

# **NA280**

## **VIA® P4X266A Motherboard**

### ***USER'S MANUAL***

**Pentium®4 Processor Motherboard**

**Rev. 1.0**



## Revision History

Revision	Date	Description
1.0		Initial release of NA280 motherboard user's manual

## Item Checklist

- 1 NA280 Motherboard
- 1 Floppy Cable
- 1 ATA Cable 66/100
- 1 I/O Shield
- 1 Heatsink Retention Module
- 1 CD for Motherboard Driver
- 1 NA280 Quick Installation Guide
- 1 NA280 User Manual

Intel® Pentium 4 is a registered trademark of Intel Corporation.

Copyright © 2002, Lite-On Tech./System BU

## **Safety Instructions**

Follow these precautions when operating your computer.

1. Always unplug the power cord when inserting any add-on card or module inside the system.
2. Wear a grounding strap attached to a grounded device to avoid damage from static electricity. If one is not available, discharge static electricity by touching the metal case of a safely grounded object before working on the motherboard.
3. Place components on a level grounded antistatic pad or on the packaging that came with the components whenever the components are separated from the system.
4. Keep equipment away from moisture and humidity.
5. Hold all circuit boards by the edges. Do not bend circuit boards.
6. Keep this User's Manual for future reference.

# Table of Contents

<b>Chapter 1 Introduction</b>	<b>1</b>
Motherboard Specifications .....	1
NA280 Motherboard Layout.....	6
<b>Chapter 2 Hardware Installation Process</b>	<b>9</b>
Installing the Central Process Unit (CPU).....	9
Installing Memory Modules .....	11
Connecting IDE and Floppy Disk Cables.....	13
Connecting Floppy and IDE Drives.....	14
Installing Expansion Cards .....	16
Connecting the Power Supply Cables .....	17
Jumper Introduction .....	21
<b>Chapter 3: Award® BIOS Setup</b>	<b>25</b>
Entering the Setup Utility .....	25
The Main Menu .....	25
Standard CMOS Features .....	26
Advanced BIOS Setup Option .....	27
Advanced Chipset Features Option.....	28
Integrated Peripherals Option.....	32
Power Management Setup Option.....	36
PNP/PCI Configuration Option .....	38
PC Health Status Option.....	39
Frequency/Voltage Control .....	40
Load Fail-Safe Defaults Option.....	41
Load Optimized Defaults Option.....	41
Set Password Option .....	42
Save & Exit Setup Option .....	43
Exit Without Saving.....	43



## Chapter 1 Introduction

### Motherboard Specifications

---

Form Factor:

- Standard ATX 305 x 244 mm
- 

Processor:

- Supports single Intel® Pentium® 4 Processor in 478 ball FC-PGA2 package
  - Processor socket mPGA478B
  - 533 MHz system bus
- 

Cache Memory:

- Processor integrated level-1 and level-2 cache
- 

System Memory:

- Three 184-pin DIMM sockets (90 degree, tin plated contact)
  - Supports DDR (Double Data Rate) SDRAM at 200/266 MHz
  - Supports 64/128/256/512 MB SDRAM devices
  - Accommodates up to 3 GB (registered) or 1.5 GB (unbuffered) memory
  - Supports Suspend-to-RAM (STR) sleep state (ACPI S3)
- 

On board EIDE:

- Two PCI IDE ports support up to four devices
  - Supports ATA-33/66/100/133, PIO up to mode 4
-

Core Logic Chipset:

- High performance Northbridge 533 MHz front side bus plus AGP 4x external bus
- 64-bit Advanced ECC Memory controller supporting PC2100/PC1600 DDR
- Combines VIA VT8233A V-Link Southbridge for integrated LAN, audio, ATA133 IDE, and four USB ports
- Complies with AGP specification v2.0
- Two-bank interleaving for 16 Mbit SDRAM support and two and four bank interleaving for 64 Mbit SDRAM support
- Supports 66 MHz V-Link Host interface with peak bandwidth of 266 MB/S
- Integrated Fast Ethernet Controller with 1/10/100 Mbit capability
- Integrated USB Controller with three root hub and four function ports
- Dual channel UltraDMA-33/66/133 master mode EIDE controller
- Integrated keyboard controller with PS2 mouse support
- Integrated DS12885-style Real Time Clock with extended 256 bytes CMOS RAM
- Integrated ISA Bus controller including DMA, timer, and interrupt controller
- Fast reset and Gate A20 operation
- Dual channel master mode PCI supporting four Enhanced IDE devices
- Transfer rate up to 33MB/s to cover PIO mode 4, multi-word DMA mode 2 drivers, and UltraDMA-33 interface
- USB v1.1 and Intel Universal HCI v1.1 compatible
- ACPI v1.0 and APM v1.2 compliant

---

PCI bus:

- PCI 2.2 compliant
  - PME# and 3.3V aux signals support power management
-

Audio:

- Complies with AC '97 v2.2 specification
  - AC-link interface for AC '97 audio codec and modem codec
  - Integrated SoundBlasterPro/DirectSound compatible digital audio controller
  - 18-bit stereo full-duplex CODEC with independent and variable sampling rate
  - ALC201A analog CODEC
  - Three Mini-DIN audio jacks (line-out, line-in, and mic-in)
  - Two locking-type audio headers: CD-in, aux-in
- 

Onboard LAN

- LAN Chip: RTL8100B (optional)
  - Integrated Fast Ethernet MAC chip and transceiver in one chip
  - 10 Mbps and 100 Mbps operation
  - PCI local bus single-chip Fast Ethernet controller
  - Complies with PCI Revision 2.2
  - Supports ACPI, PCI power management
  - Complies with PC99 standard
  - Supports Wake-On-LAN function and remote wake-up
  - Supports auxiliary power-on internal reset
  - Half/full duplex capability
- 

Expansion Slots:

- One AGP slot (2X/4X mode)
  - One Communications and Networking Riser (CNR) slot
  - Five PCI slots (including 1 shared PCI/CNR slot)
- 

Additional Features:

- Thermal sensor & CPU monitoring
  - NIC with integrated MBA boot (complete WOL support)
  - Hardware monitor capability
-

On board I/O:

- Low Pin Count (LPC) interface
- Two serial ports – DB9 (16550 UART)
- One parallel port – DB25 with ECP/EPP support
- One PS/2 mouse connector
- One PS/2 keyboard connector
- Two PWM fan controlled output headers
- Four USB Ports: 2 ports on back panel, 2 ports via motherboard 2X5 header for front panel
- One game port
- RJ-45 LAN port

**NOTE:** The RJ-45 LAN port is only present when the motherboard has the optional onboard LAN.

---

BIOS:

- Plug & Play BIOS (Award)
  - ACPI v2.0 – WfM 2.0 – SMBIOS v2.3 – DMI v2.1 – PC2001
  - Auto detect for: CPU Speed – AGP 4X – ATA-100
  - Wake-on PS/2 (KB, Mouse) & USB devices
  - Rapid Boot, WOL, and ASF support
  - Power management: ACPI S3, S4 support
- 

RAID (Optional)

- Supports Ultra ATA/100 drives and backward compatible with Ultra ATA/66/33 & EIDE drives
  - Supports UDMA 5/4/3/2/1/0, DMA 2/1/0, PIO 4/3/2/1/0 modes
  - Two independent IDE channels support up to four UDMA/100/66/33 or EIDE drives
  - Offers double sustained data transfer rate of attached drive (RAID 0, RAID 1)
  - Intelligent DMA engine supports DMA HDDs with bus mastering
-

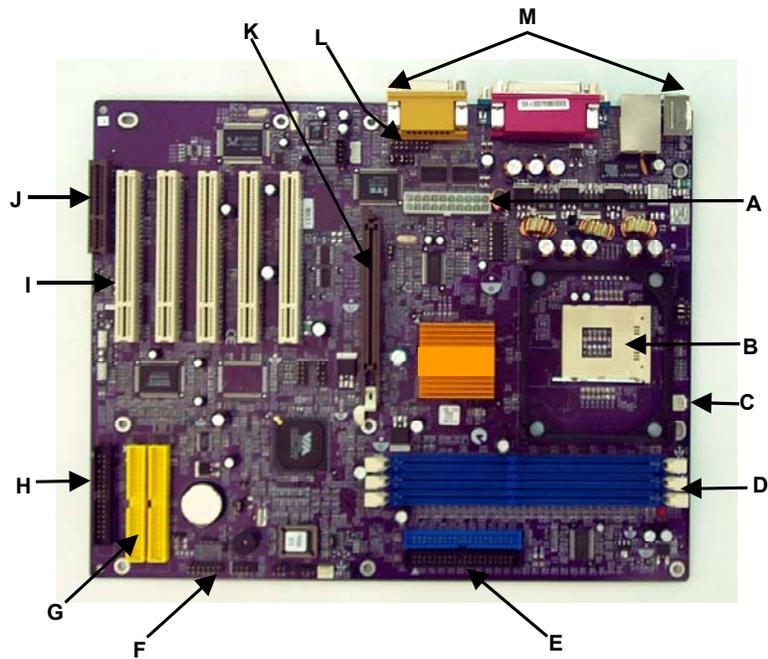
NA280 Motherboard

---

Other:

- Front panel I/O 2X5 header, key pin 10
  - On-board buzzer
-

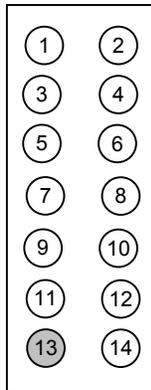
## NA280 Motherboard Layout



A	Power Supply Connector	H	Floppy Connector
B	CPU Socket	I	PCI Expansion Slots
C	CPU Fan Connector	J	CNR Slot
D	Memory Sockets	K	AGP Slot
E	IDE Connectors	L	Audio Connector
F	Front Panel Connectors	M	Back Panel Connectors
G	RAID Connectors		

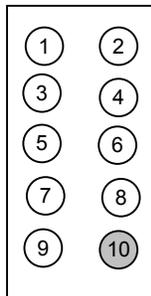
## Front Panel Connector Pin Definition

### ***LPANEL 1***



Pin	Signal Name	Pin	Signal Name
1	HLED+	2	HLED-
3	PLEDY-	4	SPKR VCC
5	PLEDG-	6	SPKR GND
7	PLED+	8	SPKR GND
9	PS	10	SPKR
11	PS GND	12	RESET
13	KEY	14	RESET GND

### ***PANEL1***



Pin	Signal Name	Pin	Signal Name
1	HD_LED_P	2	PWR_SLP
3	HD_LED_N	4	PWR_SLP
5	RST_SW_N	6	PWR_SW_P
7	RST_SW_P	8	PWR_SW_N
9	RSVD	10	KEY



## Chapter 2 Hardware Installation Process

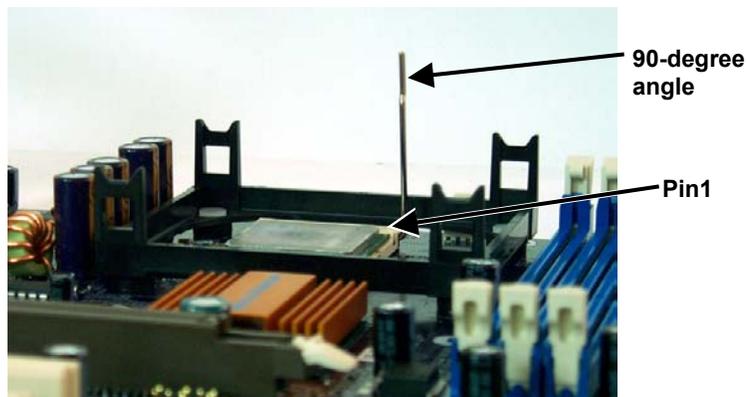
### Installing the Central Process Unit (CPU)

#### *CPU Installation*

1. Unlock the CPU socket by pulling the locking lever up to a 90-degree angle.
2. Position the CPU above the socket so that its **marked** corner (pin1) matches the corner near the base of the lever.
3. Place the CPU into the socket. (If you cannot insert the CPU easily, check its orientation and attempt to re-install it.)

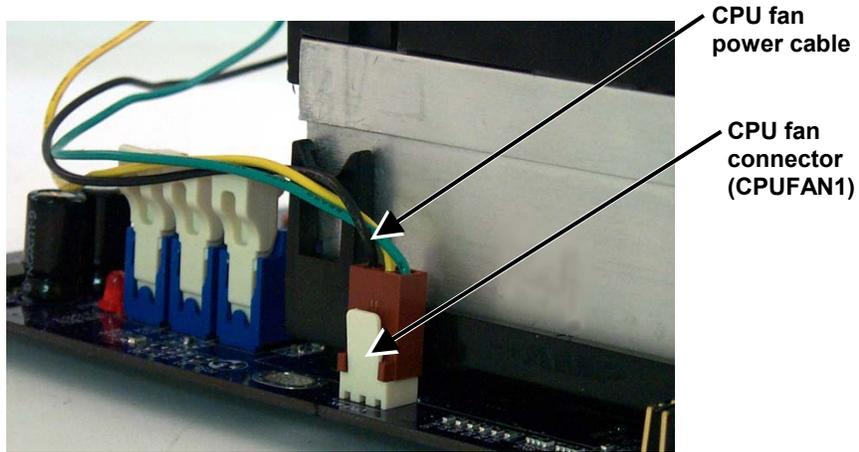
**Warning!** Do not force the CPU into the socket. Doing so will bend the CPU pins and damage the CPU.

4. Secure the CPU to the socket by lowering the lever and locking the lever in place.



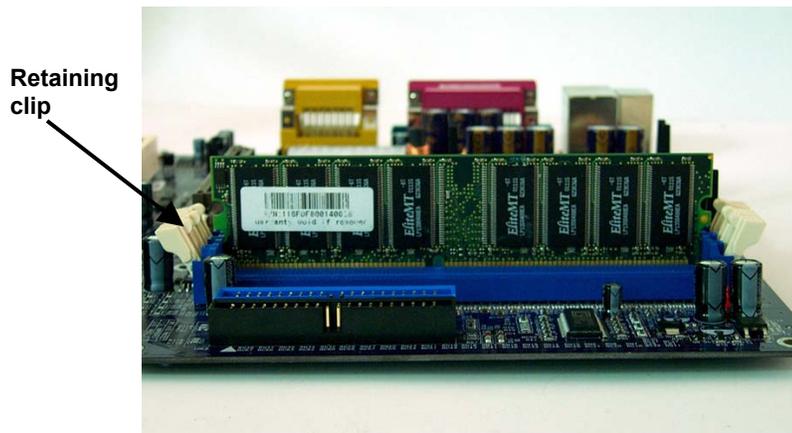
### ***CPU Heat Sink Installation***

1. Read the related CPU heat sink user's manual for more detailed installation procedures.
2. Connect the CPU fan power cable to the CPU fan connector on the motherboard.



## Installing Memory Modules

1. Push the white retaining clips on the memory socket outwards.
2. Match the notches on the contact edge of the memory module to the ridge in the memory socket.
3. Insert the memory module vertically into place. When properly inserted, the white retaining clips will move inward to lock in the module.
4. Repeat the installation process to add additional modules.

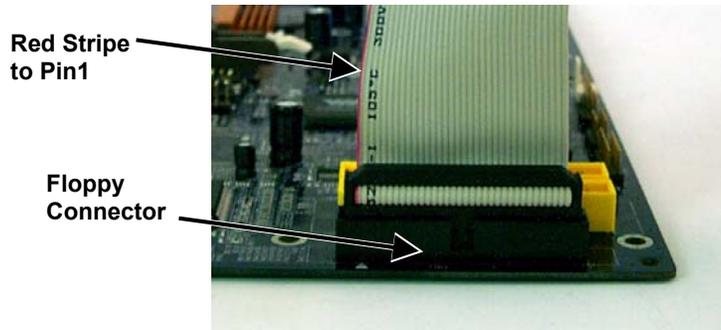


**Total Memory Sizes with Unbuffered DDR SDRAM DIMM**

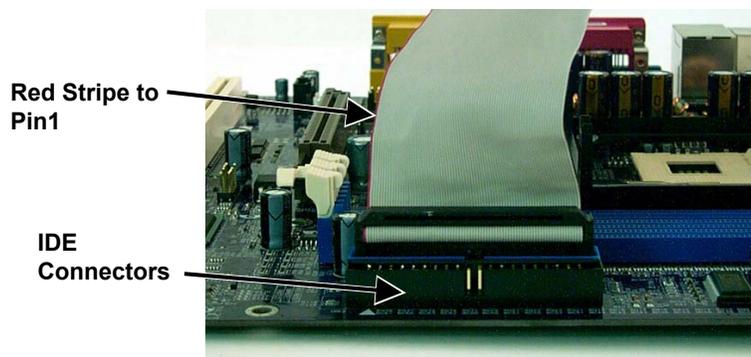
<b>DIMM Type</b>	<b>1 DIMMx64/x72</b>	<b>2 DIMMsx64/x72</b>	<b>3 DIMMsx64/x72</b>
64 Mbit (2Mx8x4 banks)	128 MBytes	256 MBytes	384 MBytes
64 Mbit (1Mx16x4 banks)	64 MBytes	128 MBytes	192 MBytes
128 Mbit (4Mx8x4 banks)	256 MBytes	512 MBytes	786 MBytes
128 Mbit (2Mx16x4 banks)	128 MBytes	256 MBytes	384 MBytes
256 Mbit (8Mx8x4 banks)	512 MBytes	1 GByte	1.5 GBytes
256 Mbit (4Mx16x4 banks)	256 MBytes	512 MBytes	768 Mbytes
512 Mbit (16Mx8x4 banks)	1 GByte	2 GBytes	3 GBytes
512 Mbit (8Mx16x4 banks)	512 MBytes	1 GByte	1.5 GBytes

## Connecting IDE and Floppy Disk Cables

**Connecting the floppy disk ribbon cable into the motherboard.** The side of the cable with the red stripe needs to be inserted into the Pin1 side of the floppy disk connector. Pin1 is marked with a white triangle.



**Connecting the IDE ribbon cable into the motherboard.** The side of the cable with the red stripe should be inserted into the Pin1 side of the IDE connector. Pin1 is marked with a white triangle.



**Note:** The motherboard has two IDE connectors. You can connect IDE devices to any of these connectors.

## Connecting Floppy and IDE Drives

Follow these instructions to connect a floppy disk drive (FDD) and IDE drive to your motherboard.

### Floppy Disk Drive

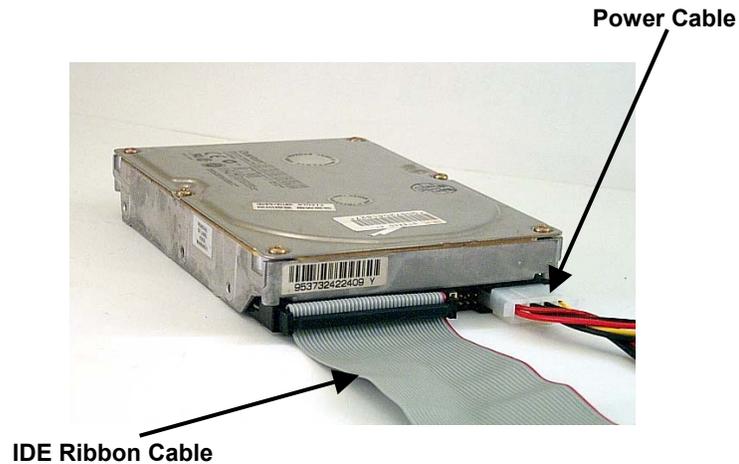
1. Mount the drive into the case.
2. Connect the floppy disk ribbon cable and power cable to the FDD.
3. Connect the FDD ribbon cable to the motherboard FDD connector FDD1 (refer to the previous section “Connecting IDE and Floppy Disk Cables”).



## Hard Disk Drive

**NOTE:** If installing two IDE devices on the same ribbon cable, one device is to be set as “master” and the second as “slave”. Refer to the IDE device manual for master and slave settings.

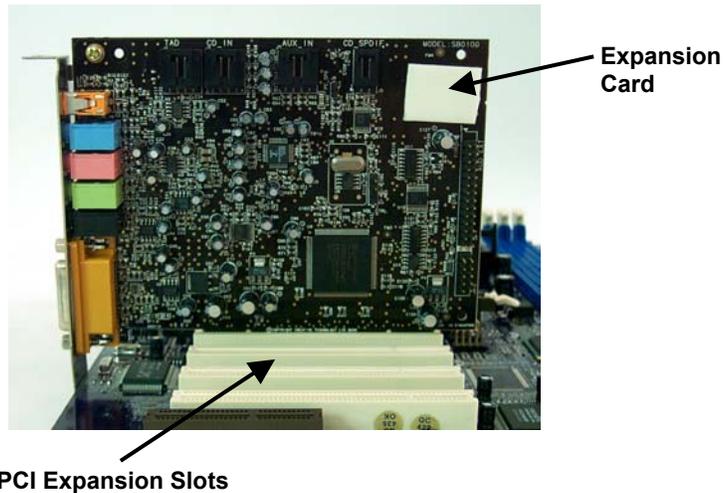
1. Mount the drive into the case.
2. Connect the IDE disk ribbon cable and power cable to the IDE device.
3. Connect the IDE ribbon cable to the motherboard IDE connector IDE1 or IDE2 (refer to the previous section “Connecting IDE and Floppy Disk Cables”).



**NOTE:** If you are installing a CD-ROM or DVD-ROM IDE device, connect the audio cable supplied with the device to CD1 or CD2.

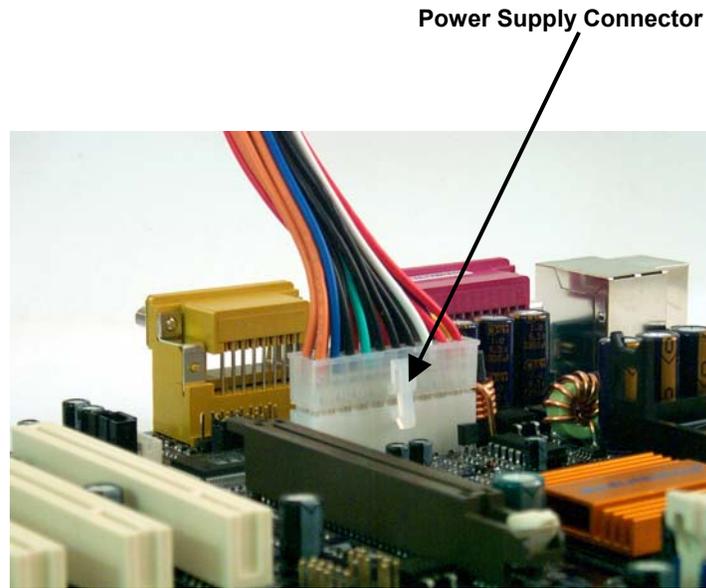
## Installing Expansion Cards

1. Read the related expansion card's installation instructions before inserting the expansion card into the motherboard.
2. Remove the slot cover from the chassis case where the expansion card will be placed.
3. Press the expansion card firmly into the expansion slot of the motherboard.
4. Secure the card with the screw provided.
5. Repeat the procedure when adding additional expansion cards.



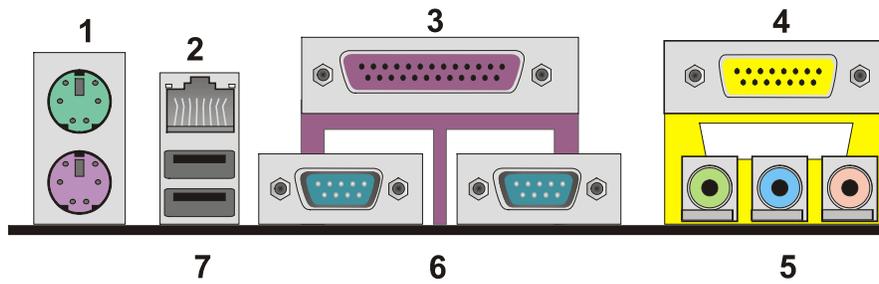
## Connecting the Power Supply Cables

Connect the power connector to the motherboard power connector. The plastic clip on the connector should lock into the plastic tab on the motherboard connector.

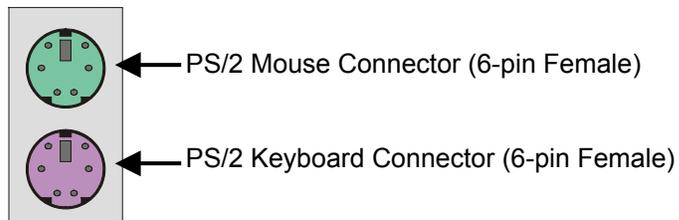


**NOTE:** The ATX power connector is keyed for proper insertion.

## I/O Back Panel Introduction



### (1) PS/2 Keyboard and PS/2 Mouse Connector



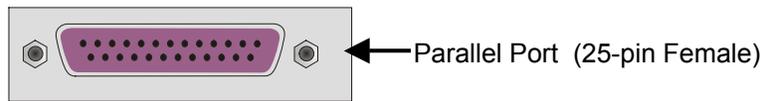
This connector supports a standard PS/2 keyboard and PS/2 mouse.

### (2) RJ-45 LAN Connector



Connect an RJ-45 jack to this connector to access a network.

### (3) Parallel Port



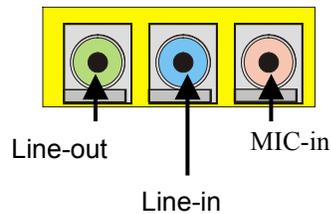
Devices such as a printer can be connected to the parallel port.

### (4) Game Port



This connector supports a joystick, MIDI keyboard and other related audio devices.

### (5) Audio Connectors



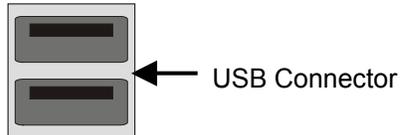
Once the onboard audio driver has been installed, speakers can be connected to the line-out jack, audio devices (such as a stereo or tape player) to the line-in jack, and a microphone to the MIC-in jack.

### **(6) Serial Connector**



Devices such as a mouse or modem can be connected to the serial port. The serial port is identified by the system as COM1.

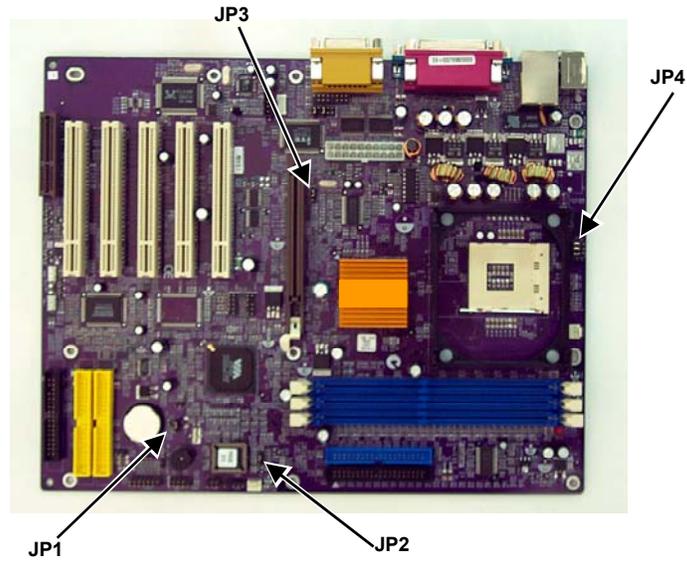
### **(7) USB Connector**



Before connecting a device to the USB connectors, determine if the device has a standard USB interface.

Make sure your computer Operating System (OS) supports the USB controller. Contact your OS or device vendor for more information.

## Jumper Introduction



## Jumper Settings

The following graphic shows the meaning of the jumper with cover and without cover.



### **Clear CMOS**

This jumper allows you to clear the CMOS.

Reference: JP1 (3-pin)

<b>JP1</b>	<b>Jumper setting</b>	<b>Description</b>
1-2		Normal operation
2-3		Clear content of CMOS

### **BIOS Protect**

This jumper allows you protect the BIOS from being accidentally updated.

Reference: JP2 (3-pin)

<b>JP2</b>	<b>Jumper setting</b>	<b>Description</b>
1-2		Write protect disable
2-3		Write protect enable

### CPU Frequency Select

This jumper allows you to set the CPU frequency.

Reference: JP3 (3-pin)

JP3	Jumper setting	Description
1-2		Auto
2-3		133 MHz

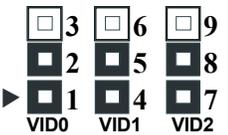
### CPU Frequency Select

This jumper allows you to set the CPU voltage.

Reference: JP4 (3 x 3-pin)

P4

1-2, 4-5, 7-8: Default setting

JP4	Jumper setting	Description
1-2 4-5 7-8		Default

The CPU voltage is defined according to the table on the next page. VID4 and VID3 are set by the CPU and cannot be changed by the user. VID0, VID1, and VID2 can be changed manually by setting Jumper 4 to adjust the CPU voltage.

For example, VID0 - VID2 will be equal to "0" by shorting pin numbers 2-3, 5-6, 8-9 or "1" by opening pin numbers 2-3, 5-6, 8-9.

**WARNING!** It is recommended that you do not change the settings on Jumper 4. Overclocking components can adversely affect the reliability of the system and introduce errors into your system. Overclocking can permanently damage the mainboard by generating excess heat in components that are run beyond the rated limits.

The voltage is set according to the following table:

VID [4:0]	Vcore (V)	VID [4:0]	Vcore (V)
0000	1.850	10000	1.450
00001	1.825	10001	1.425
00010	1.800	10010	1.400
00011	1.775	10011	1.375
00100	1.750	10100	1.350
00101	1.725	10101	1.325
00110	1.700	10110	1.300
00111	1.675	10111	1.275
01000	1.650	11000	1.250
01001	1.625	11001	1.225
01010	1.600	11010	1.200
01001	1.625	11001	1.225
01010	1.600	11010	1.200
01011	1.575	11011	1.175
01100	1.550	11100	1.150
01101	1.525	11101	1.125
01110	1.500	11110	1.100
01111	1.475	11111	No CPU

## Chapter 3: Award® BIOS Setup

### Entering the Setup Utility

When you power on the system, BIOS enters the Power-On Self Test (POST) routines. POST is a series of built-in diagnostics performed by the BIOS. After the POST routines are completed, the following message appears:

***Press DEL to enter SETUP***

Pressing the delete key  accesses the BIOS Setup Utility.

### The Main Menu

```

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

▶Standard CMOS Features
▶Advanced BIOS Features
▶Advanced Chipset Features
▶Integrated Peripherals
▶Power Management Setup
▶PnP/PCI Configurations
▶PC Health Status

▶Frequency/Voltage Control
  Load Fail-Safe Defaults
  Load Optimized Defaults
  Set Password
  Save & Exit Setup
  Exit Without Saving

Esc: Quit          F9 : Menu in BIOS↑ ↓ → ← : Select Item
F10: Save & Exit Setup

Time, Date, Hard Disk Type . . .

```

The Main menu allows you to select and modify your computer system. To navigate through the menu, use the arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

## Standard CMOS Features

This option displays basic information about your system. Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

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

Date (mm:dd:yy) 2002	Tue, February 11	Item Help
Time (hh:mm:ss)	12 : 8 : 59	Menu Level ▶
▶ IDE Primary Master		Change the day, month, year and century.
▶ IDE Primary Slave		
▶ IDE Secondary Master		
▶ IDE Secondary Slave		
Drive A	[1.44M, 3.5 in.]	
Drive B	[None]	
Floppy 3 Mode Support	[Disabled]	
Video	[EGA/VGA]	
Halt On	[All Errors]	
Base Memory	640K	
Extended Memory	31744K	
Total Memory	32768K	

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

## Advanced BIOS Setup Option

This option displays advanced information about your system. Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

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

Anti-Virus Protection	[Disabled]		Item Help
CPU L1 & L2 Cache	[Enabled]		Menu Level ▶
Quick Power On Self Test	[Enabled]		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
First Boot Device	[Floppy]		
Second Boot Device	[HDD-0]		
Third Boot Device	[CDROM]		
Boot Other Device	[Enabled]		
Swap Floppy Drive	[Disabled]		
Boot Up Floppy Seek	[Disabled]		
Boot Up NumLock Status	[On]		
Typematic Rate Setting	[Disabled]		
x Typematic Rate (Chars/Sec)	6		
x Typematic Delay (Msec)	250		
Security Option	[Setup]		
OS Select For DRAM > 64MB	[Non-OS2]		
HDD S.M.A.R.T Capability	[Disabled]		
Report No FDD For Win 95	[Yes]		
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

## Advanced Chipset Features Option

These items define critical timing parameters of the motherboard. You should leave the items on this page at their default values unless you are very familiar with the technical specifications of your system hardware. If you change the values incorrectly, you may introduce fatal errors or recurring instability into your system.

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

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

▶ DRAM Clock/Drive Control [Press Enter]	Item Help
▶ AGP & P2P Bridge Control [Press Enter]	
▶ CPU & PCI Bus Control [Press Enter]	Menu Level ▶
Memory Hole [Disabled]	
System BIOS Cacheable [Disabled]	
Video RAM Cacheable [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 Clock/Drive Control

Scroll to this item and press <Enter> to view the following screen:

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software  
 DRAM Clock/Drive Control

Current FSB Frequency		Item Help
Current DRAM Frequency		Menu Level ▶
DRAM Clock	[By SPD]	
DRAM Timing	[Manual]	
SDRAM CAS Latency	[3]	
Bank Interleave	[4 Bank]	
Precharge to Active(Trp)	[3T]	
Active to Precharge(Tras)	[6T]	
Active to CMD(Trcd)	[3T]	
DRAM Burst Len	[4]	
DRAM Command Rate	[2T Command]	

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

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

## AGP & P2P Bridge Control

Scroll to this item and press <Enter> to view the following screen:

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software  
AGP & P2P Bridge Control

AGP Aperture Size	[64M]	Item Help
AGP Mode	[4X]	
AGP Driving Control	[Auto]	Menu Level ▶
x AGP Driving Value	DA	
AGP Fast Write	[Disabled]	
AGP Master 1 WS Write	[Disabled]	
AGP Master 1 WS Read	[Disabled]	

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

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

## CPU & PCI Bus Control

Scroll to this item and press <Enter> to view the following screen:

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software  
CPU & PCI Bus Control

<p>CPU to PCI Write Buffer [Enabled]          PCI Master 0 WS Write [Enabled]          PCI Delay Transaction [Enabled]</p>	<p>Item Help</p> <hr/> <p>Menu Level ▶</p>
--	--

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

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

## Integrated Peripherals Option

These items define the operation of peripheral components on the system's input/output ports. Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

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

▶ VIA OnChip IDE Device	[Press Enter]	Item Help
▶ VIA OnChip PCI Device	[Press Enter]	
▶ SuperI/O Device	[Press Enter]	Menu Level ▶
Init Display First	[PCI Slot]	
OnChip USB Controller	[All Enabled]	
USB Keyboard Support	[Disabled]	
USB Mouse Support	[Disabled]	
IDE HDD Block Mode	[Enabled]	

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

## VIA OnChip IDE Device

Scroll to this item and press <Enter> to view the following screen:

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software  
 VIA OnChip IDE Device

OnChip IDE Channel 0	[Enabled]	Item Help
OnChip IDE Channel 1	[Enabled]	
IDE Prefetch Mode	[Enabled]	Menu Level ▶▶
Primary Master	PIO [Auto]	
Primary Slave	PIO [Auto]	
Secondary Master	PIO [Auto]	
Secondary Slave	PIO [Auto]	
Primary Master	UltraDMA [Auto]	
Primary Slave	UltraDMA [Auto]	
Secondary Master	UltraDMA [Auto]	
Secondary Slave	UltraDMA [Auto]	

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

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

## VIA OnChip PCI Device

Scroll to this item and press <Enter> to view the following screen:

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software  
 VIA OnChip PCI Device

VIA-3058 AC97Audio	[Auto]	Item Help
VIA-3068 MC97 Modem	[Disabled]	
Onboard Lan Device	[Enabled]	Menu Level ▶▶
Onboard Lan Boot Rom	[Disabled]	

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

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

## SuperIO Device

Scroll to this item and press <Enter> to view the following screen:

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

Onboard FDC Controller	[Enabled]	Item Help
Onboard Serial Port 1	[3F8/IRQ4]	
Onboard Serial Port 2	[2F8/IRQ3]	Menu Level ▶▶
UART Mode Select	[Normal]	
UR2 Duplex Mode	[Half]	
Onboard Parallel Port	[378/IRQ7]	
Parallel Port Mode	[ECP]	
ECP Mode Use DMA	[3]	
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

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

## Power Management Setup Option

These items setup power management options for the motherboard. Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

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

ACPI function	[Enabled]	Item Help
ACPI Suspend Type	[S1(POS)]	
Power Management Option	[User Define]	Menu Level ▶
HDD Power Down	[Disable]	
Suspend Mode	[Disable]	
Video Off Option	[Suspend --> Off]	
Video Off Method	[DPMS Support]	
MODEM Use IRQ	[3]	
Soft-Off by PWRBTN	[Instant-Off]	
PWRON After PWR-Fail	[Off]	
▶ IRQ/Event Activity Detect	[Press Enter]	

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

## IRQ/Event Activity Detect

Scroll to this item and press <Enter> to view the following screen:

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software  
 IRQ/Event Activity Detect

PS2KB Wakeup from S3/S4/S5 [Disable] USB Resume from S3 [Enabled] VGA [OFF] LPT & COM [LPT/COM] HDD & FDD [ON] PCI Master [OFF] PowerOn by PCI Card [Enabled] WOL/WOM/Ring Resume [Disabled] RTC Alarm Resume [Disabled] x Date (of Month) 0 x Resume Time (hh:mm:ss) 0 0 0 ► IRQs Activity Monitoring [Press Enter]	Item Help <hr/> 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

Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

## PNP/PCI Configuration Option

These options configure how PnP (Plug and Play) and PCI expansion cards operate in your system. Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software  
PnP/PCI Configurations

		Item Help
PNP OS Installed	[No]	Menu Level ► 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
Reset Configuration Data	[Disabled]	
Resources Controlled by	[Auto(ESCD)]	
x IRQ Resources	Press Enter	
PCI/VGA Palette Snoop	[Disabled]	
Assign IRQ For VGA	[Enabled]	
Assign IRQ For USB	[Enabled]	
INT Pin 1 Assignment	[Auto]	
INT Pin 2 Assignment	[Auto]	
INT Pin 3 Assignment	[Auto]	
INT Pin 4 Assignment	[Auto]	

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

## PC Health Status Option

On motherboards that support hardware monitoring, this item lets you monitor the parameters for critical voltages, critical temperatures, and fan speeds.

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

Shutdown Temperature [Disabled] CPU Vcore 2.50V 3.30V 5.00V 12.00V Voltage Battery Current System Temperature Current CPU Temperature CPU FAN Speed CASE FAN Speed	<table border="1"> <tr> <th colspan="2" data-bbox="945 434 1252 495">Item Help</th> </tr> <tr> <td data-bbox="945 495 1104 527">Menu Level</td> <td data-bbox="1104 495 1252 527">▶</td> </tr> </table>	Item Help		Menu Level	▶
Item Help					
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

## Frequency/Voltage Control

This item enables you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system. Use the arrow keys to navigate through the menu and use the <PgUp> and <PgDn> to select the desired value for each item.

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software  
 Frequency/Voltage Control

CPU Clock Ratio [8 X] Auto Detect PCI/DIMM Clk [Enabled] Spread Spectrum [Spectrum +/-0.5%] CPU Host/AGP/PCI Clock [Default] CPU Voltage Regulator [Default]	Item Help <hr/> 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

## **Load Fail-Safe Defaults Option**

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the Setup Utility:

Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The fail-safe defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly again. If you only want to install fail-safe defaults for a specific option, select and display that option, and then press <F6>.

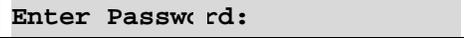
## **Load Optimized Defaults Option**

This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility. Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press <F7>.

## Set Password Option

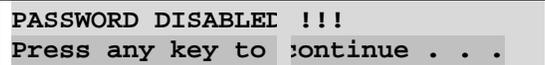
This item can be used to install a password. To install a password, follow these steps:

1. Highlight the item Set Password on the main menu and press <Enter>.
2. The password dialog box appears.



Enter Password:

3. If you are installing a new password, type in the password. You cannot use more than eight characters or numbers. The Set Password item differentiates between upper and lower case characters. Press <Enter> after you have typed in the password. If you are deleting a password that is already installed press <Enter> when the password dialog box appears. You see a message that indicates that the password has been disabled.



PASSWORD DISABLED !!!  
Press any key to continue . . .

4. Press any key. You are prompted to confirm the password:



Confirm Password:

5. Type the password again and press <Enter>, or press <Enter> if you are deleting a password that is already installed.
6. If you typed the password correctly, the password will be installed.

## Save & Exit Setup Option

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu:

## Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

**Note:** If you have made settings that you do not want to save, use the "Exit Without Saving" item and press <Y> to discard any changes you have made.