

8VTAV

User Manual V1.0

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Printed in Taiwan.

Item Checklist

Before you begin installing your motherboard, please make sure that the following materials have been shipped:

This mainboard comes in a sturdy cardboard shipping carton, which should contain the following items:

- The main board.
- This user manual.
- One Floppy disk drive cable.
- One Ultra DMA/66 IDE cable.
- Software utilities.

If you discover damaged or missing items, please contact your retailer.

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Chapter 1

Introduction

1-1 Introduction

The motherboard is a high-performance, low-cost motherboard which supports the AMD® Athlon™ & Duron™ processors (pinout optimized for Socket-462) . System memory bank supports 3 DIMM socket. Memory up to 1.5 GB of 100MHZ & 133MHZ SDRAM (256Mb DRAM technology).

On-board include 4X AGP SLOT, Stereo sound, ATX power, Super I/O, 2 Ultra DMA/66 EIDE interfaces, 4 USB ports, 5 PCI Expansion slots, and 1 AMR slot, 1 ISA Slots.

1-2 Specifications

CPU

- AMD® Socket A Athlon™ ThunderBird processors from 700 to 1GHz (pinout optimized for Socket-462). 256K second level cache on die.
- AMD® Duron™ (Spitfire) processors from 600MHz to 800MHz. 64K second level on die.

Chipset

- Apollo KT133 ,consisting of:
- VT8363 Memory/AGP/PCI Controller [North Bridge].
- VT82C686A PCI Super-I/O Integrated Peripheral Controller [South Bridge].

Memory

- 3 x 168-pin DIMM Sockets.
- Supports 100MHZ & 133MHZ SDRAM 32MB~1.5GB.
- Supports 3.3V SDRAM DIMM.
- Supports SDRAM, VCM SDRAM memory types.

Audio

- SoundBlaster Pro Hardware and Direct Sound Ready AC97 Digital Audio Controller.
- Hardware SoundBlaster Pro for Windows DOS box and real-mode DOS legacy compatibility.
- Supports two channel speaker mode.
- MPU-401 game/MIDI port and Sound blaster(r)16 compatible.

I/O Control

- Integrated Super IO Controller in the VT82C686A.

Expansion Slot

- Five 32-bit PCI slots support Master mode & PCI 2.2 compliant.
- One AGP slot supports 4X mode & AGP 2.0 compliant.
- One ISA Slot.
- One Audio Modem Riser (AMR) slot.

I/O Interface

- PCI Bus master IDE interface on board with two connectors support 4 IDE devices in 2 channel, the PCI IDE Controller supports PIO Mode 0 to Mode 4, Bus master IDE DMA Mode 2 and Ultra DMA 33/66.
- On board super Multi-I/O chip that support 2 serial port with 16550 Fast UART compatible, 1 parallel port with EPP and ECP capabilities, and a floppy disk drive interface.
- On board support PS/2 mouse Connector.
- On board support PS/2 Keyboard Connector.
- On board 4 USB ports.(2 external ports & 2 internal pin header)
- On board IrDA connector.
- Floppy port supports 2 FDD with 360K, 720K,1.2M,1.44M and 2.88M bytes ,Supports LS-120 floppy disk device.

Other Function

- Support Modem Ring Power On.
- Supports WOL (Wake On LAN).

Power Supply

- On board 3V, 5V and 12V 20-pin ATX power connector.
- Use switching regulator to support CPU core voltage.

Hardware Monitor

- CPU/Power Supply/Chassis Fan Revolution detecting.
- CPU Fan Control.
- System Voltage Detect.
- Display Actual Current Voltage.

BIOS

- Licensed AWARD BIOS, 2M bit FLASH RAM.
- ACPI ready for PC98/Windows 98.
- System BIOS supports ACPI function and Green feature function, DMI, Plug and Play Flash ROM.

Form factor

- ATX Form Factor.
- Dimensions 305mm x 220mm, 4 layers PCB.

Drivers

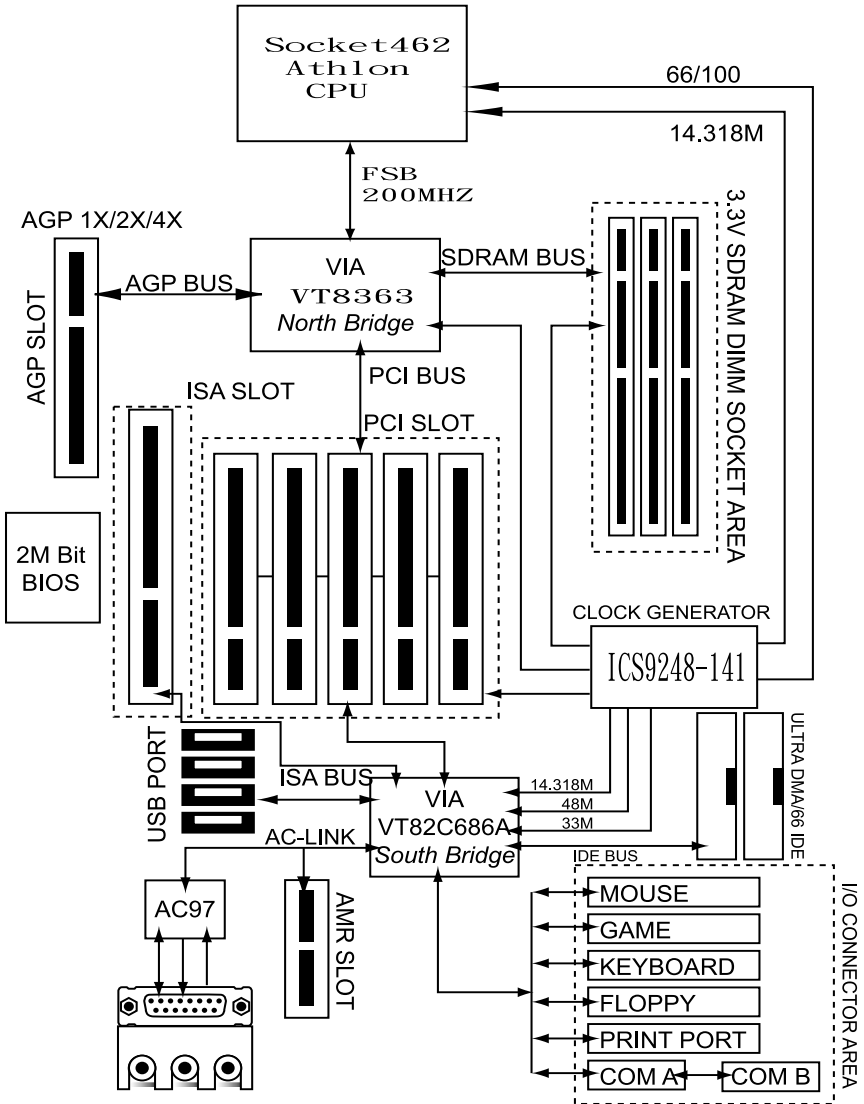
- VIA 4-In-1 VIA SERVICE PACK.
- AC97 audio sound drivers.
- VIA HARDWARE MONITOR Applications.
- DirectX 7.

1-3 PACKAGE CHECKLIST

If you discover any item below was damaged or lost, please contact your vendor.

- The main board.
- This user manual.
- One Floppy disk drive cable.
- One Ultra DMA/66 IDE cable.
- Software Drivers utilities.

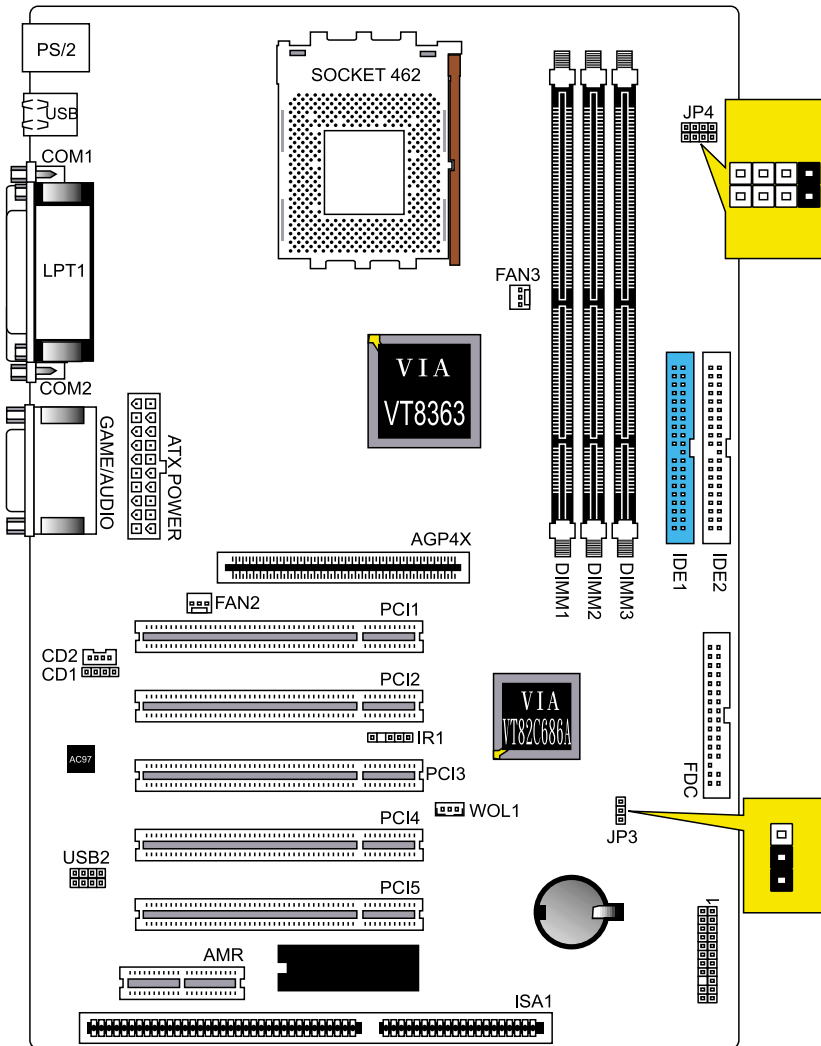
1-4 Block Diagram



1-5 Main Board Layout with Default Setting

System default support AMD® Athlon™ processors (FSB 200 MHz)

Duron™ processors (FSB 200MHz)



1-6 Static Electricity Precautions

Static electricity can easily damage your motherboard.

Observing a few basic precautions can help you safeguard against damage that could result in expensive repairs. Follow the measures below to protect your equipment from static discharge:

Keep the motherboard and other system components in their anti-static packaging until you are ready to install them.

Touch a grounded surface before you remove any system component from its protective antistatic packaging. A grounded surface within easy reach is the expansion slot covers at the rear of the system case, or any other unpainted portion of the system chassis.

During configuration and installation, touch a ground surface frequently to discharge any static electric charge that may build up in your body. Another option is to wear a grounding wrist strap.

When handling a motherboard or an adapter card, avoid touching its components. Handle the motherboard and adapter cards either by the edges or by the mounting bracket that attaches to the slot opening in the case.

Chapter 2 Installation Procedures

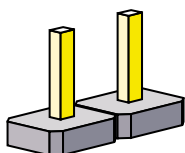
The mainboard has some user-adjustable jumpers on the board that allow you to configure your system to suit your requirements. This chapter contains information on the various jumper settings on your mainboard.

To set up your computer, you must complete the following steps:

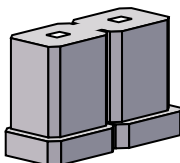
1. Setting system jumpers.
2. Install RAM modules.
3. Install CPU & FAN.
4. Connect ribbon cables, cabinet wires, and power supply.
5. Set up BIOS.
6. Set up system drivers and utility.

2-1 Setting System Jumpers

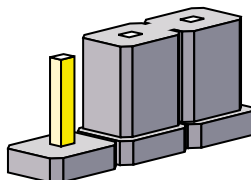
You may configure your motherboard to match the needs of your applications by setting jumpers. A jumper is the simplest kind of electrical switch. It consists of two metal pins and a small metal clip (often protected by a plastic cover) that slides over the pins to connect them. To "close" a jumper, you connect the pins with the clip. To "open" a jumper, you remove the clip. Sometimes a jumper will have three pins, labeled 1, 2, 3. In this case you would connect either pin 1 and 2 or 2 and 3.



OPEN



CLOSED



CLOSED 2-3

The jumper settings are schematically depicted in this manual as follows:



A pair of needle-nose pliers may be helpful when working with jumpers.

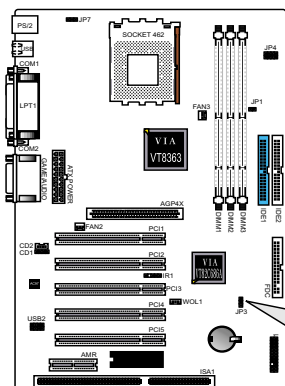
Note: When you open the jumper, attach the plastic jumper cap to one of the pins so you won't lose it.

Warning: Always completely disconnect the power cord from your board whenever you are working on it. Do not make connections while the power is on because sensitive electronic components can be damaged by the sudden rush of power.

Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis.

Clear CMOS:(JP3)

To clear the data stored in the CMOS, always turn off the computer first, then remove this jumper to 2-3 pin to clear the CMOS. The jumper should be set to 1-2 pin (3V battery back up) before turn on the computer.



	States	JP3
1	Clear CMOS	
2	Normal [Default]	

* Clear CMOS must be turn off the AC power first.

2-2 System Memory (DIMM)

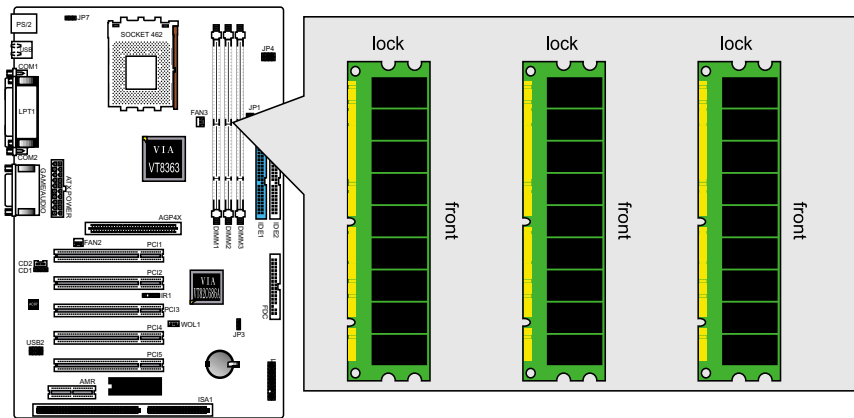
The motherboard supports up to 1.5GB 100/133MHz SDRAM. No hardware or BIOS setup is required after adding or removing the system memory.

Note:

1. The motherboard uses only Dual Inline Memory Modules (DIMMs). Sockets are available for 3.3Volt (power level) Synchronous Dynamic Random Access Memory (SDRAM).
2. The 100/133 MHz compliant SDRAM must be used because of the strict timing issues involved under this speed.

Installing system Memory

Insert the DIMM module(s) as shown. Because the number of pins are different on each side of the breaks, the module will be fitted only in the orientation shown. The DIMM must be 3.3V for this motherboard.



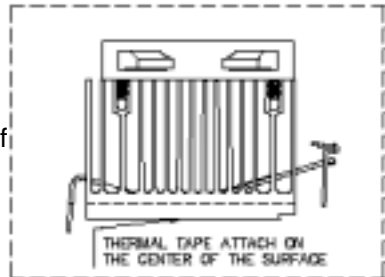
2-3 Central Processing Unit (CPU)

The Motherboard provides a ZIF Socket 462. The CPU that came with the motherboard should have a fan attached to it to prevent overheating. If this is not the case, then purchase a fan before you turn on your system. Be sure that there is sufficient air circulation across the processor heat sink, or the processor could overheat and damage both the processor and the motherboard.

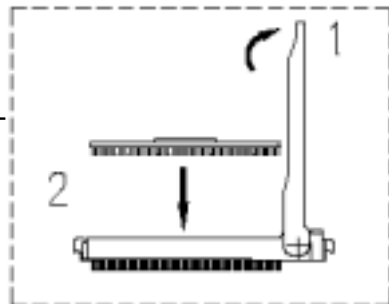
Caution: Please choose the suitable heat sink / cooling fan especially for AMD CPU operating temperature exceeding 700MHz. Otherwise, the CPU would be totally damaged, resulted from overheat up to more than 100 degrees in Clesius.

CPU Installation Procedures

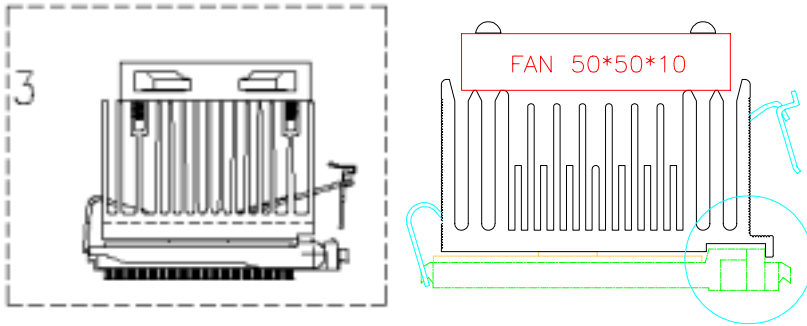
1. Thermal tape attach on the center of the surface.



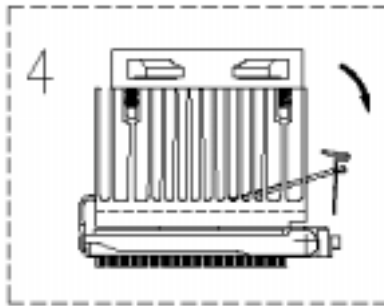
2. Pull up the ZIF socket CAM to a 90-degree angle.



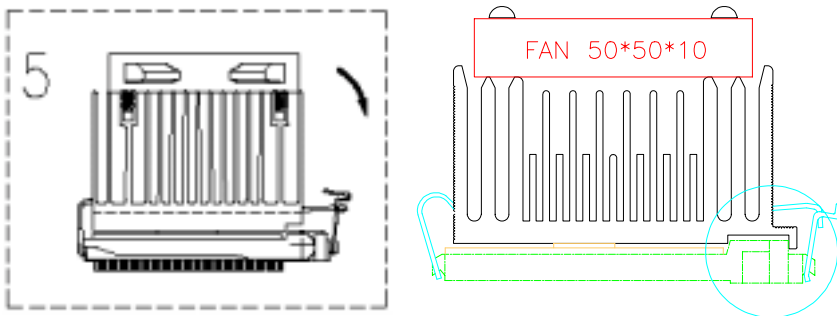
3. Locate Pin 1 in the socket, Insert CPU into ZIF socket then pull down the CAM.



4. Attach FAN/Heatsink assembly onto the CPU.



5. Attach Clip to the socket and connect the power of the FAN.



2-4 Expansion Cards

Always unplug the power supply when adding or removing expansion cards or other system components. Failure to do so may cause severe damage to both your motherboard and expansion cards.

Expansion Card Installation Procedure The Motherboard has 5 PCI , 1 AGP, AMR and 1 ISA expansion slots. You may install up to 5 PCI cards, 1 AGP and 1 AMR card on this motherboard. To install the PCI cards or AGP card or AMR card, please follow the following procedure:

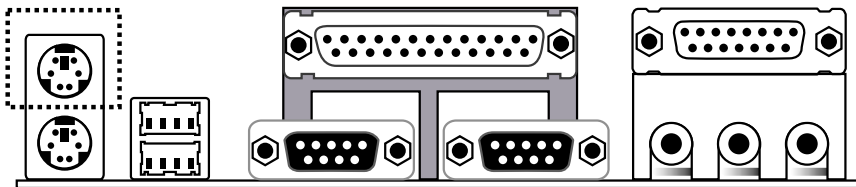
1. Read the documentation for your expansion card and make any necessary hardware or software settings for you expansion card, such as jumpers or switches.
2. Remove your computer system cover and the bracket plate with screw on the slot you intend to use. Keep the bracket for possible future use.
3. Carefully align the card connectors and press firmly.
4. Secure the card on the slot with the screw you removed above.
5. Replace the computer system cover.
6. Setup the BIOS if necessary.
7. Install the necessary software drivers for your expansion card.

Note: To install the AMR Card. You should set the "AC97 Modem" as "auto" in the "I"INTEGRATED PERIPHERALS" of the BIOS Setup.

2-5 External Connectors

1.PS/2 Mouse Connector:

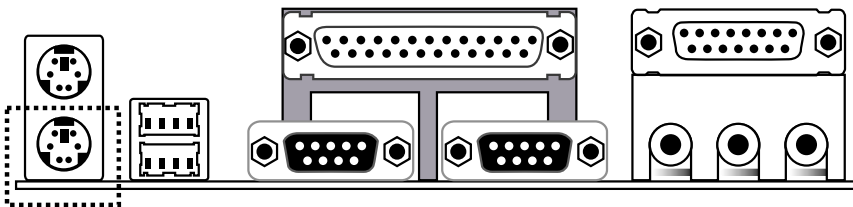
The motherboard provides a mini-DIN mouse connector, which supports a PS/2 style mouse.



2. PS/2 Keyboard Connector:

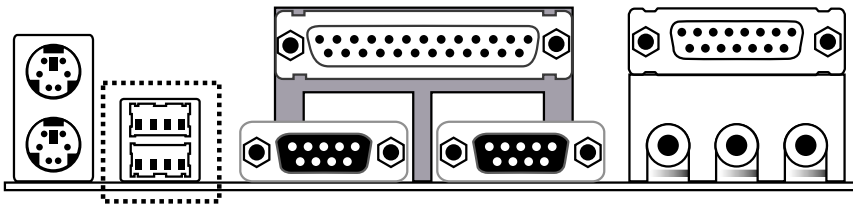
This connector is for a standard keyboard using a PS/2 plug (mini DIN). This connector will not allow standard AT (large DIN) keyboard plugs. You may use a DIN to mini DIN adapter on standard AT keyboards. In some applications, the keyboard is not present, the standard BIOS will report an error or failure during the Power-On Self Test (POST) after resetting the PC. You may select "All, But Keyboard" under the "Halt On" in "Standard CMOS SETUP" of BIOS SETUP.

This allows the system non-keyboard operation without the system halting during the POST.



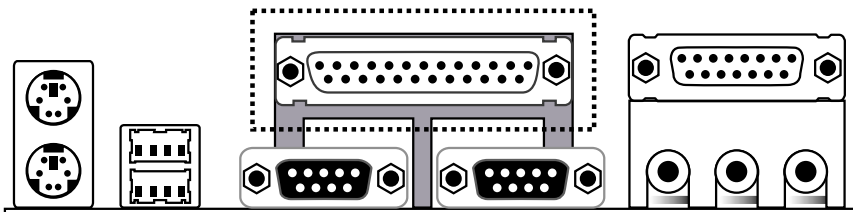
3. Universal Serial BUS (USB) Ports 1 & 2:

There are two USB ports on this motherboard for connecting USB devices.



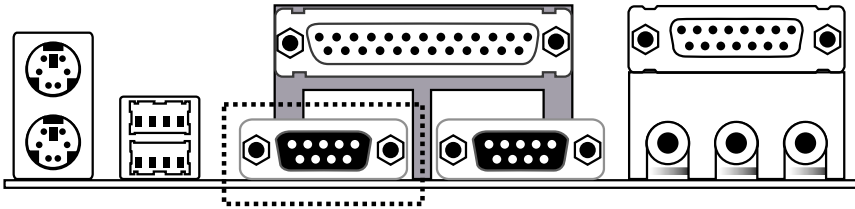
4. Parallel Port Connector:

Normally, the parallel port is used to connect the system to a printer.



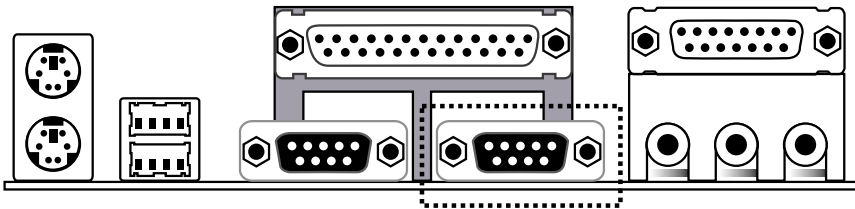
5. Serial Port COM1 connector:

The COM1 port is ready for a mouse or other serial devices.



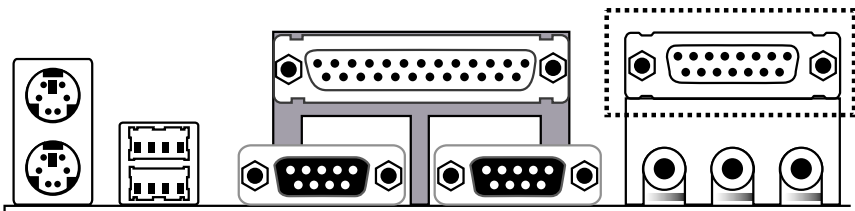
6. Serial Port COM2 connector:

The COM2 port is ready for a mouse or other serial devices.



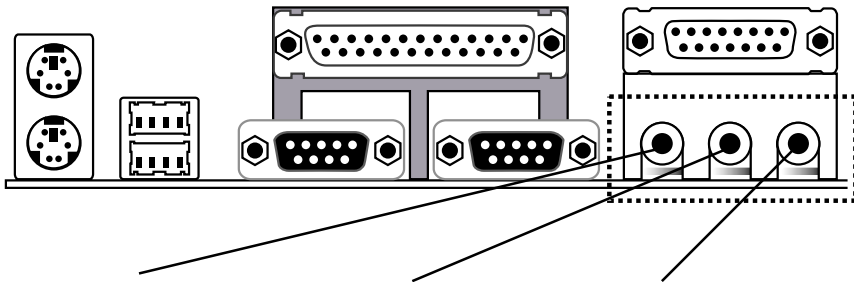
7. Joystick/MIDI connector:

You may connect game joysticks or game pads to this connector for playing games. Connect MIDI devices for playing or editing audio.



8.Audio Port connectors:

The Audio Port Connectors on the motherboard are standard 1/8" GAME-AUDIO connectors. Line Out (lime) can be connected to headphones or POWERED speakers. Line In (light blue) allows tape players or other audio sources to be recorded by your computer or played through the Line Out (lime). Mic (pink) allows microphones to be connected for inputting voice.



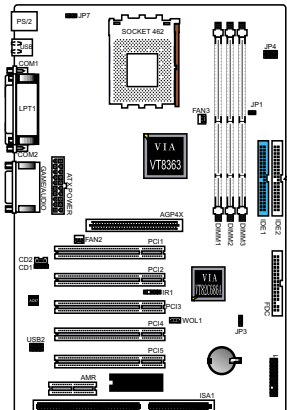
AUDIO OUT
PC99 Color: Lime

AUDIO IN
PC99 Color:Light Blue

MICROPHONE IN
PC99 Color: Pink

9.Primary/Secondary IDE Connectors(IDE1 and IDE2)

The motherboard supports up to four IDE devices, including CD-ROM drives, tape backup drives, Hard Disk Drives, and other IDE devices. After connecting the single end to the board, connect the two plugs at the other end to your hard disk(s). If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper accordingly. Please refer to your hard disk documentation for the jumper settings. (Pin 20 is removed to prevent the users inserting the IDE devices in the wrong orientation when using ribbon cables with pin 20 plugged).



Primary/Secondary IDE Connectors

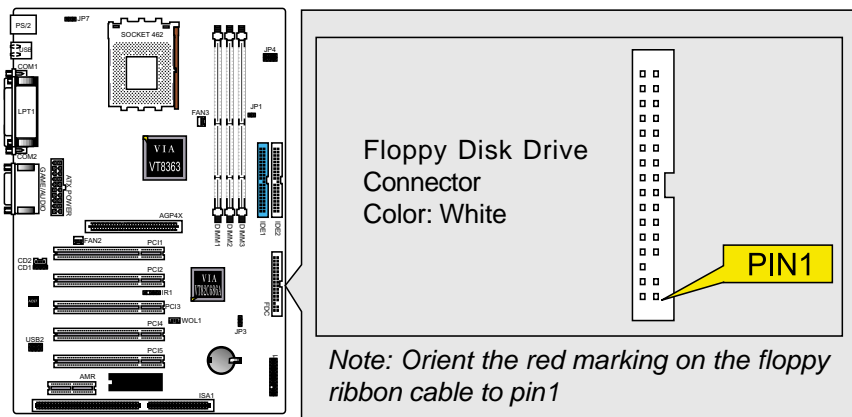
<p>Primary IDE Connectors Color:Blue</p>	<p>Secondary IDE Connectors Color:White</p>
--	---

Note:orient the red markings on the floppy ribbon cable to pin1

Note: Ultra DMA/66 IDE devices must use an 80-wire IDE cable or else devices will automatically be limited to Ultra DMA/33 mode.

10. Floppy Disk Drive Connector(FDC)

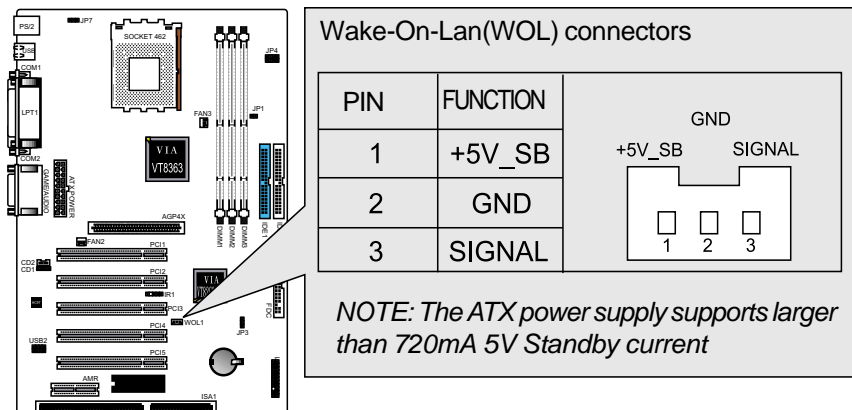
You can attach up to two floppy drives to the motherboard. After connecting the single end to the board, connect the two plugs on the other end to the floppy drives. The drive A: should be connected on the end and the drive B: in the middle.



Note: Pin 5 is removed to prevent the users inserting the Floppy Disk Drive in the wrong orientation when using ribbon cables with pin 5 plugged.

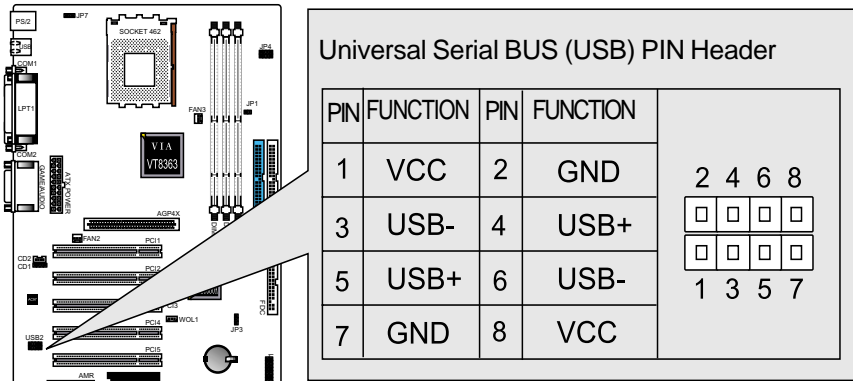
11. Wake-On-LAN(WOL)/Wake-On-Modem(WOM) connectors(WOL1)

The Wake-On-LAN and Wake-On-Modem connectors connect to a LAN card and Modem card respectively with a Wake-On-LAN/Wake-On-Modem output. The connectors power up the system when a wakeup packet or signal is received through the LAN card/Modem card.



12. Universal Serial BUS (USB) PIN Header(USB2)

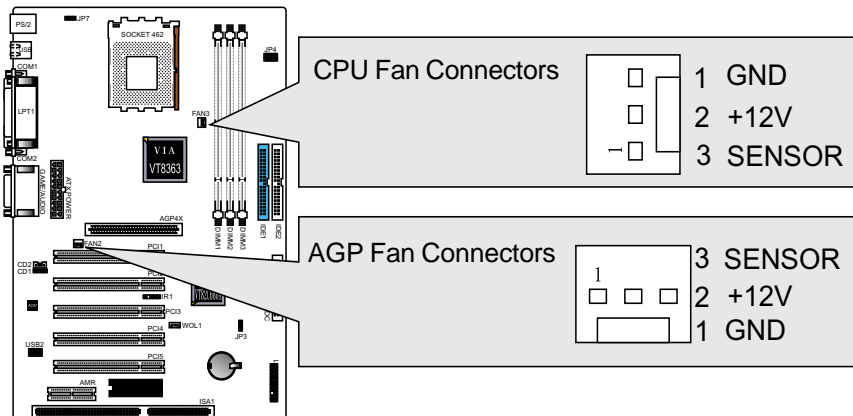
There are two USB PIN Header on this motherboard for connecting USB devices.



Caution: Pls. Compare each pin assignment of USB cable with that of USB PIN header listed above. If both are not matched, please contact your distributor for suitable cable. Otherwise, we will not be able to responsible for any problem arised from this issue.

13. CPU/AGP Fan Connectors(FAN1 and FAN2)

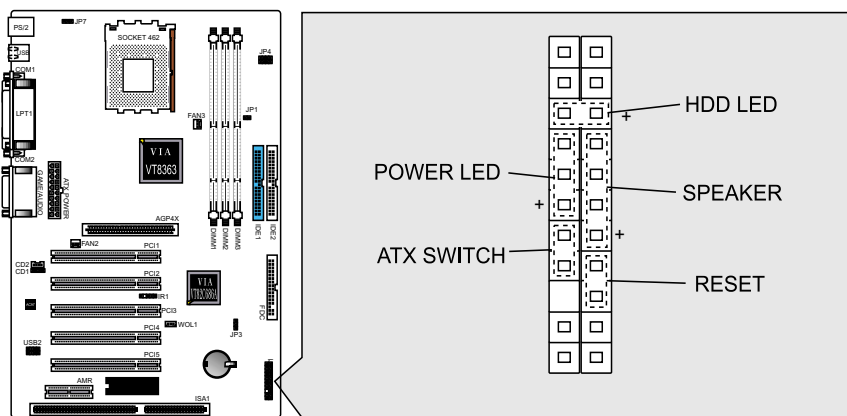
This motherboard provides CPU, Power, and Chassis fan connectors. Ori-entate the fan so that the heat sink fins allow airflow to go across the onboard heat sink(s) instead of the expansion slots. Depending on the fan manufacturer, the wiring and plug may be different. The red wire should be positive, while the black should be ground. Connect the fan plug to the board taking into consideration the polarity of the connector.



Note: The CPU and motherboard will overheat if there is no airflow across the CPU and onboard heatsink. Damage may occur to the motherboard and the CPU fan if these pins are incorrectly used. These are not jumpers, do not place jumper caps over these pins.

System Panel Connectors (JP10)

Refer to the following figure for item 14 to 18.



14.Power LED Lead

This indicates the status of the system power is turned "ON" or "OFF" The LED will light when the system power is turned on and will go off when the system power is turned off.

15.System Warning Speaker Connector

This 4-pin connector connects to the case-mounted speaker.

16.ATX Power Switch Lead

The system power is controlled by a momentary switch connected to this lead. Pressing the button once will switch the system between ON and SOFT OFF. Pushing the switch while in the ON mode for more than 4 seconds will turn the system off. The Power LED shows the status of the system power.

17.HDD LED Lead

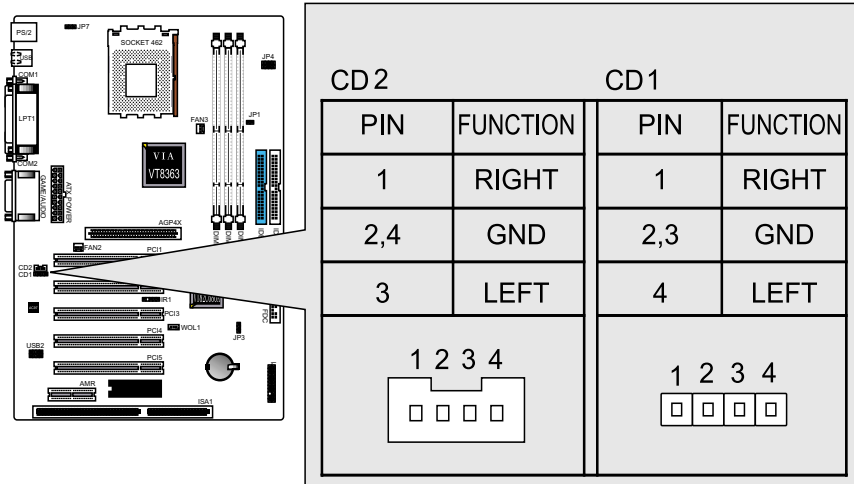
This connector supplies power to the cabinet IDE activity LED. Read and write activity by devices connected to the Primary or Secondary IDE connectors will cause the LED to Light up.

18.Reset Switch Lead

This 2-pin connector connects to the case-mounted reset switch for rebooting your computer without having to turn off your power switch. This is a preferred method of rebooting to extend the life of the system power supply.

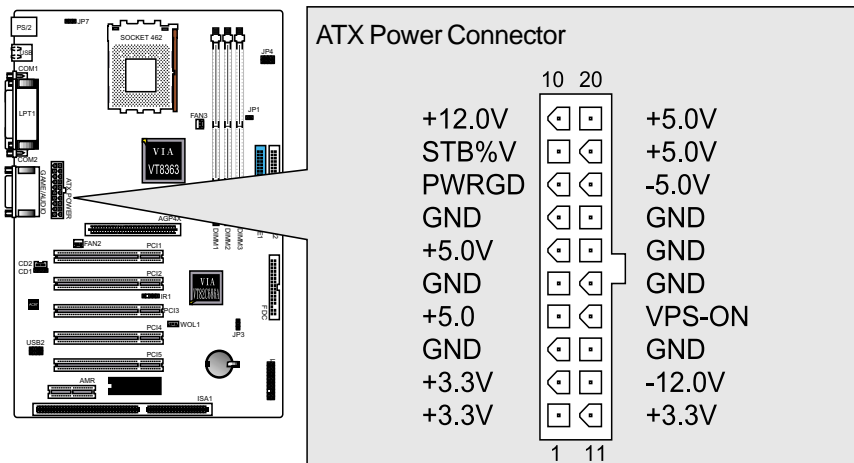
19. Internal Audio Connectors:

These connectors allow you to receive stereo audio input from the sound sources such as CD-ROM, TV tuner, and MPEG card.



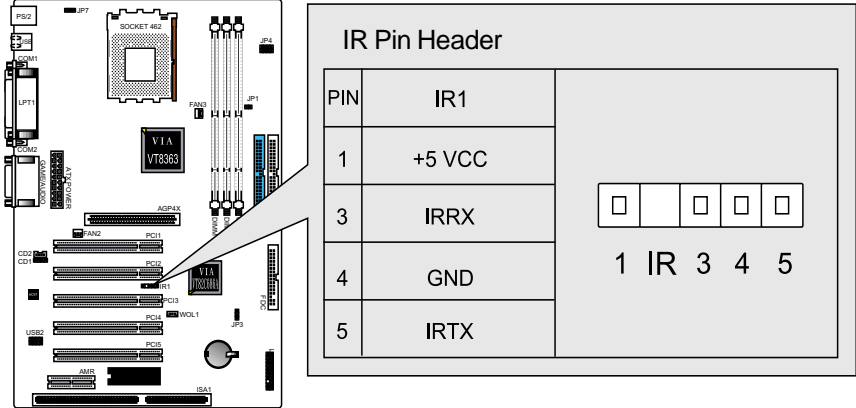
20. ATX Power Connector:

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



21.IR Pin Header:IR1

The mainboard provides one infrared(IR) connector for IR modules. This connector is for optional wireless transmitting and receiving infrared module. You must configure the setting through the BIOS setup to use the IR function.



2-6 Power Connection Procedures

After all connections are made, close the system case cover.

Be sure that all switches are OFF.

Connect the power supply cord to the power supply located on the back of your system case according to your system user manual.

Connect the power cord to a power outlet that is equipped with a surge protector.

You may then turn ON your devices in the following order:

- (1) Your monitor
- (2) External SCSI devices (starting with the last device on the chain)
- (3) Your system power For ATX power supplies, you need to switch ON the power supply if a switch is provided as well as press the ATX power switch on the front of the case.

The power LED on the front panel of the system case will light. For ATX power supplies, the power LED will light when the ATX power switch is pressed. The system will then run power-On tests. While the tests are running, additional messages will appear on the screen. If you do not see anything within 30 seconds from the time you turn on the power, the system may have failed a power-on test. Check your jumper settings and connections again or call your retailer for assistance.

During power-ON, hold down <Delete> to enter BIOS setup. Follow the instructions in chapter 3 BIOS Setup

To power off you computer, you must first exit or shut down your operating system before switching OFF the power switch. For ATX power supplies, you can press the ATX power switch after exiting or shutting down your operating system. If you use Windows 95/98, click the start button, click shut down, and then click Shut down the computer. The power supply should turn OFF after Windows shuts down. For ATX power supplies, the message "You can now safely turn OFF your computer" will not appear when shutting down the computer.

Chapter 3

AWARD BIOS Setup

3-1 Introduction

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

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

The AwardBIOS(tm) has been customized by adding important, but non-standard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

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

Starting Setup

The AwardBIOS(tm) is immediately activated when you first power on the computer. The BIOS reads the system information contained in the CMOS and begins the process of checking out the system and configuring it. When it finishes, the BIOS will seek an operating system on one of the disks and then launch and turn control over to the operating system. While the BIOS is in control, the Setup program can be activated in one of two ways:

1. By pressing immediately after switching the system on, or
2. By pressing the key when the following message appears briefly at the bottom of the screen during the POST (Power On Self-Test).

Press DEL to enter SETUP.

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" button on the system case. You may also restart by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys. If you do not

press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to...

PRESS F1 TO CONTINUE, DEL TO ENTER SETUP

Using Setup

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

Key	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item in the left hand
Right arrow	Move to the item in the right hand
Esc key	Main Menu -- Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu -- Exit current page and return to Main Menu
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ key	Increase the numeric value or make changes
- key	Decrease the numeric value or make changes
F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu
(Shift)F2 key	Change color from total 16 colors. F2 to select color forward, (Shift) F2 to select color backward
F3 key	Calendar, only for Status Page Setup Menu
F4 key	Reserved
F5 key	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
F6 key	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu
F7 key	Load the default
F8 key	Reserved
F9 key	Reserved
F10 key	Save all the CMOS changes, only for Main Menu

Navigating through the menu bar

Use the left and right arrow keys to choose the menu you want to be in.

To display a sub menu

use the arrow keys to move the cursor to the sub menu you want. Then press <Enter>.

Getting Help

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc> or the F1 key again.

In Case of Problems

If, after making and saving system changes with Setup, you discover that your computer no longer is able to boot, the AwardBIOS(tm) supports an override to the CMOS settings which resets your system to its defaults.

The best advice is to only alter settings which you thoroughly understand. To this end, we strongly recommend that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and your systems manufacturer to provide the absolute maximum performance and reliability. Even a seemingly small change to the chipset setup has the potential for causing you to use the override.

A Final Note About Setup

Not all systems have the same Setup. While the basic look and function of the Setup program remains the same for all systems, individual motherboard and chipset combinations require custom configurations. For example, you may find that your Setup main menu has a different number of entries from the main menu displayed in this manual. These are simply features not supported (or not user configurable) on your system.

The final appearance of the Setup program also depends on the Original Equipment Manufacturer (OEM) who built your system. If your OEM has decided that certain items should only be available to their technicians, those items may very well be removed from the Setup program.

3-2 MAIN MENU

Once you enter the AwardBIOS(tm) CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions and two exit choices. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu. Note that a brief description of each highlighted selection appears at the bottom of the screen.



SETUP ITEMS

The main menu includes the following main setup categories. Recall that some systems may not include all entries.

STANDARD CMOS FEATURES

Use this menu for basic system configuration.

ADVANCED BIOS FEATURES

Use this menu to set the Advanced Features available on your system.

ADVANCED CHIPSET FEATURES

Use this menu to change the values in the chipset registers and optimize your system's performance.

INTEGRATED PERIPHERALS

This section page includes all the items of IDE hard drive and Programmed Input / Output features.

POWER MANAGEMENT SETUP

Use this menu to specify your settings for power management.

PnP / PCI CONFIGURATION

This entry appears if your system supports PnP / PCI.

PC HEALTH STATUS

This entry shows your PC health status.

LOAD FAIL-SAFE DEFAULTS

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

LOAD OPTIMIZED DEFAULTS

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

FREQUENCY / VOLTAGE CONTROL

Use this menu to specify your settings for CPU/DIMM frequency/voltage control.

SUPERVISOR/USER PASSWORD SETTING

Use this menu to set User and Supervisor Passwords.

IDE HDD AUTODETECTION

Automatically configure hard disk parameters.

SAVE & EXIT SETUP

Save CMOS value changes to CMOS and exit setup.

EXIT WITHOUT SAVE

Abandon all CMOS value changes and exit setup.

3-3 STANDARD CMOS SETUP



The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

Date

The date format is <day>, <date> <month> <year>. Press <F3> to show the calendar.

day	The day, from Sun to Sat, determined by the BIOS and is display-only
date	The date, from 1 to 31 (or the maximum allowed in the month)
month	The month, Jan through Dec.
year	The year, from 1900 through 2099

Time

The time format is <hour> <minute> <second>. The time is calculated based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

Primary Master/Primary Slave/Secondary Master/Secondary Slave

The categories identify the types of 2 channels that have been installed in the computer. There are 45 predefined types and 4 user definable types are for Enhanced IDE BIOS. Type 1 to Type 45 are predefined. Type user is user-definable.

Press PgUp or PgDn to select a numbered hard disk type or type the number and press <Enter>. Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category. If your hard disk drive type is not matched or listed, you can use Type "User" to define your own drive type manually.

If you select Type "User", you will need to know the information listed below. Enter the information directly from the keyboard and press <Enter>. This information should be included in the documentation from your hard disk vendor or the system manufacturer.

If the controller of HDD interface is ESDI, the selection shall be "Type 1". If the controller of HDD interface is SCSI, the selection shall be "None". If you select Type "Auto", BIOS will Auto-Detect the HDD & CD-ROM Drive at the POST stage and showing the IDE for HDD & CD-ROM Drive.

TYPE	drive type
CYLS.	number of cylinders
HEADS	number of heads
PRECOMP	write precom
LANDZONE	landing zone
SECTORS	number of sectors
MODE	mode type

If a hard disk has not been installed select NONE and press <Enter>.

Drive A Type / Drive B Type

The category identifies the types of floppy disk drive A or drive B that have been installed in the computer.

NoneNo floppy 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 megabyte capacity

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 megabyte capacity
2.88M, 3.5 in	3-1/2 inch double-sided drive; 2.88 megabyte capacity

Video

The category selects the type of video adapter used for the primary system monitor. Although secondary monitors are supported, you do not have to select the type in Setup.

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

The category determines whether the computer will stop if an error is detected during power up.

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

Memory

The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

Base Memory

The POST will determine the amount of base (or conventional) memory installed in the system. The value of the base memory is typically 512K for systems with 512K memory installed on the motherboard, or 640K for systems with 640K or more memory installed on the motherboard.

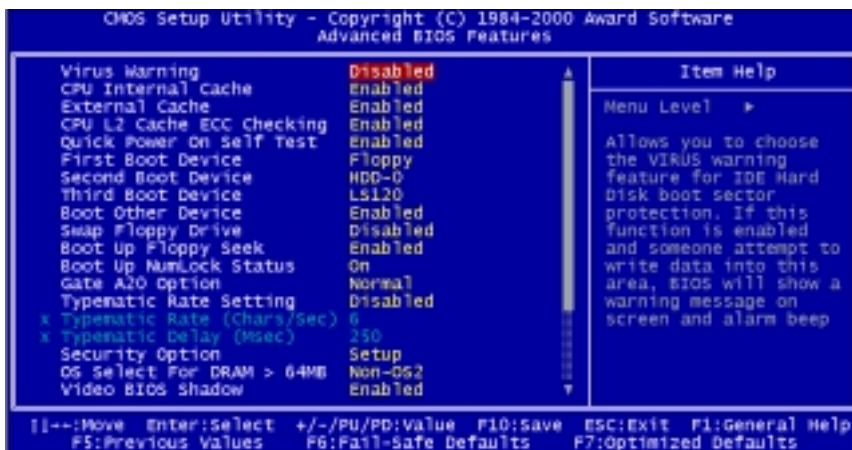
Extended Memory

The BIOS determines how much extended memory is present during the POST. This is the amount of memory located above 1MB in the CPU's memory address map.

Other Memory

This refers to the memory located in the 640K to 1024K address space. This is memory that can be used for different applications. DOS uses this area to load device drivers in an effort to keep as much base memory free for application programs. The BIOS is the most frequent user of this RAM area since this is where it shadows RAM

3-4 ADVANCED BIOS FEATURES SETUP



This section allows you to configure your system for basic operation. You have the opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing and security.

Virus Warning

When this item is enabled, the Award BIOS will monitor the boot sector and partition table of the hard disk drive for any attempt at modification. If an attempt is made, the BIOS will halt the system and the following error message will appear. Afterwards, if necessary, you will be able to run an anti-virus program to locate and remove the problem before any damage is done.

! WARNING !
 Disk boot sector is to be modified
 Type "Y" to accept write or "N" to abort write
 Award Software, Inc.

Enabled	Activates automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.
Disabled	No warning message will appear when anything attempts to access the boot sector or hard disk partition table.

NOTE: NOTE: Many disk diagnostic programs which attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you first disable Virus Protection beforehand.

CPU Internal Cache/External Cache

These two categories speed up memory access. However, it depends on CPU/chipset design. The default value is enable.

Enabled	Enable cache
Disabled	Disable cache

CPU L2 Cache ECC Checking

This item allows you to Enable/Disable CPU L2 Cache ECC checking. The choice: Enabled, Disabled.

Quick Power On Self Test

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

Enabled	Enable quick POST
Disabled	Normal POST

Boot From LAN First

This item allows you to select Enable/Disable power up your system through your Network by sending a wake-up frame or a signal. The choice: Enabled/Disabled.

Boot Sequence(First boot;Second boot;Third boot device)

This category determines which drive to search first for the disk operating system (i.e., DOS). Default value is Floppy;HDD-0;LS120.

Swap Floppy Drive

This item allows you to determine whether enable the swap floppy drive or not.

The choice: Enabled/Disabled.

Boot Up Floppy Seek

During POST, BIOS will determine if the floppy disk drive installed is 40 or 80 tracks. 360K type is 40 tracks while 760K, 1.2M and 1.44M are all 80 tracks.

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks.
Disabled	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360K.

Boot Up NumLock Status

This allows you to determine the default state of the numeric keypad. By default, the system boots up with NumLock on.

On	Keypad is number keys
Off	Keypad is arrow keys

IDE HDD Block Mode

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

The choice: Enabled, Disabled.

Gate A20 Option

This entry allows you to select how the gate A20 is handled. The gate A20 is a device used to address memory above 1 Mbytes. Initially, the gate A20 was handled via a pin on the keyboard. Today, while keyboards still provide with this support, it is more common, and much faster, for the system chipset to provide with the support gate A20.

Normal	keyboard
Fast	chipset

Memory Parity/ECC Check

This item allows you to Enable/Disable Memory Parity/ECC check.
The choice: Enabled/Disabled.

Typematic Rate Setting

This determines if the typematic rate is to be used. When disabled, continually holding down a key on your keyboard will generate only one instance. In other words, the BIOS will only report that the key is down. When the typematic rate is enabled, the BIOS will report as before, but it will then wait a moment, and, if the key is still down, it will begin the report that the key has been depressed repeatedly. For example, you would use such a feature to accelerate cursor movements with the arrow keys.

Enabled	Enable typematic rate
Disabled	Disable typematic rate

Typematic Rate(Chars/Sec)

When the typematic rate is enabled, this selection allows you select the rate at which the keys are accelerated.

6	6 characters per second
8	8 characters per second
10	10 characters per second
12	12 characters per second
15	15 characters per second
20	20 characters per second
24	24 characters per second
30	30 characters per second

Typematic Delay (Msec)

When the typematic rate is enabled, this selection allows you to select the delay between when the key was first depressed and when the acceleration begins.

250	250 msec
500	500 msec
750	750 msec
1000	1000 msec

Security Option

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

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

Note: To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.

OS Select for DRAM > 64MB

This item allows you to access the memory that over 64MB in OS/2. The choice: Non-OS2, OS2.

Video BIOS Shadow

Determines whether video BIOS will be copied to RAM. However, it is optional depending on chipset design. Video Shadow will increase the video speed.

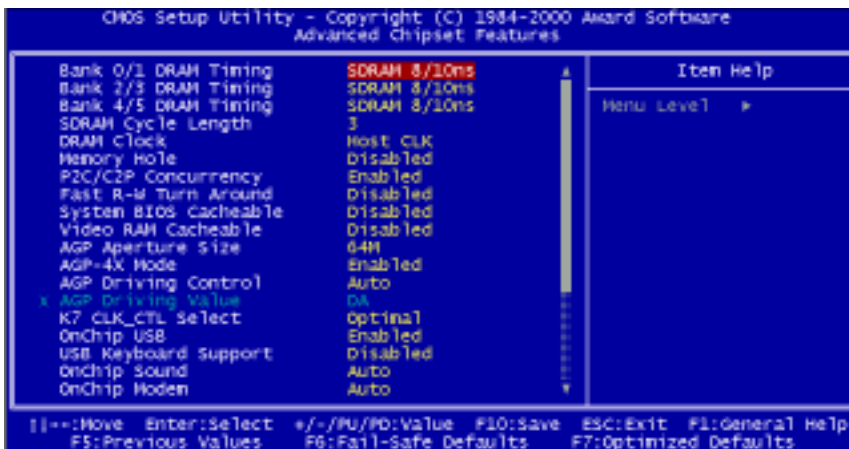
Enabled	Video shadow is enabled
Disabled	Video shadow is disabled

C8000 - CBFFF Shadow/DC000 - DFFFF Shadow

These categories determine whether option ROMs will be copied to RAM. An example of such option ROM would be support of on-board SCSI.

Enabled	Optional shadow is enabled
Disabled	Optional shadow is disabled

3-5 CHIPSET FEATURES SETUP



The parameters in this screen are for system designers, service personnel, and technically competent users only. Do not reset these values unless you understand the consequences of your changes.

NOTE: This chapter describes all fields offered by Award Software in this screen. Your system board designer may omit or modify some fields.

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

The DRAM timing of Bank 0/1, 2/3, 4/5, 6/7 in this field is set by the system board manufacturer, depending on whether the board has fast paged DRAMs or EDO (extended data output) DRAMs.

The Choice: SDRAM 10ns, SDRAM 8ns, Normal, Medium, Fast, Turbo.

SDRAM Cycle Length

This field sets the SDRAM cycle length.

The Choice: 2, 3.

DRAM Clock

This item allows you select DRAM clock.

The choice: Host CLK, HCLK+33M.

Memory Hole

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

15M-16M	Memory hole supported.
Disabled	Memory hole not supported.

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 result.

Enabled	Video RAM access cached
Disabled	Video RAM access not cached

AGP Aperture Size(MB)

Select 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. See www.agpforum.org for AGP information.

The choice: 4, 8, 16, 32, 64, 128

AGP-4X Mode

This item allows you select AGP speed.

The choice: Enabled, Disabled.

AGP Driving Control

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

AGP Driving Control

This item allows you to adjust the AGP driving force.

OnChip USB

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

The choice: Enabled, Disabled.

USB Keyboard Support

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

The choice: Enabled, Disabled.

OnChip Sound

This item allow you to Enable/Disable onchip AC97 sound.

The choice: Enabled, Disabled.

OnChip Modem

This item allow you to Enable/Disable onchip modem.

The choice: Enabled, Disabled.

CPU to PCI Write Buffer

When this field is Enable, writes from the CPU to the PCI bus are buffered, to compensate for the differences between the CPU and the PCI bus. When Disable, the writes are not buffered and the CPU must wait until the write is complete before starting another cycle. The default setting is Enable.

PCI Delay Transaction

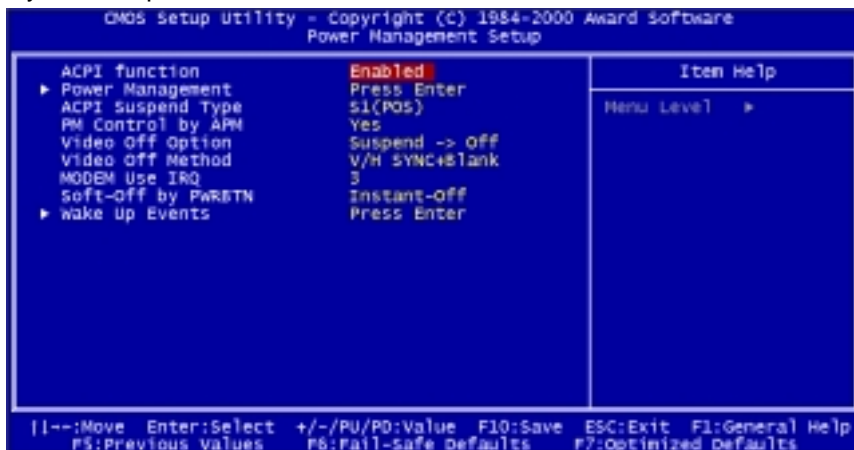
The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enable to support compliance with PCI specification version 2.1. The settings are Enable or Disable.

Memory Parity/ECC Check

This item when Enabled detects the memory parity and Error Checking and Correction. The settings ara Enabled or Disable.

3-6 POWER MANAGEMENT SETUP

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



ACPI function

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

The choice:Enabled, Disabled.

Power Management

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

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

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

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

ACPI Suspend Type

This item will set which ACPI suspend type will be used.

S1 (POS)

The S1 sleeping state is low wake-up latency sleeping state. In this state, no system context is lost (CPU or chip set) and hardware maintains all system context.

S3 (STR)

The S3 state is low wake-up latency sleeping state where all system context is lost except system memory. CPU, Cache, and chipset context are lost in this state. Hardware maintains memory context and restores some CPU and L2 configuration context.

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 the Max. Power Saving is not enabled, this will be preset to No. The choice: Enabled, Disabled.

Video Off Option

Selects the power-saving modes during which the monitor goes blank:

NA	Monitor remains on during power-saving modes.
Suspend	Monitor blanked when system enters Suspend mode.
Doze	Monitor blanked when system enters any power saving mode.

Video Off Method

This determines the manner in which the monitor is blanked.

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

MODEM Use IRQ

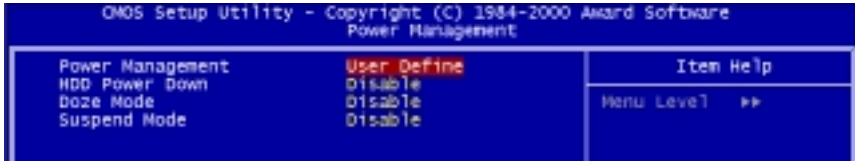
This determines the IRQ in which the MODEM can use. The choice: 3, 4, 5, 7, 9, 10, 11, NA.

Soft-Off by PWRBTN

When Enabled, turning the system off with the on/off button places the system in a very low-power-usage state, with only enough circuitry receiving power to detect power button activity or Resume by Ring activity.

The Choice: Instant-Off, Delay 4 Sec.

Power Management



HDD Power Down

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

The Choice:Disable,1-15Min.

Doze Mode

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

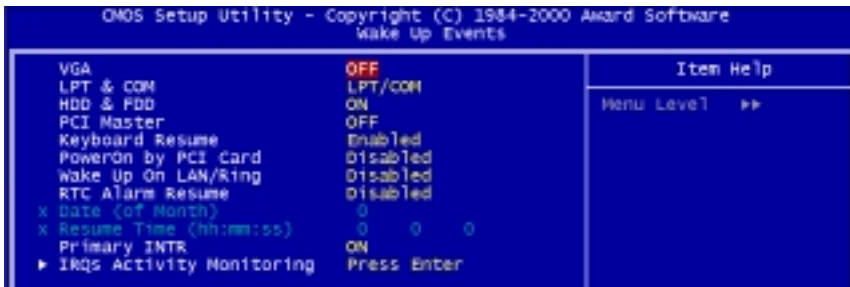
The Choice:Disable,10Sec-1Hour.

Suspend Mode

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

The Choice:Disable,10Sec-1Hour.

Wake Up Events



VGA

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

The Choice: ON,OFF.

LPT & COM

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

The Choice: LPT/COM,NONE,LPT,COM.

HDD & FDD

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

The Choice: ON,OFF.

PCI Master

When set to On (default), any event occurring at will awaken a system which has been powered down.The Choice: ON,OFF.

Wake Up on LAN/Ring

When set to Enabled, any event occurring to the Modem Ring will awaken a system which has been powered down.

The Choice: Enabled, Disabled.

RTC Alarm Resume

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

The choice: Enabled, Disabled.

Primary INTR

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

The Choice: ON,OFF.

Activity Monitoring



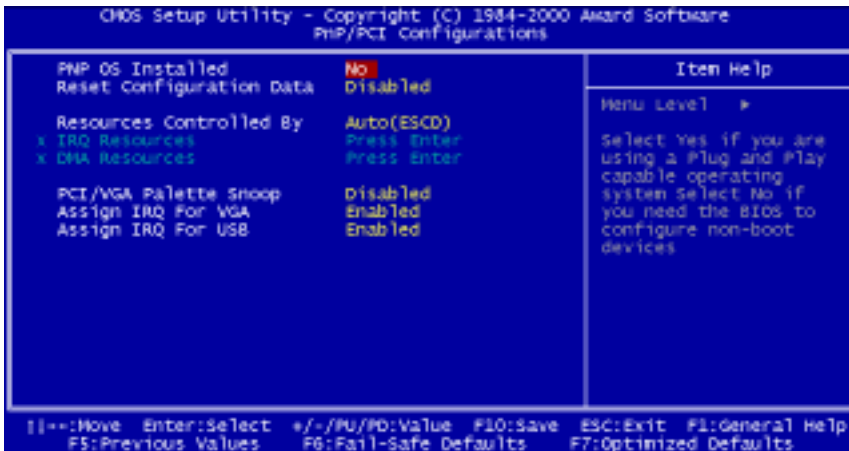
The following is a list of IRQ's, Interrupt ReQuests, which can be exempted much as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service.

As above, the choices are *On* and *Off*. *Off* is the default.

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

- IRQ3 (COM 2)
- IRQ4 (COM 1)
- IRQ5 (LPT 2)
- IRQ6 (Floppy Disk)
- IRQ7 (LPT 1)
- IRQ8 (RTC Alarm)
- IRQ9 (IRQ2 Redir)
- IRQ10 (Reserved)
- IRQ11 (Reserved)
- IRQ12 (PS / 2 Mouse)
- IRQ13 (Coprocessor)
- IRQ14 (Reserved)
- IRQ15 (Reserved)

3-7 PNP/PCI CONFIGURATION



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

PNP OS Installed

Select Yes if the system operating environment is Plug-and-Play aware (e.g., Windows 95).

The Choice: Yes , No.

Resource Controlled by

The Award Plug and Play BIOS can automatically configure all the boot and Plug and Play-compatible devices. If you select Auto, all the interrupt request (IRQ) and DMA assignment fields disappear, as the BIOS automatically assigns them.

The choice: Auto and Manual.

Reset Configuration Data

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have in-

stalled a new add-on and the system reconfiguration has caused such a serious conflict that the operating system cannot boot.

The choice: Enabled and Disabled.

IRQ n Assigned to

When resources are controlled manually, assign each system interrupt 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.

DMA n Assigned to

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 DMA channel PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

PCI Delay Transaction

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

The choice: Enabled, Disabled.

Assign IRQ For USB/VGA/ACPI

Name the interrupt request (IRQ) line assigned to the USB/VGA/ACPI (if any) on your system. Activity of the selected IRQ always awakens the system.

The choice: Enabled, Disabled.

3-8 Defaults Menu

Selecting "Defaults" from the main menu shows you two options which are described below

LOAD FAIL-SAFE DEFAULTS

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

Load Fail-Safe Defaults (Y/N) ? N

Pressing 'Y' loads the BIOS default values for the most stable, minimal-performance system operations.

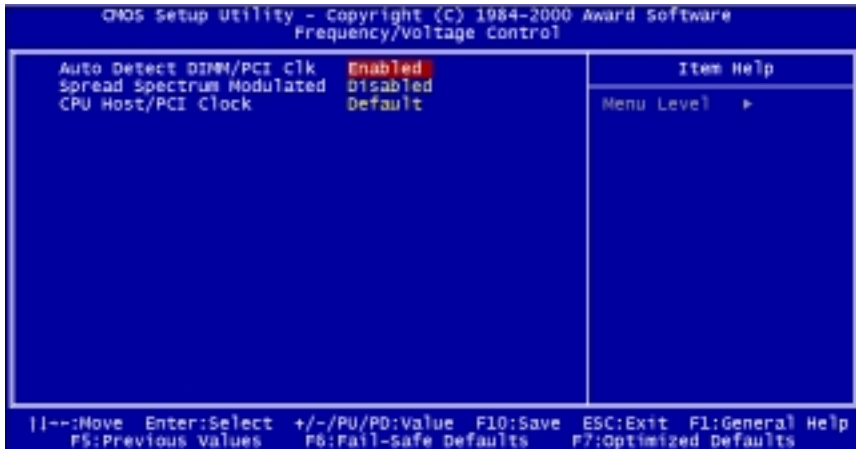
LOAD OPTIMIZED DEFAULTS

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

Load Optimized Defaults (Y/N) ? N

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

3-9 CPU SPEED SEETING

**Auto Detect DIMM/PCI Clk**

This item allow you to Enable/Disable system auto detect DIMM/PCI clock.
The choice: Enabled, Disabled.

Spread Spectrum

This item allows you to Enable/Disable the spread spectrum modulate.
The choice: Enabled, Disabled.

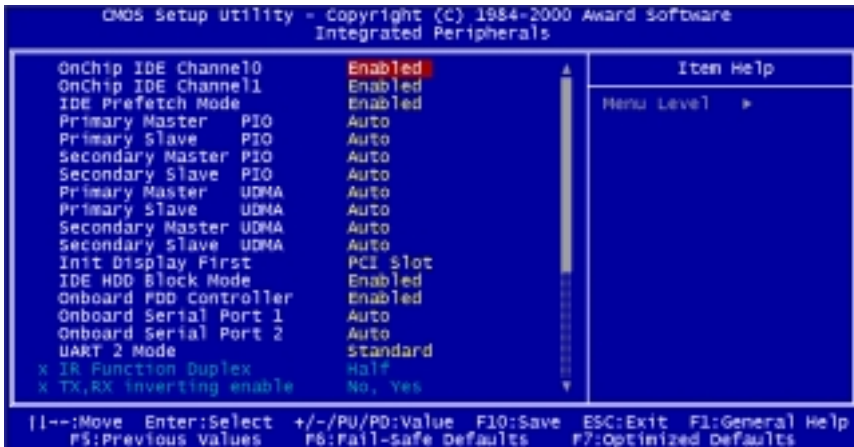
CPU Host Clock(CPU/PCI)

This item allows you to select the CPU and PCI Frequency.

The choice: Default, 100/33, 102/34, 103/34, 107/36, 110/37, 113/38, 117/39, 120/40, 133/33, 135/34, 137/34, 140/35, 143/36, 145/36, 150/38 MHz

The option provides fan rotations, Voltages, and temperature of the system.

3-10 INTERGRATED PERIPHERALS



OnChip IDE Channel0/ Channel1

The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the first and/or second IDE interface. Select Disabled to deactivate an interface, if you install a primary and/or secondary add-in IDE interface.

The choice: Enabled, Disabled.

IDE Prefetch Mode

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

The choice: Enabled, Disabled.

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.

The choice: AUTO, Mode 0-Mode 4.

IDE Primary/Secondary Master/Slave UDMA

Ultra DMA/33 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 your hard drive and your system software both support Ultra DMA/33, select Auto to enable BIOS support.

The Choice: Auto, Disabled

Init Display First

This item allows you to decide to active PCI Slot or AGP first

The choice: PCI Slot, AGP.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode(most new drives do), select Enable for automatic detwction of the optimal number of block read/writes per sector the drive can support. The settings are: Enable, Disable.

Onboard FDD 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. Even when so equipped, if you add a higher performance controller, you will need to disable this feature.

The Choice: Enabled, Disabled.

Onboard Serial Port 1/Port 2

This item allows you to determine access onboard serial port 1/port 2 controller with which I/O address.

The Choice: 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Disabled, Auto.

UART 2 Mode

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

The Choice: Standard, ASKIR, HPSIR.

IR Function Duplex

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

TX, RX Inverting enable

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

Onboard Parallel Port

Select a logical LPT port name and matching address for the physical parallel

(printer) port.

The choice: 378H/IRQ7, 278H/IRQ5, 3BCH/IRQ7, Disabled.

Onboard Parallel Mode

Select an operating mode for the onboard parallel (printer) port. Normal EPP (Extended Parallel Port) ECP (Extended Capabilities Port) CEP+EPP PC AT parallel port Bidirectional port Fast, buffered port Fast, buffered, bidirectional port.

Select Normal unless you are certain your hardware and software both support EPP or ECP mode.

The choices : SPP, ECP/EPP, ECP, EPP/SPP.

ECP Mode Use DMA

Select a DMA channel for the port.

The choices : 3, 1.

Parallel Port EPP Type

Select EPP port type 1.7 or 1.9.

The choices : EPP1.7, EPP1.9

3-11 PC HEALTH STATUS

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



Current CPU Temp.

This item shows the current CPU temperature.

Current System Temp.

This item shows the current System temperature.

Current CPU/FAN Speed.

This item shows the current CPU/FAN Speed.

3-12 PASSWORD SETTING

You can set either supervisor or user password, or both of them. The differences between are:

supervisor password: can enter and change the options of the setup menus.

user password: just can only enter but do not have the right to change the options of the setup menus. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

ENTER PASSWORD:

Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

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

PASSWORD DISABLED.

When a password has been enabled, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also require the BIOS to request a password every time your system is rebooted. This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option (see Section 3). If the Security option is set to "System", the password will be required both at boot and at entry to Setup. If set to "Setup", prompting only occurs when trying to enter Setup.

3-13 IDE HDD AUTO DETECTION

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

These 4 IDE drivers can be detected, with parameters for each listed inside the block. Press <Y> to accept the H.D.D. parameter reported by BIOS or press <N> to keep the old H.D.D. parameter setup and to the next drive, If the hard disk cylinder NO. is over 1024, then the user can select LBA mode or LARGE mode for DOS partition larger than 528 MB.

3-14 Exit Selecting

SAVE & EXIT SETUP

Pressing <Enter> on this item asks for confirmation:

SAVE to CMOS and EXIT (Y/N)? Y

Pressing "Y" stores the selections made in the menus in CMOS - a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

EXIT WITHOUT SAVING

Pressing <Enter> on this item asks for confirmation:

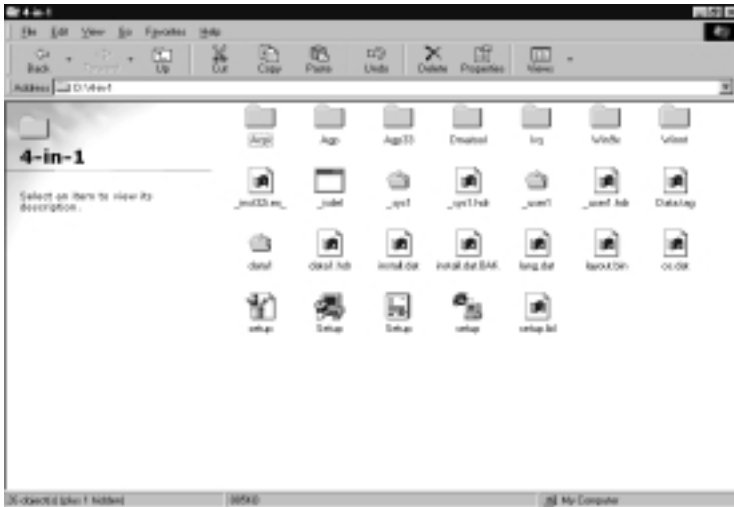
Quit without saving (Y/N)? Y

This allows you to exit Setup without storing in CMOS any change. The previous selections remain in effect. This exits the Setup utility and restarts your computer.

Chapter 4 Software Driver Install

4-1 UPDATED PRODUCT INFORMATION

1. Enter the 4-in-1 subdirectory and double-click SETUP.EXE.



2. Click "Next" at the Welcome screen.



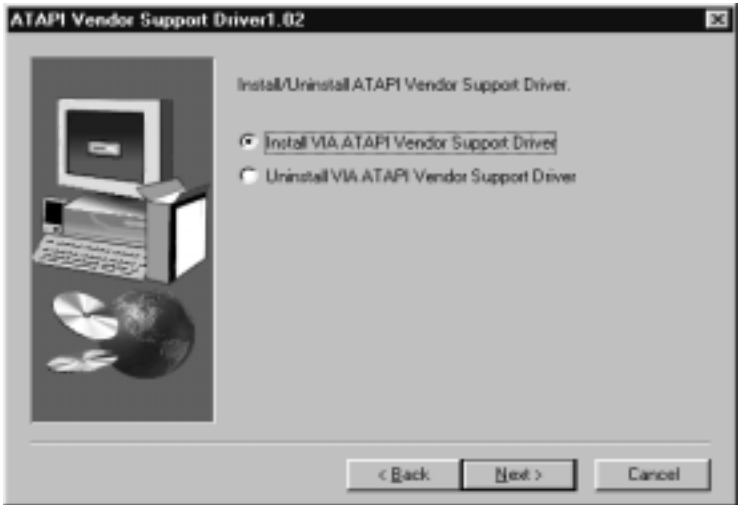
3. Read the license agreement and click "Yes" to continue.



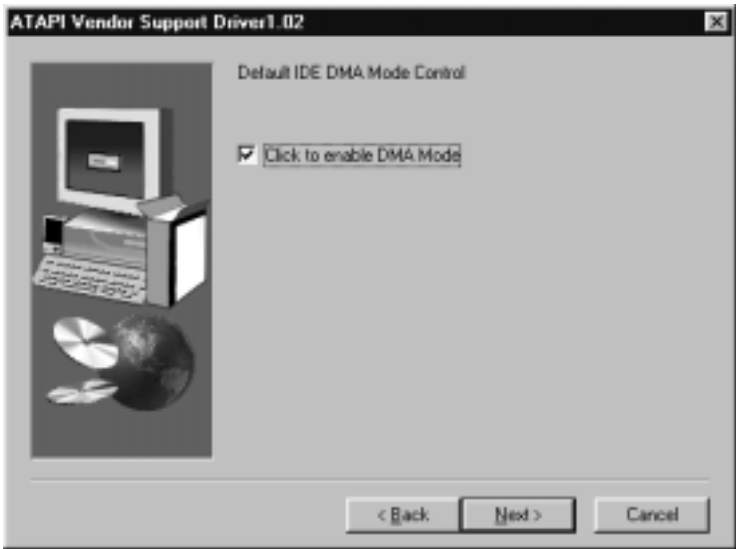
4. Select all driver to install and click "NEXT" to continue



5. Select "Install VIA ATAPI Vendor Support Driver" and click "NEXT" to continue.



6. Select "Click to enable DMA Mode" and click "NEXT" to continue.



7. Select "Install VIA AGP VxD in turbo mode" and click "NEXT" to continue.



8. Select "Install VIA Chipset Functions' Registry" and click "NEXT" to continue.



9. Select "Install VIA IRQ Routing Miniport Driver" and click "NEXT" to continue.

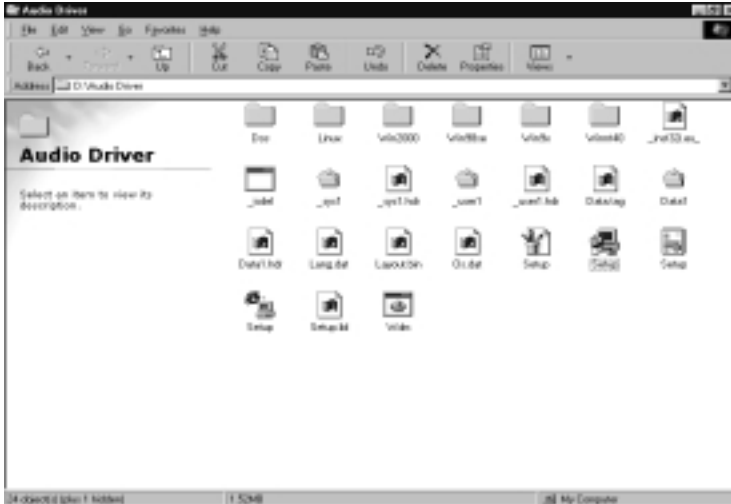


10. The driver files will now be installed. When finished installing, choose the "Yes" to reboot option and click "Finish" to restart your computer. The driver should now be loaded.



4-2 Install Audio Driver

1. To install with the latest Driver /application, please run SETUP.EXE file (included in the "Audio Driver " subdirectory), double-click SETUP.EXE.



2. Click "Next" at the Welcome screen.



3. Select "install" and click "NEXT" to continue.



4. Choose the "Yes" to reboot option and click "Finish" to restart your computer. The driver should now be loaded.



Chapter 5

Anti-Virus software installation

5-1 Anti-Virus software installation

Put CD title driver into CD ROM, then choose "Anti-Virus software" on the main menu, follow each instruction on the screen as the followings.

