



Mainboard component Locations

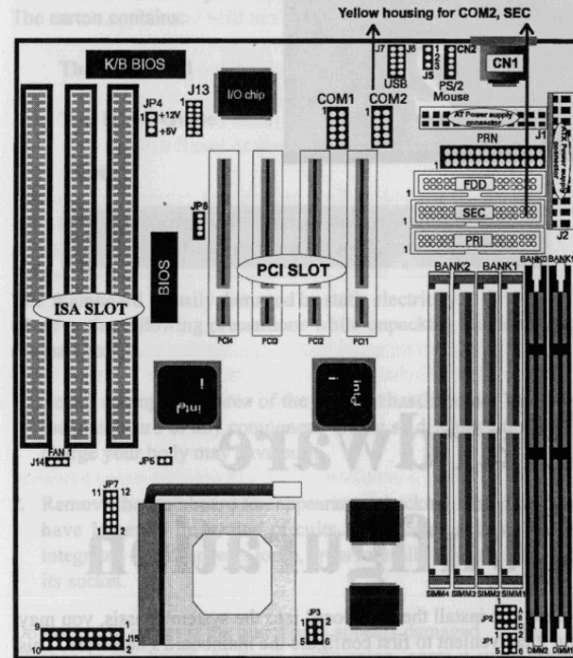


Figure 2-1 (B) Mainboard Component Locations

Power Precautions

Before you begin configuration, make sure you are working with an unplugged mainboard. Many components are powered by low-voltage current, but there still may be a dangerous electric current coming from the leads and power supply. You should take the following precautions:

- ⌘ Turn off the power supply, and unplug the power cord before you begin
- ⌘ Unplug all cables that connect the mainboard to any external devices.

Connectors

Attach system components and case devices to the mainboard via the mainboard connectors. A description of each connector, and its connector pins follows. See Figure 2-1 for the location of the connectors on the mainboard.

Note :

Before making connections to the board, make sure that power to the system is turned off.

Jumper Settings

You can configure hardware options by setting jumper on the mainboard. See Figure 2-1 for jumper locations. Set a jumper as follows:

- ⌘ Short a jumper by placing the plastic jumper cap over two pins of the jumper.
- ⌘ Open the pins of a jumper by removing the jumper cap.

Note :

When you open the jumper, attach the plastic jumper cap to one of the pins so you won't lose it.

Symbols:

For setting 3-pin jumpers, the symbols below are used:



Pins 1 and 2 are Shorted with a jumper cap.



Pins 2 and 3 are Shorted with a jumper cap.

For setting 2-pin jumpers, the following symbols are used:



The jumper is Shorted when the jumper cap is placed over the two pins of the jumper.



The jumper is Open when the jumper cap is removed from the jumper.

For setting 6-pin jumpers, the following symbols are used:



A side pins 1 and 2 are shorted with a jumper cap



B side pins 2 and 3 are shorted with a jumper cap

J1 Power Supply Connectors

The power supply connectors are two six-pin male header connectors. Plug the dual connectors from the power directly onto the board connectors.

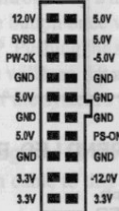
Most of power supply have two leads. Each lead has six wires. Two of which are black, orient the connectors, so the black wires are in the middle.

Pin	Description	Pin	Description
1	Power Good	7	Ground
2	+5VDC	8	Ground
3	+12VDC	9	-5VDC
4	-12VDC	10	+5VDC
5	Ground	11	+5VDC
6	Ground	12	+5VDC

J2 ATX Power Supply Connectors (20-pin black)

This connector connects to a ATX power supply. The plug from the power supply will only insert in one orientation because of the different hole sizes.

Find the proper orientation and push down firmly making sure that the pins are aligned.



Important :

Make sure that the ATX power supply can take at least 10mAMP load on the 5 volt standby lead (5VSB). You may experience difficulty in powering on your system without this.

J5 Jumper Setting for AT or ATX Power

Pin	Description
1	AT Power
2	ATX Power

CN1 Keyboard Connector

A standard five-pin female DIN keyboard connector is located at the rear of the board CN1.

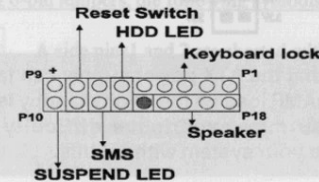
Pin	Description
1	Keyboard Clock
2	Keyboard Data
3	N.C.
4	Ground
5	+5VDC

USB Universal Serial Bus Connector


This connector supports two port USB Bus, the one is J6, the other is J11.

J6 Pin	Description	J11 Pin	Description
1	+5 VDC	5	N.C.(no connect)
2	DATA -	4	Ground
3	DATA +	3	DATA+
4	Ground	2	DATA-
5	N.C. (no connect)	1	+5VDC

J15 : KBLOCK, SPK, SUSPEND LED, RST,SMS, HDD




HDD Hard Disk LED Connector



Pin	Description
6	5V
13	Active Low


RST Reset Switch Connector

Attach the Reset switch cable to this connector.



Setting	Description
Open	Normal Mode
Short	Reset System

SUSPEND LED




Setting	Description
9	Suspend Control
10	GND

JP5 ATX Power Switch/Soft Power Switch (PANEL)

The system power is controlled by a momentary switch connected to this lead. Pushing the button once will switch the system between ON and SLEEP. Pushing the switch while in the ON mode for more than 4 seconds will turn the system off. The system power LED shows the status of the system's power.

SMS Suspend Management Switch

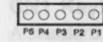
Attach the sleep switch cable to this connector



Setting	Description
OPEN	Normal Mode (Default)
SHORT	Sleep Mode On

KBLOCK

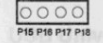
KB Lock is a keylock connector that enables and disables the keyboard and the Power-LED on the case.



Pin	Description
1	LED Output
2	NC
3	Ground
4	Keylock
5	GND

SPK Speaker Connectors

Attach the system speaker to connector SPK.



Pin	Description
15	DATA Out
16	NC
17	Ground
18	N.C.

SMI Suspend Switch Lead (PANEL)

This allows the user to manually place the system into a suspend mode or "Green" mode where system activity will be instantly decreased to save electricity and expand the life of certain components when the system is not in use. This 2-pin connector (see the figure below) connects to the case-mounted suspend switch.

If you do not have a switch for the connector, you may use the "Turbo Switch" since it does not have a function. SMI is activated when it detects a short to open moment and therefore leaving it shorted will not cause any problems. May require one or two pushes depending on the position of the switch. Wake-up can be controlled by settings in the BIOS but the keyboard will always allow wake-up (the SMI lead cannot wake-up the system). If you want to use this connector, "Suspend Switch" in the **Power Management Setup** of the BIOS SOFTWARE section should be on the default setting of **Enable**.

All Intel Pentium P54C/P54CS/P55C (MMX) CPU Voltage Setting

Note :

- A. To detect dual voltage CPU & single voltage CPU automatically
- B. Intel P54C Core & I/O voltage : 3.3V
- C. Intel P55C core voltage : 2.8V & I/O voltage : 3.3V
- D. Intel Pentium 233MHz frequency ratio 3.5 (see table 233MHz)

CPU Frequency	JP2			JP3			JP7			
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	Fre ratio	CPU Voltage Selector		
75MHz	1-2	1-2	1-2	OFF	OFF	OFF	1.5 x 50MHz			
90MHz	2-3	1-2	1-2	OFF	OFF	OFF	1.5 x 60MHz			
100MHz	1-2	2-3	1-2	OFF	OFF	OFF	1.5 x 66MHz			
120MHz	2-3	1-2	1-2	ON	OFF	OFF	2.0 x 60MHz			
133MHz	1-2	2-3	1-2	ON	OFF	OFF	2.0 x 66MHz			
166MHz	1-2	2-3	1-2	ON	ON	OFF	2.5 x 66MHz			
200MHz	1-2	2-3	1-2	OFF	ON	OFF	3.0 x 66MHz			
233MHz	1-2	2-3	1-2	OFF	OFF	OFF	3.5 x 66MHz			

Note : ON is Close OFF is Open

Special Setting

You could try another jumper setting to increase the performance. If you PCI card (ex : VGA, SCSI, NET, ... Card) support high-speed (PCI clock)

All Intel Pentium P54C/P54CS/P55C (MMX) CPU Voltage Setting

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CPU Frequency	JP2			JP3			JP7			
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	Fre ratio	CPU Voltage Selector		
150MHz	2-3	1-2	2-3	ON	OFF	OFF	2.0 x 75MHz			
166MHz	1-2	2-3	2-3	ON	OFF	OFF	2.0 x 83MHz			
210MHz	1-2	2-3	2-3	ON	ON	OFF	2.5 x 83MHz			
225MHz	2-3	1-2	2-3	OFF	ON	OFF	3.0 x 75MHz			
250MHz	1-2	2-3	2-3	OFF	ON	OFF	3.0 x 83MHz			

Note : ON is Close OFF is Open

All AMD-K5-PRxxx CPU Voltage Setting

Note :

- A. To detect dual voltage CPU & single voltage CPU automatically
- B. AMD K5-PRxxx core & I/O voltage : 3.52V

CPU Frequency	JP2			JP3			JP7		
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	CPU Voltage Selector		
PR75	1-2	1-2	1-2	OFF	OFF	OFF			
PR90	2-3	1-2	1-2	OFF	OFF	OFF			
PR100	1-2	2-3	1-2	OFF	OFF	OFF			
PR120	1-2	2-3	1-2	OFF	OFF	OFF			
PR133	1-2	2-3	1-2	OFF	OFF	OFF			
PR150	2-3	1-2	1-2	ON	ON	OFF			
PR166	1-2	2-3	1-2	ON	ON	OFF			
PR200	1-2	2-3	1-2	OFF	ON	OFF			

Note : ON is Close OFF is Open

All AMD-K6-PR2-xxx CPU Voltage Setting

Note :

- AMD K6-PRxxx core voltage 2.9V & I/O voltage : 3.3V

CPU Frequency	JP2			JP3			JP7		
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	CPU Voltage Selector		
PR2-166	1-2	2-3	1-2	ON	OFF	OFF			
PR2-200	1-2	2-3	1-2	OFF	ON	OFF			

Note : ON is Close OFF is Open

Note :

- AMD K6-PR233 core voltage 3.2V & I/O voltage : 3.3V

CPU Frequency	JP2			JP3			JP7		
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	CPU Voltage Selector		
PR2-233	1-2	2-3	1-2	OFF	OFF	OFF			

All Cyrix 6x86-PRxxx +GP CPU Voltage Setting

Note :

Cyrix 6x86-PRxxx+GP core & I/O voltage : 3.3V (016)

CPU Frequency	JP2			JP3			JP7		
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	CPU Voltage Selector		
PR120+	1-2	1-2	1-2	ON	OFF	OFF			
PR133+	1-2	1-2	2-3	ON	OFF	OFF			
PR150+	2-3	1-2	1-2	ON	OFF	OFF			
PR166+	1-2	2-3	1-2	ON	OFF	OFF			
PR200+	2-3	1-2	2-3	ON	OFF	OFF			

Note : ON is Close OFF is Open

Note :

Cyrix 6x86-PRxxx+GP core & I/O voltage : 3.52V (028)

CPU Frequency	JP2			JP3			JP7		
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	CPU Voltage Selector		
PR120+	1-2	1-2	1-2	ON	OFF	OFF			
PR133+	1-2	1-2	2-3	ON	OFF	OFF			
PR150+	2-3	1-2	1-2	ON	OFF	OFF			
PR166+	1-2	2-3	1-2	ON	OFF	OFF			
PR200+	2-3	1-2	2-3	ON	OFF	OFF			

Note : ON is Close OFF is Open

All Cyrix 6x86L-PRxxx +GP CPU Voltage Setting

Note :
Cyrix 6x86L-PRxxx+GP core & I/O voltage : 2.8V & I/O voltage : 3.3V

CPU Frequency	JP2			JP3			JP7			
	A	B	C	1-2 Pin	3-4 Pin	5-6 Pin	CPU Voltage Selector			
PRI20+	1-2	1-2	1-2	ON	OFF	OFF	12 3.6V	10 3.45V	8 3.3V	6 3.2V
PRI33+	1-2	1-2	2-3	ON	OFF	OFF	10 3.45V	8 3.3V	6 3.2V	4 2.9V
PRI50+	1-2	2-3	1-2	ON	OFF	OFF	8 3.3V	6 3.2V	4 2.9V	2 2.8V
PRI66+	1-2	2-3	1-2	ON	OFF	OFF	6 3.2V	4 2.9V	2 2.8V	
PR200+	2-3	1-2	2-3	ON	OFF	OFF	4 2.9V	2 2.8V		

Note : ON is Close OFF is Open

Intel Pentium CPU Bottom Side Marking



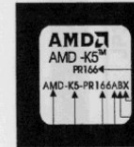
R (Identifier for Voltage Range):
V for VRE Voltage Range
or
S for Standard Voltage Range

Intel Pentium CPU Bottom Side Marking



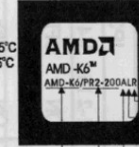
K = V for VRE voltage range and
S for standard voltage range
L = M for min valid MD timings and
S for min valid standard timings
M = U is not tested for DP
is tested for UP and MP
and
S is tested for DP, UP, and MP

AMD 5k86 CPU Top Side Marking



QPN
Processor Core
Package Type A = SPGA
Internal CPU Frequency

Product Name
Case Temperature:
W = 55°C R = 70°C Q = 65°C
Y = 75°C X = 65°C Z = 85°C



Family/Core
Performance Rating
Package Type
A = 321pin CPGA

Case Temperature
R = 70°C
Operating Voltage:
N = 3.1V-3.3V(core)/
3.135V-3.6V(I/O)
L = 2.75V-3.045V(core)/
3.135V-3.6V(I/O)

Cyrix 6x86 CPU Top Side Marking



(018) : 3.3V
(028) : 3.52V



JP8 : Battery & CMOS Clear



PIN	Description
1-4	Ext. Battery
2-3	Normal
3-4	Clear CMOS

J14 CPU FAN POWER

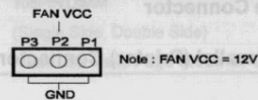
The system fans will power off automatically even in suspend mode. This function reduces both energy consumption and system noise.

Chassis Fan, CPU Cooling Fan, & Power Supply Fan Connectors (FANPWR)

These Connectors support cooling fans of 500mAMP (6WATT) or less. Orientate the fans so that the heat sing fins allow airflow to go across the onboard heat sink(s) instead of the expansion slots. Depending on the fan manufacturer, the wiring and plug may be different. The red wire should be positive, while the black should be ground. Connect the fan's plug to the board taking into consideration the polarity of the this connector.

Note :

The "Rotation" signal is to be used only by a specially designed fan with rotation signal.

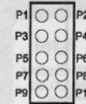


CN2 : PS/2 Mouse Connector (4-pin block)



PIN	Description
1	Mouse DATA
2	N.C.
3	GND
4	VCC
5	Mouse CLK

J13 : IR Connector



Description	PIN	Description	PIN
VCC	1	VCC	2
N.C.	3	IRSL1	4
IRRX	5	IRSL2	6
Ground	7	Ground	8
IRTX	9	N.C.	10

JP4 Flash ROM Voltage Select

PIN	Description
P1	5V Flash ROM (SST, Winbond, ATMEL)
P2	
P3	12V Flash ROM (INTEL, MXIC)
P4	

COM1, COM2 : Onboard Serial Port Connector

PRI : Primary IDE Connector

SEC : Secondary IDE Connector

FDD : Floppy Drive Connector

PRN : Onboard Parallel (Printer) Connector

Note :

Yellow housing for COM2, SEC.

Memory Installation

The mainboard lets you add up to 256MB of system memory via SIMM & DIMM sockets on the mainboard. The mainboard supports the following memory configurations and DIMM socket consists of two 168-pin DIMM Module.

BANK	MEMORY MODULE
SIMM 1 & SIMM 2	4MB, 8MB, 16MB, 32MB, 64MB
BANK 1	72PIN SIMM (Single Side or Double Side but DIMM1 must be empty) Can use Fast Page Mode or EDO DRAM
SIMM3 & SIMM4	4MB, 8MB, 16MB, 32MB, 64MB
BANK 2	72PIN SIMM (Single Side or Double Side) Can use Fast Page Mode or EDO DRAM
DIMM 1	8MB, 16MB, 32MB, 64MB
BANK 1	168PINDIMM (Single Side or Double Side but SIMM 1 & SIMM 2 must be empty) Can use Fast Page Mode or EDO DRAM
DIMM 2	8MB, 16MB, 32MB, 64MB
BANK 0	168PINDIMM (Single Side, Double Side) Can use Fast Page Mode or EDO DRAM

Award's ROM BIOS setup program which allows user to modify hardware RAM so data will be retained even when the power is turned off. In general, the information saved in the CMOS RAM may unchanged unless there is configuration change in the system, such as hard drive replacement or new equipment change.

It is possible that CMOS had a battery failure which cause data loss in CMOS RAM. If so, re-enter system configuration parameters become necessary.

Note :

1. SIMM1 & SIMM2 and DIMM1 the two types DRAM module can not be used at the same time.
2. All SIMMs and DIMM module speed must faster than 70ns.
3. All SIMMs and DIMM module can use either single side or double side.
4. SIMM socket DRAM type:Fast Page Mode or Extend DATA Out (EDO).
5. DIMM socket DRAM type Fast Page Mode or Extend Data Out (EDO) or synchronous DRAM (SDRAM).
6. Synchronous DRAM (Jumper) must set to 3.3V position.

Note :