

# 7A1647A

## User's Manual Version 1.0

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## Introduction

### System Overview

This manual was written to help you start using this product as quickly and smoothly as possible. Inside, you will find the answers to solve most problems. In order for this reference material to be of greatest use, refer to the “expanded table of contents” to find relevant topics.

This board provides a total PC solution by incorporating the System , I/O , and PCI IDE. The mainboard support single AMD Athlon / Duron processors base PC ATX system, PCI Local Bus, and AGP Bus to upgrades your system performance. It is ideal for multi-tasking and fully supports MS-DOS, Windows, Windows NT , Windows ME, Windows 2000, Novell, OS/2, Windows95/98 , Windows 98SE, UNIX , SCO UNIX etc.

This manual also explains how to install the mainboard for operation, and how to setup your CMOS configuration with the BIOS setup program.

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# 1.Motherboard Description

## 1.1 Features

### 1.1.1 Hardware

#### CPU

- Single Socket A for AMD Athlon™ & Duron™ & Palomino™ & Morgan™ processor.
- Support CPU speed from 600MHz to 1.4GHz or higher processor.
- 200MHz/266MHz System Interface speed.

#### Speed

- Supports 33MHz PCI Bus speed.
- Supports 1X/2X/4X AGP Bus.

#### System Memory

- 2\*184 pin DDR socket.
- Supports 200/266MHz Double Date Rate(DDR) SDRAM(2.5V)
- Supports a maximum memory size of 2GB with DDR SDRAM.

#### Bus Slots

- Provide one AGP slot and one AMR slot.
- Five 32-bit PCI bus.

#### Universal Serial Bus

- Supports two back Universal Serial Bus(USB)Ports and two front Universal serial Bus(USB)Ports.

#### Hardware Monitor Function

- CPU Fan Speed Monitor.
- System and CPU Temperature Monitor.
- System Voltage Monitor.

#### Flash Memory

- Support 2 MB flash memory.
- support ESCD Function.

**IDE Bulit-in On Board**

- Supports four IDE devices.
- Supports PIO Mode 5, Master Mode,high performance hard disk drives.
- Support Ultra DMA 33/66/100 Bus Master Mode.
- Supports IDE interface with CD-ROM.
- Supports high capacity hard disk drives.
- Support LBA mode.

**PCI-Based AC 97 Digital Audio Processor**

- AC 97 2.1 interface.
- 16 channels of high-quality sample rate conversion.
- Sound Blaster and Sound Blaster Pro emulation.

**I/O Bulit-in On Board**

- Supports one multi-mode Parallel Port.
  - (1)Standard & Bidirection Parallel Port
  - (2)Enhanced Parallel Port(EPP)
  - (3)Extended Capabilities Port
- Supports two serial ports, 16550 UART.
- Supports one Infrared transmission(IR).
- Supports PS/2 mouse and PS/2 Keyboard.
- Supports 360KB, 720KB, 1.2MB, 1.44MB, and 2.88MB floppy disk drivers.

**Voltage Regulator**

VRM 9.0(Auto Detect).

**WOL/WOM (Wake On LAN & Wake On Modem)**

Supports system power up from LAN/Modem ring up .

### 1.1.2 Software

#### BIOS

- AWARD legal BIOS.
- Support DMI 2.3.
- Supports APM 1.2.
- Supports USB Function.
- Supports ACPI

#### Operation System

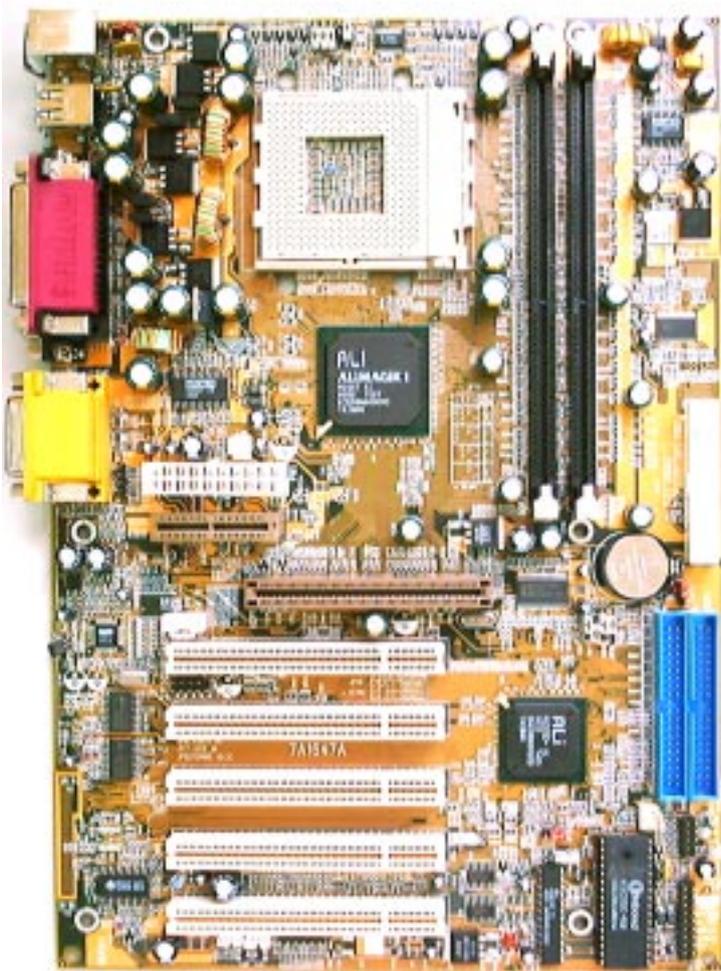
- Offers the highest performance for MS-DOS, Windows, Windows NT, Windows 2000, Novell, OS/2, Windows ME, Windows95/98, Windows 98SE, UNIX, SCO UNIX etc.

### 1.1.3 Attachments

- HDD UDMA66/100 Cable.
- FDD Cable.
- Flash Memory Written for BIOS Update.
- USB2 Cable (**Option**).
- Fully Setup CD Driver (Ghost, Anitivirus, Adobe Acrobat).
- This manual.

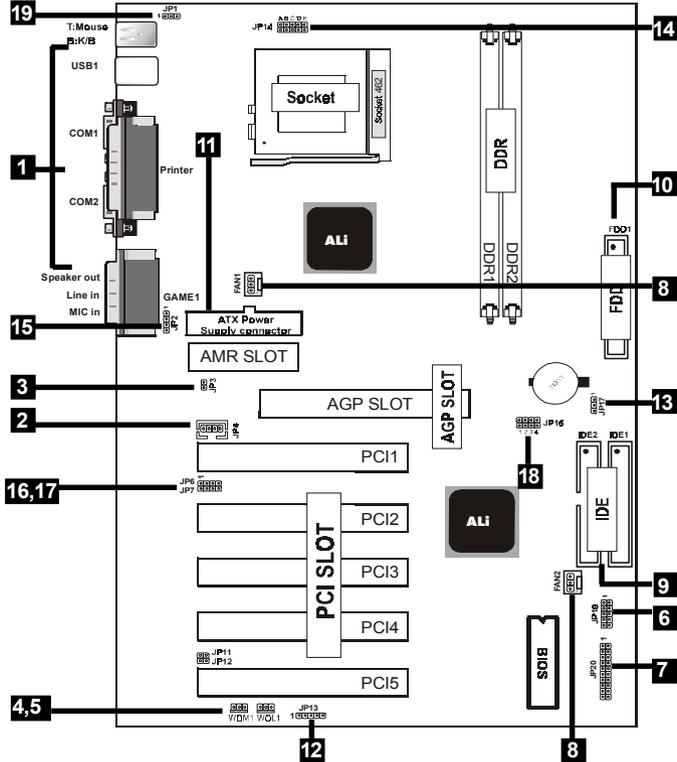
## 1.2 Motherboard Installation

### 1.2.1 Motherboard Map



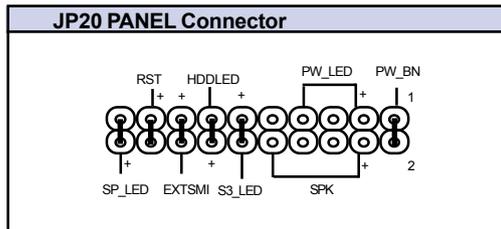


## 1.3 Motherboard Connectors



- |                                       |                               |
|---------------------------------------|-------------------------------|
| 1. Back Panel I/O Connectors          | 2. CD Audio-In Connector      |
| 3. AMR CODEC Function(JP3)            | 4. Wake-On Modem Connector    |
| 5. Wake-On-LAN Connector              | 6. Front USB2 Connector       |
| 7. Front Panel Connector              | 8. Fan Connectors(Fan1/2)     |
| 9. IDE Connectors                     | 10. Floppy Connector          |
| 11. ATX Power Connector               | 12. IR Connector              |
| 13. CMOS Function Select(JP17)        | 14. CPU Ratio Selection(JP14) |
| 15. Telephone in Connector(JP2)       | 16. Video Connector(JP6)      |
| 17. AUX Audio in Connector(JP7)       |                               |
| 18. CPU Clock Frequency Setting(JP16) |                               |
| 19. Keyboard Wake Up Setting(JP1)     |                               |

### 1.3.1 Front Panel Connector(JP20)



#### Speaker Connector (SPK)

An offboard speaker can be installed onto the motherboard as a manufacturing option. An offboard speaker can be connected to the motherboard at the front panel connector. The speaker (onboard or offboard) provides error beep code information during the Power Self-Test when the computer cannot use the video interface. The speaker is not connected to the audio subsystem and does not receive output from the audio subsystem.

#### Hard Drive LED Connector (HDDLED)

This connector supplies power to the cabinet IDE activity LED. Read and write activity by devices connected to the Primary or Secondary IDE connectors will cause the LED to light up.

#### SMI Suspend Switch Lead (EXTSMI)

This allows the user to manually place the system into a suspend mode or Green mode where systematic activity will be instantly decreased to save electricity and expand the life of certain components when the system is not in use. This 2-pin connector (see the figure ) connects to the case-mounted suspend switch. If you do not have a switch for the connector, you may use the Turbo Switch” instead since it does not have a function. SMI is activated when it detects a short to open moment. It may require one or two pushes depending on the position of the switch. Wake-up can be controlled by settings in the BIOS but the keyboard will always allow wake-up (the SMI lead cannot wake-up the system). If you want to use this connector, the "Suspend Switch" in the Power Management Setup of the BIOS SOFTWARE section should be on the default setting of Enable.

---

**ATX Power Switch (PW\_BN)**

The system power is controlled by a momentary switch connected to this lead. Pushing the button once will switch the system ON. The system power LED lights when the system's power is on .

**Power LED Lead (PW\_LED)**

The system power LED lights when the system power is on.

**SMI LED Lead (SP\_LED)**

The system SMI LED lights when the system suspend is on.

**S3 LED (S3\_LED)**

The system S3 LED flash when the system in S3 mode state.

**Reset Switch Lead (RST)**

The connector can be connected to a momentary SPST type switch that is normally open. When the switch is closed,the motherboard resets and runs the POST.

**1.3.2 Floppy Disk Connector (FDD1)**

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the board, connect the two plugs on the other end to the floppy drives.

**1.3.3 Hard Disk Connectors (IDE1/IDE2)**

These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk .

If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE) (Pin 20 is removed to prevent inserting in the wrong orientation when using ribbon cables with pin 20 plugged) .

### 1.3.4 ATX 20-pin Power Connector (PW1)

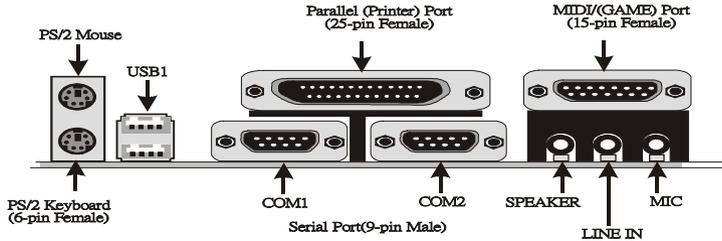
This connector supports the power button on-board. Using the ATX power supply, functions such as Modem Ring Wake-Up and Soft Power Off are supported on this motherboard. This power connector supports instant power-on functionality, which means that the system will boot up instantly when the power connector is inserted on the board.

Pin	Signal	Pin	Signal
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	GND	13	GND
4	5V	14	PS-ON
5	GND	15	GND
6	5V	16	GND
7	GND	17	GND
8	PW-OK	18	-5V
9	5V_SB	19	5V
10	12V	20	5V

### 1.3.5 Infrared Connector (JP13)

After the IrDA interface is configured, files can be transferred from or to portable devices such as laptops, PDAs, and printers using application software.

## 1.4 Back Panel Connectors

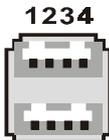


### 1.4.1 PS/2 Mouse /Keyboard CONN.

The motherboard provides a standard PS/2 mouse / Keyboard mini DIN connector for attaching a PS/2 mouse. You can plug a PS/2 mouse / Keyboard directly into this connector.

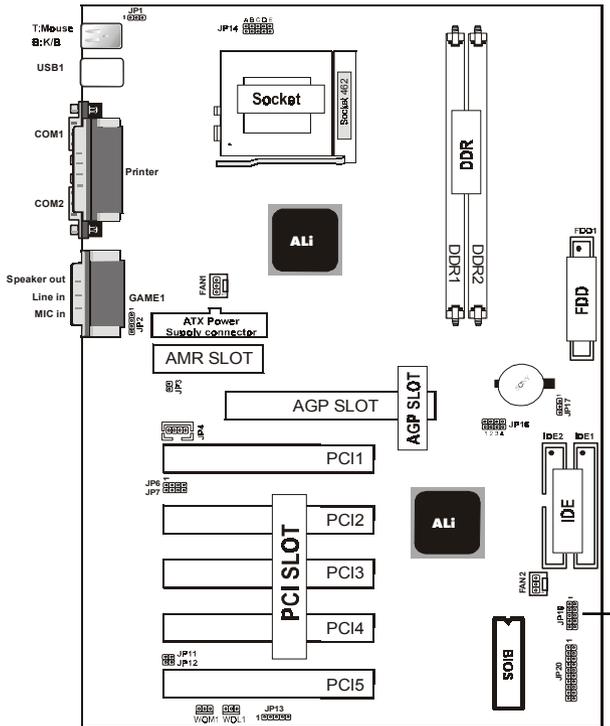
### 1.4.2 USB Connectors: USB1 (USB1/USB2)

The motherboard provides a OHCI(Open Host Controller Interface)Universal Serial Bus Roots for attaching USB devices such as a keyboard, mouse and other USB devices. Plug the USB devices directly into this connector.

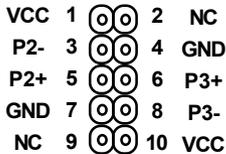


Pin	Signal
1	+5v
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	GND

Front USB2 Connectors: JP19



JP19



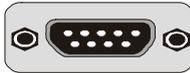
## 1.5 Serial and Parallel Interface Ports

This system equips two serial ports and one parallel port.

### The Serial Interfaces: COM1/COM2

The serial interface port is sometimes referred to as an RS-232 port or an asynchronous communication port. Mice, printers, modems and other peripheral devices can be connected to a serial port. The serial port can also be used to connect your computer system. If you wish to transfer the contents of your hard disk to another system it can be accomplished by using each machine's serial port.

#### COM1/COM2

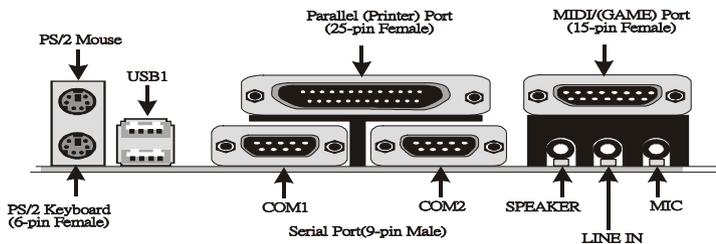


The serial port on this system has one 9-pin connector. Some older computer systems and peripherals used to be equipped with only a 25-pin connector. Should you need to connect your 9-pin serial port to an older 25-pin serial port, you can purchase a 9-to-25 pin adapter.

Signal	DB9 Pin	DB25 Pin
DCD	1	8
RX	2	3
TX	3	2
DTR	4	20
GND	5	7
DSR	6	6
RTS	7	4
CTS	8	5
RI	9	22

## Parallel Interface Port

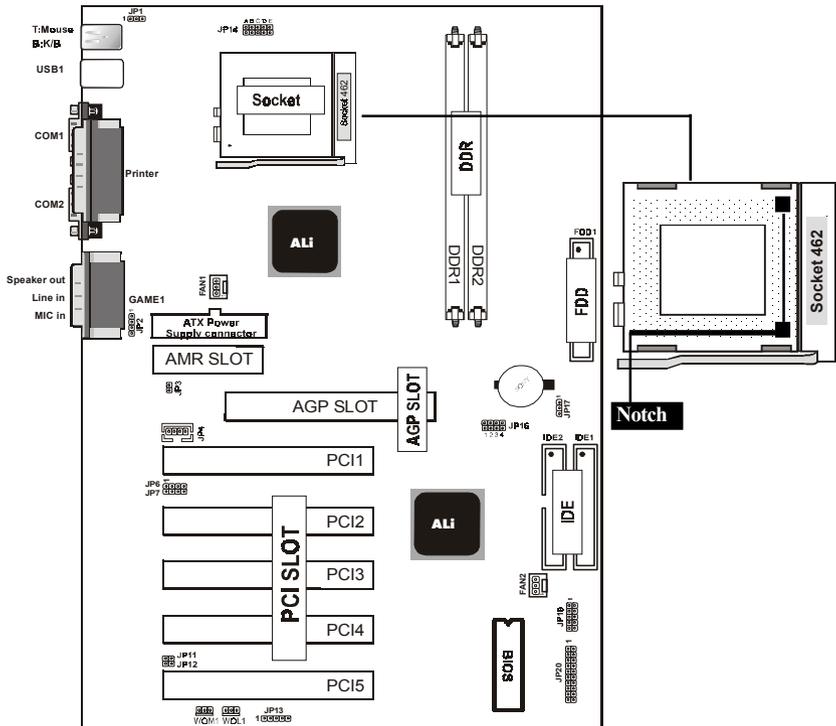
Unlike serial ports, parallel interface ports have been standardized and should not present any difficulty interfacing peripherals to your system. Sometimes called a Centronics port, the parallel port is almost exclusively used with printers. The parallel port on your system has a 25-pin, DB 25 connector (see the picture below).



## 1.6 CPU Installation

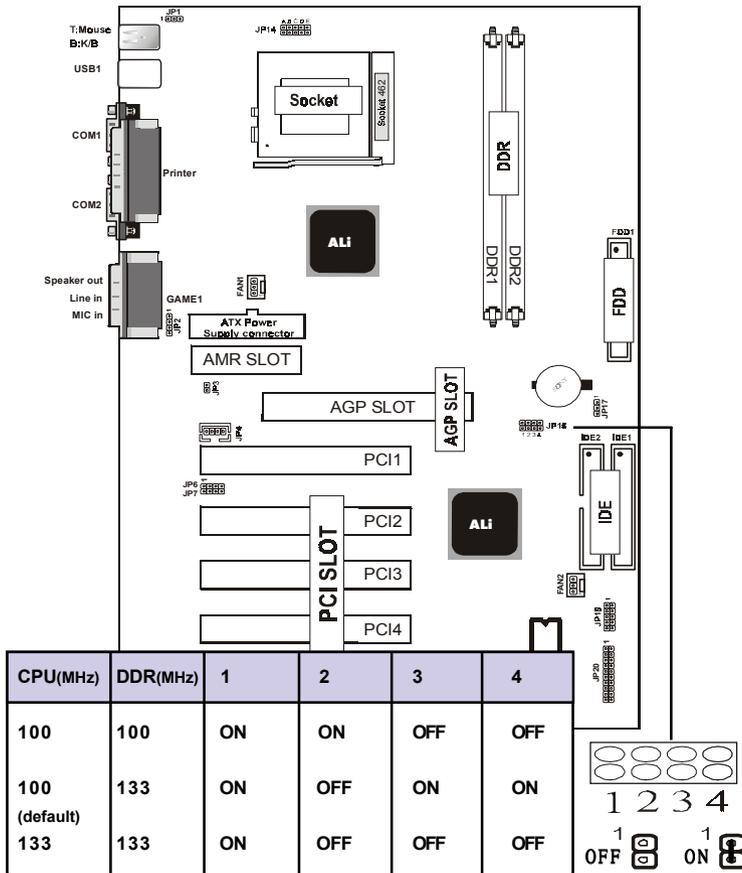
### 1.6.1 CPU Installation Procedure: Socket 462

1. Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.
2. Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.
3. Press the lever down to complete the installation.
4. **Make sure the spec of the heatsink is good enough.**



### 1.6.2 CPU Clock Frequency Setting: JP16

Overclocking is operating a CPU/Processor beyond its specified frequency. JP16 jumper is used for the CPU Front Side Bus Frequencies from 100MHz to 133MHz .



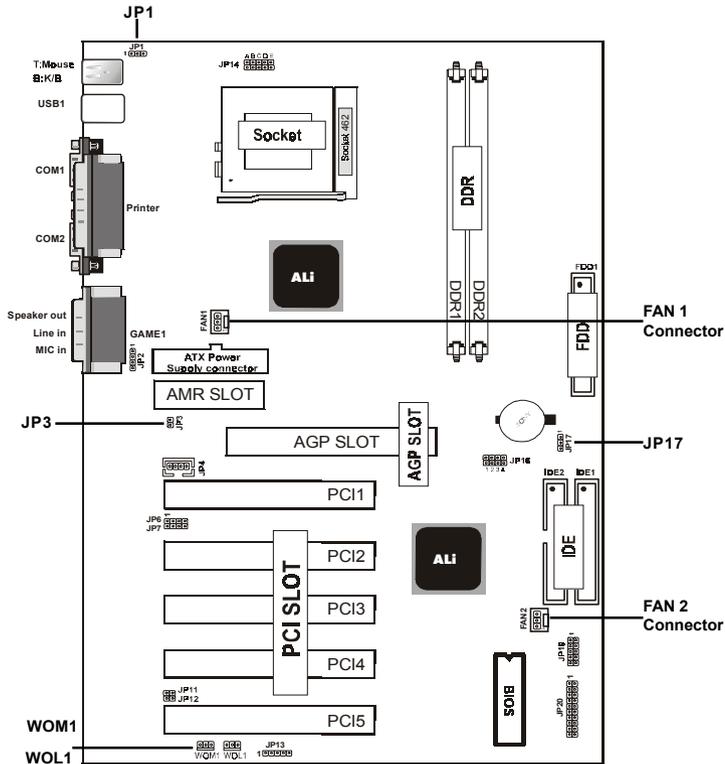
### 1.6.3 CPU Ratio Selection: JP14

JP14 jumper is used for the CPU Ratio selection.

Ratio	A	B	C	D	E
Auto (default)	OFF	OFF	OFF	OFF	ON
x7	OFF	ON	ON	ON	OFF
x7.5	OFF	ON	ON	OFF	OFF
x8	OFF	ON	OFF	ON	OFF
x8.5	OFF	ON	OFF	OFF	OFF
x9	OFF	OFF	ON	ON	OFF
x9.5	OFF	OFF	ON	OFF	OFF
x10	OFF	OFF	OFF	ON	OFF
x10.5	OFF	OFF	OFF	OFF	OFF
x11	ON	ON	ON	ON	OFF
x11.5	ON	ON	ON	OFF	OFF
x12	ON	ON	OFF	ON	OFF
x12.5	ON	ON	OFF	OFF	OFF

## 1.7 Jumper Setting

A jumper has two or more pins that can be covered by a plastic jumper cap, allowing you to select different system options.



### 1.7.1 CPU/System Fan Connectors: Fan1/2

Pin	Assignment
1	Ground
2	+12VDC
3	Signal

**1.7.2 Wake-On Modem Header: WOM1**

Pin	Assignment
 1	5V_SB
2	Ground
3	Signal

**1.7.3 Wake-On LAN Header: WOL1**

Pin	Assignment
 1	5V_SB
2	Ground
3	Signal

**1.7.4 AMR Code Function: JP3**

Pin	Assignment
ON 	On board CODEC is used (default)
OFF 	AMR slot is used

**1.7.5 Keyboard Wake up Setting: JP1**

The JP1 Jumper is for setting keyboard power. This function is provided by keyboard Wake-up function.

Pin	Assignment
1-2	Disabled (default)
2-3	Enabled

**1.7.6 CMOS Function Select: JP17**

Pin	Assignment
1-2	Normal (default)
2-3	Clear CMOS

**NOTE:**

**(Please follow the procedure below to clear CMOS data.)**

- (1) Remove the AC power line.
- (2) JP17(2-3) Closed.
- (3) Wait five seconds.
- (4) JP17(1-2) Closed.
- (5) AC Power on.
- (6) Reset your desired password or clear CMOS data.

## 1.8 DDR SDRAM Installation

### 1.8.1 DDR

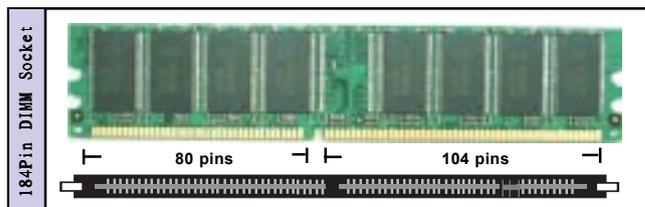
DDR SDRAM Access Time: 2.5V Unbuffered PC1600/  
PC2100 Type required.

DDR SDRAM Type: 64MB, 128MB, 256MB, 512 MB, 1GB  
DDR Module. (184 pin)

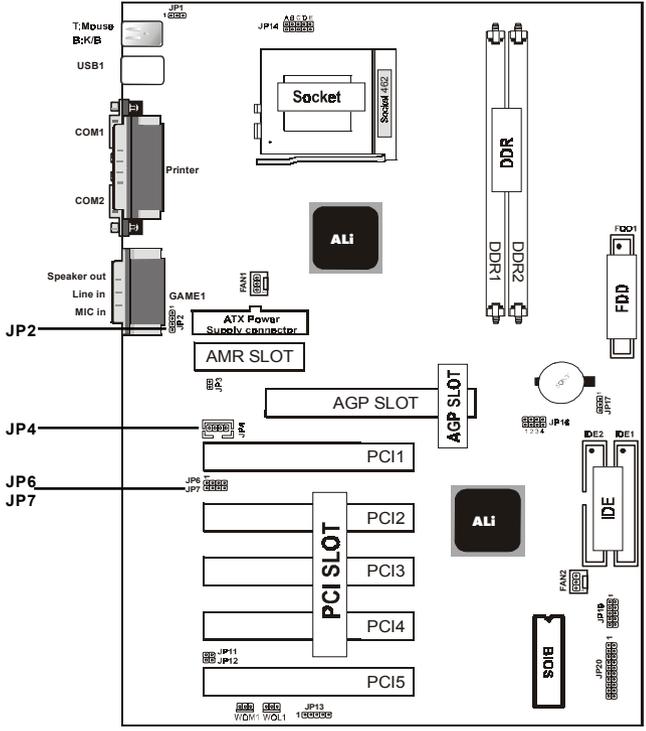
Bank	Memory module
DDR 1	64MB, 128MB, 256MB, 512MB, 1GB
( Bank 0-1 )	184 pin, 2.5V DDR SDRAM
DDR 2	64MB, 128MB, 256MB, 512MB, 1GB
( Bank 2-3 )	184 pin , 2.5V DDR SDRAM
	<b>Total System Memory (Max 2GB)</b>

### 1.8.2 How to install a DDR Module

1. The DDR socket has a “Plastic Safety Tab” and the DDR memory module has an asymmetrical notch”, so the DDR memory module can only fit into the slot in one direction.
2. Push the tabs out. Insert the DDR memory modules into the socket at a 90-degree angle then push down vertically so that it will fit into place.
3. The Mounting Holes and plastic tabs should fit over the edge and hold the DDR memory modules in place.



# 1.9 Audio Subsystem



## 1.9.1 CD Audio-In Connector: JP4

Pin JP4	Assignment
1	CD-L
2	GND
3	GND
4	CD-R

### 1.9.2 Telephone in Connector: JP2

Pin JP2	Assignment
1	PHONE
2	GND
3	GND
4	MONO_OUT

### 1.9.3 AUX Audio in Connector: JP7

Pin JP7	Assignment
1	AUX_L
2	GND
3	GND
4	AUX_R

### 1.9.4 Video in Connector: JP6

Pin JP6	Assignment
1	Video_L
2	GND
3	GND
4	Video_R

---

## 2. BIOS Setup

### **Introduction**

This manual discussed the Award Setup program built into the ROM BIOS. The Setup program allows the user to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the setup information when the power is turned off.

The Award BIOS installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports AMD-Athlon / Duron processors input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

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

### **Plug and Play Support**

The AWARD BIOS support the Plug and Play Version 1.0A specification. ESCD(Extended System Configuration Data)write is supported.

### **EPA Green PC Support**

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

### **APM Support**

This AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management(APM) specification. Power management features are implemented via the System Management Interrupt(SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

### **PCI Bus Support**

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect)local bus specification.

### **Support CPU**

This AWARD BIOS supports the AMD-Athlon / Duron processors CPU.

### **Using Setup**

In general, use the arrow keys to highlight items, press <Enter>to select, use the <PgUp>and <PgDn>keys to change entries, press<F1>for help and press <Esc>to quit. The following provides more detail about how to navigate in the Setup program by using the keyboard.

***Note:***

**(BIOS version 1.0 is for reference only. If there is a change in BIOS version, please use the actual version on the BIOS.)**

<b>Keystroke</b>	<b>Function</b>
Up arrow	Move to previous item
Down arrow	Move to 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 Submenus: Exit Current page to the next higher level menu
Move Enter	Move to item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+Key	Increase the numeric value or make changes
-Key	Decrease the numeric value or make changes
Esc Key	Main menu-Quit and not save changes into 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 optimized defaults
F10 Key	Save all the CMOS changes and exit

## 2.1 Main Menu

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

**“WARNING”**

*The information about BIOS defaults on manual (Figure 1,2,3,4,5,6,7,8,9,10,11,12,13,14)is just for reference, please refer to the BIOS installed on the board for updated information.*

### © Figure 1. Main Menu

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

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set User Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
Esc : Quit F9 : Menu in BIOS ←→↑↓: Select Item	
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

### Standard CMOS Features

This setup page includes all the items in standard compatible BIOS.

**Advanced BIOS Features**

Introduce all the items of the BIOS special enhanced features.

**Advanced Chipset Features**

Introduce all the items of the Chipset special enhanced features.

**Integrated Peripherals**

This selection page includes all the items of the IDE hard drive and Programmed Input/Output features.

**Power Management Setup**

Introduce all the items of the power management features.

**PnP/PCI Configuration**

Introduce the user defined or default IRQ Setting.

**PC Health Status**

Introduce the hardware Monitor information of the system.

**Frequency / Voltage Control**

This setup page controls the CPU's clock and frequency ratio.

**Load Fail-Safe Defaults**

To load the BIOS default values for the minimal/stable performance for your system to operate.

**Load Optimized Defaults**

These settings are more likely to configure a workable computer when something is wrong. If you cannot boot the computer successfully, select the BIOS Setup options and try to diagnose the problem after the computer boots. These settings do not provide optional performance.

**Set User Password**

You can specify both a User and a Supervisor password. When you select either password option, you are prompted for a 1-6 character password. Enter the password and then re-type the password when prompted.

**Save & Exit Setup**

Save CMOS value, change to CMOS and exit setup.

**Exit Without Saving**

Abandon all CMOS value changes and exit setup.

## 2.2 Standard CMOS Features

This item in the Standard CMOS Setup Menu is 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.

### © Figure 2. Standard CMOS Features

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

#### Standard CMOS Features

Date(mm:dd:yy)	Tue,Jun 6 2000	Item Help
Time (hh:mm:ss)	11:26:10	
IDE Primary Master	None	Menu Level
IDE Primary Slave		Change the day, month,year and century.
IDE Secondary Master	None	
IDE Secondary Master	None	
Drive A	1.44M,3.5 in	
Drive B	None	
Video	EGA/VGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	65472K	
Total	1024K	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
 F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
 F7:Optimized Defaults

### 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 data.
IDE Primary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Primary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
Drive A Drive B	None 360K, 5.25in 1.2M, 5.25in 720K, 3.5in 1.44M, 3.5in 2.88M, 3.5in	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

<b>Item</b>	<b>Options</b>	<b>Description</b>
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.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of conventional memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system.

## 2.3 Advanced BIOS Features

### © Figure 3. Advanced BIOS Features

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#### Advanced BIOS Features

Virus Warning	Disabled	Item Help
CPU Internal Cache	Enabled	
External Cache	Enabled	Menu Level
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	Allows you to choose the
Third Boot Device	LS-120	VIRUS warning feature for IDE
Boot Other Device	Enabled	Hard Disk boot sector protection.
Swap Floppy Drive	Disabled	If this function is enabled and someone attempts
Boot Up Floppy Seek	Enabled	to write data into this area,BIOS will show a
Boot Up NumLock Status	On	warning message on screen and
Boot Up System Speed	High	alarm beep
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
Typematic Rate (Chars/Sec)	6	
Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM	Non-OS2	
Report No FDD For WIN 95	No	
Video BIOS Shadow	Enabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
 F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
 F7:Optimized Defaults

### Virus Warning

This option allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will show a warning message on screen and alarm beep.

**The Choices:** Disabled(default), Enabled.

---

**CPU Internal Cache**

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

**Enabled (default)**      Enabled cache.  
**Disabled**                Disabled cache.

**External Cache**

This fields allow you to Enable or Disable the CPU'S "Level 2" secondary cache. Caching allows better performance.

**Enabled (default)**      Enabled cache.  
**Disabled**                Disabled cache.

**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 (default)**      Enabled quick POST.  
**Disabled**                Normal POST.

**First/Secondary/Third Boot Device**

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

**The Choices:** Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, USB-HDD, LAN, Disabled.

**Boot Other Device**

**The Choices:** Enabled(default), Disabled.

**Swap Floppy Drive**

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

**The Choices:** Disabled(default), Enabled.

---

**Boot Up Floppy Seek**

Seek disk drives during boot up. Disabled speeds boot-up.

**The Choices:** **Enabled**(default), Disabled.

**Boot Up NumLock Status**

Select power on state for Numlock.

**On (default)** Numpad is number keys.

**Off** Numpad is arrow keys.

**Boot Up System Speed**

Select boot up system speed.

**High (default)** System speed is high.

**Low** System speed is low.

**Gate A20 Option**

Select if chipset or keyboard controller should control Gate A20.

**Normal** A pin in the keyboard controller controls Gate A20.

**Fast (default)** Lets chipset control Gate A20.

**Typematic Rate Setting**

**Enabled** Enabled this option to adjust the keystroke repeat rate.

**Disabled (default)** Disabled.

**Typematic Rate (Char/Sec)**

Range between 6(**default**) and 30 characters per second.

This option controls the speed of repeating keystrokes.

**Typematic Delay (Msec)**

This option sets the time interval for displaying the first and the second characters.

**The Choices:** **250**(**default**), 500, 750, 1000.

### Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

<b>System</b>	The system will not boot and access to Setup will be denied if the correct password is not entered in prompt.
<b>Setup (default)</b>	The system will boot, but access to Setup will be denied if the correct password is not entered in prompt.

### OS Select For DRAM

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

**The Choices: Non-OS2(default), OS2.**

### Report No FDD For WIN 95

<b>No (default)</b>	Assign IRQ6 For FDD.
<b>Yes</b>	FDD Detect IRQ6 Automatically.

### Video BIOS Shadow

Determines whether video BIOS will be copied to RAM for faster execution.

<b>Enabled (default)</b>	Optional ROM is enabled.
<b>Disabled</b>	Optional ROM is disabled.
C8000-CFFFF Shadow / D0000-DFFFF Shadow	
Determines whether video BIOS will be copied to RAM for faster execution.	
<b>Enabled</b>	Optional ROM is Shadowed.
<b>Disabled (default)</b>	Optional ROM is not Shadowed.

**Note:** For C8000-DFFFF option-ROM on PCI BIOS, BIOS will automatically enable the shadow RAM. User does not have to select the item.

## 2.4 Advanced Chipset Features

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and external cache. It also coordinates communications of the PCI bus. It must be stated that these items should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. The only time you might consider making any changes would be if you discovered that data was lost while using your system.

### © Figure 4. Advanced Chipset Features

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#### Advanced Chipset Features

DRAM CAS Select	Auto(By SPD)	Item Help
DRAM Performance	Auto(By SPD)	Menu Level
AT Bus Clock	CLK2/4	
System BIOS Cacheable	Disabled	
AGP Aperture Size	128MB	
AGP Delay Offset	Auto	
AGP Driving Strength	Auto	
Memory Hole At 15M-16M	Disabled	
I/O Recovery Period	1 us	
ALi Onchip Modem	Disabled	
ALi Onchip Sound	Enabled	
Passive Release	Disabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
 F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
 F7:Optimized Defaults

---

**DRAM CAS Select**

Select the number of clock cycles of CAS latency depends on the DRAM timing .

**The Choices:** **Auto(By SPD)**(default), 2.5(DDR)/3(DDR), 2(DDR)/2(SDR).

**DRAM Performance**

Select the performance parameter of the installed DRAM . Do not reset this field from the default value by the system designer unless you install new memory that has a different performance rating than the original DRAMs.

**The Choices:** **Auto(By SPD)**(default), Failsafe, Slow, Fast, Normal, Ultra, Ultra2.

**AT Bus Clock**

Select the speed of the AT bus in terms of a fraction of the CPU clock speed , or at the fixed speed of 7.16 MHz .

**The Choices:** **CLK2/4**(default), 7.16MHz, CLK2/2, CLK2/3, CLK2/5, CLK2/6.

**System BIOS Cacheable**

When enabled, the access to the system BIOS ROM address at F0000H-FFFFFFH is cached.

**The Choices:** **Disabled**(default), Enabled.

**AGP Aperture Size**

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

**The Choices:** **128MB**(default), 1MB, 2MB, 4MB, 8MB, 16MB, 32MB, 64MB, 256MB.

**AGP Delay Offset**

**The Choices:** **Auto**(default), 1~7,-1~-6.

---

**AGP Driving Strength**

By choosing “Auto” the system BIOS will enable the AGP output Buffer Drive strength that were defined by AGP Card. By choosing “Manual”, it allows user to set AGP output Buffer Drive strength by manual.

**The Choices:** Auto(default), Low, Mid, High.

**Memory Hole At 15M-16M**

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

**The Choices:** Disabled(default), Enabled.

**I/O Recovery Period**

This item allows you to determine the recovery time allowed for I/O.

**The Choices:** 1u(default), 2u, 3u.

**ALi Onchip Modem**

The item allows you to control the onboard MC97 Modem controller.

**The Choices:** Disabled(default), Enabled.

**ALi Onchip Audio**

The default setting of this item unilizes an onboard sound chip for audio output. There is no need to buy and insert a sound card. If a sound card is installed, disable this item.

**The Choices:** Enabled(default), Disabled.

**Passive Release**

When enabled, CPU to PCI bus accesses is allowed during passive release. Otherwise, the arbiter only accepts another PCI master access to local DRAM.

**The Choices:** Disabled(default), Enabled.

## 2.5 Integrated Peripherals

### © Figure 5. Integrated Peripherals

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#### Integrated Peripherals

On-Chip Primary IDE	Enabled	Item Help
Primary Master PIO	Auto	Menu Level
Primary Slave PIO	Auto	
Primary Master Ultra DMA	Auto	
Primary Slave Ultra DMA	Auto	
On-Chip Secondary IDE	Enabled	
Secondary Master PIO	Auto	
Secondary Slave PIO	Auto	
Secondary Master Ultra DMA	Auto	
Secondary Slave Ultra DMA	Auto	
On-chip USB Controller	Enabled	
USB Keyboard Support	Disabled	
Init Display First	PCI Solt	
IDE HDD Block Mode	Enabled	
Power On Function		
KB Power On Password	Enter	
Hot Key Power On	Ctrl-F1	
Onboard FDC Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	
Onboard Serial Port 2	2F8/IRQ3	
Onboard Serial Port 3		
UART Mode Select		
RxD,TxD Active	Hi,Lo	
IR Duplex Mode	Half	
Fast IR Mode Use DMA	1	
Onboard Parallel Port		
Parallel Port Mode		
ECP Mode Use DMA	3	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
 F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
 F7:Optimized Defaults

#### On-Chip Primary IDE

**Enabled (default)**

Enabled onboard 1st channel IDE port.

**Disabled**

Disabled onboard 1st channel IDE port.

#### Primary Master PIO (for onboard IDE 1st channel)

**Auto (default)**

BIOS will automatically detect the IDE HDD Accessing mode.

**Mode 0~5**

Manually set the IDE Accessing mode.

**Primary Slave PIO (for onboard IDE 2nd channel)**

- Auto (default)** BIOS will automatically detect the IDE HDD Accessing mode.
- Mode 0~5** Manually set the IDE Accessing mode.

**Primary Master Ultra DMA**

- Auto (default)** BIOS will automatically detect the IDE HDD Accessing mode.
- Disabled** Disabled.

**Primary Slave Ultra DMA**

- Auto (default)** BIOS will automatically detect the IDE HDD Accessing mode.
- Disabled** Disabled.

**On-Chip Secondary IDE**

- Enabled (default)** Enabled onboard 2nd channel IDE port.
- Disabled** Disabled onboard 2nd channel IDE port.

**Secondary Master PIO (for onboard IDE 1st channel)**

- Auto (default)** BIOS will automatically detect the IDE HDD Accessing mode.
- Mode 0~5** Manually set the IDE Accessing mode.

**Secondary Slave PIO (for onboard IDE 2nd channel)**

- Auto (default)** BIOS will automatically detect the IDE HDD Accessing mode.
- Mode 0~5** Manually set the IDE Accessing mode.

**Secondary Master Ultra DMA**

<b>Auto (default)</b>	BIOS will automatically detect the IDE HDD Accessing mode.
<b>Disabled</b>	Disabled.

**Secondary Slave Ultra DMA**

<b>Auto (default)</b>	BIOS will automatically detect the IDE HDD Accessing mode.
<b>Disabled</b>	Disabled.

**On-chip USB Controller**

<b>Enabled (default)</b>	Enabled USB Controller.
<b>Disabled</b>	Disabled USB Controller.

**USB Keyboard Support**

<b>Enabled</b>	Enabled USB Keyboard Support.
<b>Disabled (default)</b>	Disabled USB Keyboard Support.

**Init Display First**

<b>PCI Slot (default)</b>	Set Init Display First to PCI Slot.
<b>Onboard AGP</b>	Set Init Display First to onboard AGP.

**Power On Function**

<b>Password</b>	Enter from 1 to 7 characters to set the Keyboard Power On Password.
<b>Hot Key</b>	Hot Key.
<b>Mouse Left</b>	Mouse Left.
<b>Mouse Right</b>	Mouse Right.
<b>Any Key</b>	Any Key.
<b>Button Only</b>	Button Only.
<b>Keyboard 98</b>	If your keyboard has an Owner key button, you can press the key to power on your system.

**KB Power On Password****Enter**

Enter from 1 to 7 characters to set the keyboard Power On Password.

**Hot Key Power On****Ctrl-F1****Ctrl-F2****Ctrl-F3****Ctrl-F4****Ctrl-F5****Ctrl-F6****Ctrl-F7****Ctrl-F8**

First you must choose the Power On by Hot Key function then Enter from 1 to 8 characters to set the Hot Key Power On your system.

**IDE HDD Block Mode****Enabled (default)**

Enabled.

**Disabled**

Disabled.

**Onboard FDC Controller****Enabled (default)**

Enabled.

**Disabled**

Disabled.

**Onboard Serial Port 1**

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

**The Choices: 3F8/IRQ4**(default), (2F8/IRQ3), (3E8/IRQ4), (2E8/IRQ3), Auto.

**Onboard Serial Port 2**

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

**The Choices: 2F8/IRQ3**(default), (3F8/IRQ4), (3E8/IRQ4), (2E8/IRQ3), Auto.

---

### Onboard Serial Port 3

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

**The Choices:** 2F8/IRQ3, (3F8/IRQ4), (3E8/IRQ4), (2E8/IRQ3), Auto.

### UART Mode Select

This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.

**The Choices:** Normal (default), SCR, ASKIR.

### IR Function Duplex

This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.

**The Choices:** Half (default), Full.

### Fast IR Mode Use DMA

**The Choices:** 1 (default), 3.

### Parallel Port Mode

<b>SPP</b>	Using Parallel port as Standard Parallel Port.
<b>EPP</b>	Using Parallel port as Enhanced Parallel Port.
<b>ECP</b>	Using Parallel port as Extended Capabilities Port.
<b>ECP/EPP</b>	Using Parallel port as ECP/EPP mode.

### ECP Mode Use DMA

When the Parallel Port Mode field is configured as ECP, ECP/EPP mode, it needs a DMA channel for data transfer. This field specifies the DMA channel for ECP parallel port use.

<b>1 (default)</b>	Use DMA channel 1.
<b>3</b>	Use DMA channel 1.

## 2.6 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.

### © Figure 6. Power Management Setup

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#### Power Management Setup

ACPI Function	Enabled	Item Help
Power Management	User Define	
PM Control by APM	No	Menu Level
Modem Use IRQ	3	
Video Off In Suspend	Yes	
Video Off Method	DPMS	
*PM Timers*		
HDD Power Down	Disabled	
Suspend Mode	Disabled	
**Poweron \ Wake up Function**		
Soft-Off by PWRBTN	Instant-Off	
Sleep Button	Disabled	
Wakeup \ Poweron by PCI Card	Disabled	
Wakeup \ Poweron by Ring	Disabled	
CPU Thrm-Throttling	87.5%	
Resume by Alarm	Disabled	
Data (of Month) Alarm	0	
Time (of hh:mm:ss) Alarm	0 0 0	
**Suspend Break Events **		
IRQ[1] (Keyboard)	Enabled	
IRQ[3]	Disabled	
IRQ[4]	Disabled	
IRQ[5]	Disabled	
IRQ[6] (Floopy Disk)	Enabled	
IRQ[7]	Disabled	
IRQ8J (RTC)	Disabled	
IRQ[9]	Disabled	
IRQ[10]	Disabled	
IRQ[11]	Disabled	
IRQ[12] (PS2 Mouse)	Enabled	
IRQ[14] (Primary IDE)	Enabled	
IRQ[15] (Secondary IDE)	Disabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
 F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
 F7:Optimized Defaults

---

**ACPI Function**

This item display status of the Advanced Configuration and Power Management (ACPI).

**Power Management**

This option allows you to set each mode individually. When not disabled, 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.

**The Choices:** User Define (default), Min Saving, Max Saving.

**PM Control by APM**

**No** (default)                      System BIOS will ignore APM when Power Management is on.

**Yes**                                      System BIOS will wait for APM'S prompt before it enters any PM mode.

**Modem Use IRQ**

This determines the IRQ, which can be applied in Modem use.

**3**(default)

**4/5/7/9/10/11/NA.**

**Video Off In Suspend**

This field determines when to activate the video off feature for monitor power management.

**The Choices:** Yes(default), No.

**Video Off Method**

This determines the manner in which the monitor is blanked.

---

<b>V/H SYNC+Blank</b>	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.
<b>Blank Screen</b>	This option only writes blanks to the video buffer.
<b>DPMS Support (default)</b>	Initial display power management signaling.

### HDD Power Down

By default, this is “Disabled”, meaning that no matter the mode of the rest of the system, the hard drive will remain ready. Otherwise, you have a range of choices from 1 to 15 minutes or Suspend. This means that you can select to have your hard disk drive be turned off after a selected number of minutes or when the rest of the system goes into a suspend mode.

**The Choices: Disabled**(default).

### Suspend Mode

The **Doze Mode**, and **Suspend Mode** fields set the Period of time after each of these modes activates. At Max Saving, these modes activate sequentially (in the given order) after one minute; at Min Saving after one hour.

**The Choices: Disabled**(default).

### 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 Choices: Instant-Off**(default), Delay 4 Sec.

### Sleep Button

**The Choices: Disabled**(default), Enabled.

### Wakeup \ Poweron by PCI card

**Enabled** Enabled.  
**Disabled (default)** Disabled.

**Wakeup \ Poweron by Ring**

<b>Enabled</b>	Enabled.
<b>Disabled (default)</b>	Disabled.

**CPU Thrm-Throttling**

**87.5% (default)**  
**Monitor CPU Temp. will cause system to slow down**  
**CPU Duty Cycle to 12.5% / 25.0% / 37.5% / 50.0% /**  
**62.5% / 70.5%.**

**Resume by Alarm**

<b>Disabled (default)</b>	Disabled.
<b>Enabled</b>	Enabled.

**Suspend Break Events**

When set to On(default), any event occurring at Primary INTR will awaken a system which has been powered down.

The following is a list of IRQ, Interrupt ReQuests, which can be exempted much as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating 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. As above, the choices are On and Off. Off is the default. When set On, activity will neither prevent the system from going into a power management mode nor awaken it.

IRQ1	(Keyboard)
IRQ3	(COM1)
IRQ4	(COM2)
IRQ5	(LPT2)
IRQ6	(Floppy Disk)
IRQ7	(LPT1)
IRQ8J	(RTC)
IRQ9	(IRQ2 Redir)
IRQ10	(Reserved)
IRQ11	(Reserved)
IRQ12	(PS/2 Mouse)
IRQ14	(Primary IDE)
IRQ15	(Secondary IDE)

## 2.7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own 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.

### © Figure 7. PnP/PCI Configurations

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#### PnP/PCI Configurations

Reset Configuration Data	Disabled	Item Help Menu Level
Resources Controlled By IRQ Resources DMA Resources	Auto(ESCD) Press Enter Press Enter	Select Yes if you are using a Plug and Play capable operating system select No if you need the BIOS to configure non- boot devices
PCI/VGA Palette Snoop Assign IRQ For VGA PCI IRQ Activated By	Disabled Enabled Level	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
F7:Optimized Defaults

### Reset Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved at the system BIOS. If Disabled (Default) is chosen, the system's ESCD will update only when the new configuration varies from the last one. If Enabled is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

---

IRQ3	assigned to:PCI/ISA PnP
IRQ4	assigned to:PCI/ISA PnP
IRQ5	assigned to:PCI/ISA PnP
IRQ6	assigned to:PCI/ISA PnP
IRQ7	assigned to:PCI/ISA PnP
IRQ8	assigned to:PCI/ISA PnP
IRQ9	assigned to:PCI/ISA PnP
IRQ10	assigned to:PCI/ISA PnP
IRQ11	assigned to:PCI/ISA PnP
IRQ12	assigned to:PCI/ISA PnP
IRQ13	assigned to:PCI/ISA PnP
IRQ14	assigned to:PCI/ISA PnP
IRQ15	assigned to:PCI/ISA PnP
DMA-0	assigned to:PCI/ISA PnP
DMA-1	assigned to:PCI/ISA PnP
DMA-2	assigned to:PCI/ISA PnP
DMA-3	assigned to:PCI/ISA PnP
DMA-4	assigned to:PCI/ISA PnP
DMA-5	assigned to:PCI/ISA PnP
DMA-6	assigned to:PCI/ISA PnP
DMA-7	assigned to:PCI/ISA PnP

The above settings will be shown on the screen only if “Manual” is chosen for the resources controlled by function.

Legacy is the term which signifies that a resource is assigned to the ISA Bus and provides for non-PnP ISA add-on cards. PCI/ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

---

**Resources Controlled By**

By Choosing “Auto” (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing “Manual” the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

**IRQ Resources**

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

**DMA Resources**

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

**PCI / VGA Palette Snoop**

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the write access to the VGA palette and registers the snoop data. In PCI based systems, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

**Disabled** (default)

Function Disabled.

**Enabled**

Function Enabled.

### **Assign IRQ For VGA**

Lets the user choose which IRQ to assign for the VGA.

### **PCI IRQ Activated By**

This sets the method by which the PCI bus recognizes that an IRQ service is being requested by a device. Under all circumstances, you should retain the default configuration unless advised otherwise by your system's manufacturer.

**The Choices:** Level(default), Edge.

## 2.8 PC Health Status

### © Figure 8. PC Health Status

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#### PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current CPU1 Temperature		Menu Level
Current System Temp.		
Current CPU Fan1 Speed		
Current CPU Fan2 Speed		
Current Vdd(V)		
Current Vin1(V)		
Current Vin2(V)		
Current Vin3(V)		
Shut down Temperature	60°C / 140 °F	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
 F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
 F7:Optimized Defaults

#### Current CPU1 Temperature.

This field displays the current CPU temperature, if your computer contains a monitoring system.

#### Current System Temp.

This field displays the current system temperature, if your computer contains a monitoring system.

#### Current CPU Fan1 Speed

These field displays the current speed of up to CPU Fans, if your computer contains a monitoring system.

#### Current CPU Fan2 Speed

These field displays the current speed of up to System Fans, if your computer contains a monitoring system.

#### Current Vdd, Vin1, Vin2, Vin3

Detect system's voltage status automatically.

---

**CPU Warning Temperature(°C)**

<b>Disabled (default)</b>	Disabled.
<b>60°C / 140°F</b>	Monitor CPU Temp.at 60°C / 140°F.
<b>50°C / 122°F</b>	Monitor CPU Temp.at 50°C / 122°F.
<b>53°C / 127°F</b>	Monitor CPU Temp.at 53°C / 127°F.
<b>56°C / 133°F</b>	Monitor CPU Temp.at 56°C / 133°F.
<b>63°C / 145°F</b>	Monitor CPU Temp.at 63°C / 145°F.
<b>66°C / 151°F</b>	Monitor CPU Temp.at 66°C / 151°F.
<b>70°C / 158°F</b>	Monitor CPU Temp.at 70°C / 158°F.

**Shutdown Temperature(°C / °F)**

<b>Disabled</b>	Disabled.
<b>60°C / 140°F (default)</b>	Monitor CPU Temp.at 60°C / 140°F, if Temp.>60°C / 140°F system will automatically power off.
<b>65°C / 149°F</b>	Monitor CPU Temp.at 65°C / 149°F, if Temp.>65°C / 149°F system will automatically power off.
<b>70°C / 158°F</b>	Monitor CPU Temp.at 70°C / 158°F, if Temp.>70°C / 158°F system will automatically power off.
<b>75°C / 167°F</b>	Monitor CPU Temp.at 75°C / 167°F, if Temp.>75°C / 167°F system will automatically power off.

## 2.9 Frequency / Voltage Control

### © Figure 9. Frequency / Voltage Control

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

#### Frequency / Voltage Control

Auto Detect DIMM / PCI CLK	Enabled	Item Help
Spread Spectrum	Disabled	
CPU Host/SRAM/PCI Clock	Default	Menu Level

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  
 F1:General Help F5:Previous Values F6:Fail-Safe Defaults  
 F7:Optimized Defaults

#### Auto Detect DIMM / PCI CLK

This item allows you to enable/disable auto detect DIMM / PCI CLOCK.

**The Choices:** Enabled(default), Disabled.

#### Spread Spectrum

This function id designed to EMI test only.

**The Choices:** Disabled(default), Enabled.

#### CPU Host/SRAM/PCI Clock

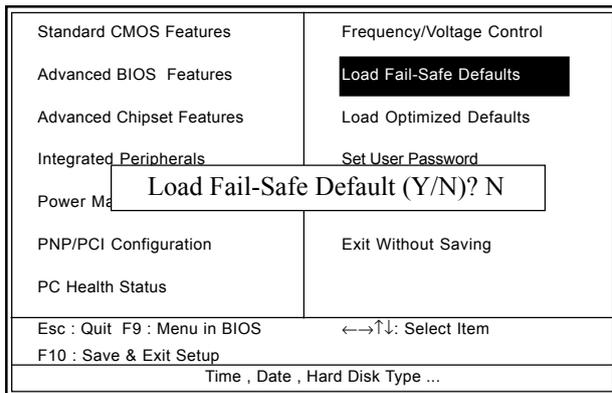
This item allows you to select CPU Host Clock (CPU/SRAM/PCI).

## 2.10 Load Fail-Safe Defaults

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

### © Figure 10. Load Fail-Safe Defaults

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



Pressing 'Y' loads the default values that are factory settings for optimal performance of system operations.

## 2.11 Load Optimized Defaults

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

### © Figure 11. Load Optimized Defaults

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

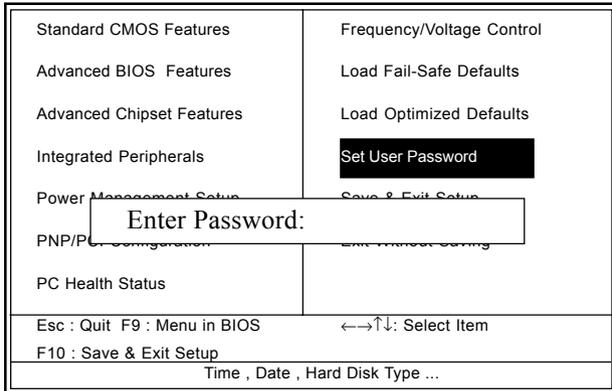
Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	<b>Load Optimized Defaults</b>
Integrated Peripherals	Set User Password
Power	Load Optimized Default (Y/N)? N
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
Esc : Quit F9 : Menu in BIOS ←→↑↓: Select Item	
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

Pressing ‘Y’ loads the default values that are factory settings for optimal performance of system operations.

## 2.12 Set User Password

### © Figure 12. Set Supervisor / User Password

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When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

### Enter Password

Type a password, up to eight characters, and press <Enter>. The password you type 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 the password, just press <Enter> when you are prompted to enter a password. A message will confirm that you wish to disable the password. Once the password is disabled, the system will boot and you can enter setup freely.

---

**Password Disabled**

If you select “System” at the Security Option of BIOS Features Setup Menu, you will be prompted for the password every time when the system is rebooted, or any time when you try to enter Setup. If you select “Setup” at the Security Option of the BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

## 2.13 Save & Exit Setup

### © Figure 13. Save & Exit Setup

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

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	
Power Management Setup	<b>Save &amp; Exit Setup</b>
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
Esc : Quit F9 : Menu in BIOS ←→↑↓: Select Item	
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

Typing “Y” will quit the Setup Utility and save the user setup value to RTC CMOS RAM.

Typing “N” will return to the Setup Utility.

## 2.14 Exit Without Saving

### © Figure 14. Exit Without Saving

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

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrate	Exit Without Saving (Y/N)? Y
Power Management Setup	Save & Exit Setup
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
Esc : Quit F9 : Menu in BIOS ←→↑↓: Select Item	
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

Typing “Y” will quit the Setup Utility without saving to RTC CMOS RAM.

Typing “N” will return to the Setup Utility.

Date :    /    /

**Warranty Card/Technical Fault Report**

M/B Model No.: \_\_\_\_\_

Vender

Serial No.        : \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

--

**Hardware Configuration Used :**

CPU	
RAM (Brand,MB )	
Video Card	
Hard Drive	
Other Card	

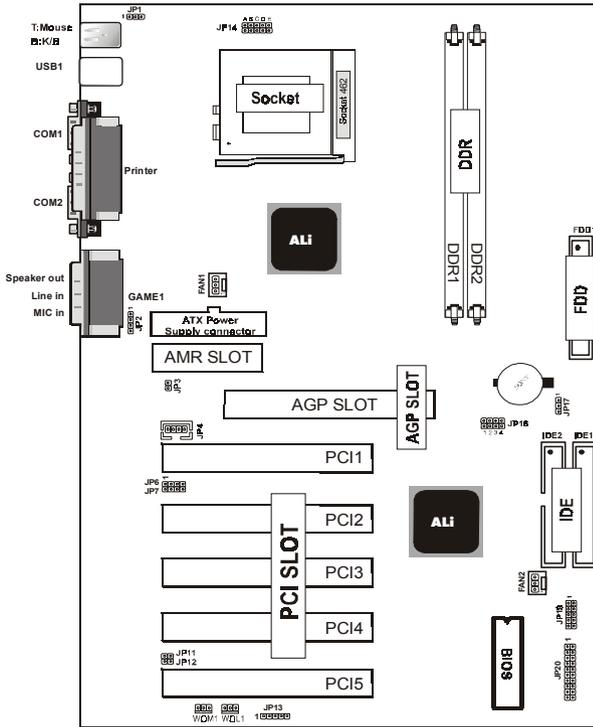
**Diagnostic Software Used :**

--

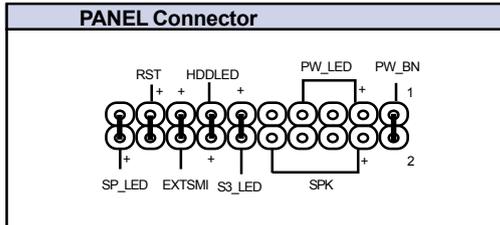
**Fault Description :**

--

# The 7A1647A Mainboard Layout



## Jumper Setting Summary



### 3. Driver Installation

#### Introduction

There are motherboard drivers and utilities included in ACORP Bonus CD disc. You don't need to install all of them in order to boot your system. But after you finish the hardware installation, you have to install your operating system first (such as windows 98) before you can install any drivers or utilities. Please refer to your operating system installation guide.

**Note:** Please follow recommended procedure to install Windows ME and Windows 98.

#### 3.1 Auto-run Menu

You can use the auto-run menu of Bonus CD disc. Choose the utility or driver and select model name.



## 3.2 Installing ALI\_driver

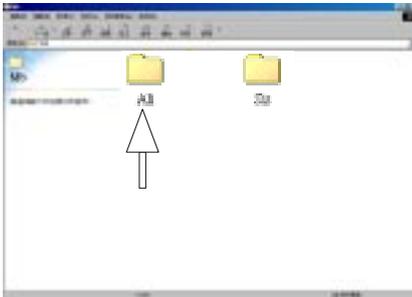
### (For Win 9X\_ME, 2000 system)

This integrated driver integrates AGP driver, IDE Cache Utility, Mini-IDE driver, FIR driver and Audio driver.

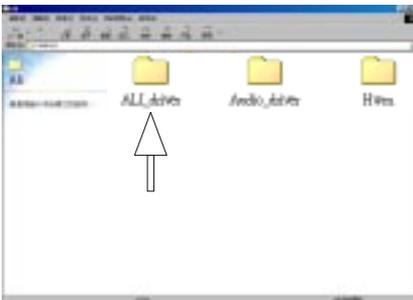
You can find the ALI driver from the Bonus Pack CD disc



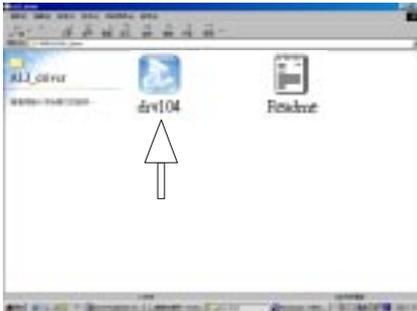
(1)  
Click "Driver" Item.



(2)  
Click "Ali" Item.



(3)  
Click "ALI\_driver" Item.



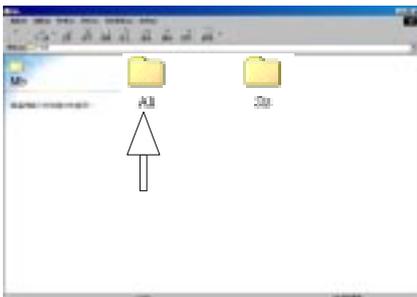
(4)  
Click "drv104".

### 3.3 Installing Audio Driver (For Win NT system)

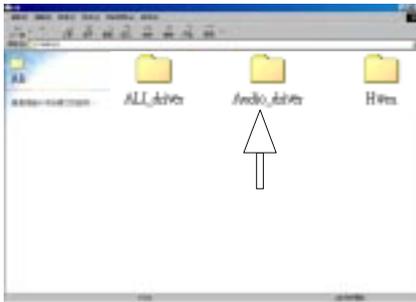
This driver supports ALi M5451 PCI audio accelerator under Windows NT 4.0. You can find the audio driver from the Bonus Pack CD disc auto-run menu.



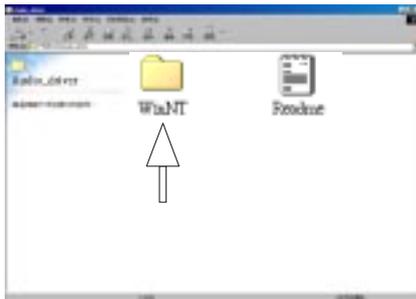
(1)  
Click "Driver" Item.



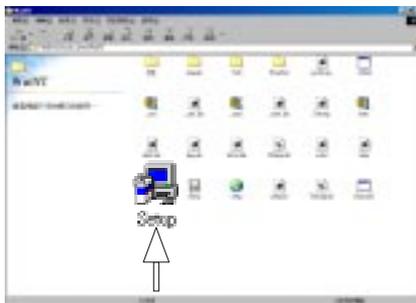
(2)  
Click "Ali" Item.



(3)  
Click  
"Audio\_driver" Item.



(4)  
(For Win NT System)  
Click "WinNT" Item.



(5)  
Click "Setup".

**Note:**

*Only support for  
Windows NT system.*

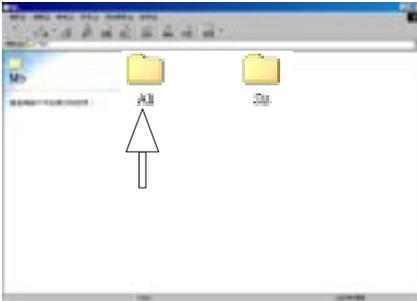
### 3.4 Installing Hardware Monitoring Utility

You can install Hardware Monitoring Utility to monitor CPU temperature, fans and system voltage. The hardware monitoring function is automatically implemented by the BIOS and utility software. No hardware installation is needed.



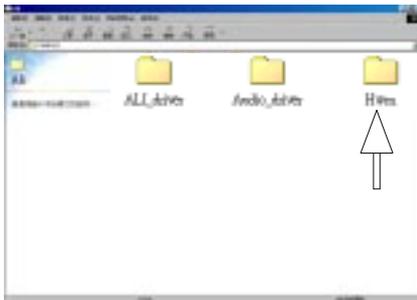
(1)

Click "Driver" Item.



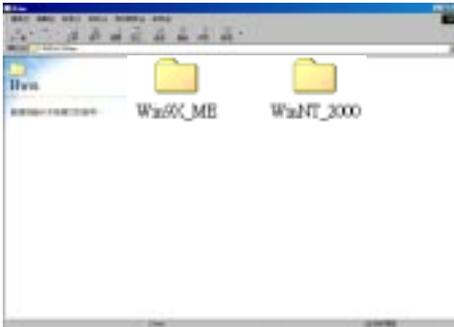
(2)

Click "All" Item.

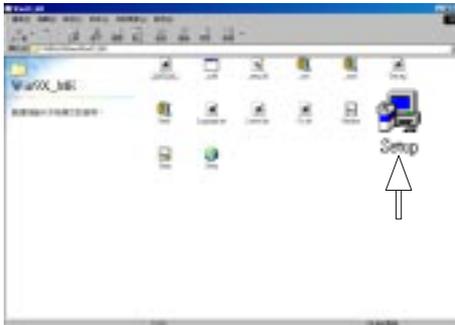


(3)

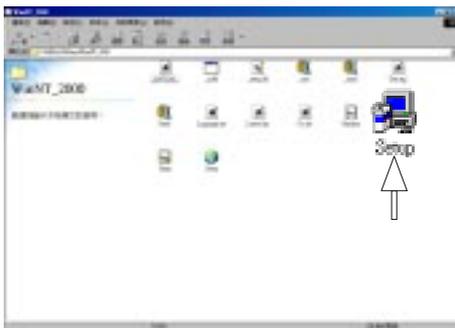
Click "Hwn" Item.



**(4)**  
**Select your system.**



**(5)**  
**(For Win98,  
Win ME System)**  
**Click "Setup".**



**(6)**  
**(For Win 2K,  
Win NT System)**  
**Click "Setup".**