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# Chapter 1

## Introduction

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This mainboard is a **BX Pro 100MHz** high-performance mainboard based on the Slot 1 microprocessor, and provides **CPU Plug and Play** feature for faster and easier CPU installation. The mainboard features highly flexible configurations and is fully IBM PC/AT compatible.

The mainboard uses a highly integrated Slot 1 AGP chipset. It supports the PCI/ISA and Green standards, provides the Host/AGP bridge, and integrates all system control functions such as **ACPI**(Advanced Configuration and Power Interface). The ACPI provides more energy saving features for the **OSPM**(OS Direct Power Management) function.

The mainboard has a built-in high performance 64-bit **3D AGP Graphics Accelerator** with 8MB frame buffer and an onboard **3D Sound Pro** to meet PC98 specifications for 3D multimedia system. It is also built-in **Hardware Monitor** circuit for abnormal CPU fan speed/temperature/voltages detection and its BIOS provides Trend's **ChipAwayVirus** to ensure the entire boot process virus free.

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## Key Features

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The advanced features of the mainboard include:

- Supports Pentium® II 233 ~ **533** MHz and Celeron 266 ~ **433** MHz CPUs with Frequency at 66/**100**MHz in Slot1 for AT Form Factor
- Provides 3 DIMMs for SDRAM/EDO/FPM memory modules and is expandable up to 384MB, however, it is not recommended to use EDO/FPM DRAM when 100MHz CPU frequency is being used and SDRAM has to meet the requirement of PC-100 if using 100MHz;
- **Built in high performance 64bit 3D AGP Graphics Accelerator with 8MB frame buffer**
- Supports Advanced Configuration Power Interface (ACPI) and Legacy PMU and the Ultra DMA / 33, fully compliant to PC97 and PC98
- Provides both AT/ATX power connectors, and supports various functions of ATX power, such as Suspend/Shutdown, Alarm Wake Up, Modem Ring On, and Wake On LAN
- Provides 3 PCI, 2 ISA slots, and PCI Bus Master IDE interface supports 4 IDE devices with 2 channels,
- Onboard super Multi-I/O chip supports 2 serial ports with 16550 compatible fast UART, 1 IR port, 1 parallel port with EPP and ECP capabilities, and one floppy disk drive interface with 1Mb/s transfer rate
- Provides **ATX Form Card** which containing PS/2 Mouse, 2 USB interface, and Infrared connectors
- Bundled **PC-cillin97** (OEM) provides automatic Virus Protection for Windows 95/98 and the Internet
- **Onboard 3D Sound Pro** meets PC98' spec. and support HRTF Positional Audio, Direct Sound 3D provide drivers for 3D games that use Aureal software interface, Software Wave-table Synthesizer, and Digital Audio Interface (SPDIF) IN/OUT.

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## Unpacking the Mainboard & Static Electricity Precautions

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This Mainboard package contains the following items:

1. This Mainboard and the Device Driver
2. The Slot1 holder and AT cables
3. This User's Guide and VGA cable/bracket
4. Sound & Game ribbon cables/bracket and SPDIF/IN cable
5. Optional ATX Form Card

The mainboard is easily damaged by static electricity. Follow the precautions below while unpacking or installing the mainboard.

1. Do not remove the mainboard from its original package until you are ready to install it.
2. Frequently ground yourself to discharge any static electric charge that may build up in your body while working on installation and/or configuration. For example, you may ground yourself by grasping an unpainted portion of the system's metal chassis.
3. Remove the mainboard from its anti-static packaging and place it on a grounded surface, component side up.
4. Handle the mainboard by its edges or by the mounting bracket to avoid touching its components.
5. Check the mainboard for damage. If any integrated circuit appears loose, press carefully to seat it firmly in its socket.
6. Do not apply power if the mainboard appears damaged. If there is damage to the board contact your dealer immediately.

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## **Chapter 2**

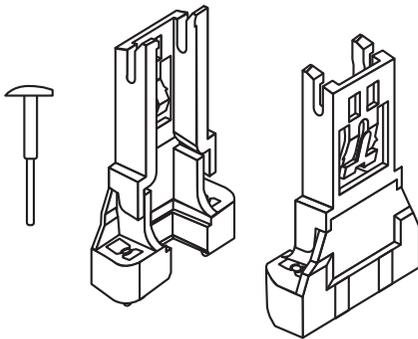
# **Hardware Configuration**

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Before you install the mainboard into the system chassis, you may find it convenient to first configure the mainboard's hardware. This chapter describes how to set jumpers and install memory modules, and where to attach components.

## CPU Installation

This mainboard supports Intel Pentium® II CPU by a Single Edge Contact(SEC) slot and a retention clip set which is fit for 3 different mechanical types of Intel CPU (SEPP, SECC and SECC2). The following drawing shows the retention clip set. It has been preinstalled before shipping to make the CPU installation easier for users. However, there are still a few more steps needed to complete the CPU installation, please refer to the following procedures.

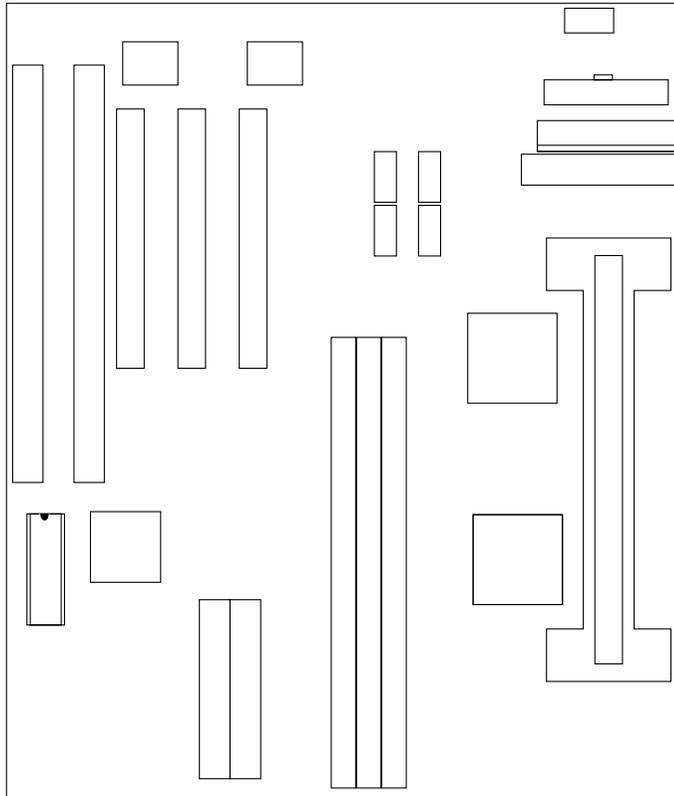


## Installation Procedures

Follow the following steps in order to install your Intel Pentium® II properly.

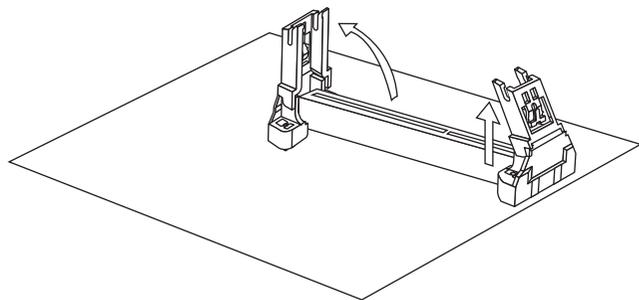
### Step 1:

Make sure that the mainboard is set the same direction as the following drawing before doing any installation.

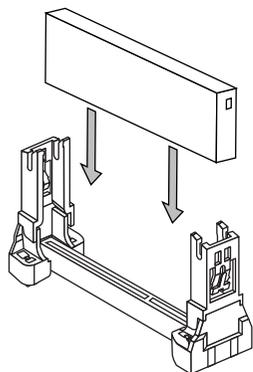


**Step 2:**

There is one set of Slot1 Holder retention that was installed on your motherboard, and the two chutes of Holder retention are screwed in. Lift up both of the Holder chutes as shown in the following drawing.

**Step 3:**

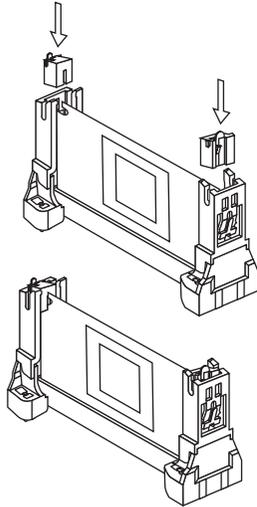
Flatten the two latches on the side of CPU. Insert the CPU into the Holder retention. Lock the two latches to secure the CPU.



If Celeron CPU is installed on CPU card, then, continue the following step.

**Step 4:**

After installing CPU card into the Holder retention, then push the retention locker downward to secure the CPU card as indicated in the following 2 drawings.

**CPU Speed Setting**

This mainboard provides CPU Plug and Play technology, so that there is no need to do the CPU jumper setting. Enter the BIOS Setup and select CPU Plug and Play Setup. Choose the correct CPU speed to match your CPU installed.

However, if you need to change a CPU, follow the below steps:

1. Power off system and unplug the power core.
2. Install a new CPU to Slot1.
3. Clear CMOS RAM (see Jumper Settings) or hold down the <Page Up> key and then power on the system.
4. After power on the system, then enter the BIOS Setup to set the new CPU speed.

*Note: If the CPU speed is set incorrectly and fails to boot up the system, then repeat steps 1, 3, 4 again.*

# Mainboard Component Locations

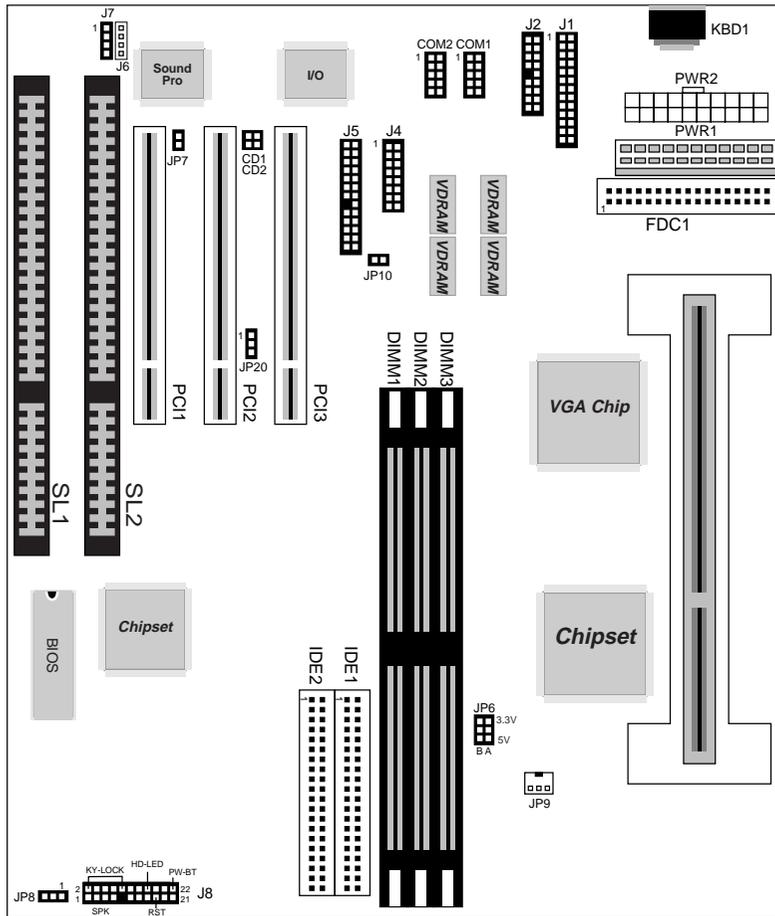


Figure 2-1. Mainboard Component Locations

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## Connectors

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Attach system components and case devices to the mainboard via the mainboard connectors. A description of each connector pins follows. See Figure 2-1 for the location of the connectors on the mainboard.

*Note: Make sure that the power is turned off before making any connection to the board.*

### **PWR1 – AT Power Connector**

### **COM1/2 – Serial Port #1/#2**

### **J1 – Parallel Printer Connector**

### **FDC1 – Floppy Disk Drive Connector**

### **IDE1/IDE2 – Primary/Secondary IDE Connectors**

### **KBD1 – Keyboard Connector**

### **J4 – VGA Connector**

### **J2 – ATX Form Card Connector**

This connector contains 2 sets of USB interface, PS/2 Mouse, and Infrared connectors. Connect the ATX Form Card cable to this connector.

**J8 (2, 4, 6, 8, 10) (KY-LOCK) – Keylock & Power LED Connector**

Keylock connector enables and disables the keyboard key-in function on the case.

| Pin | Description |
|-----|-------------|
| 2   | LED Output  |
| 4   | N.C.        |
| 6   | Ground      |
| 8   | Keylock     |
| 10  | Ground      |

**J8 (1, 3, 5, 7) (SPK) – Speaker Connector**

| Pin | Description |
|-----|-------------|
| 1   | Data Out    |
| 3   | N.C.        |
| 5   | Ground      |
| 7   | +5V         |

**J8 (15, 16) (HD-LED) – HDD LED Connector**

| Pin    | Description |
|--------|-------------|
| 15 (+) | +5V         |
| 16 (-) | Active Low  |

**J8 (17, 18) (RST) – Reset Switch Connector**

| Setting | Description  |
|---------|--------------|
| Open    | Normal Mode  |
| Close   | Reset System |

**J8 (21, 22) (PW-BT)**

Refer to Chapter 3.

### **JP20 (Wake on LAN)**

Refer to Chapter 3.

### **JP9 – CPU Fan Connector**

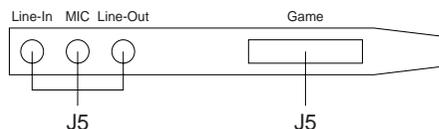
#### **Sound Pro Connectors:**

#### **J6/J7 – Analog Audio for Panasonic/Sony**

Connect to “AUDIO” on the CD-ROM drive, and the signal for Panasonic jack is G-S-G-S and S-G-G-S for Sony.

#### **J5 – Sound and Game**

Sound contains Line-in/MIC (Microphone), and Line-out (Speaker). Game connector is also used as the Joystick. Connect this connector to the Sound & Game ribbon cable/bracket as the following drawing:



#### **CD2/CD1 – Digital Audio OUT/IN**

Connect Digital Audio In to “DIGITAL AUDIO” on the CD-ROM drive (depending on the type of your CD-ROM drive) by using SPDIF/IN cable, and using optional SPDIF/OUT cable (or bracket) for the external Audio Amplifier or Minidisk connection.

## Jumper Settings

### JP6 – DIMM Voltage Selectors

| Voltage        | Setting |
|----------------|---------|
| 5V             |         |
| 3.3V (default) |         |

### JP7 – Onboard Sound Selector

| Description | Setting |
|-------------|---------|
| Enabled     |         |
| Disabled    |         |

### JP10 – Microphone Type Selector

| Description        | Setting |
|--------------------|---------|
| Standard (default) |         |
| Special            |         |

### JP8 – CMOS RAM Clear Selector

| Description | Setting |
|-------------|---------|
| Clear CMOS  |         |
| Normal Mode |         |

## Memory Installation

The mainboard lets you add up to 384MB of system memory through DIMM sockets on the board. Three DIMM sockets are divided into three banks: Bank 0, Bank 1, and Bank 2. The mainboard supports the following memory configurations.

| Bank   | Memory Module                     |
|--|-----------------------------------|
| Bank 0<br>DIMM1                                | 4MB, 8MB, 16MB, 32MB, 64MB, 128MB |
| Bank 1<br>DIMM2                                | 4MB, 8MB, 16MB, 32MB, 64MB, 128MB |
| Bank 2<br>DIMM3                                | 4MB, 8MB, 16MB, 32MB, 64MB, 128MB |
| Total System Memory = Bank 0 + Bank 1 + Bank 2 |                                   |

*Notes: 1. The speed of SDRAM DIMM modules have to be faster than 12ns ("–12"parts), while 100MHz clock speed used, the speed of SDRAM DIMM should meet the PC100 SDRAM specification (8ns or "–8" SDRAM at least).*

*2. The EDO/FPM DRAM are not recommended for the performance purpose of the system.*

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# Chapter 3

## ACPI Functions & Connectors with ATX Power

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### PWR2 – ATX Style Power Connector

The ATX power supply provides a single 20-pin connector.

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 1   | 3.3V        | 11  | 3.3V        |
| 2   | 3.3V        | 12  | -12V        |
| 3   | Ground      | 13  | Ground      |
| 4   | +5V         | 14  | PS-ON       |
| 5   | Ground      | 15  | Ground      |
| 6   | +5V         | 16  | Ground      |
| 7   | Ground      | 17  | Ground      |
| 8   | Power OK    | 18  | -5V         |
| 9   | 5VSB        | 19  | +5V         |
| 10  | +12V        | 20  | +5V         |

The functions and connectors described below work with the ATX power supply.

## Software Power-Off

Follow the steps below to use the “Software Power-Off Control” function in Windows 95 with ATX power supply.

1. Click the **START** button on the Windows 95 task bar.
2. Select **Shut Down The Computer** to turn off the computer. The message “**It is now safe to turn off your computer.**” will not be shown when using this function.

## Modem Ring Power-On

While in Soft-off/Suspend state, if an external modem ring-up signal occurs, the system wakes up and can be remotely accessed. Make sure that the Ring Resume From Soft Off option is set to Enabled in the BIOS setup section (Refer to the Power Management section in Chapter 4.)

## Alarm Wake Up

If you want to autoboot the system at a certain time, set the function of RTC Alarm time properly and the function of RTC Alarm Resume From Soft Off option in the BIOS Setup section will be set to Enabled.

## **J8 (21, 22) (PW-BT) – ATX Power Button and Suspend Switch Connector**

Attach the ATX Power Button or Suspend Switch cable to this connector.

In the AT power system, this connector will act as a suspend switch; and in the ATX power system, this connector will be not only an ATX power button but a Suspend switch as well. Details are described below:

When the system is off, push the power button to turn the system on. When the system is on, push the power button rapidly to switch the system to the Suspend mode, and, by pushing and holding the button for more than 4 seconds, it will turn the system completely off. When the system is in the Suspend mode, push the power button rapidly to turn the system on.

## **JP20 – Wake On LAN Connector**

While in Soft-off/Suspend state, if an external LAN signal occurs, the system wakes up and can be accessed with the LAN card.

| <b>Pin</b> | <b>Description</b> |
|------------|--------------------|
| 1          | 5V Stand By        |
| 2          | Ground             |
| 3          | Active High        |

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## Chapter 4

### BIOS Setup

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This chapter explains how to configure the mainboard's BIOS setup program. The setup program provided with the mainboard is the BIOS from AMI.

After you have configured the mainboard and have assembled the components, turn on the computer and run the software setup to ensure that the system information is correct.

The software setup of the system board is achieved through Basic Input-Output System (BIOS) programming. You use the BIOS setup program to tell the operating system what type of devices are connected to your system board.

The system setup is also called CMOS setup. Normally, you need to run system setup if either the hardware is not identical with information contained in the CMOS RAM, or if the CMOS RAM has lost power.

*Note: Hold down the <End> key then power on to reboot the system when installing newer BIOS into this mainboard .*

## Entering BIOS Setup

To enter the BIOS Setup program:

1. Turn on or reboot the system. A screen appears with a series of diagnostic checks.
2. When “Hit <DEL> if you want to run SETUP” appears, press the <DEL> key to enter the BIOS setup program. The following screen appears:

AMIBIOS SIMPLE SETUP UTILITY - VERSION 1.1X  
 (C)1997 American megatrends, Inc. All Rights Reserved

|   |                            |
|---|----------------------------|
| Standard CMOS Setup   | Peripheral Setup           |
| Advanced CMOS Setup   | CPU Plug and Play Setup    |
| Advanced Chipset Setup  | Change Supervisor Password |
| Power Management Setup  | Auto-Detect Hard Disks     |
| PCI/Plug and Play Setup   | Save Settings and Exit     |
| Load optimal Settings   | Exit Without Saving        |
| Load Best Performance Settings  |                            |
| Esc: Quit    ↑ ↓ → ←: Select Item    (Shift) F2: Change Color    F5: Old Values<br>F6: Optimal values    F7: Best performance values    F10 : Save&Exit |                            |
| Standard CMOS setup for changing time, date, hard disk type, etc.   |                            |

3. Use your keyboard to choose options. Modify system parameters to reflect system options. Press Alt-H for Help.

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## Default

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Every option in the BIOS Setup contains two default values: Best default and the Optimal default value.

### Load Optimal Settings

The Optimal default values provide optimum system settings for all devices and system features.

### Load Best Performance Settings

The Best default values provide best performance settings for all devices and system features, however depending on the devices used, these settings are not recommend for long hours of work load.

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## Setup Items

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### Standard CMOS Setup

Choosing the item from the BIOS Setup main menu. All Standard Setup options are described in this section.

**Date/Time**      Select the Date/Time option to change the date or time. The current date and time are displayed. Enter new values through the displayed window.

- Pri Master;**  
**Pri Slave;**  
**Sec Master;**  
**Sec Slave**
- Choose these icons to configure the hard disk drive named in the option. When you click on an icon, the following parameters are listed: Type, LBA/Large Mode, Block Mode, 32Bit Mode, and PIO Mode. All parameters relate to IDE drives except **Type**. Choose the **Type** parameter and select Auto BIOS automatically detects the IDE drive parameters and displays them. Choose on **LBA Mode** and choose *On* to enable support for IDE drives with capacities greater than 528MB. Click on **Blk Mode** and choose *On* to support IDE drives that use Blk Mode. Click on **32Bit Mode** and click on *On* to support IDE drives that permit 32-bit accesses.
- Floppy Drive A; B**
- Choose the Floppy Drive A or B icon to specify the floppy drive type. The settings are 360KB 5<sup>1</sup>/<sub>4</sub>", 1.2MB 5<sup>1</sup>/<sub>4</sub>", 720KB 3<sup>1</sup>/<sub>2</sub>", 1.44MB 3<sup>1</sup>/<sub>2</sub>", or 2.88MB 3<sup>1</sup>/<sub>2</sub>".

## Advanced CMOS Setup

Choosing the item from the BIOS Setup main menu. All Advanced Setup options are described in this section.

|  |   |
|--|---|
| <b>Quick Boot</b>  | Set this option to <i>Enabled</i> to permit BIOS to boot within 5 seconds.  |
| <b>1st Boot Device;<br/>2nd Boot Device;<br/>3rd Boot Device</b> | Set these options to select the boot sequence from different booting devices.   |
| <b>Try Other Boot Devices</b>                                    | Choose <i>Yes</i> or <i>No</i> to search other boot devices to boot up the system when all the options in the previous function failed. |
| <b>S.M.A.R.T for Hard Disks</b>                                  | Choose <i>Enabled</i> or <i>Disabled</i> . This option allows you to utilize the S.M.A.R.T. function of HDDs.                           |
| <b>Floppy Drive Swap</b>   | This option allows you to swap floppy drives between A: and B:.   |
| <b>Floppy Drive Seek</b>   | Choose <i>Enabled</i> or <i>Disabled</i> . <i>Disabled</i> provides a faster boot and reduces the possibility of damaging the heads.    |
| <b>PS/2 Mouse Support</b>  | When this option is set to <i>Enabled</i> , BIOS supports a PS/2-type mouse.  |

- Password Check** This option specifies the type of BIOS password protection that is implemented. The settings are:  
Setup: The password prompt appears only when an end user attempts to run WinBIOS Setup.  
Always: A password prompt appears every time the computer is powered on or rebooted.  
The BIOS password does not have to be enabled. The end user sets the password by choosing the Password icon on the WinBIOS Setup screen.
- Boot to OS/2 Over 64MB** You need to set this option to Enabled when using the OS/2 operating system with installed DRAM which is greater than 64MB.
- L1/L2 Cache** This option selects to enable the CPU L1/L2 cache or not. Choices are Disabled and Enabled.
- System BIOS Cacheable** BIOS always copies the system BIOS from ROM to RAM for faster execution. Set this option to *Enabled* to permit the contents of the F0000h RAM memory segment to be written to and read from cache memory.

|                          |           |  |
|--------------------------|-----------|--|
| <b>C000, 32K Shadow;</b> | Disabled: | The specified ROM is not copied to RAM.  |
| <b>C800, 16K Shadow;</b> |           |  |
| <b>CC00, 16K Shadow;</b> | Enabled:  | The contents of the ROM area are not only copied from ROM to RAM for faster execution, the contents of the RAM area can be written to or read from cache memory. |
| <b>D000, 16K Shadow;</b> |           |  |
| <b>D400, 16K Shadow;</b> |           |  |
| <b>D800, 16K Shadow;</b> |           |  |
| <b>DC00, 16K Shadow</b>  | Cached:   | The contents of the ROM area are copied from ROM to RAM for faster execution.  |

## Advanced Chipset Setup

Choose the item from the BIOS Setup main menu. All Chipset Setup options are then displayed and are described in the following section:

|                                       |  |
|---------------------------------------|--|
| <b>Auto Configure<br/>DRAM Timing</b> | Set this option to enable the Auto Configuration of DRAM Timing.           |
| <b>EDO DRAM Speed<br/>(ns)</b>        | Based on the type of your EDO RAM, set this option to either 60ns or 70ns. |
| <b>SDRAM Speed</b>                    | Set this option to select the proper SDRAM speed.                          |
| <b>RAS# Pulse When<br/>Refresh</b>    | Set this option to select the proper RAS# Pulse when DRAM refreshes.       |
| <b>RAS# Precharge<br/>Time</b>        | Set this option to select the proper RAS# precharge time.                  |
| <b>RAS to CAS Delay</b>               | Set this option to select the proper delay time of RAS to CAS.             |

|  |   |
|--|---|
| <b>CAS# Precharge</b>                                | Set this option to select CAS# precharge time for EDO/FPM DRAM.   |
| <b>CAS# Pulse Width</b>                              | Set this option to select CAS# pulse width for EDO/FPM DRAM.  |
| <b>SDRAM CAS Latency</b>                             | This option is designed to select the SDRAM CAS Latency.  |
| <b>Refresh Queue Depth</b>                           | Set this option to select the proper Refresh Queue Depth.   |
| <b>Graphic Win Size</b>                              | Set this option to select the proper graphic window size.   |
| <b>VGA Frame Buffer USWC</b>                         | Set this option to enable USWC for VGA Frame Buffer.  |
| <b>8 bit I/O Recovery Time</b>                       | This option specifies the length of a delay inserted between consecutive 8-bit I/O operations.              |
| <b>16 bit I/O Recovery Time</b>                      | This option specifies the length of a delay inserted between consecutive 16-bit I/O operations.             |
| <b>16Bit DMA Wait State;<br/>8Bit DMA Wait State</b> | Set these option to select the proper Wait State for 16Bit/8Bit DMA.  |
| <b>ISA Bus Clock</b>                                 | Set this option to select ISA Bus Clock.  |
| <b>OnBoard USB Function</b>                          | Choose Enabled or Disabled. Set this option to enable the system BIOS USB (Universal serial Bus) functions. |

**USB Function for DOS** Choose Enabled or Disabled. Set this option to enable the passive release on the USB (Universal Serial Bus).

-----System Hardware Mon-----

**Current FAN#1 Speed;**  
**Vcore; Vio;**  
**+5.000V;** These options are displayed only show the status of system hardware.

## Power Management Setup

Choosing the item from BIOS Setup main menu.

|                                  |  |
|----------------------------------|--|
| <b>Power Management/ APM</b>     | Set this option to enable power management features and APM (Advanced Power Management).   |
| <b>Green Monitor Power State</b> | This option specifies the power state that the green PC-compliant video monitor enters when AMIBIOS places it in a power savings state after the specified period of display inactivity has expired. |
| <b>Video Power Down Mode</b>     | This option specifies the power conserving state that the VESA VGA video subsystem enters after the specified period of display inactivity has expired.  |
| <b>Hard Disk Power Down Mode</b> | This option specifies the power conserving state that the hard disk drive enters after the specified period of hard drive inactivity has expired.  |
| <b>Standby Time out (Minute)</b> | This option specified the length of system inactivity while in Full power on state. When this length of time expires, the computer enters Standby power state.                                       |
| <b>Suspend Time Out (Minute)</b> | This option specified the length of a period of system inactivity while in Standby state. When this length of time expires, the computer enters Suspend power state.                                 |
| <b>Slow Clock Ratio</b>          | This option specifies the speed at which the system clock is running when it is in the power saving states.  |
| <b>Modem Use IRQ</b>             | This option is to specify IRQ number for modem device.   |

- Display Activity;** When set to *Yes*, these options enable event  
**IRQ3, 4, 5, 7, 9, 10,** monitoring on the specified hardware  
**11, 13, 14, 15** interrupt request line and the computer is in a  
power saving state, BIOS watches for activity  
on the specified IRQ line. The computer  
enters the full on power state if any activity  
occurs.
- Power Button** Set this option to specify the operation of Soft-  
**Function** Off by the Power Button. select "Suspend"  
function to enter "On-Suspend-Off" or select  
"On/Off" function to enter "On-Off"  
operation cycle.
- Modem Ring** Set this option to enable the modem ring to  
**Power On** power on.
- RTC Alarm Power** Set this option to enable the RTC Alarm to  
**On** wake up the system which is Soft Off.
- RTC Alarm Date;** Set these options to specify the RTC Alarm  
**RTC Alarm Hour;** time on Date/Hour/Minute/Second.  
**RTC Alarm**  
**Minute;**  
**RTC Alarm**  
**Second**

## PCI/Plug and Play Setup

Choose the item from the BIOS Setup main menu.

- Plug and Play Aware OS** Set this option to *Yes* if the operation system in this computer is aware of and follows the Plug and Play specification. Currently, only Windows 95 is PnP-aware.
- PCI VGA Palette Snoop** When this option is set to *Enabled*, multiple VGA devices operating on different buses can handle data from the CPU on each set of palette registers on every video device. Bit 5 of the command register in the PCI device configuration space is the VGA Palette Snoop bit (0 is disabled).
- Allocate IRQ to PCI VGA** This option is used to allocate IRQ to PCI VGA. Recommendation is set to *No*.
- OffBoard PCI IDE Card** This option specifies if an offboard PCI IDE controller adapter card is installed in the computer. You must specify the PCI expansion slot on the motherboard where the offboard PCI IDE controller is installed. If an offboard PCI IDE controller is used, the onboard IDE controller is automatically disabled. If an offboard PCI IDE controller adapter card is installed in the computer, you must also set the **Offboard PCI IDE Primary IRQ** and **Offboard PCI IDE Secondary IRQ** options.
- Pri. OffBoard PCI IDE IRQ;** These options specify the PCI interrupt used by the Primary (or secondary) IDE channel on the offboard PCI IDE controller.
- Sec. OffBoard PCI IDE IRQ**

- DMA Channel 0, 1, 3, 5, 6, 7** These options specify the bus that the specified DMA channel is used on.
- IRQ3, 4, 5, 7, 9, 10, 11, 14, 15** These options specify the bus that the specified IRQ line is used on. These options allow you to reserve IRQs for legacy ISA adapter cards.
- Reserved Memory Size** This option is designed to be used for reserving memory for the IO card.
- Reserved Memory Address** This option is designed to be used for reserving memory address for the IO card.

## Peripheral Setup

Choose the item from the BIOS Setup main menu.

- OnBoard FDC** This option enables the FDC (Floppy Drive Controller) on the motherboard or auto detects the FDC.
- OnBoard Serial Port1** This option specifies the base I/O port address of serial port 1.
- OnBoard Serial Port2** This option specifies the base I/O port address of serial port 2.
- Serial Port2 Mode** This option specifies the serial port2 mode.  
Normal: The normal serial port mode is being used.  
IrDA/ASKIR: The serial port2 will be redirected to support IR function when this option is set to IrDA or ASKIR.

- Duplex Mode** This option is to specify the Duplex mode of Serial Port 2.
- OnBoard Parallel Port** This option specifies the base I/O port address of the parallel port on the motherboard.
- Parallel Port Mode** Depends on the type of your external device which connects to this port to choose Normal, EPP, or ECP mode.
- Parallel Port IRQ** This option specifies IRQ to parallel port.
- Parallel Port DMA** This option is only available if the setting of the Parallel Port Mode option is EPP/ECP.
- OnBoard PCI IDE** This option specifies the channel used by the IDE controller on the motherboard.
- Pri. Master/Slave Prefetch;** These four options enable IDE Prefetch mode when the above option, OnBoard PCI IDE, is set to Enabled.  
**Sec. Master/Slave Prefetch**

## CPU Plug and Play Setup

Choose this item from the BIOS Setup main menu.

- CPU Speed Ratio** This option is to show the CPU speed.
- CPU Base Frequency** This option is to select the frequency of CPU.
- CPU Multiple Factor** This option is to select the multiplier of CPU.

## Change Supervisor Password

This item lets you configure the system password which is required every time when the system boots up or an attempt is made to enter the Setup program. The password cannot be longer than six characters.

*Note: Keep a safe record of the new password. If you forget or lose the password, the only way to access the system is to clear CMOS memory by holding down the <End> key then powering on to reboot the system.*

## Auto-Detect Hard Disks

If your system has an IDE hard drive, you can use this utility to detect its parameters and automatically enter them into the Standard CMOS Setup. This utility will autodetect up to four IDE devices.

## Save Settings and Exit

Select this item to save the values entered during the current session and then exit the BIOS setup program.

## Exit Without Saving

Select this item to exit the BIOS setup program without saving the values which has been entered during the current session.