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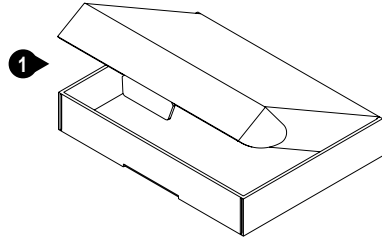
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# 1. Checklist

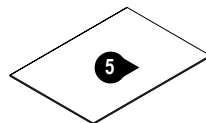
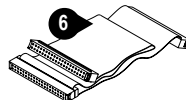
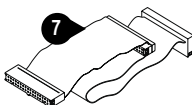
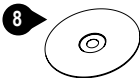
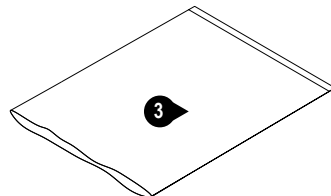
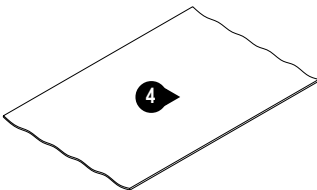
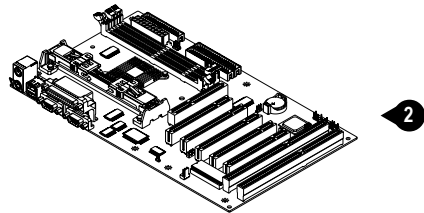
Check that your package is complete. If any listed items are missing, please contact your retailer immediately. The MVBX2-X motherboard package contains the following.

- 1 Package Box
- 2 MVBX2-X Motherboard
- 3 Anti-Static Bag
- 4 EPE Sheet
- 5 User's Manual
- 6 IDE Ribbon Cable Supporting Ultra DMA33/66



Note : The 80-Pin Ribbon cable is designed with a 40-Pin connector.

- 7 Floppy Ribbon Cable
- 8 Driver and Utility CD



# 2. Introduction

The MVBX2-X is a high quality, high performance, function enhanced motherboard, base on the powerful Intel Slot1 Pentium II/III and SEPP Celeron series processors, they operate at a 66/100/133MHz FSB and CPU speed up to 667MHz.

This motherboard uses the VIA Apollo Pro-133 chipset which includes the VT82C693A (North Bridge) and VT82C596B (South Bridge) chip in the ATX form factor.

The MVBX2-X motherboard offers outstanding I/O capabilities. It contains a full set of PC I/O, such as two channel PCI IDE interface, a Floppy controller, two Serial ports, an SPP/EPP/ECP capable bidirectional Parallel port, two USB (Universal Serial Bus) ports, a PS/2 Keyboard and Mouse port. One AGP slot, five PCI slots and two ISA slots provide expandability for add on peripheral cards. It also offers optimized system performance integrated power management, system manageability and Creative Sound Blaster Link.

- **Optimized System Performance** : AGP improves the graphics performance dramatically, Ultra DMA33/66 speed up disk drive access, Enhanced SDRAM support for fastest access to memory and Concurrent PCI enables simultaneous data transfer.
- **Integrated Power Management** : ACPI (Advanced Configuration and Power Interface) support enables O/S and application programs to direct the system power management.
- **System Manageability** : Winbond W83977EF Hardware Environment Monitoring chip enables the ability for system voltage, temperature and fan speed monitoring.
- **Creative Sound Blaster (SB-LINK)** : This 2x3 5-Pin header enables the migration of Creative Sound Blaster DOS program compatibility to the PCI bus. Some DOS programs require the use of signal which were previously only available to an ISA bus card. These signals have now been made available to a PCI bus card which may require them, through the use of this header.

In addition to superior hardware capabilities, features like Plug and Play, APM (Advanced Power Management), Keyboard Turn On, External Modem Ring On, Wake On LAN and BIOS upgradability are provided on the MVBX2-X platform.

## 3. Specification

### Chipset

- MVBX2-X consist of the VIA's VT82C693A+VT82C596B
- Winbond W83977EF-AW + W83783S

### CPU Support

- Intel's Slot1 Pentium II/III and SEPP Celeron series Processors

### System Speed Support

- 66/100/133 MHz FSB for CPU Interface
- 33 MHz PCI Bus for PCI Interface
- 66 MHz AGP Bus fro AGP Interface
- 66/100/133 MHz SDRAM Bus for SDRAM Memory Interface

### Memory Support

- Three 168-Pin DIMM sockets for 3.3V unbuffered SDRAM module and PC-100 (100MHz) / PC-133 (133MHz) Compliant
- Memory capacity from 8MB up to 384MB

### Expansion Slots Support

- Five PCI (v2.2) Slots
- Two ISA Slots
- One AGP Slot

### OnBoard I/O Support

- Two channel Ultra DMA33/66 mode IDE Port for 4 IDE devices
- FDD Port
- Two Serial Ports
- Parallel Port (SPP/EPP/ECP)
- Two USB (v1.1) Ports
- PS/2 Keyboard and Mouse Port

# 3. Specification

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## **Green Support**

- APM (v1.2) and ACPI (v1.0) compliant power management
- IDE and Display power down Function

## **Extend Feature Support**

- Hardware monitor to Fan Speed , Voltage and Thermal
- System power on by PS/2 Keyboard and Mouse
- Modem Ring-On and Wake On LAN Function

## **Power**

- Harris HIP6018B PWM Power Controller
- ATX Power Supply Configuration

## **BIOS Support**

- Award 2MB Flash BIOS

## **Compliances**

- DOC Compliant
- CE Certification

## **Form Factor**

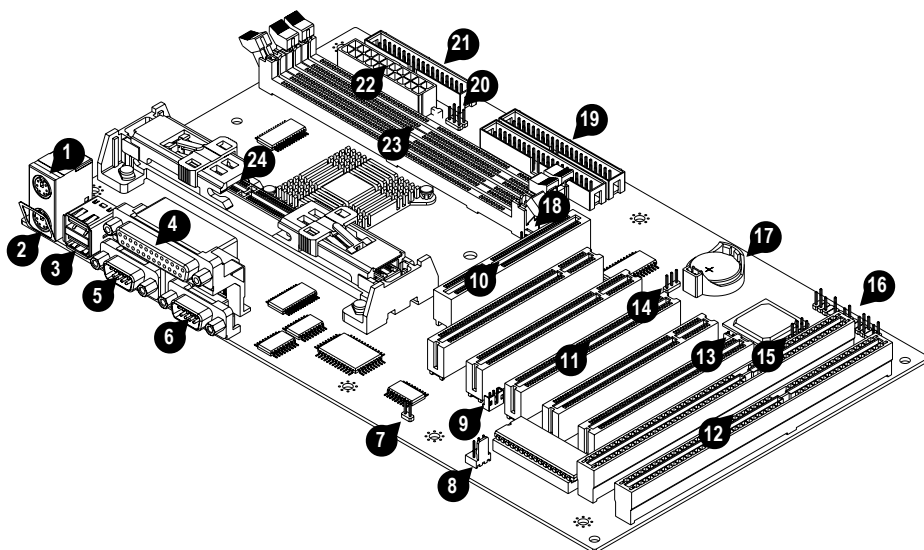
- ATX (305 x 178 x 1.6mm)
- 4 Layer PCB Design

## **Environment**

- Operating Temperature : 0 ~ 50°C
- Operating Humidity : 10 ~ 80% RH
- Vibration : 0 ~ 500Hz

## 4. Layout Guide

Use the following illustration and key to identify the components on your motherboard.



- |   |                     |                    |
|---|---------------------|--------------------|
| ➊ | <b>K/B &amp; MS</b> | PS/2 Mouse Port    |
| ➋ | <b>K/B &amp; MS</b> | PS/2 Keyboard Port |
| ➌ | <b>USB1</b>         | Two USB Ports      |
| ➍ | <b>LPT1</b>         | Parallel Port      |
| ➎ | <b>COM1</b>         | Serial Port        |
| ➏ | <b>COM2</b>         | Serial Port        |
| ➐ | <b>JP5</b>          | Safe Mode Header   |

## 4. Layout Guide

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<b>8</b>	<b>CHASSIS FAN</b>	Chassis Fan Connector
<b>9</b>	<b>W.O.L</b>	Wake On LAN Connector
<b>10</b>	<b>AGP1</b>	AGP Expansion Slot
<b>11</b>	<b>PCI1~5</b>	PCI Expansion Slots
<b>12</b>	<b>ISA1~2</b>	ISA Expansion Slots
<b>13</b>	<b>J9</b>	Chassis Fan Connector
<b>14</b>	<b>JP3</b>	CMOS Memory Clear Header
<b>15</b>	<b>J3</b>	SB-LINK Header
<b>16</b>	<b>J2</b>	Front Panel I/O Header
<b>17</b>	<b>BAT1</b>	Lithium CR2032 Battery
<b>18</b>	<b>CPU FAN</b>	CPU Fan Connector
<b>19</b>	<b>IDE1~2</b>	IDE Devices Header
<b>20</b>	<b>JP1,4</b>	CPU FSB Header
<b>21</b>	<b>FDC1</b>	FDD Device Header
<b>22</b>	<b>ATX1</b>	ATX Power Connector
<b>23</b>	<b>DIMM1~3</b>	DIMM Sockets
<b>24</b>	<b>SLOT1</b>	Slot1 CPU Slot



# 5. Hardware Installation

## 5.1 Before You Begin

The MVBX2-X motherboard is designed to fit into a standard ATX form factor chassis. The pattern of the mounting holes and the position of back panel I/O ports meet the ATX motherboard specification. The chassis may come with various mounting fasteners which are made of metal or plastic. It is highly recommended to use as many metal fasteners as possible to mount the motherboard in the chassis for better grounding.

## 5.2 Caution Static Electricity

Before removing the motherboard from its anti-static bag, you need to eliminate any static electricity that may be accumulated on your body by touching a grounded or anti-static surface. If noting is available, touch the housing of power supply which is plugged into the AC outlet.

After removing the motherboard from its anti-static bag, place it only on a grounded or anti-static surface, component side up. Inspect the motherboard and contact your retailer immediately if it is damaged.

## 5.3 Pre Installation Procedure

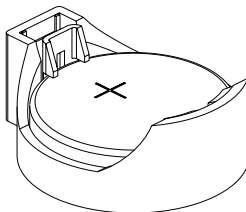
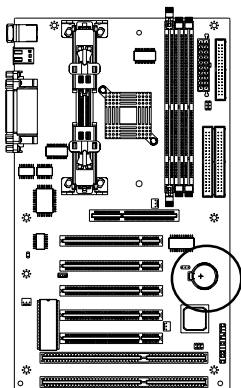
Before you install your motherboard into a chassis, it is convenient to install the memory modules and set all the jumpers to correct settings. The examples and explain below show the function and identify of the jumper setting to help you understand the circuits and enable or disable certain features or properties of the motherboard.

### Step1: Jumper Settings Explain

- **Battery “BAT1”**
  - It is a coin-cell style Lithium CR2032 battery is used to provide power to the RTC and CMOS RAM for keep the data inviolate and effective. The RTC is a real time clock device, which provides the date and time to system. The CMOS RAM is used for keeping the information of system configuration, so the system can automatically boot O/S every time.
  - The battery has a 3~5 years life if the system is not power up. When the system power up, the power for the RTC and CMOS RAM is supplied from the 3.3V power supply to extend the life of battery. The user can change a new battery to replace old one after it cannot work or BIOS does not keep its settings.

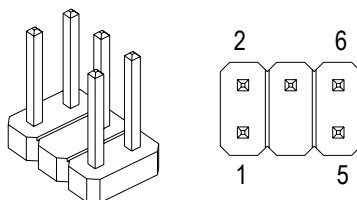
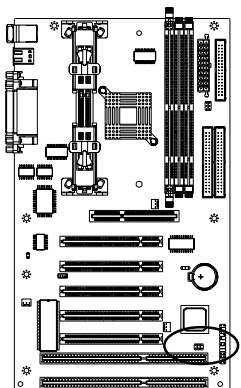
## 5. Hardware Installation

- Replace only with the same or equivalent type recommended by the manufacturer.



- **SB-LINK Header “J3”**

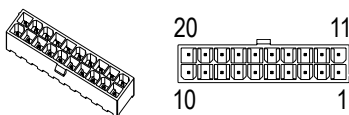
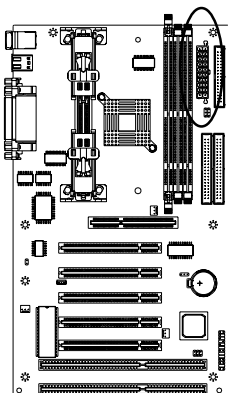
If you have installed a PCI Sound Blaster add-on card, you can cable the card to the J3 SB-LINK header. The SB-LINK circuit solves some problem that can occur when you play old computer games that run the DOS real-mode environment.



Assignment	Pin	Pin	Assignment
PCI-Grant	1	2	GND
NC(Key Pin)	3	4	PCI-Request
GND	5	6	SER-IRQ

- **Power Connector “ATX1”**

It has a single lead connector with a clip on one side of the plastic housing. There is only one way to plug the lead into the power connector “ATX1”. Press the lead connector down until the clip snaps into place and secures the lead on to the connector.

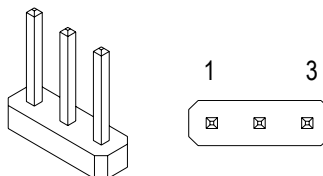
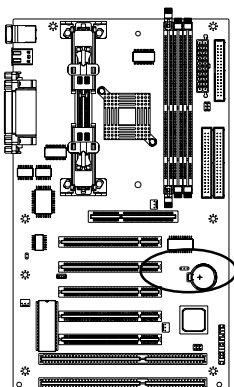


Assignment	Pin	Pin	Assignment
+3.3V	11	1	+3.3V
-12V	12	2	+3.3V
GND	13	3	GND
PW ON/OFF	14	4	+5V
GND	15	5	GND
GND	16	6	+5V
GND	17	7	GND
-5V	18	8	PW-GOOD
+5V	19	9	+5VSB
+5V	20	10	+12V

### • CMOS Memory Clear Header “JP3”

It is a 3-Pin header that if your system can not boot-up because you forgot your password or the CMOS setting need to be reset to default values after the system BIOS has been updated. The following instructions can be performed to clear the CMOS and password.

- Turn off your system power, then place a jumper cap to short Pin 2-3 of JP3 for 3~5 seconds.
- Put the jumper cap back to Pin 1-2 of JP3.
- Turn on your system power then access BIOS setup, please refer to BIOS Configuration explain.



Jumper Cap	Function
Short Pin 1-2	Normal Operation
Short Pin 2-3	Clear CMOS

## 5. Hardware Installation

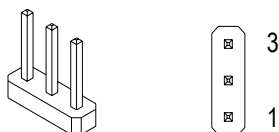
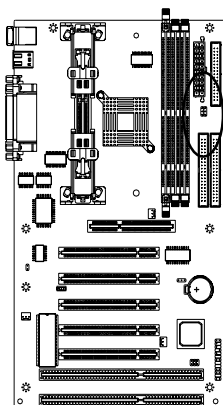
### • CPU FSB Header “JP1,JP4”

It's two 3-Pin header that set a FSB for the CPU. This allows the selection of the CPU's external frequency.

Note : You may set the memory speed independently from the CPU external frequency. Depending on your memory type PC-100 (100MHz) or PC-133 (133MHz), select the appropriate SDRAM speed along with the appropriate CPU speed.

The MVBX2-X motherboard system clock combination is listed in below table.

CPU Clock	SDRAM Clock	AGP Clock	PCI Clock	CPU/PCI Ration
<b>66MHz</b>	66/100MHz	66MHz	33MHz	2
<b>100MHz</b>	66/100/133MHz	66MHz	33MHz	3
<b>133MHz</b>	100/133MHz	66MHz	33MHz	4

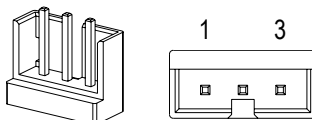
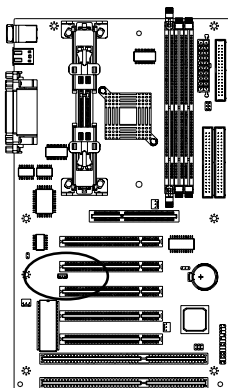


FSB	Jumper Setting	
	JP1	JP4
<b>66MHz</b>	Short Pin 2-3	Short Pin 2-3
<b>100MHz</b>	Short Pin 2-3	Short Pin 1-2
<b>133MHz</b>	Short Pin 1-2	Short Pin 1-2

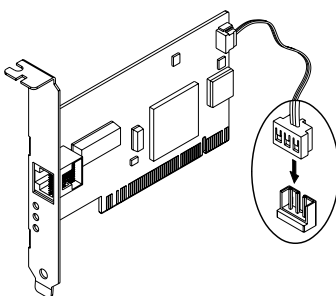
### • Wake On LAN Connector “J4”

- It is a 3-Pin 2.0mm connector that used for remote wake up system through a network.
- If you have installed a network adapter (LAN adapter), you can use the cable provided with the card to plug into the J4 connector on the motherboard. This is the Wake On LAN feature, when your system is in a power-saving mode, any traffic through the network automatically resume the system. You must enable this item using the Power Management item of the BIOS setup. See BIOS Configuration for more information.

- Your system has an ATX power supply with at least +5V standby/720mA power.



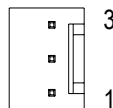
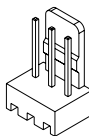
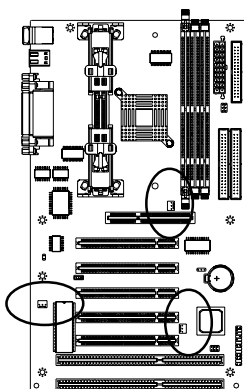
Pin	Assignment
1	+5VSB
2	GND
3	Wake-Up Signal



#### • CPU / CHASSIS FAN Connector “J6/8/9”

- These are 3-Pin connector that support cooling fan of 12 VDC/0.5A or less, when the system goes into sleep state, fan should be shut down to eliminate audible noise and reduce power consumption. You can monitor the fan speed by way of W83977EF chip and the fan must come with a tachometer output on the J6 and J9.
- The CPU and motherboard will overheat if there is no air flow across the CPU and onboard heat sink. Damage may occur to the motherboard and the CPU fan if these pins are incorrectly used.

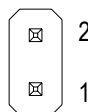
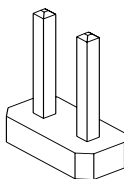
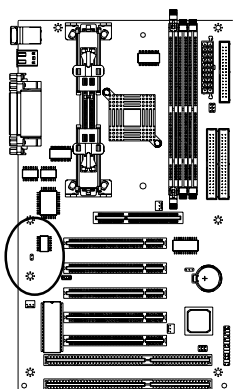
## 5. Hardware Installation



Pin	Assignment
1	GND
2	+12V
3	Speed/RPM

### ● Safe Mode Header “JP5”

- Usually Slot1 processors have locked frequency multiples. In this case, there is no way to exceed the specified multiple whether through motherboard setting or BIOS setup. With unlocked Slot1 processors, exceeding the specified multiple and FSB is possible through BIOS setup or hardware setting. Over clock may caused system hang or fail to boot-up (no video). If this happens there is a methods let your system enter safe mode and get your system back again.
- Method : The following instructions can be performed to safe mode setting.
  - Power off the system, then place the jumper cap to short Pin 1-2 of JP5.
  - When power on the system, the system will enter safe mode for reboot your system.
  - Then power off the system again, remove the jumper cap from Pin 1-2 and put the jumper cap back to Pin-1 of JP5. After that power on the system again to check the setting.



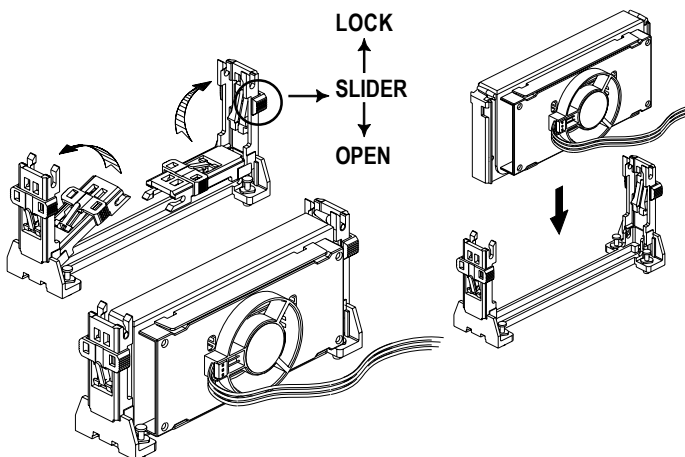
Jumper Cap	Function
Short Pin 1-2	Safe Mode
Open Pin 1-2	Normal Operation

## Step2: Install the Slot1 Processor

- This motherboard supports a wide range of Intel Slot1 processor include the SEPP (Single Edge Processor Package) Celeron, the Pentium II and the Pentium III.
  - The SEPP Celeron uses a Pentium II processor with 32K of internal level 1 cache memory and 128K of external level 2 cache memory. Clock speed run from 266MHz through to 433MHz. They operate over a 66MHz system bus.
  - The Pentium II processor is supported with 32K of internal level 1 cache memory and 512K of external level 2 cache memory. Clock speed run from 233MHz through to 450MHz. All but the slowest Pentium II's operate over a 100MHz system bus.
  - The Pentium III processor is identical to the Pentium II processor except that it has added instructions that are designed to improve performance in areas such as the internet, encoding and decoding of compressed audio and video files and soon. Currently, the Pentium III processor ships with clock speeds of 450MHz, 500MHz, 550MHz, 600MHz, and 667MHz. Pentium III's operate over a 100/133MHz system bus.
  - The MVBX2-X motherboard provides a Universal Retention Module for Pentium II/III and Celeron processor in SECC, SECC2 and SEPP. Please check URM well setup on the motherboard already.
  - Follow the steps mentioned below to install the Slot1 processor :
    - Before the processor install, you have to make sure that the EAR of the URM open already.

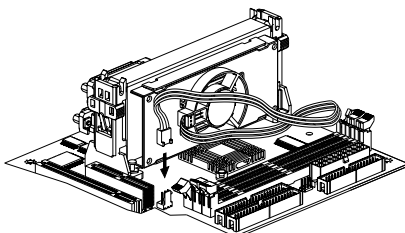
## 5. Hardware Installation

- Remove the sliders (both) of the URM to “OPEN” position.
- Orient the Slot1 processor and insert vertically on to the slot until the processor clip into place.
- Remove the sliders of the URM to “LOCK” position.



- Locate the fan power connector J6 for the processor cooling fan, then connect the cable from cooling fan to J6.

**Warning :** Processor require a heat sink with a cooling fan. Failure to provide adequate cooling of the processor may seriously affect system performance or cause permanent damage to the processor.



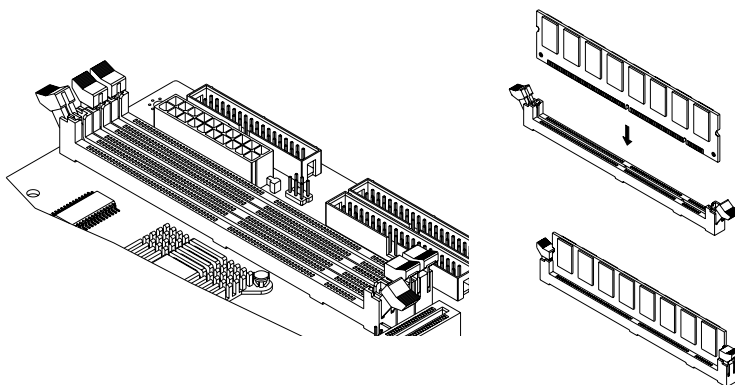
- If you need to remove the processor from the motherboard, the procedure will be as follows.
  - Disconnect the fan power cable from the motherboard.
  - Remove the sliders of the URM to “OPEN” position.



- Push the latches on the processor toward the center of the processor until they click into place (This step for Intel cartridge type processor only).
- Lift one end of the processor until it is freed from Slot1. Lift the other end of the processor until it is freed from the Slot1. Lift the entire processor until it is free from the URM.

### Step3: Install the SDRAM Modules

- The motherboard has three DIMM (Dual In-line Memory Module) sockets which support SDRAM modules installed with 3.3V, unbuffered, PC-100 (100MHz) and PC-133 (133MHz) SDRAM memory chips. Each memory module can support a maximum capacity of 128MB so total maximum memory is 384MB.
- Follow the steps mentioned below to install the SDRAM module :
  - On the motherboard, locate the three DIMM sockets.
  - Pull the locking latches of the DIMM sockets outwards.
  - Align the memory module correctly. The edge connector of the memory module has notches that match obstructions in the DIMM socket. You must match the notches with the obstructions in order to install the module.
  - Press the edge connector of the memory module into the DIMM socket. Press down quite firmly so that the locking latches of the DIMM socket are levered upwards to secure the memory module in place.
  - Repeat the process with any other memory modules that you want to install.



# 5. Hardware Installation

## 5.4 Install the motherboard in a chassis

After you have prepared the motherboard by installing a processor, one or more memory modules and have set the jumpers correctly, install the motherboard into a chassis and begin connecting essential peripheral items to the connectors on the motherboard.

Follow the instructions given with the chassis to install the motherboard into the mounting brackets inside the chassis. The motherboard has several holes drilled through it and you should be able to drive a screw through some of these holes into the mounting brackets in the chassis. Don't overtighten the screws as this can stress the motherboard.

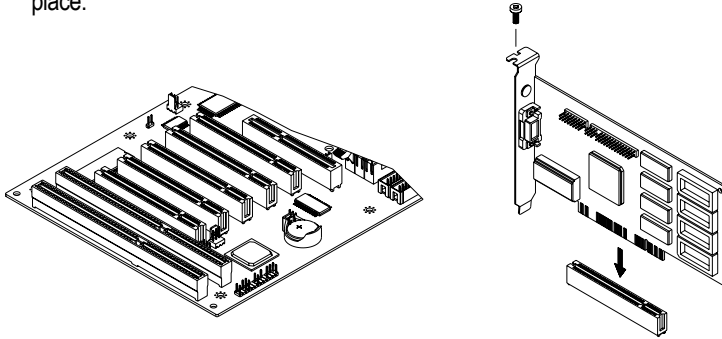
**Note:** Make sure that the power supply unit in the chassis is not connected to a power outlet while you are carrying out the installation procedure.

We will begin the installation of the motherboard. Please follow the procedure step by step which designed to guide you to a complete and correct installation.

### Step1: Install the Expansion Card

- This motherboard has five PCI, two ISA and an AGP slots. You can use the expansion slots to install expansions card that add new feature to your system.
  - The AGP slot supports an add-on graphics adapter which has an AGP (Accelerated Graphics Port) edge slot.
  - The ISA slots support legacy add-on cards which have an 8/16 bit ISA (Industry Standard Architecture) edge slot.
  - The PCI slots support current add-on cards which have a 32 bit PCI (Peripheral Components Interconnect) edge slot.
- You must install a graphics adapter in order to use the system. For best performance, we recommend you to use an AGP adapter. You do not need to use an AGP adapter. You can also install a graphics adapter in a PCI slot.
- Follow the steps mentioned below to install the Expansion card :
  - Locate the expansion slots on the motherboard. Select which slot you plan to use according to the kind of add-on card you are going to install.
  - In the chassis, remove the blanking plate from the opening in the chassis adjacent to the slot you are going to use.
  - Hold the edge connector of the add-on card directly over the slot that you are going to use. The metal bracket on one edge of the add-on card fits into the opening from which you removed the blanking plate.

- Carefully press the card down so that the edge connector installs into the expansion slot. You might need to rock the card slightly to make sure that the edge connector is seated properly into the slot.
- Drive a screw through the metal bracket on the edge of the card to secure it in place.



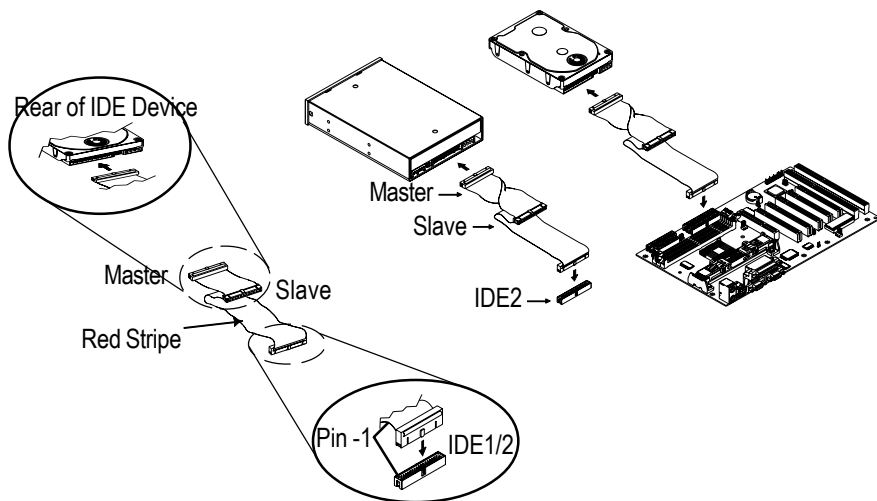
## Step2: Install the IDE Device

- The motherboard has two IDE channel ports, the Primary IDE channel and Secondary IDE channel. Each IDE channel can support two IDE devices. IDE devices include hard disk drives, CD-ROM drives and removable media drives such as ZIP drives and LS-120 drives.

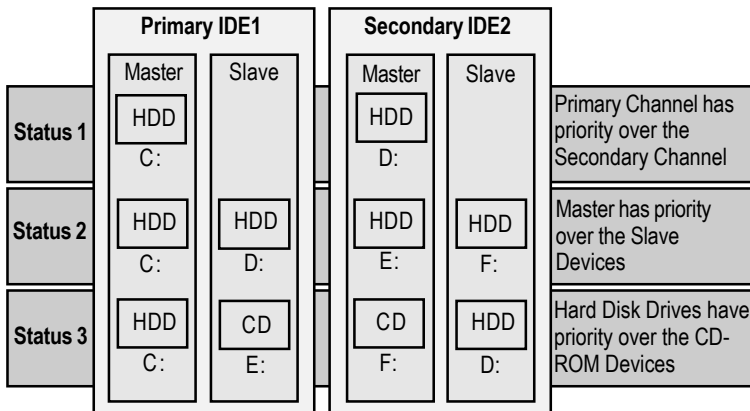
Typically, most people install one IDE hard disk drive and one IDE CD-ROM drive so this motherboard ships with one IDE cable. You can easily obtain a second IDE cable if you want to install more than two IDE devices.

- Follow the steps mentioned below to install the IDE device :
  - Locate the IDE1 and IDE2 box header on the motherboard.
  - IDE1-Connect one end of the 40-Pin ribbon cable that comes with the drive to the HDD header, and the other end of the cable to the IDE1 box header on the motherboard.
  - IDE2-Connect one end of the 40-Pin ribbon cable that comes with the drive to the CD-ROM header, and the other end of the cable to the IDE2 box header on the motherboard. (Note : Each header has the Pin-1 side clearly marked. The Pin-1 side of the each ribbon cable is always marked with a red stripe on the cable.)

# 5. Hardware Installation



- The primary channel has priority to the secondary channel. Within each channel, the two different devices are distinguished by master and slave relationship. The master device has priority over the slave device. (Refer to illustration on the below)

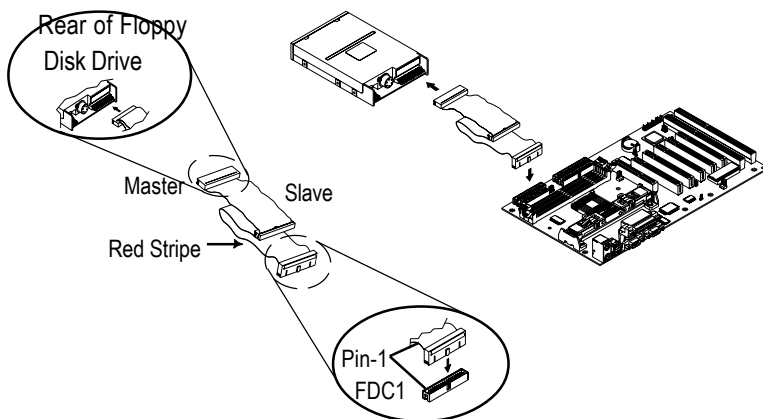


Note : Ultra DMA66 IDE devices must use an 80-Pin IDE cable.

### Step3: Install the FDD Device

- The motherboard has a floppy disk drive interface that will support one or two floppy disk drives. The floppy disk drive ribbon cable has connectors for two 3.5" wide disk drives.

- Follow the steps mentioned below to install the FDD device :
  - Locate the FDC1 box header on the motherboard.
  - FDC1-Connect one end of the 34-Pin ribbon cable that come with the drive to the FDD header, and the other end of the cable to the FDC1 box header on the motherboard. (Note: Each header has the Pin-1 side clearly marked. The Pin-1 side of the each ribbon cable is always marked with a red stripe on the cable.)

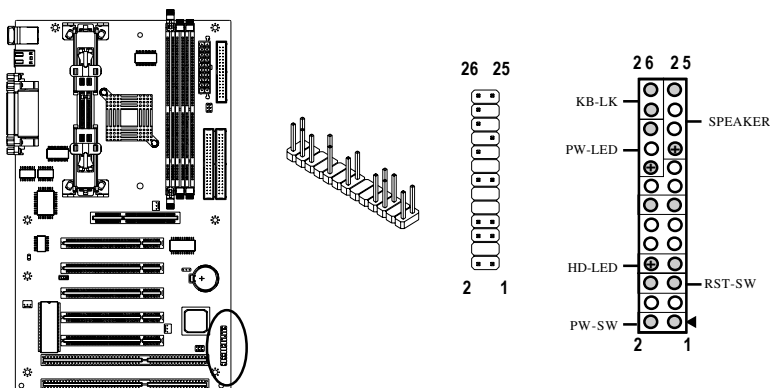


#### Step4: Front Panel I/O Connections

This motherboard connects to the front panel I/O are located on jumper block J2. Follow the instruction carefully for proper connections to your front panel display and control. This section explains how to connect these components.

- **PW-SW** : It is a 2-Pin header connects to the chassis-mounted power button.
- **RST-SW** : It is a 2-Pin header connects to the chassis-mounted reset switch and is used to reboot the system.
- **HD-LED** : It is a 2-Pin header connects to the chassis-mounted HDD LED to indicate HDD activity.
- **SPEAKER** : It is a 4-Pin header connects to the chassis-mounted speaker. When system has any abnormally state that you will hear warnings through speaker.
- **PW-LED** : It is a 3-Pin header connects to the chassis-mounted power LED to indicate onboard power state.
- **KB-LK** : It is a 2-Pin header connects to the chassis-mounted key lock switch that is used to lock the keyboard for security purpose.

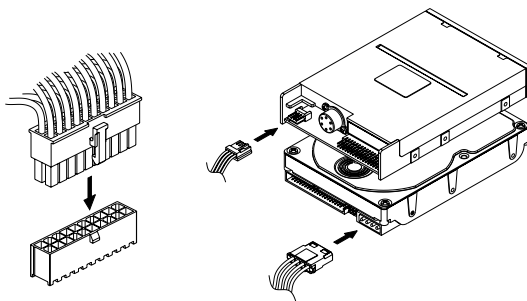
# 5. Hardware Installation



## Step5: ATX1 / HDD / FDD Power Connection

- Connect ATXPWR of the power supply unit to the ATX1 connector on the motherboard.
- Connect HDDPWR of the power supply unit to the power connector on the HDD device.
- Connect FDDPWR of the power supply unit to the power connector of the FDD device.

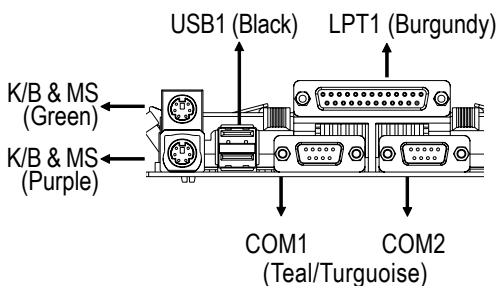
**Note :** Incorrect installation of the power supply could result in serious damage to the motherboard and connected peripherals. Make sure the power supply is unplugged from the AC outlet before connecting the leads from the power supply.



## Step6: Back I/O Connections

The back panel provides external access to PS/2 style Keyboard and Mouse Port, two Serial Ports, two USB Ports, a Parallel Port, which are integrated on the motherboard PC99 compliant. Follow the instruction carefully for proper connection I/O peripherals to your system.

- **K/B & MS** is a stack of the two PS/2 mini DIN ports.
  - K/B & MS (Green 6-Pin Mouse Port) can be used by a PS/2 Mouse or pointing device.
  - K/B & MS (Purple 6-Pin Keyboard Port) can be used by a PS/2 Keyboard.
- **USB1** (Black two 4-Pin USB Ports) is available for connecting USB devices.
- **LPT1** (Burgundy 25-Pin Parallel Port) can be used by Printers or other Parallel communication devices.
- **COM1, 2** (Teal/Turquoise two 9-Pin Serial Ports) is ready for a Mouse or other Serial devices.



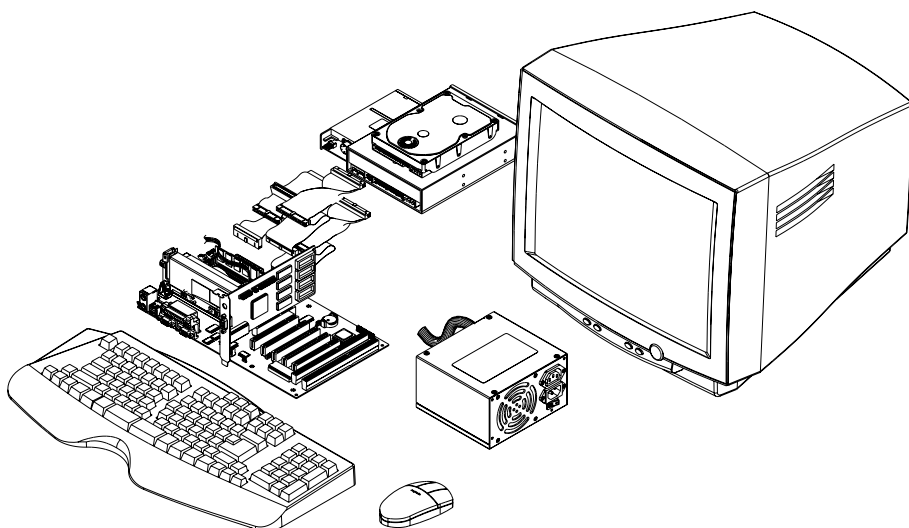
## Step7: Boot the System

This chapter is a step by step guide that explains how to use your MVBX2-X motherboard to build a powerful system. At a minimum, you will need the following components in order to build a fully function system.

- After hardware configuration of motherboard is completed and system hardware has been assembled. Refer to combination as follows.

## 5. Hardware Installation

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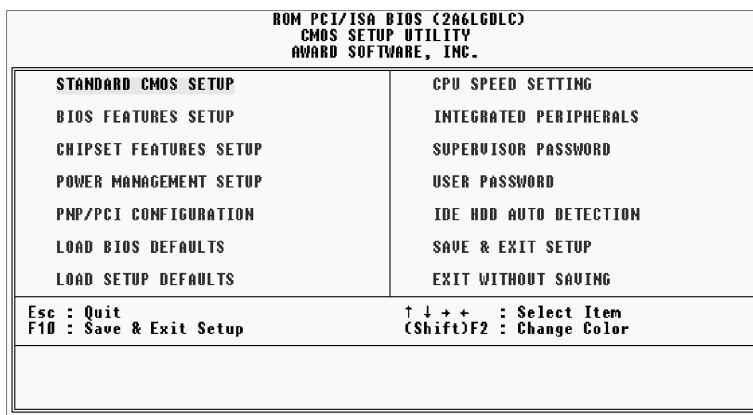


- You are now ready to boot the system for the first time. Please continue to the next section to configure your BIOS (Basic Input Output System) setting. It must be configured after booting.



## 6. BIOS Configuration

When you start the computer, it is controlled by the BIOS program. The BIOS first operates an auto-diagnostic for all the necessary hardware, configures the parameters of the hardware synchronization, and detects all the hardware. Only when these tasks are completed does it give up control of the computer to program in the next level, which is the operating system. Since the BIOS is the only channel for hardware and software to communicate, it is the key factor for system stability, and the assurance to your system good performance. After the BIOS has achieved the auto-diagnostic and auto-detection operations, pressing the Del key will allow you to access the BIOS Setup menu. At that point, the BIOS will display the following message.



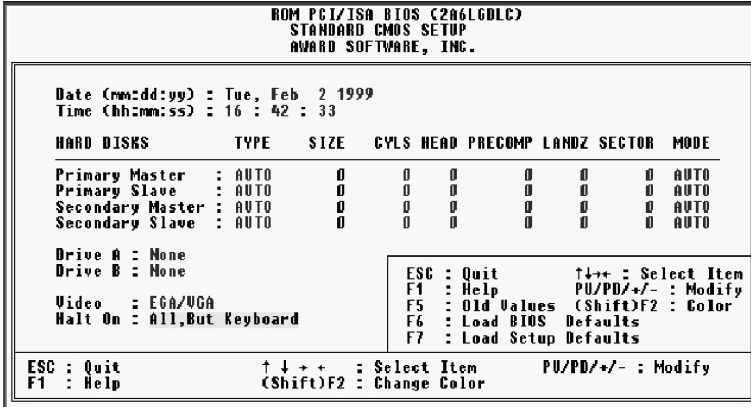
### Standard CMOS Setup

This “**Standard CMOS Setup**” option allows you to record some basic configuration of the system hardware, setting of system clock and error handling. If the motherboard is already installed in a working system, there is no need to select this option. However, if the configuration stored in the CMOS memory on the board get lost or damaged, or if you change your system hardware configuration, you will need to reset the configuration values. The configuration values usually get lost or corrupted when the power of onboard CMOS battery weakens.

The preceding screen provides you with a list of options. At the bottom of this screen the control keys for this screen. Take note of these keys and their respective uses.

# 6. BIOS Configuration

User-configurable fields appear in a different color. If you need information on the selected field, press <F1>. The help menu will then appear to provide you with the information you need. The memory display at the lower right-hand side of the screen is read-only and automatically adjusts accordingly.



## Date

To set the date, highlight the “Date” field and then press either <Page Up> / <Page Down> or <+>/<-> to set the current date. Follow the month, day and year format. Valid values for month, day and year are: Month: (1 to 12), Day: (1 to 31), Year: (up to 2079).

## Time

To set the time, highlight the “Time” field and then press either <Page Up>/<Page Down> or <+>/<-> to set the current time. Follow the hour, minute and second format. Valid values for hour, minute and second are: (Hour: (00 to 23), Minute: (00 to 59), Second: (00 to 59). Press <Enter> twice if you do not want to modify the current time.

## Hard Disks

This field records the specifications for all non-SCSI hard disk drives installed in your 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 2 hard disks; the first of which is the “master” and the second is the “slave”.

For IDE hard disk drive setup, you can:

- Use the Auto setting for detection during bootup.
- Use the IDE HDD AUTO DETECTION in the main menu to automatically enter the

drive specifications.

- Enter the specifications yourself manually by using the “User” option.

The entries for specifying the hard disk type include **CYLS** (number of cylinders), **HEAD** (number of read/write heads), **PRECOMP** (write precompensation), **LANDZ** (landing zone), **SECTOR** (number of sectors) and **MODE**. The **SIZE** field automatically adjusts according to the configuration you specify. The documentation that comes with your hard disk should provide you with the information regarding the drive specifications.

The **MODE** entry is for IDE hard disks only, and can be ignored for **MFM** and **ESDI** drives. This entry provides three options: Normal, Large, LBA, or Auto (see below). Set **MODE** to the Normal for IDE hard disk drives smaller than 528MB; set it to LBA for drivers over 528MB that support Logical Block Addressing (LBA) to allow larger IDE hard disks; set it to Large for drives over 528MB that do not support LBA. Large type of drive can only be used with **MS-DOS** and is very uncommon. Most IDE drives over 528MB support the LBA mode.

#### **Auto detection of hard disks on bootup**

For each field: Primary Master, Primary Slave, Secondary Master, and Secondary Slave, you can select Auto under the TYPE and MODE fields. This will enable auto detection of your IDE hard disk during bootup. This will allow you to change your hard disks (with the power off) and then power on without having to reconfigure your hard disk type. If you use older hard disks that do not support this feature, then you must configure the hard disk in the standard method as described earlier by the “User” option.

#### **Drive A / Drive B**

These fields record the types of floppy disk drives installed in your system. The available options for drives A and B are: 360KB, 5.25in; 1.2MB, 5.25in; 720KB, 3.5in.; 1.44MB, 3.5 in; 2.88MB, 3.5 in; None.

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 keys.

#### **Video**

Set this field to the type of video display card installed in your system. The options are EGA/VGA, CGA 49, CGA 80, and Mono (for Hercules or MDA).

If you are using a VGA or any higher resolution card, choose EGA/VGA.

#### **Halt On**

This field determines which types of errors will cause the system to halt. Choose from All Errors; No Errors; All, But Keyboard, All, But Diskette; and All, But Disk/Key.

# 6. BIOS Configuration

## BIOS Features Setup

ROM PCI/ISA BIOS (2A6LGDLC) BIOS FEATURES SETUP AWARD SOFTWARE, INC.			
Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Card L1 Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
CPU Card L2 Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
CPU L2 Cache ECC Checking	: Enabled	D0000-D3FFF Shadow	: Disabled
Processor Number Feature	: Disabled	D4000-D7FFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D8000-DBFFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	DC000-DBFFF Shadow	: Disabled
Swap Floppy Drive	: Disabled		
Boot Up Floppy Seek	: Disabled		
Boot Up NumLock Status	: 0n		
IDE HDD Block Mode	: Enabled		
Gate A20 Option	: Fast		
Memory Parity/ECC Check	: Disabled		
Typeomatic Rate Setting	: Disabled		
Typeomatic Rate (Chars/Sec)	: 6		
Typeomatic Delay (Msec)	: 250	ESC : Quit	↑↓←→ : Select Item
Security Option	: Setup	F1 : Help	PU/PD/+/- : Modify
PCI/UGA Palette Snoop	: Disabled	F5 : Old Values (Shift)	F2 : Color
OS Select For DRAM > 64MB	: Non-OS2	F6 : Load BIOS Defaults	
Report No FDD For WIN 95/98	: Yes	F7 : Load Setup Defaults	

This “**BIOS Features Setup**” option consists of configuration entries that allow you to improve your system performance, or let you set up some system features according to your preference. Some entries are required by the motherboard’s design to remain in their default settings details.

A section at the lower right of the screen displays the control keys you can use. Take note of these keys and their respective uses. If you need information on a particular entry, highlight it and then press <F1>. A pop-up help menu will appear to provide you with the information you need. <F5> loads the last set values while, <F6> and <F7> loads the BIOS default values and Setup default values, respectively.

### Virus Warning

When this feature is enabled, if there is any attempt from a software or an application to access the boot sector or the partition table, the BIOS will warn you that a boot virus is attempting to access to the hard disk.

### CPU Card L1 Cache / CPU Card L2 Cache

These fields allow you to choose from the default of Enabled or choose Disabled to turn on or off the CPU’s Level 1 and Level 2 built-in cache.

### CPU L2 Cache ECC Checking

Enabled this function to perform ECC (Error Check and Correct) on the CPU’s L2 SRAM.

### Processor Number Feature

The Pentium III processors are installed with a unique processor identification number. If you Disabled this item, the number will be suppressed to that it cannot be read by other systems on the network.

### **Quick Power On Self Test**

This will skip some diagnostic checks during the Power On Self Test (POST) to speed up the booting process.

### **Boot Sequence**

This field determines where the system looks first for an operating system. Options are “A,C,SCSI”, “C,A,SCSI”, “C,CDROM,A”, “CDROM,C,A”, “D,A,SCSI”, “E,A,SCSI”, “F,A,SCSI”, “SCSI,A,C”, “SCSI,C,A”, “C only” and “LS/ZIP,C”; The setup default setting is to check first the floppy diskette and then the hard disk drive.

### **Swap Floppy Drive**

When enabled, exchange of logical drive will occur the floppy drive A will be changed to B without changing the physical cable.

### **Boot Up Floppy Seek**

When enabled, the BIOS will seek drive A once.

### **Boot Up NumLock Status**

This field enables users to activate the Number Lock function upon system boot.

### **IDE HDD Block Mode**

This feature enhances disk performance by allowing multisector data transfers and eliminates the interrupt handling time for each sector. Most IDE drives, except with old designs can support this feature.

### **Gate A20 Option**

This field uses the fast gate A20 line to access any memory above 1MB. Setting this item to make the access faster than the normal method.

### **Memory Parity/ECC Check**

This item allows you to select between three methods of memory error checking, Auto, Enabled and Disabled.

### **Typematic Rate Setting**

When enabled, you can set the two typematic controls listed next.

### **Typematic Rate (Chars/Sec)**

This field controls the speed at which the system registers repeated keystrokes. Options

## 6. BIOS Configuration

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range from 6 to 30 characters per second. Setup default setting is 6, other settings are 8, 10, 12, 15, 20, 24, and 30.

### **Typematic Delay (Msec)**

This field sets the time interval for displaying the first and second characters. Four delay rate options are available: 250, 500, 750, and 1000.

### **Security Option**

When you specify a Supervisor Password and/or User Password (explained later in this section), the Security Option field determines when the system prompts for the password. The default setting is Setup, where the system goes through its start-up routine unless the Setup utility is called, then the system prompts for the Supervisor Password. The other option is System, where the system prompts for the User Password every time you start your system.

### **PCI/VGA Palette Snoop**

It determines whether the MPEG ISA/PCI VGA Cards can work with PCI/VGA or not.

### **OS Select For DRAM > 64MB**

When using OS/2 operating systems with installed DRAM of greater than 64MB, you need to set this option to Enabled otherwise leave this on Disabled.

### **Report No FDD For WIN 95/98**

Windows will release IRQ line 6 (normally used by the Floppy Disk Drive) after you disable your onboard FDD and set this field to "YES". If you set this field to "NO", the windows will reserve INT6 for your FDD.

### **Video BIOS Shadow**

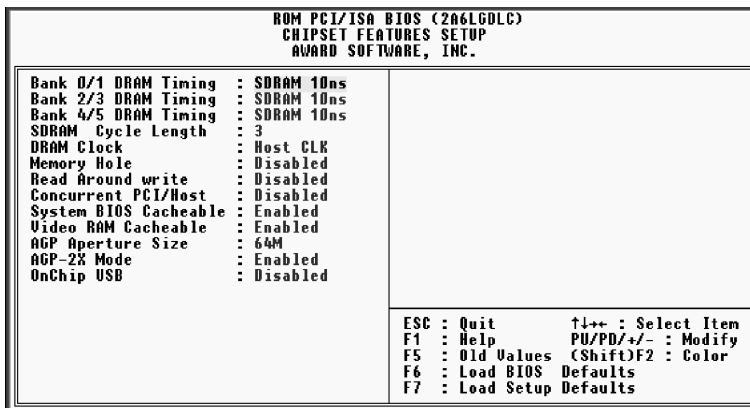
This field allows you to change the video BIOS location from ROM to RAM. Relocating to RAM enhances system performance, as information access is faster than the ROM.

### **C8000-CBFFF to DC000-DFFFF**

These fields are used for shadowing other expansion card ROMs. If you install other expansion cards with ROMs on them, you will need to know which addresses the ROMs use to shadow them specifically. Shadowing a ROM reduces the memory available between 640K and 1024K by the amount used for this purpose.

## Chipset Features Setup

This “Chipset Features Setup” option controls the configuration of the board’s chipset. Control keys for this screen are the same as for the previous screen.



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

This field allows you to set the Timing of Bank 0/1, 2/3, 4/5.

### SDRAM Cycle Length

This field allows you to set the CAS latency timing to 2 or 3.

### DRAM Clock

This field allows you to set DRAM Clock.

### Memory Hole

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

### Read Around write

This field sets the DRAM optimization feature. If a memory read is addressed to a location whose latest write is being held in a buffer before being written to memory, the read is satisfied through the buffer contents, and the read is not sent to the DRAM.

### Concurrent PCI/Host

When disable, CPU bus will be occupied during the entire PCI operation period.

### System BIOS Cacheable

This field allows you to cache the System BIOS for higher performance.

## 6. BIOS Configuration

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### **Video RAM Cacheable**

This field allows you to cache the Video RAM for higher performance.

### **AGP Aperture Size**

Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.

### **AGP-2X Mode**

If you have AGP Card, Please set it to Enabled.

### **OnChip USB**

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



## Power Management Setup

ROM PCI/ISA BIOS (2A6LGDLC) POWER MANAGEMENT SETUP AWARD SOFTWARE, INC.			
ACPI function	: Enabled	Primary INTR	: 0N
Power Management	: User Define	IRQ3 (COM 2)	: Primary
PM Control by APM	: Yes	IRQ4 (COM 1)	: Primary
Video Off After	: Suspend	IRQ5 (LPT 2)	: Primary
Video Off Method	: V/H SYNC+Blank	IRQ6 (Floppy Disk)	: Primary
MODEM Use IRQ	: 3	IRQ7 (LPT 1)	: Primary
Soft-Off by PWRBTN	: Instant-Off	IRQ8 (RTC Alarm)	: Disabled
HDD Power Down	: Disable	IRQ9 (IRQ2 Redir)	: Secondary
Doze Mode	: Disable	IRQ10 (Reserved)	: Secondary
Suspend Mode	: Disable	IRQ11 (Reserved)	: Secondary
** PM Events **			
UGA	: OFF	IRQ12 (PS/2 Mouse)	: Primary
LPT & COM	: LPT/COM	IRQ13 (Coprocessor)	: Primary
HDD & FDD	: ON	IRQ14 (Hard Disk)	: Primary
DMA/master	: OFF	IRQ15 (Reserved)	: Disabled
Modem Ring Resume	: Disabled	ESC : Quit	↑↓↓+ : Select Item
Wake Up On LAN	: Disabled	F1 : Help	PU/PD/+/- : Modify
RTC Alarm Resume	: Disabled	F5 : Old Values (Shift)	F2 : Color
		F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

This “**Power Management Setup**” option allows you to reduce power consumption. This feature turns off the video display and shuts down the hard disk after a period of inactivity.

### ACPI Function

Leave setting it on default.

### Power Management

This field acts as the master control for the power management modes. Max. Saving puts the system into power saving mode after a brief period of system inactivity. Min. Saving is almost the same as Max. Saving except that this time the system inactivity period takes longer. Disable disables the power saving features while User Define allows you to set power saving options according to your preference.

**IMPORTANT:** Advanced Power Management (APM) should be installed to keep the system time updated when the computer enters suspend mode activated by the BIOS Power Management. For DOS environments, you need to add the statement, DEVICE=C:\DOS\POWER.EXE, in you CONFIG.SYS. For Windows 3.x and Windows 95, you need to install Windows with the APM feature. A battery and power cord icon labeled “Power” will appear in the “Control Panel”. Choose “Advanced” in the Power Management Field.

### PM Control by APM

Power Management is completely controlled by the APM. APM stands for Advanced Power Management, it is a power management standard set by Microsoft, Intel and other major manufacturers.

## 6. BIOS Configuration

### Video Off After

This field determines when to activate the video off feature for monitor power management. The settings are NA, Suspend, Stand by.

### Video Off Method

This field defines the video off features. The following options are available: DPMS OFF, DPMS Reduce ON, Blank Screen, V/H SYNC + Blank, DPMS Standby, and DPMS Suspend. The DPMS (Display Power Management System) features allow the BIOS to control the video display card if it supports the DPMS feature. Blank Screen only blanks the screen (use this for monitors without power management or “green” features. If Blank screen is set up in your system, your screen saver will not display). V/H SYNC + Blank will blanks the screen and turns off vertical and horizontal scanning.

### MODEM Use IRQ

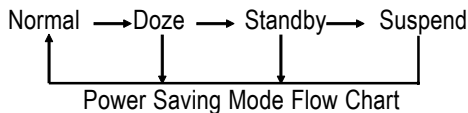
This field allows you to assign IRQ to external modem that is to be connected to the system.

### Soft-Off by PWR-BTTN

This field allows you to set Power off mode through Instant-Off or Delay mode (4 sec.) When you select Instant-Off mode to turn off the system, just press the power button and the system will Power off immediately, If you select Delay mode, you must press the power button for at least 4 seconds in order to turn off the system.

### PM Timers

The following four modes are Green PC power saving functions which are only user configurable when User Defined Power Management has been selected. See above for available selections.



### HDD Power Down

Shuts down any IDE hard disk drives in the system after a period of inactivity. The time period is user-configurable with select from 1-15 Min. It also contains a Disabled option and does not affect SCSI hard drives.

### VGA

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

### **LPT & COM**

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

### **HDD & FDD**

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

### **DMA/master**

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

### **Modem Ring Resume**

If a modem is connected to the system, this feature allows an incoming call to power up the system in soft-off mode.

### **Wake Up on LAN**

This allows the selection of either Enabled or Disabled setting to power up the computer (make sure system power is on) when the LAN Card receives a call while the computer is off.

### **RTC Alarm Resume**

This motherboard an alarm on the system real-time clock that can resume the system from a software powerdown or a power-saving mode. Use this item to enable or disable this feature.

### **Primary INTR**

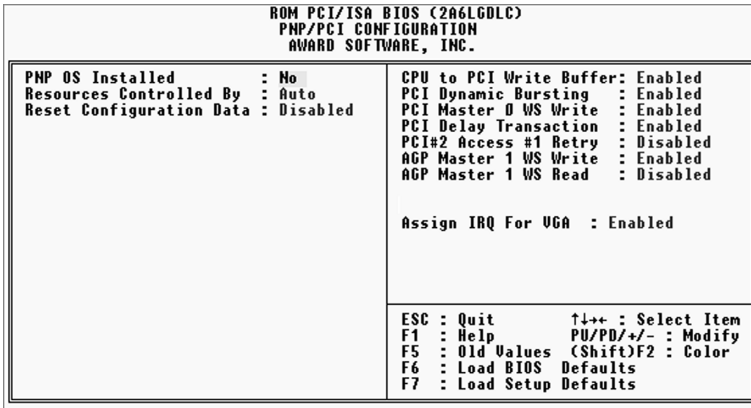
When set to ON, any event occurring at will awaken a system which has been powered down.

### **IRQ3 ~ IRQ15**

The IRQ3 ~ IRQ15 is a list of IRQ's (Interrupt Requests), which can be exempted much as the COMS ports and LPT port above can. When an I/O device wants to gain the attention of the operation system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service.

# 6. BIOS Configuration

## PNP and PCI Setup



This “**PNP and PCI Setup**” option configures the PCI bus slots. All PCI bus slots on the system use INTA#, thus all installed PCI cards must be set to this value.

### PNP OS Installed

This field allows you to use a Plug-and Play (PnP) operation system to configure the PCI bus slots instead of using the BIOS. Therefore, interrupts may be reassigned by the OS when Yes is selected. When a non-PnP OS is installed or to prevent reassigning of interrupt settings, select the default setting of No.

### Resources Controlled By

These fields set how IRQ use is determined for each PCI slot. The default setting for each field is Auto, which uses auto-routing to determine IRQ use. The other options are manual settings of NA, 5, 7, 9, 10, 11, 12, 14 or 15 for each slot.

### Reset Configuration Data

When Enabled the system BIOS will clear/reset the ESCD during POST. After clearing the ESCD, the BIOS will then change this item’s value to “Disabled”. Otherwise, the ESCD data would become useless.

When enabled, up to four Dwords of data can be written to the PCI bus without interrupting the CPU. When disabled, a write buffer is not used and the CPU read cycle will not be completed until the PCI bus signals that it is ready to receive the data.

### CPU to PCI Write Buffer

When enabled, up to four Dwords of data can be written to the PCI bus without interrupting

the CPU. When disabled, a write buffer is not used and the CPU read cycle will not be completed until the PCI bus signals that it is ready to receive the data.

### **PCI Dynamic Bursting**

When Enabled, every write transaction goes to the write buffer. Burstable transactions then burst on the PCI bus and nonburstable transactions don't.

### **PCI Master 0 WS Write**

When Enabled, writes to the PCI bus are executed with zero wait states.

### **PCI Delay Transaction**

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

### **PCI#2 Access #1 Retry**

This item allows you Enable or Disable the PCI#2 Access #1 Retry.

### **AGP Master 1 WS Write**

This implements a single delay when writing to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.

### **AGP Master 1 WS Read**

This implements a single delay when reading to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.

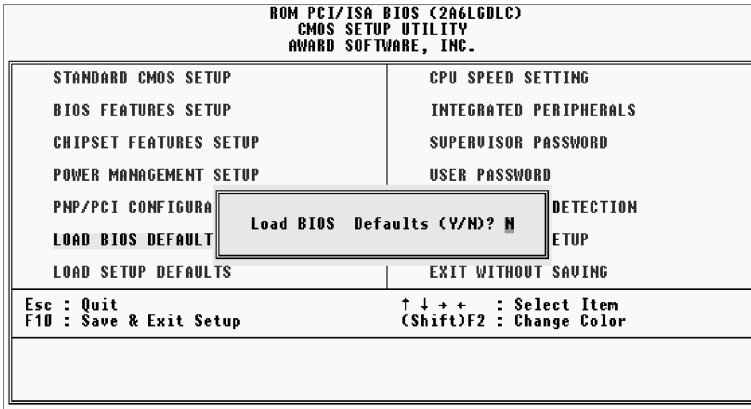
### **Assign IRQ For Assign IRQ For VGA**

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

# 6. BIOS Configuration

## Load BIOS Defaults

This “**Load BIOS Defaults**” option allows you to load the troubleshooting default values permanently stored in the BIOS ROM. These default settings are non-optimal and disable all high performance features. To load these default settings, highlight “Load BIOS Defaults” on the main screen and then press <Enter>. The system displays a confirmation message on the screen. Press <Y> and then <Enter> to confirm. Press <N> and then <Enter> to abort. This feature does not affect the fields on the Standard CMOS Setup screen.

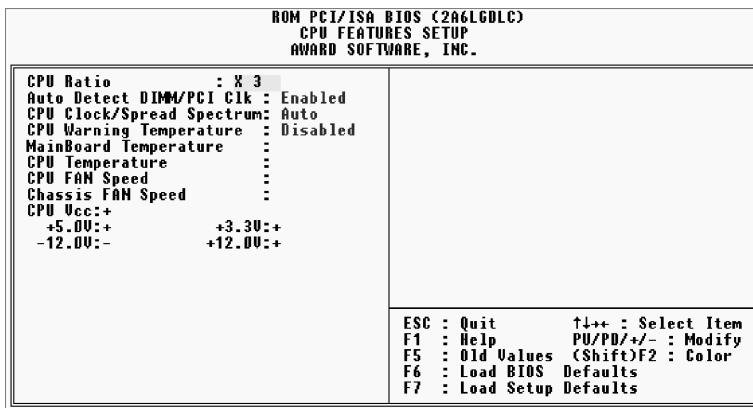


## Load Setup Defaults

This “**Load Setup Defaults**” option allows you to load the default values to the system configuration fields. These default values are the optimized configuration settings for the system. To load these default values, highlight “Load Setup Defaults” on the main screen and then press <Enter>. The system displays a confirmation message on the screen. Press <Y> and then <Enter> to confirm. Press <N> and then <Enter> to abort. This feature does not affect the fields on the Standard CMOS Setup screen.

## CPU Features Setup

This “CPU Features Setup” let you install hardware monitoring parameters so that the system can warn you when critical parameters are exceeded.



### CPU Ration

Use this item to select a multiplier for the system front side bus frequency. The value of the multiplier must be set so that :

$$\text{Multiplier} \times \text{Front Side Bus Frequency} = \text{CPU Clock Speed}$$

For example, if you have a processor that is rated to run at 450MHz and the system is running a front side bus frequency of 100MHz, you should select a multiplier of 4.5 so that

$$4.5 \text{ (Multiplier)} \times 100\text{MHz (Front Side Bus)} = 450\text{MHz (CPU Clock)}$$

### Auto Detect DIMM / PCI Clk

If you enable this item, the system does not generate clock signals for unused PCI or DIMM slots, so that EMI (electromagnetic interference) is reduced.

### CPU Clock / Spread Spectrum

If you enable spread spectrum, the EMI generated by the system is greatly reduced.

### CPU Warning Temperature

If you have installed hardware monitoring you can enable this item so that the system gives a warning beep when critical CPU temperatures are exceeded.

# 6. BIOS Configuration

## Integrated Peripherals

ROM PCI/ISA BIOS (2A6L6DLC) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.	
OnChip IDE Channel0 : Enabled Primary Master PIO: Auto Primary Slave PIO: Auto Primary Master UDMA: Auto Primary Slave UDMA: Auto OnChip IDE Channel1 : Enabled Secondary Master PIO: Auto Secondary Slave PIO: Auto Secondary Master UDMA: Auto Secondary Slave UDMA: Auto IDE Prefetch Mode : Enabled Init Display First : PCI Slot POWER ON Function : BUTTON ONLY	UART2 Mode Select : Normal  Onboard Parallel Port : 378/IRQ7 Parallel Port Mode : SPP
KBC input clock : 8 MHz Onboard FDC Controller: Enabled Onboard Serial Port 1 : 3F8/IRQ4 Onboard Serial Port 2 : 2F8/IRQ3	ESC : Quit ↑↓↓+ : Select It F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults

### On-Chip Primary/Secondary PCI IDE

You can select to enable the primary IDE channel, secondary IDE channel, both, or disable both channels.

### Primary Master/Slave PIO/UDMA Mode, Secondary Master/Slave PIO/UDMA Mode

Each channel (0 & 1) has both a master and a slave making four IDE devices possible. Because each IDE device may have a different PIO Mode timing of 0, 1, 2, 3, or 4, it is necessary for these to be independent. DMA Mode timing allows 0, 1, or 2. The default setting of Auto will allow auto-detection to ensure optimal performance.

### IDE Prefetch Mode

The onboard IDE drive interfaces supports IDE prefetching for faster drive accesses. If you install a primary and / or second IDE interface. Select Disabled to deactivate an interface, if you install a primary and / or secondary add-in IDE interface.

### Init Display First

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

### POWER ON Function

This field allows you to set POWER ON mode from button only, Hot-Key, PS/2 Mouse password or keyboard 98 mode.

### KBC input clock

This item sets the clock speed for the keyboard controller. Leave this item at the default value of 8MHz.



### **Onboard FDC Controller**

When Enabled, this field allows you to connect your floppy disk drives to the onboard floppy disk drive connector instead of a separate controller card. If you want to use a different controller card to connect the floppy disk drives, set this field to Disabled.

### **Onboard Serial Port 1**

Settings are 3F8H/IRQ4, 2F8H/IRQ3, 3E8H/IRQ4, 2E8H/IRQ 3, Auto and Disabled for the onboard serial connector.

### **Onboard Serial Port 2**

Settings are 3F8H/IRQ4, 2F8H/IRQ3, 3E8H/IRQ4, 2E8H/IRQ3, Auto and Disabled for the onboard serial connector.

### **UART2 Mode Select**

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

### **Onboard Parallel Port**

This field sets the address of the onboard parallel port connector. You can select either: 3BCH/IRQ 7, 378H/IRQ 7, 278H/IRQ 5, Disabled. If you install an I/O card with a parallel port, ensure that there is no conflict in the address assignments. The PC can support up to three parallel ports as long as there are no conflicts for each port.

### **Parallel Port Mode**

This field allows you to set the operation mode of the parallel port. The setting SPP, allows normal-speed operation but in one direction only. EPP allows bidirectional parallel port operation at maximum speed. ECP allows the parallel port to operate in bidirectional mode and at a speed faster than the maximum data transfer rate. And ECP+EPP allows normal speed operation in a two-way mode.

# 6. BIOS Configuration

## Supervisor Password and User Password

ROM PCI/ISA BIOS (206LGDLC) CMOS SETUP UTILITY AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP	CPU SPEED SETTING
BIOS FEATURES SETUP	INTEGRATED PERIPHERALS
CHIPSET FEATURES SETUP	<b>SUPERVISOR PASSWORD</b>
POWER MANAGEMENT SETUP	USER PASSWORD
PMP/PCI CONFIGURATION	IDE HDD AUTO DETECTION
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc : Quit	↑ ↓ + - : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color

These two options set the system passwords. “**Supervisor Password**” sets a password that will be used to protect the system and the Setup utility while “**User Password**” sets a password that will be used exclusively on the system. By default, the system comes without any passwords. To specify a password, highlight the type you want and then press <Enter>. A password prompt appears on the screen, take note that the password is case sensitive, and can reach up to 8 alphanumeric characters long, type in your password and then press <Enter>. The system confirms your password by asking you to type it again. After setting a password, the screen automatically reverts to the main screen.

To implement password protection, specify into the “Security Option” field of the BIOS Features Setup screen once the system prompt for password. If you want to disable either password, press <Enter> instead of entering a new password when the “Enter Password” prompt appears. A message confirms the password has been disabled.

## IDE HDD Auto Detection

This “**IDE HDD Auto Detection**” option detects the parameters of an IDE hard disk drive, and automatically enters them into the Standard CMOS Setup screen.

ROM PCI/ISA BIOS (2A6LGDLC) CMOS SETUP UTILITY AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP	CPU SPEED SETTING
BIOS FEATURES SETUP	INTEGRATED PERIPHERALS
CHIPSET FEATURES SETUP	SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	USER PASSWORD
PNP/PCI CONFIGURATION	<b>IDE HDD AUTO DETECTION</b>
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc : Quit	↑ ↓ + + : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color

Up to four IDE drives can be detected, with parameters for each listed inside the box. To accept the optimal entries, press <Y> or else select from the numbers displayed under the OPTIONS field (2, 1, 3 in this case); to skip to the next drive, press <N>. If you accept the values, the parameters will appear listed beside the drive letter on the screen. The process then proceeds to the next drive letter. Pressing <N> to skip rather than to accept a set of parameters causes the program to enter zeros after that drive letter.

Remember that if you are using another IDE controller that does not feature Enhanced IDE support for four devices, you can only install two IDE hard disk drives. Your IDE controller must support the Enhanced IDE features in order to use Drive E and Drive F. The onboard PCI IDE controller supports Enhanced IDE, with two connectors for connecting up to four IDE devices. IF you want to use another controller that supports four drives, you must disable the onboard IDE controller in the Chipset Features Setup screen.

When auto-detection is completed, the program automatically enters all entries you accepted on the field for that drive in the Standard CMOS Setup screen. Skipped entries are ignored and are not entered in the screen.

If you are auto-detecting a hard disk that supports the LBA mode, three lines will appear in the parameter box. Choose the line that lists LBA for an LBA drive. Do not select Large or Normal.

## 6. BIOS Configuration

The auto-detection feature can only detect one set of parameters for a particular IDE hard drive. Some IDE drives can use more than one set. This is not a problem if the drive is new and empty.

**IMPORTANT:** If your hard disk was already formatted on an older previous system, incorrect parameters may be detected. You will need to enter the correct parameters manually or use low-level format if you do not need the data stored on the hard disk.

If the parameters listed differ from the ones used when the disk was formatted, the disk will not be readable. If the auto-detected parameters do not match the ones that should be used for your disk, do not accept them. Press <N> to reject the presented settings and enter the correct ones manually from the Standard CMOS Setup screen.

### Save & Exit Setup

Select this option to save into the CMOS memory all modifications you specified during the current session. To save the configuration changes, highlight the “**Save & Exit Setup**” option on the main screen, type “Y”, and then press <Enter>.

ROM PCI/ISA BIOS (2A6LDLC) CMOS SETUP UTILITY AWARD SOFTWARE, INC.	
STANDARD CMOS SETUP	CPU SPEED SETTING
BIOS FEATURES SETUP	INTEGRATED PERIPHERALS
CHIPSET FEATURES SETUP	SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	USER PASSWORD
PMP/PCI CONFIGURA	DETECTION
LOAD BIOS DEFAULT	SAVE to CMOS and EXIT (Y/N)? <b>N</b>
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc : Quit	↑ ↓ → ← : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color

### Exit Without Saving

Select this option to exit the Setup utility without saving the modifications you specify during the current session. To exit without saving, highlight the “**Exit without Saving**” option on the main screen and then press <Enter>.