

# A300M-E1394

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## MAINBOARD MANUAL

DOC No. : M03704  
Rev. : A0  
Date : 9, 2003  
Part No. : 25-11720-00

## Handling Precautions

Warning:

1. Static electricity may cause damage to the integrated circuits on the motherboard. Before handling any motherboard outside of its protective packaging, ensure that there is no static electric charge in your body.
2. There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer.
3. Discard used batteries according to the manufacturer's instructions.
4. Never run the processor without the heatsink properly and firmly attached. PERMANENT DAMAGE WILL RESULT!

Observe the following basic precautions when handling the motherboard or other computer components:

- Wear a static wrist strap, which is connected to a natural earth ground.
- Touch a grounded or anti-static surface or a metal fixture such as a water pipe.
- Avoid contact of the components on add-on cards, motherboards, and modules with the golden fingers connectors plugged into the expansion slot. It is best to handle system components by their mounting brackets.

The above methods prevent static build-up and cause it to

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## Handling Precautions

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## Overview

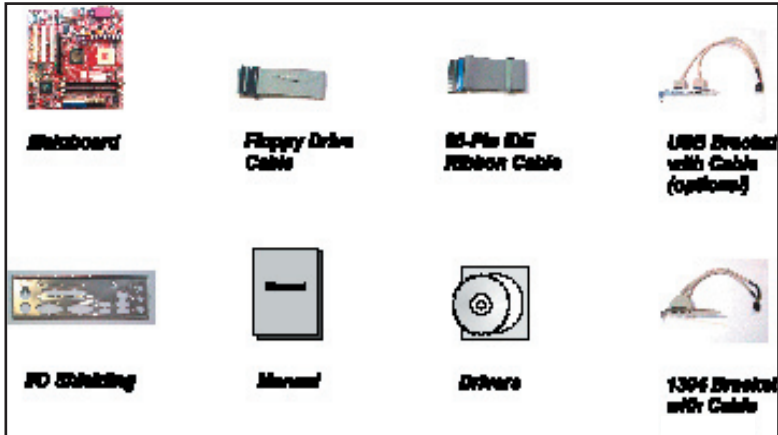
This microATX-sized mainboard is based on the ATI® RADEON™ 9100 IGP chipset (9100 IGP + IXP 150), which support the high performance of Intel® CPUs. Its superb graphics come from the integration of a DX8.1-level Radeon™ 9100 GPU core in the North bridge and is designed for the latest 478-pin Pentium® 4 processors.

Two onboard DDR memory sockets allow DDR266/333/400 dual channel SDRAM for up to 2 GB of memory capacity. Support for ATA-100 protocol and its high-speed interface further ensures that data transfer speeds are improved, especially for the long sequential transfers required by audio/visual applications. The board features onboard SPDIF output and LAN functions. It is completely software compatible with your operating system. For more details, please read the help file in the included CD.

The board comes with an extensive range of I/O features such as 2 serial ports, 1 CRT port, 1 parallel port, 1 LAN, 1 PS/2 mouse and 1 PS/2 keyboard connector, 6 USB 2.0 ports, 2 optional 1394 ports, 1 media connector (front audio, Line-in, Line-out and Mic-in). In addition, the board is equipped with 2 IDE connectors. Ample expansion is available through 3 PCI and 1AGP 8X slots, allowing for enjoyment of the P4 CPU's benefits in internet applications and video/3D graphics performance.

## Package Checklist

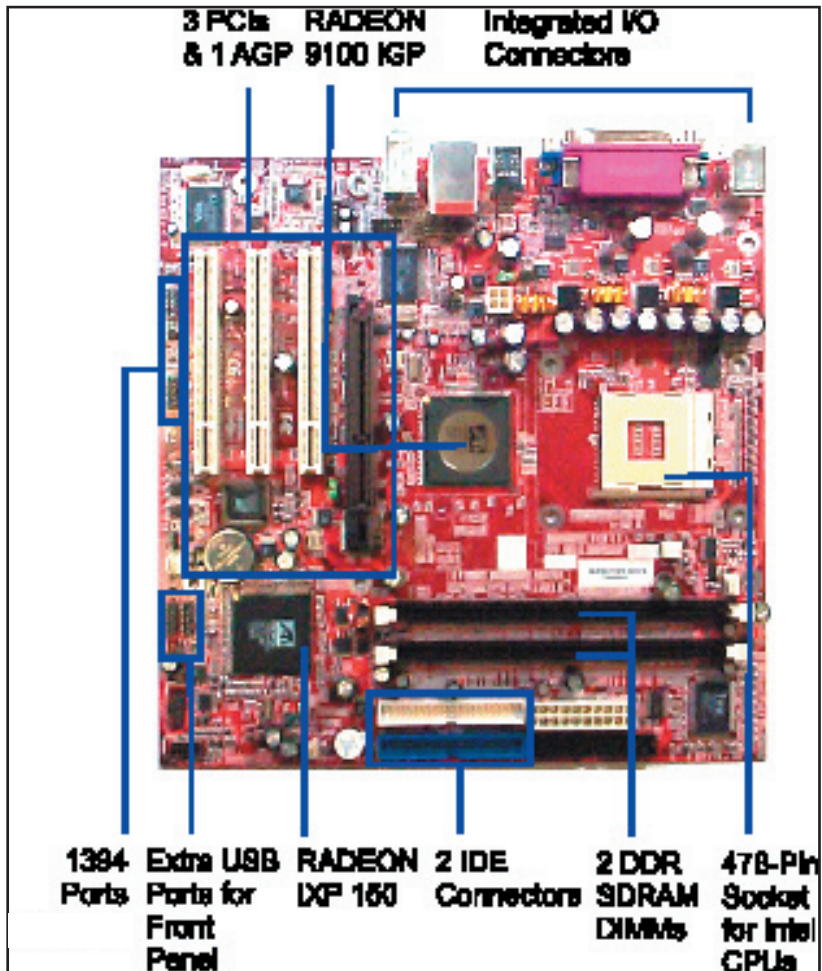
If you discover any item below was damaged or lost, please contact your vendor.



NOTE: The driver CD, which contains patch files, onboard video/audio chip drivers, related online help and other useful information, can be found in your mainboard package.

Please install it immediately after your Windows operating system installation is complete. Place driver CD in the drive and an operating menu will appear on your monitor. Please select Auto Installation. It will automatically detect which software tools (patch files, drivers) the mainboard needs. Press OK to go through the whole installation procedure in a very straight forward and easy way. It will also provide you with a custom installation feature to select the patch files and software drivers you want for the onboard chip's use.

The A300M-E1394 Mainboard



## Main Features

### ■ CPU

Intel<sup>®</sup> Celeron™ –

2.0 to 2.8 GHz and up\* (FSB 400)

Intel<sup>®</sup> Pentium™ 4 –

1.6 to 2.6 GHz and up\* (FSB 400)

2.26 to 3.06GHz and up\* (FSB 533)

2.4 to 3.2 GHz and up\* (FSB 800)

(\* not tested yet)

### ■ Chipset

North Bridge: ATI<sup>®</sup> Radeon 9100 IGP

South Bridge: ATI<sup>®</sup> IXP 150

### ■ Memory

2 memory sockets:

Support dual channel DDR266/333/400

SDRAM memory size totally up to 2 GBs

### ■ Expansion Slots

1 AGP Slot: support 4X/8X (1.5V)

3 PCI Slots: 2.2 32-bit (3.3V/5V PCI bus interface) slots

### ■ LAN

RTL8100C™ 10/100 Fast Ethernet/

8110S™ Gigabit Ethernet (dual layout)

### ■ Audio Features

Realtek ALC655/658 (dual layout) controller; AC97

LINE\_IN, LINE\_OUT, MICROPHONE\_IN Jack

Front audio pinheaders



- I/O Ports
  - 2 IDE connectors –  
Ultra DMA 66/100 up to 4 devices
  - COM1 and COM2 (pinheader)
  - 1 CRT port
  - 1 Parallel port
  - 1 PS/2 mouse and PS/2 keyboard
  - 6 USB ports
  
- Mounting Holes
  - 9 Holes
  
- Mainboard Size
  - 9.2 x 9.6 (unit: inch)
  
- IEEE 1394 Ports (optional)  
VT6307L™
  - 2 Ports
  - 1 Bracket with cable

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# Installation Procedures

This mainboard has several user-adjustable jumpers that allow you to configure the 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:

- Step 1 – Set system jumpers.
- Step 2 – Install memory modules.
- Step 3 – Install the Central Processing Unit (CPU).
- Step 4 – Install expansion cards.
- Step 5 – Connect ribbon cables, cabinet wires and power supply.
- Step 6 – Set up BIOS software.
- Step 7 – Install supporting software tools.



**WARNING:** Excessive torque may damage the mainboard. When using an electric screwdriver on the mainboard, make sure that the torque is set to the allowable range of 5.0 ~ 8.0kg/cm.

Mainboard components contain very delicate Integrated Circuit (IC) chips. To prevent static electricity from harming any of the sensitive components, you should follow the following precautions whenever working on the computer:

1. Unplug the computer when working on the inside.
2. Hold components by the edges and try not to touch the IC chips, leads or circuitry.
3. Wear an anti-static wrist strap.
4. Place components on a grounded anti-static pad, or on the bag that came with the component, whenever the components are separated from the system.

## 1.) Set System Jumpers

Jumpers are used to select the operation modes for your system. Some jumpers on the board have three metal pins with each pin representing a different function. A 1 is written besides pin 1 on jumpers with three pins. To set a jumper, a black cap containing metal contacts is placed over the jumper pin(s) according to the required configuration. A jumper is said to



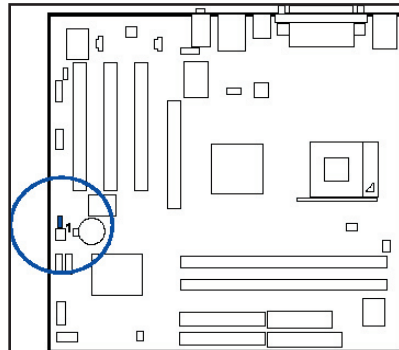
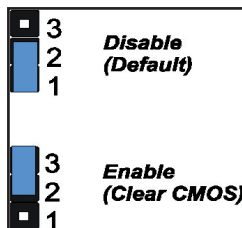
**NOTE:** Users are not encouraged to change to jumper settings not listed in this manual. Changing the jumper settings improperly may adversely affect system performance.

### Clear CMOS

The CMOS RAM is powered by the onboard button cell battery.

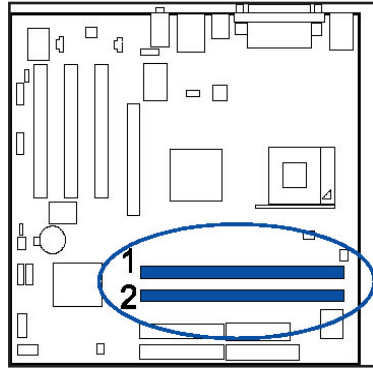
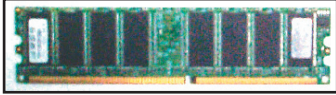
To clear the RTC data:

- (1) Turn off your computer;
- (2) Open the system case and disconnect the ATX power cable;
- (3) Place the jumper cap onto the pinpair 2-3 for at least 6 seconds to enable CMOS clearance;
- (4) Place the jumper cap onto the pinpair 1-2 to disable the effect of CMOS clearance;
- (5) Connect the ATX power cable and close the system case;

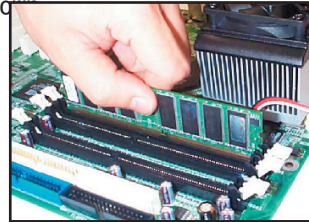


## 2.) Install Memory Modules

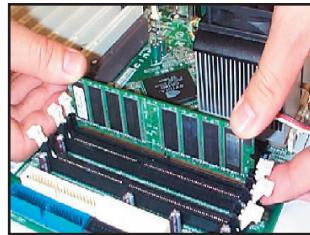
1. Locate DDR DIMM sockets on the mainboard.



2. Install DDR DIMM straight down into socket 1, using both hands, then socket 2, and so forth.



3. The clip on both ends of the socket will close to hold the DDR DIMM in place when the DDR DIMM reaches the bottom of the socket.



**NOTE:**

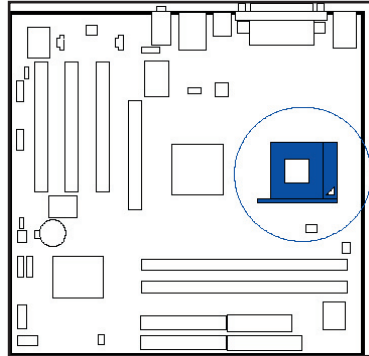
If you use dual channel memory modules, they must be identical.

4. Press the clips outward with both hands to remove the

### 3.) Install the CPU

The mainboard has a built-in Switching Voltage Regulator to support CPU Vcore autodetection. That is, it has the ability to detect and recognize the CPU's condition from the BIOS

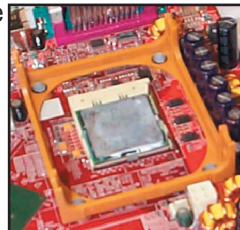
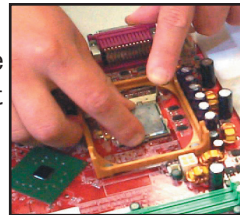
The procedure below shows you how to install your CPU, its fan and heatsink. Before you begin, locate the CPU socket



1. Swing the lever upward to 90 de-

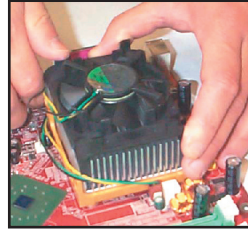
2. Install the CPU and make sure of the pin 1 orientation by aligning the socket corner marking with the socket corner marking closest to the lever tip.

Do not insert the CPU by force. Make sure the processor is fully inserted into the socket on all sides. Apply some thermal material, such as paste or tape,



Affix the CPU by pressing the lever downward and locking it beside the

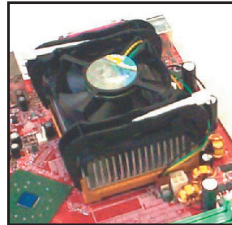
3. Place the fan with heatsink on top of the CPU and press down on the two plastic clips, then of with the holes on two sides the retention module.



**NOTE:**

Be sure to install a fan with a heatsink that is approved by the CPU manufacturer to avoid CPU damage. For detail information, please refer to the CPU manufacturer's website.

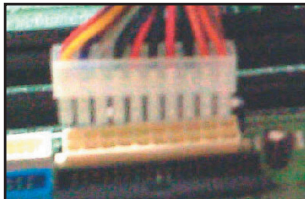
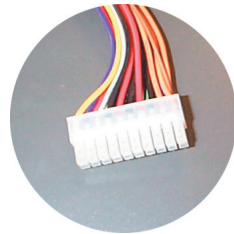
4. Press down the white bar on each clip to fasten the fan set on the



### Connect ATX Power

The 20-hole power plug (top right) is connected to the ATX power 20-pin pin-headers. The 4-hole 12V power plug (bottom right) is inserted in the ATX\_12V power connector.

The plug from the power supply can only be inserted in one orientation because of the different hole sizes. Find the proper orientation and push



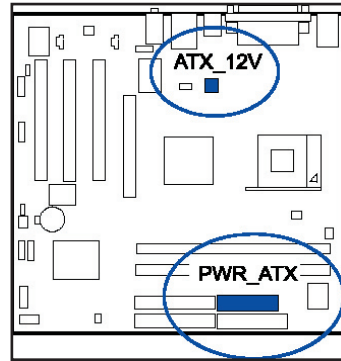


**NOTE:**

The CPU installing procedures should be:

1. Insert the CPU (with its fansink and retention module) on the socket.
2. Connect the 4-pin plug of the power supply
3. Connect the 20-pin plug of the power supply.

To remove the processor, please do it in reverse order.



## 4). Install Expansion Cards

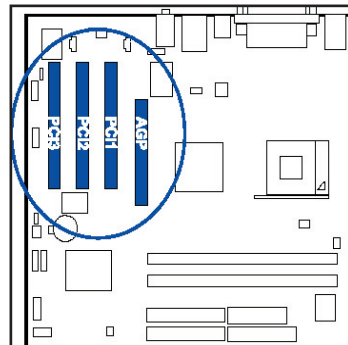
This section describes how to connect an expansion card to one of your system expansion slots. Expansion cards are printed circuit boards that, when connected to the mainboard, increase the capabilities of your system. For example, expansion cards can provide video and sound capabilities. The mainboard features



**CAUTION:**

1. Make sure to unplug the power supply when adding or removing expansion cards or other system components. Failure to do so may cause severe damage to both the mainboard and expansion cards.
2. Always observe static electricity precautions.
3. Please read Handling Precautions at the start of this manual.

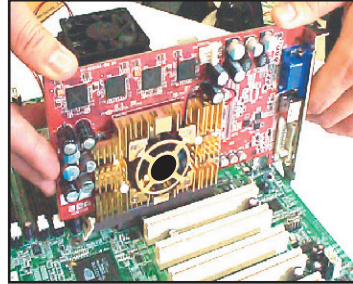
1. Select an available expansion slot.





2. Remove the corresponding slot cover from the computer chassis. Unscrew the mounting screw that secures the slot cover and pull the slot cover out from the computer chassis. Keep

3. Push the card firmly into the slot. Push down on one end of the expansion card, then the other. Use this rocking motion until card is firmly seated inside the expansion slot. Secure

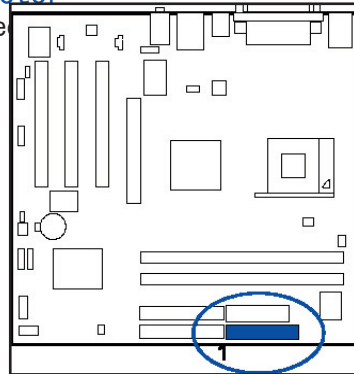
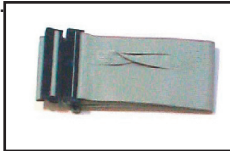


## 5). Connect Devices

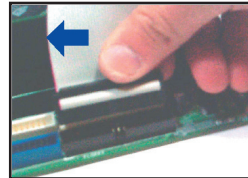
### Floppy Diskette Drive Connector

This connector provides the connection with your floppy disk drive.

Insert the floppy ribbon cable (below) onto the floppy connector.

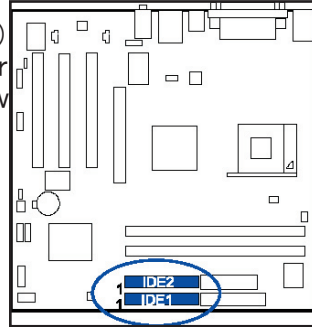


The colored stripe (indicated

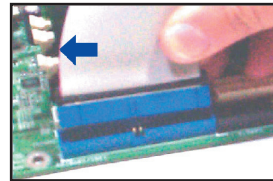


## IDE Device Connectors

The two connectors, IDE1 (PRIMARY) and IDE2 (SECONDARY), are used for your IDE hard disk drives, CD drive, LS-120 drives, or IDE ZIP drives.



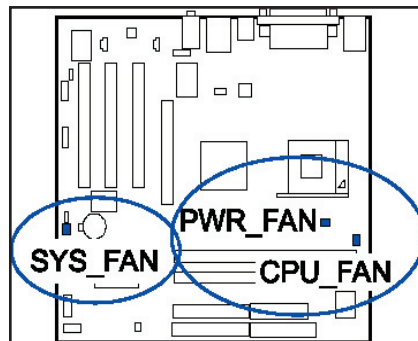
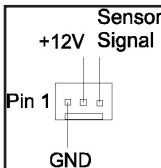
Insert the floppy ribbon cable (below) onto the floppy connector.



The colored stripe (indicated

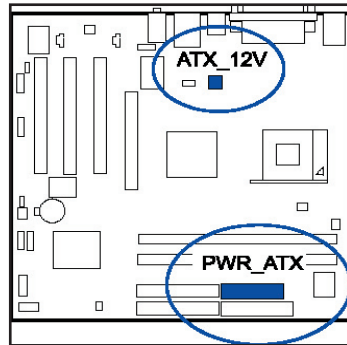
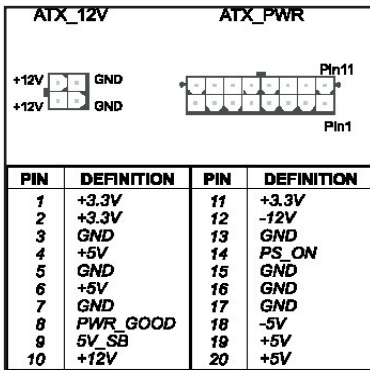
## Fan Connectors

The two connectors, CPU\_FAN and SYS\_FAN, are linked to the CPU fan and case fan, respectively. PWR\_FAN can be used with the power supply cooling fan.



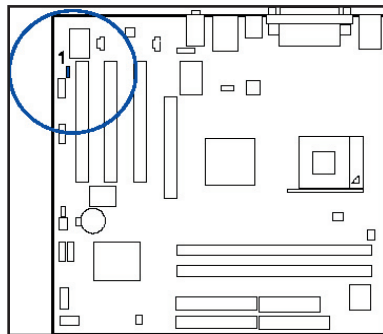
## Power Connectors

The 20-pin male block connector is connected to the ATX power supply. The 4-pin male block connector is for the ATX\_12V power supply. Both connectors are linked with your ATX power supply. The plug from the power supply can only be inserted in one orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that the



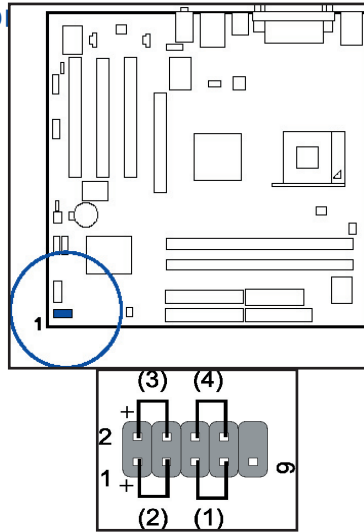
## SPDIF Connector

It is used for audio output with SPDIF spec. Pin definitions: Pin1 is 5V, Pin2 is SPDIF signal, Pin3 is GND.



## Front Panel Block Connector

This block connector includes the connectors for linking with the Power LED (3-pin), HDD LED, power button, power/sleep/message waiting button, and the reset button on the front panel of the system case. Please identify polarities of plug wires for the case speaker and LEDs. Please ask the vendor about this information when you buy and install the system by yourself. The plug wire



(1) Reset Switch is connected to the reset button. Push this switch to reboot the system instead of turning the power button off and on.

(2) HDD LED is connected to the IDE device indicator. This LED

(3) Power (Single and Dual) /Sleep LED

Please refer to the tables below for the representations of LED states.

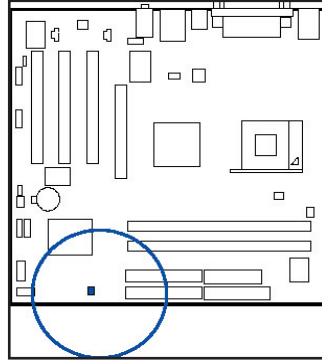
There is also 3-Pin Power LED connector on board for those

Single-Color (2, 3 Pins)			Dual-Color		
LED	Meaning	State	LED	Meaning	State
Off	Off	S4/S5	Off	Off	S4/S5
On	Full On	S0	Green	Full On	S0
Flash	Sleep	S1/S3	Other Colors	Sleep	S1/S3

(4) Power Button is connected with the power button. Pushing this switch allows the system to be turned on and off rather than using the power supply button.

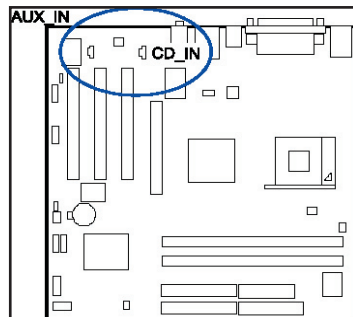
### Serial IRQ Connector

This 2-pin connector is used for some system integration use.



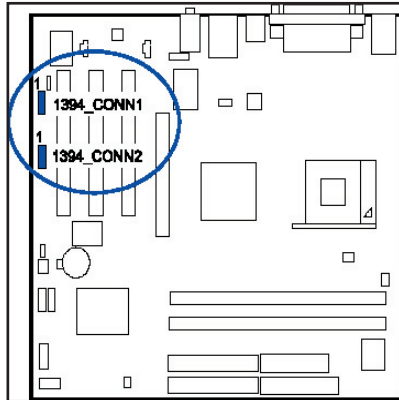
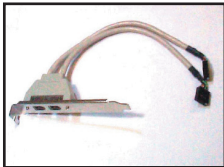
### CD Audio-In Connectors

The connectors, CD\_IN and AUX\_IN, are for CD-ROM drive audio analog input use.



## 1394 Connectors

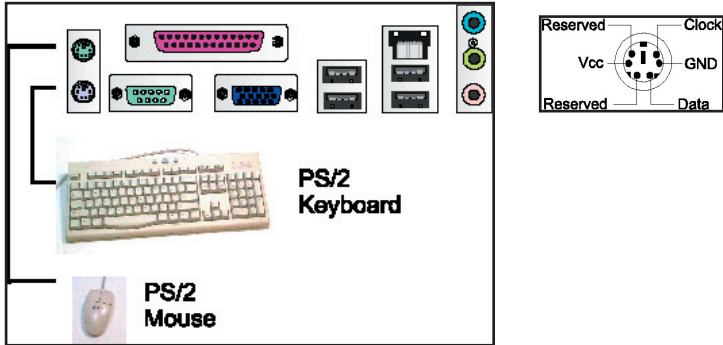
The two optional 1394 pinheaders on the board provide you with two connections to peripherals which have 1394 connectors through an optional bracket with cable (see the figure below). The pin definitions of the 1394 pinheaders are listed below. The 1394\_26 port may be integrated on rear panel for



PIN	DEFINITION
1	TA1+
2	TA1-
3	GND
4	GND
5	TB1+
6	TB1-
7	VCC
8	VCC
9	GND
10	NC

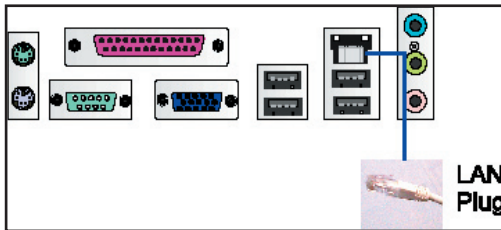
## PS/2 Keyboard and Mouse Connector

These two 6-pin female connectors (keyboard is purple and mouse is green) are used for your PS/2 keyboard and PS/2 mouse.



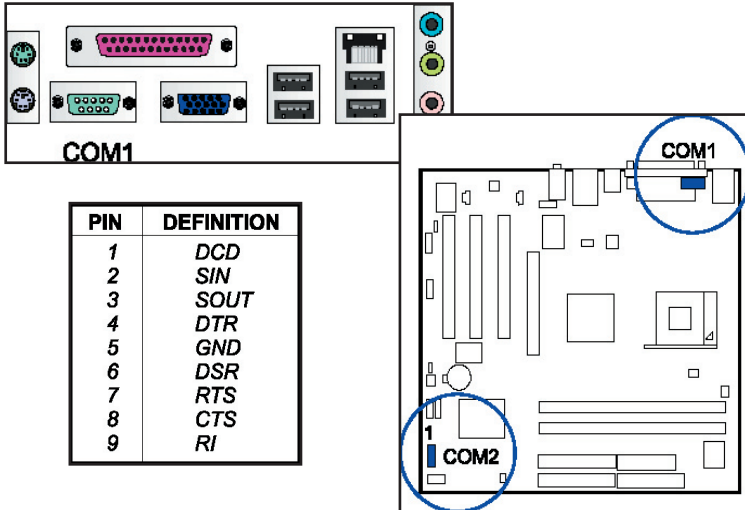
## RJ45 LAN Connector

The RJ45 jack of the LAN port is used for the LAN cable



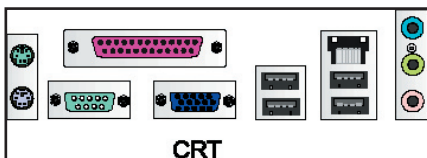
## Serial Port Connectors

COM1 is teal colored 9-pin D-sub male connector and COM2 is a 9-pin male connector, allowing you to connect with devices that use serial ports, such as a serial mouse or an external modem.



## CRT Connector

This connector is linked to your monitor. The pinheaders pin assignments are shown

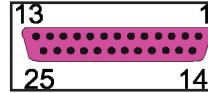
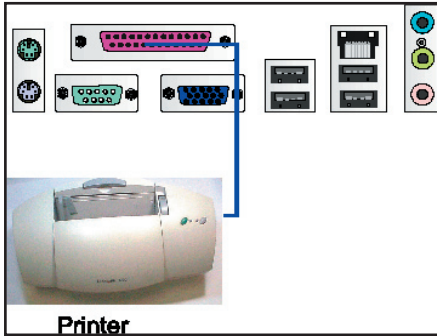


PIN	DEFINITION
1	RED
2	GREEN
3	BLUE
4	VCC
5	GND
6	GND
7	GND
8	GND
9	VCC
10	GND
11	VCC
12	DDC DATA
13	HSYNC
14	VSYNC
15	DDC CLK



## Printer Connector

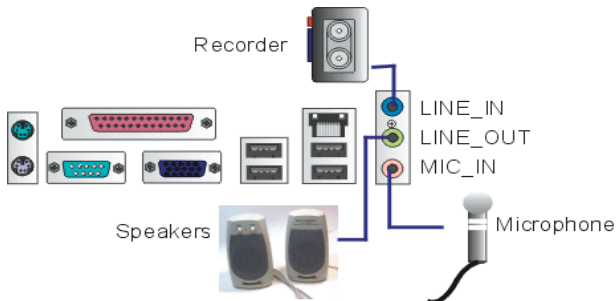
This burgundy-colored 25-pin D-Sub female connector is attached to your printer.



PIN	DEFINITION
1	STROBE
2-9	DATA 0-7
10	ACK#
11	BUSY
12	PE
13	SELECT
14	AUTO FEED#
15	ERR#
16	INIT#
17	SLIN#
18-25	GND

## Audio I/O Jacks

LINE\_OUT (lime) can be connected to headphones or preferably 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. MIC\_IN (pink) allows microphones to be

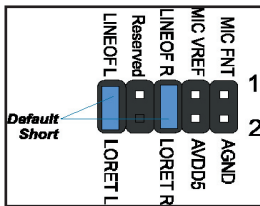
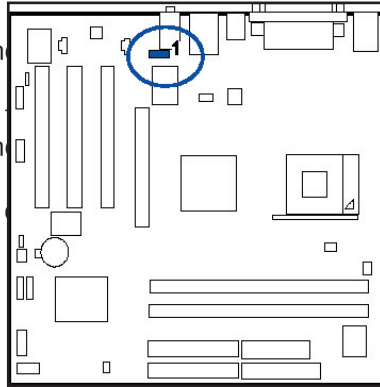




NOTE: The LINE\_IN, LINE\_OUT, MICROPHONE jacks can be used the 5.1-channel audio output with its software tool.

## Front Audio Connector

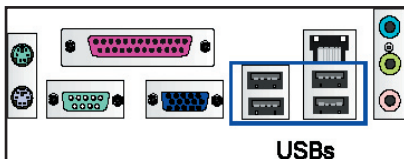
The mainboard has a front panel audio, F\_AUDIO, connector (Intel spec.). It allows you to attach an audio device via the panel (instead of rear panel) ribbon cable. Its pin definition are presented below.



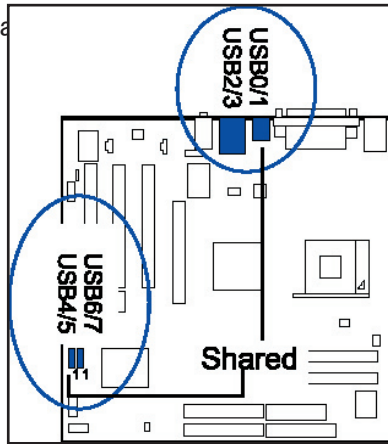
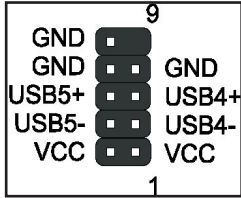
NOTE: If you do not use F\_AUDIO, please keep the pinpair 5-6, 9-10 short as default; also, when the front headphone is plugged in,

## Universal Serial Bus Connectors

The mainboard has six USB ports; some USB black jacks that are integrated on the edge of the board, and some others use USB ports (pinheaders) on the board. USB0/1 is designed to share some electric circuits with USB3/1 pinheader; that is, USB0/1 can not be used at the same time as USB4/5. They allow you to

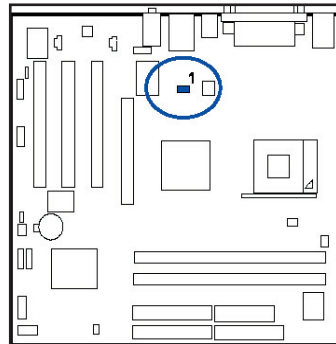


The figure below show the pin assignments of the USB pinhead



### TV\_OUT Connector (optional)

The connector is used to link your computer system with your TV set through an optional small card.

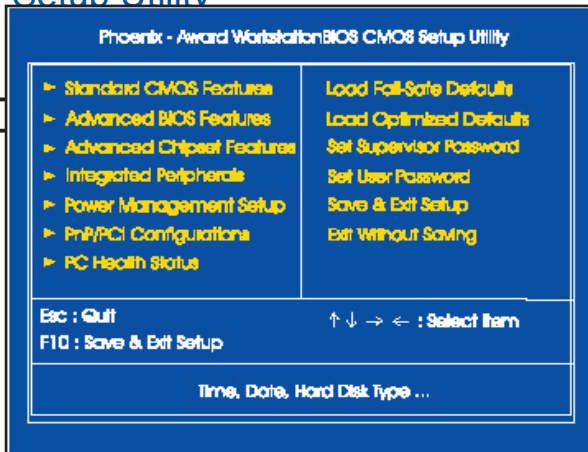


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## BIOS Setup

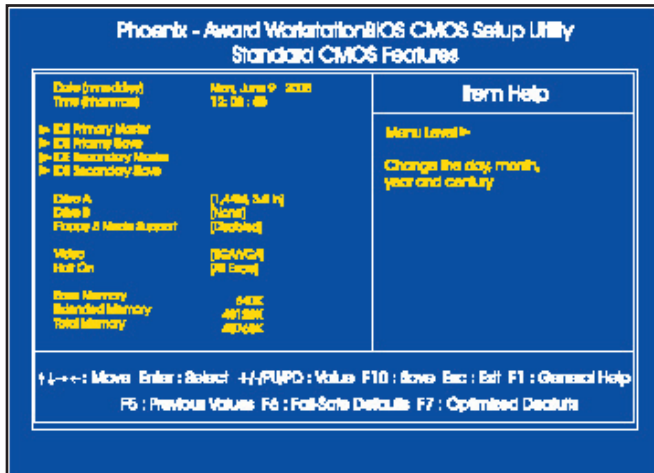
The mainboard comes with a chip from Award BIOS that contains the ROM Setup information for your system. This chip serves as an interface between the processor and the rest of the mainboard components. This section explains the information contained in the Setup program and tells you how to modify the settings according to your system configuration.

### CMOS Setup Utility



The Setup Utility program allows updates to the mainboard configuration settings. The BIOS setup values will be saved in the CMOS. Setup is executed when the user changes system configurations, changes the system backup battery, or the system detects a configuration error and asks the user to run the Setup program. Use the arrow keys to select and press Enter to run

## Standard CMOS Setup



The Standard CMOS Setup screen is displayed above. Each item may have one or more option settings. The system BIOS automatically detects memory size, thus no changes are necessary. Use the arrow keys to highlight the item and then use PgUp/PgDn keys to select the value you want in each item.

### Date

To set the date, highlight the Date field and then press PgUp/PgDn or +/- keys to set the current date. Follow the month, day and year format.

### Time

To set the time, highlight the Time field and then press PgUp/PgDn or +/- keys to set the current time. Follow the

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## Hard Disks

This field records the specifications for all non-SCSI hard drives installed in the system. The onboard PCI IDE connectors provide Primary and Secondary channels for connecting up to four IDE hard disks or other IDE devices. Each channel can support up to two hard disks, the first of which is the Master and the second is the Slave.

### Hard Disk Configurations

Capacity:           The hard disk size. The unit is Bytes.  
Cylinder:           The cylinder number of the hard disk.  
Head:                The read/write head number of the hard disk.  
Precomp:            The cylinder number of which the disk drive changes the write current.  
Landing Zone:      The cylinder number on which the disk drive heads (read/write) are seated when the disk drive is parked.

### Drive A / Drive B

This field records the types of floppy drives installed in the system. To enter the configuration value for a particular drive, highlight its corresponding field and then select the drive type using the left- or right-arrow key.

### Floppy 3 Mode Support

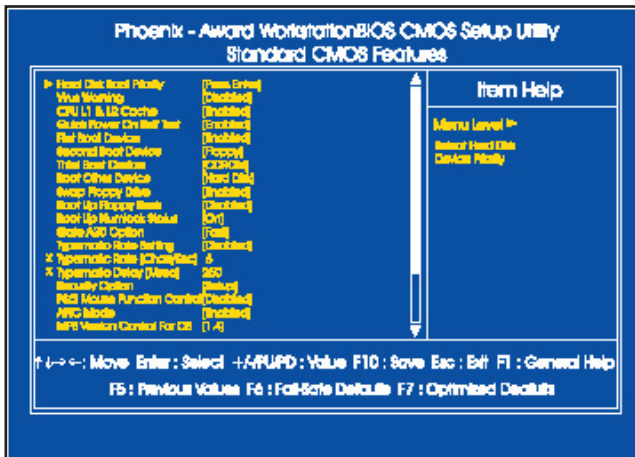
This is a Japanese standard floppy type drive.

### Video

Set this field to the type of video display card installed in the system.

### Halt On

## Advanced BIOS Features



### Hard Disk Boot Priority

This feature will auto detect all hard disks of bootable devices on the system. It also allows users to select hard

### Virus Warning

This feature starts the virus scan tool to detect if a boot virus is in the boot sector of the first hard disk drive when booting up.

The options are: Enabled, Disabled.

### CPU L1 & L2 Cache

When enabled, improves the system performance. Disable this

### Quick Power On Self Test

When enabled, allows the BIOS to bypass the extensive memory test.

### First/Second/Third Boot Device

This feature allows you to select the boot device priority.

The options are: Floppy, LS120, Hard Disk, CDROM, ZIP100,



### Boot Other Device

This feature allows you to select the boot device priority.

The options are: Enabled, Disabled.

### Swap Floppy Drive

Allows you to switch the order in which the operating system accesses the floppy drives during boot up. The options are: Enabled, Disabled.

### Boot Up Floppy Seek

When enabled, assigns the BIOS to perform floppy diskette

### Boot Up Numlock Status

When set to On, allows the BIOS to automatically enable the Num Lock Function when the system boots up. The options are: On, Off.

### Gate A20 Option

When set at Fast, allows a faster access response under

### Typematic Rate Setting

The term typematic means that when a keyboard key is held down, the character is repeatedly entered until the key is released.

### Typematic Rate (Chars/Sec)

This feature is available only if the above item, Typematic Rate Setting, is set at Enabled. Sets the rate of a character repeat when the key is held down. The options are: 6,

### Typematic Delay (Msec)

This feature is available only if the item, Typematic Rate Setting, is set at Enabled. Sets the delay time before a character is repeated.

### Security Option

Allows you to set the security level of the system.

The options: Setup, System.

### PS/2 Mouse Function Control

If you select Disabled, this feature will prevent any installed PS/2 mouse from functioning and will free IRQ12. If you select Enabled, this feature allows the operating system to determine whether to enable or disable the mouse.

### APIC Mode

Allows you to decide if the system enters the APIC (Advanced Programmable Interrupt Controller) mode or not before more IRQs can be released.

The options are: Enabled, Disabled.

### MPS Version Control For OS

With two CPUs onboard (not this board) this feature allows you to select Multi-Processor Spec. (MPS) version control for OS when logo test executes. The options are: 1.1, 1.4.

### OS Select For DRAM > 64MB

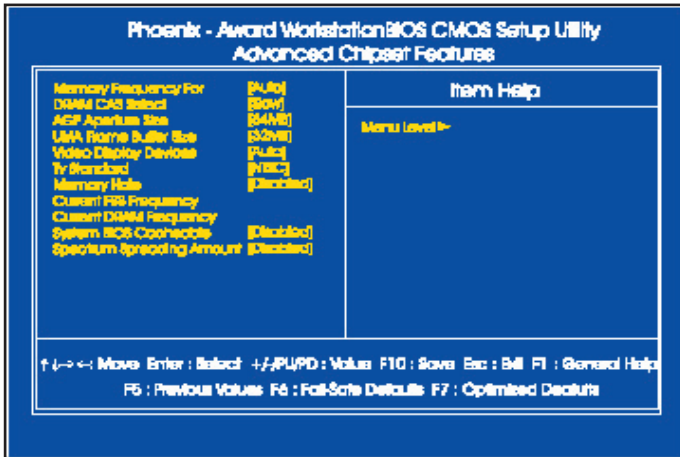
If your operating system (OS) is OS/2, select the option OS2. Otherwise, stay with the default setting Non-OS2. The options are: Non-OS2, OS2.

### HDD S.M.A.R.T. Capability

S. M. A. R. T. stands for Self-Monitoring and Analysis Reporting Technology which allows your hard disk drive to report any read/write errors and issues a warning with LDCM installed.

The options: Disabled, Enabled.

## Advanced Chipset Features



### Memory Frequency For

This feature allows you to set the memory frequency.

The options are: Auto, SYNC, DDR-100, DDR-133, DDR-166, DDR-200.

### DRAM CAS Select

This feature allows you to select the speed level of DRAM CAS.

The options are: Slow, Fast.

### AGP Aperture Size

This allows you to select the main memory frame size of AGP use.

The options are: 32MB, 64MB, 128MB, 256MB, 512MB, 1GB, 2GB, None.

### Memory Hole

When you install a Legacy ISA card, this feature allows you to select the memory hole address range of the ISA cycle when the processor accesses the selected address area. Please read your card manual for detail information. When disabled, the memory hole at the (15–16MB) address will be treated as a DRAM cycle when the processor accesses the 15–16MB address area. The options are: Disabled, 15M – 16M.

### Current FSB/DRAM Frequency

This feature allows you to know current FSB/DRAM frequency.

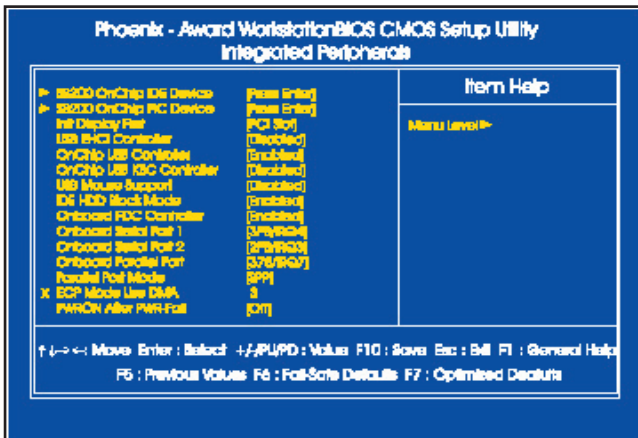
### System BIOS Cacheable

Set at Enabled, this will allow the caching of the BIOS ROM F0000H–FFFFFH, resulting in better system performance. It may cause a system error when some programs try to access the memory area.

The options are: Disabled, Enabled.

### Spectrum Spreading Amount

## Integrated Peripherals



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## SB200 OnChip IDE Device

### OnChip IDE Channel0/1

When enabled, this allows you to use the onboard primary/secondary PCI IDE. The options are: Enabled, Disabled.

### IDE Prefetch Mode

When set at Enabled, it allows data to be posted to and prefetched from the primary IDE data ports. Data prefetching is initiated when a data port read occurs. The read prefetch eliminates latency to the IDE data ports and allows them to be performed back to back for the highest possible PIO data transfer rates. The first data port read of a sector is called the demand read. Subsequent data port reads from the sector are called prefetch reads. The demand read and all prefetch reads must be of the same size (16 or 32 bits).

The options are: Enabled, Disabled.

### Primary Master/Slave PIO

This allows an automatic or a manual configuration of the PCI primary IDE hard drive (master/slave) mode. The options are: Auto, Mode 0, ..., 4.

### Primary Master/Slave UDMA

This allows an automatic configuration of the PCI primary IDE hard drive (master/slave) mode if Ultra DMA is supported both on the motherboard and the hard disk. The options are: Auto, Disabled.

### Secondary Master/Slave UDMA

This allows an automatic configuration of the PCI secondary IDE hard drive (master/slave) mode if Ultra DMA is supported

## SB200 OnChip PCI Device

### Onboard AC97 Audio

This feature auto detects if you use a card with a CODEC to enable or disable the AC97 audio function. The options

### Onboard Chip LAN

This feature allows you to disable the onboard LAN feature.

The options are: Enabled, Disabled.

### Onboard 1394 Device

This feature allows you to disable the onboard 1394 feature.

The options are: Enabled, Disabled.

### Init Display First

When you install a PCI VGA card on the board, this feature allows you to select the first initiation of the monitor display from PCI or onboard AGP. The options are: PCI Slot, AGP.

### OnChip EHCI Controller

This feature allows you to disable the onboard USB2.0 Enhanced Host Controller Interface (EHCI) function. The options are: Enabled, Disabled.

### OnChip USB Controller

Disable this option if you are not using the onboard USB 1.1 / 2.0 feature. The options are: Disabled, Enabled.

### OnChip USB Keyboard Controller

When a USB mouse is installed, please set at Enabled. The options are: Auto, Disabled, Enabled.

### 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 options are: Enabled, Disabled.

### Onboard FDC Controller

When enabled, the floppy diskette drive (FDD) controller is activated.

The options are: Enabled, Disabled.

### Onboard Serial Port 1/2

If the serial port 1/2 uses the onboard I/O controller, you can modify your serial port parameters.

The options are: 3F8/IRQ4, 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3, Disabled.

### Onboard Parallel Port

Allows you to select from a given set of parameters if the parallel port uses the onboard I/O controller.

The options are: 378/IRQ7, 278/IRQ5, 3BC/IRQ7, Disabled.

### Parallel Port Mode

Allows you to connect with an advanced printer via the port mode it supports. The options are: SPP, EPP, ECP, ECP+EPP.

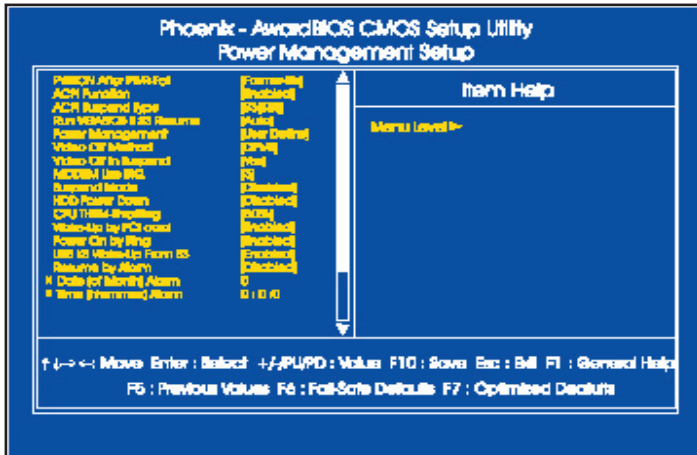
### ECP Mode Use DMA

This feature allows you to select Direct Memory Access (DMA) channel. The options are: 1, 3.

### PWRON After PWR-Fail

When the system is shut down due to a power failure, the system will not power on by itself. This feature allows you to select the system power status for when the system power

## Power Management Setup



### ACPI function

This feature allows you to disable the ACPI function. The options are: Enabled, Disabled.

### ACPI Suspend Type

This feature allows you to select suspend mode when the system is in ACPI mode. The options are: S1 (POS), S3 (PTR).

### Power Management Option

This feature allows you to adjust the power management features.

Select User Define for configuring your own power management features. Min Saving initiates all predefined timers in their minimum values. Max Saving, on the other hand, initiates maximum values.

The options are: User Define, Min Saving, Max Saving.

### HDD Power Down

This feature lets the BIOS turn the HDD motor off when the system is in Suspend mode. Selecting 1 Min..15 Min allows you to define the HDD idle time before the HDD enters the Power Saving Mode.



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### Video Off Option

This feature provides the selections of the video display power saving mode. The option Suspend – Off allows the video display to go blank if the system enters Suspend mode. The option All Modes – Off allows the video display to go blank if the system enters Doze mode or Suspend mode. The option Always On allows the video display to stay in Standby mode even when the system enters Doze or Suspend mode.

The options are: Suspend – Off, All Modes -> Off, Always On.

### Video Off Method

The option V/H SYNC+Blank allows the BIOS to turn off the screen display by turning off the V-Sync and H-Sync signals sent from an add-on VGA card. DPMS Support allows the BIOS to turn off the screen display by your add-on VGA card which supports DPMS (Display Power Management Signaling function). Blank Screen allows the BIOS to turn off the screen display by turning off the red-green-blue signals.

The options are: V/H SYNC+Blank, DPMS Support, Blank Screen.

### MODEM Use IRQ

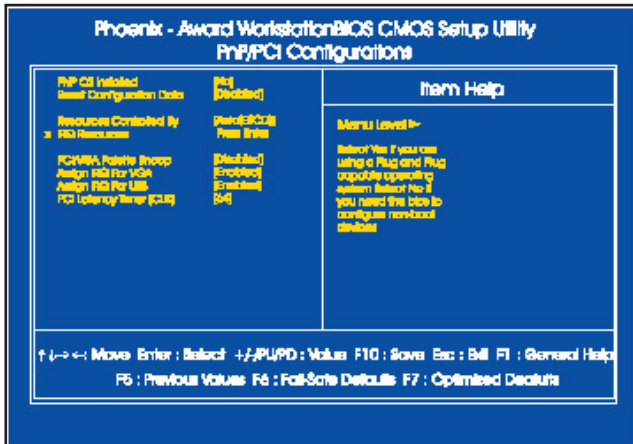
This feature allows you to select the IRQ# to meet your modem IRQ#.

The options are: NA, 3, 4, 5, 7, 9, 10, 11.

### Soft-Off by PWRBTN

The selection Instant-Off will allow the system to shut down immediately once the power button is pressed.

## PnP/PCI Configurations



### PNP OS Installed

If your operating system supports Plug-and-Play, such as Windows NT, Windows 95, select Yes. The options are: No, Yes.

### Reset Configuration Data

Enabling this resets the system's Extended System Configuration Data (ESCD) when you exit Setup, if you have installed a new add-on card and the system reconfiguration has caused such a serious conflict that the operating system can not

### Resources Controlled By

If set at Auto, the BIOS arranges all system resources. If there exists a conflict, select Manual. The options are: Auto (ESCD), Manual.

If manual is chosen, after the feature IRQ Resources is pressed, the IRQ- Assigned To are: PCI Device, Reserved. When resources are controlled manually, assign each system

### PCI/VGA Palette Snoop

Set this feature to be enabled if any ISA adapter card installed in the system requires the VGA palette snoop function.

### Assign IRQ For VGA

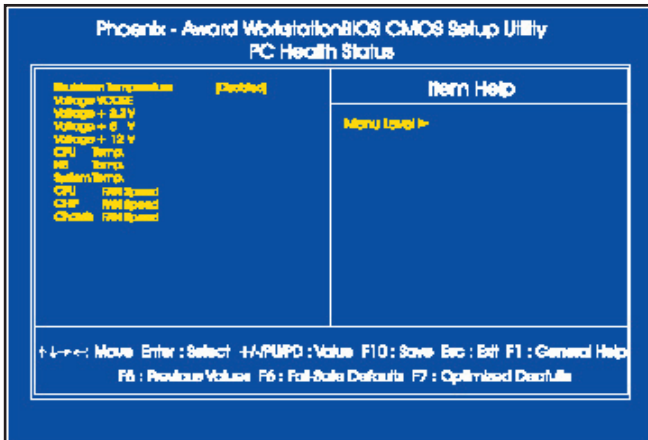
If your PCI VGA card devices do not need an IRQ, select Disabled; therefore, an IRQ can be released for the system's use.

The options are: Enabled, Disabled.

### Assign IRQ For USB

If your USB devices do not need an IRQ, select Disabled:

## PC Health Status



**WARNING:** The feature introduced below may cause damage on your CPU and other devices by overheat if being configured improperly.

### Shutdown Temperature

This feature helps to shutdown the system when the temperature reaches the selected temperature, to prevent from overheating. The option list presents all the temperatures

The rest of the items allow end users and technicians to monitor data provided by the BIOS on this mainboard. They are not

## Load Optimized Defaults

This submenu is selected for default settings which provide the best system performance.

## Supervisor/User Password

To enable the Supervisor/User passwords, select the item from the Standard CMOS Setup. You will be prompted to create your own password. Type your password, up to eight characters, and press Enter. You will be asked to confirm the password. Type the password again and press Enter. To disable the password, press Enter twice when you are prompted to enter a password. A

Under the BIOS Feature Setup, if Setup is selected under the Security Option field and the Supervisor/User Password is enabled, you will be prompted for a password every time you try to enter the CMOS Setup Utility. If System is selected and the Supervisor/User Password is enabled, you will be requested to enter the Password every time you reboot the system or enter

## Save and Exit Setup

After you have made changes under Setup, press Esc to return to the main menu. Move the cursor to Save and Exit Setup or press F10 and then press Y to change the CMOS Setup. If you did not change anything, press Esc again or move the cursor to Exit Without Saving and press Y to retain the Setup settings. The following message will appear at the center of the screen

## Exit without Saving

If you select this feature, the following message will appear at the center of the screen to allow you to exit the setup utility without saving CMOS modifications: Quit Without Saving (Y/N)?