

The **AZZA** 361 Mainboard Series

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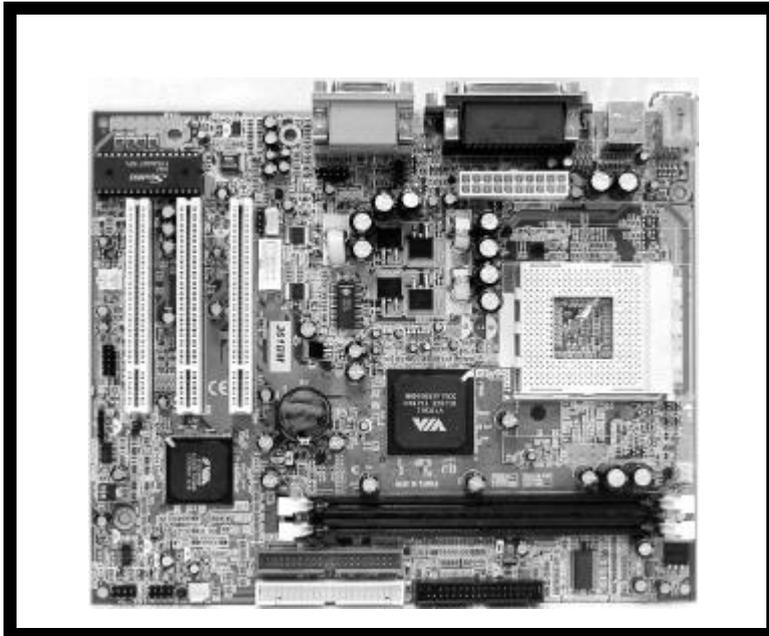




361 Mainboard

SOCKET A Micro ATX Mainboard

361 BM
361 BS



Version 1.x
UM-361BMS-E2
Rev 1.0V
Creation Date: 11 July 2001

361 Mainboard Series User Manual





USER' S NOTICE

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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 damaged or missing, please contact your dealer or sales representative for assistance.

Technical Support

If you require additional information or assistance during installation please contact your dealer. Your dealer will be able to provide the latest information.

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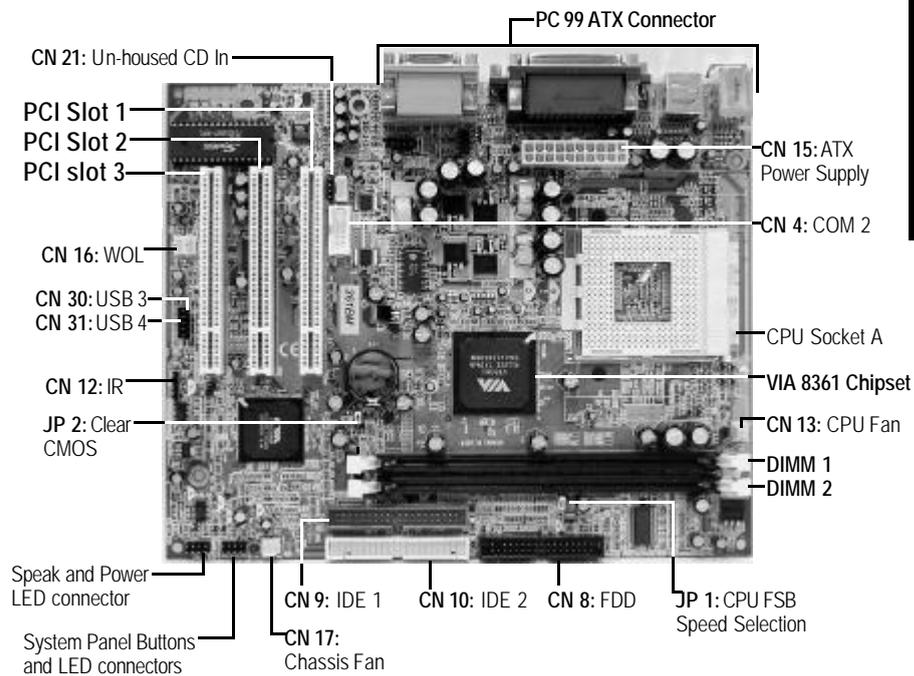
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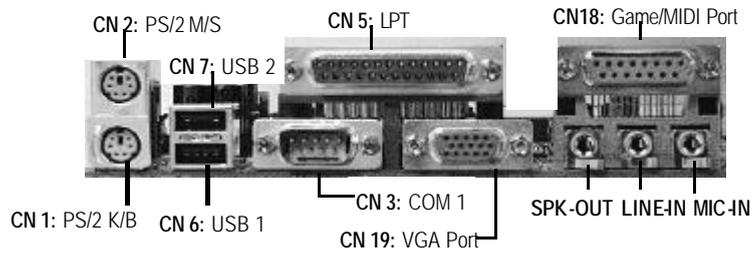
Introduction

Chapter 1 - Introduction

The 361 Mainboard Series



PC 99 ATX Connector



Introduction



Introduction

Introduction

1.1. Overview

1.1.1. 361 Series

There are two models in this series.

1. 361BS
2. 361BM

1.1.2. Mainboard Dimensions

Width	244 mm	9.6 inches
Length	200 mm	7.8 inches
Height	35 mm	1.5 inches
PCB thickness	4 layers	PCB thickness

1.1.3. Environmental Limitations

Operating Temperature:	10°C to 40°C (50°F to 104°F)
Required Airflow:	50 linear feet per minute across the 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

Socket A-based AMD Athlon™ and Duron™ processors are supported by these mainboards.

Chipset

Northbridge:	VIA KLE133 (VT8361)
Southbridge:	VT82C686B

CPU Switching Voltage regulator

This mainboard is equipped with a switching voltage regulator that automatically detects a DC power supply from +1.1 V to +1.8 V.

System Memory

The 361 mainboard series uses Dual Inline Memory Modules (DIMM). Each mainboard has two 168-pin DIMM sockets. These sockets support 3.3V (power level) un-buffered SDRAM (Synchronous Dynamic RAM) from 32 MB to 512 MB. Single-sided or double sided PC-100 or PC-133 SDRAM DIMM modules can be used. The maximum memory supported by these mainboards is 1 GB.

Specifications For Memory Support

8 MB or 16 MB x N (for x8 or x6 DRAM devices width).

Expansion Slots

These mainboards are equipped with 3 dedicated PCI slots.



Introduction

Onboard Audio Features

Supports Microsoft DirectSound/ DirectSound 3D

Word Size

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

Front Side Bus Frequency (FSB)

For a 200 MHz CPU the mainboard supports a 100 MHz FSB. For a 266 MHz CPU the mainboard supports a 133 MHz FSB

BIOS

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

Desktop Management Interface (DMI)

The mainboard comes with DMI 2.0 built into the BIOS. The DMI utility in the BIOS will automatically record different information about your system configuration and store this 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 the simplified troubleshooting of computer systems.

WOL (Wake-On-LAN) Port

One WOL connector supports Wake-On-LAN functionality.

USB Ports

The mainboard is equipped with 4 USB ports. USB allows data exchange between your computer and a wide range of simultaneously accessible external Plug and Play peripherals. USB 1 and USB 2 are external ports. They can be found on the PC 99 ATX connector. USB 3 and USB 4 are internal connectors that can be used to connect other USB devices. (Optional cable for two connectors is sold separately).

Connectors

- One connector for IrDA interface.
- Two IDE connectors.
- One floppy drive interface supports up to two 2.88MB floppy drives.
- One 20-pin ATX power supply connector.
- CPU and chassis fan connectors.
- Two CD audio-in connectors.
- One internal DB-9 serial port connector: **COM 2** (UART)

Introduction

ATX Double Deck Ports (PC 99 color-coded connectors)

- Two USB ports.
- One external DB-9 serial port connector: **COM 1** (UART).
- One SPP/ECP/EPP DB-25 parallel port.
- One mini-DIN-6 PS/2 mouse port.
- One mini-DIN-6 PS/2 keyboard port.
- One game/MIDI port.
- Three audio jacks: speak-out, line-in and mic-in.

PCI Bus Master IDE Controller

- Two PCI IDE interfaces support up to four IDE devices.
- Both mainboards support ATA/66 and ATA100 hard 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.

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.

1.3. System Health Monitor Functions

The mainboard is capable of monitoring the following system health conditions:

1. Processor and system temperature. It has an overheat alarm.
2. VCORE/3.3V/5V/12V/2.5V voltages and failure alarm.
3. Processor and chassis fan speeds. It has a failure alarm for these fans.
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 on the CD. It is capable of monitoring the system's hardware conditions such as the temperature of the processor and system, voltage, and the speed of both 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 automatically pop up. We recommend that you use the Default Settings, which are the ideal settings that will maintain the system in a good working condition.

Note: Only use this utility in Windows ® 95 or Windows ® 98 operating systems.

1.3.2. Installation

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

Introduction

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

Optional for the 361 BS

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 the external modem only.

RTC Timer to Power-on the System

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

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 5V SB 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 that support OS Direct Power Management (OSPM) for round the clock PC operation.

Hardware Installation

Chapter 2 - Hardware Installation

2.1. Installation Checklist

The following is a checklist of all the expansion slots, jumpers and connectors that should be configured on your mainboard before you can run your PC.

Expansion Slots and Sockets

CPU slot Socket A slot supports Athlon or Duron processors
DIMM Sockets Two 168-pin DIMM sockets that support up to 1 GB.
PCI slots Three 32 bit PCI slots: PCI 1, PCI 2 and PCI 3.

Connectors

CN 1	PS/2 Keyboard connector	K/B
CN 2	PS/2 Mouse connector	M/S
CN 3, CN 4	Serial port connectors	COM 1 and COM 2
CN 5	Parallel Port connector	LPT
CN 6, CN 7	Universal Serial BUS connectors	USB 1 and USB 2
CN 8	Floppy Disk Drive connector	FDD
CN 9, CN 10	Primary/Secondary IDE connectors	IDE 1 and IDE 2
CN 12	Infrared connector	IR
CN 13	CPU Fan connector	CPU fan
CN 15	ATX Power Supply	ATX
CN 16	Wake on LAN connector	WOL
CN 17	Chassis Fan connector	Chassis Fan
CN 18	Game/MIDI port connector	Game
CN 19	VGA connector	VGA
CN 21	Un-Housed CD Audio In connector	CD-IN
CN 30 and CN 31	Universal Serial BUS connectors	USB 3 and USB 4

System Panel Buttons and LED connectors

PW Power On/Off and Suspend Switch connector
HL HDD LED connector
RS Reset Button LED connector

Speaker and Power LED connector

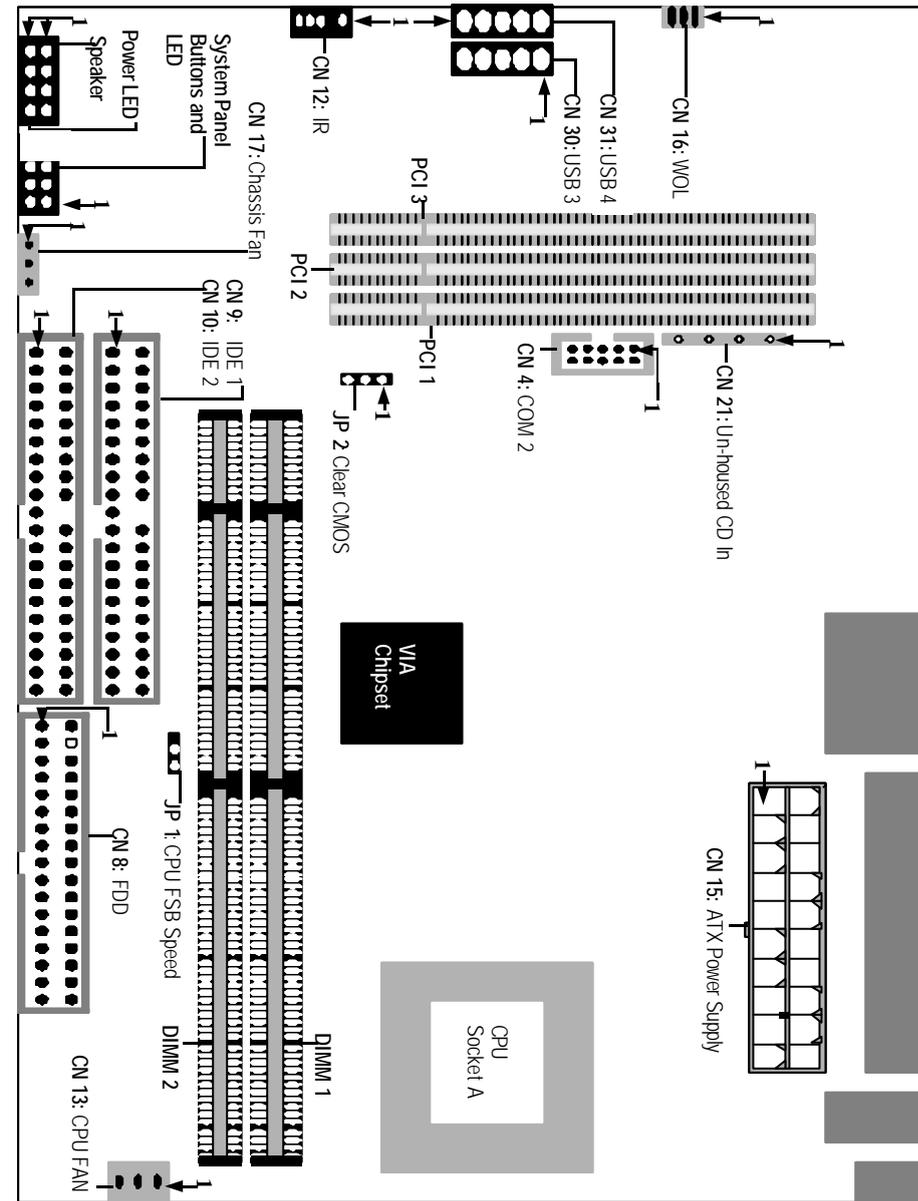
SPK Chassis Speaker connector
PWRLED Power LED connector

Jumpers

JP 1 CPU FSB Speed Selection
JP 2 Clear CMOS Data

Hardware Installation

Expansion Slots, Jumpers and Internal Connectors



Hardware Installation

Hardware Installation

Before You Start

Before you start installing your mainboard we strongly recommend that you use a grounded anti-static mat. We further recommend that you attach an anti-static wristband, which is grounded at the same location as the mat, to your wrist.

2.2. Installation Steps

You need to complete the following installation steps before you can use your PC.

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

2.3. CPU, Memory and Expansion Slots

2.3.1. Installation of the CPU

IMPORTANT: CPU COOLING FAN

Please ensure that you have an approved heat sink with cooling fan. Without a proper heat sink with cooling fan you will damage both the mainboard and the CPU.

To install your processor, please complete the following set of instructions

1. Locate a small dot marked on the top of the CPU. This mark indicates Pin 1 of the CPU.
2. Locate Pin 1 for the Socket on the mainboard.
3. There is a lever on the side of the socket. First push this lever sideways and then lift it to a 90-degree angle.
4. Insert the CPU into the Socket. Please make sure that Pin 1 for the CPU is inserted into Pin 1 of the Socket.
4. When the CPU is installed correctly push the lever back into place.
5. **Install a proper heat sink with cooling fan** for proper heat dissipation. Failing to install a heat sink with cooling fan may cause overheating which will burnout your CPU and damage your mainboard.

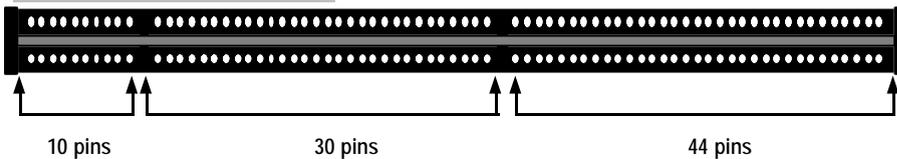
2.3.2. Memory Modules

These mainboards all have two 168-pin DIMM sockets and are able to support a maximum memory of 1 GB. The DIMM sockets are located on the right hand side of the board, behind the IDE and FDD connectors (see below). To install these DIMM's into these sockets, make

Hardware Installation

sure the white lever at each side of the socket has been pulled down to an angle of approximately 45°. Make sure that the DIMM is in the correct orientation. Place the DIMM on the socket and push down firmly. The white levers will come back up and lock the module in place.

Top View of a 168-pin DIMM Socket



Important: The DIMM's can only be fitted into the sockets in one orientation. Make sure that the DIMM's are in the correct orientation and the pins are correctly aligned before you insert them.

NOTE: "Out Of Memory" Error Message

If you have installed more than 512 MB of RAM and are running Microsoft Windows Millennium Edition, Windows 98 Second Edition, Windows 98 or Windows 95 you may experience memory problems. Two symptoms of these problems are being unable to run an MS-DOS session while you are running Windows or the computer may stop responding while Windows is starting.

There are three possible solutions to this problem:

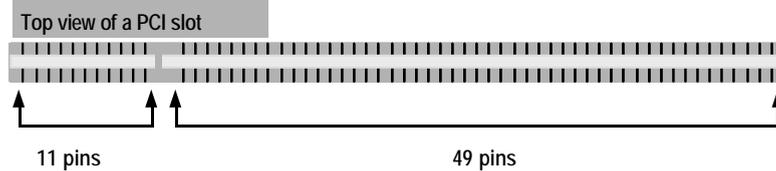
- 1) Reduce the amount of memory Vcache uses to 512 MB or less by altering the MaxFileCache setting in the System.ini file.
- 2) Use the System Configuration Utility to reduce the amount of memory Windows uses to 512 MB or less.
- 3) Reduce the memory installed on your computer to 512 MB or less.

This problem can also occur if you are using an Advanced Graphic Port (AGP) video adapter.

2.3.3. PCI Slots

These boards come with three PCI slots. They are located on the left hand side of the board. Both PCI and PCI expansion cards may require IRQ's. This mainboard complies with Plug and Play (PnP) specifications. Whenever a PnP compliant card is added the system will automatically be configured and the IRQ's will be assigned automatically.

When you are inserting your PCI card make sure that the pins are correctly aligned. When the pins are properly aligned with the hole's in the slot, push down gently.



Hardware Installation

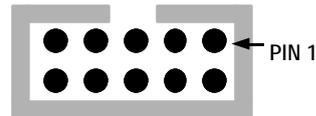
2.4. Internal Connectors

2.4.1. COM 2 Connector

Connector: CN 4
Type: 10 pin

Optional for the 361 BS

Top View of Serial Port 2 (COM 2)



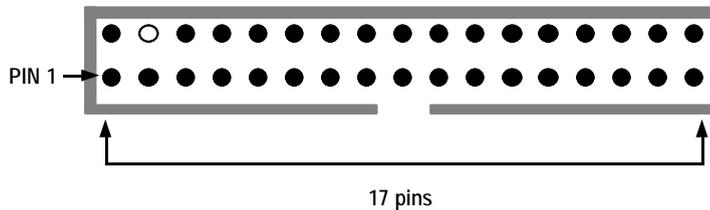
You already have one external serial port connector COM 1 (see External Connectors). This internal connector gives you the option of having a second serial port (COM 2). The cable for this serial port is optional so you need to purchase it separately.

2.4.2. Floppy Disk Drive (FDD)

Connector: CN 8
Type: 34 pin block

The FDD connector can support two Floppy drives. It is located at the front of the mainboard. To connect, use the ribbon-cable that has been provided. **Make sure** that the red strip is connected to **PIN 1** of the connector.

Top View of the Floppy Disk Drive Connector

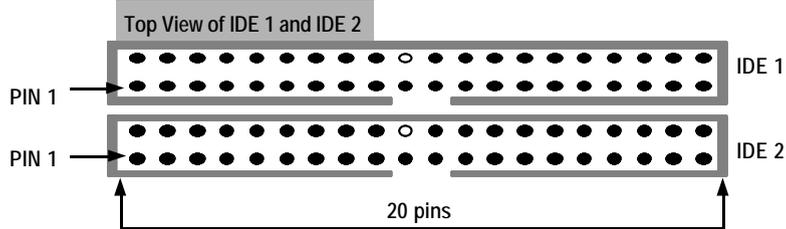


2.4.3. Primary and Secondary IDE connectors

Connector: CN 9 (primary)/ CN 10 (secondary)
Type: 40 pin blocks

The 361 mainboards all have two IDE connectors: a primary and secondary. Each IDE connector can support two IDE drives. These mainboards can therefore support up to four IDE devices each. If you install two hard drives, you need to configure the second drive to **slave** mode in the BIOS setup. Please refer to your hard drive manual for the appropriate jumper settings.

Hardware Installation

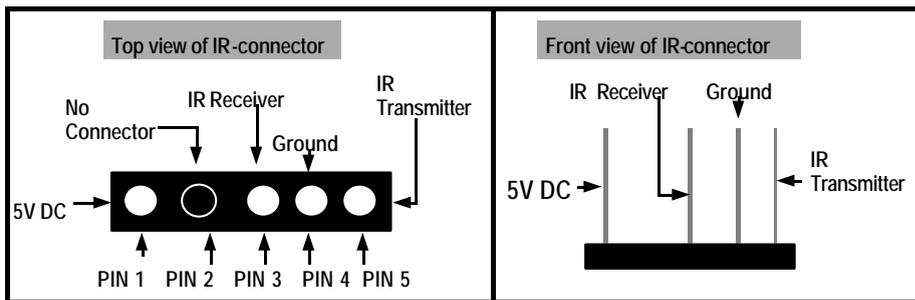


2.4.4. Standard Infrared Connector

Connector: CN 12
Type: 5 pin

Optional for the 361 BS

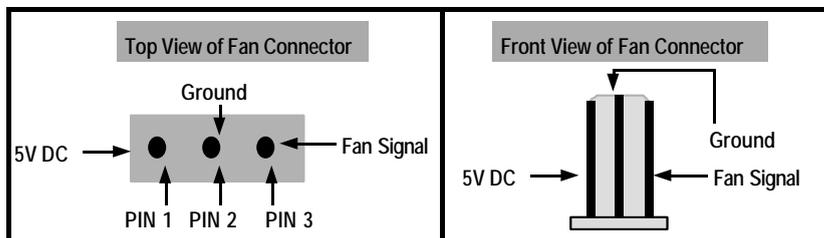
The SIR connector supports an optional wireless transmitting and receiving module. You must configure UART 2 to select whether UART 2 is directed for use with COM 2 or IrDA.



2.4.5. CPU Fan and Chassis Fan Connector

Connector: CN 13 (CPU Fan)/CN 17 (Chassis Fan)
Type: 3 pin

The cooling fans must be connected to their respective power connectors. If you have installed the hardware-monitoring feature you will be able to monitor the rotating speed of the CPU cooling fan in your Windows operating system.



Hardware Installation

Hardware Installation

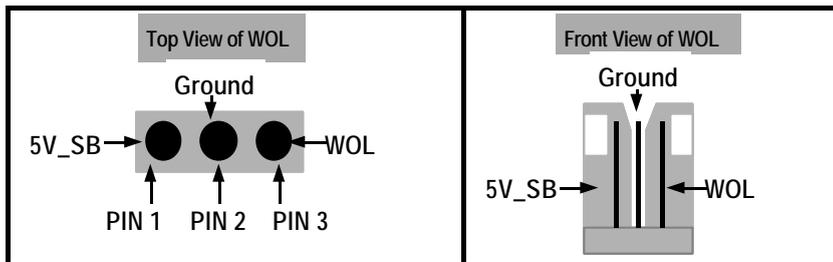
2.4.6. WOL (Wake On LAN) Connector

Connector: CN 16 (WOL)
Type: 3 pin

Optional for the 361 BS

The WOL connector must be connected to a LAN card that has Wake-On-LAN (WOL) output. This connector powers up the system when a wakeup packet or signal is received through the LAN card.

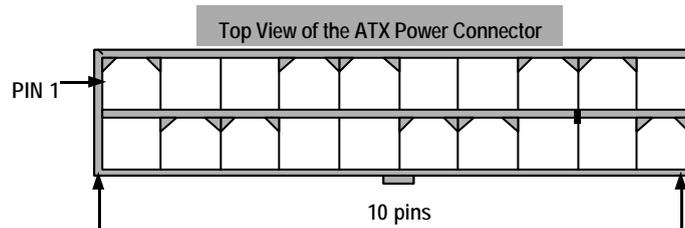
In order to use the WOL LAN card or the modem to trigger the power on the PC system, the switching power supply must have the ability to provide a driving current of at least 720 mA and be connected to a "5V standby" voltage.



2.4.7. ATX Power Supply Connector

Connector: CN 15
Type: 20 pin block

This must be connected to an ATX power supply. The plug from the power supply can only be inserted in one orientation. Make sure the pins are correctly aligned. Find the correct orientation and push the plug down firmly.



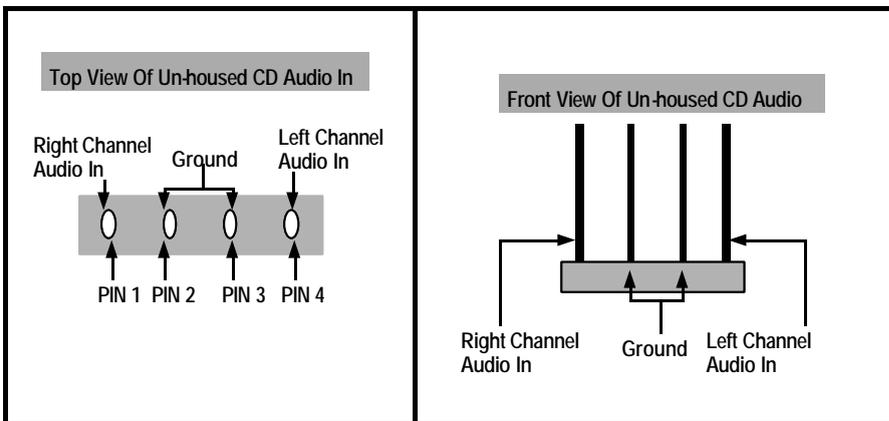
Hardware Installation

Hardware Installation

2.4.8. CD Audio-in Connector

Connector: CN 21 (un-housed)
Type: 4 pin un-housed

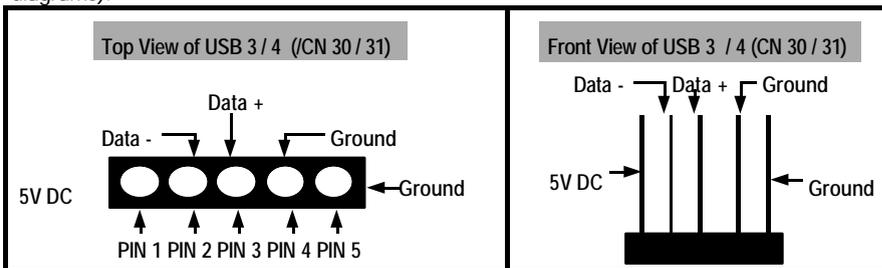
This mainboard has 2 CD Audio-in connectors. These connectors are used to connect the CD ROM audio out. There are two types of connectors: housed and un-housed. Please insert the correct supplied connector into the appropriate connector.



2.4.9. USB 3 and USB 4 connectors

Connector: CN 30 (USB 3)/CN 31 (USB 4)
Type: 4 pin / 4 pin

You already have two USB ports available, USB 1 and 2 (see external connectors). These connectors allow you to add on an optional kit to expand the total number of USB ports available. This will allow you to use extra 2 USB devices. (See below and page 18 for the diagrams).



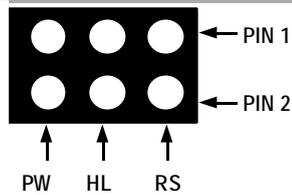
Hardware Installation

Hardware Installation

2.5. System Panel Buttons and LED Connectors.

PW = Power on/off and Suspend switch connector.
HL = HDD LED connector
RS = Reset button connector

Top View of the System Panel Buttons and LED Connectors



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 choose **"Delay 4 Sec or Instant OFF"** (Please refer to the Award BIOS setup instructions in Chapter 3)

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

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

Mode 1: Press and hold the Power ON button for less than 4 seconds and then release it. The system will be turned into Suspend mode (turned into the GREEN mode) When the system is in the 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 chose **"Instant OFF."** In the BIOS CMOS Setup, the power switch will operate like a normal ON / OFF Power button.

IDE HDD LED Connector

Any read and write activity by the HDD will turn this LED on.

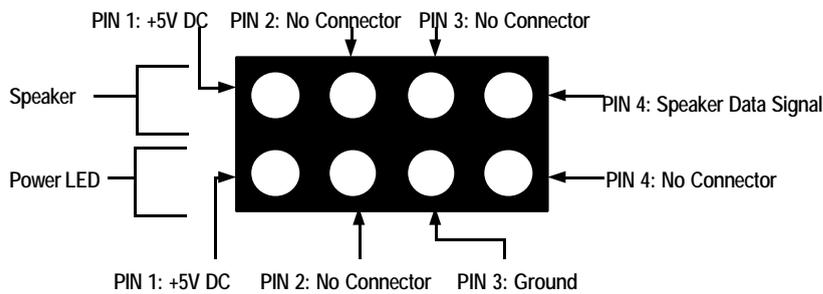
Hardware Installation

Reset Button Connector

If you connect this connector, you will be able to reset your computer by pressing the reset button at the front of the chassis.

2.6. Speaker and Power LED Connector

Top View of Speaker and Power LED Connector



Speaker Connector

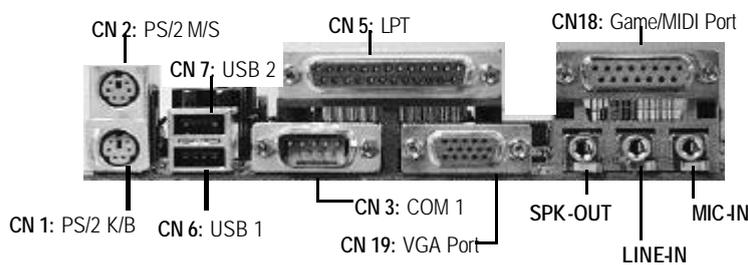
Connect your speaker to the four pin connector. It allows you to hear system beeps and warning sounds.

Power LED Connector

The chassis Power LED connector can be connected to the four pin connector. When you turn your system on, this LED will also be turned on.

2.7. External Connectors

Note: All the external connectors can be found at the back of the mainboard on an ATX connector shown below.



Hardware Installation

2.7.1. PS/2 Keyboard connector.

Connector: CN 1
Type: 6 pin female

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

2.7.2. PS/2 Mouse connector.

Connector: CN 2
Type: 6 pin female.

This connector only supports a PS/2 mouse plug. If a PS/2 mouse is detected then IRQ 12 will be directed to **CN 2**.

2.7.3. Serial Port COM 1.

Connector: CN 3
Type: 9 pin male

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

2.7.4. Parallel Port Connector

Connector: CN 5
Type: 25 pin female.

This parallel port is used by printers which support the SPP, EPP and ECP modes IRQ7 or IRQ5 is selectable. The ECP mode will use either DMA 3 or DMA 1 (which can be selected by the BIOS setup program).

2.7.5. Universal Serial Bus (USB) Port 1 & 2

Connector: CN 6 (USB 1)/ CN 7 (USB 2)
Type: 4 pin female

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 with the mainboard).

2.7.6. VGA Connector

Connector: CN 19
Type: 15 pin male.

Connect your VGA monitor adapter to this connector.

Hardware Installation

2.7.7. Audio/Game Port Connector

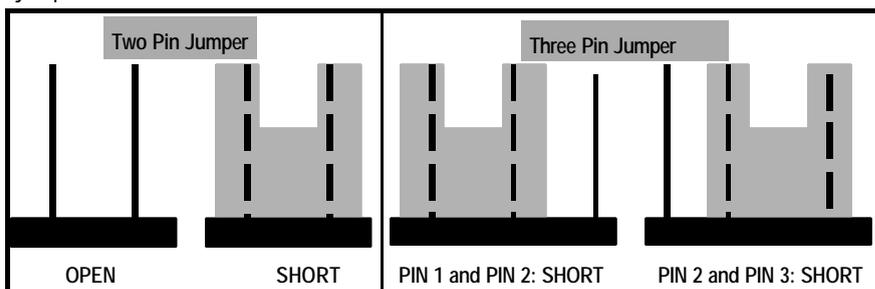
Connector: CN 18
Type: 15 pin female

The Game/MIDI port connector is a dual purpose connector. It can either be used to connect a joystick to the computer for game participation, or it can be used to attach an external MIDI device. All these motherboards have 3D audio interfaces onboard.

2.8. Jumper Settings

Jumpers are built on the mainboard to allow the user flexibility to configure the mainboard settings to meet their specific requirements. This mainboard has 2 jumpers. The first jumper allows you to select the CPU FSB clock speed. The second jumper is to clear the CMOS memory.

When there is no jumper cap inserted into the jumper it is called "OPEN." When a cap is inserted into the jumper it is known as a "SHORT." Below is an example of a short setting on a jumper.



2.8.1. JP 1: CPU FSB Clock Speed Selection

This allows you to select the speed of your CPU. If you are using a 200 MHz CPU on your mainboard then you need to SHORT JP1. If you are using a 266 MHz CPU you need to OPEN JP1.

2.8.2. JP 2: Clearing CMOS Data

If you have made an improper setting in the BIOS setup and your computer is not functioning, or if you have forgotten your password, you can use this jumper, JP2, to clear the CMOS memory and to reconfigure your system.

To clear the CMOS, please follow these instructions:

1. Turn the system power "OFF" and unplug your computer.
2. Insert the jumper cap on Pin 2 and Pin 3 for 3 ~ 5 seconds.
3. Pull out the jumper cap and replace it on Pin 1 and Pin 2.
4. Turn your PC on and run the BIOS setup program.

Managing The PC BIOS

Chapter 3: Managing The PC BIOS

3.1. Award BIOS CMOS Setup Utility

Once you have installed the mainboard you still need to setup the BIOS before you can run your PC. The EEPROM on the mainboard stores the AWARD BIOS CMOS Setup Utility, which allows you to configure your system. When you want to configure or make any changes to the configuration of your system BIOS you must run the BIOS CMOS Setup Utility.

GETTING STARTED

Every time you start your computer, the system provides you with an opportunity to run the BIOS CMOS Setup Utility. As soon as you turn on your system, press the <Delete> button to activate the BIOS CMOS Setup Utility.

If your computer finishes the POST (Power-On-Self-Test) the BIOS CMOS Setup Utility will **not** be activated. If your computer completes the POST you need to restart the system to activate the BIOS CMOS Setup Utility. To restart the system, you can either turn the power off, press the reset button on your chassis or press the <Ctrl> + <Alt> + <Delete> button. In all three cases the system will restart and, to activate the BIOS CMOS Setup Utility, you must immediately press the <Delete> button.

3.2. MAIN MENU

Once you have called up the BIOS CMOS Setup Utility, the following screen will appear:

CMOS Setup Utility – Copyright (C) 1984 - 2001 Award Software

<ul style="list-style-type: none">▶ Standard CMOS Features▶ Advanced BIOS Features▶ Advanced Chipset Features▶ Integrated Peripherals▶ Power Management Setup▶ PNP/PCI Configuration▶ PC Health Status	<ul style="list-style-type: none">▶ Frequency/Voltage ControlLoad Optimized DefaultsSet Supervisor PasswordSet User PasswordSave & Exit SetupExit Without Saving
ESC : Quit	
← ↑ ↓ → : Select Item	
F10 : Save & Exit Setup	
Time, Date, Hard Disk Type ...	

PC BIOS

Managing The PC BIOS

Note! BIOS software is continuously updated therefore the BIOS menus and the descriptions that are given in this manual are for reference purposes only.

Navigation Keys

You will notice a legend bar at the bottom of the main menu. The keys in this legend bar show you how to navigate through the setup menus. The table below lists the control keys with their corresponding functions: -

Control Key	Function
Up Arrow	Moves to the previous item.
Down Arrow	Moves to the next item.
Left Arrow	Moves to the item on the left.
Right Arrow	Moves to the item on the right.
Enter	Selects the desired item.
F1	Displays the help screen for the selected feature.
Esc key	Exits to the previous screen.
PgUp(-)/PgDn(+)	Modifies or changes the content of the highlighted item.
F5	Restores the previous CMOS values to the current page setup. This will not restore the previous values for any other pages.
F7	Loads the SETUP default values from BIOS default table, (only the current page setup will be loaded).
F10	Saves changes to the CMOS and exits the setup.

3.3. STANDARD CMOS SETUP

(The STANDARD CMOS SETUP menu is on **page 24**)

Date (mm : dd : yy)

Sets your system to the date that you specify (usually the current date). The format is month, day, and year. Press the right or left arrow key to move to the desired field (month, date, year). Press the PgUp or PgDn key to increment the setting, or type the desired value into the field.

Time (hh : mm : ss)

Sets your system to the time you specify (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. Press the right or left arrow key to move to the desired field. Press the PgUp or PgDn key to increment the setting, or type the desired value into the field.

Managing The PC BIOS

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Standard CMOS Features

Date (mm : dd : yy)	Wed, May 30 2001	Item Help
Time (hh : mm : ss)	16 : 03 : 33	
▶ IDE Primary Master	[Maxtor 52049H4]	Menu Level ▶ Change the day, month, year and century
▶ IDE Primary Slave	[None]	
▶ IDE Secondary Master	[None]	
▶ IDE Secondary Slave	[CD-540E]	
Drive A	[1.44, 3.5 in.]	
Drive B	[None]	
Video	[EGA/VGA]	
Halt On	[All Errors]	
Base Memory	640K	
Extended Memory	252928K	
Total Memory	253952K	

IDE Primary / Secondary Master / Slave

This mainboard supports four IDE Hard Drives. These fields allow you to set your Hard Drive parameters. (For detailed installation of IDE Hard Drives, please refer to 2.4.4 Primary and Secondary IDE Connector).

Move the selection bar to the IDE Hard Drive you want to configure. Press the "ENTER" key. If you select "AUTO" the system BIOS will detect the HDD type automatically.

Drive A /B

The 361 mainboard series can support up to two floppy disk drives. These two selection fields allow you to select the floppy drives that are installed on your computer. Select the correct specifications for the diskette drive(s) installed on your computer.

PC BIOS	Diskette Drive		Type of Disk Drive	Capacity
		None		No diskette drive installed
	360K	5.25 in	5-1/4 inch PC-type standard drive	360 KB
	1.2M	5.25 in	5-1/4 inch AT-type high-density drive	1.2 MB
	720K	3.5 In	3-1/2 inch single-sided drive	720 KB
	1.44M	3.5 in	3-1/2 inch double-sided drive	1.44 MB
	2.88M	3.5 in	3-1/2 inch double-sided drive	2.88 MB

Managing The PC BIOS

Video

This field selects the type of primary video subsystem that is on your computer. The BIOS CMOS Setup Utility will automatically detect the correct video type.

Monitors	
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 includes high resolution monochrome adapters

Halt On

This field allows you to decide which errors, detected during the Power On Self Test (POST), will halt the system.

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. You cannot make any 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.

3.4. ADVANCED BIOS FEATURES

(The ADVANCED BIOS FEATURES menu is on page 26)

Virus Warning

When you enable the virus warning you will receive a warning message whenever a program (specifically, a virus) attempts to write to the boot sector or the partition table of the hard disk drive. If you receive such a message you should immediately run an anti-virus program. Keep in mind that this feature **only** protects the boot sector and not the entire hard drive.

NOTE! 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.

CPU Internal Cache / External Cache

Cache memory is additional memory that is much faster than conventional DRAM (system memory). CPUs from 486-type up contain internal cache memory, and most, but not all, modern PCs have an additional (external) cache memory. When the CPU requests data, the system transfers the requested data from the main DRAM into cache memory, for faster access by the CPU.

Managing The PC BIOS

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Advanced BIOS Features

Virus Warning	[Disabled]	Item Help
CPU Internal Cache	[Enabled]	Menu Level ▶
External Cache	[Enabled]	Allows you to choose the VIRUS warning feature for IDE Hard disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will show a warning message on screen and alarm beep.
CPU L2 Cache ECC Checking	[Enabled]	
Quick Power On Self Test	[Enabled]	
First Boot Device	[Floppy]	
Second Boot Device	[HDD-0]	
Third Boot Device	[LS120]	
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]	
HDD S.M.A.R.T Capability	[Disabled]	
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]	

PC BIOS

CPU L2 Cache ECC Checking

When you select Enabled, the ECC checking will ensure that the data stored on the L2 cache is accurate.

Managing The PC BIOS

Quick Power On Self Test

If enabled the amount of time required to run the power-on self-test (POST) will decrease. A quick POST skips certain steps. We recommend that you disable quick POST. It is better to find a problem during POST than to lose data during your work.

First / Second / Third Boot Device

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

Boot Other Device

When this field is enabled you will be able Boot your computer from a another device, not your HDD or FDD.

Swap Floppy Drive

This field is effective only in systems with two floppy drives. When Enabled is selected physical drive B is assigned to logical drive A, and physical drive A is assigned 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. Very few modern PCs have 40-track floppy drives so we therefore recommend that you set this field to Disabled to save time.

Boot Up NumLock Status

This controls the state of the NumLock key when the system boots. This field is toggled between On or Off. When it is on the numeric keypad generates numbers instead of controlling the cursor operations. When it is off the numeric keypad controls cursor operations and does not generate numbers.

Gate A20 Option

Gate A20 is a signal that gives the system access to addresses higher than A19. If you select Fast the chipset will control this signal. If you select normal a pin in the keyboard controller will control the signal.

Typematic Rate Setting

The keyboard controller determines the rate at which the keystrokes from the keyboard are repeated. If you enable this option then the typematic rate and the typematic delay can be selected.

Typematic Rate

This is the rate a character will repeat itself on the screen when you hold down a key.

Managing The PC BIOS

Typematic Delay

This is the delay time (Msec) before the repetition of characters starts.

Security Option

This field allows you to select the "Setup" or "System" security option. It works concurrently with the "Set Supervisor Password" in the main menu.

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

TIP: Forgot your password then clear the RTC RAM

If you happen to forget your password you can use Jumper 2 (JP 2) to clear the password by erasing the CMOS Real Time Clock (RTC) Ram. For further details on how to do this please see section 2.8.2 on page 21.

OS Select For DRAM > 64MB

Only select OS2 if you are running an OS/2 operating system with a RAM greater than 64 Mb. Otherwise, for all other operating systems, use the default setting "Non-OS2"

HDD S.M.A.R.T Capability

You may "enable" this option if your Hard Drive supports the S.M.A.R.T. technology (Self Monitoring Analysis Reporting Technology) feature. S.M.A.R.T. will monitor and report your Hard Drive health status. Check with your Hard Drive Vendor for further information.

Note! Using this feature may decrease system performance.

Video BIOS / XXXXX-XXXXX Shadow

These fields allow you to change the Video BIOS location from ROM to RAM. Information access is faster through RAM than ROM. Therefore when you enable this option you will enhance your system performance.

3.5. ADVANCED CHIPSET FEATURES

(The ADVANCED CHIPSET FEATURES menu is on **page 29**)

DRAM Timing By SPD

When enabled, the system BIOS will read the DRAM parameters from the SPD (Special Presence Detect) chip on the DIMM module and set the DRAM timing automatically.

DRAM Clock

This field allows you to select the DRAM access speed to control the memory performance.

Managing The PC BIOS

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Advanced Chipset Features

DRAM Timing By SPD	[Disabled]	Item Help
DRAM Clock	[100M]	Menu Level ▶
SDRAM Cycle Length	[3]	
Bank Interleave	[Disabled]	
Memory Hole	[Disabled]	
PCI Master Pipeline Req	[Enabled]	
P2C/C2P Concurrency	[Enabled]	
Fast R-W Turn Around	[Disabled]	
System BIOS Cacheable	[Disabled]	
Video RAM Cacheable	[Disabled]	
Frame Buffer Size	[8M]	
AGP Aperture Size	[64M]	
AGP Mode	[4x]	
AGP Driving Control	[Auto]	
x AGP Driving Value	[DA]	
OnChip USB	[Enabled]	
USB Keyboard Support	[Disabled]	
OnChip Sound	[Auto]	
CPU to PCI Write Buffer	[Enabled]	
PCI Dynamic Bursting	[Enabled]	
PCI Master 0 WS Write	[Enabled]	
PCI Delay Transaction	[Enabled]	
PCI #2 Access #1 Retry	[Enabled]	
AGP Master 1 WS Write	[Disabled]	
AGP Master 1 WS Read	[Disabled]	

PC BIOS

Managing The PC BIOS

SDRAM Cycle Length

This setting defines the CAS timing parameter of the SDRAM in terms of clock. The default value is 3. We recommend that you leave the default value.

Bank Interleave

This field allows you to select how many banks of DRAM are installed on the mainboard so that the system BIOS will be able to adjust the SDRAM interleave access mode to optimize the SDRAM performance.

Memory Hole

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

Enabled: The memory space between 15–16MB will be remapped for ISA cards.

Disabled: No memory will be remapped.

PCI Master Pipeline Req

This field allows you to enable or disable the PCI pipeline access.

P2C/C2P Concurrency

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

Fast R-W Turn Around

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

System BIOS Cacheable

Selecting "Enabled" allows caching of the system BIOS ROM. This results system performance. However, if any program writes to this memory area, a system error may occur.

Video RAM Cacheable

Select 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 occur.

Frame Buffer Size

A frame buffer is the memory region on your graphics card that stores all the information which is not on the screen. This fields allows you to choose the buffer size.

Managing The PC BIOS

AGP Aperture Size

This field selects the size of the 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.

AGP Mode

This item allows you to select 1x, 2x or 4x AGP mode.

AGP Driving Control

This item allows you to adjust the AGP driving force. Choose Manual to key in an AGP Driving Value in the next selection. Basically, "Auto" is recommended to avoid any error in your system.

AGP Driving Value

This item allows you to adjust the AGP driving force.

OnChip USB

You should select Enabled as the mainboard Universal Serial Bus (USB) controller for you to use your USB peripherals.

USB Keyboard Support

You should select Enabled as the mainboard Universal Serial Bus (USB) controller for you to use your USB Keyboard peripherals.

OnChip Sound

This item allows you to control the onboard AC 97 audio.

CPU to PCI Write Buffer

When this field is enabled, writes from the CPU to the PCI bus is 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 Dynamic Bursting

When enabled, every write transaction goes to the write buffer. Burstable transactions then burst on the PCI bus and non-burstable transactions don't.

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.

Managing The PC BIOS

PCI#2 Access #1 Retry

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

AGP Master 1 WS Write

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

AGP Master 1 WS Read

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

3.6. Integrated Peripherals

(The Integrated Peripherals menu is on [page 33](#))

OnChip IDE Channel 0/1

The chipset contains a PCI IDE interface with support for two IDE channels. To activate the primary IDE interface select Enabled. If you want to disable the onboard IDE 1 and/or 2, then select Disabled and this interface will be deactivated.

IDE Prefetch Mode

The onboard IDE drive interfaces supports IDE pre-fetching for faster drive access. If you install a primary and/or secondary add-in IDE interface which does not support pre-fetching set this field to Disabled.

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.

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.

Init Display First

This field allows you to choose to activate the VGA PCI Slot first or the AGP slot first.

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Integrated Peripherals

OnChip IDE Chanel0	[Enabled]	Item Help
OnChip IDE Chanel1	[Enabled]	Menu Level ▶
IDE Prefetch Mode	[Enabled]	
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]	
Init Display first	[PCI Slot]	
IDE HDD Block Mode	[Enabled]	
Onboard FDD Controller	[Enabled]	
Onboard Serial Port 1	[Auto]	
Onboard Serial Port 2	[Auto]	
UART 2 Mode	[Standard]	
IR Function Duplex	Half	
TX, RX inverting enable	No, Yes	
Onboard Parallel Port	[378/IRQ7]	
Onboard Parallel Mode	[Normal]	
ECP Mode Use DMA	3	
Parallel Port EPP Type	EPP 1.9	
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	[Enabled]	
MPU-401 I/O Address	[330-333H]	
Game Port (200, 207H)	[Enabled]	

PC BIOS

Managing The PC BIOS

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.

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 an add-in FDC or the system has no floppy drive, select Disabled in this field.

Onboard Serial Port 1/Port 2

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

UART 2 Mode

This item allows you to select a mode for the Onboard Serial Port 2. The mode depends on the infrared function of the onboard Infrared Chip. There are three choices: Standard; ASKIR or HPSIR.

IR Function Duplex

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

TX, RX inverting enable

This item allows you to enable TX, RX inversion which depends on different H/W requirements. To avoid any errors in your system we recommend that you do not change the default setting in this field.

Onboard Parallel Port

This item allows you to determine the I/O address for the onboard parallel port controller.

Onboard Parallel Mode

This field allows you to 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.

ECP Mode Use DMA

This item allows you to select a DMA channel for the parallel port for use during ECP.

Parallel Port EPP Type

This field allows you to select an EPP port type between 1.7 or 1.9.

Managing The PC BIOS

Onboard Legacy Audio

This field controls the onboard legacy audio.: **Sound Blaster, SB I/O Base Address, SB IRQ Select, SB DMA Select, MPU-401** and the **MPU-401 I/O Address Game Port (200-207H)**.

3.7. Power Management Setup

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Power Management Setup

ACPI function	[Disabled]	Item Help
▶ Power Management	[Press Enter]	Menu Level ▶
PM Control by APM	[Yes]	
Video Off Option	[Suspend -> off]	
Video Off Method	[Blank Screen]	
MODEM Use IRQ	[3]	
Soft-Off by PWRBTN	[Instant - off]	
▶ Wake-Up Events	[Press Enter]	

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

ACPI function

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

Power Management

When you press the "Enter" key on this selection field, the following setup screen will be triggered:

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Power Management

Power Management	[User Defined]	Item Help
HDD Power Down	[Disable]	Menu Level >>
Doze Mode	[Disable]	
Suspend Mode	[Disable]	

PC BIOS

Managing The PC BIOS

Power Management

Disable	No power management. Disable all power saving modes.
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. Doze Mode = 1 min., Standby Mode = 1 min., Suspend Mode = 1 min., and HDD Power Down = 1 min.
User Defined	Allow 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.

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.

Doze Mode

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

Suspend Mode

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

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.

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.

Video Off Method

This determines the manner in which the monitor goes blank.

Managing The PC BIOS

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.

MODEM Use IRQ

This determines the IRQ which the MODEM can use for power saving purposes. This mainboard has the ACPI feature designed on the board and it will "wakeup" automatically when it detects an incoming modem Ring-in signal. Before you can use the Ring-in signal to wakeup your PC system, you have to install the "External" modem to your PC system and tell the PC system which serial port connects to the modem by selecting the IRQ in this field, (officially, COM 1 uses IRQ4, and COM 2 uses IRQ3)

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".

Wake Up Events

When press the "Enter" key on this selection field, the following setup screen will be triggered:

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Wake Up Events

VGA	[OFF]	Item Help
LPT & COM	[LPT / COM]	Menu Level >>
HDD & FDD	[ON]	
PCI Master	[OFF]	
Modem/Lan Resume	[Disabled]	
RTC Alarm Resume	[Disabled]	
^ Date (of Month)	0	
^ Resume Time (hh:mm:ss)	0 0 0	
Primary INTR	[ON]	
▶ IRQs Activity Monitoring	[Press Enter]	

PC BIOS

Managing The PC BIOS

VGA

When Enabled, you can set the VGA awakens the system.

LPT & COM

If you enable the LPT & COM mode, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

HDD & FDD

If you enable the HDD & FDD mode, any activity from one of the listed system peripheral devices wakes up the system.

PCI Master

When you enable the PCI Master mode, any activity from one of the listed system peripheral devices wakes up the system.

Modem/Lan Resume

Optional for the 361 BS

An input signal from the modem or from the LAN awakens the system from a soft off state.

RTC Alarm Resume

When enabled, you can use the following two fields to select the time and date to wake up the PC system from power saving mode.

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

When RTC Alarm Resume is enabled, your 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 is a list of IRQ's, **I**nterrupt **R**e**Q**uests, 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.

Managing The PC BIOS

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
IRQs Activity Monitoring

IRQ	Device	Status	Item Help
IRQ3	(COM 2)	[Enabled]	Menu Level >
IRQ4	(COM 1)	[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)	[Enabled]	
IRQ14	(Hard Disk)	[Enabled]	
IRQ15	(Reserved)	[Disabled]	

3.8. PNP/PCI CONFIGURATION

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
PNP/PCI Configurations

Setting	Value	Item Help
PNP OS Installed	[No]	Menu Level > BIOS can automatically configure all the boot Plug and Play compatible devices. If you choose Auto, you cannot select IRQ DMA and memory base address fields, since BIOS automatically assigns them.
Reset Configuration Data	[Disabled]	
Resources Controlled By	[Auto (ESCD)]	
IRQ Resources	Press Enter	
DMA Resources	Press Enter	
PCI/VGA Palette Snoop	[Disabled]	
Assign IRQ For VGA	[Enabled]	
Assign IRQ For USB	[Enabled]	

PC BIOS

Managing The PC BIOS

PNP OS Installed

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

Reset Configuration Data

Normally, you leave this field Disabled. If you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system cannot boot then select Enabled. Selecting Enabled will reset the Extended System Configuration Data (ESCD).

Resource controlled By

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.

IRQ Resources

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

DMA Resources

When resources are controlled manually, assign each system DMA channel as one of the following types, depending on the type of device using the interrupt.

Legacy ISA Devices compliant with the original PC AT bus specification, requiring a specific interrupt (such as IRQ4 for serial port 1). PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

PCI/VGA Palette Snoop

Leave this field at *Disabled* all the time

Assign IRQ For VGA/USB

A system's IRQs are limited. Sometimes you may need to use more IRQ signals for your add-on cards. BIOS allows you to disable the IRQ which is supposed to be connected to the VGA and USB ports. If you choose to disable the IRQ on the VGA or USB port, the IRQ will be released and becomes available for other devices. Please make sure that you have a USB or VGA adapter that does not need an IRQ before you select Disabled.

3.9. PC Health Status

The PC Health Status menu ([page 42](#)) allows you to monitor the health status of your PC system. You can select a field of interest and monitor it's status.

Current CPU Temp.

This field shows the present CPU temperature.

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PC Health Status

Current CPU Temp.	57°C/134°F	Item Help
Current CPU FAN Speed	5748 RPM	Menu Level >
Current Chassis FAN Speed	0 RPM	
Vcore	1.76 V	
2.5V	2.56 V	
3.3V	3.46 V	
5V	5.00 V	
12V	12.36 V	
CPU protect for CPUFan Off	[Enabled]	

Current CPU FAN Speed

This field shows you the present CPU Cooling FAN1 speed.

Current Chassis FAN Speed

This field shows you the present CPU Cooling FAN2 speed.

Vcore

This field and the files below show you the current system voltage

CPU protect for CPUFan Off

This function checks the spinning status of the CPU fan. If the fan does not spin when power is applied to the system, the system will shut down immediately. This is to protect the CPU from overheating and burning out. The default setting for this option is "Enabled".

If you are using an old cooling fan (one with only two wires for voltage connection) the system will always shutdown as soon as you start up the computer. If you really insist on using the old cooling fan you will initially have to boot the system up with a newer CPU fan, enter the BIOS and disable this function. Then you will have to reinstall the old fan.

We strongly recommend that you keep this function "Enabled" at all times.

PC BIOS

Managing The PC BIOS

There is CMOS memory on the mainboard that can be used to store the system settings. If 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 defaults which are defined in the system BIOS. **Our engineer recommends the Optimized Defaults.** If this option is selected it will give a series of parameters that will ensure the reliability and performance of your PC.

If you lose your CMOS data or you don't know how to complete the setup procedure, you may use this option to load the Optimized default values from the BIOS default table.

If the CMOS data is corrupted, or if you selected some CMOS settings and find that the PC system becomes very unstable, you should try to load the optimized default values first and then re-configure the BIOS.

3.12. SET SUPERVISOR PASSWORD

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<ul style="list-style-type: none">▶ Standard CMOS Features▶ Advanced BIOS Features▶ Advanced Chipset Features▶ Integrated Peripherals▶ Power Management Setup▶ PNP/PCI Configuration▶ PC Health Status	<ul style="list-style-type: none">▶ Frequency/Voltage ControlLoad Optimized DefaultsSet Supervisor PasswordSet User PasswordSave & Exit SetupExit Without Saving
ESC : Quit F10 : Save & Exit Setup	
← ↑ ↓ → : Select Item	
Load Optimized Defaults	

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 4.5.

When "Setup" is selected in the Security Option:

If you want to change any 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:

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

Managing The PC BIOS

3.13. SET USER PASSWORD

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<ul style="list-style-type: none">▶ Standard CMOS Features▶ Advanced BIOS Features▶ Advanced Chipset Features▶ Integrated Peripherals▶ Power Management Setup▶ PNP/PCI Configuration▶ PC Health Status	<ul style="list-style-type: none">▶ Frequency/Voltage Control<ul style="list-style-type: none">Load Optimized DefaultsSet Supervisor PasswordSet User PasswordSave & Exit SetupExit Without Saving
ESC : Quit F10 : Save & Exit Setup	
← ↑ ↓ → : Select Item	
Load Optimized Defaults	

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 has a different function to the "Supervisor Password" and the "Security Option" setup in Section 4.5:

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

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

When you use the "User Password" to log into the BIOS setup program, you can only view the BIOS settings, but you cannot change any settings. The only setting you can change is the "User Password" and you can also select "SAVE & EXIT SETUP" and "EXIT WITHOUT SAVING" from the main menu. (If you use the Supervisor Password to log into the PC system, you will have the complete rights to all the BIOS settings.)

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

When you turn on the PC system, it will request that you to enter the Password. Without the correct password, the PC system will stop and the operating 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 change any of the BIOS settings.

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

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

