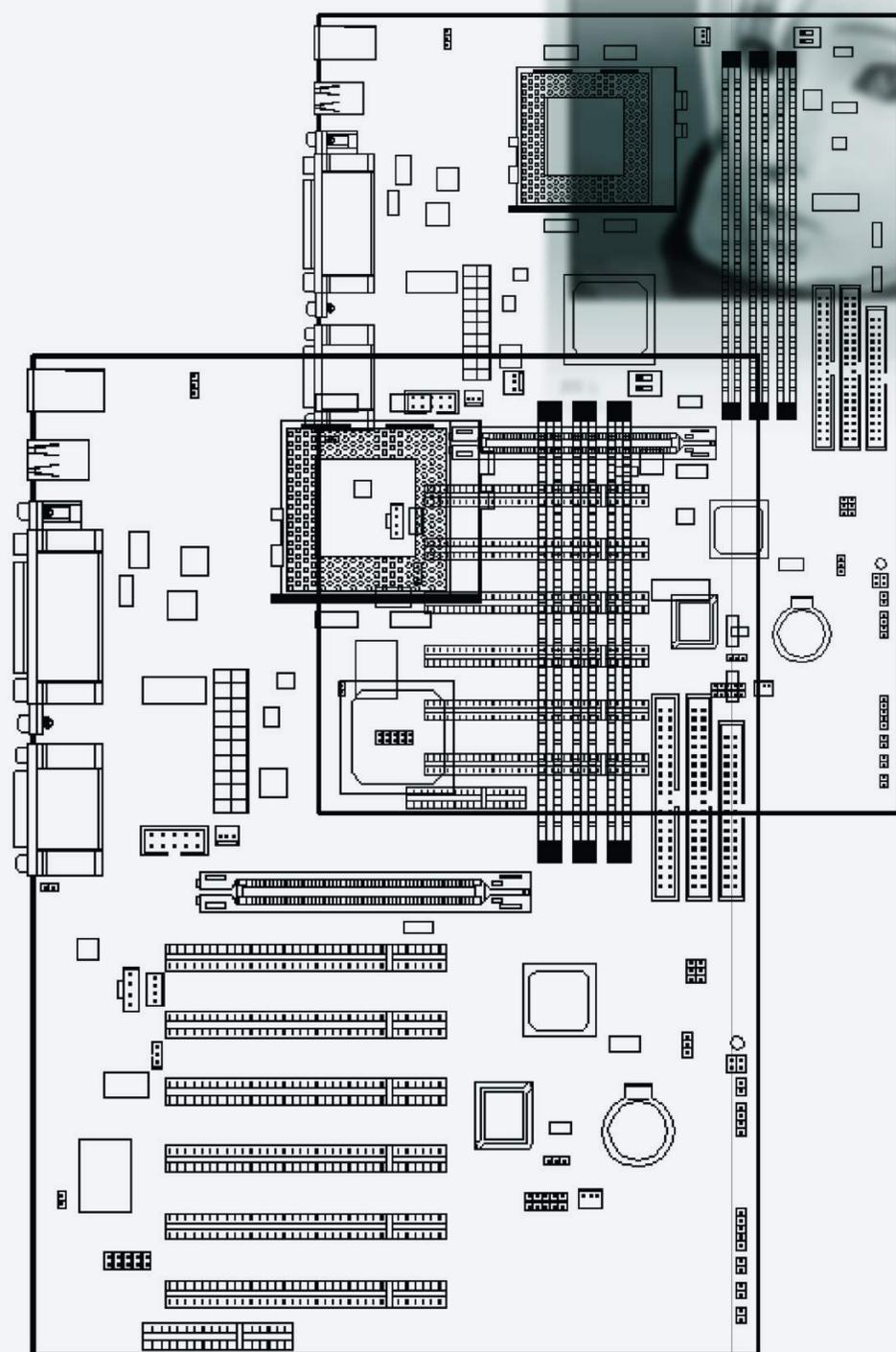


# F09

# English Manual



V1.0

WAFER BOARD

# **Intel ® 815EP Chipset ATX Mainboard**

## **Users' Manual**

Manual: Version 1.0

Date: 16 April, 2001

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## **FCC Compliance**

### Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Warning!** The use of shielded cables for the connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this authority to operate this equipment.

### **Safety Instructions**

1. Always read the safety instructions carefully.
2. Keep this User's Manual for future reference.
3. Lay this equipment on a stable flat surface before setting it up.
4. The openings on the enclosure are for air convection hence protects the equipment from overheating. Do not cover the openings.
5. Make sure the voltage of the power source and adjust properly 110/220V before connecting the equipment to the power inlet.
6. Place the power cord such a way that people can not step on it. Do not place anything over the power cord.
7. All cautions and warnings on the equipment should be noted.
8. Never pour any liquid into the opening that could damage or cause electrical shock.
9. If any of the following situations arises, get the equipment checked by a service personnel:
10. The power cord or plug is damaged.
11. Liquid has penetrated into the equipment.
12. The equipment has been exposed to moisture.
13. The equipment has not work well or you can not get it work according to User's Manual.
14. The equipment has dripped and damaged.
15. If the equipment has obvious sign of breakage.
16. Do not leave this equipment in an environment unconditioned, storage temperature above 60°C, it may damage the equipment.

**Caution:** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

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# **Chapter 1                      Introduction**

- ✧ The PM-F09 ATX mainboard is a high-performance computer mainboard based on the Intel ® 815Ep/ICH2 chipset. The mainboard is designed for all series of the Intel Celeron or Pentium III Coppermine (FCPGA) processor.
- ✧ The mainboard is a Socket-370 system with the addition of 133Mhz capability for both CPU and SDRAM interfaces. The primary features include 66 / 100 / 133 front side bus, DRAM memory interface (66 / 100 / 133 Mhz) and AGP 4X bus interface. The 815EP/ICH2 integrated peripheral controller is a high integration, high performance, power-efficient and high compatibility device.
- ✧ Unique AGP fixer ensure your VGA card and slot contact well.

## **1-1      Packing Check List**

This mainboard package contains the following items:

- One Intel 815EP chipset ATX Mainboard
- One IDE cable (support UDMA100)
- One Floppy Interface Cable
- One USB connector cable
- One serial connector cable
- One Drive CD
- One User's Manual

## **1-2      Mainboard Features**

### **➤ Support all series processors of Socket370**

- Socket 370 for Intel® Pentium® III Coppermine and Celeron™, Celeron II and Cyrix® III processors
- Support 300 Mhz to 1GHz or faster CPU

### ➤ **Chipset**

- Intel 815EP/ICH2

### ➤ **Front Side Bus**

- 66 / 100 / 133 MHz
- Support linearity over-clock (stepping 1MHz)

### ➤ **Main Memory**

- Support three 168-pin DIMM
- Support max. memory size of 768MB
- Support ECC function
- Support 16, 32, 64,128, 256 MB SDRAM

### ➤ **Expansion Slots**

- 1 x AGP slot (2X / 4X)
- 6 X PCI slot, with PCI V2.1 compliance
- 1 X CNR slot

### ➤ **On-Board IDE Connector (support Ultra DMA 33/66/100)**

- Supports PIO mode 4, DMA mode 2 / 4
- Support Ultra DMA 33/66/100
- Can connect up to four IDE devices

### ➤ **Audio**

- AC'97 Audio on board

### ➤ **On-Board Peripherals**

- 1 x FDD support 2 FDD devices
- 2 x serial ports
- 1 x parallel port supports SPP/EPP/ECP mode
- 2 x USB ports, supports legacy keyboard and mouse function
- 2 x additional USB ports by cable (optional)

- 1 x IrDA connector
- 1 x PS/2 mouse connector
- 1 x PS/2 keyboard connector

### ➤ **Hardware Monitoring**

- CPU temperature monitoring
- Fan speed and system fan speed monitoring
- Auto speed down and alarm when CPU overheat or fan failure
- Hardware detect +5V, +12V, CPU voltage and report by BIOS

### ➤ **BIOS**

- Award BIOS with ACPI support
- Built-in anti-virus protection

### ➤ **Dimension**

- ATX Form Factor: 30.5 cm x 22 cm x 4 layers PCB

## 1-3 **Mainboard Specification**

Form Factor	<ul style="list-style-type: none"><li>● ATX</li></ul>
Board Size	<ul style="list-style-type: none"><li>● 30.5 cm x 22cm</li></ul>
C P U	<ul style="list-style-type: none"><li>● Support all 66/100/133 MHz FSB (Clock Frequency) Pentium III Coppermine, Celeron , Celeron II CPU and Cyrix III processor.</li><li>● Support CPU type/clock by jumperless BIOS setup</li><li>● Jumperless Overclock<ul style="list-style-type: none"><li>– Support CPU clock Ratio 3.0/ 3.5/ 4.5/ 5.0/ 5.5/ 6.0/ 6.5/ 7.0/ 7.5/8.0x or higher</li><li>– Support CPU Clock Frequency: 66/75/83/100 / 133/166 (overclock)</li></ul></li><li>● Over clock to 166 MHz (non-recommended)</li></ul>

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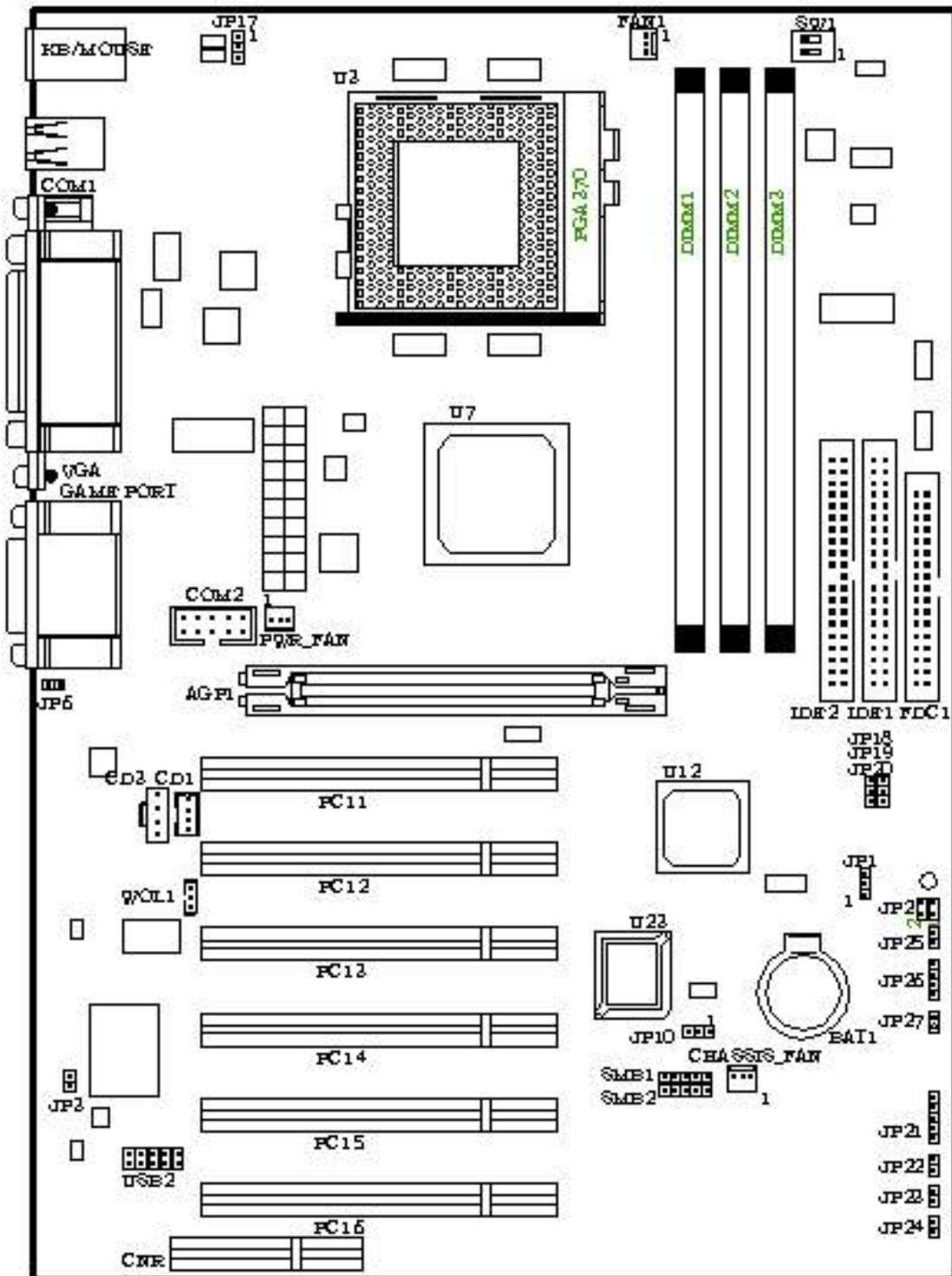
System Memory	<ul style="list-style-type: none"> <li>● DIMM 168pin x 2, maximum capability 768 MB</li> <li>● Support 16M /64M bit/128M bit/256M bit SDRAM technology</li> <li>● Refresh Mechanism: CBR supported only</li> <li>● Enhance Open page Arbitration SDRAM paging scheme</li> </ul>
Chipset	<ul style="list-style-type: none"> <li>● Intel 815EP Chipset including: <ul style="list-style-type: none"> <li>– Intel 815 EP</li> <li>Intel 82801BA(U-DMA/66/100)</li> </ul> </li> </ul>
Sound Port	<ul style="list-style-type: none"> <li>● AC'97 Sound</li> </ul>
Expansion Slots	<ul style="list-style-type: none"> <li>● 6 x PCI bus with bus slot</li> <li>● 1 x AGP bus slot (4x)</li> <li>● 1 x AMR bus</li> </ul>
Serial Port	<ul style="list-style-type: none"> <li>● Two serial ports UART 16C550 Compatible</li> <li>● Sets serial port 2 to operate in normal mode, IrDA</li> </ul>
Parallel Port	<p>One parallel port support:</p> <ul style="list-style-type: none"> <li>● SPP-Standard parallel port</li> <li>● EPP-enhanced parallel port</li> <li>● ECP-extended capabilities port</li> </ul>
Floppy Interface	<p>Support drivers inches/ format with</p> <ul style="list-style-type: none"> <li>● 3.5 inches -720KB/1.44MB/2.88MB</li> <li>● 5.25 inches -360KB/1.2MB</li> </ul>
I D E Interface	<ul style="list-style-type: none"> <li>● Dual PCI IDE interface support up to 4 x IDE (HDD, CDROM or ZIP, etc.)</li> <li>● Support PIO mode4, DIMA mode 2 and Ultra DMA33/66/100</li> </ul>
U S B Interface	<ul style="list-style-type: none"> <li>● Two USB ports supported</li> <li>● 2 additional USB ports by cable (optional)</li> <li>● USB legacy/keyboard /mouse/ function supported</li> <li>● Supports Wake –up from Sleeping State S1-S4</li> <li>● Support up to 127 USB devices</li> </ul>
P S / 2 mouse	<ul style="list-style-type: none"> <li>● PS/2 mouse supported by connector onboard</li> </ul>

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Keyboard	<ul style="list-style-type: none"><li>● PS/2 keyboard supported by connector onboard</li></ul>
R T C and battery	<ul style="list-style-type: none"><li>● RTC build in chipset (ICH 82801BA)</li><li>● Lithium (CR-2032) battery, in re-designed batter clip for easy insertion/ removal</li></ul>
Wake up Function	<ul style="list-style-type: none"><li>● Modem ring wake up (PCI Wake-up)</li><li>● LAN wake up</li></ul>
Synchronous Switching Register	<ul style="list-style-type: none"><li>● High efficient synchronous switching regulator to CPU core voltage from 1.3V to 2.05V</li><li>● Supports over-voltage /over current protection function</li></ul>
Hardware Monitor	<ul style="list-style-type: none"><li>● CPU thermal monitor (read from CPU or thermometer)</li><li>● CPU Fan speed and system fan speed monitoring</li><li>● Detects V<sub>CORE</sub> from VID0-4, monitor 9 kinds of CPU voltage, +5V, +12V, etc. and report by BIOS.</li></ul>
Power Connector	<ul style="list-style-type: none"><li>● Supports ATX (20-pin) power connector</li></ul>
Power on Function	<ul style="list-style-type: none"><li>● Panel switch power on</li><li>● Keyboard power on</li><li>● Password power on</li></ul>
B I O S	<ul style="list-style-type: none"><li>● Award BIOS</li><li>● Year 2000Compliance</li><li>● PCI 2.1 Compliance</li><li>● PnP BIOS V1.0</li><li>● APM V1.2 Compliance</li><li>● DMI 2.0 Compliance</li><li>● Flash/ Upgrade BIOS protection</li><li>● Support ACPI (Advance Configuration and Power Interface) and OS direct Power Management</li><li>● Support SOFT power</li><li>● Floppy drive swapping function supported</li><li>● Bus speed selected by BIOS</li><li>● Integrated hardware Random Number Generator (RNG)</li></ul>

	<ul style="list-style-type: none"><li>● Register based locking</li><li>● Hardware-based locking</li></ul>
LED Indicator	<ul style="list-style-type: none"><li>● Green LED for system power- on</li><li>● HDD activity LED</li><li>● System Suspend LED (programming LED blinking to S1-S4 mode)</li></ul>

### 1-4 **Mainboard Layout**



## **Chapter 2                      Hardware Installation**

- ◇ This section gives you a step-by step procedure on how to install your system. (Follow each section accordingly.)

### **2-1**    **CPU**

#### **2-1.1 CPU Type Setting**

This mainboard supports jumperless CPU setting, no jumper or switch is needed.

This mainboard also support CPU over clocking by adjusting the CPU Clock Frequency and CPU Clock Ratio under BIOS Setup.

$$\text{System Frequency} = \text{CPU Clock Ratio} \times \text{CPU Clock Frequency}$$

The available settings are:

**-CPU Clock Frequency**

66 –166 linearity (Stepping1MHz) overclocking

**-CPU Clock Ratio**

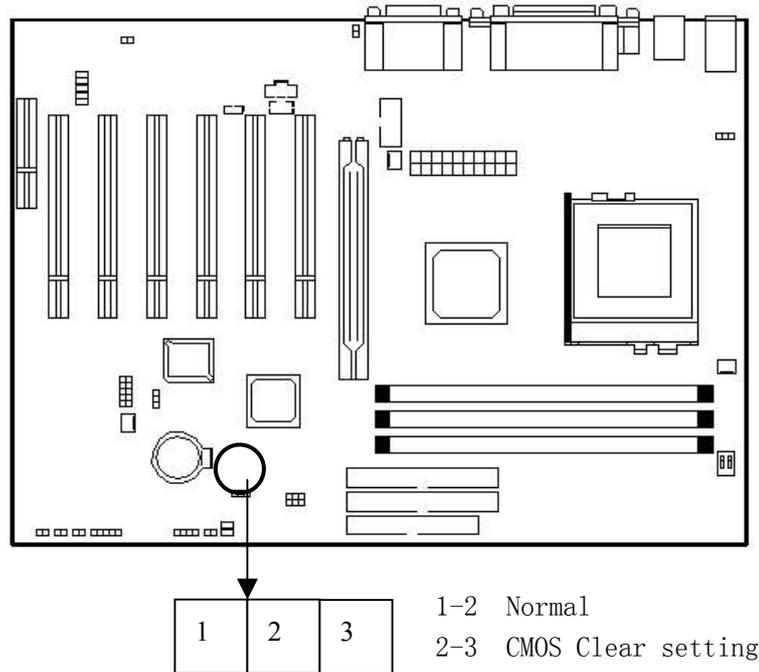
3x/ 3.5x / 4x / 4.5x / 5x / 5.5x / 6x / 6.5x / 7x / 7.5x / 8x

#### **★ Warning:**

**At the moment, Intel PPGA 370 Celeron CPU normally supports 66MHz CPU Clock Frequency, PIII Coppermine CPU supports 100 / 133MHz Clock Frequency, the other CPU Clock Frequency 133-166MHz are available only for internal test or end-user over-clocking testing which may cause your system unstable or serious damage.**

#### **2-1.2 CMOS Jumper**

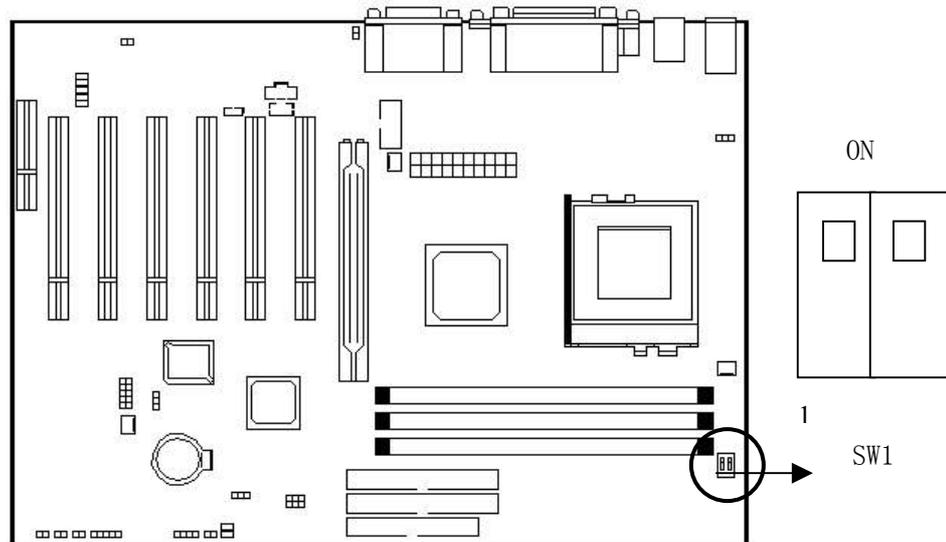
Please refer the following figures for the location of the jumpers on the mainboard.



**To clear CMOS, please follow the steps below:**

1. Power off the system and unplug the chassis AC power cord.
2. Short JP1 at 2-3 for 10-15 seconds.
3. Set JP1 back to its Normal position at pin 1-2.
4. Plug the AC power cord to the chassis.
5. Power on the system and load the BIOS setup default.

### 2-1.3 Clock Frequency



Clock Frequency	SW1	
	1	2
66/Auto	ON	ON
100	OFF	ON
133	OFF	OFF

Set SW1 to ON / ON and will run at CPU default host clock.

**CPU Frequency detect SW1**

When SW1-1/2 are both set to ON, the mainboard will auto-detect and set the clock frequency to CPU default (66 / 100 / 133MHz).

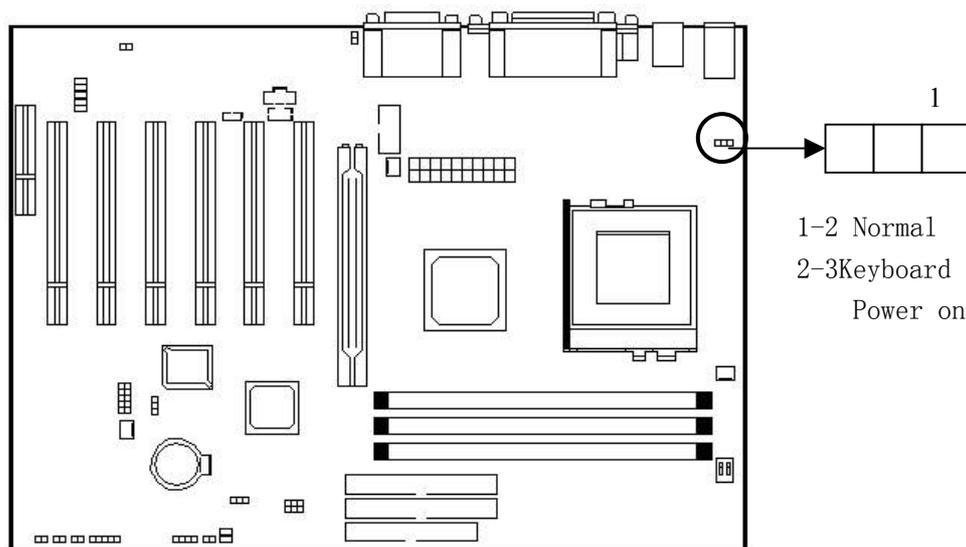
When SW1-1 are set to OFF, SW1-2 are set to ON, CPU will be forced to run at clock refrequency100MHz.

When SW1-1/2 are both set to OFF, CPU will be forced to run at clock frequency 133MHz.

**★ Warning:**

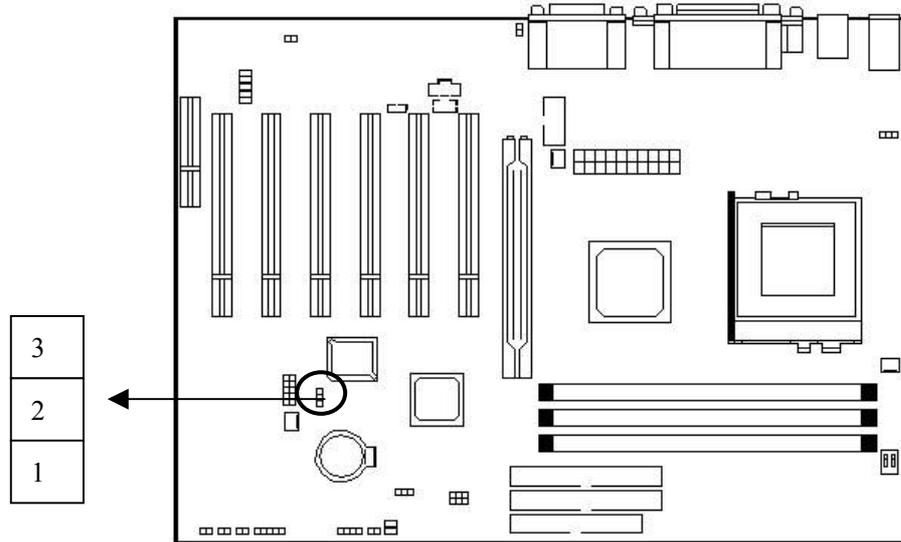
**Except for the normal CPU clock (recommended), the others are available for internal test or end-user over-clocking testing, which is will cause your system unstable or serious damage.**

**2-1-4 Keyboard Power On Function**



Set JP17 at Pin 2-3 active the keyboard power wake up function. Set JP17at pin1-2 to have normal keyboard without power on function.

### 2-1.5 BIOS Setup



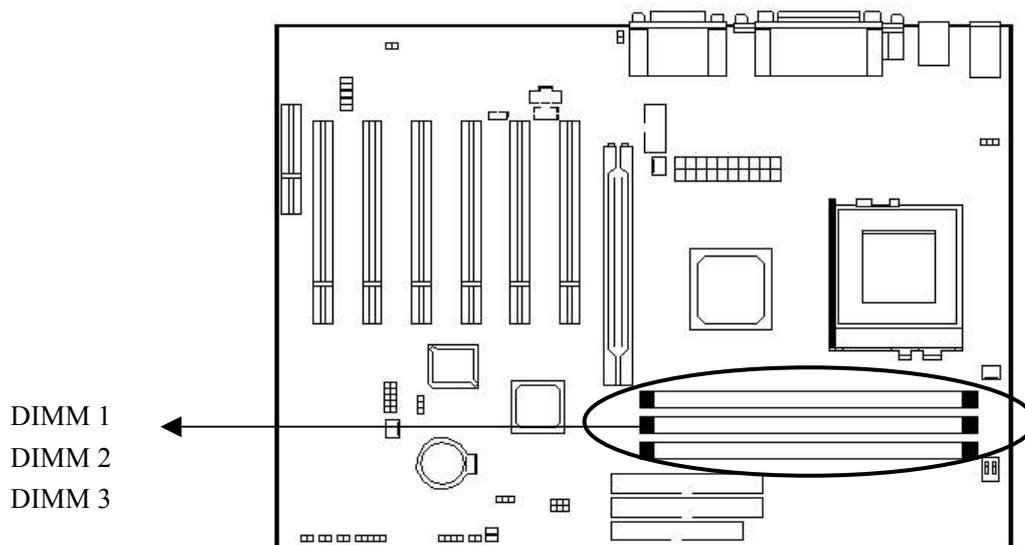
BIOS refresh setup:

Setting to Pin1-2 will enable refresh;

Setting to Pin 2-3 will disable the refresh.

### 2-2 System Memory Installation

There are 2pcs 168 pin DIMM sockets on the mainboard which support Synchronous DRAM and 1 Registered SDRAM, and allow you install system memory maximum up to 768MB.



### 2-2.1 Type

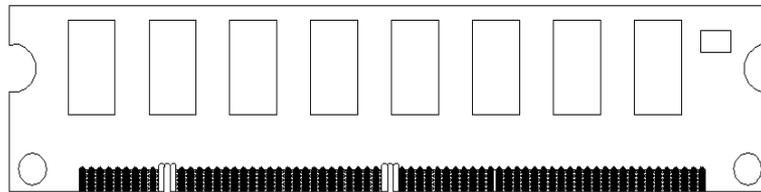
This mainboard supports 168PIN Synchronous DRAM and Registered SDRAM. However, mixing SDRAM and Registered SDRAM is not allowed. Install one type only in your system for better compatibility.

### 2-2.2 Speed

This motherboard supports PC-66, PC-100 or PC-133 memory only for high speed operation.

### 2-2.3 Buffered and Non-buffered

Only the non-buffered DIMM can be used in this mainboard.



The difference between buffered and non-buffered DIMM can be identified by the notch position shown above.

### 2-2.4 2-clock and 4-clock signal

This mainboard supports both 2- clock and 4 -clock SDRAM DIMM.

### 2-2.5 Parity and Non-parity

This mainboard supports standard 64bit (Non-parity) and 72bit (parity) )DIMM modules.

### 2-2.6 Memory Auto detect by BIOS

The mainboard BIOS can automatically detect the DIMM me memory size and type . so you do not need to adjust any hardware or software settings. The maximum memory size supported up to 768MB.

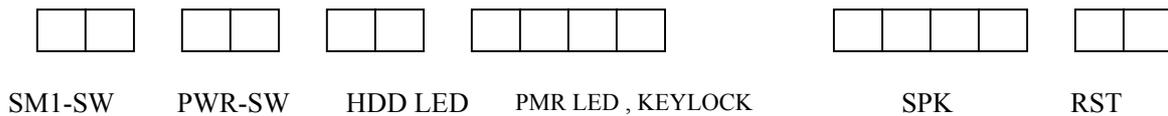
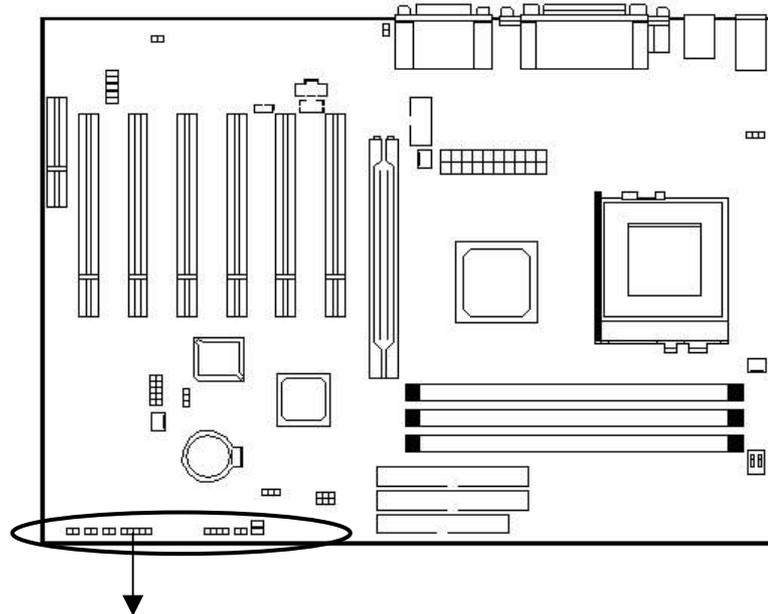
### 2-2.7 Suggested SDRAM combination

This mainboard supports the following SDRAM combination.

DIMM Locate	DIMM Size	Max. Memory Size
DIMM 1	SDRAM 8, 16, 32, 64 128, 256MB	256MB
DIMM 2	SDRAM 8, 16, 32, 64 128, 256MB	256MB
DIMM 3	SDRAM 8, 16, 32, 64 128, 256MB	256MB
	Total System Memory	768MB

Total Memory Size = DIMM 1 + DIMM 2 + DIMM 3

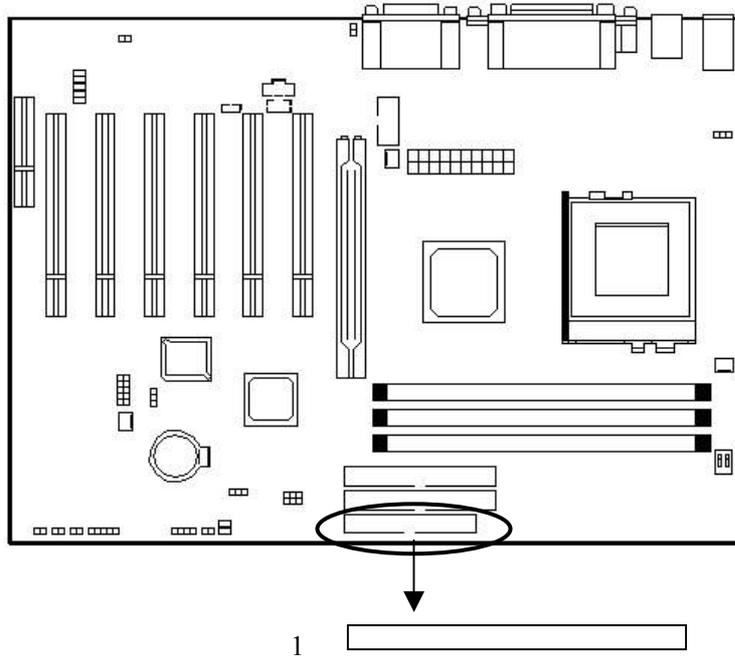
### 2-3 Panel Connector



- PMR LED , KEYLOCK      ATX Power LED connector & keylock ( 5 pins)
- SPK                              Chassis speaker (4 pins)
- RST                              Reset Switch Connector (2 pins)
- PWR-SW                      ATX Power On (2pins)
- SM1-SW                      ACPI Suspend LED Connector (4pins)
- HDD LED                      HDD LED (2pins)

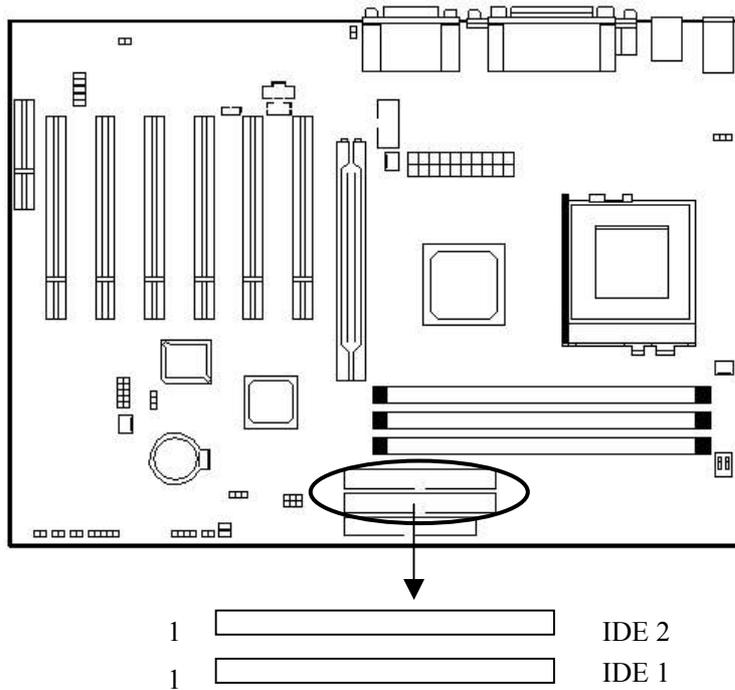
## 2-4 Floppy Drive Connector

Connect the floppy drive cable to the onboard 34pin floppy drive connector.



## 2-5 IDE Hardware and CD-ROM Connector

Connect your IDE devices to the onboard 40-pin IDE connectors marked as IDE1 and IDE2.



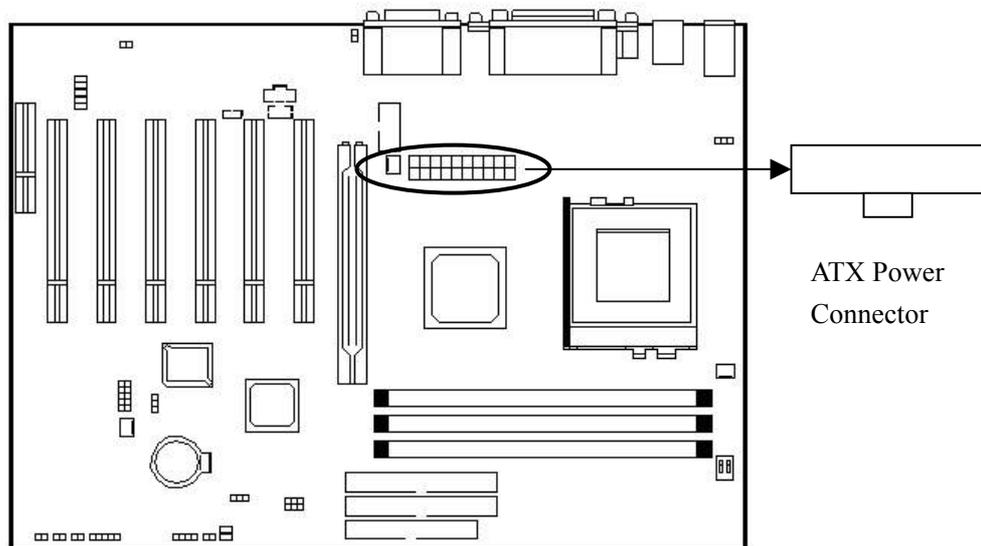
It's suggested that you connect the IDE devices to your IDE cable as the figure shown above. Each IDE channel either primary or Secondary, supports two IDE devices which must be set differently to master mode and slave mode. (Refer to your hard disk and CD-ROM user' manual for your detailed settings of IDE master and slave mode.)

### ★ Note:

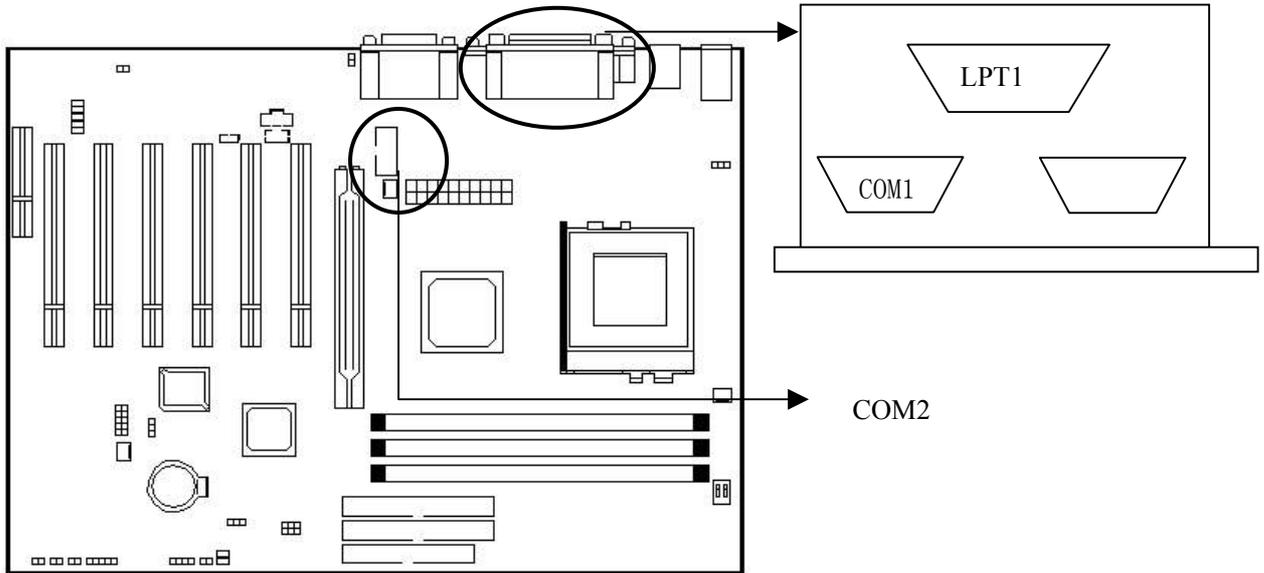
**When the cable of floppy driver and HDD/ ROM is inserted, you must make sure the red-end of the cable is inserted near to the end of the connector marked with"1".**

## 2-6 **Power Connector**

Connect the 20-pin ATX power supply cable to the power connect. Make sure the right plug-in direction and the power supply is off before or disconnecting the power cable.



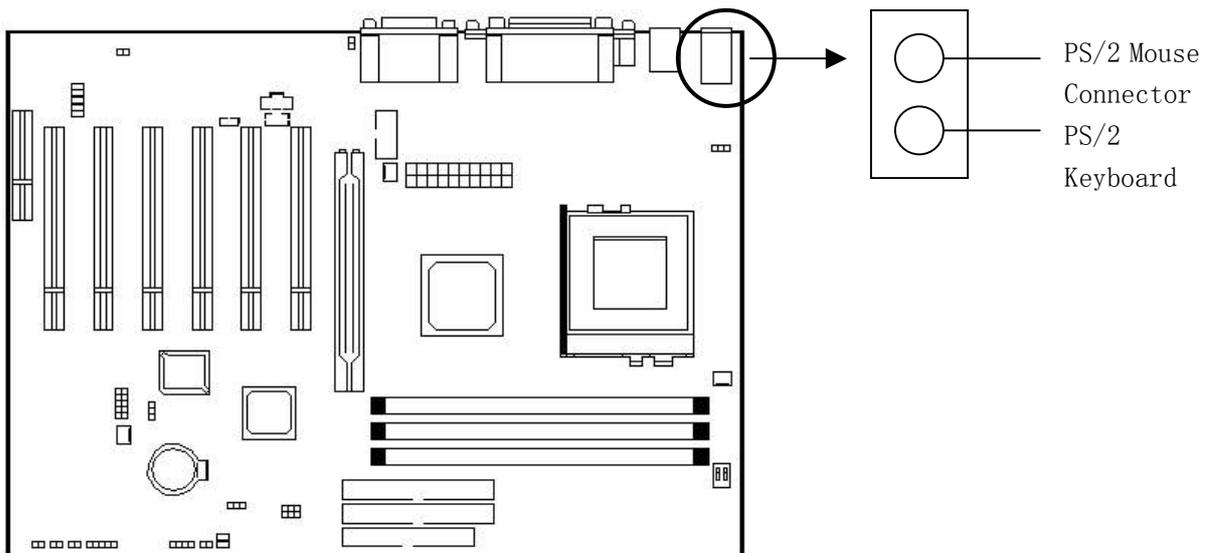
## 2-7 Serial Device (COM1/COM2) & Parallel Devices (LPT1)



Connect your serial devices to the onboard serial connectors as COM1 and COM2. Connect the parallel devices to the parallel connector marked as LPT1.

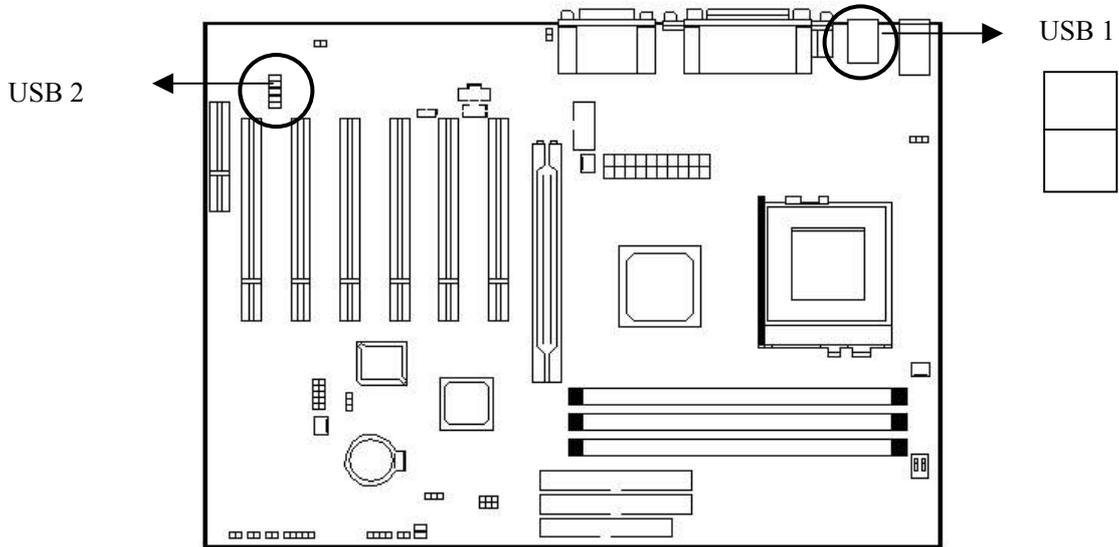
## 2-8 PS/2 Mouse and Keyboard Connectors

Connect the PS/2 mouse to the onboard PS/2 mouse connector and PS/2 keyboard to the PS/2 keyboard connector.



## 2-9 USB Device Connector

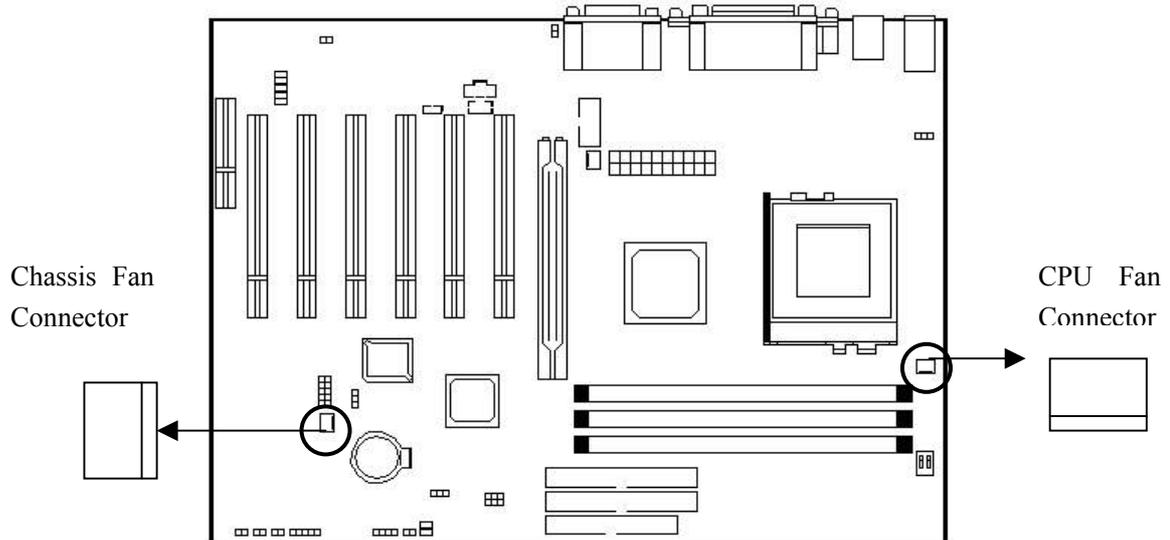
Connect your USB devices to the onboard USB connector.



When you need to use more (more than 2)USB devices, you may one end of the cable to USB2 connector. So that there are 4 USB ports available. (They has nothing done with the amount of USB device, since you may use 127 USB devices on the USB port at the same time.

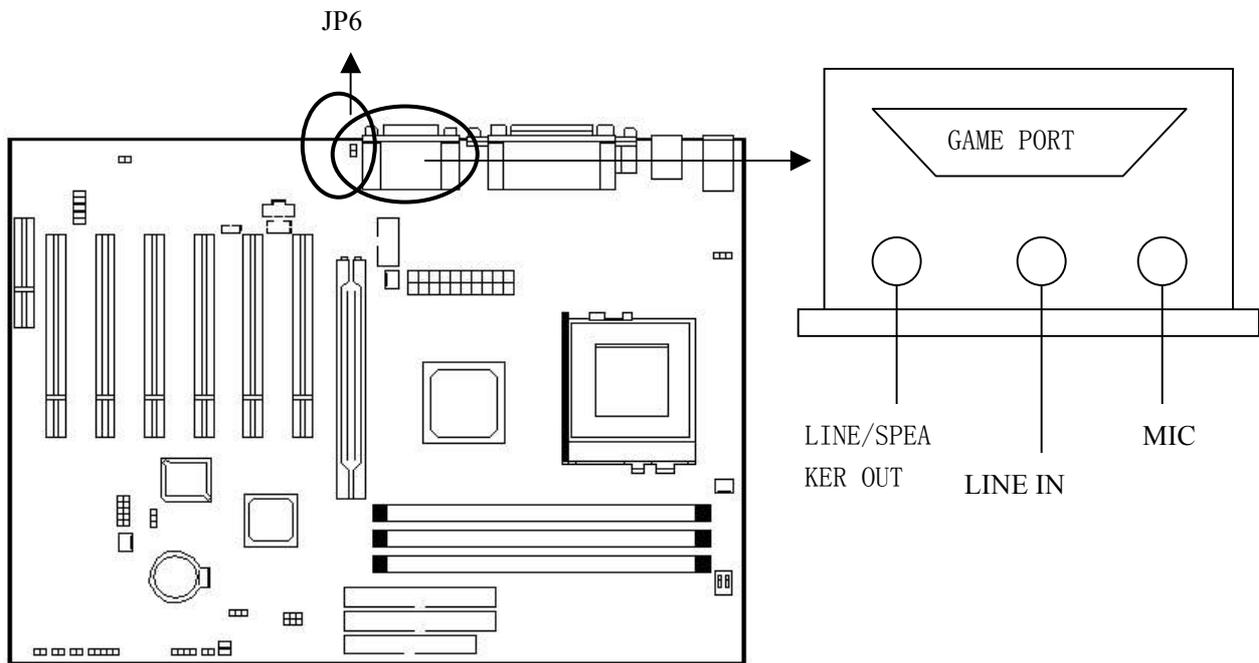
## 2-10 Fan Connector

Connect the CPU and Chassis fan cable to the fan connectors shown below.



## 2-11 Audio/ Game Connector

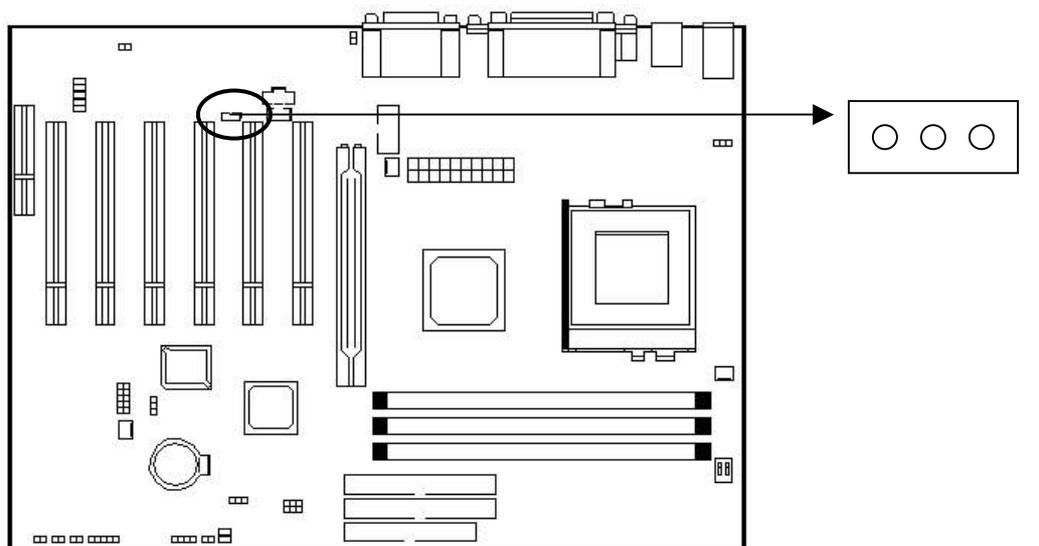
Connect your audio devices to the audio connector as below.



### Jumper for Mic Compatibility-JP6

Default is “Open” which is good for the most common type of microphone on the market. However, should you experienced problems working with your microphone then please change the jumper setting to “Close”.

## 2-12 LAN Wake-up Connector



If you have a network card or MODEM which support wake up function, you may connect the connector to the network card by a 3 Pin cable, so that you may proceed Long-Range booting up.

★ **Note:**

**The mainboard support MODEM wake-up, but no cable connection is needed, however modem will support PCI wake-up, please do not connect Modem Wake-up to this connectors.**

## **Chapter 3      BIOS Setup**

### **3-1**      **Entering BIOS Setup**

#### **3-1.1 Introduction**

BIOS ROM has a built-in setup program that allows users to modify the basic system configuration. This type of information is stored in battery-backed RAM (CMOS RAM), so that it retains the setup information when the power is turned off.

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

#### **3-1.2 Start to Install Setup**

The BIOS is immediately activated when you first power on the computer. The BIOS reads the system information contained in the CMOS and begin the process of checking out the system and configuring it. When is finishes, the BIOS will seek an operating system on one of the disk and then launch and turn control over to the operating system.

While the BIOS is in control, the Setup program can be in activated by pressing the <Del> key when the following message appears briefly at the bottom of the screen during the POST.

**Press DEL to enter SETUP.**

If the message disappears, before you respond and you still wish to enter Setup, restart the

system on try again by turning it OFF then ON or pressing the “RESET” button to the system case. You may also restart by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys. If you do not press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to...

PRESS F1 TO CONTINUE, DEL TO ENTER SETUP.

### 3-1.3 Using Setup

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

Key	Function
Up Arrow	Move to the previous item
Down Arrow	Move to the next item
Left Arrow	Move to the item on the left (menu bar)
Right Arrow	Move to the item on the right (menu bar)
Esc	Main Menu: Quit without saving changes Submenu: Exit Current page to the next higher level menu.
Move Enter	Move to the item you desired
PgUp key	Increase the numeric values or make changes
PgDn key	Decrease the numeric values or make changes
+ key	Increase the numeric values or make changes
- key	Decrease the numeric values or make changes
Esc key	Main menu-quit and not save changes onto CMOS Status page Setup Menu and Option Page Setup Menu - Exit current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F6 key	Load the fail-safe defaults from BIOS default table
F7 key	Load the optimize defaults
F10 key	Save all the CMOS changes and exit

Table 1 Legend Keys

### 3-1.4 Navigating through the menu bar

- Use the left and right arrow key to choose the menu you want to be in.
- To display a sub-menu, use the arrow keys to move the cursor to the sub-menu you want. Then press<Enter>. A “>” pointer marks all sub menu.

### 3-2 **Getting Help**

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

★ **Note:** The best advise is to only alter settings which you thoroughly understand. To this end, we strongly recommend that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and your system manufacturer to provide the absolute maximum performance and reliability.

### 3-3 **Main Menu**

Once you enter the BIOS CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions and two exit choices. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

CMOS Setup Utility - Copyright (C) 1984-2001 Award Software

STANDARD CMOS FEATURE	FREQUENCY/VOLTAGE CONTROL
ADVANCED BIOS FEATURE	LOAD FAIL-SAFE DEFAULTS
ADVANCED CHIPSET FEATURE	LOAD OPTIMIZED DEFAULTS
INTEGRATED PERIPHERALS	SET SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	SET USER PASSWORD
PNP/PCI CONFIGURATIONS	SAVE & EXIT SETUP
PC HEALTH STATUS	EXIT WITHOUT SAVING
Esc : Quit	↑↓←→ : Select Item
F10 : Save & Exit Setup	
Virus Protection, Boot Sequence	

★ **Note:** that a brief description of each highlighted selection appears at the bottom of the screen.

### 3-4 **Setup Items**

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

#### 3-4.1 **Standard CMOS Features**

Use this menu for basis system configuration.

#### 3-4.2 **Advanced BIOS Features**

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

#### 3-4.3 **Advanced Chipset Features**

Use this menu to change the values in the chipset registers and optimize your systems performance.

#### 3-4.4 **Integrated Peripherals**

Use this menu to specify your settings for integrated peripherals.

#### 3-4.5 **Power Management Setup**

Use this menu to specify your settings for power management.

#### 3-4.6 **PnP / PCI Configuration**

This entry appears if your system supports PnP / PCI.

#### 3-4.7 **PC Health Status**

Use this menu to get the information about your system including CPU temperature, Fan speed and Voltages.

#### 3-4.8 **Frequency / Voltage Control**

Use the menu to specify your settings for frequency / voltage control.

#### 3-4.9 **Load Fail-Safe Defaults**

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

### 3-4.10 Load Optimize Defaults

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

### 3-4.11 Supervisor / User Password

Use this menu to set User and Supervisor Passwords.

### 3-4.12 Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

### 3-4.13 Exit Without Save

Abandon all CMOS value changes and exit setup.

## 3-5 **Standard CMOS Setup**

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

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Standard CMOS Features

Date: (mm:dd:yy) Sat, Jan 13 2001	
Time: (hh:mm:ss) 23:28:30	Item Help
④ IDE Primary Master [None]	
④ IDE Primary Slave [None]	
④ IDE Secondary Master [None]	Menu Level >
④ IDE Secondary Slave [None]	
Drive A [1.44M, 3.5 in]	Change the day, month,
Driver B [None]	year and century
Video [EGA/VGA]	
Halt On [All, But Keyboard]	
Based Memory 640K	
Extended Memory 64512K	
Total Memory 65536K	
↑↓←→ Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1:General Help F5: Previous Values F6: Fail-safe defaults F7: Optimized Defaults	

Figure 1: The Main Menu

### 3-6 **Main Menu Selections**

This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	Month DD YYYY	Set the system date. Note that the “Day” automatically changes when you set the date.
Time	HH: MM: SS	Set the system time
IDE Primary Master	Options are in its sub-menu (described in Table 3)	Press <Enter> to enter the sub-menu of detailed options
IDE Primary Slave	Options are in its sub-menu (described in Table 3)	Press <Enter> to enter the sub-menu of detailed options
IDE Secondary Master	Options are in its sub-menu (described in Table 3)	Press <Enter> to enter the sub-menu of detailed options
IDE Secondary Master	Options are in its sub-menu (described in Table 3)	Press <Enter> to enter the sub-menu of detailed options
Drive A Drive B	None 360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in	Select the type of floppy disk drive installed in your system
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video driver
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/Key	Select the situation in which you want the BIOS to stop the POST process and notify you
Base Memory	N/A	Displays the amount of conventional memory detected during boot up
Extended Memory	N/A	Displays the amount of extended memory detected during boot up
Total Memory	N/A	Displays the total memory available in the system

Table 2 Main Menu Selections

### 3-7 **Advanced BIOS Features**

This selection allows you to configure your system for basis operation. You have the

opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing and security.

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### Advanced BIOS Features

Virus Warning	[Disabled]	Item Help
CPU Internal Cache	[Enabled]	
External Cache	[Enabled]	
CPU L2 Cache ECC Checking	[Enabled]	Menu Level
Processor Number Feature	[Disabled]	
Quick Power On Self Test	[Disabled]	Allows you to choose the
First Boot Device	[Floppy]	VIRUS warning feature
Second Boot Device	[HDD-0]	for IDE Hard Disk boot
Third Boot Device	[IS120]	sector protection. If
Boot other Device	[Enabled]	this function is enabled
Swap Floppy Drive	[Disabled]	and someone attempt to
Boot Up Floppy Seek	[Enabled]	write data into this
Boot Up NumLock Status	[On]	area, BIOS will show a
Gate A20 Option	[Fast]	warning message on
Typematic Rate Setting	[Disabled]	screen and alarm beep
X Typematic Rate (Chars/Sec)	[6]	
X Typematic Delay (Msec)	[250]	
Security Option	[Setup]	
OS Select For DRAM > 64MB	[Non-OS2]	
Report NO FDD For Win 95	[No]	
↑↓←→ Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1:General Help F5: Previous Values F6:Fail-safe defaults F7:Optimized Defaults		

### 3-7.1 Virus Warning

Allow you to choose the VIRUS Warning features for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area. BIOS will show a warning message in screen and alarm beep.

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

### 3-7.2 CPU Internal Cache/External Cache

These two categories speed up memory access. However, it depends on CPU/ chipset design.

Enabled	Enable cache
Disabled	Disable cache

### 3-7.3 CPU L2Cache ECC Checking

This item allows you to enable/ disable CPU L2 Cache ECC checking.

The Choice: Enabled, Disabled.

### 3-7.4 Processor Number Feature

The Choice: Enabled, Disabled.

### 3-7.5 Quick Power on Self Test

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

Enabled	Enable quick POST
Disabled	Normal POST

### 3-7.6 First / Second / Third / Other Boot Device

The BIOS attempts to load the operating system from the devices in the sequence selected in these items.

The Choice: Floppy, LS / ZIP, HDD, SCSI, CDROM, Disabled.

### 3-7.7 Swap Floppy Drive

If the system has two floppy drives, you can swap the logical drive mane assignments.

The choice: Enabled / Disabled.

### 3-7.8 Boot Up Floppy Seek

Seeks disk drives during boot up. Disabling speeds boot up.

The choice: Enabled / Disabled.

### 3-7.9 Boot Up NumLock Status

Select power on state for NumLock .

The choice: Enabled / Disabled.

### 3-7.10 Gate A20 Option

Select if chipset or keyboard controller should control GateA20.

Normal	A pin in the keyboard controller control GateA20
Fast	Lets chipset control (GateA20)

### 3-7.11 Typematic Rate Setting

Key strokes repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be selected.

The choice: Enabled) / Disabled.

### 3-7.12 Typematic Rate (Chars / Sec)

Sets the number of times a second to repeat a key stroke when you hold the key down.

The choice: 6, 8, 10, 12, 15, 20, 24, 30.

### 3-7.13 Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.

The choice: 250, 500, 750, 1000.

### 3-7.14 Security Option

Select whether the password is required every time the system boots up or only while you enter setup.

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

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

**3-7.15 OS Select For DRAM>64MB**

Select the operating system that is running with greater than 64MB of RAM on the system.

The choice: Non-OS2, OS2.

**3-7.16 Report No FDD For Win95**

Whether report no FDD to Win95 or not.

The choice: Yes, No.

**3-8 Advanced Chipset Features**

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Advanced Chipset Features

SDRAM CAS Latency Time	[ 3 ]	Item Help
SDRAM Cycle Time Tras/Trc	[ Auto ]	
SDRAM RAS-to-CAS Delay	[ Auto ]	Menu Level      ➤
SDRAM RAS Precharge Time	[ Auto ]	
System BIOS Cacheable	[ Disabled ]	
Video BIOS Cacheable	[ Disabled ]	
Memory Hole At 15M-16M	[ Enabled ]	
CPU latency Timer	[ Enable ]	
Delayed Transaction	[ Enabled ]	
AGP Graphics Aperture Size	[ 64MB ]	
System Memory Frequency	[ Auto ]	
On-Chip Video Window Size	[ 64MB ]	
↑↓←→Move    Enter: Select    +/-/PU/PD: Value    F10:Save    ESC: Exit    F1:General Help F5:Previous Values    F6:Fail-safe defaults    F7:Optimized Defaults		

This selection allows you to configure the system based on the specify features of he installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It also coordinates communication between the conventional ISA bus and the PC I bus. It must be stated that these items should never need to be altered. The defaults settings have been chosen because they provides the best operating conditions for your system. The only time you might consider making any changes would be if you discovered that data was being lost while using your system.

### 3-9 **DRAM Settings**

The first chipset settings deal with CPU access to dynamic random access memory (DRAM). The default timings have been carefully chosen and should only be altered if data is being lost. Such a scenario might well occur if your system had mixed speed DRAM chips installed so that greater delays may be required to preserve the integrity of the data held in the slower memory chips.

#### 3-9.1 **SDRAM CAS Latency Time**

When synchronous DRAM is installed, the number of clock cycle of CAS latency depends on the DRAM timing.

The choice: 2, 3

#### 3-9.2 **SDRAM Cycle Time $T_{RAS}$ / $T_{RC}$**

Select the number of SCLK for an access cycle.

The Choice: 5/7, 6/8

#### 3-9.3 **SDRAM Address Setup Time**

The item controls the Address Setup to the SDRAM timing.

The Choice: 1, 2

#### 3-9.4 **SDRAM RAS -to -CAS Delay**

This field lets you insert timing delay between the CAS and RAS strobe signals, used when DRAM is writing to read from or refreshed. Fast gives faster performance, and Slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

The Choice: 2, 3

#### 3-9.5 **SDRAM RAS Precharge Time**

If an insufficient number of cycles is allowed for the RAS to accumulate its charge before DRAM refresh, the refresh may be incomplete and the DRAM may fail to retain data. Fast gives

faster performance; and slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

The Choice: 2, 3

### **3-9.6 System BIOS Cacheable**

Selecting Enabled allows caching of the system BIOS ROM at F0000h- FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

### **3-9.7 Video BIOS Cacheable**

Select Enabled allows caching of the video BIOS , resulting in better system performance. However, if any program writes to this memory area, a system error ma result.

The Choice: Enabled, Disabled

### **3-9.8 Memory Hole At 15M-16M**

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it can not be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

The Choice: Enabled, Disabled.

### **3-9.9 Delay Transaction**

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

The Choice: Enabled, Disabled.

### **3-9.10 On-chip Video Window Size**

Select the on-chip video window size for VGA drive use.

The Choice: 32MB, 64MB, Disabled.

### 3-10 Integrated Peripherals

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#### Integrated Peripherals

		Item Help
On-chip Primary PCI IDE	[Enabled]	
On-chip Secondary PCI IDE	[Enabled]	
IDE Primary Master PIO	[Auto]	Menu Level ➤
IDE Primary Slave PIO	[Auto]	If your IDE hard
IDE Secondary Master PIO	[Auto]	drive supports block
IDE Secondary Slave PIO	[Auto]	mode select Enabled
IDE Primary Master UDMA	[Auto]	for automatic
IDE Primary Slave UDMA	[Auto]	detection of the
IDE Secondary Master UDMA	[Auto]	optimal number of
IDE Secondary Slave UDMA	[Auto]	block read/write per
USB Controller	[Enabled]	sector the drive can
USB Keyboard Support	[Disabled]	support
Init Display First	[PCI slot]	
AC'97 Audio	[Auto]	
AC'97 Modem	[Auto]	
IDE HDD Blank Mode	[Enabled]	
Power ON Function	[BUTTON ONLY]	
X KB Power On Password	[Enter]	
X Hot Key Power On	Ctrl-F1	
Onboard FDC Controller	[Enabled]	
Onboard Serial port1	[3F8/IRQ4]	
Onboard Serial port 2	[2F8/IRQ3]	
UART Mode Select	[Normal]	
X RND, T x D Active	[HiLo]	
X IR Transmission Delay	[Enabled]	
X UR2 Duplex Mode	[Half]	
X Use IR Pins	[IR-Rx2Tx2]	
Onboard parallel port	[378/IRQ7]	
Parallel Port Mode	[SPP]	
X EPP Mode Select	[EPP1.7]	
X ECP Mode Use DMA	[3]	
PWRIN After PWR-Fail	[off]	
Game Port Address	[201]	
Midi port Address	[330]	
Midi port IRQ	[10]	
↑↓←→ Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1:General Help F5:Previous Values F6:Fail-safe defaults F7:Optimized Defaults		

### **3-10.1 On-chip Primary / Secondary PCI IDE**

The integrated peripherals controller contains an IDE interface with support for two IDE channels. Select Enabled to activate each channel separately.

The choice: Enabled, Disabled

### **3-10.2 IDE Primary / Secondary Master / Slave PIO**

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode(0-4) for each of the four IDE devices that the onboard IDE interface supports. Mode 0 through 4 provided successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

The choice: Auto, Mode0, Mode1, Mode2, Mode3, Mode4.

### **3-10.3 IDE Primary/ Secondary Master /Slave UDMA**

Ultra DMA/3 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 )SR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA33, select Auto to enable BIOS support.

The choice: Auto, Disabled

### **3-10.4 USB Controller**

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

The choice: Enabled, Disabled.

### **3-10.5 USB Keyboard Support:**

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

The choice: Enabled, Disabled.

### **3-10.6 Init Display First**

This item allows you to decide to active whether PCI Slot or on-chip VGA first.

The choice: PCI Slot, Onboard.

### **3-10.7 AC'97 Audio/Modem**

This item allows you to decide to enable / disable the 810 chipset family to support AC'97Audio / modem.

The choice: Enabled, Disabled

### **3-10.8 IDE HDD Block Mode**

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

The choice: Enabled, Disabled

### **3-10.9 Onboard FDC Controller**

Select Enabled if your system has a floppy disk controller(FDC) installed on the system board and you wish to use it. If you install and –in FDC on the system has on floppy drive, select Disabled.

The choice: Enabled, Disabled

### **3-10.10 Onboard Serial Port 1/2**

Select an address and corresponding interrupt for the first and second serial ports.

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

## **3-11 Power Management Setup**

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

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### Power Management Setup

ACPI Function	[Enabled]	Item Help
ACPI Suspend Type	[S1(POS)]	
Power Management	[User Define]	Menu Level ➤
Video Off Method	[DPMS]	
Video Off In Suspend	[Yes]	
Suspend Type	[Stop Grant]	
MODEM Use IRQ	[3]	
Suspend Mode	[Disabled]	
HDD Power Down	[Disabled]	
Soft-Off by PWRBTN	[Instant-off]	
Wake-up by PCI Card	[Disabled]	
Power On By Ring	[Enabled]	
USB KB Wake-up From s3	[Disabled]	
CPU THRM-Throttling	50.0%	
Resume by Alarm	[Disabled]	
X Date (of Month0 alarm	[0]	
X Time ( hh:mm:ss0 Alarm	0:0:0	
** Reload Global Timer Events **		
Primary IDE 0	[Disabled]	
Primary IDE 1	[Disabled]	
Secondary IDE 0	[Disabled]	
Secondary IDE 1	[Disabled]	
FDD, COM, LPT Port	[Disabled]	
PCI PIRQ [A-D]#	[Disabled]	
↑↓←→Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1:General Help F5:Previous Values F6:Fail-safe defaults F7:Optimized Defaults		

### 3-11.1 ACPI Function

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

The choice: Enabled, Disabled.

### 3-11.2 ACPI Suspend Type

Selections are : S1 (POS), S3 (STR)

### 3-11.3 Power Management

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

- 1、 HDD Power Down
- 2、 Doze Mode

### 3、 Suspend Mode

There are four selections for power management, three of which have fixed mode setting:

Disable (default)	No power management. Disable all four modes
Min. Power Saving	Minimum power management. Doze Mode = 1 hr, Standby Mode= 1 hr., Suspend Mode = 1 hr., and HDD Power Down= 15min.
Max. Power Saving	Maximum power management –ONLY AVAILABLE FOR SL CPU'S. Doze Mode = 1 min., Standby Mode= 1 min., Suspend Mode = 1 min, and HDD Power Down = 1 min.
User Defined	Allows you to set each mode individually. When Enabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

#### 3-11.4 Video Off Method

This determines the manner in which the monitor is blanked.

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

#### 3-11.5 Video Off In Suspend

This determines the manner in which the monitor is blanked.

The choice: Yes, No.

#### 3-11.6 Suspend Type

Select the Suspend Type.

The choice: PWRON Suspend, Setup Grant.

#### 3-11.7 MODEM Use IRQ

This determine the IRQ in which the MODEM can sue.

The choice: 3, 4, 5, 6, 7, 9, 10, 11, NA.

#### 3-11.8 Suspend Mode

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

The choice: Enabled, Disabled.

### 3-11.9 HDD Power Down

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

The choice: Enabled, Disabled.

### 3-11.10 Soft-Off by PWRBTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has “hung”

The choice: Delay 4 Sec, Instant-Off

### 3-11.11 CPU THRM-Throttling

Select the CPU THRM Throttling rate.

The choice: 25.0%, 37.5%, 50.0%, 62.5%, 75.0%, 87.5%.

## 3-12 **PM Events**

PM Events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode.

- Primary IDE0
- Primary IDE1
- Secondary IDE0
- Secondary IDE1
- FDD, COM, LPT port
- PCI PIRQ [A-D] #

## 3-13 **PnP / PCI Configuration Setup**

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

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### PnP/PCI Configurations

Reset Configuration Data [Disabled]	Item Help -----
Resources Controlled By [Auto (ESCO)]	Menu Level ➤
④ IRQ Resources [Press Enter]	
PCI/VGA Palette Snoop [Disabled]	Default is Disabled. Select Enabled to reset Extended System Configuration Data(ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot
↑↓←→Move Enter: Select +/-/PU/PD: Value F10:Save ESC: Exit F1:General Help F5: Previous Values F6:Fail-safe defaults F7:Optimized Defaults	

### 3-13.1 PNP OS Installed

This item allows you to determined install PnP OS or not.

The Choice: YES, NO.

### 3-13.2 Reset Configuration Data

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system can not boot.

The choice: Enabled, Disabled.

### 3-13.3 Resource controlled by

The Award Plug and play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows 95. If you set this field to “ manual” those specify resource by going into each of the sub menu that follows this field (a sub menu is proceeded by a “➤”).

The choice: Auto (ESCD), Manual.

### **3-13.4 IRQ Resources**

When resource re controlled manually, assign each system interrupt a type depending on the type of device using the interrupt.

### **3-13.5 IRQ3 / 4 / 5 / 7 / 9 / 10 / 11 / 12 / 14 / 15 assigned to**

This item allows you to determine the IRQ assigned to the ISA bus and is not available to any PCI slot. Legacy ISA for device compliant with the original PC AT bus specification. PCI/ ISA PnP for devices compliant with the Plug and Play standard whether designed for PCI or ISA bus architecture.

The Choice: Legacy ISA and PCI / ISA PnP.

### **3-13.6 DMA Resources**

When resources are controlled manually, assign each system DMA channel a type, depending on the type of the device using the DM channel.

### **3-13.7 DMA 0 / 1 / 3 / 5 / 6 / 7 / assigned to**

Legacy ISA for devices compliant with the original PC At bus specification PCI / ISA PnP for devices compliant with the Plug and Play standard whether designed for PCI or ISA bus architecture.

Choices are: Legacy ISA and PCI / ISA PnP.

### **3-13.8 Memory Resources**

This sub menu can let you control the memory resource.

### **3-13.9 Reserved Memory Base**

Reserved a low memory for the legacy device (non-PnP device).

Choices are: C800, COM, D800, DC00, D400, N / A.

### **3-13.10 Reserved Memory Length**

Reserved a low memory length for the legacy device (non-PnP device).

Choices are: 8K, 16K, 32K, 64K.

### **3-13.11 PCI / VGA Palette Snoop**

Leave this field at Disabled.

Choices are: Enabled, Disabled.

### **3-14 PC Health Status**

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

CMOS Setup Utility – Copyright © 1984-2001 Award Software		
PC Health Status		
CPU Warning Temperature	[Disabled]	Item Help
Current System Temp.	36/96F	-----
Current CPU Temp.	46/14F	Menu Level      ➤
Current CPUFAN1 Speed	ORPM	
Current CPUFAN2 Speed	ORPM	
Current CPUFAN3 Speed	ORPM	
INO (V)	1.60V	
IN1 (V)	1.47V	
IN2(V)	3.24V	
+5V	4.83V	
+12V	11.91V	
-12V	-11.62V	
-5V	-5.09	
V BAT(V)	2.84V	
5VSB (V)	4.82V	
Shutdown Temperature	[Disabled]	
↑↓←→ Move    Enter: Select    +/-/PU/PD: Value    F10:Save    ESC: Exit    F1:General Help F5:Previous Values    F6:Fail-safe defaults    F7:Optimized Defaults		

#### **3-14.1 Current System Temperature**

Show you the current system temperature.

#### **3-14.2 Current CPU FAN1 Speed**

Show you the current CPU FAN1 Speed.

#### **3-14.3 Current CPU FAN2 Speed**

Show you the current CPU FAN2 Speed.

### 3-15 **Frequency /Voltage Control**

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Frequency / Voltage Control

Auto Detect DIMM/PCI CLK	[Enabled]	Item Help
Spread Spectrum	[Disabled]	-----
CPU Host Clock	[133Mhz]	Menu Level      ➤
CPU Clock Ratio	[X3]	
↑↓←→ Move Enter: Select +/-/PU/PD: Value    F10:Save    ESC: Exit    F1:General Help F5:Previous Values    F6:Fail-safe defaults    F7:Optimized Defaults		

#### 3-15.1 Auto Detect

This item allows you to enabled / disable auto detect DIMM/PCI Clock.

The choice: Enabled, Disabled.

#### 3-15.2 Spread Spectrum Modulated

This item allows you to enable / disable the spread spectrum modulate.

The choice: Enabled, Disabled.

#### 3-15.3 CPU Speed

This item allows you to select the CPU speed.

#### 3-15.4 CPU Ratio

This item allows you to select the CPU ratio.

#### 3-15.5 CPU Frequency

This item allows you to select the CPU frequency.

### 3-16 **Defaults Menu**

Selecting “Defaults” from the main menu show you two option which are described below:

#### 3-16.1 **Load Fail-Self Defaults**

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

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

Pressing “Y” loads the BIOS defaults value for the most stable , minimal-performance system operations.

#### 3-16.2 **Load Optimize Defaults**

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

**Load Optimize Defaults (Y/N) ? N**

Pressing “Y” load the default value that are factory settings for optimal performance system operations.

### 3-17 **Supervisor / User Password Setting**

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

#### 3-17.1 **supervisor password:**

can enter and change the options of the setup menus.

#### 3-17.2 **user password:**

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

**ENTER PASSWORD:**

Type the password, up to eight characters in length, and press <Enter>.the password typed now will clear any previously entered password from CMOS memory. You will be asked to

confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

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

### **PASSWORD DISABLED**

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

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

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

## **3-18 Exiting Selecting**

### **3-18.1 Save & Exit Setup**

Pressing <Enter> on this item asks for confirmation:

**Save to CMOS and EXIT (Y/N) ? Y**

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

### **3-18.2 Exiting Without Saving**

Pressing <Enter> on this item asks for confirmation:

**Quit without saving (Y/N) ? Y**

This allows you to exit Setup without saving any change in CMOS. The previous selection remains in effect. This exits the Setup utility and restarts your computer.

## **Chapter 4     Driver and Software Installation**

### **4-1     Driver and Software Installation for Win95 / 98 / ME**

#### **4-1.1     Driver Installation:**

##### **A. Installation of INF file:**

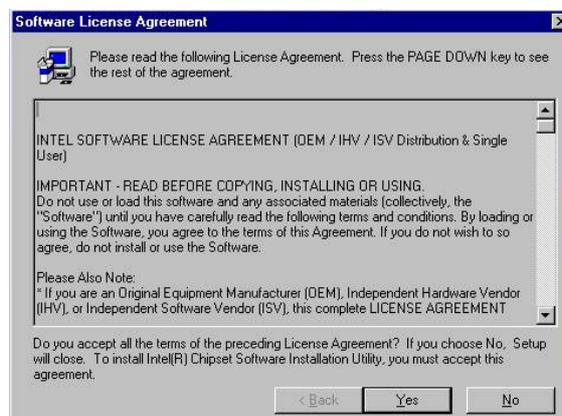
1. Run X:\INTEL815E\INF\infinst\_auto1.exe, start to install the driver.



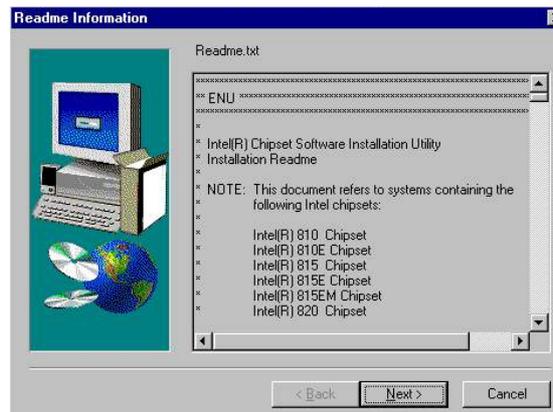
2. Welcome interface appears, click “Yes”.



3. Click “Yes”.



4. Readme Information appears, click “Next”.



5. Select “Yes” then click “Finish”, the system will restart and the installation finished.



### B. Installation of IDE driver:

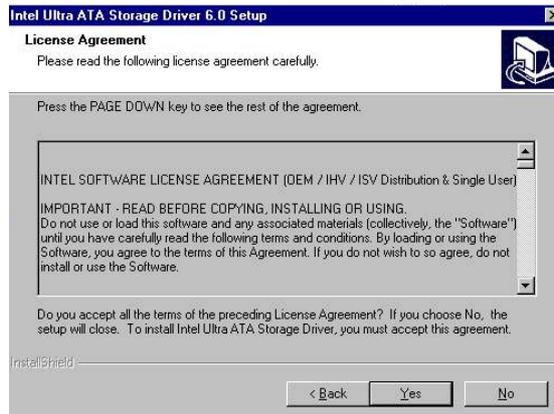
1. Run X:\INTEL815E\IDE\iata\_cd.exe, start the installation of driver.



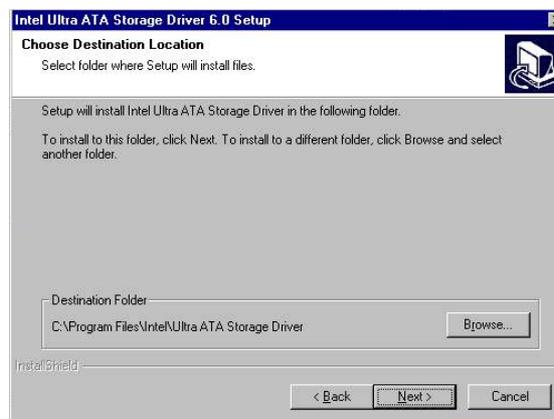
2. Click “Next”.



3. Click “Yes”.



4. Select proper installation path, then click “Next”.



5. Select proper program folder, click “Next”.



6. Click “Finish”, the system reboot and the installation finished.



### C. Installation of Sound Driver:

1. Run X: \INTEL815\Sound\win9xm\_drv\setup.exe, the choose language interface appears, select 'English', then click "OK".



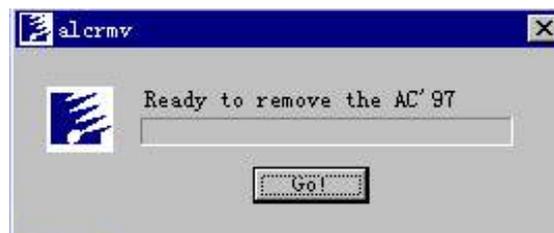
2. Click "Next".



3. Click "OK".



4. Ready to install, click "GO!".



5. Click “Finish”, system restarted and the installation finished.



### D. Installation of AVRACK:

1. Run X:\INTEL815E\Sound\win9xm\wind9xm\_ap\setup.exe, select “English” on the Choose Language interface, then click “OK”.



2. Click “Next”.



3. Click “Finish”, the system reboot and the installation finished.



## 4-2 Driver and software for Windows 2000

### 4-2.1 Driver Installation

#### A. INF Installation:

1. Run X:\INTEL815E\INF\infnst\_auto1.exe, start the installation of INF.



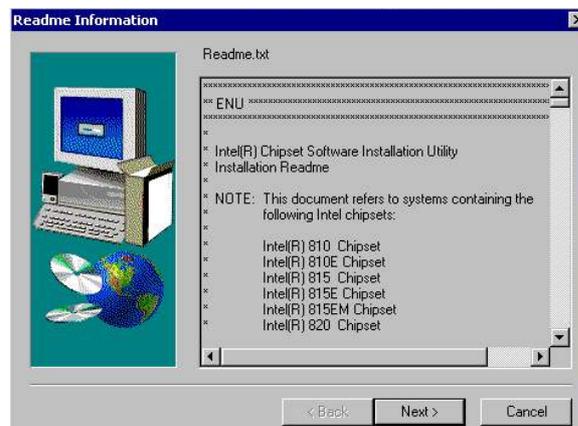
2. Click “Next”.



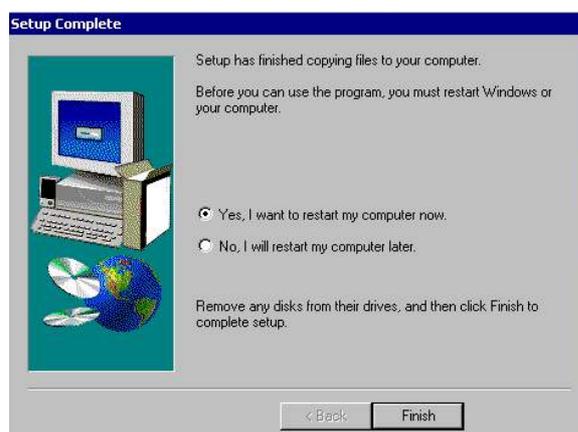
3. Click “Yes”.



4. Readme information appears, click “Next”.



5. Click “Finish”, the system restart and the installation finished.



## B. IDE Installation

1. Run X:\INTEL815E\IDE\iata\_cd.exe,start to install the IDE.



2. Click “Next” to go on.



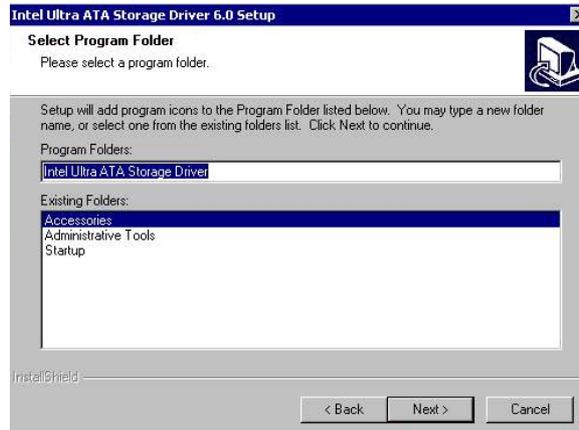
3. Click “Yes”.



4. Select proper installation path, then click “Next”.



5. Select proper program folder, then click “Next”.



6. Click “Finish”, IDE installation finished.

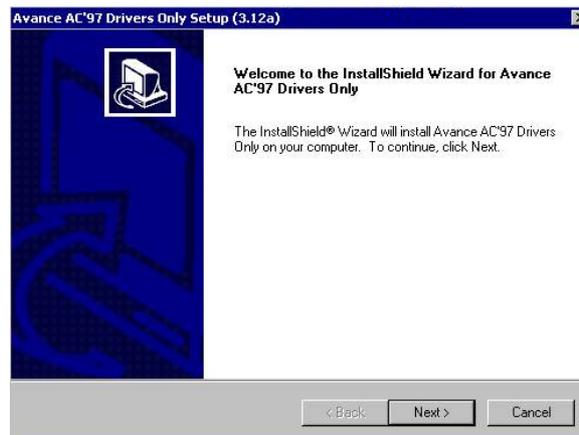


### C. Installation of Sound Driver:

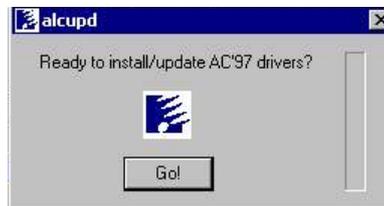
1. Run X: \INTEL815\Sound\win9xm\_drv\setup.exe, select “English” in the Choose Language interface.



2. Click “Next” to go on.



3. Ready to install, click “GO!”.



4. Click “Yes”.



5. Click “Finish”, system restart and the installation finished.



### D. AVRACK Installation

1. Run X: \win9xm\_ap\setup.exe. Select “English” on the Choose Language interface.



2. Click “Next”.



3. Click “Finish”, AVRACK installation finished.



**P / N: 73-F09A1010-000**