

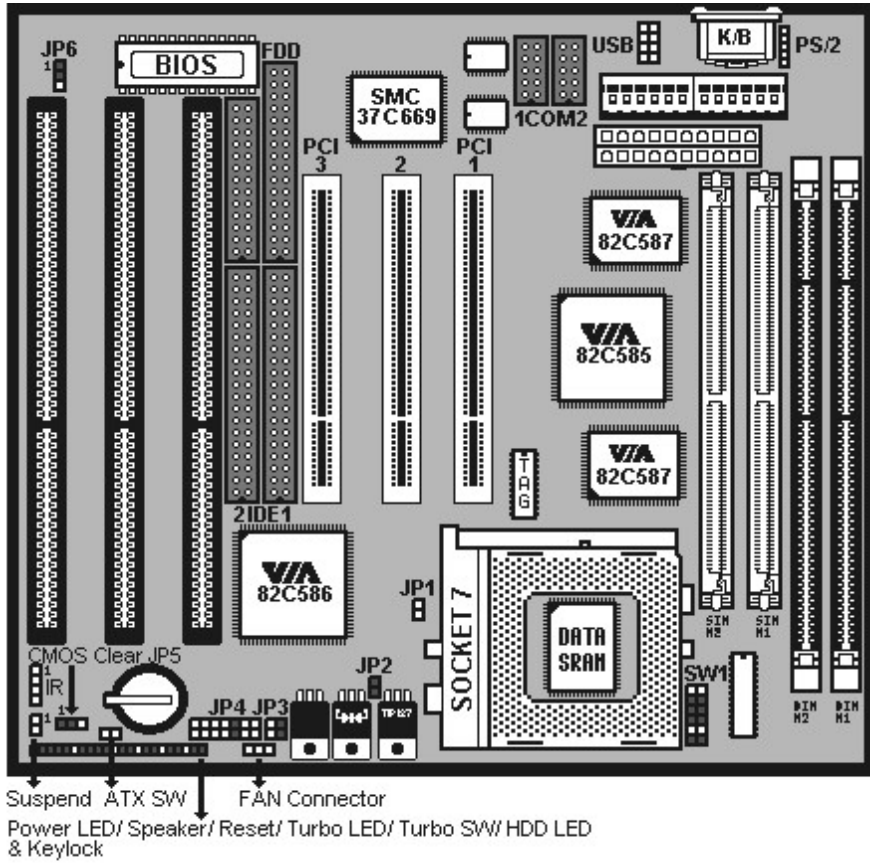
## Introduction

### A. Specifications

<b>System Chipset</b>	VIA VT82C580 Apollo VPX chipset.
<b>CPU</b>	One 321-pin socket 7 for Intel Pentium(P54C/CQS/ CS, P55C), AMD 5k86,K5,K6, Cyrix 6x86 (L,MX), IDT C6 processors, support 75/90/100/110 120/133/150/166/180/200/225/233/266/300MHz
<b>Memory</b>	Expandable to 512MB (2 banks) with two 72-pin SIMM sockets onboard (Support Fast Page Mode and EDO DRAM 5-2-2-2) and two 168-pin DIMM socket (support Synchronous DRAM module 6-1-1-1).
<b>Cache</b>	64-bit 256/ 512KB L2 Pipeline Burst SRAM onboard.
<b>I/O</b>	SMC 37C669, two high speed 16550 compatible serial ports, one Multi-Mode. Parallel Port support SPP/EPP/ECP standard mode. Two onboard PCI IDE Ports (32 bit data transfer). Support two 360/720KB/1.2/1.44/2.88MB floppy disk devices. One PS/2 Mouse port.
<b>BIOS</b>	Award System BIOS installed in socket (Flash and PnP).
<b>Expansion slots</b>	Three PCI Master Slots and three 16-bit ISA Slots.
<b>Dimension</b>	4-layer PCB, size (220mm x 190mm).
<b>Others</b>	Support Ultra DMA/33, USB Bus, Keyboard Power On/Off, ATX Power supply.

# Setup Guide

## A. Layout Diagram

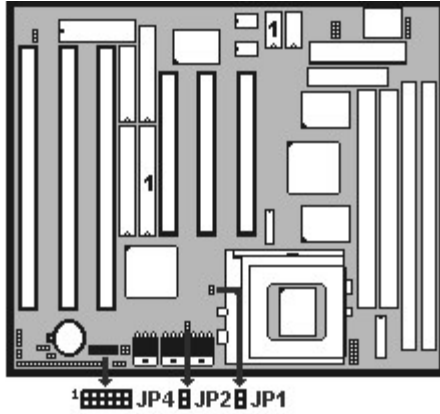


**B. Switch Settings for CPUs**

On = Short, Off = Open

Intel, AMD, Cyrix	SW1				SW1			
	1	2	3	RATE	4	5	6	CLK
Pentium 75 MHz	Off	Off	Off	1.5	On	On	On	50
Pentium 90 MHz	Off	Off	Off	1.5	Off	On	On	60
Pentium 100 MHz	Off	Off	Off	1.5	On	Off	On	66
Pentium 120 MHz	Off	Off	On	2	Off	On	On	60
Pentium 133 MHz	Off	Off	On	2	On	Off	On	66
Pentium 150 MHz	Off	On	On	2.5	Off	On	On	60
Pentium (MMX) 166 MHz	Off	On	On	2.5	On	Off	On	66
Pentium (MMX) 200 MHz	Off	On	Off	3	On	Off	On	66
Pentium (MMX) 233 MHz	Off	Off	Off	3.5	On	Off	On	66
Pentium (MMX) 266 MHz	On	Off	On	4	On	Off	On	66
AMD-5k86-P75-75MHz	Off	Off	Off	1.5	On	On	On	50
AMD-5k86-P90-90MHz	Off	Off	Off	1.5	Off	On	On	60
AMD-K5-75MHz -PR75	Off	Off	Off	1.5	On	On	On	50
AMD-K5-90MHz -PR90	Off	Off	Off	1.5	Off	On	On	60
AMD-K5-100MHz-PR100	Off	Off	Off	1.5	On	Off	On	66
AMD-K5-90MHz-PR120	Off	Off	Off	1.5	Off	On	On	60
AMD-K5-100MHz-PR133	Off	Off	Off	1.5	On	Off	On	66
AMD-K5-133MHz-PR166	Off	On	On	1.75	On	Off	On	66
AMD-K6(MMX)-166MHz	Off	On	On	2.5	On	Off	On	66
AMD-K6(MMX)-200MHz	Off	On	Off	3	On	Off	On	66
AMD-K6(MMX)-233MHz	Off	Off	Off	3.5	On	Off	On	66
AMD-K6(MMX)-266MHz	On	Off	On	4	On	Off	On	66
AMD-K6(MMX)-300MHz	On	On	On	4.5	On	Off	On	66
Cyrix 6x86-100MHz-P120+	Off	Off	On	2	On	On	On	50
Cyrix 6x86-110MHz-P133+	Off	Off	On	2	Off	On	On	55
Cyrix 6x86-120MHz-P150+	Off	Off	On	2	Off	On	On	60
Cyrix 6x86-133MHz-P166+	Off	Off	On	2	On	Off	On	66
Cyrix 6x86-150MHz-P200+	Off	Off	On	2	Off	On	Off	75
Cyrix MII-PR166	Off	On	On	2.5	Off	On	On	60
Cyrix MII-PR200	Off	On	On	2.5	On	Off	On	66
Cyrix MII-PR233	Off	On	On	2.5	Off	On	Off	75
Cyrix MII-PR266	Off	On	Off	3	On	Off	On	66
Cyrix MII-PR300	Off	Off	Off	3.5	On	Off	On	66

### C. CPU Voltage Settings



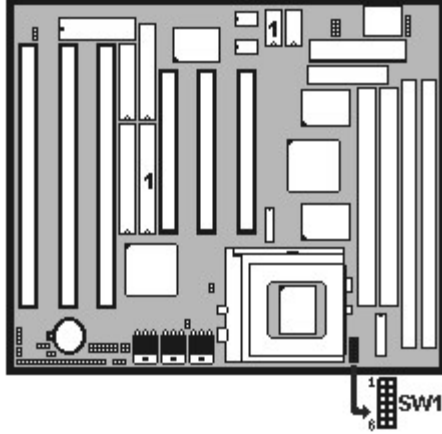
- V/I/O default setting : 3.30V  
Vcore default setting : 2.80V  
JP1=Open, JP2=Short.
- Switch voltage is applied, making the temperature lower and voltage steadier.
- All the voltage specifications adopted here are the averages of the working voltage suggested by the CPU makers, to make any CPU applied work with the best performance.
- In Single voltage CPU V/I/O=Vcore.

JP4 = Single voltage CPU (Intel P54C, Cyrix 6x86, AMD 5k86/K5)				JP1	JP2
3.52V		3.38V		On	Off

- In **Dual voltage CPU**, you only need to set up **Vcore**. Just “**Open**” **JP1** and “**Short**” **JP2**, V/I/O will supply 3.3V automatically.
- Remember to make sure CPU voltage set up is 100% correct by referring to Page 11 and Page 12. Any voltage error setup happened in Dual Voltage CPU will cause system unstable or doesn't work, or even worse is that it will burn out your CPU.

JP4 = Dual voltage CPU(Intel P55C, Cryrix 6x86L, MX-6x86, AMD-K6)				JP1	JP2
Vcore 3.20V		Vcore 2.90V		Off	On
Vcore 2.20V					

**D. CPU Frequencies**



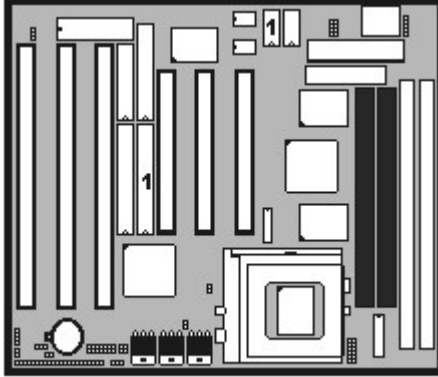
- The CPU type default setting is Intel Pentium 166MHz=66 MHz \* 2.5.
- When a CPU with 75MHz is applied, the PCI Bus CLK output becomes 37MHz. Under this circumstance, some VGA cards may not fit well. Then the system becomes unsteady, tends to hang up easily or even results in boot failure. Use another VGA card instead when any of the above-mentioned conditions happens.

SW1(1/2/3) = Multiplier Factor for Intel / AMD / Cyrix CPU					
1.5		2		2.5	
3.5		4		4.5	

Intel P54C/P55C	X1.5/X3.5	X2	X2.5	X3
Cyrix 6x86(L)/MX	None/X3.5	X2	X2.5	X3
AMD-5k86/K5/K6	X1.5/X3.5	None	X1.75/X2.5	X3

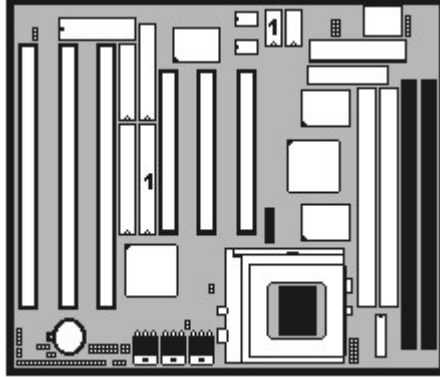
SW1(4/5/6) = CPU Ex. Clock Select					
50 MHz		55 MHz		60 MHz	
66 MHz		75 MHz			
PCI Bus Clk 25MHz	PCI Bus Clk 27MHz	PCI Bus Clk 30 MHz	PCI Bus Clk 33 MHz	PCI Bus Clk 37 MHz	

## E. DRAM, EDO RAM Installation Procedures:



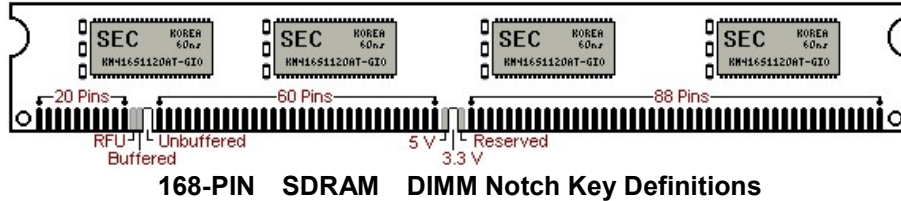
- SIMM Socket output voltage is 5V, expandable to 512MB.
  - Support 5V Fast Page Mode/ Extended Data Out RAM.
  - The BIOS DRAM default setting is 70 ns. Change the BIOS “Chipset Feature Setup” default setting to 60ns for better performance, if the chipset is marked 60ns.
- 
- Change nothing if EDO RAM is used. BIOS automatically detects the RAM type.
  - With 586 CPUs, two FPM/EDO RAM Modules are required on SIMM sockets to compose a bank for the system to start.
  - In VIA VPX chipset, SIMM and DIMM RAM are able to co-work.
  - MEMO for Installing Syatem:
    - ⊕ Concerning memory setup, you can find how to from “Chipset Frature Setup” under BIOS setup. However, to avoid system unstable or system hang, user without engineering background is not suggested to change BIOS set up.
    - ⊕ If system boot failure, please clean SIMM socket (**with clean oil**) or polish **Gold-Finger** of DRAM with **soft eraser**, and try again.

**F. SDRAM, Cache Memory Installation Procedures:**

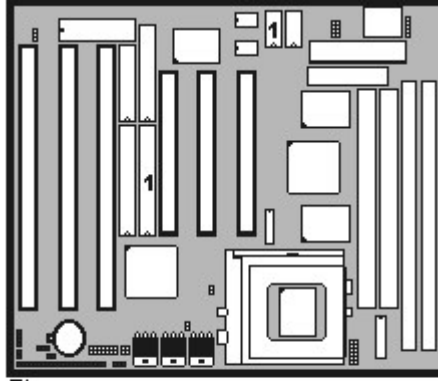


- Default setting: 3.3V.(Only)
- First, verify the working voltage of the EDO/SDRAM module in either DIMM socket (DIMM1 or DIMM2-table free).
- You can set up the BIOS “Chipset Feature Setup” to the best working condition basing on the type of EDO/SDRAM you are using.

- The Dual Inline Memory Module (DIMM) must be 3.3 Volt and Unbuffered Synchronous DRAM (SDRAM) 8MB, 16MB, 32MB or 64MB. The following illustration shows the type of DIMM Module.



## G. Other Jumper Settings



IR 1 JP5(for Clear CMOS)
   
 SMI ATX SW
   
 FAN Connector
   
 Power LED/ Speaker/ Reset/ Turbo LED/
   
 & Keylock
   
 Turbo SW/ HDD LED

- **Power LED & Keylock:**  
Keyboard lock switch and Power LED connector.
- **Speaker:**  
Connect to the system's speaker for beeping.
- **Reset:**  
Short to restart system.
- **HDD LED:**  
LED ON when on board PCI IDE hard disk activates.
- **SMI SW:**  
Short to enter sleep mode. A keystroke or mouse movement (mouse driver exits) will instantly "wake up" the system.

### POWER SW (FOR ATX POWER SUPPLY):

The button should be a momentary switch that is normally open. Pushing the ATX Power Switch will immediately change the system status. Before or during "POST", you need to hold the button for four seconds in order to turn off the system.

- **JP5: Clear CMOS**

Turn off the system and short pins 2-3 (J3) to clear CMOS. Then short pins 1-2 before turning it on. You may damage the chipset if you power on the system by shorting pins 2-3.

JP5	
1-2	Normal operation(Default).
2-3	for clearing CMOS Data.

- **CPU Cooler Fan connector**

This is the connector for CPU cooler. Never use the jumper to short the connector. Serious damages caused this way will not be warranted.