

PENTIUM 430TX

**AT Form PCI & ISA Bus Pentium Mainboard
On Board PCI Master IDE, Multi-I/O.**

Thunderbolt - R585

Users Manual

Introduction

Welcome to the M-Technology next generation high performance Pentium system mainboard ---Thunderbolt **R-585**. The R-585 using the high performance Intel 430TX Chipset that will deliver superior performance on your personal computer.

About This User's Guide

This User's Guide is for assisting system manufacturers and end users in setting up and installing the mainboard. Information in this guide has been carefully checked for reliability; however, there may still be inaccuracies and information in this document is subject to change without notice.

DISCLAIMER

The information in this manual has been carefully checked and is believed to be accurate. We assume no responsibility for any inaccuracies that may still be contained in this manual. We reserve the right to make changes to this material at any time without notice.

※ All Brand names are trademarks of their owners.

* Our home page on Internet "<http://www.mtiusa.com>"

Table of Contents

Chapter 1 INTRODUCTION

1.1 Preface	1-1
1.2 Key Features	1-1
1.3 Mainboard Layout	1-3

Chapter 2 HARDWARE INSTALLATION

2.1 Unpacking	2-1
2.2 Jumper Setting Summary	2-2
2.3 CPU Installation	2-4
2.3.1 CPU Frequency Configuration	2-4
2.3.2 CPU Voltage Configuration	2-5
2.3.3 CPU Speed & Jumper Setting	2-6
2.3.4 CPU Type Select Quick Reference	2-8
2.3.5 Installing a CPU in the ZIF Socket	2-16
2.4 Upgrading System Memory	2-17
2.4.1 Installing a DIMM Module.....	2-17
2.4.2 DIMM Voltage Select	2-18
2.4.3 DIMM's Installing Table.....	2-18
2.4.4 5V EDO and FPM SIMM or DIMM Module.....	2-19
2.5 Flash EPROM Selector	2-20
2.6 CMOS Clear Jumper.	2-21
2.7 Connectors	2-22
2.7.1 I/O Ports	2-23
2.7.2 External Connections	2-24
2.8 Power Supply Type(AT/ATX) Select.....	2-28

Chapter 3 BIOS SETUP

3.1 Standard CMOS Setup.....	3-2
3.2 BIOS Feature Setup	3-3
3.3 Chipset Features Setup	3-6
3.4 Power Management Setup	3-9
3.5 PNP/PCI Configuration Setup	3-11
3.6 Load Setup Default	3-12
3.7 Integrated Peripherals	3-13
3.8 Supervisor Password	3-15
3.9 User Password.....	3-16
3.10 IDE HDD Auto Detection	3-17

1. INTRODUCTION

1.1. Preface

Welcome to use the R-585 Pentium system mainboard. This manual explains how to use this mainboard and install upgrades. It has overview of the design and features of the board and provides useful information on the configuration of the board, or a system in which.

1.2. Key Features

The R-585 Pentium system mainboard is a high-performance system board that support Intel Pentium family CPUs, Cyrix, AMD and other compatible CPUs.

There has many performance and system features integrated onto the mainboard, including the following :

- ❑ CPU : Supports Socket 7 for
 - Intel Pentium 90 to 233 MHz, P55CT (MMX).
 - Cyrix / IBM 6x86, 6x86L, 6x86MX (M2),
 - AMD K5, K6 .and other compatible CPUs.
 - ❑ Chipset : Intel 430TX (82439TX, 82371AB).
 - ❑ Supports true 64 bits CACHE and DRAM access mode.
 - ❑ Supports 512K Pipelined Burst SRAM in second Level Cache.
 - ❑ CPU L1/L2 Write-Back Cache operation.
 - ❑ Supports 4 x 72-pin SIMM Sockets(2 Banks) and 2x168-pin DIMM SDRAM Sockets(2 Banks).
 - The Memory Capacity from 4MB to 256MB.
 - Supports FP(Fast Page), EDO(Extended Data Out) Mode DRAM and SDRAM.
 - ❑ Four 16-bit ISA Slots and Four 32-bit PCI Master Mode Slots.
-

【1】

- ❑ Fast PCI Bus Master Mode IDE Interface:
 - 2 x IDE Connectors for up to 4 IDE Drives.
 - PIO Mode 4 transfers & Ultra IDE Mode.

- ❑ On-board I / O support :
 - 2 Serial Port Connectors (16550 Fast UART compatible).
 - 1 Parallel Port Connector (with EPP and ECP capabilities).
 - 1 Floppy Disk Connector (Supports 2 FD Drives).
 - 1 PS/2 Mouse Connector.
 - 1 IrDA Connector.

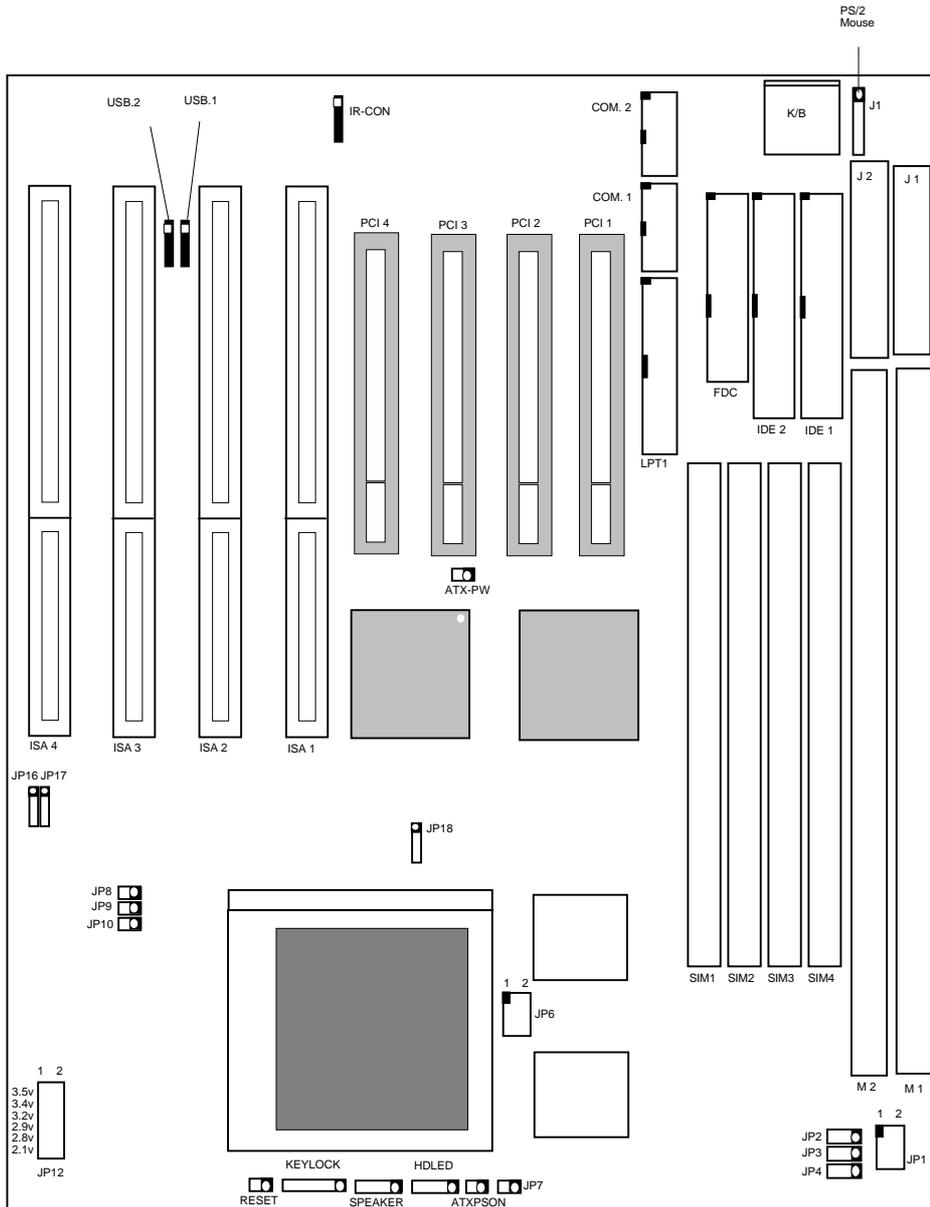
- ❑ Universal Serial Bus Controller.
 - Host / HUB Controller.
 - Two USB Ports.
 - ※ Now under compatibility testing with different peripheral.

- ❑ Pentium PCI BIOS with Green, Plug and Play Features

- ❑ Licensed BIOS, 1MB FLASH EEPROM for BIOS update.

- ❑ Baby AT Form Factor : 22cm x 25cm or 8.7" x 9.8" (4 Layers).

1.3 R-585 Mainboard Layout



2 HARDWARE INSTALLATION

This chapter explains how to configure the system mainboard hardware. After you install the main board, you can set jumpers and make case connections. Refer to this chapter whenever you upgrade or reconfigure your system.

2.1 Unpacking

The mainboard package should contain the following:

- ◆ The **R-585** mainboard.
- ◆ USER'S MANUAL for R-585 mainboard.
- ◆ Cable set for IDE, Floppy and I/O device.
- ◆ Diskette for BUS MASTER ATAPI device.

The mainboard contains sensitive electric components which can be easily damaged by static electricity, so the mainboard should be left in its original packing until it is installed.

Unpacking and installation should be done on a grounded anti-static mat.

The operator should be wearing an anti static wristband, grounded at the same point as the anti-static mat.

Inspect the mainboard carton for obvious damage. Shipping and handling may cause damage to your board. Be sure there are no shipping and handling damages on the board before proceeding.

After opening the mainboard carton, extract the system board and place it only on a grounded anti-satic surface component side up. Again inspect the board for damage.

Press down on all of the socket IC's to make sure that they are properly seated. Do this only on with the board placed on a firm flat surface.

【2】



Do not apply power to the board if it has been damaged.

You are now ready to install your mainboard. The mounting hole pattern on the mainboard matches the system board.

It is assumed that the chassis is designed for a standard AT mainboard mounting. Place the chassis on the anti-static mat and remove the cover.

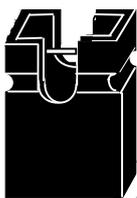
Take the plastic clips, Nylon stand-off and screws for mounting the system board, and keep them separate.

2.2 Jumper Setting Summary

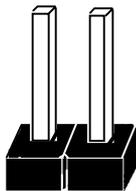
Regarding hardware settings on the board. They specify configuration options for various features. The settings are made using something called a "Jumper". A jumper is a set of two or more metal pins in a plastic base attached to the mainboard. A plastic jumper "cap" with a metal plate inside fits over two pins to create an electrical contact between them. The contact establishes a hardware setting.

Some jumpers have two pins, other have three or more. The jumpers are sometimes combined into sets called jumper "blocks", where all the jumpers in the block must be set together to establish a hardware setting. The next figures show how this works.

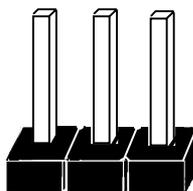
Jumpers and caps



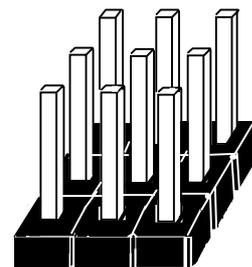
Jumper cap



2-Pin Jumper



3-Pin Jumper

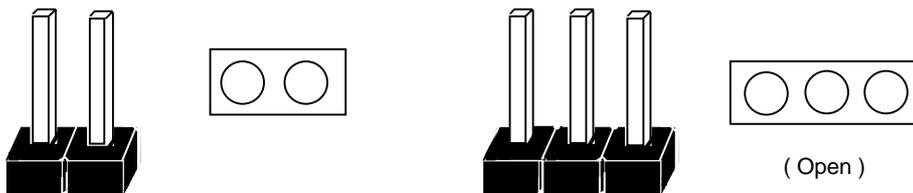


Jumper block

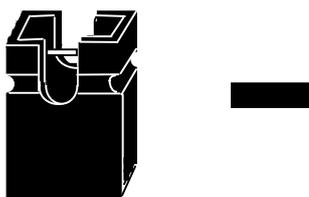
Most jumper settings are printed on the board in a stylized bird's-eye view, with which pins to connect for each setting marked by a bar connecting two pins. For example, if a jumper has three pins, connecting or "closing", the first and second pins creates one setting and closing the second and third pins creates another. The same type of diagrams are used in this manual. The jumpers are always shown from the same point of view as shown in the whole board diagram in this chapter.

Jumpers diagrams

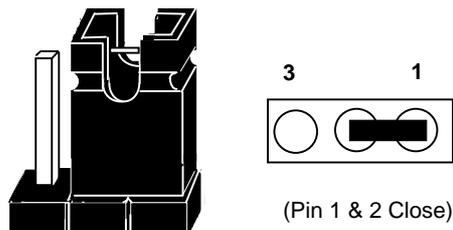
Jumpers are shown like this



Jumper caps like this



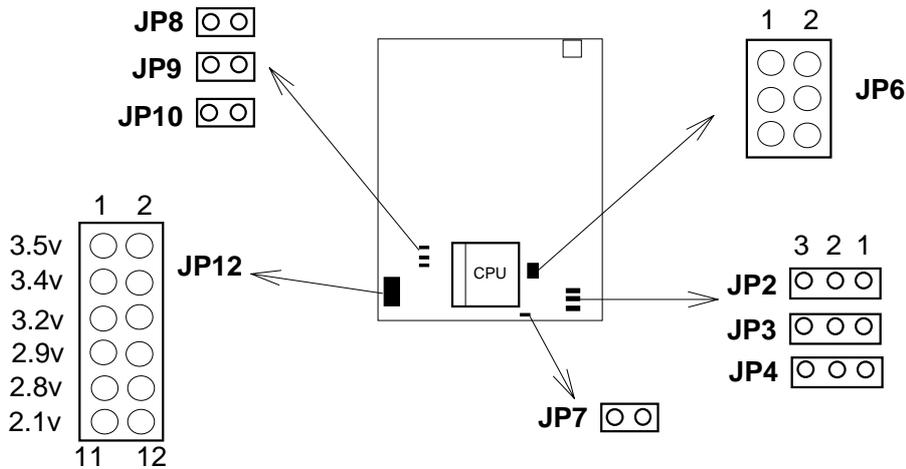
Jumper settings like this



※ The Red colors Jumper for system Voltage setting, and the yellow colors Jumper for system Clock setting, please careful to change it.

2.3 CPU Installation

The mainboard supports Pentium class processors up to 233 MHz, If you install the CPU on this board, you must set the **System Frequency** (JP2, JP3, JP4, JP7), **Frequency Ratio** (JP8, JP9) and **CPU Power Voltage** (JP6, JP12) to meet variable CPU specifications. (**JP10, for Feature Function, default is open**)



2.3.1. CPU Speed Configuration:

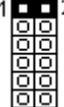
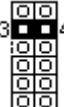
Freq ratio	JP8, JP9
1.5	
2	
2.5	
3	
3.5	

System freq (MHz)	JP7	JP2, JP3, JP4
55		
60		
66		
75 **		

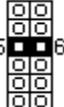
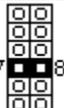
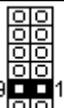
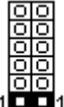
- * CPU Speed = (Frequency ratio) x (System Frequency).
- ** PCI has a maximum bandwidth of 33MHz --- one half of the 66 MHz System Frequency. The 75MHz System Frequency are not supported by the Intel TX chipset & current PCI Rev.2.1 Specification.

2.3.2. CPU Voltage Configuration:

(a) For Single Power CPU. (Intel P54C, Cyrix 6x86, IBM 6x86, AMD 5k86)

CPU Power Voltage		JP6	JP12
I/O	Core		
3.5 V			
3.4 V			

(b) For Dual Power CPU. (Intel P55C (MMX), Cyrix 6x86L, 6x86MX (M2), IBM 6x86L, 6x86MX (M2), AMD K6)

CPU Power Voltage		JP6	JP12
I/O	Core		
3.4v	3.2v		
3.4v	2.9v		
3.4v	2.8v		
3.4v	2.1v		

【2】

2.3.3. The CPU Speed & Jumper setting.

(a) Intel Pentium CPU.

CPU Speed	Clock Reference	Frequency Ratio			System Clock			
	JP7	/	JP8	JP9	MHz	JP2	JP3	JP4
90MHz	Close	3/2	Open	Open	60	1-2Close	2-3Close	2-3Close
100MHz	Open		Open	Open	66	2-3Close	2-3Close	1-2Close
120MHz	Close	2/1	Open	Close	60	1-2Close	2-3Close	2-3Close
133MHz	Open		Open	Close	66	2-3Close	2-3Close	1-2Close
150MHz	Close	5/2	Close	Close	60	1-2Close	2-3Close	2-3Close
166MHz	Open		Close	Close	66	2-3Close	2-3Close	1-2Close
180MHz	Close	3/1	Close	Open	60	1-2Close	2-3Close	2-3Close
200MHz	Open		Close	Open	66	2-3Close	2-3Close	1-2Close
233MHz	Open	7/2	Open	Open	66	2-3Close	2-3Close	1-2Close

(b) Cyrix 6x86 & 6x86L and IBM 6x86 & 6x86L CPU.

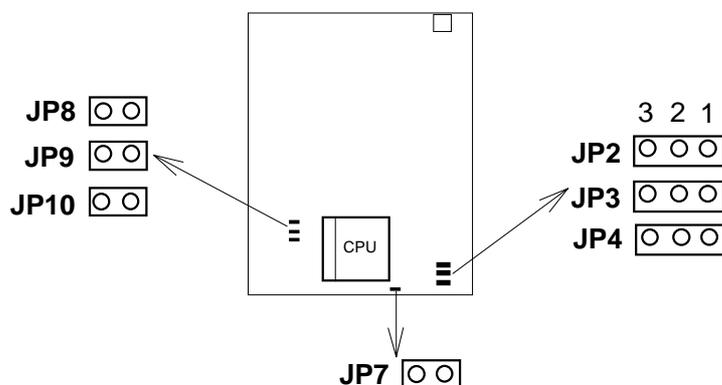
CPU Speed	Clock Reference	Frequency Ratio			System Clock			
	JP7	/	JP8	JP9	MHz	JP2	JP3	JP4
PR133+	Open	2/1	Open	Close	55	2-3Close	1-2Close	2-3Close
PR150+	Close		Open	Close	60	1-2Close	2-3Close	2-3Close
PR166+	Open		Open	Close	66	2-3Close	2-3Close	1-2Close
* PR200+	Open		Open	Close	75	1-2Close	1-2Close	2-3Close

(c) Cyrix 6x86MX (M2) & IBM 6x86MX (M2) CPU.

CPU Speed	Clock Reference	Frequency Ratio			System Clock			
	JP7	/	JP8	JP9	MHz	JP2	JP3	JP4
PR166	Close	5/2	Close	Close	60	1-2Close	2-3Close	2-3Close
PR200	Open		Close	Close	66	2-3Close	2-3Close	1-2Close
PR233	Open	3/1	Close	Open	66	2-3Close	2-3Close	1-2Close
* PR233	Open	5/2	Close	Close	75	1-2Close	1-2Close	2-3Close
PR266	Open	7/2	Open	Open	66	2-3Close	2-3Close	1-2Close
* PR266	Open	3/1	Close	Open	75	1-2Close	1-2Close	2-3Close

※ 1. We recommend the end user to choose the version 2.7 or later of Cyrix/
IBM 6x86 processor.

2. "*" For reference only.



(d) AMD 5k86 CPU.

CPU Speed	Clock Reference	Frequency Ratio			System Clock			
	JP7	/	JP8	JP9	MHz	JP2	JP3	JP4
P90	Close	3/2	Open	Open	60	1-2Close	2-3Close	2-3Close
P100	Open		Open	Open	66	2-3Close	2-3Close	1-2Close
P166	Open	5/2	Close	Close	66	2-3Close	2-3Close	1-2Close

(e) AMD K6 CPU.

CPU Speed	Clock Reference	Frequency Ratio			System Clock			
	JP7	/	JP8	JP9	MHz	JP2	JP3	JP4
PR166	Open	5/2	Close	Close	66	2-3Close	2-3Close	1-2Close
PR200	Open	3/1	Close	Open	66	2-3Close	2-3Close	1-2Close
PR233	Open	7/2	Open	Open	66	2-3Close	2-3Close	1-2Close

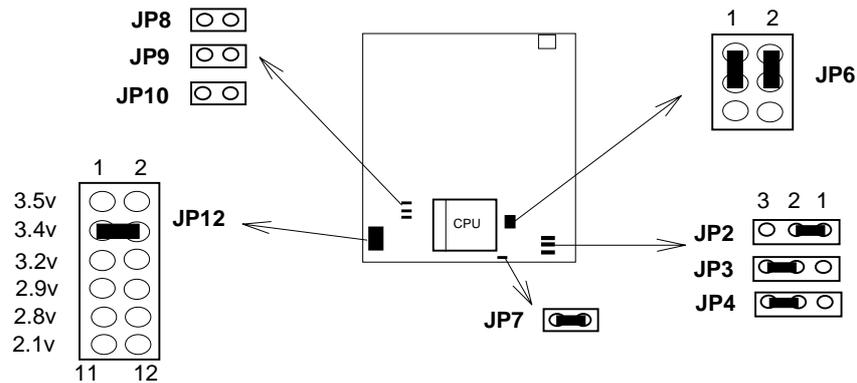
- ※ 1. For the AMD K5-PR120/133, it is also allowed to use ratio "x1.5", which is equal to the Intel Pentium 90/100MHz settings.
2. For the AMD K5-150/160, it use the same settings as the Intel Pentium 150/166MHz processor.

【2】

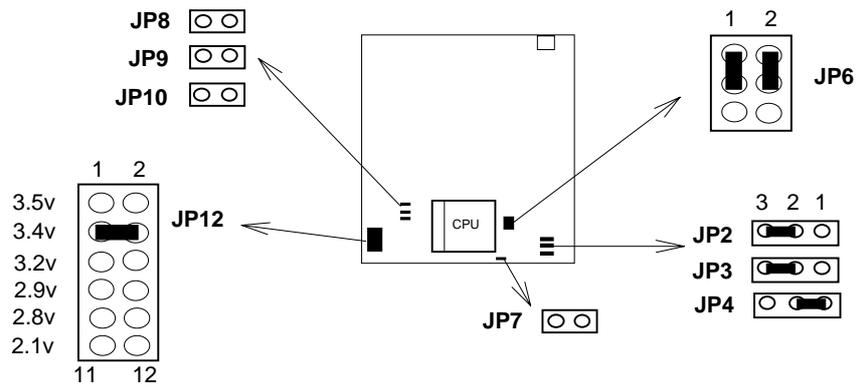
2.3.4. CPU Type Select Quick Reference :

(a) Intel Pentium CPU.

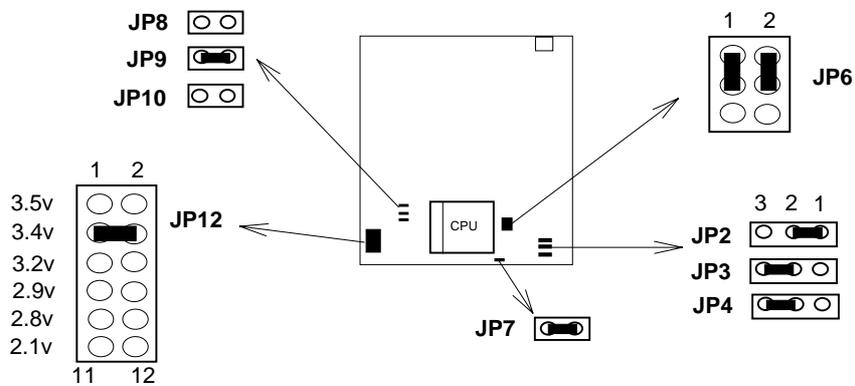
(1) Intel P54C-90MHz.



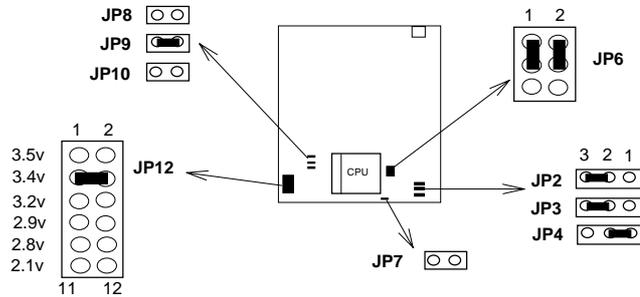
(2) Intel P54C-100MHz.



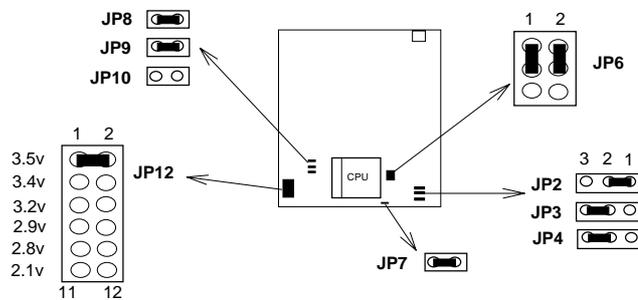
(3) Intel P54C-120MHz.



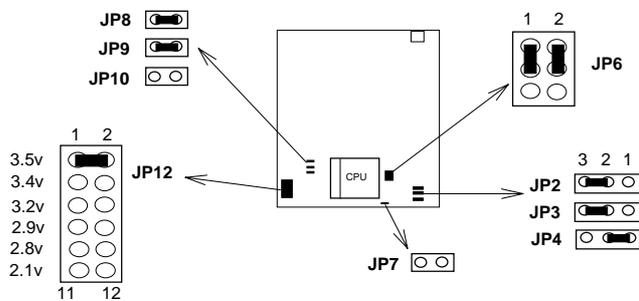
(4) Intel P54C-133MHz.



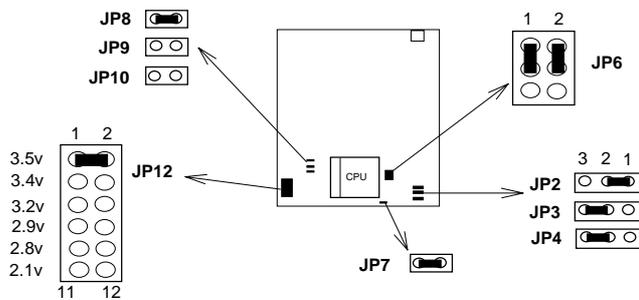
(5) Intel P54C-150MHz.



(6) Intel P54C-166MHz.

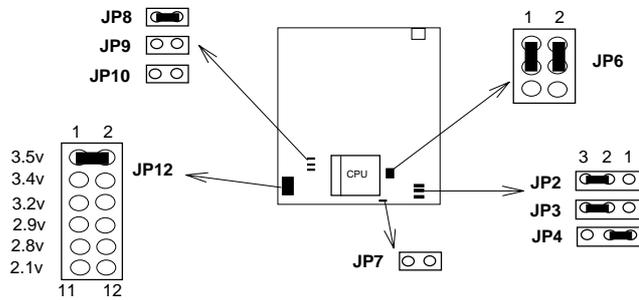


(7) Intel P54C-180MHz.

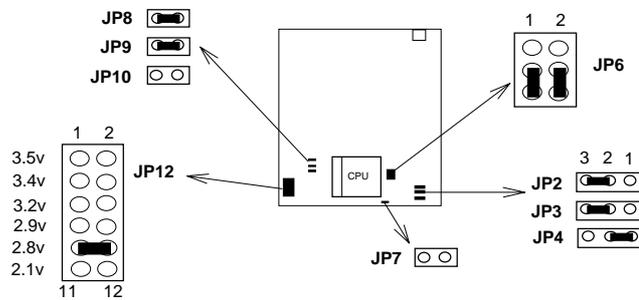


【2】

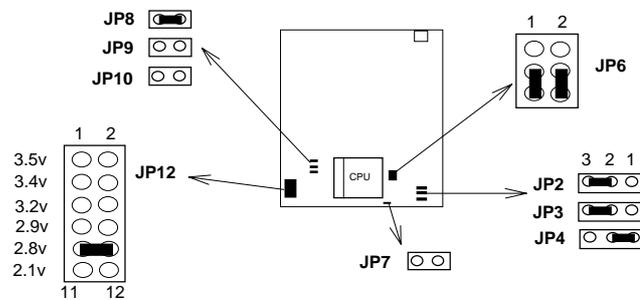
(8) Intel P54C-200MHz.



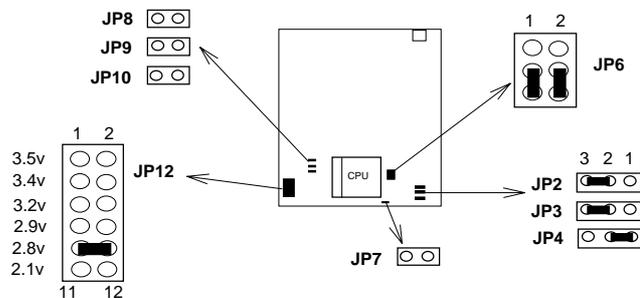
(9) Intel P55C (MMX) -166MHz.



(10) Intel P55C (MMX)-200MHz.

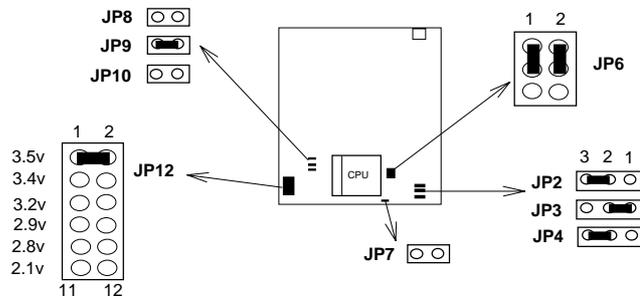


(11) Intel P55C (MMX)-233MHz.

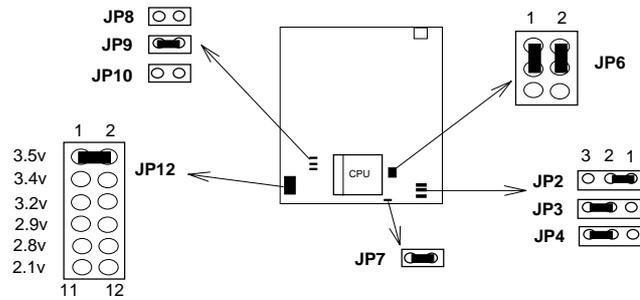


(b) Cyrix 6x86, IBM 6x86 CPU.

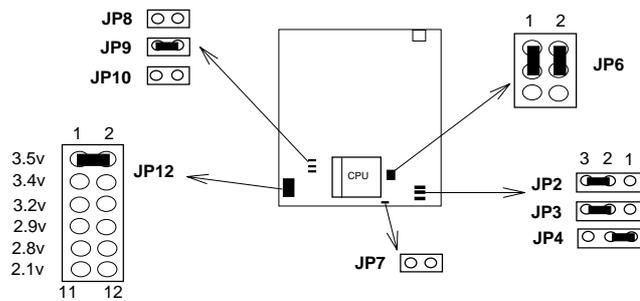
(1) 6x86 - PR133+



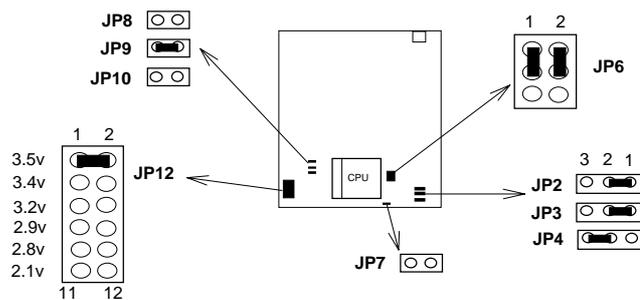
(2) 6x86 - PR150+



(3) 6x86 - PR166+



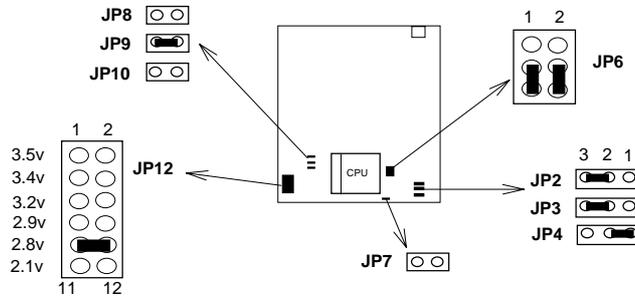
(4) 6x86 - PR200+



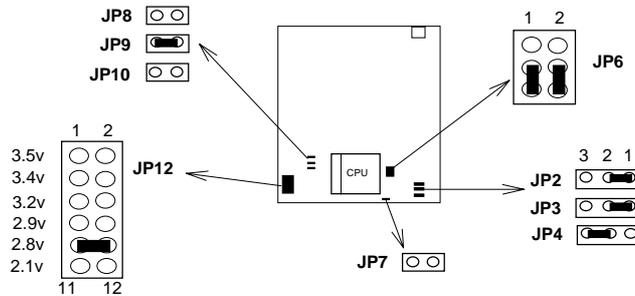
【2】

(c) Cyrix 6x86L & 6x86MX(M2), IBM 6x86L & 6x86MX (M2) CPU.

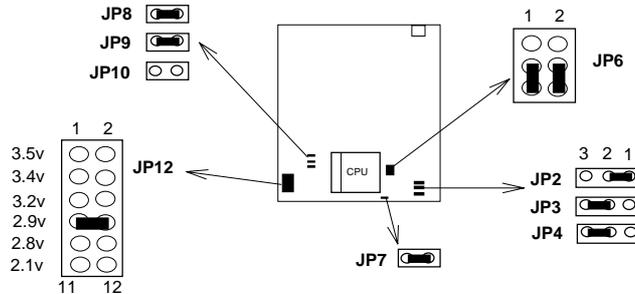
(1) 6x86L - PR166.



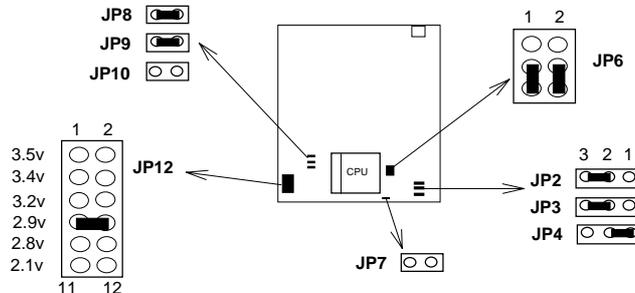
(2) 6x86L - PR200.



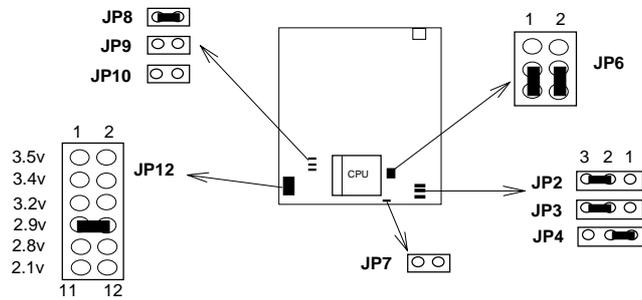
(3) 6x86MX - PR166.



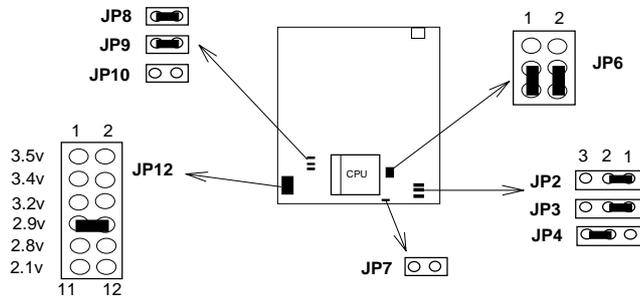
(4) 6x86MX - PR200.



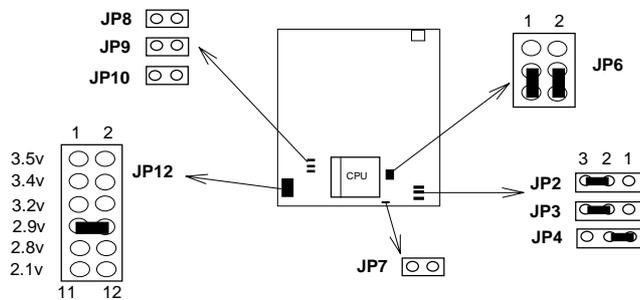
(5) 6x86MX - PR233 (66MHz).



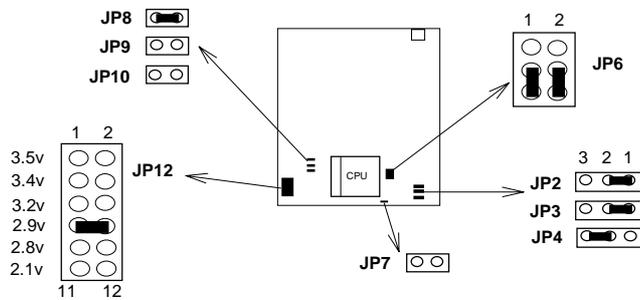
(6) 6x86MX - PR233 (75MHz).



(7) 6x86MX - PR266 (66MHz).



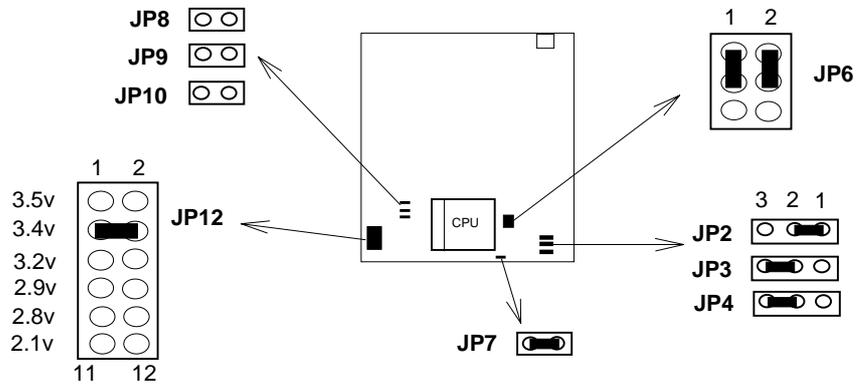
(8) 6x86MX - PR266 (75MHz).



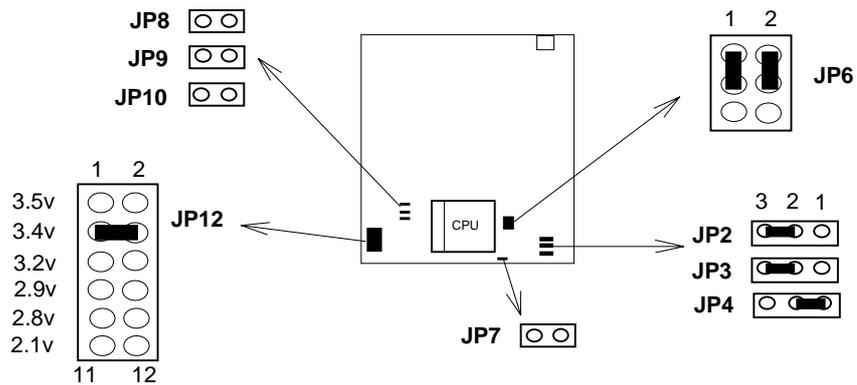
【2】

(d) AMD K5 & K6 CPU.

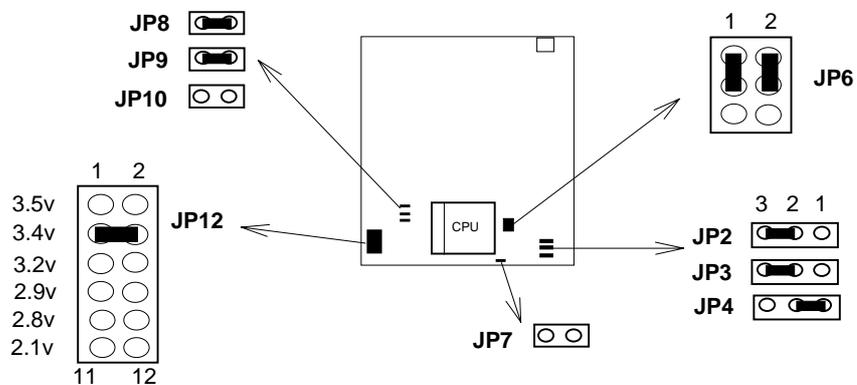
(1) AMD K5 - P90.



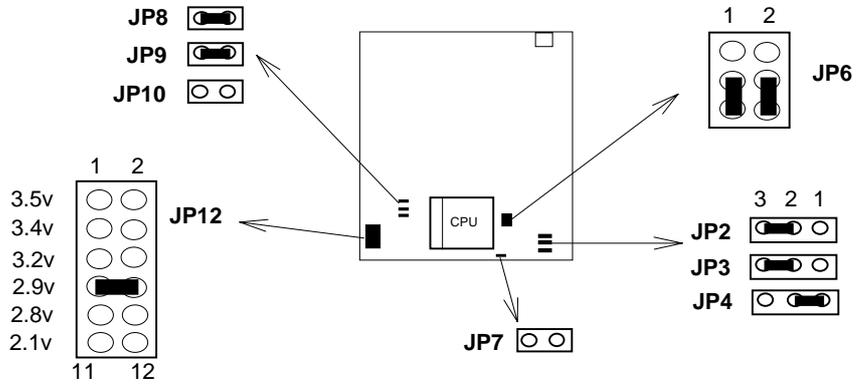
(2) AMD K5 - P100.



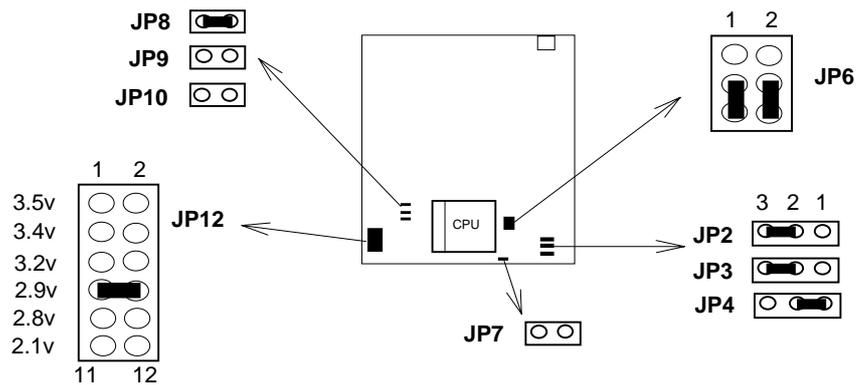
(3) AMD K5 - P166.



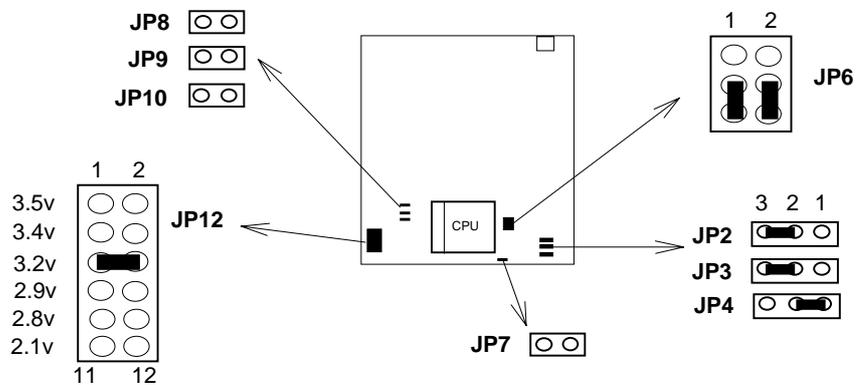
(4) AMD K6 - P166.



(5) AMD K6 -P200.



(6) AMD K6 -P233.

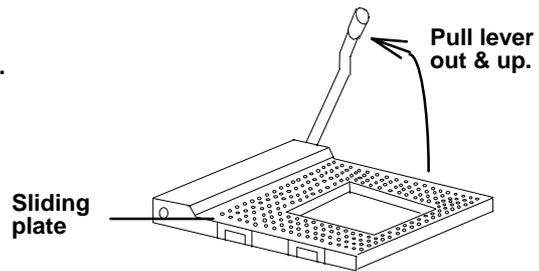


【2】

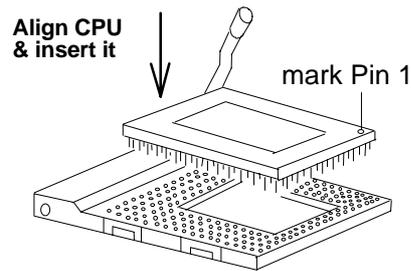
2.3.5. Installing a CPU in the ZIF Socket

The Intel Socket 7 incorporated in the mainboard specifications, is specially designed for the Pentium processor. While inserting the Pentium processor onto Socket 7, certain precautionary steps must be followed. The following diagrams of demonstration and explanation are worth of your note.

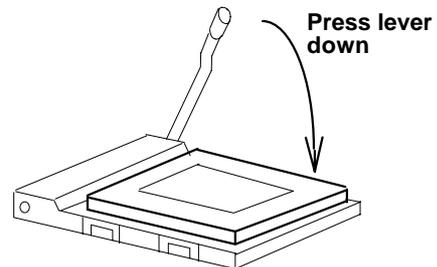
1. Make sure the ZIF socket level is up.
To raise the lever, pull it out to the side a little and raise it as far as it will go. Pin 1 is at the arm corner.



2. Align the CPU and socket pin 1 corners. match the processor corner containing the blunt edge and the white dot to the socket corner with the distinctive pin arrangement. The pins on the bottom should align with the inner 3 rings of holes in the socket, then place the CPU in the socket. It should insert easily. If it doesn't, pull the level up a little more.



3. Press the lever down. The plate will slide forward. You will feel some resistance as the pressure starts to secure the CPU in the socket. When the CPU is installed, the lever should snap into place at the side of the socket.



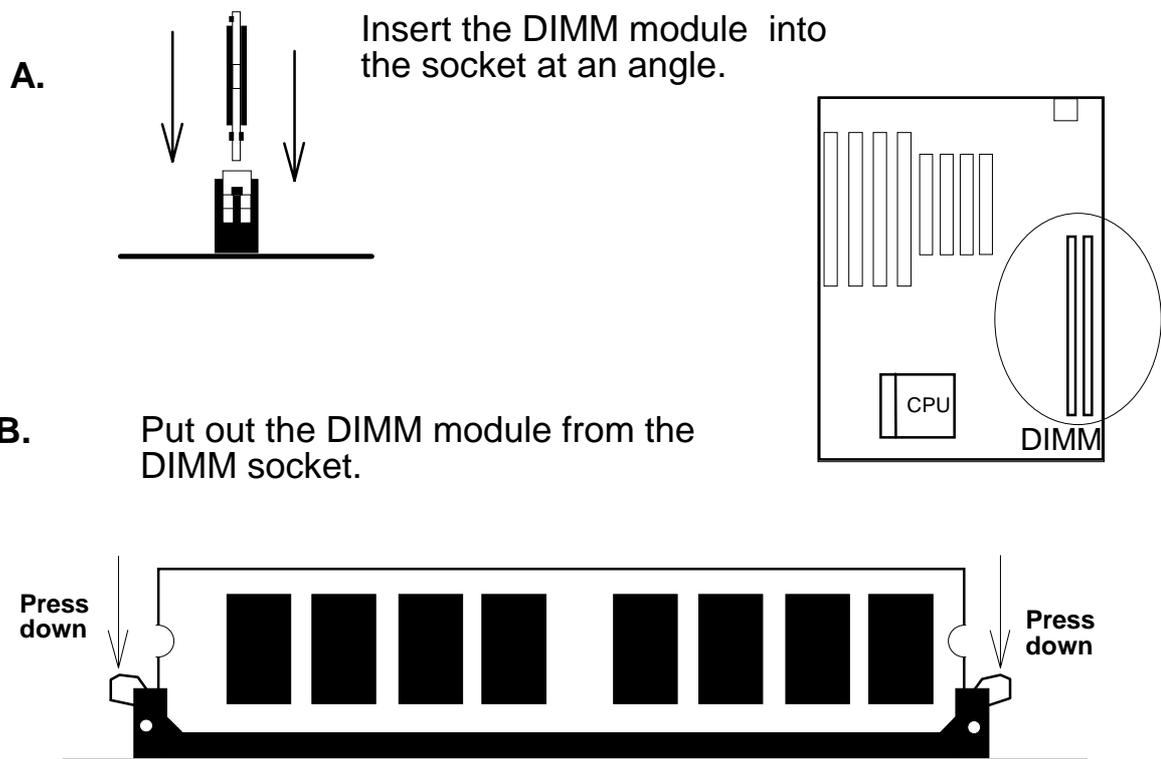
2.4 Upgrading System Memory

The R-539 mainboard can use up to Four-72pin SIMMS(SIM1, SIM2, SIM3, SIM4) and Two-168pin DIMM sockets (M1, M2), upgradable from 4MB to 256MB.

Each SIMMS, DIMMS socket can use either Fast Page Mode (FP) or Extended Data Output Mode (EDO) DIMM Module. FP and EDO DIMM Module can be used concurrently.

If Synchronous DRAM Mode (SDRAM) DIMM Module is used, however, only SDRAM DIMM Module can be used in any DIMM sockets (M1, M2).

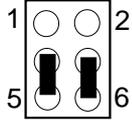
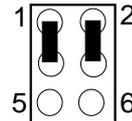
2.4.1. Installing a DIMM Module

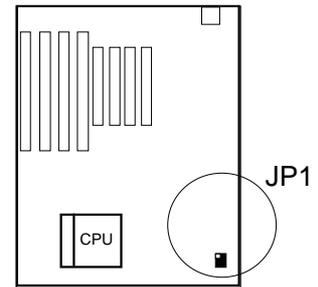


【2】

2.4.2. DIMM Voltage Select : JP1.

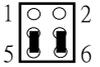
The DIMM socket voltage must be set correctly to either 3.3v or 5v, depending on the voltage of the DRAM DIMM Module or SDRAM DIMM Module used. All SDRAM DIMM Modules are 3.3v and all Fast Page Mode (FPM) DIMM Modules are 5v. Extended Data Mode (EDO) DIMM Modules come in both 3.3v and 5v, so when using both FPM DIMM Module and EDO DIMM Module in the system, only 5v EDO DIMM Module can be used.

DIMM Type	JP1 Setting
3.3v DIMM	
5v DIMM	



2.4.3. DIMM's Installing Table

(a) 3.3V SDRAM

DIMM 1(M1)	DIMM 2(M2)	JP1 Setting
8MB or16MB 32MB or 64MB	X	
X	8MB or16MB 32MB or 64MB	
8MB or16MB 32MB or 64MB	8MB or16MB 32MB or 64MB	

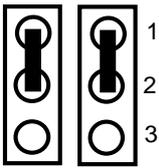
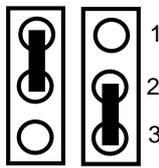
(b) 3.3V EDO DRAM

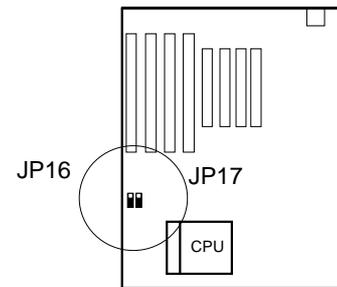
DIMM 1	DIMM 2	JP1 Setting
8MB or16MB or 32MB or 64MB	X	
X	8MB or16MB or 32MB or 64MB	
8MB or16MB or 32MB or 64MB	8MB or16MB or 32MB or 64MB	

2.4.4 5V EDO and FPM SIMM or DIMM Module.

DIMM 1(M1)	DIMM 2(M2)	SIM 1 & SIM 2	SIM 3 & SIM 4	JP1 Setting
8MB or 16MB 32MB or 64MB	X	X	X	
X	8MB or 16MB 32MB or 64MB	X	X	
X	X	4MB or 8MB 16MB or 32MB	X	
X	X	X	4MB or 8MB 16MB or 32MB	
8MB or 16MB 32MB or 64MB	X	X	4MB or 8MB 16MB or 32MB	
X	8MB or 16MB 32MB or 64MB	4MB or 8MB 16MB or 32MB	X	
8MB or 16MB 32MB or 64MB	8MB or 16MB 32MB or 64MB	X	X	
X	X	4MB or 8MB 16MB or 32MB	4MB or 8MB 16MB or 32MB	

2.5 Flash EPROM Selector : JP16 , JP17. (Factory setting only)

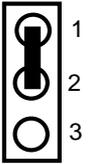
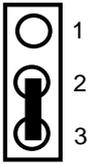
Flash ROM Type	Jumper Setting
(a) 2M/5V Flash ROM	<p>JP16 JP17</p> 
(b) 1M/5V Flash ROM	<p>JP16 JP17</p> 

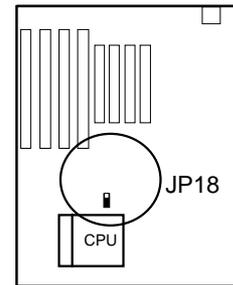
**How to Update BIOS (Flash ROM)**

1. Copy the Flash Utility to a bootable diskette.
AWDFLASH.EXE : for AWARD BIOS.
AMIFLASH.COM : for AMI BIOS.
2. Copy the new BIOS file to the diskette.
***.BIN : is AWARD BIOS.**
***.ROM : is AMI BIOS.**
3. Turn the system power off and make sure that the JP16 & JP17 are set to 1M/5V Flash.
4. Turn the system on, Boot from drive A: and run the Flash utility.
5. Follow the prompt and input the file name.
6. Save the old BIOS and when prompt to program hit " Y ".
7. After the BIOS is Flash, turn off the system and clear the CMOS.
8. Set the COMS Jumper (JP18) to default and power on.

2.6 CMOS Clear Jumper: JP18

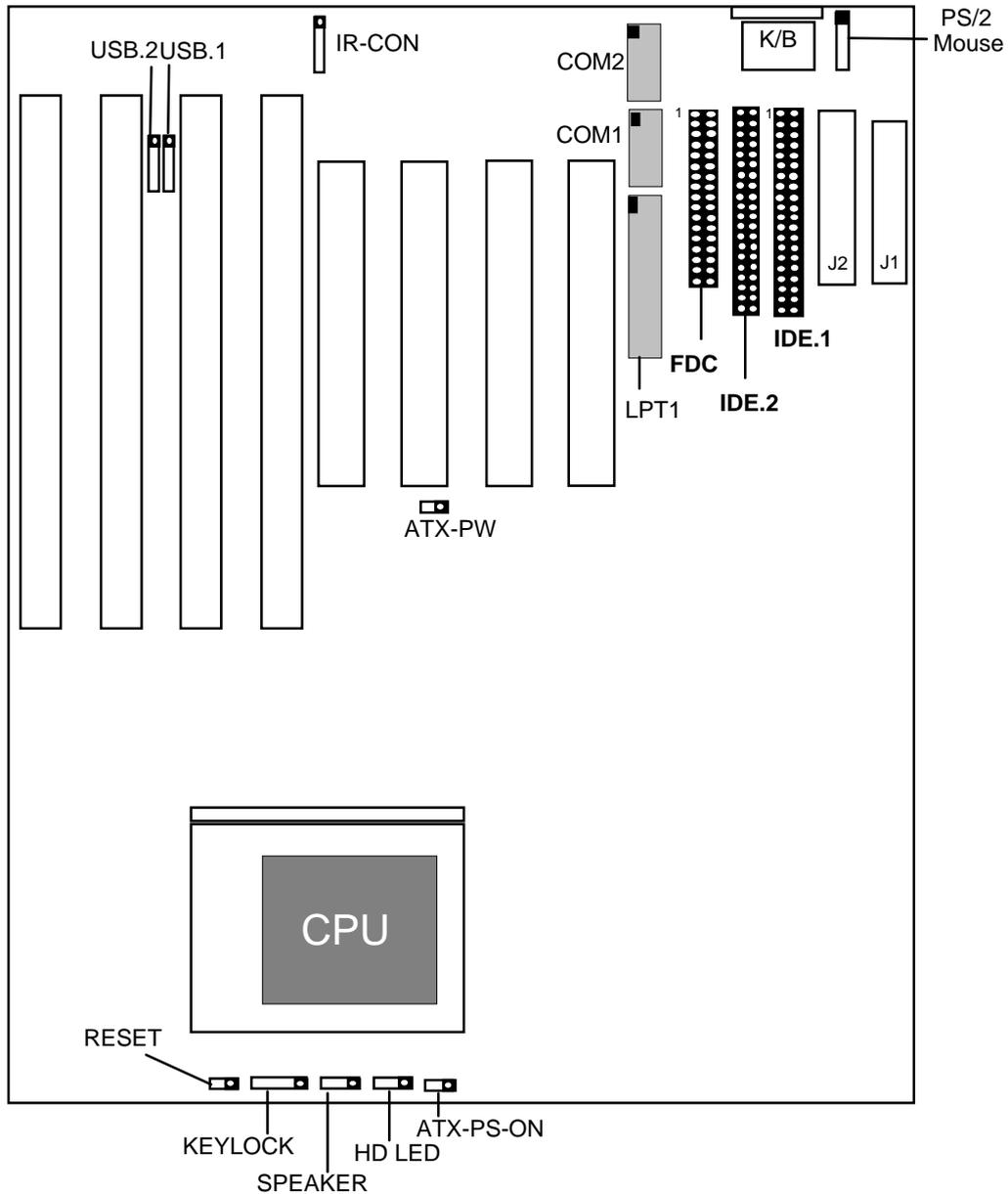
Clear the CMOS memory by momentarily shorting the Jumper 3-4 pin, then Open the Jumper to retain new setting. (Normal Operation is 1-2 Close)

Function	JP18 Setting
(a) Normal	 1 2 3 (Default)
(b) Clear CMOS	 1 2 3

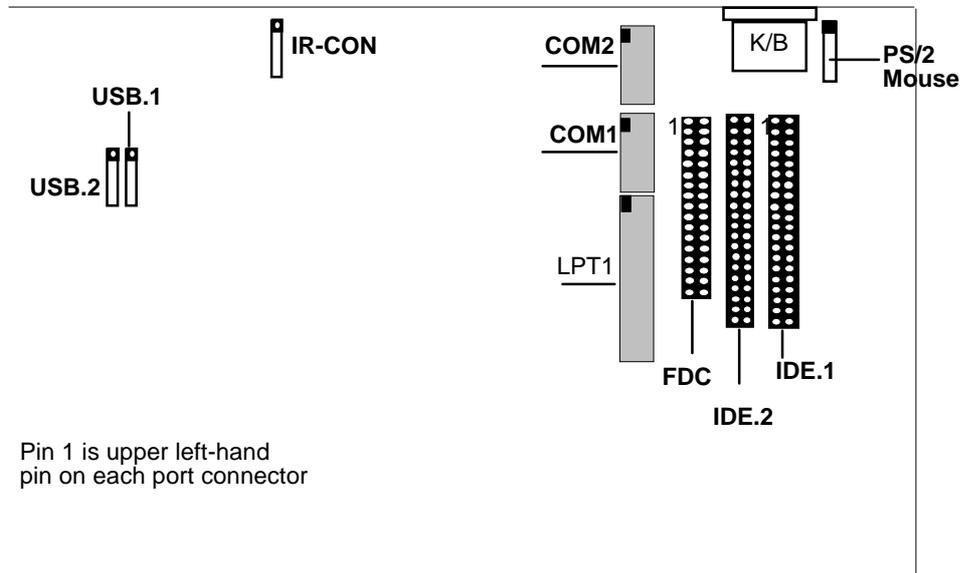


2.7 Connectors

The Connectors are made of the same component as the jumper switches. There are connectors for the switches and indicator lights from the system case. There are also connectors for the on-board I/O port and the leads from a system power supply.



2.7.1. I/O Ports .



When you connect a ribbon cable to any of these I/O connectors, you must orient the cable connector so that the Pin 1 edge of the cable is at the Pin 1 end of the on-board connector.

The pin 1 edge of the ribbon cable is colored to identify it.

Port & Controller Cables

The mainboard comes with the following cables:

- * 1 serial port and 1 parallel port ribbon cables attached to one mounting bracket.
- * 1 serial port ribbon cable with mounting bracket.
- * 1 IDE ribbon connector cables.
- * 1 floppy disk drive ribbon connector cable.
- * 1 PS/2 Mouse ribbon cable with mounting bracket.

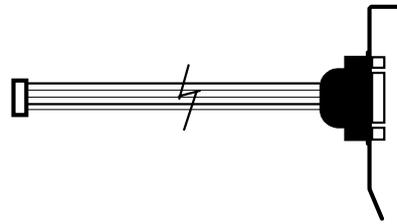
【2】

Port & Controller Cables

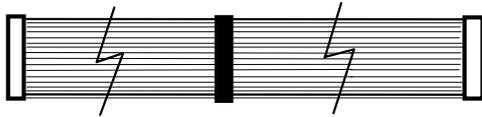
(1) Floppy Drive ribbon cable



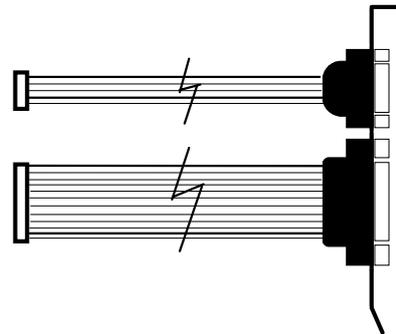
(2) Serial ribbon cable



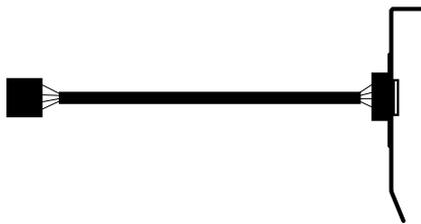
(3) IDE ribbon cable



(4) Serial & Parallel ribbon cable

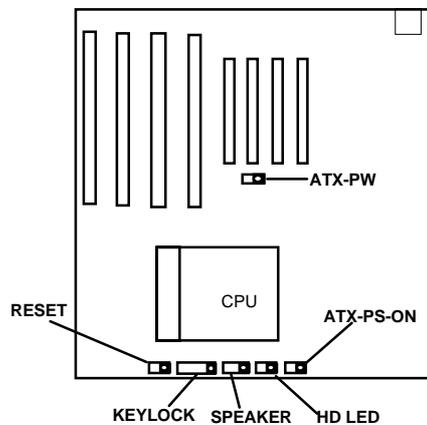


(5) PS/2 Mouse ribbon cable



2.7.2. External Connections

Connectors are used to link the system board with other parts of the system, including the keyboard, the power supply, and the various controllers on the front panel of the system case. When connecting connect-wires to the connectors, you should remember that some of them must be aligned in a specific way in order to have proper functions.

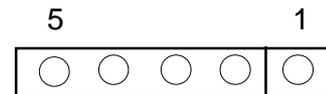


Keyboard Lock Header (KEYLOCK)

Connector for a Power-On LED.

Pin	Function
1	+ 5v DC
2	No Connect
3	Ground

Power ON LED

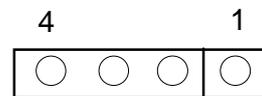


KEYLOCK

 Speaker Header (SPEAKER)

Connector for the lead from a speaker mounted inside the system case.

Pin	Function
1	+ 5v DC
2	Ground
3	No Connect
4	Data

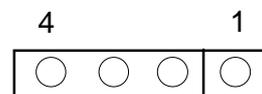


SPEAKER

 IDE Activity LED Header (HD LED)

Connector for IDE activity LED.

Pin	Function
1	LED anode (+)
2	LED cathode (-)
3	LED cathode (-)
4	LED anode (+)



HD LED

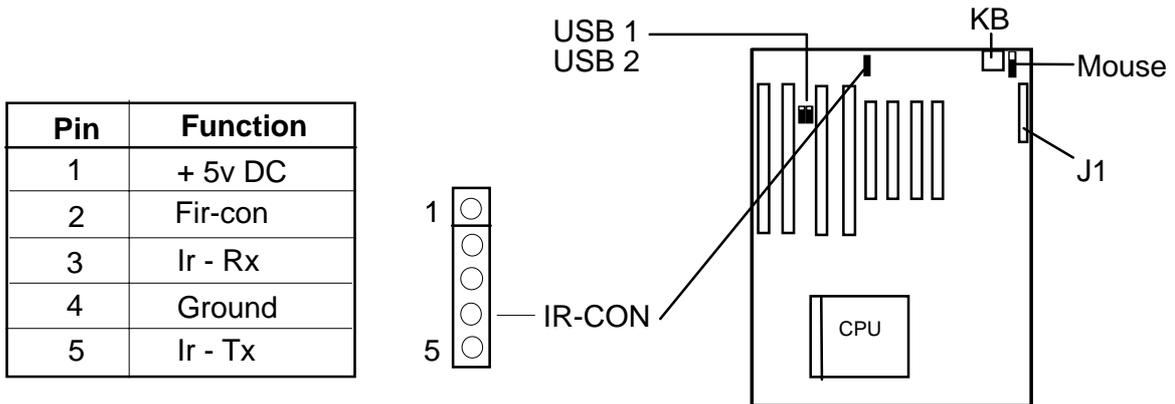
 Reset Switch Header

Connector for the lead from a Reset switch mounted on the system case.

【2】

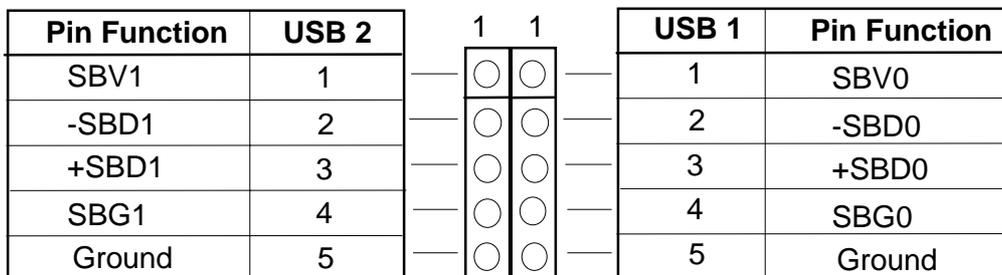
Infrared Connector (IR-CON)

If you set the BIOS's item "IR Function" to "HP SIR" or "ASK IR", the COM2 port will be switched to support IR function.



USB (Universal Serial Bus) Connector (USB1, USB2)

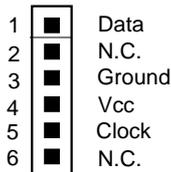
USB is an open industry standard, providing a simple and inexpensive way to connect up to 125 devices to a single computer port. Keyboards, Mouse tablets, digitizers, scanners, bar-code readers, modems, printers and many more can all run at the same time. USB is a dynamically reconfigurable serial bus with an elementary data rate of 12Mbps, based on off the shelf, low cost micro-controller technology. Its modular layered software protocol supports sophisticated devices and application programs. This board contains a USB Host controller and includes the root hub with two USB ports (meet USB Rev 1.0 spec.), which permits the connection of two USB peripherals or hub devices directly.



Now under testing of compatibility with different peripherals.

PS/2 Mouse Header (Mouse)

A PS/2 mouse adapter with bracket is optional. You can connect it with the Mouse header directly.



If a PS/2 Mouse is used, you should enable PS/2 function from BIOS, then BIOS will assign IRQ12 to PS/2 Mouse. Otherwise, the IRQ12 will be assigned to other adapters (Disable PS/2 Mouse function in BIOS)

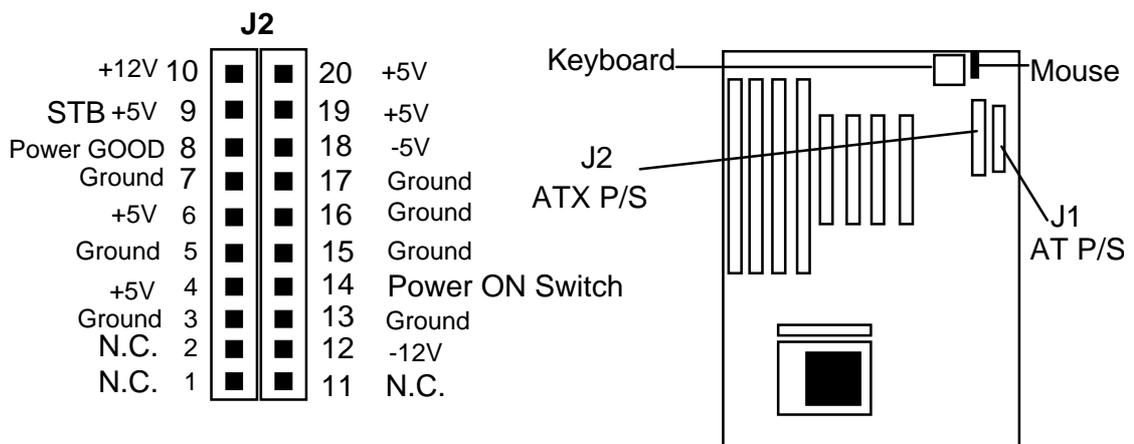
ATX (J2) or AT(J1) Power Supply Connector :

Before plug the power connector, make sure the Jumper(ATX_PW)setting is right(for ATX power supply setted to "Close", for AT power supply setted to "Open").

The mainboard requires a power supply with 200 W at least. While installing the board, the power supply connector is usually the last one to be connected. Before connected the power supply, please make sure it is not connected to power source.

Most ATX power supplies have one set of 20-wire connectors. (AT power supplies have two set of six-wire connector). Plug the AT or ATX connectors onto the board connector (for ATX is J2, AT is J1).

For ATX Power Supply : (Please see the Appendix)



【2】

For AT Power Supply (J1)

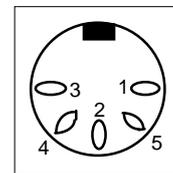
J1		Wire Color	
6	■	+5V	Red
5	■	+5V	Red
4	■	+5V	Red
3	■	-5V	White
2	■	Ground	Black
1	■	Ground	Black
6	■	Ground	Black
5	■	Ground	Black
4	■	-12V	Blue
3	■	+12V	Yellow
2	■	+5V	Red
1	■	Power GOOD	Orange

Power Supply requirement :

Output voltage	Regulation tolerance
+5V dc	+− 5%
- 5V dc	+− 10%
+12X dc	+− 5%
- 12V dc	+− 10%

Keyboard Connector (KB)

Pin	Definition
1	Keyboard Clock
2	Keyboard Data
3	No Connect
4	Ground
5	+ 5v DC



2.8 Power Supply Type (AT/ATX) Select: ATX-PW,ATX-PS-ON.

When using the ATX Power Supply on your system, you have to setting the Jumper: ATX-PW and Connector: ATX-PS-ON.

Step 1: Setting ATX-PW.

ATX-PW	Power Supply Type
Close	ATX
Open	AT

Step 2: Connector ATX-PS-ON.

Power Supply Type	Connect to
ATX	A Momentang Switch
AT	Leave the Connector (Open)

The ATX-PS-ON Functions:(For ATX Power Supply only)

- (a) When the system is OFF, press of this button system will ON.
- (b) In the section 3.4 Power Management Setup. This item "Soft-Off by PWR-BTTN" is setted to "Delay 4 Sec".

Step 1 : When this Button is pressed while the system is running (normal operating mode), the system will go into Suspend Mode (energy saving mode).

The next press of this button will wake the system up from Suspend Mode to running (normal operating mode).

Step 2 : To TURN the system OFF, this button has to be pressed and holded for a minimum of "4 seconds".

- (c) In the section 3.4 Power Management Setup. This item "Soft-Off by PWR-BTTN" is setted to "Instant-Off".
- When this Button is pressed while the system is running (normal operating mode), the system will TURN OFF.
- The next press of this button will TURN ON the system again.

DN. 971022

