

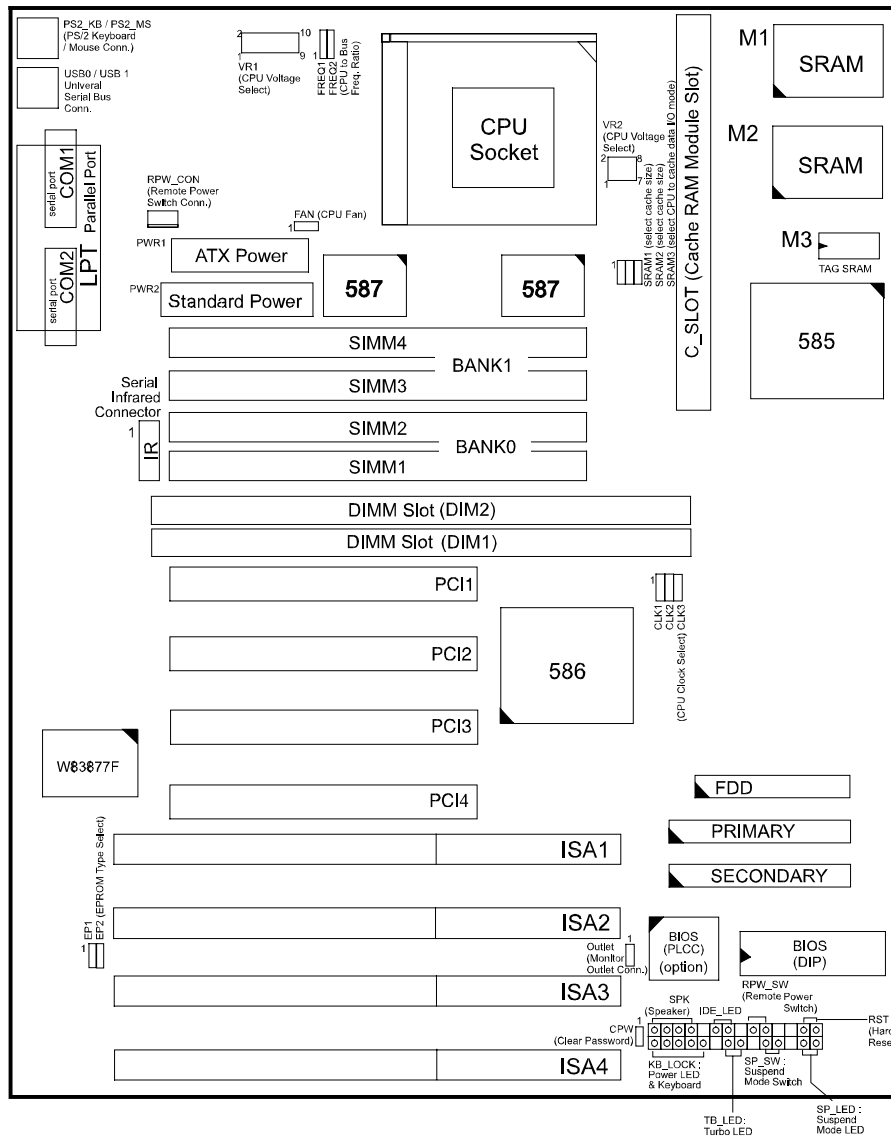
## Installation Procedures

The PA-2010 has several user-adjustable jumpers on the board that allow you to configure your system to suit your requirements. This chapter contains information on the various jumper settings on your mainboard.

To set up your computer, you should follow these installation steps:

- Step 1 -  
Set system jumpers
- Step 2 -  
Install System RAM modules
- Step 3 -  
Install the CPU
- Step 4 -  
Install expansion cards
- Step 5 -  
Connect cables and power supply
- Step 6 -  
Set up BIOS feature (Please read Chapter Three.)

Mainboard Layout



## 1). Set System Jumpers

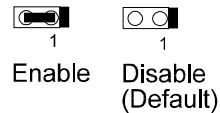
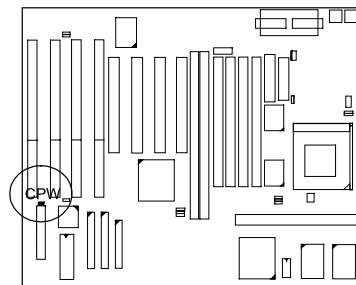
### *Jumpers*

Jumpers are used to select the operation modes for your system. Some jumpers on the board have three metal pins with each pin representing a different function. To “set” a jumper, a black cap containing metal contacts is placed over the jumper pin/s according to the required configuration. A jumper is said to be “shorted” when the black cap has been placed on one or two of its pins.

**NOTE :** Users are not encouraged to change the jumper settings not listed in this manual. Changing the jumper settings improperly may adversely affect system performance.

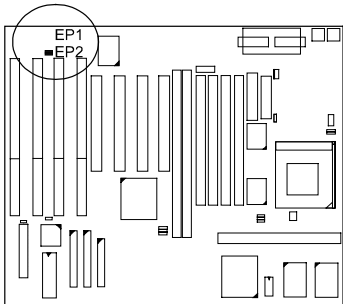
### *Clear Password: CPW*













This jumper allows you to set the password configuration to “Enabled” or “Disabled”. You may need to enable this jumper if you forget your password.



**Flash EPROM Type Selection: EP1 and EP2**

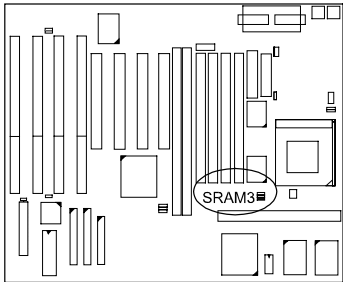
These two jumpers allows you to configure the Flash EPROM chip



1M	EP1	EP2
Intel 28F001	 1	 1
SST 29EE020	 1	 1
2M	EP1	EP2
AMD AM29F002T	 1	 1
SST 29EE020	 1	 1
ATMEL AT29C020	 1	 1
MXIC MX28F2000P	 1	 1

**CPU to SRAM Data Transacting Mode Selection: SRAM3**

This jumper allows you to select the CPU to SRAM data read/write mode.



**Intel Burst  
(Default)**  
For  
Intel Pentium CPUs,  
AMD-K5 CPUs,  
Cyrix CPUs,  
IBM CPUs



**Linear Burst**  
For  
Cyrix CPUs,  
IBM CPUs  
**(Cache RAM Module  
must support  
linear burst mode)**

## 2). Install System RAM Modules

### DRAM and SDRAM

The working space of the computer is the Random Access Memory (RAM). The system cannot act upon data unless it is loaded into RAM. When more memory is added, the working memory of the computer is larger, thereby increasing total performance.

The PA-2010's RAM is comprised of four industry standard 72-pin Single In-line Memory Modules (SIMMs) and two 168-pin Dual In-line Memory Modules (DIMMs). Each SIMM socket supports from 4 to 128MB FPM (Fast Page Mode) and high-speed EDO (Extended Data Out) DRAM. Each DIMM socket is able to support up to 64MB EDO DRAM and lightning-fast SDRAM (Synchronous DRAM).

SDRAM is an advanced new memory technology that boosts overall system performance with its ability to synchronize all operations with the processor clock signal. This makes the implementation of control interfaces easier, and speeds up column access time. SDRAM features an on-chip burst counter that can be utilized to increment column addresses for very fast burst accesses, which means that SDRAM allows new memory accesses to be initiated before the preceding access has been finished.

Before making DRAM upgrades you should verify the type and speed of the RAM currently installed from your dealer. Installing mixtures of RAM types other than those described in this manual, will have unpredictable results.

The installation of the SIMMs and DIMMs in BANK0 and BANK1 have many combinations. Some of them are listed in the following table. Before you install the SIMMs and DIMMs, please note that the installation of SIMM1&2 and DIM2 are exclusive.

**RAM Modules Configuration**

(Unit : MB)

TOTAL MEMORY	SIMM 3 & 4 (72-PIN X 2)	SIMM 1 & 2 (72-PIN X 2)	DIM2 (168-PIN X 1)	DIM1 (168-PIN X 1)
8	4 & 4			
				8
16	8 & 8			
				16
24	4 & 4		8	8
	4 & 4	4 & 4		8
32	8 & 8		8	8
	16 & 16			
				32
40	4 & 4		16	16
	8 & 8	8 & 8		8
48	4 & 4	4 & 4		32
	8 & 8		16	16
	8 & 8	8 & 8		16
	16 & 16		8	8
64	8 & 8	8 & 8		32
	16 & 16		16	16
	32 & 32			
72	4 & 4		32	32
	16 & 16	16 & 16		8
80	4 & 4	4 & 4		64*
	8 & 8		32	32
	16 & 16	16 & 16		16
	32 & 32		8	8

*(continued on next page)*

(continued)

TOTAL MEMORY	SIMM 3 & 4 (72-PIN X 2)	SIMM 1 & 2 (72-PIN X 2)	DIM2 (168-PIN X 1)	DIM1 (168-PIN X 1)
96	8 & 8	8 & 8		64*
	16 & 16		32	32
	16 & 16	16 & 16		32
	32 & 32		16	16
	16 & 16	16 & 16		64*
	32 & 32		32	32
128	64 & 64			
			64*	64*
136	4 & 4		64*	64*
144	8 & 8		64*	64*
160	64 & 64		16	16
	16 & 16		64*	64*
192	32 & 32		64*	64*
	64 & 64		32	32
256	64 & 64		64*	64*
264	64 & 64	64 & 64		8
272	64 & 64	64 & 64		16
288	64 & 64	64 & 64		32
	128* & 128*		16	16
320	128* & 128*		32	32
384	128* & 128*		64*	64*
512	128* & 128*	128* & 128*		

**NOTE :**

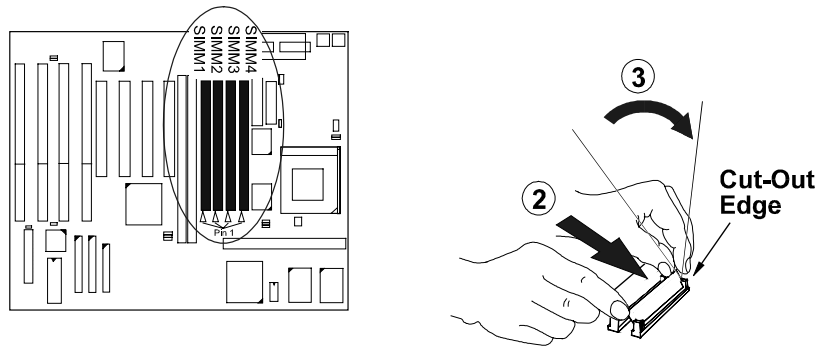
- \* A RAM module of this size was not available for testing when this manual was printed.
- DIM1 and DIM2 only support 3.3V (unbuffer) EDO and SDRAM modules.

## Install SIMMs

Complete the following procedures to install SIMMs:

**CAUTION :** Always turn the system power off before installing or removing any device; and see “Handling Precautions” at the start of this manual.

1. Locate the SIMM slots on the mainboard. (See figure below.)



**NOTE :** SIMMs in each bank must be of the same type; and the BIOS automatically configures the memory size.

2. Carefully fit a SIMM at a 45 degree angle into each empty sockets to be populated. All the SIMMs must face the same direction.
3. Swing each SIMM into its upright, locked position.  
When locking a SIMM in place, push on each end of the SIMM - do not push in the middle, as shown above.

## Remove SIMMs

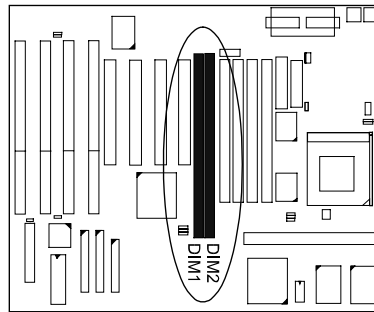
To remove the SIMMs, pull the retaining latch on both ends of the socket and reverse the procedure above.



## Install DIMMs

Complete the following procedures to install DIMMs:

1. Locate the DIMM slots on the mainboard. (See figure below.)



2. Carefully insert the DIMM straight down onto the DIMM slot with both hands until the clips on the ends of the slot close up to hold the DIMM in place.

## Remove DIMMs

Press the clips on the ends of the slot simultaneously. The DIMMs will spring out easily.

## Cache Memory

Cache memory access is very fast compared to main memory access. The cache holds data for imminent use. Since cache memory is five to more than ten times faster than main memory, the CPU's access time is reduced, giving you better system performance.

Pentium mainboards may implement various types of L2 cache SRAMs. Pipeline Burst SRAM is one of them, delivering the best price performance ratio. They perform much better than asynchronous SRAMs.

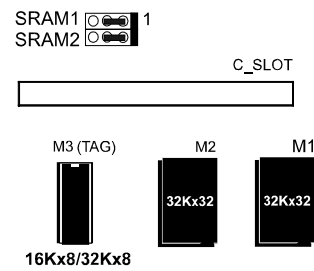
### **NOTE :**

1. The specification of the cache SRAM module requires Intel Coast Standard version 3.X, such as FIC's PB512K-3.0.
2. If this mainboard supports a Cyrix 6x86-P200+ or an IBM 6x86-P200+ processor, two 64K x 32 cache SRAMs are onboard, the cache SRAM module is not necessary and the jumper SRAM3 is wired by the factory. Please refer to page 14.
3. Use the correct chips for the amount of cache memory you want to add. Install both the correct SRAM module and tag SRAM.

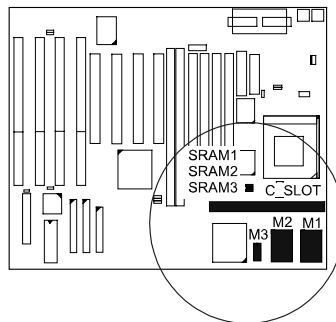
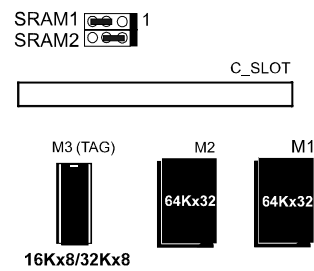
The PA-2010 comes with onboard 256/512KB synchronous 3V Pipeline Burst SRAMs, and one optional 256/512KB SRAM module (FIC's PB512K-3.0 is recommended) that can be installed on the SRAM module slot.

## Onboard Cache RAM (256KB/512KB)

### 256KB

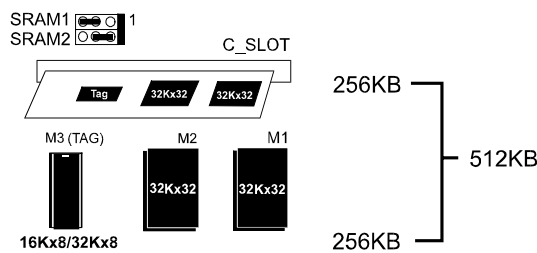


### 512KB

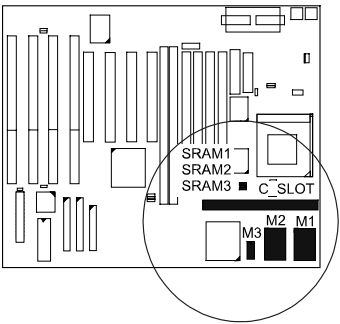
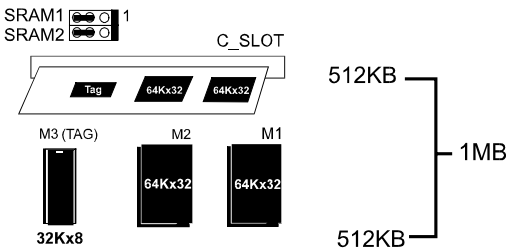


Onboard Cache RAM and SRAM Module Mixture  
(512KB/1MB)

512KB

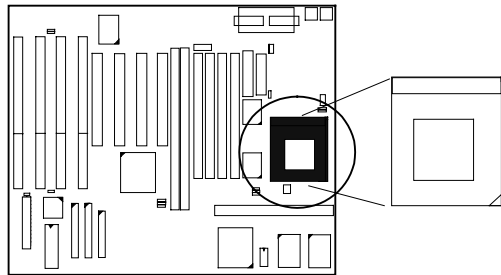


1MB



### 3). Install the CPU

The CPU module resides in the Zero Insertion Force (ZIF) socket on the mainboard.



**CAUTION :**

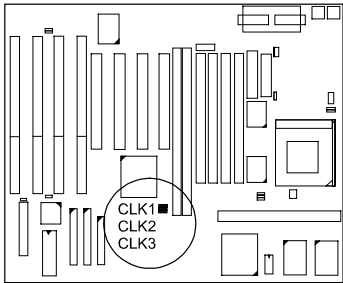
1. Always turn the system power off before installing or removing any device.
2. Always observe static electricity precautions.  
See "Handling Precautions" at the start of this manual.
3. Inserting the CPU chip incorrectly may damage the chip.
















To install the CPU, do the following:

1. Lift the lever on the side of the CPU socket.
2. Handle the chip by its edges and try not to touch any of the pins.
3. Place the CPU in the socket. The chip has a notch to correctly orientate the chip. Align the notch with pin one of the socket. Pin one is located in the blank triangular area. Do not force the chip. The CPU should slide easily into the socket.
4. Swing the lever to the down position to lock the CPU in place.
5. See the following sections for information on the CPU jumpers settings.

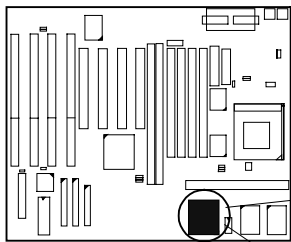
**CPU External Clock (BUS) Frequency: CLK1, CLK2, and CLK3**

The table below shows the jumper settings for the different CPU speed configurations.



CPU Speed	CLK1	CLK2	CLK3*
75 MHz*	 1	 1	 1
66 MHz	 1	 1	 1
60 MHz	 1	 1	 1
55 MHz	 1	 1	 1
50 MHz	 1	 1	 1

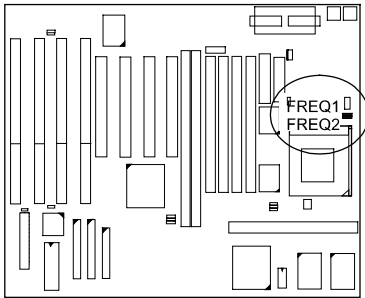
NOTE : \*











If the VT82C585VP has a green oval label marked "200+" on it, the mainboard supports Cyrix 6x86-P200+ (150MHz) and IBM 6x86-P200+ (150MHz) CPUs; otherwise, it does not.

**CPU to Bus Frequency Ratio: FREQ1 and FREQ2**









































These two jumpers are used in combination to decide the ratio of the internal frequency of the CPU to the bus clock.

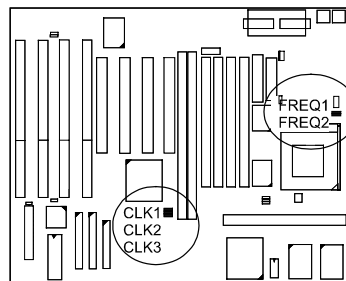


FREQ1	FREQ2	Ratio		
		Intel	Cyrix	AMD
 1	 1	3 x	3 x	
 1	 1	2.5 x	2.5 x	1.75 x
 1	 1	2 x	2 x	2 x
 1	 1	1.5 x	3.5 x	1.5 x

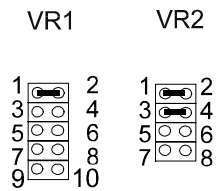
## Intel Pentium CPUs

### *Frequency*

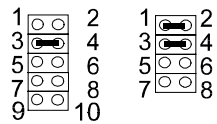
CPU Speed	External (CPU/CLK)	CLK1	CLK2	CLK3	CPU Clock Rate		
					Internal	FREQ1	FREQ2
200 MHz	66 MHz				3 x		
166 MHz	66 MHz				2.5 x		
150 MHz	60 MHz				2.5 x		
133 MHz	66 MHz				2 x		
120 MHz	60 MHz				2 x		
100 MHz	66 MHz				1.5 x		
90 MHz	60 MHz				1.5 x		
75 MHz	50 MHz				1.5 x		



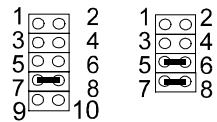
Voltage



Core : 3.4V-3.6V  
IO : Same  
P54C VRE

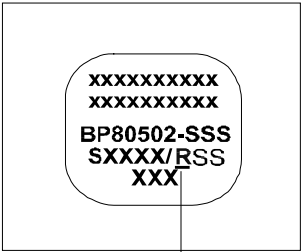


Core : 3.3V  
IO : Same  
P54C STD

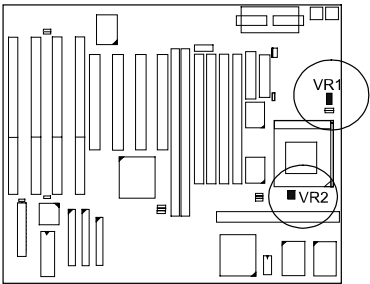


Core : 2.8V  
IO : 3.3V  
P55C

Intel Pentium CPU  
Bottom Side Marking











































R (Identifier for Voltage Range) :  
V for VRE Voltage Range  
or  
S for Standard Voltage Range





## AMD-K5 CPUs

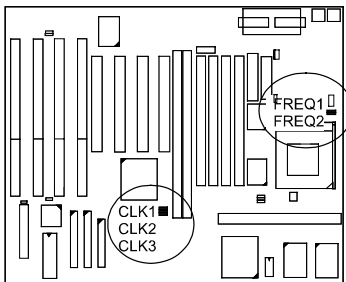
### Frequency

Model Name	CPU Speed	External (CPU/CLK)	CLK1	CLK2	CLK3	CPU Clock Rate			Remark
						Internal	FREQ1	FREQ2	
K5-PR200 *	133 MHz	66 MHz	 1	 1	 1	2 x Ext.	 1	 1	Newly released models
K5-PR166 *	116 MHz	66 MHz	 1	 1	 1	1.75 x Ext.**	 1	 1	
K5-PR150	105 MHz	60 MHz	 1	 1	 1	1.75 x Ext.**	 1	 1	
K5-PR133	100 MHz	66 MHz	 1	 1	 1	1.5 x Ext.	 1	 1	Currently available models
K5-PR120	90 MHz	60 MHz	 1	 1	 1	1.5 x Ext.	 1	 1	
K5-PR100	100 MHz	66 MHz	 1	 1	 1	1.5 x Ext.	 1	 1	
K5-PR90	90 MHz	60 MHz	 1	 1	 1	1.5 x Ext.	 1	 1	
K5-PR75	75 MHz	50 MHz	 1	 1	 1	1.5 x Ext.	 1	 1	

#### NOTE :

\* This CPU had not been tested when this manual was printed.

\*\* For AMD CPUs only, jumper FREQ1/FREQ2 can be set for 1.75x bus ratio.



Voltage

VR1

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

Core : 3.4V-3.6V

IO : Same

AMD-K5 - B

VR2

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

Core : 3.3V

IO : Same

AMD-K5 - C, F

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

Core : 2.9V

IO : 3.3V

AMD-K5 - H

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

10

Core : 2.8V

IO : 3.3V

AMD-K5 - J

1

2

3

4

5

6

7

8

9

10

1

2

3

4

5

6

7

8

9

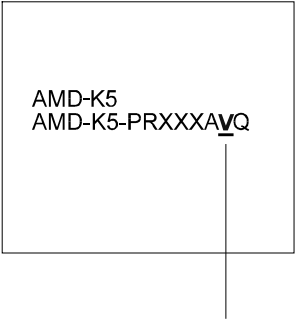
10

Core : 2.5V

IO : 3.3V

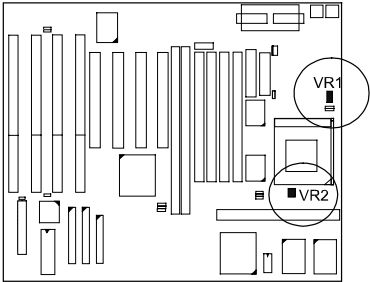
AMD-K5 - K

AMD-K5 CPU  
Top Side Marking



V (Identifier for Operation Voltage) :

- B
  - C
  - F
  - H
  - J
  - K
- Please refer to the left-hand-side table



## Cyrix 6x86 CPUs

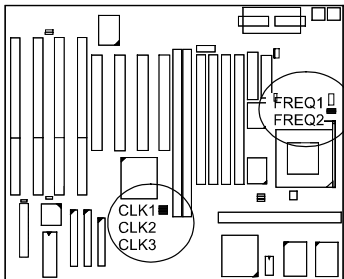
### Frequency

Model Name	CPU Speed	External (CPU/CLK)	CLK1	CLK2	CLK3	CPU Clock Rate		
						Internal	FREQ1	FREQ2
M2 <sup>*</sup>	225 MHz	75 MHz				3 x		
M2 <sup>*</sup>	200 MHz	66 MHz				3.5 x <sup>**</sup>		
M2 <sup>*</sup>	187 MHz	75 MHz				2.5 x		
M2 <sup>*</sup>	180 MHz	60 MHz				3 x		
M2 <sup>*</sup>	166 MHz	66 MHz				2.5 x		
M2 <sup>*</sup>	150 MHz	60 MHz				2.5 x		
6x86-P200+ 6X86L-P200+	150 MHz	75 MHz				2 x		
6x86-P166+ 6x86L-P166+	133 MHz	66 MHz				2 x		
6x86-P150+ 6x86L-P150+	120 MHz	60 MHz				2 x		
6x86-P133+ 6x86L-P133+	110 MHz	55 MHz				2 x		
6x86-P120+ 6x86L-P120+	100 MHz	50 MHz				2 x		

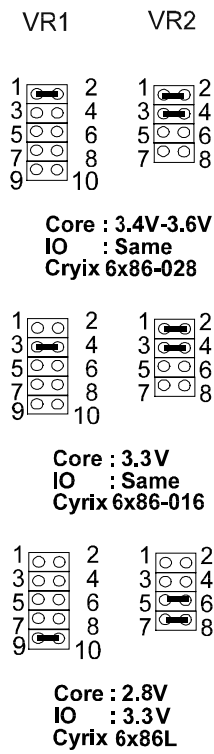
#### NOTE :

\* This CPU had not been tested when this manual was printed.

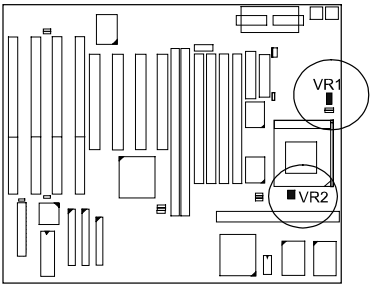
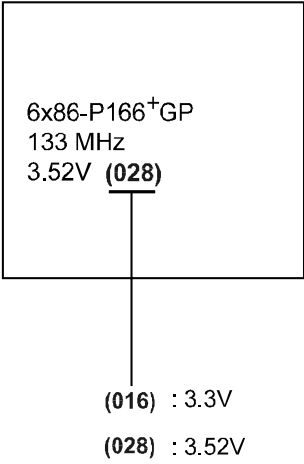
\*\* For Cyrix/IBM CPUs only, FREQ1/2 can be set for 3.5x bus ratio.



Voltage


























































Cyrix 6x86 CPU  
Top Side Marking



## IBM 6x86 CPUs

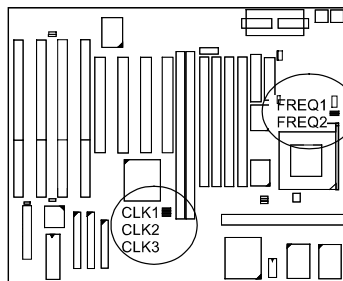
### *Frequency*

Model Name	CPU Speed	External (CPU/CLK)	CLK1	CLK2	CLK3	CPU Clock Rate		
						Internal	FREQ1	FREQ2
M2 <sup>*</sup>	225 MHz	75 MHz				3 x		
M2 <sup>*</sup>	200 MHz	66 MHz				3.5 x <sup>**</sup>		
M2 <sup>*</sup>	187 MHz	75 MHz				2.5 x		
M2 <sup>*</sup>	180 MHz	60 MHz				3 x		
M2 <sup>*</sup>	166 MHz	66 MHz				2.5 x		
M2 <sup>*</sup>	150 MHz	60 MHz				2.5 x		
6x86-P200+ 6X86L-P200+	150 MHz	75 MHz				2 x		
6x86-P166+ 6x86L-P166+	133 MHz	66 MHz				2 x		
6x86-P150+ 6x86L-P150+	120 MHz	60 MHz				2 x		
6x86-P133+ 6x86L-P133+	110 MHz	55 MHz				2 x		
6x86-P120+ 6x86L-P120+	100 MHz	50 MHz				2 x		

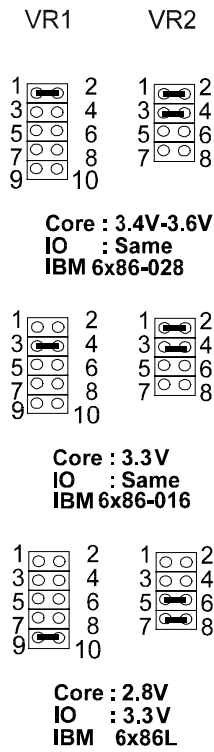
#### **NOTE :**

\* This CPU had not been tested when this manual was printed.

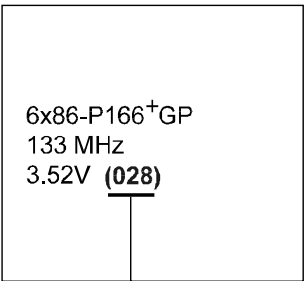
\*\* For Cyrix/IBM CPUs only, FREQ1/2 can be set for 3.5x bus ratio.



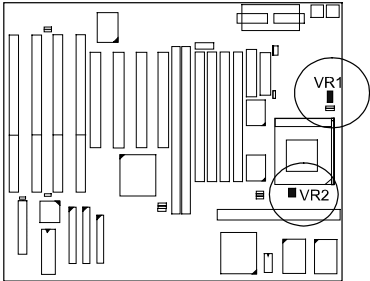
Voltage



IBM 6x86 CPU  
Top Side Marking



(016) : 3.3V  
(028) : 3.52V

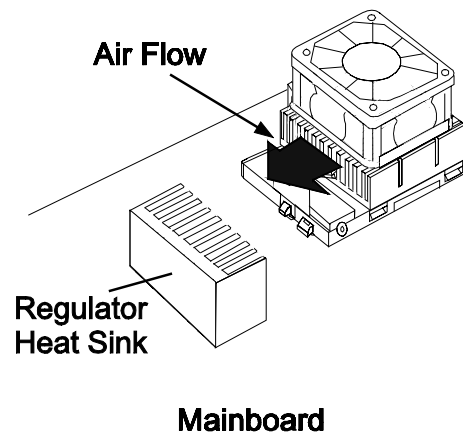


## Installation of Cyrix (or IBM) 6x86 CPU Fan

**CAUTION :** When you install a Cyrix (or IBM) 6x86 CPU fan, please pay attention to the direction of the air flow. Make sure that it lowers the temperature of the regulator. Otherwise, the system may overheat.

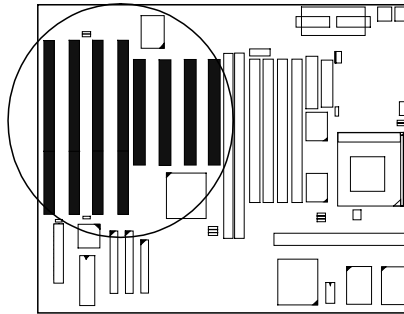
We recommend that you use one of the following two CPU fans for the Cyrix (or IBM) 6x86 CPU when you install the fan on the mainboard.

- 1). Supplier : BIRCHTECK, Taiwan (Phone : 886-2-7935677)  
Model Number - BEC6x86B1.
- 2). Supplier : Cyrix (or IBM). The fan comes with the Cyrix (or IBM) 6x86 CPU purchase. For the stable system performance, make sure that the air flow blow toward the regulator the temperature of the regulator.



## 4). Install Expansion Cards

Your PA-2010 features four 16-bit ISA Bus and four 32-bit PCI Bus expansion slots.



This section describes how to connect an expansion card to one of your system's expansion slots. Expansion cards are printed circuit boards that, when connected to the mainboard, increase the capabilities of your system. For example, expansion cards can provide video and sound capabilities.

### **CAUTION :**

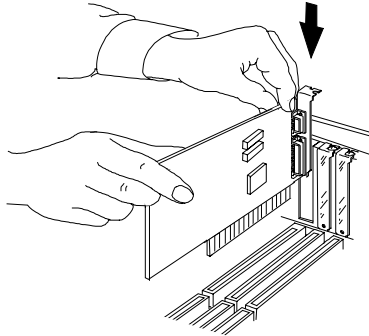
1. Always turn the system power off before installing or removing any device.
2. Always observe static electricity precautions.  
See "Handling Precautions" at the start of this manual.

To install an expansion card, do the following:

1. Remove the chassis cover and select an empty expansion slot.
2. Remove the corresponding slot cover from the chassis.  
Unscrew the mounting screw that secures the slot cover and pull the slot cover out from the chassis. Keep the slot cover mounting screw nearby.



3. Holding the edge of the peripheral card, carefully align the edge connector with the expansion slot. (See figure below.)

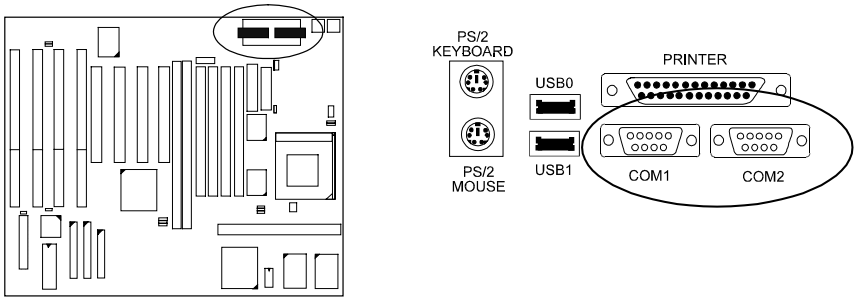


4. Push the card firmly into the slot. Push down on one end of the expansion card, then the other. Use this “rocking” motion until the add-in card is firmly seated inside the slot.
5. Secure the board with the mounting screw removed in Step 2. Make sure that the card has been placed evenly and completely into the expansion slot.

## 5). Connect Cables and Power Supply

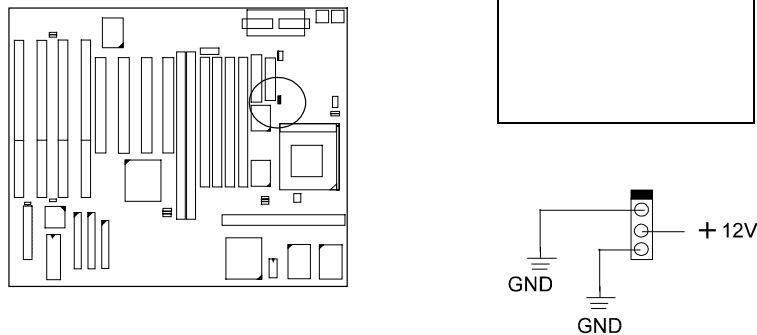
### *Serial Port Connector: COM1 and COM2*

These two 9-pin D-Sub male connectors allow you to connect with your devices that take serial ports, such as a serial mouse or a modem. The COM2 Port on the PA-2010 mainboard can also be used as another IR Port. Usually, your serial mouse is attached to COM1. Your modem is linked to COM2. When you do not use the modem, you can set the BIOS to let COM2 be an IR port to save a dedicated SIR port.



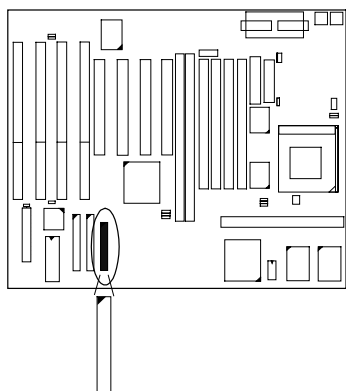
### *CPU Fan Connector: FAN*

This connector is linked to the CPU fan.



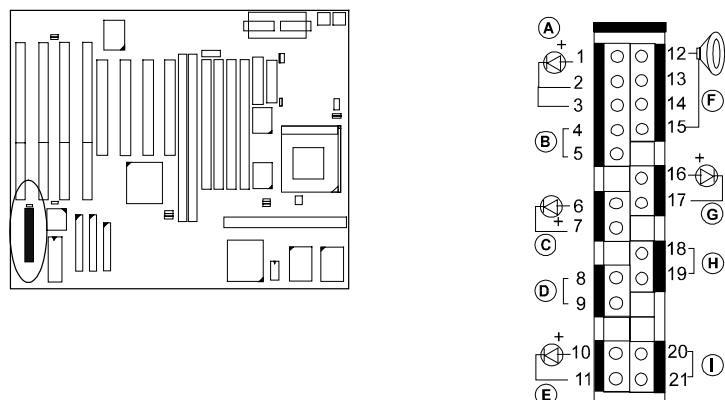
***Floppy Diskette Drive Connector: FLOPPY***

This 34-pin block connector connects to your floppy diskette drive (FDD) using the cable that is provided with this mainboard.



### Front Panel Block Connector: F\_PNL

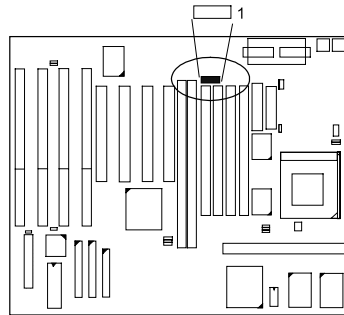
This block connector concludes : PW\_LED, KB\_LOCK, TB\_LED, SP\_SW, SPK, SP\_LED, IDE\_LED, RPW\_SW, and RST connectors.



Item	Connector	Pin Type	Feature
A	PW_LED	2-pin male	indicates the system power status
B	KB_LOCK	2-pin male	allows the keyboard to access the system
C	TB_LED	2-pin male	indicates the system speed is in normal or turbo speed
D	SP_SW	2-pin male	Suspend Mode switch
E	SP_LED	2-pin male	indicates the system into Suspend Mode when LED lit
F	SPK	4-pin male	connects to speaker
G	IDE_LED	2-pin male	indicates the IDE HDD I/O access LED lit
H	RPW_SW	2-pin male	Remote Power switch
I	RST	2-pin male	allows you to reset the system

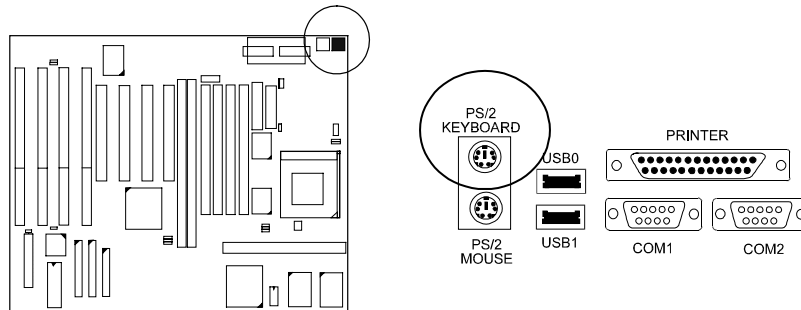
***Infrared Connector: IR***

This 10-pin male connector is used for connecting to the infrared (SIR) port and allows transmission of data to another system which also supports the SIR feature.



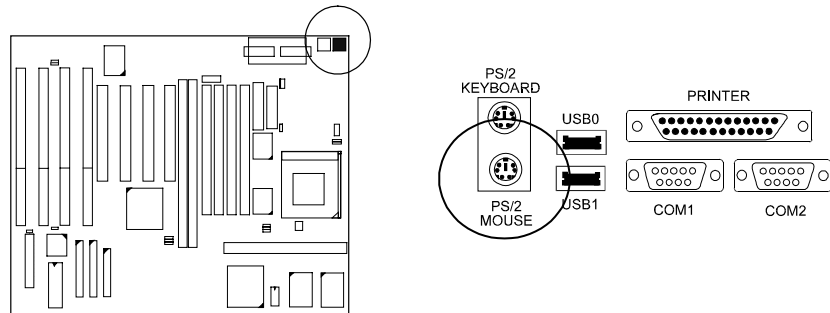
***PS/2 Keyboard Connector: PS2\_KB***

This 6-pin female connector is used for your PS/2 keyboard.



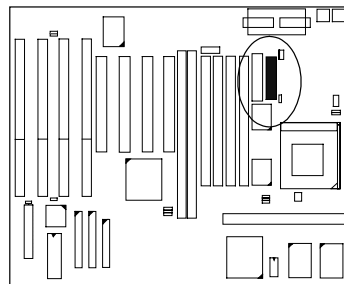
***PS/2 Mouse Connector: PS2\_MS***

This connector is connected to the PS/2 mouse.



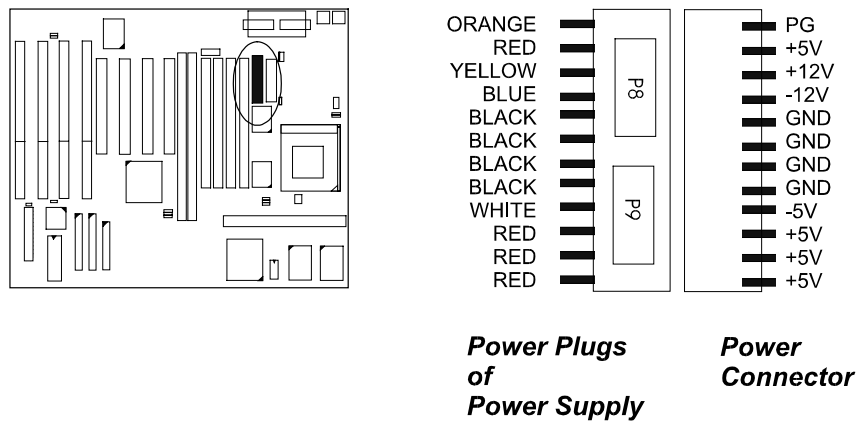
***ATX Power Connector: PWR1***

This 20-pin male block connector is connected to the ATX power supply.



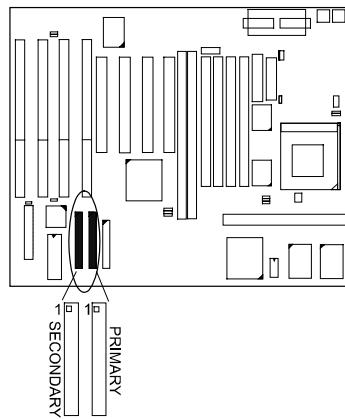
### ***Standard Power Connector: PWR2***

This 12-pin block connector is used for connecting to the standard 5V power supply. In the picture below, notice that, in most cases, there are two marks “P8” and “P9” on the surface of the connector. You have to insert the “P8” plug into the “P8” section of the connector, and so forth for “P9”. Two black wires must be in the middle.



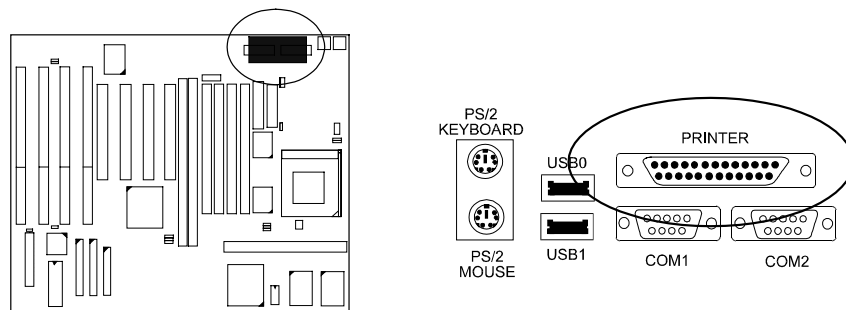
***IDE HDD Device Connector: PRIMARY and SECONDARY***

These two 40-pin block connectors are used for your IDE hard disks. If you have one IDE hard disk, connect it to the PRIMARY connector using the IDE HDD flat cable provided with the mainboard. The BIOS auto detection sets it to be a “Primary Master” disk. If you want to install another IDE hard disk or CD-ROM, please use the SECONDARY connector. If two hard disks are connected to the PRIMARY connector using the same cable, one of them is the master drive, the other one is the slave drive. You may need to set jumpers for the slave drive; please refer to the HDD manual for details.



***Printer Connector: PRINTER***

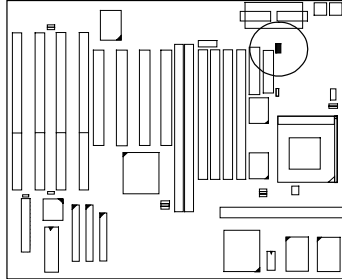
This 25-pin D-Sub female connector is attached to your printer.





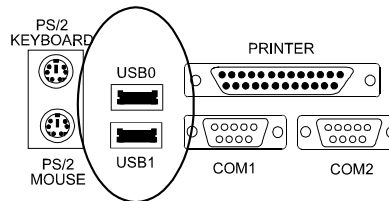
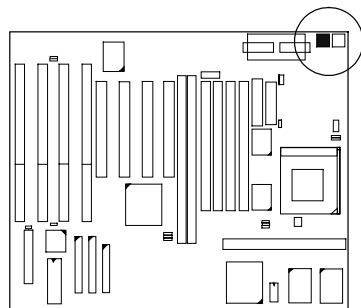
***Remote Power Supply Connector: RPW\_CON***

This 3-pin male connector allows you to enable or disable the system power if the RPW\_SW is on or off.



***Universal Serial Bus Connectors  
(Reserved For Future Upgrade)***

These two connectors are reserved for future upgrade for linking with the peripherals devices that support Universal Serial Bus connection. The connector pinheads are not installed on this mainboard currently.



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