

# VC37

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## MAINBOARD MANUAL

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Part No. : 25-11651-03

## 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 fits around your wrist and is connected to a natural earth ground.
- Touch a grounded or anti-static surface or a metal fixture such as a water pipe.
- Avoid contacting 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 be discharged properly.

## Trademark

*All trademarks mentioned in this manual are registered properly of the respective owners.*

## Handling Precautions

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## Overview

The new microATX 1stMainboard® VC37 supports a full range of the latest generation Intel® Pentium®4 CPUs. The leading edge chipset Intel® 845GL GMCH was designed for coworking with Pentium® 4 in the mPGA478 CPU socket based on VRM 9.0 spec. and 400 MHz FSB. Being built by the leading edge technology, the Intel Pentium® 4 processors provide a significant performance over previous Pentium® III processors. Onboard two DDR SDRAM sockets support DDR200/266 SDRAM for up to 2GB memory capacity. The ICH4 brings the ATA100 IDE performance and its high-speed interface further ensures that data transfer speeds are improved, especially for six USB 2.0 peripheral devices.

The board comes with a versatile range of I/O features such as 1 serial port, 1 parallel port, 1 LAN, 1 PS/2 mouse and keyboard connector, 6 USB ports (two of them are in one pinheader), 1 media connector (front audio pinheader, Line-in, Line-out and Mic-in). Ample expansion is available through 3 PCI slots to meet the requirement for fully making use of the P4 CPU benefits in internet applications, video/3D graphics performance, and so forth.

Other key features are Remote On/Off, Auto Power Failure Recovery, integrated temperature monitoring and system fan control. Included also is a CD Pro with enhanced drivers.

## Package Checklist

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

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> The mainboard     | <input checked="" type="checkbox"/> This user manual |
| <input checked="" type="checkbox"/> One FDD cable     | <input checked="" type="checkbox"/> Software CD      |
| <input checked="" type="checkbox"/> One ATA/100 cable | <input checked="" type="checkbox"/> I/O shilding     |



**NOTE:** **Ist Utilities** CD that 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 right after your Windows operating system installation is done.* Place your **Ist Utilities** CD in the drive, an operating menu will appears in your monitor. Please select *Auto Installation*. It will automatically detect which software tools (patch files, drivers) that the mainboard needs. Press **OK** button to go through the whole installation procedure in a very straight forward and easy way. It also provides you with a custom way to select wanted patch files and software drivers that for onboard chips use. **The top menu of the Ist Utilities CD lists all the functions that allowed by this board.**



**NOTE:** About the USB 2.0 driver.

if you use-

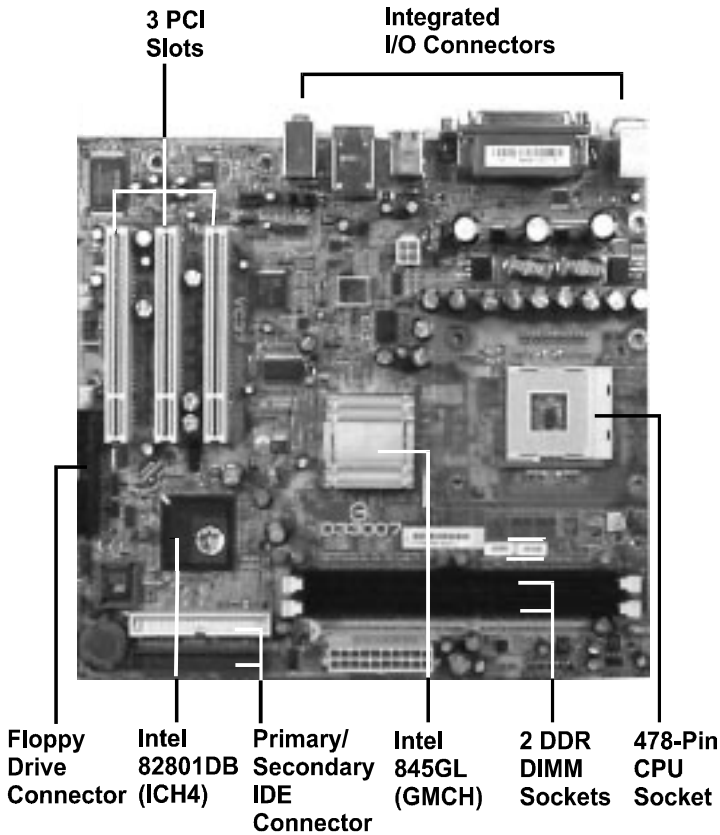
*Windows XP + Sevice Pack 1:* it offers the driver.

*Windows XP:* download it from Microsoft web site.

*Windows 2000/98SE/ME:*

driver in **Ist Utilities** CD, please manually installed it.

## The VC37 Mainboard



## Main Features

### ■ Easy Installation

BIOS with support for Plug and Play, auto detection of IDE hard drives, LS-120 drives, IDE ZIP drives, Windows 98SE, Windows ME, Windows NT, Windows 2000, Windows XP, and OS/2.

### ■ Leading Edge Chipset

Intel® 845GL supports integrated graphic (UMA only) features that of 32 bpp true color and flat panel monitors and TV-out display via 3rd party DVO devices. The ICH4 provides SMBus 2.0 support, 20-bit AC97 audio, 6 USB 2.0 ports, and Ultra ATA100 IDE performance between mainboard and peripheral devices.

### ■ Versatile Main Memory Support

Accepts up to 2 GB memory capacity via two non-ECC DDR DIMM sockets for allowing that from 64, 128, 256, 512MB with lightening-fast DDR200/266 SDRAM. (Not support double-sided x 16 DDR DIMMs)

### ■ Flexible Processor Support

Onboard CPU 478-pin socket supports

Intel® Celeron CPU: 1.7/1.8/1.9/2.0/2.2/2.4 GHz (FSB 400MHz )

Intel® P4 CPU: 1.4 - 2.6 GHz (FSB 400MHz )and up\*

(\*: not test yet)

### ■ Super Multi Input/Output (I/O) Support

Integrated Plug and Play multi-I/O chipset features one high-speed UART 16550 compatible serial port, one parallel port and one HDD connector.

### ■ Integrated Audio Subsystem

Onboard audio features included one SPDIF OUT pinheader for digital audio resource output use. The onboard AC97 Codec chip supports 2-channel audio feature.



- Convenient Rear Panel USB Connection Support

Four USB ports integrated in the rear I/O panel and one USB pinheader for two USB ports to allow the connecting with either front or rear panel jacks in a convenient way and high-speed Plug and Play connection to the USB 2.0 compliant peripheral devices on the market.

- Enhanced PCI Bus Master IDE Controller with Ultra DMA 33/66/100 Support

Integrated Enhanced PCI Bus Master IDE controller features two dual-channel connectors that up to four Enhanced IDE devices, including CD-ROM and Tape Backup Drives, as well as Hard Disk Drives supporting the new Ultra ATA 100 protocol. Standard PIO Mode 3, PIO Mode 4, DMA Mode 2, DMA Mode 4, UltraDMA-100 Mode 5 devices are also supported.

- LAN Support

Onboard LAN controller with one RJ45 jack integrated with other rear panel I/O connectors provides users with a convenient connection with network environment.

## **FIC Unique Innovation for Users (NOVUS) - Enhanced Mainboard Features and System Support**

- BIOS Guardian

BIOS Guardian effectively acts as a fire-wall against viruses that can attack the BIOS while the system is running and by default is enabled.

**WARNING:**

BIOS Guardian must be disabled before reflash BIOS.



**NOTE:**

Please read Page 3-7 for detail information.

### ■ Easy Key

Instead of completing the multi-layered BIOS setup process these 3 Easy Key functions provide direct access to Sub-Menu when completing BIOS settings adjustments.

Easy-Keys are as follows:

**Ctrl + c:** To enter clock settings menu.

**Ctrl + p:** To load Performance Default settings and restart.

**Ctrl + f:** To load Fail-Safe Default settings and restart.

# Installation Procedures

The mainboard has several 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:

- 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



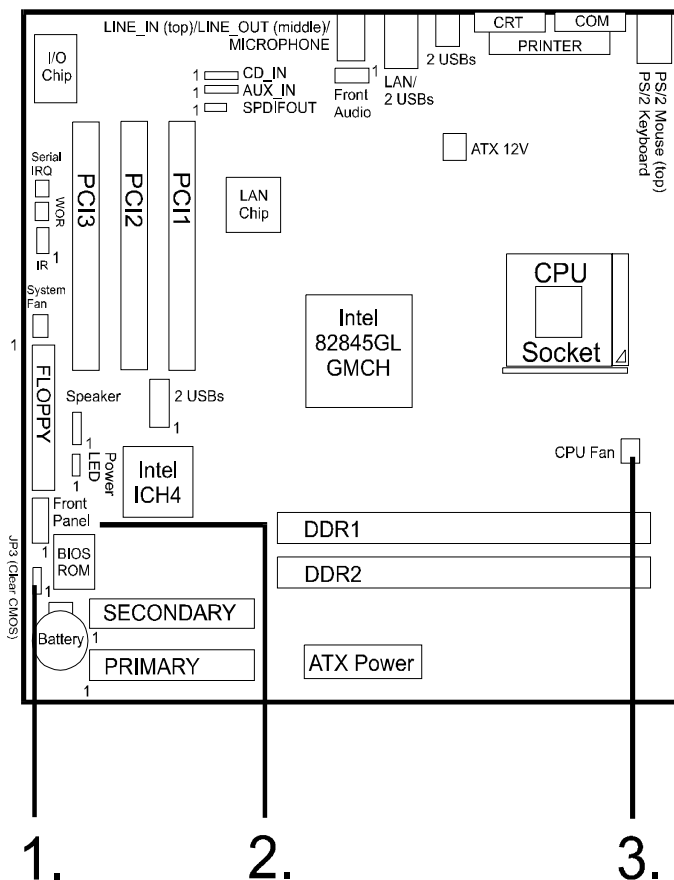
**WARNING:** Excessive torque may damage the mainboard. When using an electric screwdriver on the mainboard, make sure that the torque is set to the allowable range of 5.0 ~ 8.0kg/cm.

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 which fits around the wrist.
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.

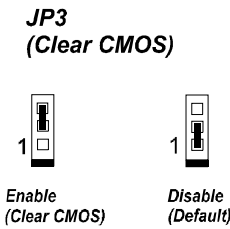
## Quick Reference (from Page 2-2 to 2-4) Mainboard Layout

### Chapter 2 Installation Procedures

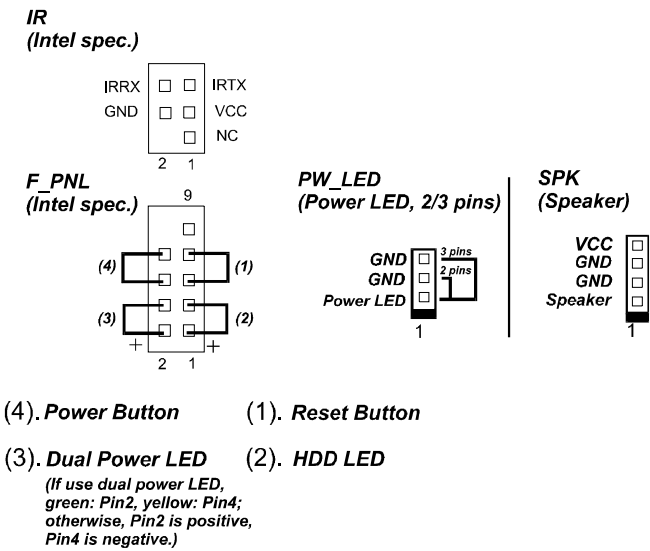


- \* When link to Line\_Out jack, please use a speaker that with amplifier.
- \* Connector Serial IRQ is for system integration use.

1). Clear CMOS



2). Front Panel Block Cable Connection



### 3). CPU Fan Installation

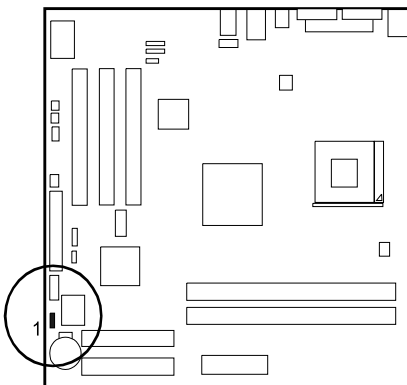
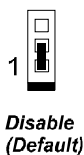
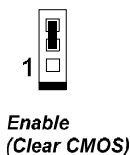
This connector is linked to the CPU fan. Without sufficient air circulation, the CPU may overheat resulting in damage to both the CPU and the mainboard.

***Damage may occur to the mainboard and/or the CPU fan if these pins are used incorrectly. These are not jumpers, do not place jumper caps over these pins.***

## 1). Set System Jumpers

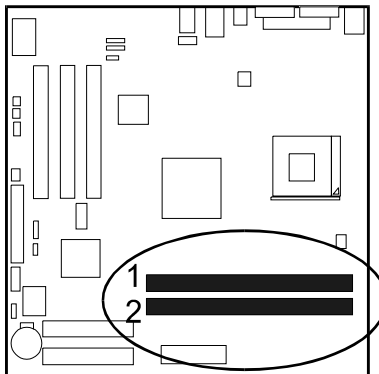
### *Clear CMOS: JP3*

(1) Turn off your computer; (2) **open the system case, disconnect the ATX power cable**; (3) place the jumper cap onto the pinpair 2-3 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; close the system case**; (6) turn on your computer until *CMOS checksum error* appears; (7) hold down the **Delete** key when boots; (8) enter the BIOS Setup to re-enter user preferences.



## 2). Install Memory Modules

1. Locate the DIMM slots on the mainboard.
2. Install the DIMM straight down into the DIMM slot using both hands.
3. The clip on both ends of the DIMM slot will close up to hold the DIMM in place when the DIMM reaches the slot bottom.



Press the clips with both hands to remove the DIMM.

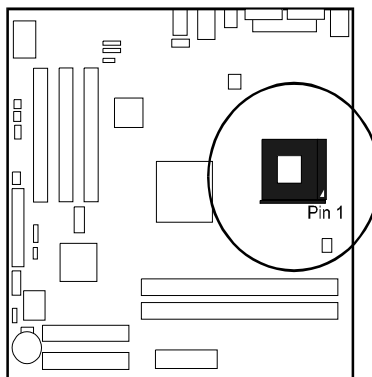
**NOTE:**

Owing to the core chip specification, the board supports 2 DDR DIMMs, single-sided and/or double-sided **but not** double-sided x 16 DDR DIMMs.

It allows DDR 200/266 unregistered 184-pin **non-ECC** DDR SDRAM DIMMs.

## 3). Install the CPU

The mainboard has built-in Switching Voltage Regulator to support CPU Vcore autodetection. That is, It has the ability to detect and recognize the CPU voltage, clock, ratio and enables users to set up the CPU frequency from the BIOS Setup Screen. Users can adjust the frequency through Frequency / Voltage Control of the BIOS Setup Screen.



When you install your CPU on this mainboard, please use a power supply that designed and manufactured only for CPU use. Your CPU fansink combined with its retention module must be completely closed and firmly attached on the top of the processor.

To install the CPU, do the following:

1. Lift the lever on the side of the CPU socket.
2. Handle the chip by its edges and try not to touch any of the pins.
3. Place the CPU in the socket. Do not force the chip. The CPU should slide easily into the socket.
4. Swing the lever to the down position to lock the CPU in place.
5. Place the cooling fan with heatsink on top of the installed CPU.



**NOTE:** Users 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.

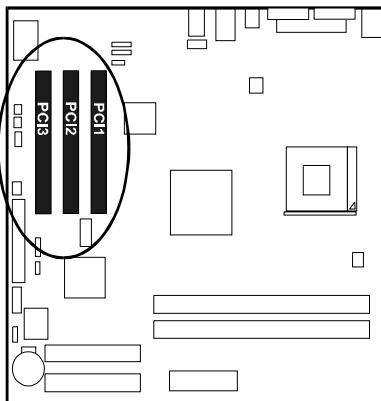
To remove the processor, please do it in reverse order.

## 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 three PCI bus expansion slots.







**CAUTION:** 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.

Always observe static electricity precautions.

Please read Handling Precautions at the start of this manual.

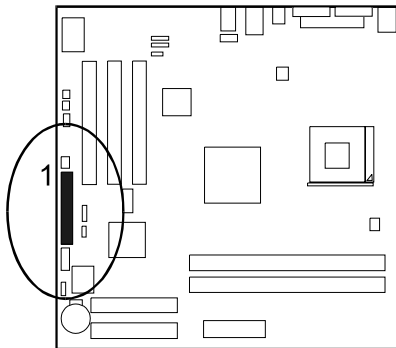
To install an expansion card, follow the steps below:

1. Remove the computer chassis cover and select an empty 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 the slot cover mounting screw nearby.
3. Holding the edge of the peripheral card, carefully align the edge connector with the expansion slot.
4. Push the card firmly into the slot. Push down on one end of the expansion card, then the other. Use this rocking” motion until the add on card is firmly seated inside the expansion slot.
5. Secure the board with the mounting screw removed in Step 2. Make sure that the card has been placed evenly and completely into the expansion slot.
6. Replace the computer system cover.
7. Setup the BIOS if necessary.
8. Install the necessary software drivers for the expansion card.

## 5). Connect Devices

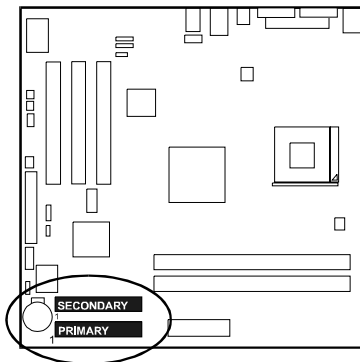
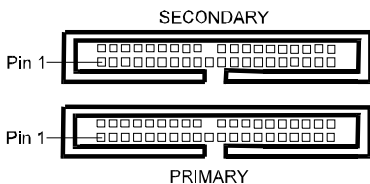
### *Floppy Diskette Drive Connector*

This connector provides the connection with your floppy disk drive. The red stripe of the ribbon cable must be the same side with the Pin 1.



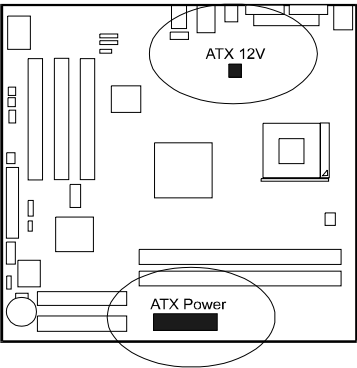
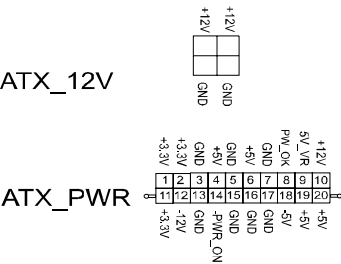
### *IDE Device Connectors*

These two connectors are used for your IDE hard disk drives, CD drives, LS-120 drives, or IDE ZIP drives. The red stripe of the ribbon cable must be the same side with the Pin 1.



Power Connectors

The 20-pin male block connector is connected to the ATX power supply. The 4-pin male block connector is for the 12V power use. The connectors are linked with your 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.



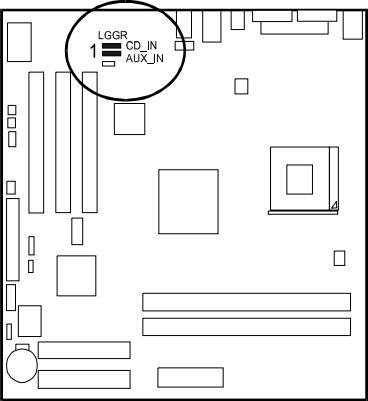
Chapter 2  
Installation  
Procedures

CD Audio-In Connectors

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

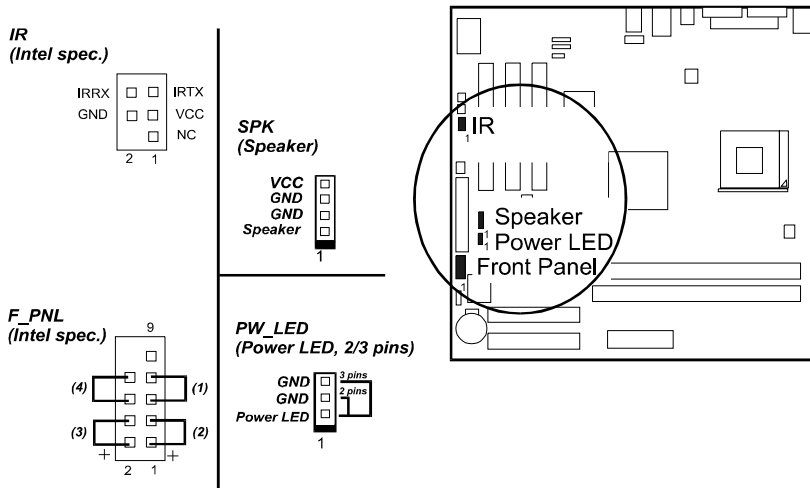
Pin Definition

| Pin | Singal |
|-----|--------|
| 1   | Left   |
| 2   | GND    |
| 3   | GND    |
| 4   | Right  |



### Front Panel Block, Power LED, IR, and Speaker Connector

This block connector includes the connectors for linking with Power LED (3-pin), HDD LED, power button, power/sleep/message waiting button, reset button on the front panel of the system case. Please identify polarities of plug wires for the case speaker and LEDs. Please ask vendor about this information when you buy them and install the system by yourself. The plug wires polarities of these buttons will not affect the function.



(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 will blink when the hard disk drives are activated.

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

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

There is another 3-Pin Power LED connector on board for some cases that with a 3-pin plug.

#### Single-Color (2, 3 Pins)

| LED   | Meaning | State |
|-------|---------|-------|
| Off   | Off     | S4/S5 |
| On    | Full On | S0    |
| Flash | Sleep   | S1/S3 |

#### Dual-Color

| LED    | Meaning | State |
|--------|---------|-------|
| Off    | Off     | S4/S5 |
| Green  | Full On | S0    |
| Yellow | Sleep   | S1/S3 |

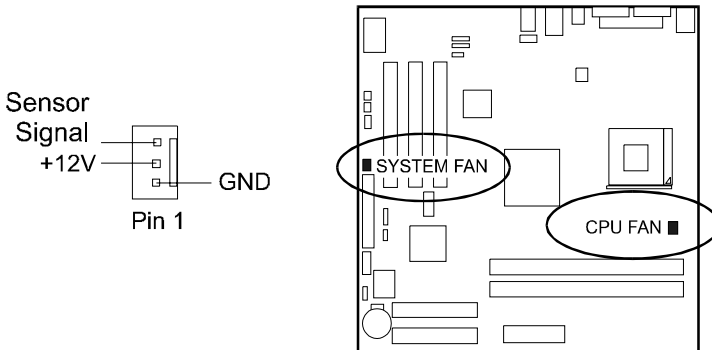
**(4) Power Button** is connected with power button. Push this switch allows the system to be turned on and off rather than using the power supply button.

**IR** is a pinheader that is used for linking with your ID device to allow transmission of data to another system that also supports the IR feature.

**Speaker** is connected with the case speaker.

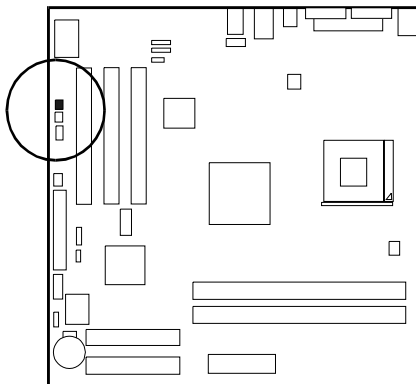
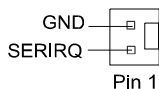
### *Fan Connectors*

The two connectors, CPU\_FAN, SYS\_FAN are linked to the CPU fan, case fan, respectively.



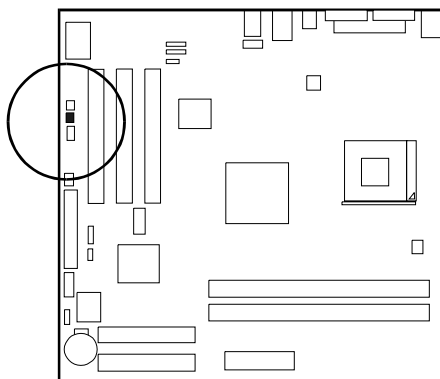
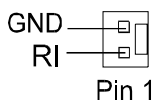
### *Serial IRQ Connector*

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



### *Wake-On-Ring Connector*

The 2-pin connector allows you to link with your modem card which outputs a WOR signal; the system can be turned on from the power-off status by a remote phone call via the modem card.

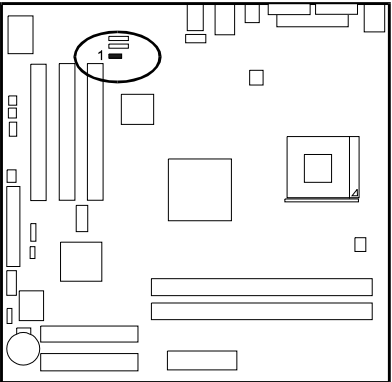
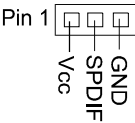




**CAUTION:** Improper orientation of SPDIF connection may cause damage of your device.

### ***SPDIF Out Connector***

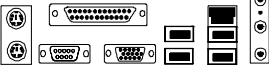
The mainboard equipped one 1x3 pinheader. It is used for SPDIF digital audio output.



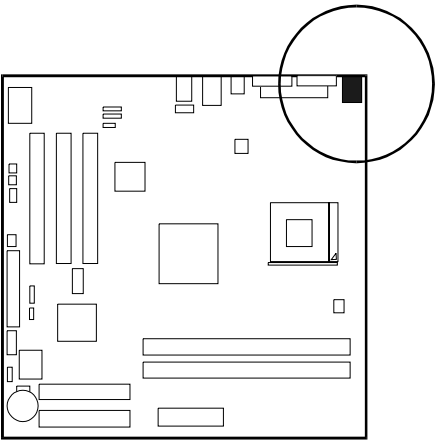
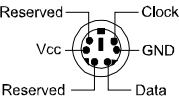
### ***PS/2 Keyboard and Mouse Connector***

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

PS/2 Mouse

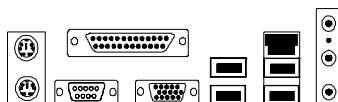


PS/2 Keyboard



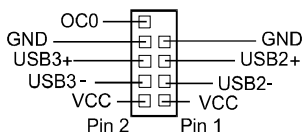
## Universal Serial Bus Connectors

These four black connectors integrated on the edge of the board are used for linking with USB peripheral devices. This board also provides two extra USB ports for either linking with front or rear USB sockets of system cases. Please note that your operating system must support USB features.

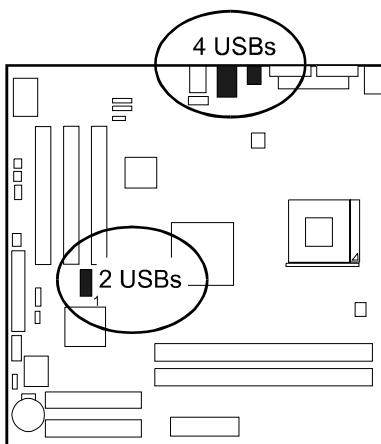


4 USBs

The figure below is the pin assignment of the USB pinheader.



USB  
(Intel Spec.)

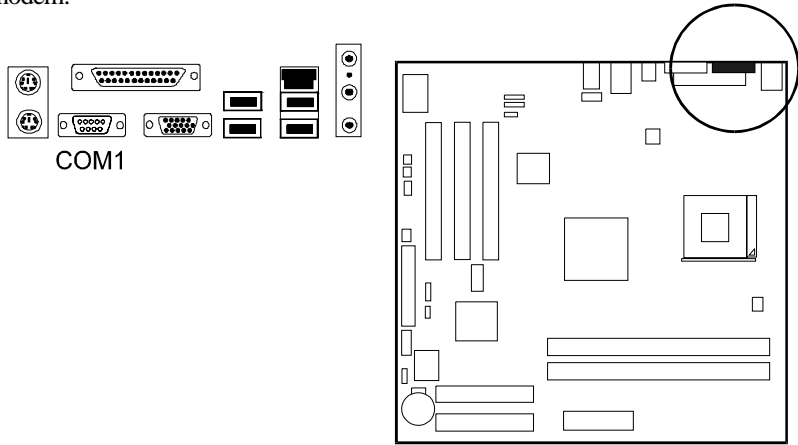


**NOTE:** The CD that comes with this board includes USB 2.0 Beta driver. For a user who installs Windows XP/2000, Please link to Microsoft Windows Update (<http://windowsupdate.microsoft.com/>) to download the latest USB 2.0 Driver. For a user who installs Windows 98SE/ME, please contact your vender for support.



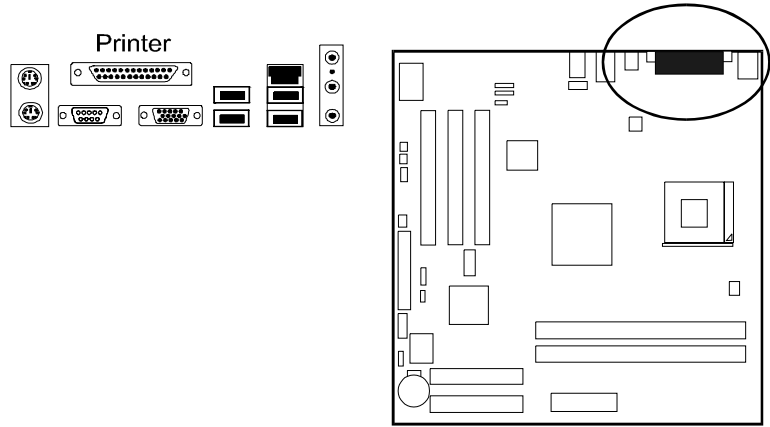
*Serial Port Connector*

COM1 (9-pin D-sub male connector with teal color) allows you to connect with your device that use serial ports, such as a serial mouse or an external modem.



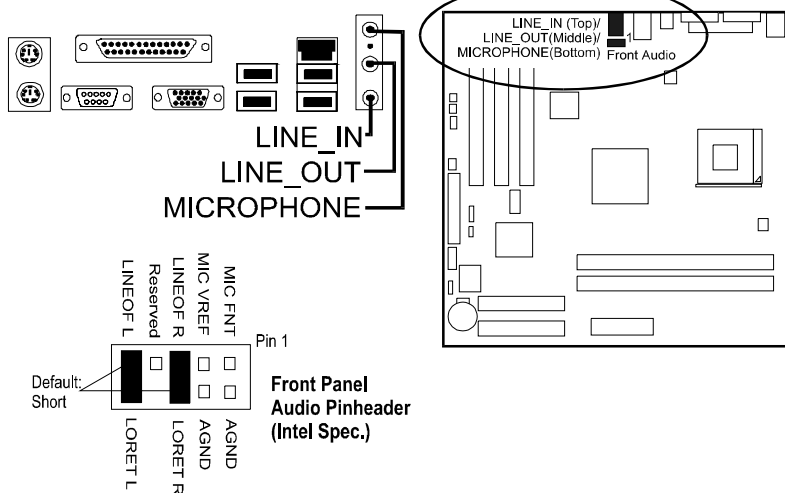
*Printer Connector*

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



## Audio I/O Jacks

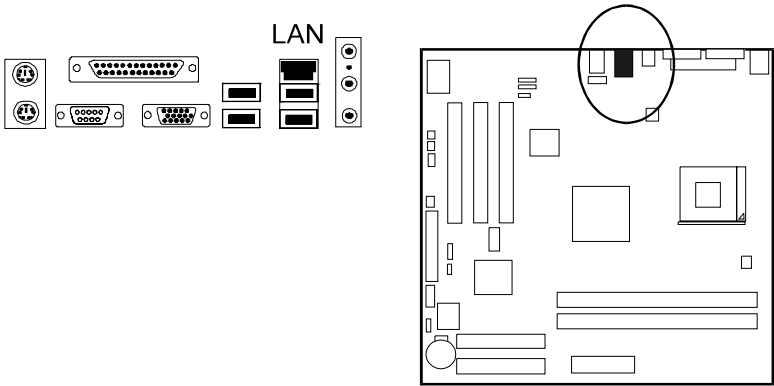
LINE\_OUT (lime) can be connected to headphones or preferably powered speakers. LINE\_IN (light blue) allows tape players or other audio sources to be recorded by your computer or played through the LINE\_OUT. MIC\_IN (pink) allows microphones to be connected for voice input. The mainboard offers a front panel audio connector (Intel spec.). Its pin definitions were presented far below left.



**NOTE:** If you do not use front audio pinheader, please keep the pinpair 5-6, 9-10 short as default; also, when the front headphone is plugged in, the rear audio output will be disabled.

*LAN Connector*

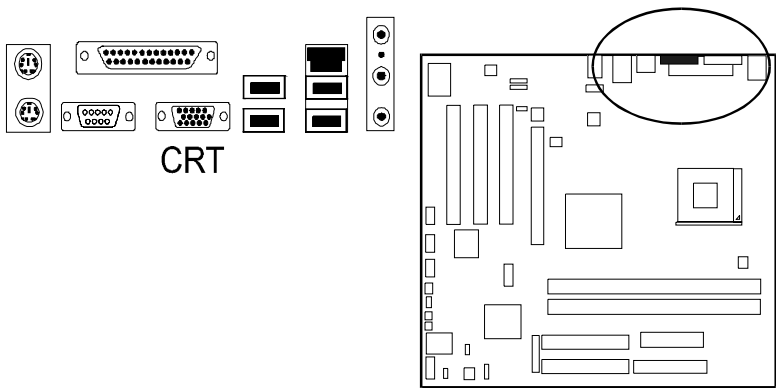
The RJ45 LAN jack is used for the LAN cable plug.



**Chapter 2**  
**Installation**  
**Procedures**

*CRT Monitor Connector*

This 15-pin female D-sub blue connector is connected to your CRT monitor.



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# BIOS Setup

The mainboard comes with the chip that BIOS that contains the ROM Setup information of 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.

The Setup utility program allows updates to the mainboard configuration settings. The BIOS setup values will be saved in the CMOS. It is executed when the user changes system configuration; user changes 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 the selected program.



**WARNING:** While booting, press *Delete* key will allows users to enter setting menus that for end users. Press *F9* key will enter menus that for manufacturer use only. End users are not encouraged to configure attributes under this mode.

## Main Features Setup

| Phoenix - Award WorkstationBIOS CMOS Setup Utility                  |                   |       |                   |      |
|---|-------------------|-------|-------------------|------|
| Main  | Advanced          | Power | Boot              | Exit |
| Date (mm:dd:yy)   | Mon, Oct. 14 2002 |       | Item Help         |      |
| Time (hh:mm:ss)   | 12:24:15          |       | Menu Level ▶      |      |
| Floppy Diskette A   | [1.44M, 3.5 IN.]  |       | <TAB>, or [Enter] |      |
| Floppy 3 Mode Support   | [Disabled]        |       | select field.     |      |
| ▶ Primary Master  |                   |       |                   |      |
| ▶ Primary Slave   |                   |       |                   |      |
| ▶ Secondary Master  |                   |       |                   |      |
| ▶ Secondary Slave   |                   |       |                   |      |
| Installed Memory  |                   |       |                   |      |
| Memory Bank 0   |                   |       |                   |      |
| Memory Bank 1   |                   |       |                   |      |
| BIOS Version  |                   |       |                   |      |
| BIOS Release Date   |                   |       |                   |      |
| BIOS Interrupt Guide  |                   |       |                   |      |
| F1:Help F5:Reload default F10:Save and Exit ESC:Exit without Saving |                   |       |                   |      |

The 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 press Enter key to select the value you want in each item.

### Date

To set the date, highlight the *Date* field and then press TAB keys to select items and +/- 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 TAB keys to select items and +/- keys to set the current time. Follow the hour, minute, and second format.

### 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

|                      |  |
|----------------------|--|
| <b>Capacity:</b>     | The hard disk size. The unit is Bytes.   |
| <b>Cylinder:</b>     | The cylinder number of the hard disk.  |
| <b>Head:</b>         | The read/write head number of hard disk.   |
| <b>Precomp:</b>      | The cylinder number at which the disk drive changes the write current.                               |
| <b>Landing Zone:</b> | The cylinder number that the disk drive heads (read/write) are seated when the disk drive is parked. |
| <b>Sector:</b>       | The sector number of each track defined on the hard disk.  |

### Floppy Diskette A

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 +/- key.

Floppy 3 Mode Support

This is a Japanese standard floppy type drive. The standard stores 1.2MB in a 3.5 inch diskette.

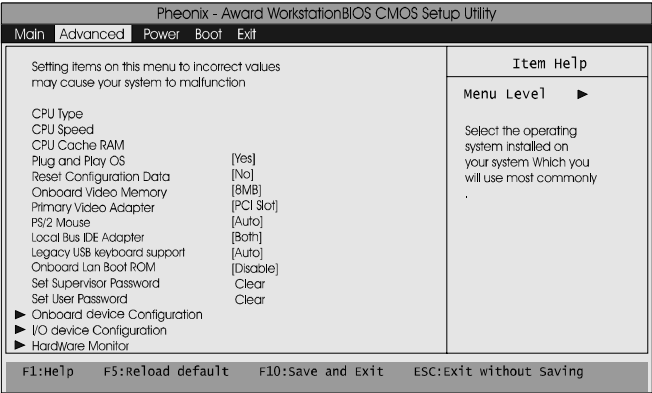
Installed Memory/Memory Bank

These three items tell users the information about the installed memory modules, type, and sizes.

BIOS Version/BIOS Release Date/BIOS Implement Guide

These three items tell users the information about the BIOS of the computer system.

Advanced Features Setup



CPU Type/CPU Speed/CPU Cache RAM

The three items present the working data about the installed CPU.

Plug and Play OS

The item is set at Yes when you use Plug and Play operating system. The options are: Yes, No.

### Reset Configuration Data

Enabling it to reset the system 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 boot. The options are: No, Yes.

### Onboard Video Memory

The feature allows users to select the video memory size in the core chip for VGA use.

The options are: 8MB, 1MB

### Primary Video Adapter

The feature allows users to select which display device full on first if two display device onboard.

The options are: PCI Slot, Onboard.

### PS/2 Mouse

The feature allows users to select Auto to auto detect PS/2 mouse. Select Disabled prevents any installed PS/2 mouse from functioning and free up IRQ 12. The options are: Disabled, Enabled, Auto.

### Local Bus IDE Adapter

The feature allows users to select or disable the IDE controller function.

If disabled, the IDE device will not be detected.

The options are: Disabled, Primary, Secondary, Both.

### USB Legacy Mode Support

The features allows users to decide which way that the attached USB keyboard was supported under legacy mode of operating system. When set at Auto, the BIOS will detect if a USB keyboard being connected while booting; if it is, BIOS will accept it under legacy mode, if not, the BIOS will not release the related resource.

The options are: Auto, Enabled, Disabled.

### Onboard Lan Boot ROM

Allows you to enable or disable the onboard Lan boot ROM.

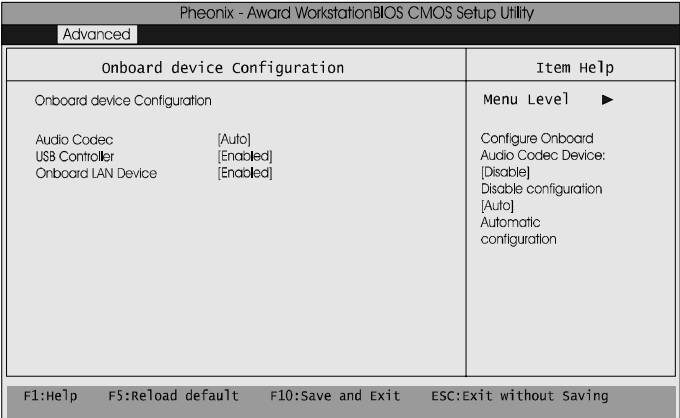
The options are: Disabled, Enabled.



Set Supervisor Password/Set User Password

The two features allow users to set the supervisor/user password. To set supervisor password is a must. To set user password is not allowed if supervisor password is clean. It is common to set both passwords. Once it is set, the option will become *Set* automatically. Its default value is *Clear*. The options are: Clear, Set

Onboard device Configuration



Audio Codec

Allows you to disable the onboard audio codec function.  
The options are: Auto, Disabled.

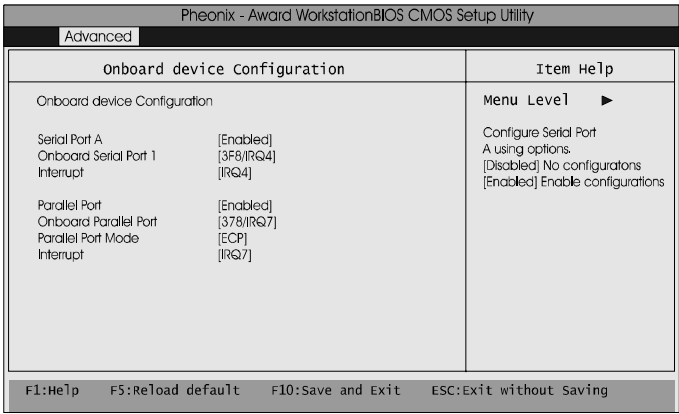
USB Controller

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

Onboard LAN Device

Allows you to enable or disable the optional LAN function.  
The options are: Enabled, Disabled.

I/O device Configuration



Serial Port A

Allows you to disable the COM1 port when it is needed to do so.  
The options are: Enabled, Disabled.

Onboard Serial Port 1

If the serial port 1 uses the onboard I/O controller, you can modify your serial port parameters.  
The options are: 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3.

Interrupt

It allows users to select the IRQ for COM1 port.  
The options are: IRQ4, IRQ3.

Parallel Port

Allows you to disable the parallel port when it is needed to do so.  
The options are: Enabled, 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.

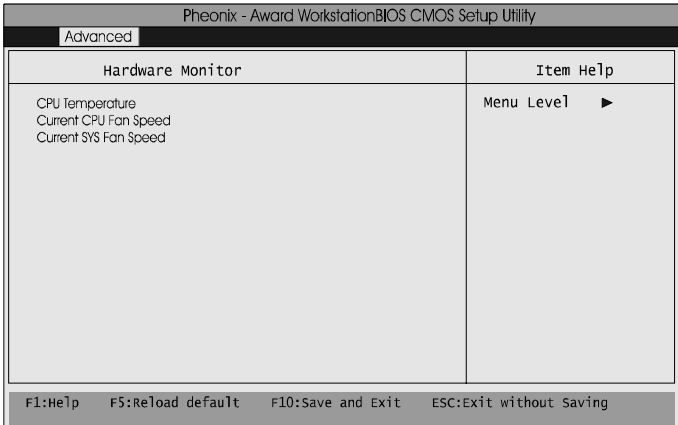
Parallel Port Mode

Allows you to connect with an advanced printer via the port mode it supports. The options are: SPP, EPP1.9+SPP, ECP, EPP1.9+ECP, EPP1.7+SPP, EPP1.7+ECP.

Interrupt

It allows users to select the some IRQ for parallel port.  
The options are: IRQ7, IRQ5.

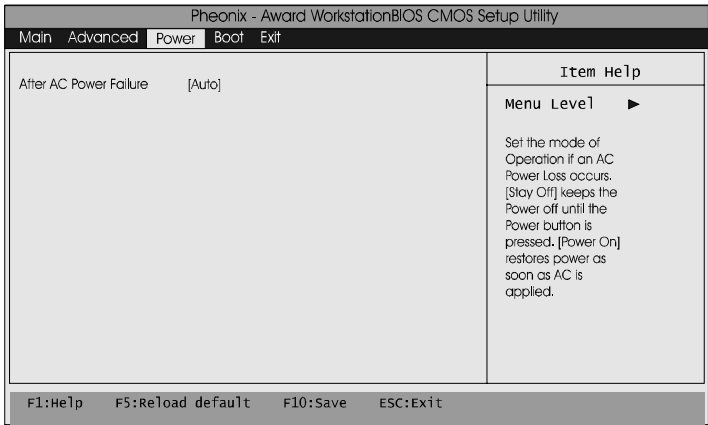
Hardware Monitor



CPU Temperature / Current CPU FAN Speed / Current SYS FAN Speed

These items allow end users and technicians to monitor data provided by the BIOS on this mainboard. It is not user-configurable.

## Power Features Setup

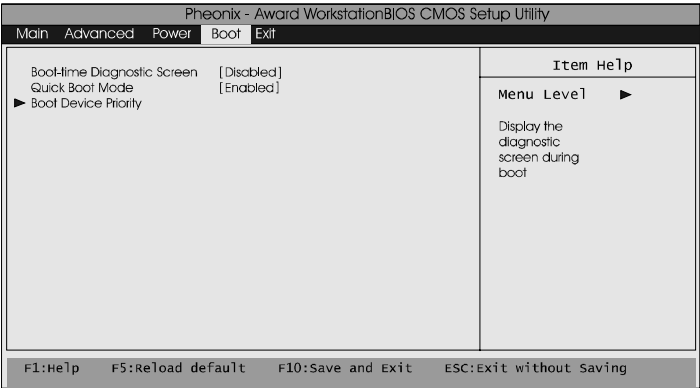


### After AC Power Failure

When the system is shut down owing to the power failure, the system will not be back to power on by itself. This feature allows you to set the system back to which power status of the system when the system power is resumed. The system always be back to off if set at Stay Off. It always will be back to on. It will be back to on.

The options are Auto, Power On, Stay Off.

## Boot Features Setup



### Boot-time Diagnostic Screen

This feature allows to be enabled for troubleshooting or other reason. The options are Disabled, Enabled.

### Quick Boot Mode

This feature allows users to disable the quick boot mode for troubleshoot-ing or other reason. The options are Disabled, Enabled.

### Boot Device Priority

This feature will auto detect all hard disks of bootable device on the sys-tem. It also allows users to select the device booting priority.

#### *First/Second/Third/Fourth Boot Device*

This feature allows user to select the boot device priority. The options are: Removable, CDROM, Hard Disk, LAN, Disabled.

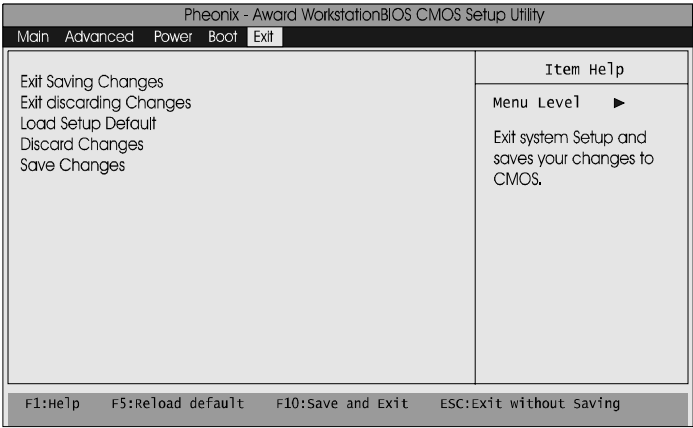
#### *Removable Device Priority*

This feature allows user to select the removable device boot priority. The options are: Floppy, ZIP100, LS120, USB-Floppy, USB-ZIP, USB-CDROM, USB-HDD.

#### *Hard Disk Boot Priority*

This feature allows user to select the hard disk boot priority.

## Exit Features Setup



### Exit Saving Changes

After you have made changes under Setup, press Esc to return to the main menu. Move highlight bar to this item and press Enter key, then press Y to change the CMOS Setup.

### Exit discarding Changes

Select this feature to allow you to exit the setup utility without saving CMOS modifications.

### Load Setup Defaults

This item is selected to place all manufacturing default settings. These settings do not give optimal performance.

### Discarding Changes

This feature allows you to discard the current CMOS modifications.

### Saving Changes

This feature allows you to save the current CMOS modifications.