

# Hardware Setup

If your mainboard has already been installed in your computer you may still need to refer to this chapter if you plan to upgrade your system's hardware.



**Be sure to disconnect the power cable from the power source before performing any work on your mainboard, i. e. installing a CPU, memory module, changing a jumper setting, etc. Not doing so may result in electrical shock!**

## 2-1 Installing an AMD Processor in Socket A

1. The Socket 462, designed for AMD processors, has been incorporated as a standard mainboard specification. To insert your CPU into Socket A please do the following:
2. Locate a small dot marked on the top surface of the CPU close to one of its corners. The same corner will also be cut off, leaving a noticeable notch in the CPU's corner. These markings indicate Pin 1 of the CPU.
3. Pull up the lever of Socket 462 so that it is perpendicular with the surface of the mainboard. Gently insert the CPU with Pin 1 at the same corner of Socket 462 that contains the end of the lever. Allow the weight of the CPU to push itself into place. Do not apply extra pressure as doing so may result in damaging your CPU. Snap the lever back into place.



**Installing a heat sink with cooling fan is necessary for proper heat dissipation from your CPU. Failing to install these items may result in overheating and possible burn-out of your CPU.**

## 2-2 Setting Your CPU's Parameter

### Frequency Configuration

If you install a CPU on this mainboard, you must set **JP2A/JP2B** for **CPU Bus Frequency**.

\* **CPU Speed = Frequency ratio x System Frequency**



**You do not need to make voltage settings because SeePU automatically sets your CPU voltage.**

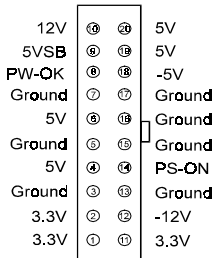
## 2-3 Connector and Jumper Settings

Connectors are used to link the system board with other parts of the system, including the power supply, the keyboard, and the various controllers on the front panel of the system case.



**The power supply connector is the last connection to be made while installing a mainboard. Before connecting the power supply, please make sure it is not connected to the power source.**

### ATX Power Supply Connector (PW1)



The ATX power supply provides a single 20-pin connector interface which incorporates standard +/-5V, +/-12V, optional 3.3V and Soft-power signals. The Soft-power signal, a 5V trickle supply is continuously supplied when AC power is available. When the system is in the Soft-Off mode, this trickle supply maintains the system in it's minimum power state.

### Software Power-Off Control

This mainboard can be powered down using the Windows 95 Software Power-Off function. To power down your computer, click the START button on the Windows 95 task bar. Select "Shut Down The Computer" and the system turns off. The message "It is now safe to turn off your computer" will not be shown when using this function.

### Power-On By Modem

While in Soft-off state, if an external modem ring-up signal occurs, the system wakes up and can be remotely accessed. You may enable this function in BIOS's Power Management Setup menu.

### Blinking LED in Suspend Mode

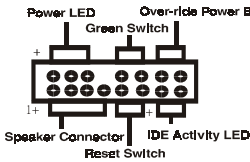
While in Suspend mode, the LED light on the front panel of your computer will flash. Suspend mode is entered by pressing the Override Power Button, pushing the Green button on your ATX case, or enabling the Power Management and Suspend Mode options in BIOS's Power Management menu.

### Poly-fuse Over Current Protection

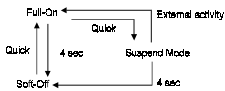
The poly-fuse protects the system from dangerous voltages the system might be exposed to via the keyboard or USB connectors. In case of such exposure, the poly-fuse will immediately be disconnected from the circuit, just like a normal fuse. After being disconnected for a certain period of time, the poly-fuse will return to its normal state, after which the keyboard or USB can function properly again. Unlike conventional fuses, the poly-fuse does not have to be replaced, relieving the user wasted time and inconvenience.

## Front Panel Connector Set (CN1) A through F

### A. Over-ride Power Button Connector



The power button on the ATX chassis can be used as a normal power switch as well as a device to activate Advanced Power Management Suspend mode. This mode is used for saving electricity when the computer is not in use for long periods of time. The Soft-OFF by PWR-BTTN function in BIOS's Power Management Setup menu must be set to "Delay 4 Sec." to activate this function.



Over-ride Power Button

When the Soft-OFF by PWR-BTTN function is enabled, pushing the power button rapidly will switch the system to Suspend mode. Any occurrence of external activities such as pressing a key on the keyboard or moving the mouse will bring the system back to Full-On. Pushing the button while in Full-On mode for more than 4 seconds will switch the system completely off. See Over-ride Power Button Operation diagram.

### B. Power Indicator LED Connector

The power indicator LED shows the system's power status. It is important to pay attention to the correct cables and pin orientation (i.e., not to reverse the order of these two connectors.)

### C. Green Switch Connector

Some ATX cases provide a Green switch which is used to put the system in Suspend mode. In Suspend mode, the power supply to the system is reduced to a trickle, the CPU clock is stopped, and the CPU core is in its minimum power state. The system is woken up whenever the keyboard or mouse is touched. The system resumes in different ways as defined by Power Management Setup screen in BIOS.

### D. System Reset Switch Connector

This connector should be connected to the reset switch on the front panel of the system case. The reset switch allows you to restart the system without turning the power off.

### E. Speaker Connector

This 4-pin connector connects to the case-mounted speaker

### F. IDE Activity LED Connector

The IDE activity LED lights up whenever the system reads/writes to the IDE devices.

## Clear CMOS Data (JP1)

Pin	Definition
1~2	Normal (default)
2~3	Clear CMOS Data

To clear the contents of the CMOS, please follow the steps below.

1. Disconnect the system power supply from the power source.
2. Set the jumper cap at location 2~3 for 5 seconds, then set it back to the default position.
3. Connect the system's power and then start the system.
4. Enter BIOS's CMOS Setup Utility and choose Load Setup Defaults. Type Y and press enter.
5. Set the system configuration in the Standard CMOS Setup menu.

## External Clock Frequency (JP2A/JP2B)

CPU	DIMM	JP2A	JP2B
100	100	2-3	2-3
100	133	1-2	1-2
133	133	2-3	1-2

This jumper allows user to configure the system bus frequency and system memory speed. The default setting is

## Power On By Keyboard (JP5)

Pin	Definition
1~2	Disable (default)
2~3	Enable

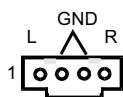
This board is able to be turned on by the PS/2 keyboard (hot key). To use this function, select a hot key of your choice at the PS2KB Wakeup option under Wake Up Events in the BIOS's Power On Management screen. You must also set this jumper's cap to pins 2-3 to use this function.

## Power On By USB (JP6)

Pin	Definition
1~2	Disable (default)
2~3	Enable

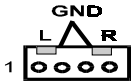
This board is able to be turned on by a USB keyboard hot key or a USB mouse click. To use this function, select a hot key of your choice at the USB Resume From S3/S4/S5 option under Wake Up Events in the BIOS's Power On Management screen. You must also set this jumper's cap to pins 2-3 to use this function.

## CD-ROM Audio-in (CN2)



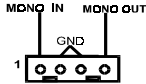
Use the audio cable enclosed with your CD-ROM disk drive to connect the CD-ROM to your mainboard. This will enable your CD-ROM's audio function.

### Auxiliary Audio-in (CN3)



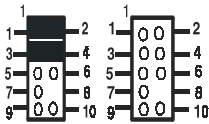
This connector is for use with a secondary CD-ROM, DVD-ROM or CDR/CDRW disk drive.

### Audio Mono-in/out (CN4)



This connector is used for Add on Card e.g. modem with Mono In/Out connector

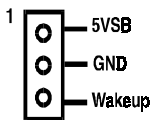
### Front Panel Audio Connector (CN4A)



Rear Panel      Front Panel

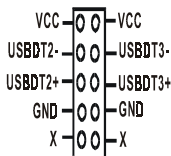
This connector give you the option to choose between standard audio jack(rear panel) or use a an optional front panel audio jack cable ext. to be plug into a special custom designed system case. To use the standard audio jack short jumper caps to pin1-2 and pin 3-4 (Default). To use the front panel audio jack cable ext., simply removed both jumper caps and plug into the audio jack cable.

### WOL (Wake-on-LAN) Connector (CN5)



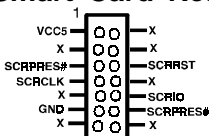
Enable the Wake Up On LAN selection in BIOS's Power Management Menu to use this function. The capability to remotely manage PCs on a network is a significant factor in reducing administrative and ownership costs. Magic Packet technology is designed to give WOL capability to the LAN controller. This header is used to connect an add-in NIC (Network Interface Card) which gives WOL capability to the mainboard.

### USB 0/1 Ports and USB 2/3 Connector (USB1/CN6)



If you want to use a USB keyboard, you must enable the USB keyboard support function in BIOS's Integrated Peripherals menu (See Section 3-4). This board contains a USB Host controller and includes a root hub with two USB ports (meets USB Rev 1.0 spec.) and a connector for optional USB Adaptor (USB2/3). Four USB peripherals or hub devices are able to be connected.

### Smart Card Reader Connector (CN7)

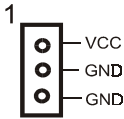


This connector must be connected to a Smart card reader .



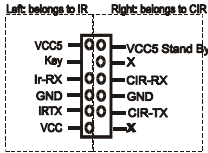
Smart Card Reader (Optional)

## Blue LED Connector(CN17)



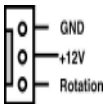
This feature work entirely the same as the power indicator LED, both shows the system's power status. The only difference is that this one is blue while the other is red LED.

## IR/CIR Connector (IR2)



Select a UART Mode in BIOS's Integrated Peripherals menu the UART port to support IR/CIR functions. (See section 3-4)

## CPU/System Cooling Fan Connectors (FAN1/FAN2)



The board's management extension hardware is able to detect the CPU and system fan speed in rpm (revolutions per minute). These connectors supports 3-pin cooling fans with minimum of 4500 RPM. The wiring and plug may vary depending on the manufacturer. On standard fans, the red is positive (+12V), the black is ground, and the yellow wire is the rotation signal.

## PS/2 Mouse and Keyboard Ports (PT1)

Pin	Definition
1	Data
2	No Connection
3	Ground
4	+ 5V (fused)
5	Clock
6	No Connection

If a PS/2 mouse is used, BIOS will automatically detect and assign IRQ12 to the PS/2 mouse.



## 2-4 Main Memory Configuration

The DDR SDRAM memory system consists two banks and the memory size ranges from **32MB~1GBytes** . If you only use one bank it does not matter which one you use and if you use two or more banks, it does not matter which bank you install first.

### DDR SDRAM Specifications

DIMM type: 2.5V, Registered 64/128/256-bit DDR SDRAM

Module size: Single/double-sided 32/64/128/256/512MBytes/1GBytes

Parity: Either parity or non-parity

### DDR

Double Data Rate transfers allows for data to be fetched on both the rising and falling edges of the clock thus doubling the effective transfer rate of the clock. For example a 133MHz DDR clock would achieve a peak transfer rate equal to that of a 266MHz clock. The effective transfer rate is equal to the clock frequency multiplied by the bus width, doubled.