



MORE THAN JUST A MAINBOARD

The **AZZA** 633X Mainboard Series

[Cover](#)

[Click Here](#)

[Table Of Contents](#)

[Click Here](#)

[Introduction](#)

[Click Here](#)

[Hardware Installation](#)

[Click Here](#)

[BIOS Management](#)

[Click Here](#)



*Create High Quality
Service and Technology*



User's Manual

Socket 370 ATX DDR
Mainboard

633X-AS
633X-AD



Document NO: UM-633X-E1
Revision: 1.0V
Creation Date: 15.4.2001

User's Notice

Copyright

This publication contains information that is protected by copyright. No part of it may be reproduced in any form or by any means or used to make any transformation adaptation without prior written permission from the copyright holders. This publication is provided for informational purposes only. The manufacturer makes no representations or warranties with respect to the contents or use of this manual and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. The user will assume the entire risk of the use or the results of the use of this document. The manufacturer reserves the right to revise this publication and make changes to its contents at any time, without prior notice.

2000. All Rights Reserved.

Trademarks

Microsoft ® MS-DOS ®, Windows TM, Windows ® 95 and Windows ® 98 are registered trademarks of Microsoft Corporation. AMD Duron TM and AMD Athlon TM are registered trademarks of AMD Corporation. Award is a registered trademark of Award Software, Inc. Other trademarks and registered trademarks of products appearing in this publication are the properties of their respective holders.

Package Checklist

This package contains the following items:

- Mainboard
- Users manual
- One IDE cable
- One 34-pin floppy disk drive cable
- One Driver Utility CD

If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

Technical Support

If you require additional information, assistance during installation, please contact your dealer. Your dealer will be able to provide the latest information. If you need additional help, please visit our web site for technical support or e-mail to us.

Table of Contents



Chapter 1 – Introduction

| Section | Sub-section | | Page |
|---------|-------------|------------------------------------|------|
| 1.1 | | Mainboard Layout | 5 |
| | 1.1.1 | Mainboard Dimension | 6 |
| | 1.1.2 | Environment Limitation | 6 |
| 1.2 | | Features and Specifications | 6 |
| 1.3 | | System Health Monitoring Function | 9 |
| | 1.3.1 | Hardware Monitoring System Utility | 9 |
| | 1.3.2 | Installation of HMSU | 9 |
| 1.4 | | Intelligence | 9 |

Chapter 2 - Hardware Installation

| Section | Sub-section | | Page |
|---------|-------------|---|------|
| 2.1 | | Installation of Processor | 11 |
| 2.2 | | Installation of DIMM Memory | 12 |
| 2.3 | | Internal Connectors | 12 |
| | 2.3.1 | PCI Slot | 14 |
| | 2.3.2 | Floppy Disk Drive Connectors | 14 |
| | 2.3.3 | Primary and Secondary IDE Connectors | 14 |
| | 2.3.4 | Standard Infrared (SIR) Connector | 14 |
| | 2.3.5 | Serial Port 2 (COM 2) Connector | 14 |
| | 2.3.6 | Cooling and Chassis Fan Power Connectors | 14 |
| | 2.3.7 | ATX Power Connector | 14 |
| | 2.3.8 | WOL (Wake on LAN) Connector | 15 |
| | 2.3.9 | CD Audio-in Connector | 15 |
| | 2.3.10 | USB (Universal Serial Bus) | 15 |
| | 2.3.11 | CNR Slot | 15 |
| | 2.1.12 | AGP Slot | 15 |
| | 2.3.13 | System Panel Buttons and LED Connectors | 15 |
| | 2.3.14 | Speaker, Power LED and Keyboard Connector | 17 |
| | 2.3.13 | Front Audio | 17 |

Table of Contents

Chapter 2 - Hardware Installation

| Section | Sub-section | | Page |
|---------|-------------|---|------|
| 2.4 | | Jumpers and DIP Switches Setting | 17 |
| 2.5 | | External Connector | 18 |
| | 2.5.1 | PS/2 Mouse and Keyboard Connectors | 18 |
| | 2.5.2 | Serial Port Com 1 and 2 Connectors | 18 |
| | 2.5.3 | Parallel Port Connector | 19 |
| | 2.5.4 | USB (Universal Serial Bus) Port 1 and 2 | 19 |
| | 2.5.5 | Audio/Game Port Connectors | 19 |

Chapter 3 – Managing Your PC BIOS

| Section | Sub-section | | Page |
|---------|-------------|-------------------------------|------|
| 3.1 | | AWARD BIOS CMOS Setup Utility | 20 |
| 3.2 | | Main Menu | 21 |
| 3.3 | | Standard CMOS Setup | 22 |
| 3.4 | | Advanced BIOS Features | 24 |
| 3.5 | | Advanced Chipset Features | 26 |
| 3.6 | | Integrated Peripherals | 30 |
| 3.7 | | Power Management | 33 |
| 3.8 | | PnP/PCI Configuration | 38 |
| 3.9 | | PC Health Status | 39 |
| 3.10 | | Frequency/Voltage Control | 40 |
| 3.11 | | Load Optimized Default | 41 |
| 3.12 | | Set Supervisor Password | 42 |
| 3.13 | | Set User Password | 43 |
| 3.14 | | Save and Exit Setup | 44 |

Introduction

Chapter 1 - Introduction

1.1 MAINBOARD LAYOUT



633X-A Series

PS/2 Mouse Port

Parallel Port

Game/Midi Port

USB Port



PS/2 Keyboard

COM 1

COM 2

Audio Port

PC 99 ATX Connector

Introduction

633X-A Series

There are three models in this series as follows:

633X-AS— Simplified

633X-AD— Deluxe

633X-A+— Jumbo

1. 633X-AS is targeted at mass market.
2. 633-AD is target at higher end market that build in with Voice IC and AC3 5.1 Channel Sound.
3. 633X-A+ is bundled with 633X-AS and AZZA UP (Utility Panel)

1.1.1 Mainboard Dimension

Width & Length: 305 mm x 235 mm.
PCB Thickness: 4 layers.

1.1.2 Environment Limitation

Operating Temperature: 10°C to 40°C . (50°F to 104°F)
Required Airflow: 50 linear feet per minute across CPU.
Storage Temperature: - 40°C to 70°C. (- 40°F to 158°F)
Humidity: 0 to 90% non-condensing.
Altitude: 0 to 10,000 feet

1.2 Features and Specifications

Processor

Support Intel® Socket 370 Pentium™ !!! or Celeron™ and VIA Cyrix III (C3) processor.

Chipset

Northbridge : VIA Apollo Pro266(VT8633)
Southbridge: VT8233

CPU Switching Voltage Regulator

Equipped with a switching voltage regulator that automatically detects +1.30V to 2.05V DC power supply.

System Memory

Three 184-pin DIMM Sockets that support up to 3GB, 2.5V PC-1600 or PC-2100 DDR SDRAM.

Expansion Slots

The mainboard is equipped with 5 dedicated PCI slots, 1 4x AGP slot and 1 CNR Slot.

Introduction

Onboard 3D Sound

Supports Microsoft ® DirectSound/DirectSound 3D. AC97 supported full duplex, independent sample rate converter for audio recording and playback.

AGP (Accelerator Graphic Port) Port

Support 1x, 2x and 4x AGP video card.

Front Audio Port

To connect with Utility Panel that supports Ear Phone, Microphone and Audio-in. For more details, please consult your dealer.

Word Size

- Data Path: 8-bit, 16-bit, 32-bit, 64-bit.
- Address Path: 32-bit.

FRONT SIDE BUS FREQUENCY

Support 66MHz, 100MHz and 133MHz FSB.

BIOS

- Award BIOS, Windows ® 95/98 Plug and Play compatible.
- Supports SCSI sequential boot-up.
- Flash EPROM for easy BIOS upgrades (2 Mbit).
- Supports DMI 2.0 function.

Desktop Management Interface (DMI)

The mainboard comes with a DMI 2.0 built into the BIOS. The DMI utility in the BIOS will automatically records various information about your system configuration and store these information in the DMI pool, which is a part of the system board's Plug and Play BIOS. DMI, along with the appropriately networked software, is designed for easy inventory, maintenance and simplify troubleshooting of computer systems.

WOL (Wake-On-Lan) Port

One WOL connector supports Wake-On-LAN functionality.

PCI Bus Master IDE Controller

- Two PCI IDE interfaces support up to four IDE devices.
- Support ATA/33, ATA/66 and ATA100 hard disk drives.
- PIO Mode 3 and Mode 4 Enhanced IDE (data transfer rate up to 16.6MB/sec.).
- Bus mastering reduces CPU utilization during disk transfer.
- Supports ATAPI CD-ROM, LS-120 and ZIP

Introduction

USB Ports

This mainboard is equipped with 2 USB ports and 6 USB connectors for expansion. USB allows data exchange between your computer and a wide range of simultaneously accessible external Plug and Play peripherals. (Cable for six connectors are optional and is sold separately).

IrDA Interface

The mainboard is equipped with an IrDA connector for wireless connectivity between your computer and peripheral devices. It supports peripheral devices that meet the HPSIR or ASKIR standard.

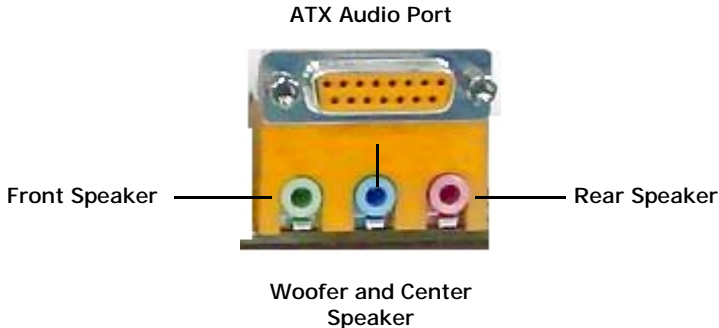
Special Features for 633X-AD

Smart SPY

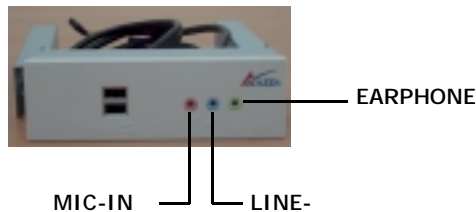
An intelligent Voice debug device that constantly check on your hardware devices. If detected any device not installed (Damage), then a voice announcement will be made. Devices supported :- CPU, Memory, Video Card, FDD, HDD, Keyboard and Battery.

AC3 5.1 Channel Audio System

This model support Surround Sound System, it must be use together with AZZA UP (Utility Panel). The connectors for speaker are defined as follows:



The connectors for MIC-IN, LINE-IN and SPK-OUT are now replaced by AZZA UP (utility Panel) as follows:



Introduction

1.3 System Health Monitor Functions

- The mainboard is capable of monitoring the following system health conditions: -
 1. Monitors processor temperature and overheat alarm.
 2. Monitors VCORE/3.3V/5V/12V/2.5V voltages and failure alarm.
 3. Monitors processor/chassis fan speed and failure alarm.
 4. Read back capability that displays temperature, voltage and fan speed.

1.3.1 Hardware Monitoring System Utility

The mainboard comes with the Hardware Monitoring System utility contained in the provided CD (AZZA CD Driver). It is capable of monitoring the system's hardware conditions such as the temperature of the processor and system, voltage, and speed of the CPU and chassis fans. You are allowed to manually set a range to the items being monitored. If the values are over or under the set range, a warning message will pop-up. The utility can also be configured to allow a beeping alarm to sound whenever an error occurs. We recommend that you use the Default Setting, which is the ideal setting that would maintain the system in good working condition.



Use this utility only with Windows ® 95 or Windows ® 98 operating system.

1.3.2 Installation of HMSU

To install the utility, please insert the AZZA CD Driver into the CD-ROM drive. The auto run screen (AZZA Driver Utility) will automatically appear. Click the Hardware Monitoring category, chose the model number and OS to install. Please refer to the AZZA Driver CD "Readme" file for further installation instructions.

1.4 Intelligence

Dual Function Power Button: -

■ Depending on the setting in the Soft-Off By Power-Button field of the Power Management Setup, this switch allows the system to enter the Soft-Off or Suspend mode.

External Modem Ring-on

■ The Modem Ring-on feature allows the system that is in the Suspend mode or Soft Power Off mode to wake-up/power-on to respond to incoming calls. This feature supports external modem only.

RTC Timer to Power-on the System

■ The RTC installed on the system board allows your system to automatically power-on on the set date and time.

Introduction

Wake-On-LAN Ready

■ The Wake-On-LAN function allows the network to remotely wake up a Soft Power Down (Soft-Off) PC. Your LAN card must support the remote wakeup function. The 5VSB power source of your power supply must be at least 720mA.

ACPI Ready

The mainboard is designed to meet the ACPI (Advanced Configuration and Power Interface) specification. ACPI has energy saving features supporting OS Direct Power Management (OSPM) for round the clock PC operation.

Hardware Installation

Chapter 2 - Hardware Installation

Before you start installation, a grounded anti-static mat is recommended. Attached an anti static wristband to your wrist and have it grounded to the same point as the anti-static mat.

The following steps must be completed before you can use your PC: -

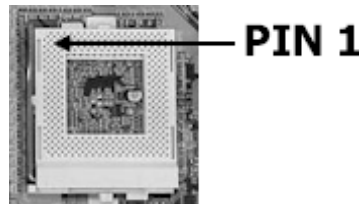
- Configure the Mainboard Settings.
- Install Central Processing Unit (CPU).
- Install Memory Modules.
- Install Expansion Cards.
- Connect Ribbon Cables, Panel Wires and Power Supply.

2.1 Installation of Processor (CPU)

Before you install the processor, make sure that you have an approved Heat Sink with Cooling Fan. Without proper heat sink with cooling fan will damage the processor and mainboard.

To install your processor, please do the following:

1. Locate a small dot marked on top of the CPU. The marking indicate Pin 1 of the CPU.
2. Locate the Socket Pin 1 marking on the mainboard.
3. Push the lever sideway and lift it upwards to 90-degree angle. Insert the CPU into the Socket. Please make sure that the CPU Pin 1 is insert to the socket Pin 1 location
4. Install an approved heat sink with cooling fan for proper heat dissipation. Falling to install a heat sink with cooling fan may cause overheating and burnout your CPU.
5. Snap back the lever into place.



Caution! Be careful not to scrape the mainboard when mounting a clamp-style processor fan to prevent damage to the mainboard.

Hardware Installation

2.2 Installing of DIMM Memory

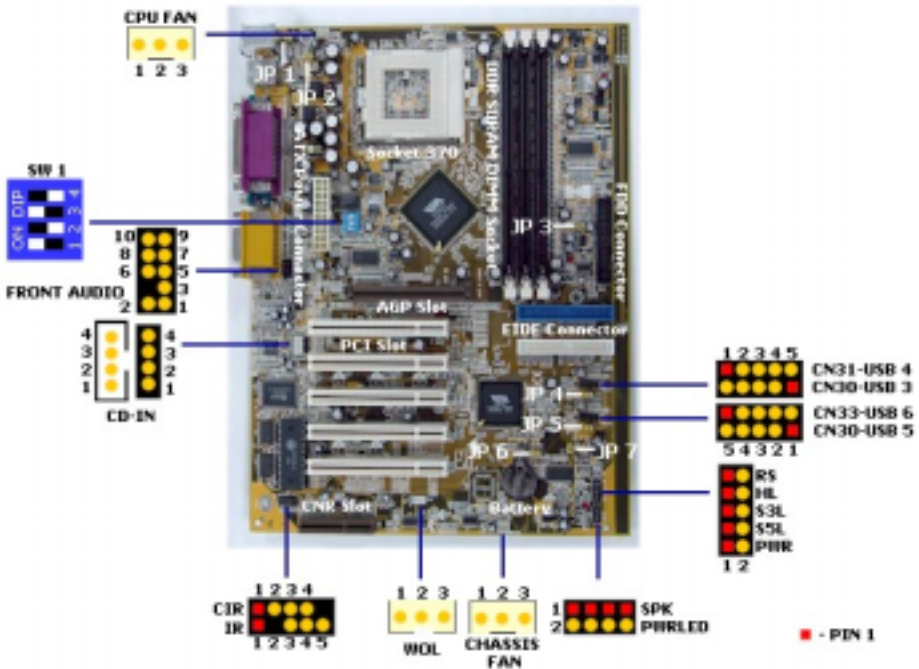
1. This mainboard uses only Dual Inline Memory Module. Sockets are available for **2.5V** (power level) un-buffered DDR SDRAM (Synchronous Dynamic Random Access) memory system of 64, 128, 256, 512MB or 1GB.
2. It support single-side or double-side PC-1600 and PC-2100 DDR SDRAM DIMM module and the maximum memory size supported is 3GB.



2.3 Internal Connectors

Ribbon cable should always be connected with the red strip to the PIN 1 on the connector of the devices such as CD ROM and Hard Drive. Check the connector for Pin 1 before installation.

Some pins are used for connectors or power sources. These are different from jumpers in the mainboard layout. Placing jumper caps on these jumpers will cause damage to the mainboard.



Hardware Installation

| Jumper Setting | | DIP Switch Setting | | | | |
|--|----------------------------|--------------------|-----|-----|-----|-----|
| JP1 Keyboard Power JP2 USB1 and 2 Power JP4 USB3 and 4 Power | 1-2 Default 2-3 Reserve | | 1 | 2 | 3 | 4 |
| | | Auto | ON | OFF | ON | OFF |
| JP3 STR Function | OPEN- Normal | 66 MHz | OFF | ON | OFF | ON |
| JP6 Clear CMOS Data | 1-2 Normal | 100 MHz | OFF | OFF | OFF | ON |
| JP7 Language Selection | OPEN- English | 133 MHz | OFF | OFF | OFF | OFF |

Connector Setting

| | | | |
|---------------------------|--|-----------------|---|
| USB 3, 4, 5, 6 | Pin 1 — 5V DC Pin 2 — Data - Pin 3 — Data + Pin 4 — Ground | IR | Pin 1 — +5V DC Pin 2 — No Circuit Pin 3 — IR Receiver Pin 4 — Ground |
| CD - IN (with Housing) | Pin 1 — Left Channel Pin 2 — Ground Pin 3 — Right Channel | CIR | Pin 1 — No Circuit Pin 2 — CIR Receiver Pin 3 — +5V Standby |
| CD - IN (without Housing) | Pin 1 — Left Channel Pin 2 — Ground Pin 3 — Ground | CPU/CHASSIS FAN | Pin 1 — Ground Pin 2 — +12V DC Pin 3 — Fan Signal |
| WOL | Pin 1 — +5V Standby Pin 2 — Ground | Power LED | Pin 1 — +5V DC Pin 2 — No Circuit Pin 3 — Ground |
| Front Audio | Pin 1 — Ground Pin 2 — MIC-IN Pin 3 — NA Pin 5 — LINE-IN Right Pin 6 — LINE-IN Left Pin 7 — Ground Pin 8 — Earphone Left Pin 9 — Earphone Right | Speaker | Pin 1 — +5V Dc Pin 2 — Speaker Signal Pin 3 — Speaker Signal |
| | | | |
| | | Pin 1 | Pin 2 |

| | | | | |
|----------------------|-----|--------------------|----------------|-------------------|
| System and LED PANEL | RS | Reset Button | Signal Pin | Ground |
| | HL | HDD LED | +5V DC Pull-up | HDD Active Signal |
| | S3L | Suspend to Ram LED | Signal Pin | Ground |
| | S5L | Soft OFF LED | Signal Pin | Ground |
| | PW | Power Switch | Signal | Ground |

Hardware Installation

2.3.1 PCI Slots

Both PCI and PCI expansion cards may require IRQs, this mainboard complies with Plug and Play (PnP) specification that allows automatic system configuration whenever a PnP compliant card is added. For PnP card, IRQs are assigned automatically for those available.

2.3.2 Floppy Disk Drive Connector

This connector supports two Floppy drives. Uses the ribbon cable provided and make sure that the red strip is connected to PIN 1 of the connector.

2.3.3 Primary and Secondary IDE Connectors

Each IDE connector supports two IDE drives. If you install two hard drives, you need to configure the second drive to Slave mode. Please refer to the hard drive manual for appropriate jumper setting.

2.3.4 Standard Infrared (SIR) Connector

This IR connector (SIR) supports optional wireless transmitting and receiving infrared module. You must configure the setting through URAT2 to select whether URAT2 is directed for use with COM 2 or IrDa.

2.3.5 Consumer IR (CIR) Connector

This connector allows you use with Consumer IR devices that has wake up function.

2.3.6 Cooling and Chassis Fan Power Connector

Please install your cooling fan to power connector CN13. If the hardware-monitoring feature is installed, you could monitor the rotating speed of the CPU cooling fan in your Windows operation system. Chassis Fan is to be installed on CN17.

2.3.7 ATX Power Connector

This connector connects to an ATX power supply. The plug from the power supply will only able to insert in one orientation because of the different hole sizes. Find the right orientation and push down firmly and make sure that the pins are aligned.



Important! Ensure that your ATX power supply can supply at least 720mA on the +5 volt standby lead (+5VSB).

Hardware Installation

2.3.8 WOL (Wake On LAN) Connector

This connector need to contact to a LAN card with Wake-On-Lan output. The connector powers up the system when a wakeup packet or signal is received through the LAN card.

In order to use the WOL LAN card to trigger the power of the PC system, the switching power supply must be able to provide at least 720mA current driving ability on the "5V standby" voltage.

2.3.9 CD Audio-in Connector

The CD audio-in connectors on the board are used to connect CD ROM audio out. There are two different types of connectors. Please insert the correct connector supplied to the appropriate connector.

2.3.10 USB (Universal Serial Bus) 3, 4, 5 and 6 Connector

Apart from two USB ports available onboard the ATX connector, these connectors allow you to add on an optional kit to expand the total USB to supports another 4 USB devices. If you intend to use CNR USB Hub, you should not use USB 6 Connector since it's is shared.



Please ensure that the USB Cable you intend to connect to these USB port have the same pin assignment to avoid damage or burn out of the mainboard/

AZZA-UP (Utility Panel) is an innovative optional kit that has "Front Audio and Front USB" Connectors that provide you with the opportunity to plug your Audio and USB to the Front Panel of your case. For more details, please consult your dealer or visit our web site: www.azza.com.tw.

2.3.11 CNR Slots

This connector supports specially designed audio, LAN, USB and/or modem card called Communication and Networking Riser. It's support standard MII (Media Independent Interface) interface CNR LAN card only.

2.3.12 AGP Slots

The AGP slots support 1X, 2X and 4X AGP (Accelerated Graphic Port) cards.

2.3.13 System Panel buttons and LED connectors

PW = Power on/off and Suspend Switch Connector
S3L = Suspend to RAM LED Connector
S5L = Soft off LED Connector
HL = HDD LED Connector
RS = Reset Button Connector

Hardware Installation

Power On / Off and External Suspend Switch Connector

The Power On/Off connector has two functions. It can be the Power Switch or Suspend Switch of your PC system. You can either chose "Delay 4 Sec or Instant OFF" (Please refer to the BIOS setup in Chapter 3)

Option 1: If you choose "Delay 4 Sec." In the BIOS CMOS Setup, the function of "PW" will be:

- A. When system power is "OFF", press this switch, the system will power on.
- B. When system power is "ON", you can select two different mode: -

Mode 1: Press the Power ON button and release (less than 4 seconds); the system will be turned into Suspend mode (turn into the GREEN mode) When the system is in Suspend mode:-

- Press the Power on button (less than 4 seconds), the system will return to Full-ON mode.
- Press and hold the Power On Button for more than 4 seconds, the system will be powered off.

Mode 2: Press and hold the Power ON button for more than 4 seconds, the system will be completely powered off.

Option 2: If you choose "Instant OFF." In the BIOS CMOS Setup, it will operate like normal ON / OFF Power button.

Soft-OFF LED Connector (S5 State)

This LED when connected will indicate the status of Soft-Off (S5) state.



When the PC is in the Soft-OFF state, there is still active electricity supply. Please remove the power cable from the electricity outlet before you can proceed with any installation or removing of hardware from your system to avoid damage.

Power on suspend / Suspend to RAM LED Connector (S1 / S3 State) - Optional Items

This LED is used for indicating the status of Power on suspend (S1) or suspend to RAM (S3) state depend on ACPI setting.

IDE HDD LED Connector

When connect to the chassis HDD connector, read and write activity by HDD will cause the LED to light up.

Reset Button Connector

When connected to the chassis reset button, you can reset your PC when press this button.

Hardware Installation

2.3.14 Speaker and Power LED Connector

Speaker Connector

Connect your chassis speaker to the four pins connector "A". It allows you to hear systems beeps and warnings sound.

Front Panel Power LED Connector

Connect your chassis Power LED connector to the four pins connector "B".

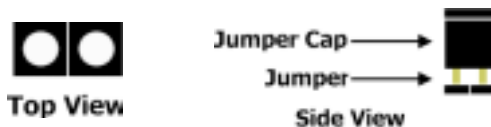
2.3.15 Front Audio Connector

The Front Audio Connector is another innovative option kit developed by AZZA. With the AZZA-UP (Utility Panel), you can easily plug your ear-phone, MIC and Audio to the front panel of your case. please consult your dealer for more details about AZZA-UP (Utility Panel).



2.4 Jumper and DIP Switch Settings

Jumpers are built on the mainboard to allow the user the flexibility to configure mainboard setting to meet their specific requirements. When there is no jumper cap insert into the jumper, it is called "OPEN" and when it will insert with Jumper cap, it is known as "SHORT". Below is the example and picture of a "SHORT" Setting.



Please refer to page 13 for details of individual jumper.

Jumper 1

The default setting is Pin 1 and 2. Some keyboard may not follow the standard specification and if you encounter instability, try to change the setting to Pin 2 and 3 may help to solve the problem.

Jumper 2, 4 and 5

The default setting is Pin 1 and 2. Some USB devices may not follow the standard specification and if you encounter instability, try to change the setting to Pin 2 and 3 may help to solve the problem.

Hardware Installation

Jumper 3—Optional items

Some components such as SDRAM module and graphics card (eg: Intel i740) may not be compatible with S3 function and may cause instability. If you wish to disable S3 function, you should remove the Jumper (OPEN) from the pin.

Jumper 6 Clear CMOS Data

Basically, all BIOS CMOS data are stored in the CMOS memory. At time, you may need to clear the store data due to problems with some setup devices, loss of security password...etc. To clear CMOS Data, please follow this procedure:

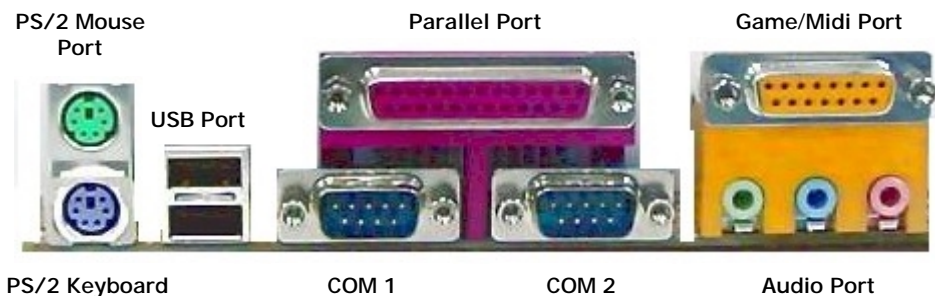
Clear CMOS Data Procedure

1. Unplug your PC Power Plug or ATX power connector.
2. Remove jumper from Pin 1 and 2 of JP1.
3. Plug jumper into the PIN 2 and PIN 3.
4. Wait for 3 seconds and plug the jumper back to Pin 1 and 2
5. Plug back Power Plug or ATX power connector and turn on your PC.
6. Press the <Delete> button during boot up and enter the BIOS CMOS Setup Utility to configure your setup again.

Jumper 7 (only available in 633X-AD model)

This is an optional item available for 633X-Ad model. It is mean as a voice warning for hardware debugging. It's support English and Chinese languages. Select "OPEN " for English.

2.5 External Connectors



Hardware Installation

2.5.1 PS/2 Mouse and Keyboard Connector

This connector only supports PS/2 mouse and keyboard plugs. If you have a standard AT size (large DIN) keyboard plug, you need to use a mini DIN adapter.

2.5.2 Serial Port (COM 1 and 2) Connector

This serial port is available for mouse and other serial devices. (I/O addresses used are 3F8H/2F8H/3E8H/2E8H and IRQ3/IRQ4, selected by CMOS setup.)

2.5.3 Parallel Port Connector

This parallel port for use in printer supports SPP/EPP/ECP modes, IRQ7 or IRQ5 is selectable, ECP mode will use either DMA 3 or DMA 1 which can be selected by the BIOS setup program)

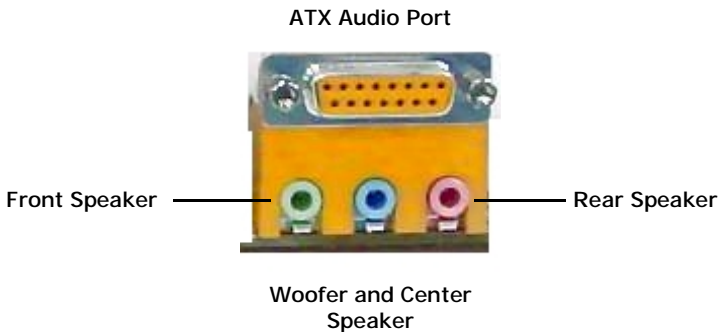
2.5.4 Universal Serial Bus (USB) Port 1 & 2

Two USB ports are available for connecting USB devices.

The mainboard is also equipped with an expansion connector that supports two additional USB external connectors. (The USB cable is not included in with the mainboard).

2.5.5 Audio/Game Port Connector

There is the 3D audio interface built on this mainboard for connecting speaker, Line-In and MIC-In. For 633X-AD, the three connectors are used for speaker system only as follows:



BIOS SETUP

Chapter 3—Managing the PC BIOS

3.1 Award BIOS CMOS Setup Utility

The Flash BIOS on the mainboard stores the AWARD BIOS CMOS Setup Utility to allow you to configure your system. Anytime, you wish to configure your system BIOS, you need to run BIOS CMOS Setup Utility (for example, you may wish to set the Security Password System or changing your Power Management Setting).

Entering Setup

Each time when you start your computer, the system provides you with the opportunity to run the BIOS CMOS Setup Utility. Immediately when you turn on your system, press the <Delete> button to call up the BIOS CMOS Setup Utility.

The BIOS CMOS Setup Utility will not activate if your computer finishes the POST (Power-On-Self-Test) stage. You need to restart the system again to call up the BIOS CMOS Setup Utility. To restart the system, either you can power off, press the reset button on your chassis or simultaneously press the <Ctrl> + <Alt> + <Delete> button. The system will restart and you need to press the <Delete> immediately to call up the BIOS CMOS Setup Utility.

[XXXX]

If you find [XXXX], it means that you can select or configure certain setting in this subject. Example: [Auto], may allow you to "Disabled" this feature.

Control Keys

At the bottom of the utility, you will notice a legend bar. The keys in the legend bar allow you to

| | |
|-----------------|---|
| Up Arrow | Move to previous item. |
| Down Arrow | Move to next item. |
| Left Arrow | Move to item on the left. |
| Right Arrow | Move to item on the right. |
| Enter | Select the desired item. |
| F1 | Display the help screen for the selected feature. |
| Esc key | Exit to the previous screen. |
| PgUp(-)/PgDn(+) | Modify or change the content of the highlighted item. |
| F5 | Restore the previous CMOS value (only the current page setup) |
| F7 | Loads the optimized default values from BIOS default table, |
| F10 | Save changes to CMOS and exit setup. |

BIOS SETUP

3.3 STANDARD CMOS SETUP

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

| | | |
|---|--|--------------------------------|
| Date (mm : dd : yy) : Wed, Oct 4 2000 Time (hh : mm : ss) : 16 : 03 : 33 | | Item Help Menu Level |
| IDE Primary Master [Maxtor 52049H4] | | |
| IDE Primary Slave [None] | | |
| IDE Secondary Master [None] | | |
| IDE Secondary Slave [None] | | |
| Drive A [1.44, 3.5 in.] | | |
| Drive B [None] | | |
| Video [EGA/VGA] | | |
| Halt On [All Error] | | |
| Base Memory 640K | | |
| Extended Memory 15360K | | |
| Total Memory 16384K | | |
| #\$:! Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | |

Date (mm : dd : yy)

Sets your system to the date that you specific (usually the current date). The format is month, day, and year.

Time (hh : mm : ss)

Sets your system to the time you specific (usually the current time). The format is hour, minute, second. The time format is based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

IDE Primary/Secondary Master/Slave

The mainboard supports four IDE Hard Drives. These fields allow you to set your Hard Drive parameters.

If you select Auto, it will automatically detect HDD type. The following table will appeared, please ensure that the specifications of your hard disk drive must match with the drive table. If you select User Type, related information will be asked to enter to the following items

BIOS SETUP

| | |
|----------|---------------------|
| CYLS. | Number of cylinders |
| HEADS | Number of heads |
| PRECOMP | Write precomp |
| LANDZONE | Landing zone |
| SECTORS | Number of sectors |

Drive A /B:

Select the correct specifications for the diskette drive(s) installed in the computer.

| | |
|---------------|--|
| None | No diskette drive installed |
| 360K, 5.25 in | 5-1/4 inch PC-type standard drive; 360 kilobyte capacity |
| 1.2M, 5.25 in | 5-1/4 inch AT-type high-density drive; 1.2 MBcapacity |
| 720K, 3.5 in | 3-1/2 inch double-sided drive; 720 kilobyte capacity |
| 1.44M, 3.5 in | 3-1/2 inch double-sided drive; 1.44 MB capacity |
| 2.88M,3.5in | 3-1/2 inch double-sided drive; 2.88 MB capacity |

Video:

Select the type of primary video subsystem in your computer. The BIOS CMOS Setup Utility will detect the correct video type automatically.

| | |
|---------|--|
| EGA/VGA | Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SEGA, SVGA or PGA monitor adapters |
| CGA 40 | Color Graphics Adapter, power up in 40 column mode |
| CGA 80 | Color Graphics Adapter, power up in 80 column mode |
| MONO | Monochrome adapter |

Halt On

This field allows you to decide which type of errors you want to halt the system when detected during Power On Self Test.

Base Memory / Extended Memory / Total Memory

This field displays the amount of memory detected by the system during boot up. This is a display only field and you don't have to make changes to this field.

Base Memory : Indicates the memory installed below the conventional 1MB space.

Extended Memory : Indicates the memory installed above the 1MB space.

Total Memory : Indicates the total memory installed in the PC system.

BIOS SETUP

3.4 ADVANCED BIOS FEATURES

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

| | | |
|---|--------------|--|
| Virus Warning | : [Disabled] | Item Help |
| CPU Internal Cache | : [Enabled] | Menu Level |
| External Cache | : [Enabled] | |
| CPU L2 Cache ECC Checking | : [Enabled] | |
| Processor Number Feature | : [Disabled] | |
| Quick Power On Self Test | : [Enabled] | |
| First Boot Device | : [Floppy] | |
| Second Boot Device | : [HDD-0] | |
| Third Boot Device | : [LS120] | |
| Boot Other Device | : [Enable] | |
| Swap Floppy Drive | : [Disabled] | |
| Boot Up Floppy Seek | : [Enabled] | |
| Boot Up NumLock Status | : [On] | |
| Gate A20 Option | : [Fast] | |
| Typematic Rate Setting | : [Disabled] | |
| Typematic Rate (Chars/Sec) | : [6] | |
| Typematic Delay (Msec) | : [250] | |
| Security Option | : [Setup] | |
| PS/2 Mouse Function Control | : [Enabled] | |
| OS Select for DRAM > 64MB | : [Non-OS2] | |
| HDD S.M.A.R.T Capability | : [Disabled] | |
| Video BIOS Shadow | : [Enabled] | |
| EPA Logo Show | : [Disabled] | |
| ↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | Allows you to choose the Virus warning feature for IDE Hard disk boot sector protection. If this function is enabled and some attempt to write data into this area, BIOS will show a warning message on screen and alarm beep. |

Virus Warning

When enabled, you receive a warning message if a program (specifically, a virus) attempts to write to the boot sector or the partition table of the hard disk drive. You should then run an anti-virus program. Keep in mind that this feature protects only the boot sector, not the entire hard drive.

Many disk diagnostic programs that access the boot sector table can trigger the virus-warning message. If you plan to run such a program, we recommend that you first disable the virus warning.

BIOS SETUP

CPU Internal Cache / External Cache

CPU Cache memory is additional memory that is much faster than conventional DRAM (system memory) in which is built in the processor. IF you enable this option, when the CPU requests data, the system transfers the requested data from the main DRAM into cache memory for faster access.

CPU L2 Cache ECC Checking

When you select Enabled, The ECC checking will ensured the accuracy of the data stored on the L2 cache.

Processor Number Feature

If have Pentium !!! processor installed on the mainboard. Enable this option allows the serial code inside the Pentium !!! processor to be published on certain application.

Quick Power On Self Test

Select Enabled to reduce the amount of time required to run the power-on self-test (POST). A quick POST skips certain steps. We recommend that you normally disable quick POST. Better to find a problem during POST than lose data during your work.

First/Second/Third/Boot Other Device

These fields allow you to decide the boot sequence of your bootable devices such as Hard Drive, CD ROM...etc

Swap Floppy Drive

This field is effective only in systems with two floppy drives. Selecting Enabled assigns physical drive B to logical drive A, and physical drive A to logical drive B.

Boot Up Floppy Seek

When enabled, the BIOS tests (seeks) floppy drives to determine whether they have 40 or 80 tracks. Only 360-KB floppy drives have 40 tracks; drives with 720 KB, 1.2 MB, and 1.44 MB capacity all have 80 tracks. Because very few modern PCs have 40-track floppy drives, we recommend that you set this field to Disabled to save time.

Boot Up NumLock Status

Toggle between On or Off to controls the state of the NumLock key when the system boots. When toggled On, the numeric keypad generates numbers instead of controlling cursor operations.

BIOS SETUP

Security Option

This field allows you to select Setup or System Security option and it needs to work along with the "Set Supervisor Password" in the main menu.

When "Setup" option is selected, you will be prompt to input your "Passwords" before you can start the BIOS CMOS Setup Utility. When you select "System" option, you will be prompt to input your password in order to load the Operation System (Window OS or Linux OS).

Forgotten Your Password

If you happen to forget your password, you can clear the password by erasing the CMOS Real Time Clock (RTC) Ram. Please refer to page 21 under "JP1 Clear CMOS Data".

OS Select For DRAM > 64MB

Select OS2 only if you are running OS/2 operating system with greater than 64 MB of RAM on your system. Otherwise, use the default setting "Non-OS2" for all other operating systems.

HDD S.M.A.R.T Capability

If your Hard Drive support the S.M.A.R.T. technology (Self Monitoring Analysis Reporting Technology) feature, you may "enable" this item to monitor and report your Hard Drive healthy status. Check with your Hard Drive Vendor for further information about SMART feature.

Note! Using this feature may decrease system performance.

Video BIOS/XXXX-XXXX Shadow

This field allows you to enable or disable the shadow feature for the Video BIOS and the appropriate memory segment

3.5 ADVANCED CHIPSET FEATURES

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

Advanced chipset Features

| | | |
|--|-----------------|--------------|
| DRAM Clock /Drive control | : [Press Enter] | Item Help |
| AGP & P2P Bridge Control | : [Press Enter] | |
| CPU & PCI Bus Control | : [Press Enter] | Menu Level ► |
| Memory Hole | : [Disabled] | |
| System BIOS Cacheable | : [Disabled] | |
| Video RAM Cacheable | : [Disable] | |
| ↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | |

BIOS SETUP

DRAM Clock/Drive Control

This field allows you to select the FSB and DRAM frequency and access speed to control the CPU and memory performance. When you "Press Enter" . The following menu will pop up:

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

DRAM Clock/Drive Control

| | | |
|--|-----------|--------------|
| Current FSB Frequency | : 100 MHz | Item Help |
| Current DRAM Frequency | : 133 MHz | |
| DRAM Clock | : By SPD | Menu Level ► |
| DRAM Timing | : By SPD | |
| SDRAM Cycle Length | : 2.5 | |
| Bank Interleave | : Disable | |
| ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | |

Current FSB Frequency

This setting will be automatically detect by the BIOS based on your setting on the DIP Switch. If your CPU is 100 MHz but the DIP switch setting is 133 MHz, then it will detected as 133 MHz

Current DRAM Frequency

This setting is also automatically detected by the BIOS based on your setting on "DRAM Clock".

DRAM Clock

When your select "By SPD", the following menu will pop up:

Host CLK:
HCLK -33M
HCLK +33M
By SPD

HCLK - 33M— to reduce DRAM Clock speed by 33Mhz

HCLK + 33M— to increase DRAM Clock by 33MHz.

By SPD— to let BIOS auto detect the actual DRAM Clock.

IF you have a PC1600 (100 MHz DDR X 2) and wish to over-clock to PC2100, then you should select HCLK +33M.

BIOS SETUP

AGP & P2P Bridge Control

The following menu will pop up will you "Press Enter".

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

AGP & P2P Bridge Control

| | | |
|--|--------------|--------------|
| AGP Aperture Size | : [64M] | Item Help |
| AGP Mode | : [2X] | |
| AGP Driving Control | : [Auto] | Menu Level ► |
| AGP Driving Value | : DA | |
| AGP Fast Write | : [Disabled] | |
| AGP Master 1 WS Write | : [Disabled] | |
| AGP Master 1 WS 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 | | |

AGP Aperture Size

The default is 64MB, you may increase the memory in order to faster access and display 3D picture especially for 3D game.

AGP Mode

The BIOS will auto detect your AGP card mode. However, you can chose a lower AGP mode for certain specific requirements. The supports mode is 1x, 2x and 4x.

AGP Driving Control

The recommend setting is set to auto. In the event that your AGP card is instability, you may need to use this setting to set the appropriate setting. Please consult your AGP card manual or vendor for more information if you need to tune the timing.

AGP Fast Write

Certain AGP card like G-Force support AGP fast write. If your AGP card support this mode, then you may set it to "Enabled".

AGP Master 1 WS Write/Read

Only select "enabled" if your AGP card need a lower write and Read wait state.

CPU & PCI Write Buffer

The following menu will pop up when you "Press Enter"

BIOS SETUP

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

CPU & PCI Bus Control

| | | |
|--|--------------|--------------|
| CPU to PCI Write Buffer | : [Enabled] | Item Help |
| PCI Master 0 WS Write | : [Enabled] | |
| PCI Delay Transaction | : [Disabled] | 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 | | |

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 differences between the CPU and the PCI bus. When disabled, the writes are not buffered and the CPU must wait until the write is complete before starting another writes cycle.

PCI Master 0 WS Write

When enabled, writes to the PCI bus are executed with zero wait states.

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.

Memory Hole

In order to improve performance, certain space in memory can be reserved for ISA

| | |
|---------|----------------------------|
| Enable | Memory hole supported. |
| Disable | Memory hole not supported. |

System BIOS Cacheable

Select Enabled allows caching of the system BIOS ROM at F000h-FFFFh, resulting in better system performance.

| | |
|---------|-------------------------|
| Enable | BIOS access cached. |
| Disable | BIOS access not cached. |

Video Ram Cacheable

Selecting Enabled allows caching of the video BIOS ROM at 0000h to C7FFFh, resulting in better video performance.

| | |
|---------|-----------------------------------|
| Enable | Video BIOS/RAM access cached. |
| Disable | Video BIOS/RAM access not cached. |

BIOS SETUP

3.6 Integrated Peripherals

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

Integrated Peripherals

| | | |
|--|-----------------|--------------|
| VIA OnChip IDE Device | : [Press Enter] | Item Help |
| VIA OnChip PCI Device | : [Press Enter] | |
| Super I/O Device | : [Press Enter] | Menu Level ► |
| Init Display First | : [PCI Slot] | |
| OnChip USB Controller | : [All Enabled] | |
| USB Keyboard Support | : [Disabled] | |
| IDE HDD Block Mode | : [Enabled] | |
| ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | |

VIA OnChip IDE Device

The following menu will pop up when you "Press Enter".

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

VIA OnChip IDE Device

| | | |
|--|-------------|--------------|
| OnChip IDE Channel0 | : [Enabled] | Item Help |
| OnChip IDE Channel1 | : [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 | : [Auto] | |
| Primary Slave UDMA | : [Auto] | |
| Secondary Master UDMA | : [Auto] | |
| Secondary Slave UDMA | : [Auto] | |
| ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | |

OnChip IDE Channel0 and 1

If you wish to disable the onboard IDE 1 or/and 2, then select "Disabled".

BIOS SETUP

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.

IDE 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.

IDE Primary/Secondary Master/Slave UDMA

Ultra DMA implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If

VIA OnChip PCI Device

The following menu will pop up:

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

VIA OnChip PCI Device

| | | |
|--|--------------|--------------|
| VIA-3058 AC97 Audio | : [Auto] | Item Help |
| VIA-3068 MC97 Modem | : [Auto] | |
| VIA-3043 OnChip LAN | : [Disabled] | 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 | | |

VIA-3058 AC97

If you wanted to disable the onboard built-in AC97 sound, then change the setting to "Disabled"

VIA-3068 MC97 Modem

You should select "Auto" if you installed CNR Modem.

VIA-3043 OnChip LAN

Select "Disabled" if no CNR LAN card is installed. Also, the CNR LAN Card installed must be MII (Media Independent Interface) interface CNR card.

BIOS SETUP

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

Super IO Device

| | | |
|--|--------------|--------------|
| Onboard FDC Controller | : [Enabled] | Item Help |
| Onboard Serial Port 1 | : [3F8/IRQ4] | Menu Level ► |
| Onboard Serial Port 2 | : [2F8/IRQ3] | |
| UART Mode Select | : [Normal] | |
| x RxD, TxD Active | : Hi, Lo | |
| x IR Transmission Delay | : Enabled | |
| x UR2 Duplex Mode | : Half | |
| x Use IR Pins | : IR-Rx2Tx2 | |
| Onboard Parallel Port | : [378/IRQ7] | |
| x EPP Mode Select | : [SPP] | |
| X ECP Mode Use UMA | : EPP1.7 | |
| Game Port Address | : [201] | |
| Midi Port Address | : [330] | |
| Midi Port IRQ | : [10] | |
| <p>↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults</p> | | |

Onboard FDC Controller

This should be enabled if your system has a floppy disk drive (FDD) installed on the system board and you wish to use it. If you add a higher performance controller, you should disable this feature.

Onboard Serial Port 1/Port 2

These two selection fields allow you to select the I/O address and corresponding interrupt for the first and second serial ports.

UART Mode Select

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

RxD, TxD Active

This item allows you to determine the active of RxD, TxD

IR Transmission delay

This item allows you to enable/disable IR transmission delay.

BIOS SETUP

UR2 Duplex Mode

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

Use IR Pins

This item allows you to select IR transmission routes, one is Rx/D2m, Tx/D2 (COM Port 2) and the other is IR-Rx2Tx2 (CN12).

Onboard Parallel Port

This field allows you to select the address for the physical parallel (printer) port.

Parallel Port Mode

The Parallel port on the mainboard support ECP/EPP, ECP, EPP/SPP and SPP modes.

Game Port Address

This field allows you to select the I/O address for the onboard Game port.

Midi Port Address

This field allows you to select the I/O address for the onboard Midi port.

Midi Port IRQ

This field allows you to select the IRQ# for the onboard Midi port.

3.7 Power Management Setup

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

Power Management Setup

| | | |
|--|--------------------|--------------|
| ACPI Function | : [Enabled] | Item Help |
| Power Management | : [User Define] | Menu Level ► |
| HDD Power Down | : [Disabled] | |
| Suspend Mode | : [Disabled] | |
| Video Off Option | : [Suspend -> off] | |
| Video Off Method | : [Blank Screen] | |
| Modem Use IRQ | : [3] | |
| Soft-Off by PWR-BTTN | : [Instant - off] | |
| IRQ / Event Activity Detect | : [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 | | |

BIOS SETUP

ACPI function

If you wish to use the ACPI function, you have to use operation system that supports ACPI like Windows 98. During Windows 98 installation, you will have to provide specific parameter (please refer to Windows 98 manual for the parameters).

When the ACPI function is installed in your PC system successfully, you will find the ACPI function in the power management icon. The PW switch defined by the ACPI is different to the BIOS setup and it always has the higher priority than what was defined in the system BIOS.

According to what was defined by the ACPI in Windows 98, the PW switch can be either the "Standby switch" or "shutdown switch". When "Standby switch" is selected, the first click on the PW switch will have the PC system turn into standby mode. If you want to "wake up" the PC system, you will have to use the devices (such as keyboard, mouse .. etc) which is specified in the Windows 98 ACPI function to trigger the PC system so that it will be back to full-on mode (For more detail of ACPI function, please refer to Windows 98 user's manual for more detail information).

Power Management

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

1. Doze Mode
2. Standby Mode
3. Suspend Mode
4. HDD Power Down

| | |
|-------------------|--|
| Disable (default) | No power management. Disables all four modes |
| Min. Power Saving | Minimum power management. Doze Mode = 1 hr. Standby Mode = 1 hr., Suspend Mode = 1 hr., and HDD Power Down = |
| Max. Power Saving | Maximum power management -- ONLY AVAILABLE FOR SL CPU . Doze Mode = 1 min., Standby Mode = 1 min., Suspend |
| User Defined | Allows you to set each mode individually. When enabled, each range is from 1 min. to 1 hr. except for HDD Power Down |

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.

Suspend Mode

This field allows you to choose the time interval which PC system will turn into suspend mode.

BIOS SETUP

Video Off Option

When you select Yes, the screen display will be disabled (no display on the screen) when the PC system is in the suspend mode.


Video Off Method

When you are using the Green Monitor with your PC system, there are three modes selectable in this field for power energy saving.

| | |
|----------------|--|
| V/H SYNC+Blank | This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to |
| Blank Screen | This option only writes blanks to the video buffer. |
| DPMS | Initial display power management signaling. |

Modem Use IRQ

This mainboard has the ACPI feature designed on the board and it will “wakeup” automatically when it detects incoming modem Ring-in signal (only available with external modem connected to your PC system. You need to input the desire IRQ value of the com port used.

| |
|---|
|  Default : COM 1 uses IRQ4, and COM 2 uses IRQ3. |
|---|

Soft-Off by PWR-BTTN

This field allows user to define the feature of the “PW” connector (it is used to connect the power button). The setting can be either “Delay 4 Sec.” or “Instant-Off”. Please refer to page 21 for details of function description.

BIOS SETUP

IRQ/Event Activity Detect

The following menu will pop up when "Press Enter".

| | | |
|--------------------------|-----------------|---|
| VGA | : [OFF] | Item Help |
| LPT & COM | : [LPT/COM] | Menu Level ▶ |
| HDD & FDD | : [ON] | |
| PCI Master | : [OFF] | |
| Modem/Lan Resume | : [Disabled] | |
| PowerOn by PCI Card | : [Disabled] | |
| RTC Alarm Resume | : [Disabled] | |
| Date (of Month) | : 0 | |
| Resume Time (hh:mm:ss) | : 0 : 0 : 0 | |
| IRQs Activity Monitoring | : [Press Enter] | |
| | | Default is Disabled. Select Enabled to Reset Extended System Configuration Data |

VGA

When enabled, any VGA signal will awake the system.

LPT & COM

When selected "On", any activity from these devices or IRQs will wakes up the system.

HDD & FDD

When selected "On", any activity from the HDD or FDD will wakes up the system.

PCI Master

When selected "ON", any activity from the PCI devices will wakes up the systems.

PowerOn by PCI Card

Modem/Lan Resume

Any input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) will wakes uo the system.

RTC Alarm Resume

When RTC Alarm Resume is enabled, you may set the date and times for the RTC (real time clock) alarm to wake up the system.

BIOS SETUP

Date (of Month)/Resume Time (hh:mm:ss)

When RTC Alarm Resume is enabled, you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.

IRQs Activity Monitoring

The following menu will pop up when "Press Enter"

CMOS Setup Utility - Copyright (C) 1984 - 1999 Award Software

IRQs Activity Monitoring

| | | |
|--|--------------|--------------|
| Primary INTR | : [ON] | Item Help |
| IRQ 3 (COM 2) | : [Enabled] | |
| IRQ 4 (COM 1) | : [Enabled] | Menu Level ► |
| IRQ 5 (LPT2) | : [Enabled] | |
| IRQ 6 (Floppy Disk) | [Enabled] | |
| IRQ 7 (LPT1) | : [Enabled] | |
| IRQ 8 (RTC Alarm) | : [Disabled] | |
| IRQ 9 (IRQ2 Redir) | : [Disabled] | |
| IRQ 10 (Reserved) | : [Disabled] | |
| IRQ 11 (Reserved) | : [Disabled] | |
| IRQ 12 (PS/2 Mouse) | [Enabled] | |
| IRQ 13 (Coprocessor) | [Enabled] | |
| IRQ 14 (Hard Disk) | [Enabled] | |
| IRQ 15 (Reserved) | : [Disabled] | |
| ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | |

The following is a list of IRQ's, Interrupt **Re**Quests, 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.

BIOS SETUP

3.8 PNP/PCI CONFIGURATION

| CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software PnP/PCI Configuration | |
|--|---|
| PNP OS Installed : [No] | Item Help |
| Reset Configuration Data : [Disabled] | Menu Level ► |
| Resources Controlled By : [Auto ESCD] | Default is Disabled. Select Enabled to Reset Extended System Configuration Data |
| X IRQ Resources : [Press Enter] | |
| PCI/VGA Palette Snoop : [Disabled] | |
| Assign IRQ For VGA : [Enabled] | |
| Assign IRQ For 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 OS Installed

Select "Yes" if your installed OS support PnP (Plug and Play).

Reset Configuration Data

This field should leave as Disabled. If you have installed a new add-on card and the system reconfiguration has caused serious conflict that the operating system can not boot, then you should Select Enabled in order to reset Extended System Configuration Data (ESCD).

Resources Controlled by

The Award Plug and Play BIOS has the capacity to automatically configure the boot and Plug and Play compatible devices along with a Plug and Play operating system such as Windows®95. If you set this field to "manual", you may manually select specific resources in each of the sub menu.

IRQ Resources:

When resources are controlled manually, you need to assign interrupt type for the devices.

PCI/VGA Palette Snoop:

Some display cards are non-standard VGA card (such as graphics accelerator or MPEG Card) which may not display color properly on your screen. If you encounter problem, select "Enable" may correct this problem. Leave it "Disabled" as the default setting if you are using the normal display card.

BIOS SETUP

Assign IRQ For VGA / USB:

If you have VGA card installed that require IRQ signal, or you have the USB device connected to the onboard USB port, then select "Enabled" in this field. Otherwise, you may select "Disabled" so that the related IRQ will be released for other devices.

3.9 PC Health Status

| CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software | | |
|--|--------------|------------|
| PC Health Status | | |
| CPU Warning Temperature | [Disabled] | Item Help |
| Current CPU1 Temperature | 43°C / 109°F | Menu Level |
| Current FAN1 Speed | 4687 RPM | |
| Current FAN2 Speed | 0 RPM | |
| INO (V) | 1.68 V | |
| + 5 V | 3.21 V | |
| +12 V | 12.16 V | |
| - 12 V | -12.44 V | |
| - 5 V | -5.40 V | |
| VBAT (V) | 2.97 V | |
| 5VSB (V) | 5.34 V | |
| Shutdown Temperature | [Disabled] | |
| ↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults | | |

The table above allows you to monitor your PC system healthy status. You can check on the related field and monitor the status like voltage, Temperature.

CPU Warning Temperature

When enable, you will be notified when the CPU reach the critical level.

Current CPU Temperature

This field shows you the current system temperature

Current FAN1/FAN2 Speed

Shows you the current CPU FAN and/or System FAN operating speed.

Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item is only effective under Operation System supported ACPI mode (such as Windows 98 SE). If the CPU temperature reaches the set level, it will shutdown your computer system automatically.

BIOS SETUP

Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item is only effective under Operation System supported ACPI mode (such as Windows 98 SE). If the CPU temperature reaches the set level, it will shutdown your computer system automatically.

3.10 Frequency/Voltage Control

| CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software | | |
|---|--------------|------------|
| Frequency/Voltage Control | | |
| CPU Vcore Select | : [Default] | Item Help |
| Auto Detect DIMM/PCI Clk | : [Disabled] | |
| Spread Spectrum | : [Disabled] | Menu Level |
| Clock By Slight Adjust | : [100] | |
| CPU Ratio | : [X 4] | |

This section is means for over-clocking. We provide this features in view of the market demand for over-clocking to increase system performance. However, it is not recommended to over-clock your CPU since it may damage the CPU and Mainboard. Using this features is at your

CPU Vcore Select

You need to adjust the vcore voltage if you wish to over-clock your CPU to run at higher speed. When you "Press Enter", a menu with voltage selection will appeared for your selection.

Auto Detect DIMM/PCI Clk :

When "Enabled", it will auto detect the devices presences on DIMM and PCI slots. When there is no device presented on some of the PCI slots or DIMM connectors, the clock on the related DIMM connectors and PCI slots will be disabled to reduce the Electro-Magnetic Interference (EMI).

CPU Clock

You can use this field to adjust the front side system bus clock speed of the CPU. A menu will pop up for you to select the required FSB CPU clock.

CPU Ratio

You can use this field to adjust the front side bus clock ratio. A menu will pop up for you to select the required FSB CPU ratio.

BIOS SETUP

3.11 Load Optimized Defaults

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

| | |
|--------------------------------|-----------------------------|
| Standard CMOS Features | Frequency / Voltage Control |
| Advanced BIOS Features | Load Optimized Defaults |
| Advanced Chipset Features | Set Supervisor Password |
| Integrated Peripherals | Set User Password |
| Power Management Setup | Save & Exit Setup |
| PNP/PCI Configuration | Exit Without Saving |
| PC Health Status | |
| ESC : Quit | ↑↓→← : Select Item |
| F10 : Save & Exit Setup | (Shift)F2 : Change Color |
| Time, Date, Hard Disk Type ... | |

In case that you don't know how to use the Award BIOS CMOS Setup Utility to select the settings, you may use this field to load the optimized default which is defined in the system BIOS. This Optimized Default is recommended by our engineer that gives a series of parameters for ensuring the best reliability.

If you are not familiar with the setup procedure or if you made some changes in the CMOS setting and found that the PC system becomes unstable, you should try to load the optimized default value first and then re-configure step by step again.

BIOS SETUP

3.12 SET SUPERVISOR PASSWORD

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

| | |
|--------------------------------|-----------------------------|
| Standard CMOS Features | Frequency / Voltage Control |
| Advanced BIOS Features | Load Optimized Defaults |
| Advanced Chipset Features | Set Supervisor Password |
| Integrated Peripherals | Set User Password |
| Power Management Setup | Save & Exit Setup |
| PNP/PCI Configuration | Exit Without Saving |
| PC Health Status | |
| ESC : Quit | ↑↓→← : Select Item |
| F10 : Save & Exit Setup | (Shift)F2 : Change Color |
| Time, Date, Hard Disk Type ... | |

The "SUPERVISOR PASSWORD" is for you to control unauthorized access to your BIOS CMOS Setup or Booting into the your PC system. The Supervisor Password option is used together with the Security Option in section.

When "Setup" is selected in Security Option:

If you want to change the BIOS setting, you will have to key-in the Supervisor Password so that you can start the BIOS CMOS Setup Utility and change the system setting.

When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password in order to boot up your system. Without the correct password, the PC system will stop and the operation system will not be loaded.

BIOS SETUP

3.13 SET USER PASSWORD

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

| | |
|--------------------------------|-----------------------------|
| Standard CMOS Features | Frequency / Voltage Control |
| Advanced BIOS Features | Load Optimized Defaults |
| Advanced Chipset Features | Set Supervisor Password |
| Integrated Peripherals | Set User Password |
| Power Management Setup | Save & Exit Setup |
| PNP/PCI Configuration | Exit Without Saving |
| PC Health Status | |
| ESC : Quit | ↑↓→← : Select Item |
| F10 : Save & Exit Setup | (Shift)F2 : Change Color |
| Time, Date, Hard Disk Type ... | |

The User Password can be used to check the user's authority. However, this password entry is different from the "SUPERVISOR PASSWORD" mentioned in previous section. The User Password will have different function according to the "Supervisor Password" and the "Security Option" setup:

A. When there is a password stored in the "SUPERVISOR PASSWORD"

1. When "Setup" is selected in Security Option:

When you use the "User Password" to log into the BIOS setup program, you can only select "User Password", "SAVE & EXIT SETUP" and "EXIT WITHOUT SAVING" from the main menu. (Using Supervisor Password to log into the PC system, you will have the complete right to access all BIOS settings.)

2. When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password. Without correct password, PC system will stop and the operation system won't be loaded.

B. When there is no password stored in the "SUPERVISOR PASSWORD"

1. When "Setup" is selected in Security Option:

Users can use the "User Password" to log into the BIOS setup program, and they can make all the change in the BIOS setup program.

BIOS SETUP

2. When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password. Without the correct password, the PC system will stop and the operation system will not be loaded.

3.14 SAVE & EXIT SETUP / EXIT WITHOUT SAVING

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

| | |
|--------------------------------|-----------------------------|
| Standard CMOS Features | Frequency / Voltage Control |
| Advanced BIOS Features | Load Optimized Defaults |
| Advanced Chipset Features | Set Supervisor Password |
| Integrated Peripherals | Set User Password |
| Power Management Setup | Save & Exit Setup |
| PNP/PCI Configuration | Exit Without Saving |
| PC Health Status | |
| ESC : Quit | ↑↓→← : Select Item |
| F10 : Save & Exit Setup | (Shift)F2 : Change Color |
| Time, Date, Hard Disk Type ... | |

Save & Exit Setup:

This option will save all setup values to CMOS RAM & EXIT SETUP routine. Move the selection bar to "SAVE & EXIT SETUP" and press "Enter" key, then types "Y" and "Enter" key, the values will be saved and all the information will be stored in the CMOS memory.

Exit Without Saving

This item exits the setup routine without saving any changed values to CMOS RAM, When you do not want to save your change to the CMOS memory, you may choose to run this option and the setting what you made in the BIOS setup routine will be abundant.

TECHNICAL SUPPORT REQUEST FORM

TO: _____ ATTN: _____

Model No: _____ S/N: _____ BIOS Date Code: _____

Production Code: _____ PCB Version: _____

System Configuration:

1. OPERATION SYSTEM: _____ VER.: _____

2. CPU: _____ Onboard Cache Memory: _____

3. SDRAM: Brand: _____, Speed: _____ ns.
Size: _____ MB/per piece, Q'ty: _____ pcs, Total _____ MB

ADD-ON CARD:

VGA: Brand name : _____ Chipset: _____ Model: _____

Sound: Brand name: _____ Chipset: _____ Model: _____

Fax/Modem: Brand name: _____ Chipset: _____ Model: _____

Other Add-On card: _____ Chipset: _____ Model: _____

POWER SUPPLY

Brand name: _____ AT, ATX, Model name: _____

FDC PORT:

FDD: Brand name : _____, Type: : _____ Model: _____

ZIP: Brand name : _____, Type: : _____ Model: _____

Other: _____, Type: : _____ Model: _____

IDE PORT:

HDD1: Model name _____ IDE1, IDE2 Master, Slave.

HDD2: Model name _____ IDE1, IDE2 Master, Slave.

CD ROM: Model name _____ IDE1, IDE2 Master, Slave.

Other: Device name _____ IDE1, IDE2 Master,

B. PROBLEM DESCRIPTION:

COMPANY NAME: _____

CONTACT PERSON: _____ E-mail: _____

TEL: () _____ (ext.) FAX: () _____