supervisor Password / Set User Password on the main menu and press ENTER.
2. The password dialog box will appear.
3. If you are installing a new password, carefully type in the password. Press ENTER after you have typed in the password. If you are deleting a password that is already installed just press ENTER when the password dialog box appears.
4. The system will ask you to confirm the new password by asking you to type it in a second time. Carefully type the password again and press ENTER, or just press ENTER if you are deleting a password that is already installed.
5. If you typed the password correctly, the password will be installed.

[NOTE]

If you forget your password, or you want to cancel your password, you can do the steps as the following:

- (1) **Password forgotten:**
 - i. Turn off the system.
 - ii. Short JP4 at Pin 2-3 for a few seconds to clear CMOS.
 - iii. Set the JP4 back to Pin 1-2.
 - iv. Power on the system.
- (2) **Clear Password:**

Clear your password by key in the password you installed before, then go to password setting to press ENTER twice.

CMOS Setup Utility

Save & Exit Setup

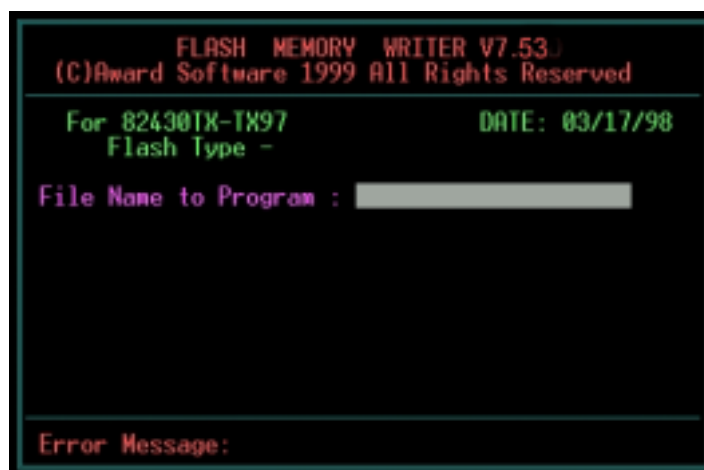
Highlight this item and press ENTER to save the changes that you have made in the setup utility and exit the setup program. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the setup main menu.

Exit Without Saving

Use this option to exit setup utility without saving the CMOS value changes.

How to Update Your Motherboard's BIOS?

1. Create a bootable system floppy disk by typing [FORMAT A:/S] from the DOS prompt without creating "**AUTOEXEC.BAT**" and "**CONFIG.SYS**" files.
2. Copy AWDFLASH.EXE to the just created boot disk.
3. Download an updated **EUPA BIOS** file from the Internet and save to the disk you created earlier.(EUPA web site: www.eupacomputer.com)
4. Boot from the disk you created earlier.
5. At the "A:" prompt, type AWDFLASH and then press <Enter>. The screen will displays the following window:



6. Type the new BIOS filename and the path, for example, A:\VXA.BIN and then press <Enter>. Then prompt: Do you want to save BIOS?(Y/N) Press <Y> to save current BIOS to file.Type the file name to save, then press <Enter>.Prompt: Now backup system BIOS TO file!

CMOS Setup Utility

7. After the backup, prompt: Are you sure to program?(Y/N) Press <Y> to start to program the new BIOS information into the flash ROM. When the programming is finished. You may press <F1> to reset the PC or <F10> to Exit the AWDFLASH.

WARNING!!!

If you encounter problems while updating the new BIOS, DO NOT turn off your system since this might prevent your system from booting up. Just repeat the process, and if the problem still persists, update the original BIOS file you saved to disk above. If the Flash Memory Writer utility was not able to successfully update a complete BIOS file, your system may not be able to boot up. If this happens, your system will need service.

NOTE!!!

The previous screen displays are provided as example only and may not reflect the screen contents displayed on your system.

Chapter 4

Software Utility

The support software for this motherboard is supplied in a CD. All the support programs are stored in separate folders, so you can find the program you need easily enough. We recommend you to choose the program which you need most, it will assist your computer system to high performance.

Note: For update driver, please visit EUPA web site: www.eupacomputer.com.

Installing Interface

After you insert CD driver, it runs automatically and appear the interface as below:



Software Utility

Installing Driver Location:

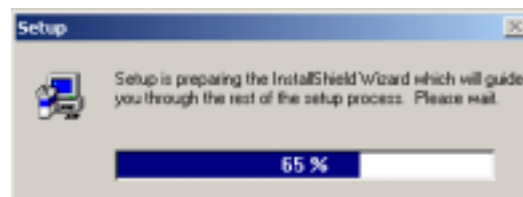
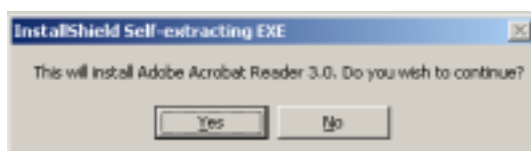
To using software, you'd better find chipset driver location: **IDE / VIA**, then install contents step by step.

VXZA integrates AC'97 audio system, providing perfect audio quality to users. (AC'97 system is the very popular with audio system in the world. According to the most of users' requirement, we design the function in the motherboard to increase system practicability.)

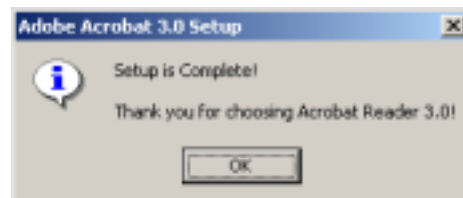
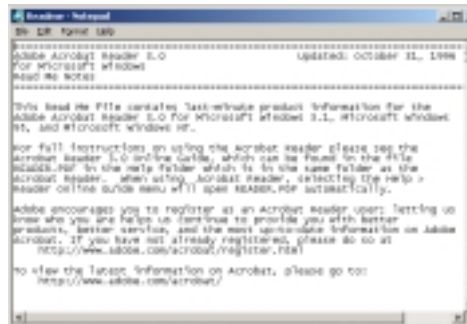
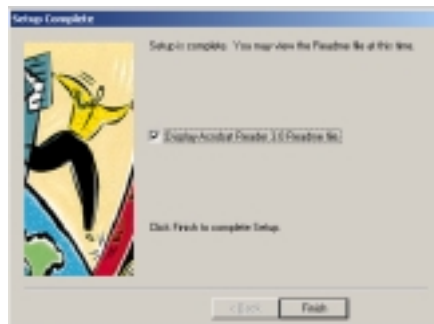
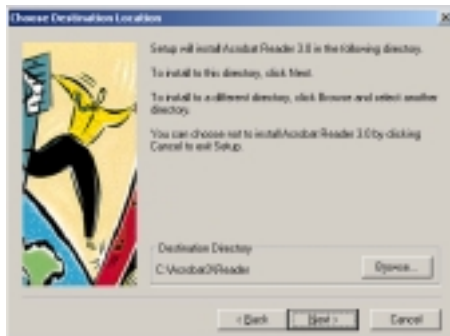
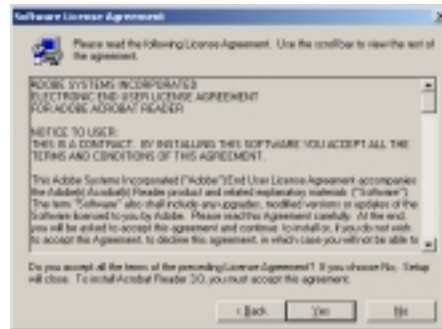
Also the product integrates audio codec function as well, to use the function, we provides its location: **\\audio\\via1611\\setup.exe**

Installing ADOBE Acrobat Read Driver

Insert CD Driver to the CD-ROM, driver runs by itself, and appear the following interface, please refer to the procedure, then finish installing.



Software Utility



This Page Is Left For Note