



## **1.1 Overview**

The *ATX430* is a newer-generation motherboard. It offers the outstanding I/O capabilities. Four PCI local bus slots provide a high bandwidth data path for data-movement intensive function such as graphics acceleration. Three ISA slots complete the I/O mix.

Based upon the ATX form factor, this motherboard is essentially a Baby AT baseboard rotated 90 degrees within the chassis enclosure and providing a new mounting configuration for the power supply. The processor is relocated away from the expansion slots, allowing them all to hold full length add-in cards. The longer side of the board can be used to host more on-board I/O.

The *ATX430* motherboard provides the foundation for cost effective, high performance, highly expandable platforms which deliver the latest CPU and I/O technologies.

## **1.2 System Features**

- Supports INTEL PENTIUM 166/200 MHz with MMX; PENTIUM 90 ~ 200MHz; CYRIX; and AMD K5/K6 CPU
- Includes serial, parallel, keyboard, mouse, IR.
- Supports ULTRA DMA/33
- Supports USB and IrDA
- Using INTEL 430TX Chipset. PC97 is supported
- On board switching regulator, providing soft power OFF
- Supports L1 Write Back/Write Through Cache Feature
- Seven expansion slots (three 16-bit ISA slots, four 32-bit PCI slots)
- Supports up to 512K L2 cache
- Using two 168-pin DIMM modules
- 2 Serial/1 Parallel/1 FDC
- 2-Channel PCI IDE

### **1.3 System Specifications**

Processor:	INTEL PENTIUM PROCESSOR 90/100/120/133/150/166/200; MMX 166/200 MHz CYRIX 6x86-P133*(110MHz)/6x86-P150*(120MHz)/ 6x86-P166*(133MHz) AMD K5-P90/K5-P100/K5-PR120(90MHz)/K5-PR133(100MHz)/ K5-PR166/K6-PR166/K6-PR200/K6-PR233 MHz
Coprocessor:	Internal Coprocessor of Pentium Processor
Chipset:	Intel 430TX PCIset
Cache memory:	256K/512KB Pipelined Burst SRAM
Switching Voltage Regulator:	2.9V/3.2V/3.3V/3.52V
CPU Clock Speed:	55/60/66 MHz
Memory:	8MB to 64MB DIMM
BIOS type:	AWARD BIOS
Additional BIOS Feature:	Setup program resides in ROM
Slot type:	Three 16-bit ISA Bus Four 32-bit PCI Bus
Board size:	ATX Form Factor 30.5cm x 17.8cm

#### **Additional Features**

Miscellaneous Connectors:	Reset button, Suspend button
Board Design:	4-layer implementation for low noise operation

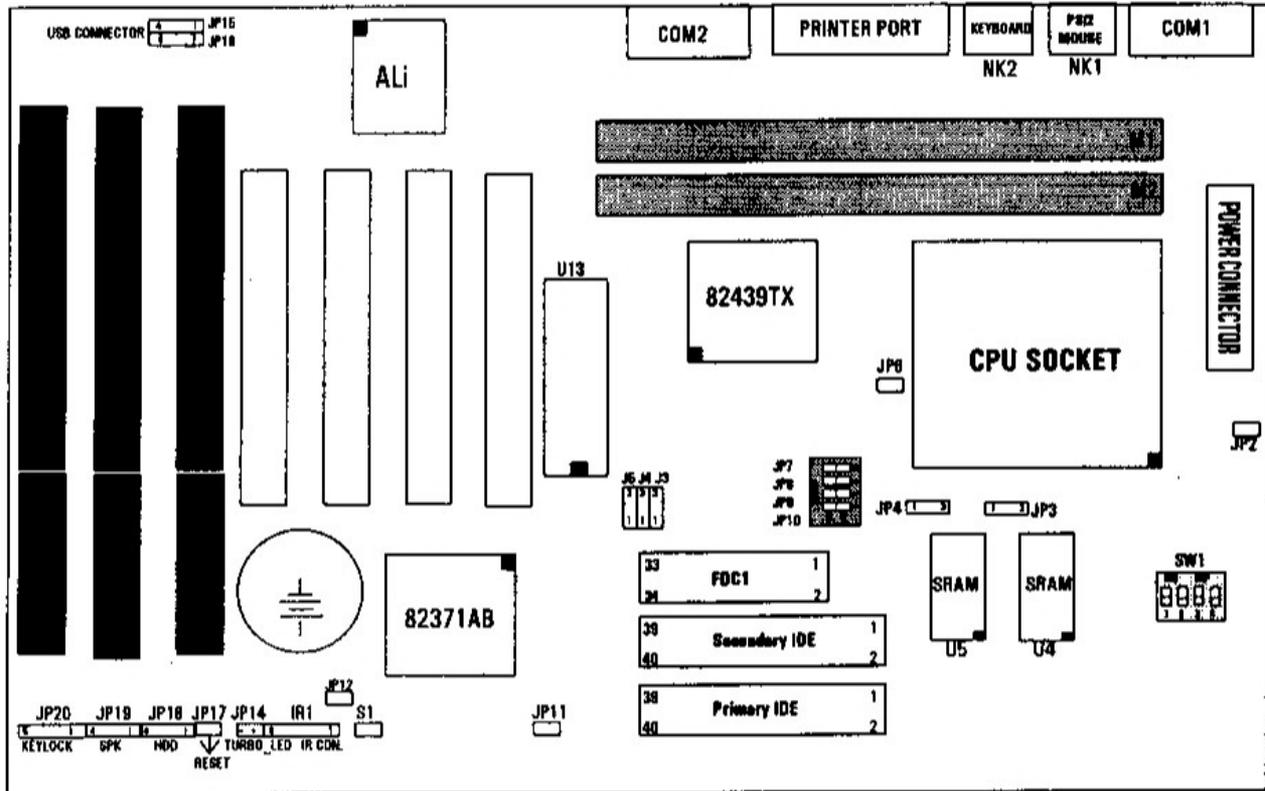


## 1.4 System Performance

CPU TYPE	SOFTWARE LANDMARK V2.0	POWER METER V1.8 MIPS	NORTON V8.0 CPU SPEED
INTEL PENTIUM 90	519.44	44.4	285.2
INTEL PENTIUM 100	578.48	49.9	317.6
INTEL PENTIUM 120	692.61	59.2	380.3
INTEL PENTIUM 133	771.33	66.1	423.5
INTEL PENTIUM 150	865.78	72.9	475.3
INTEL PENTIUM 166	964.19	81.3	529.3
INTEL PENTIUM 200	1157.02	94.8	635.2
INTEL PENTIUM 166 MMX	1093.06	83.6	567.1
INTEL PENTIUM 200 MMX	1311.70	101.6	680.6
CYRIX 6x86-P133 <sup>+</sup> (110MHz)	1328.53	74.8	747.5
CYRIX 6x86-P150 <sup>+</sup> (120MHz)	1447.52	81.3	814.4
CYRIX 6x86-P166 <sup>+</sup> (133MHz)	1612.08	91.7	907.0
AMD K5-P90	806.07	47.4	356.4
AMD K5-PR120 (90MHz)	806.01	58.0	388.8
AMD K5-PR133 (100MHz)	897.70	64.6	433.0
AMD K5-PR166	1047.34	79.0	505.1
AMD K6-PR200	2056.23	149.7	1190.2
AMD K6-PR233	2398.95	177.7	1388.6

## 1.5 ATX430 Board Layout

The general layout of the ATX430 motherboard is shown in the following diagram:



---

# CHAPTER 2 INSTALLATION

Before the system is ready to operate, the hardware must be configured for various functions of the system. To set up the *ATX430* motherboard is a simple task. The user only has to set a few jumpers, connectors and sockets.

## 2.1 DRAM Installation

The *ATX430* motherboard can support extended memory of 8MB to 64MB.

■ The layout of the DRAM memory banks on board is shown below:



### DIMM INSTALLATION



■ TABLE (DIMM)

M1	M2	TOTAL MEMORY
8MB	—	8MB
8MB	8MB	16MB
8MB	16MB	24MB
8MB	32MB	40MB
—	8MB	8MB
16MB	—	16MB
16MB	8MB	24MB
16MB	16MB	32MB
16MB	32MB	48MB
—	16MB	16MB
32MB	—	32MB
32MB	8MB	40MB
32MB	16MB	48MB
32MB	32MB	64MB
—	32MB	32MB

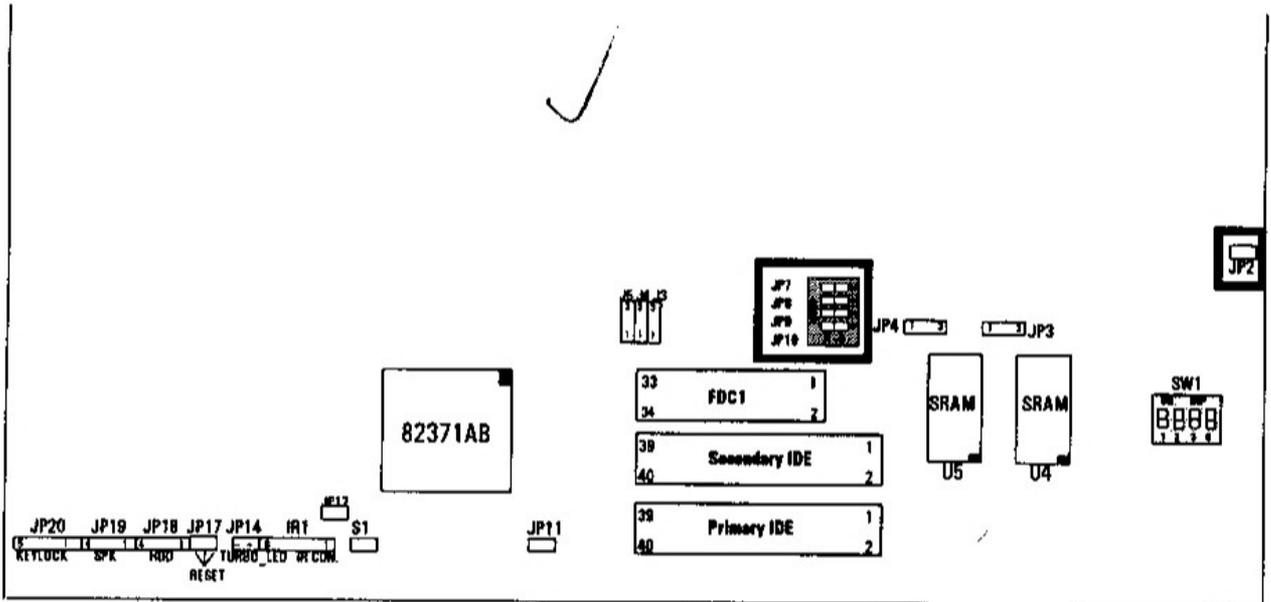
## 2.2 CPU Type and Jumper Setting

If you change the CPU, you may have to change the CPU type and manufacturer jumper settings as shown below. For ATX motherboards, you also have to change the CPU output voltage setting. Make sure the settings are correct for you CPU. An improper setting may damage your CPU.

CPU Type	Jumper Setting			
INTEL PENTIUM 90MHz	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
INTEL PENTIUM 100MHz	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
INTEL PENTIUM 120MHz	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
INTEL PENTIUM 133MHz	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
INTEL PENTIUM 150MHz	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
INTEL PENTIUM 166MHz	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
INTEL PENTIUM 200MHz	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
CYRIX 6x86-P133 <sup>+</sup> (110MHz)	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3
CYRIX 6x86-P150 <sup>+</sup> (120MHz)	JP7 JP8 JP9 JP10		SW1 ON OFF 	1 2 3 ● ● ○ JP4 1 2 3 ● ● ○ JP3

CPU Type	Jumper Setting			
CYRIX 6x86-P166 <sup>+</sup> (133MHz)	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K5-90MHz	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K5-100MHz	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K5-PR120 (90MHz)	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K5-PR133 (100MHz)	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K5 PR166MHz	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
INTEL PENTIUM 166MHz MMX	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
INTEL PENTIUM 200MHz MMX	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K6-PR166	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K6-PR200	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 
AMD K6-PR233	JP7 JP8 JP9 JP10 	SW1 	1 2 3 	1 2 3 JP2 

## 2.3 CPU Installation



### CPU Frequency Times

1.5	2	2.5	3	3.5
JP7 JP8 	JP7 JP8 	JP7 JP8 	JP7 JP8 	JP7 JP8 

♣ Default Setting

### CPU Frequency Setting

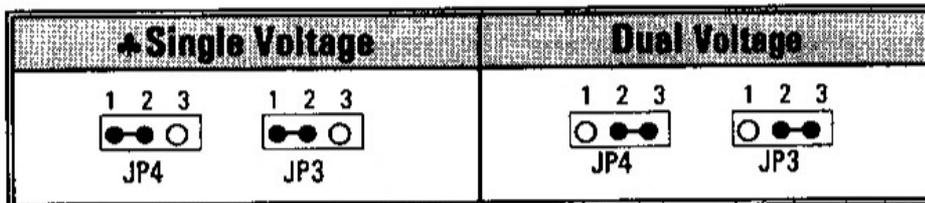
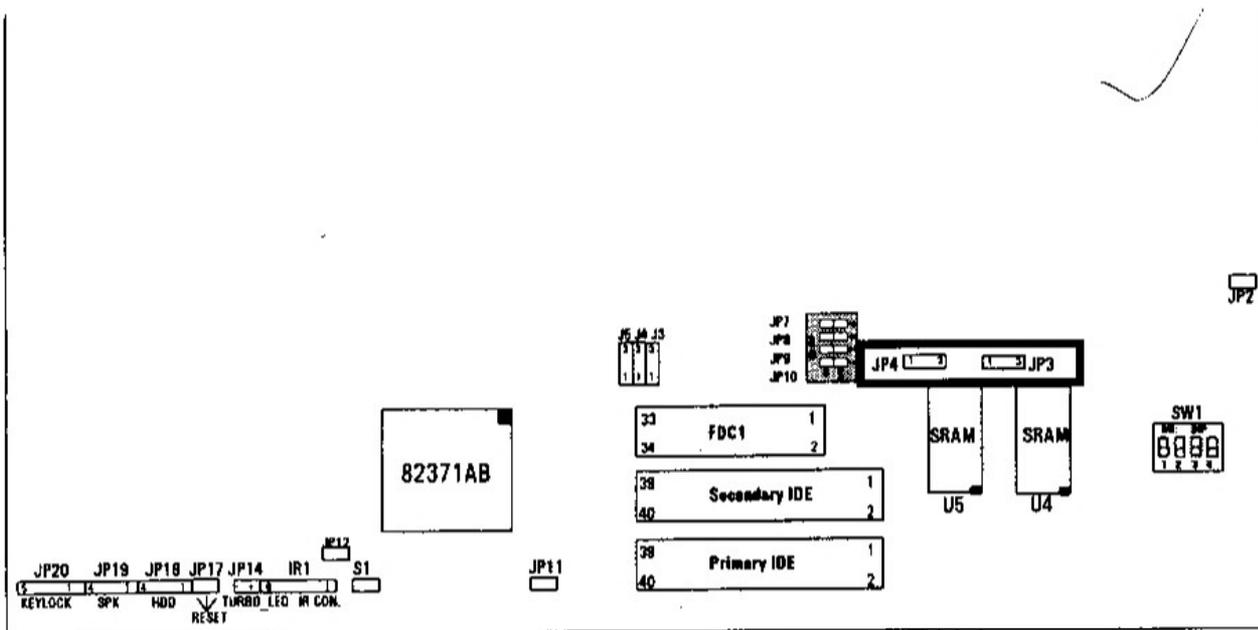
55MHz	60MHz	66MHz
JP9 JP10 	JP9 JP10 	JP9 JP10 

♣ Default Setting

## 2.4 CPU Voltage Select

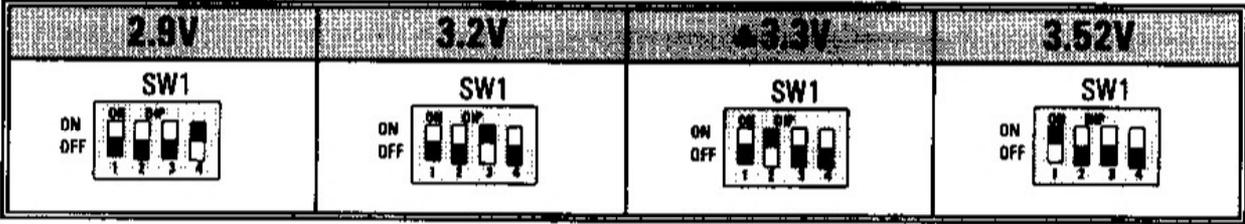
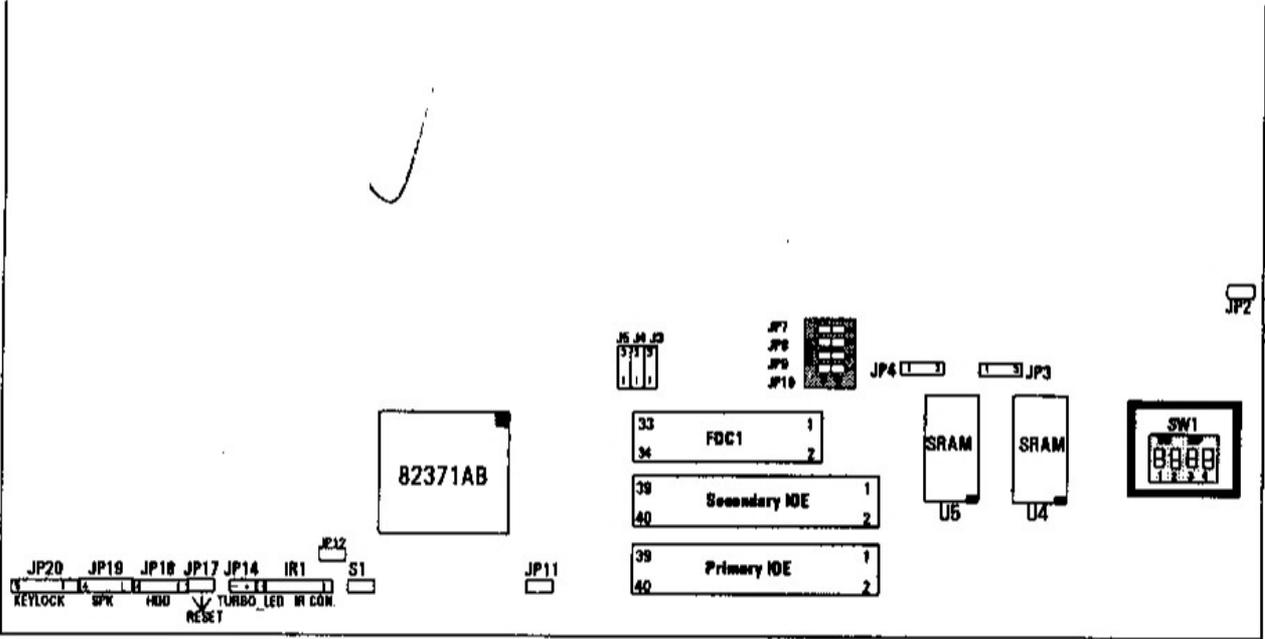
When you install the CPU, you must select the type of the voltage supplied to it. First, you have to make sure your CPU voltage is Single or Dual. For example, Intel Pentium 166/200 MHz with MMX function or AMD K6 has Dual Voltage. Then, you need to know the voltage your CPU needs. For example, your CPU may be supplied at 2.9 Volts. If you don't know such information, please contact your dealer.

Voltage Type 1:



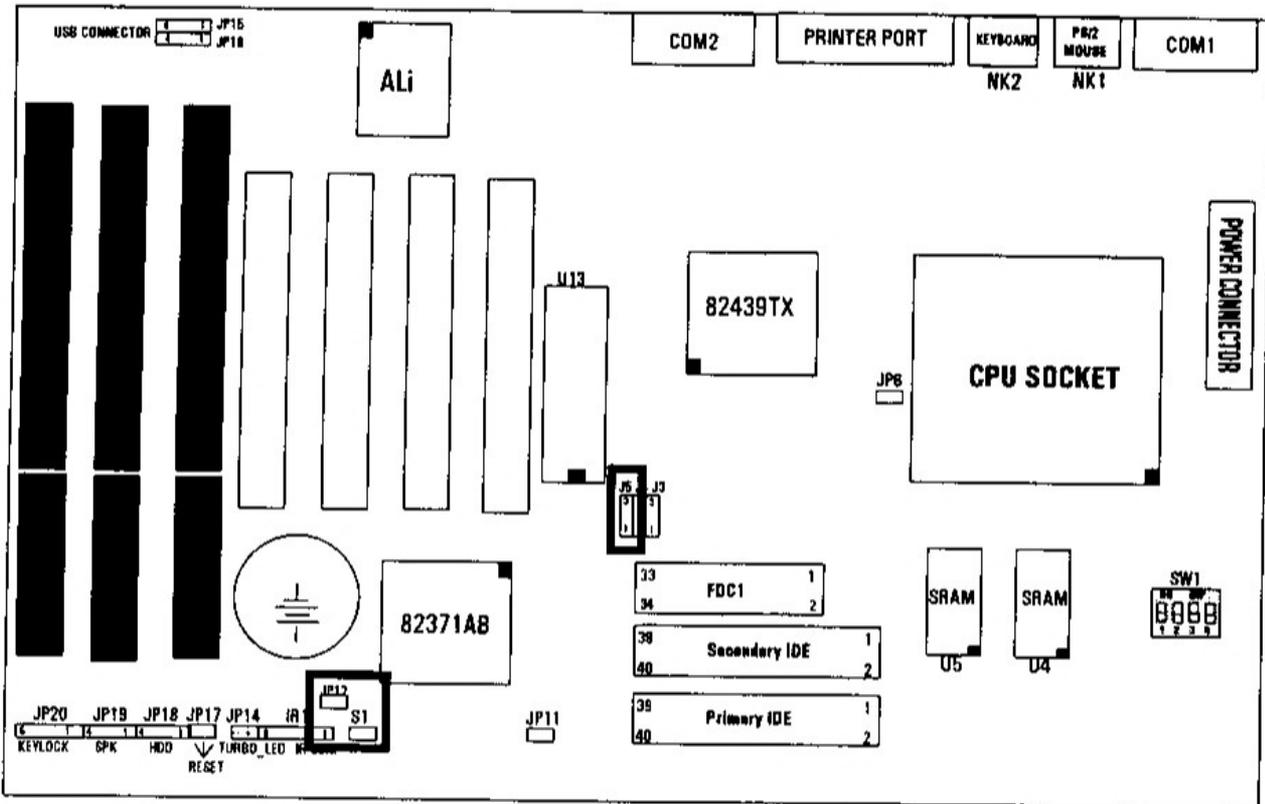
⚡ Default Setting

Voltage Type 2:



✦ Default Setting

## 2.5 Other Jumper & Connector Installation



### Other Jumper Description

Jumper	Description	
J5	NORMAL ♣	BIOS PROGRAM
JP12	CLEAR CMOS	NORMAL ♣
S1	Soft POWER (ON/OFF)	

♣ Default Setting

## CONNECTOR DESCRIPTION

Connector	Pin	Signal Name
JP14 TURBO LED	1	+5V DC
	2	GROUND
JP15, JP16 USB CONNECTOR	1	+5V DC
	2	DATA OUT
	3	DATA OUT
	4	GROUND
JP17 RESET	1	GROUND
	2	RESET IN
JP18 HDD LED	1	+5V DC
	2	DATA OUT
	3	DATA OUT
	4	+5V DC
JP19 SPEAKER CONNECTOR	1	+5V DC
	2	GROUND
	3	NC
	4	DATA OUT
JP20 KEYLOCK & POWER LED CONNECTOR	1	+5V DC
	2	NC
	3	GROUND
	4	KEYBOARD DATA
	5	GROUND
IR1 IR CONNECTOR	1	+5V DC
	2	NC
	3	IRR*2
	4	GROUND
	5	IRRT*2
	6	ENIRDA