

# **BX2000**

## **USER'S MANUAL**

1. **Support Suspend To RAM Function.**
  2. **CPU Over Voltage Protect.**
  3. **Support Dual BIOS.**
  4. **System power on by PS/2 Mouse: First, enable this function in CMOS Setup, then you can power on the system by double clicking the right or left button of your PS/2 Mouse.**
  5. **System power on by Keyboard: If your ATX power supply supports 300 mA 5V Stand-By current (depends on the specification of keyboards) , you can power on your system by entering password from the keyboard after setting the "Keyboard power on" password in CMOS Setup.**
  6. **Supports 3 steps ACPI LED.**
  7. **Modem Ring-On (COM A , B).**
  8. **Wake-Up on LAN (The ATX power supply supports larger than 720 mA 5V Stand-By current).**
- JP20 & JP21 Jumper (PCB Ver:1.1 and after use), please reference page 21.

**Pentium® II / III / Celeron Processor MAINBOARD  
REV. 1.1 First Edition**

R-11-01-090428



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April 28, 1999 Taipei, Taiwan

**I. Quick Installation Guide :**

**CPU SPEED SETUP**

The system bus speed is selectable between 66 / 100 MHz. The user can select the system bus speed and change the DIP SWITCH (**SW**) selection to set up the CPU speed for 233 - 650MHz processor.

ON: ○

OFF: X

Pentium® II / III CPU	1	2	3	4	5	6	7	8
233 / 66MHz	X	X	○	○	○	X	X	○
266 / 66MHz	○	○	X	○	○	X	X	○
300 / 66MHz	X	○	X	○	○	X	X	○
333 / 66MHz	○	X	X	○	○	X	X	○
366 / 66MHz	X	X	X	○	○	X	X	○
400 / 66MHz	○	○	○	X	○	X	X	○
433 / 66MHz	X	○	○	X	○	X	X	○
350 / 100MHz	X	X	○	○	X	X	X	X
400 / 100MHz	○	○	X	○	X	X	X	X
450 / 100MHz	X	○	X	○	X	X	X	X
500 / 100MHz	○	X	X	○	X	X	X	X
550 / 100MHz	X	X	X	○	X	X	X	X
600 / 100MHz	○	○	○	X	X	X	X	X
650 / 100MHz	X	○	○	X	X	X	X	X

Main Clock Table				
CLK	5	6	7	8
66 MHz	○	X	X	○
75 MHz	○	X	○	○
83 MHz	○	○	X	○
100 MHz	X	X	X	X
112 MHz	X	X	○	X
124 MHz	X	○	○	X
133MHz	X	○	X	X
PCI Run 44.3 MHz	←			
133 MHz	○	○	○	X
PCI Run 33.3 MHz	←			

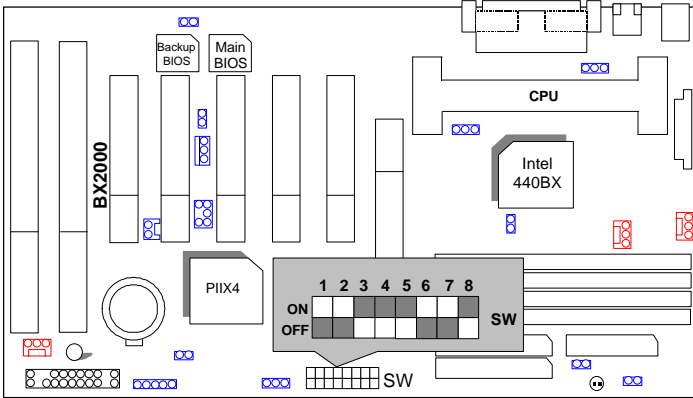
★ **Note:** We don't recommend you to setup your system speed to 75, 83, 112, 124 or 133MHz because these frequencies are not the standard specifications for CPU, Chipset and most of the peripherals. Whether your system can run under 75, 83, 112, 124 or 133MHz properly will depend on your hardware configurations: CPU, SDRAM, Cards, etc.

**Frequency Table:**

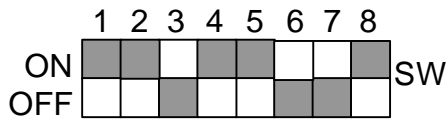
FREQ. RATIO	DIP SWITCH (SW)			
	1	2	3	4
X 3	O	X	O	O
X 3.5	X	X	O	O
X 4	O	O	X	O
X 4.5	X	O	X	O
X 5	O	X	X	O
X 5.5	X	X	X	O
X 6	O	O	O	X
X 6.5	X	O	O	X
X 7	O	X	O	X
X 7.5	X	X	O	X
X 8	O	O	X	X
X 8.5	X	O	X	X
X 9	O	X	X	X
X 9.5	X	X	X	X

**The black part in the picture is the white extruding piece of the DIP switch.**

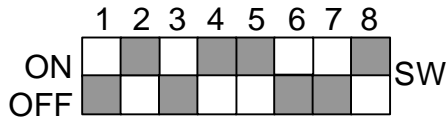
1. Pentium® II / Celeron 233 / 66 MHz FSB



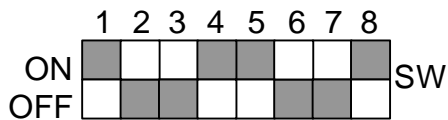
2. Pentium® II / Celeron 266 / 66 MHz FSB



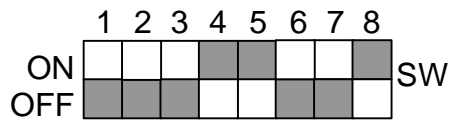
3. Pentium® II / Celeron 300 / 66 MHz FSB



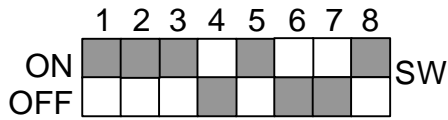
4. Pentium® II / Celeron 333 / 66 MHz FSB



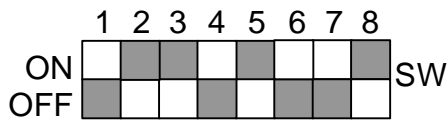
5. Pentium® II / Celeron 366 / 66MHz FSB



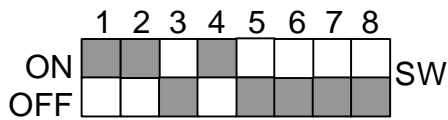
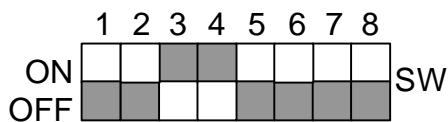
6. Pentium® II / Celeron 400 / 66MHz FSB



7. Pentium® II / Celeron 433 / 66MHz FSB

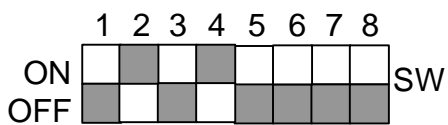


8. Pentium® II 350 / 100 MHz FSB

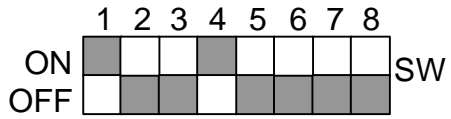


9. Pentium® II 400 / 100 MHz FSB

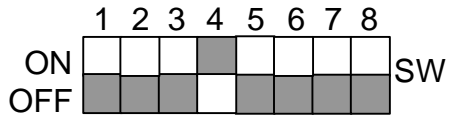
10. Pentium® III 450 / 100 MHz FSB



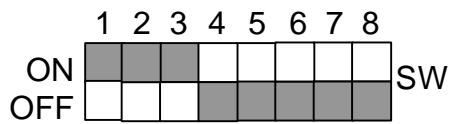
11. Pentium® III 500 / 100 MHz FSB



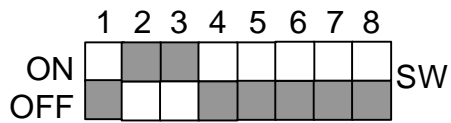
12. Pentium® III 550 / 100 MHz FSB



13. Pentium® III 600 / 100 MHz FSB



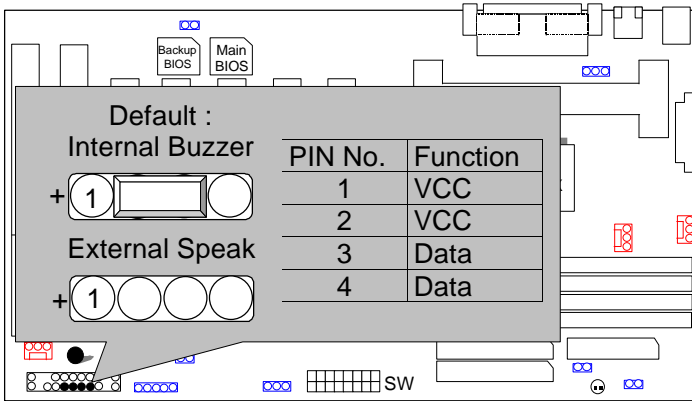
14. Pentium® III 650 / 100 MHz FSB



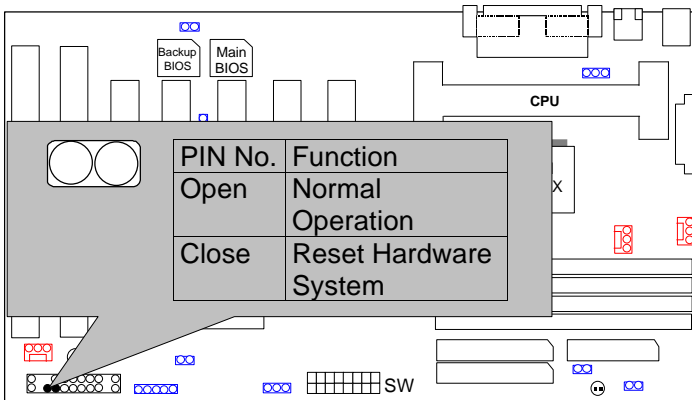


## II. Jumper setting :

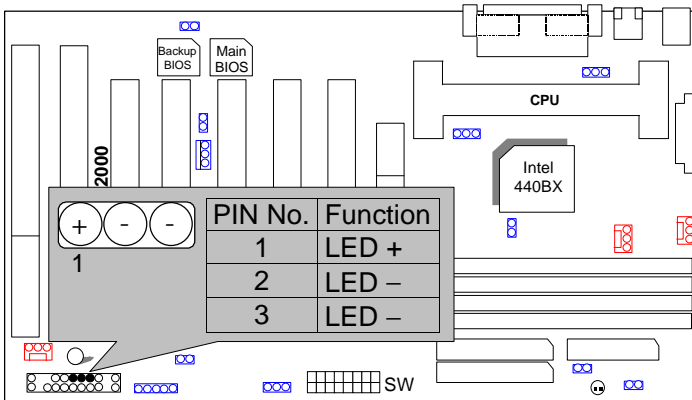
SPK : External Speaker/ Internal Buzzer Connector



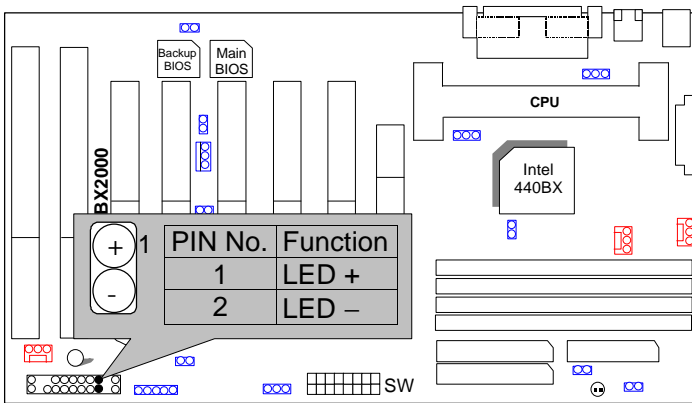
RST : Reset Switch



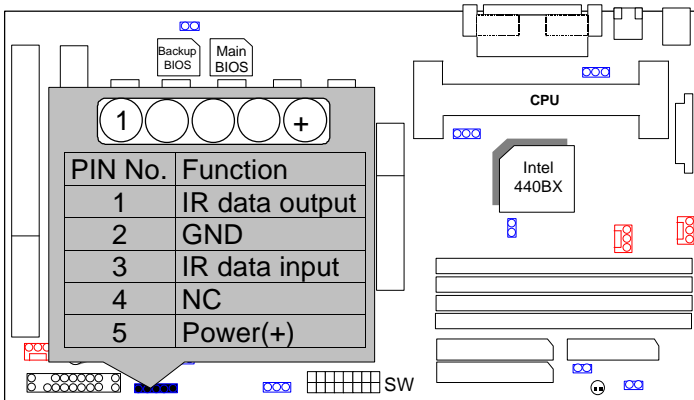
PW LED : Power LED Connector



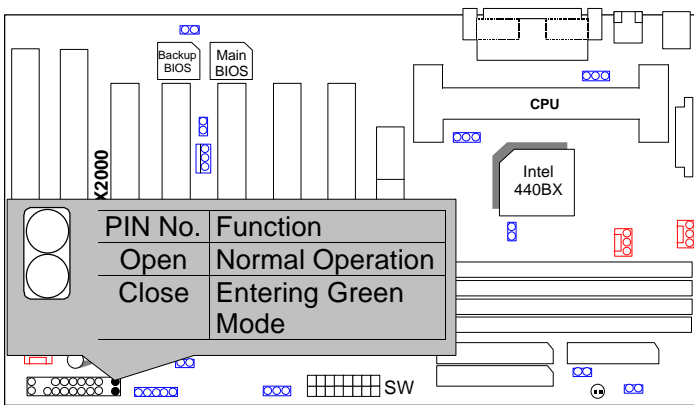
HD : IDE Hard Disk Active LED



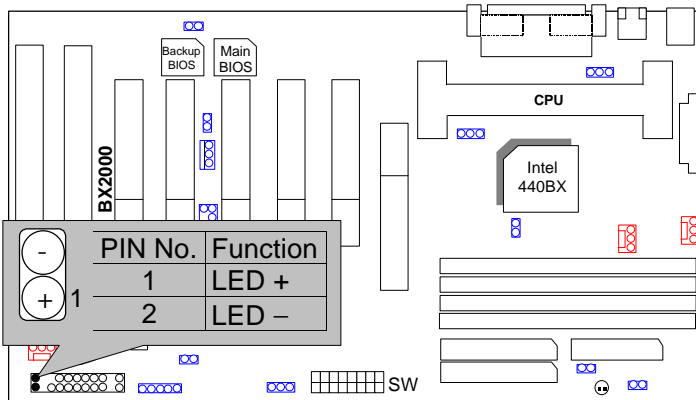
IR : Infrared Connector (Optional)



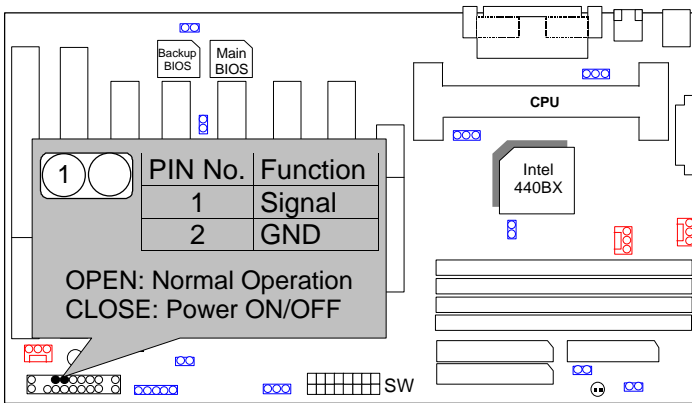
GN : Green Function Switch



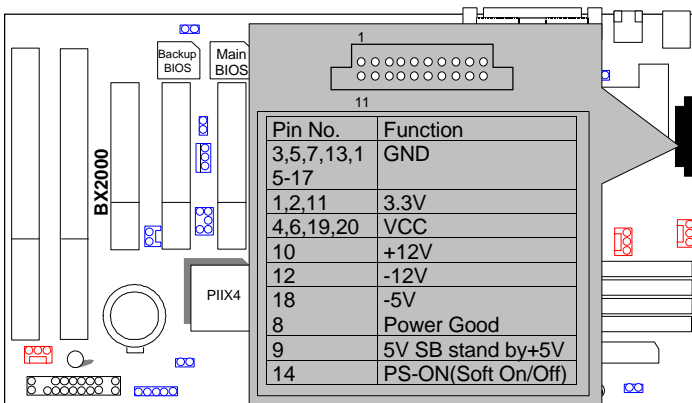
GD : Green LED



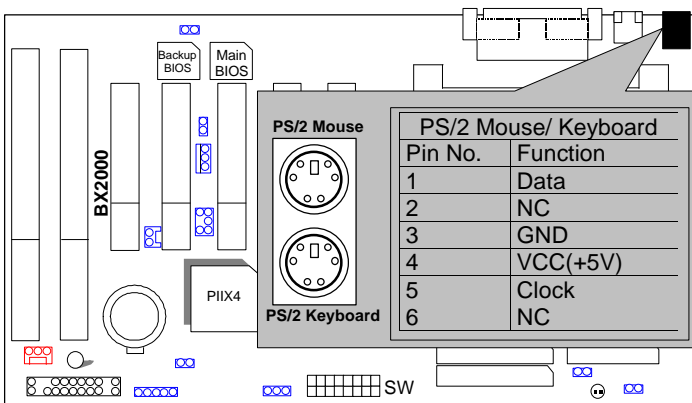
Soft POWER : Soft Power Connector



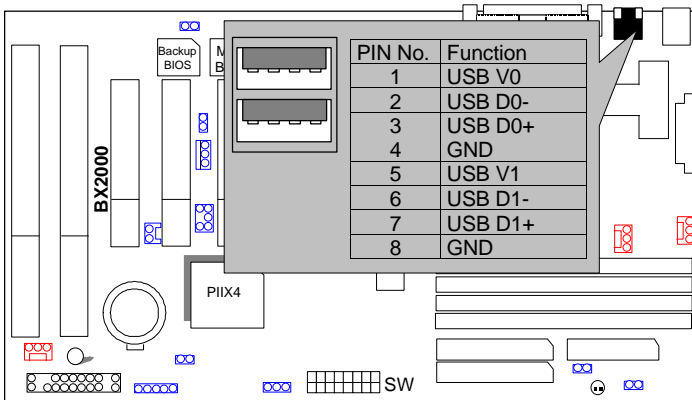
ATX POWER : ATX Power Connector



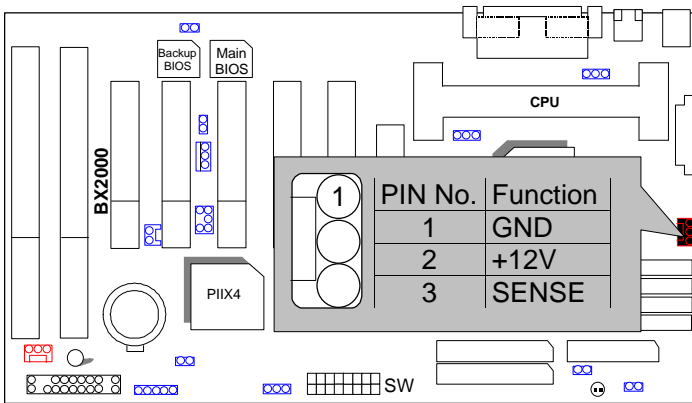
PS/2 Mouse / Keyboard Connector



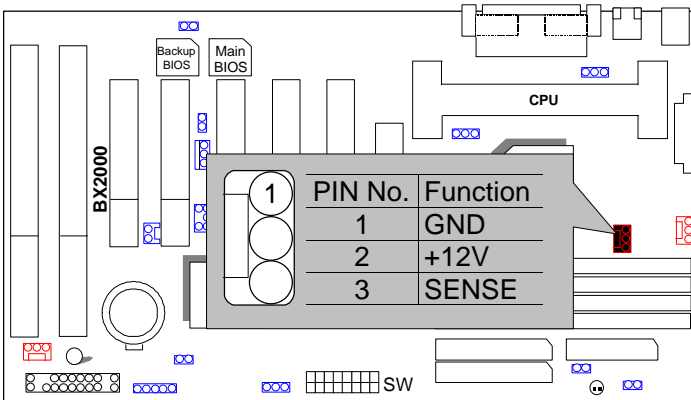
USB : USB Port



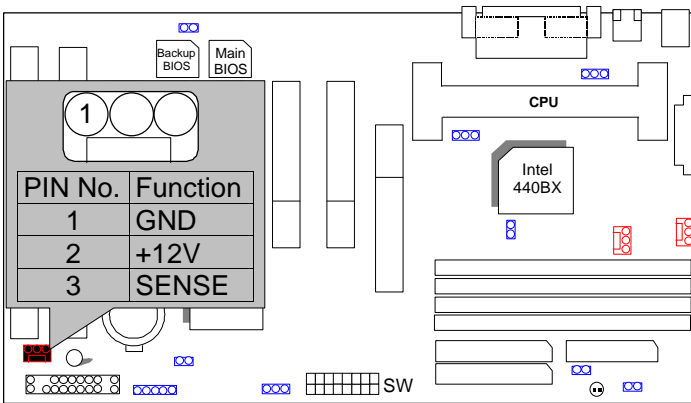
CPU FAN : CPU Cooling Fan Power Connector



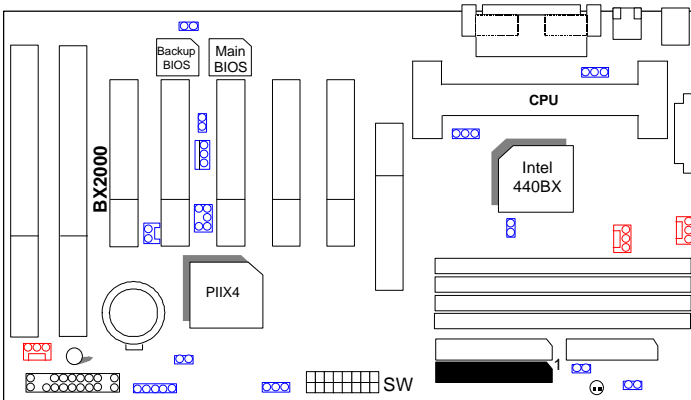
POWER FAN : Power Fan Connector



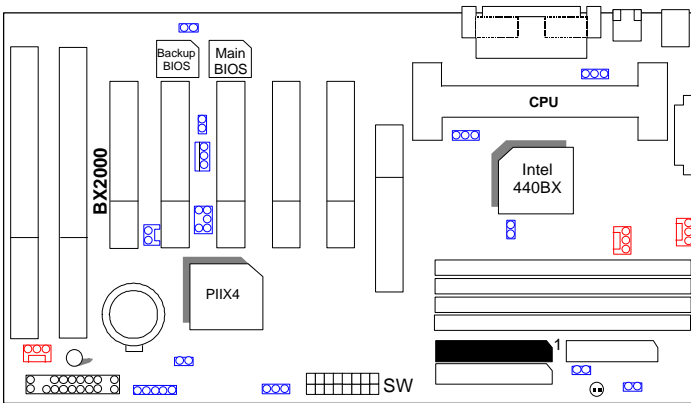
PANEL (System) FAN : Panel (System) Fan Connector



IDE1: For Primary IDE port

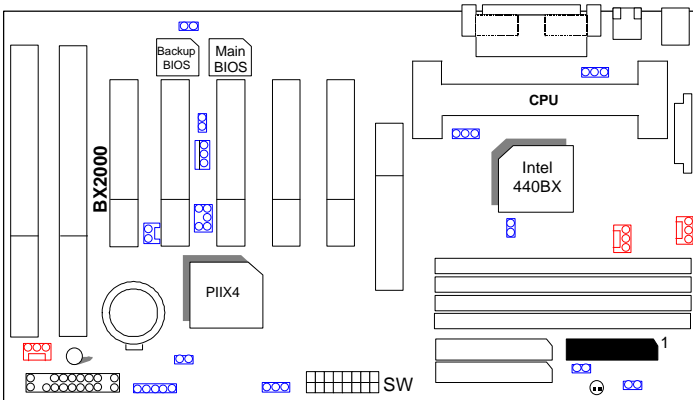


IDE2: For Secondary IDE port

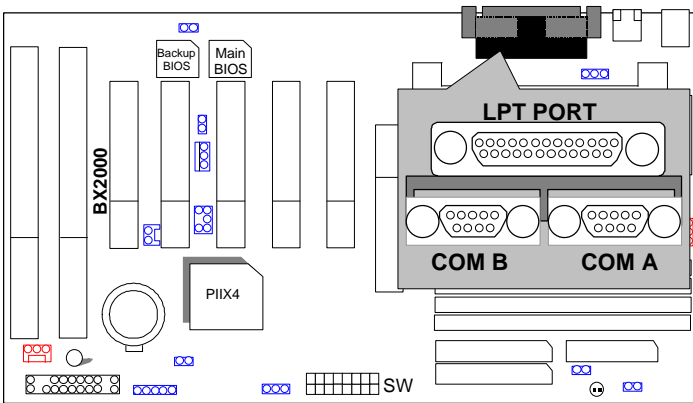




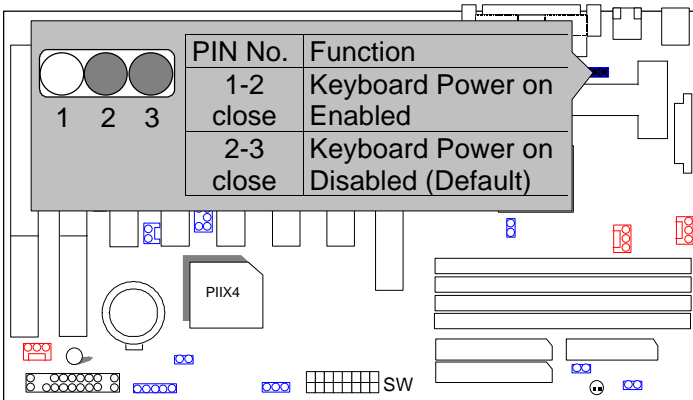
FLOPPY : FLOPPY PORT



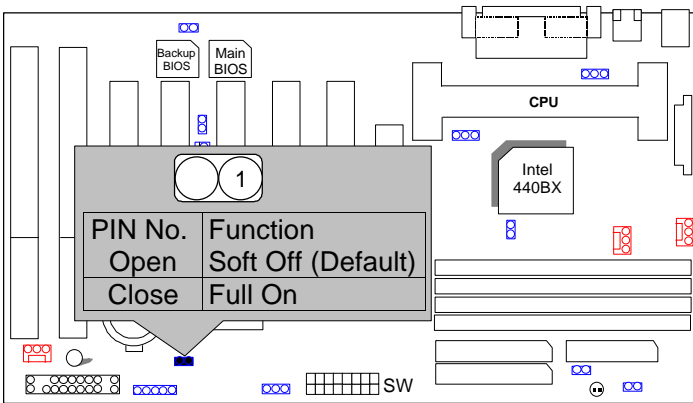
LPT PORT / COM A / COM B



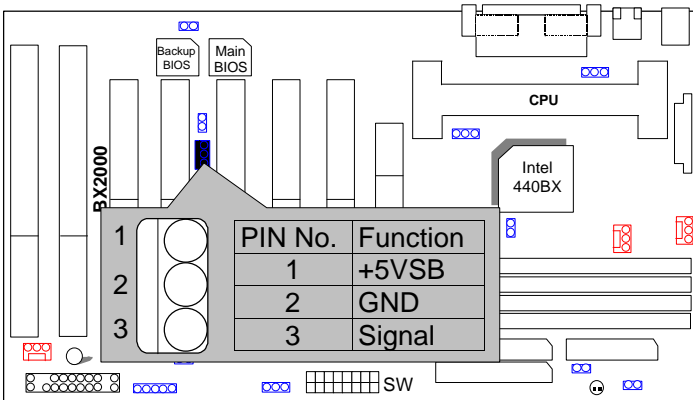
JP1 : Keyboard Power On Selection



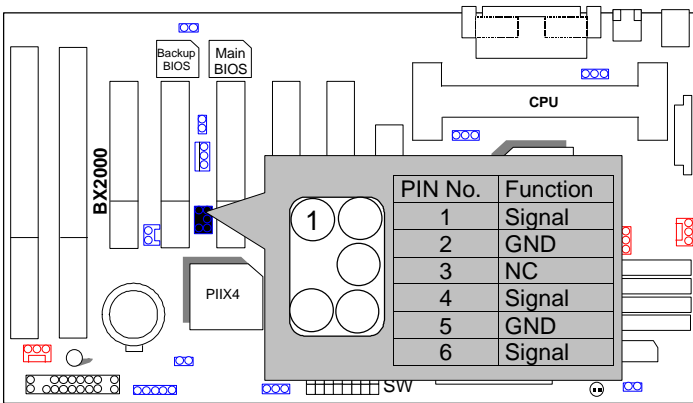
J15: System After AC Back



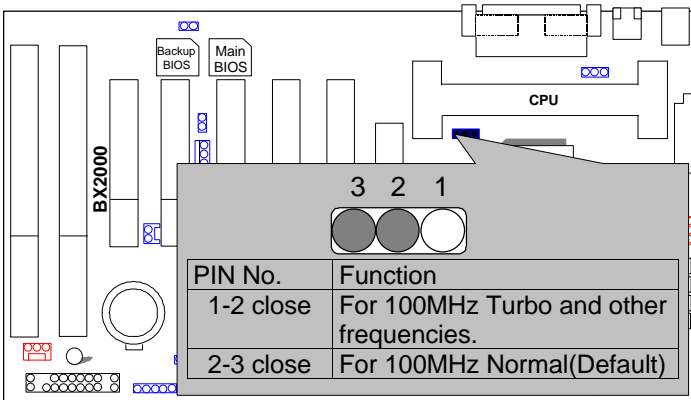
JP7: Wake On LAN



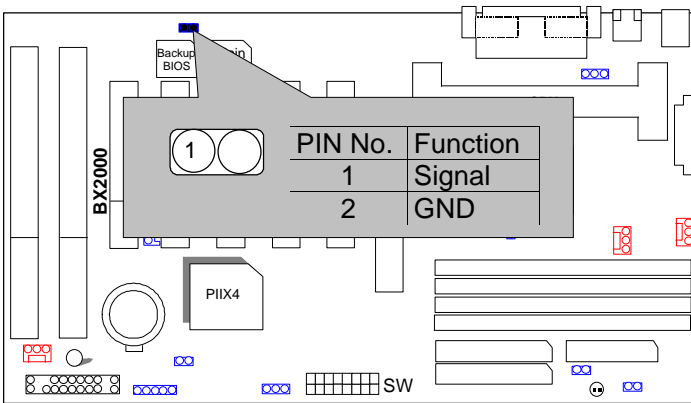
JP8:SB-LINK Creative PCI Sound Card Support



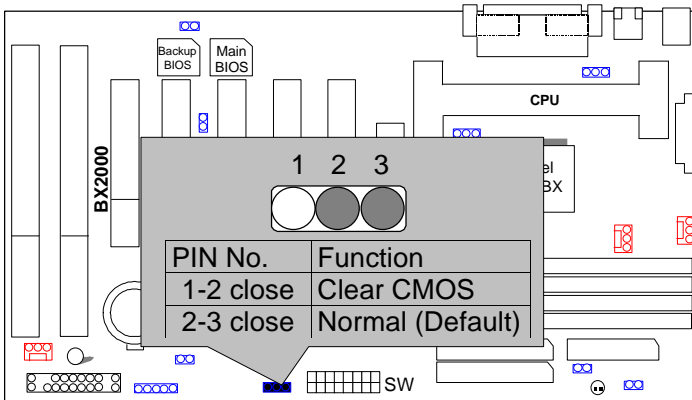
JP11 : System Acceleration



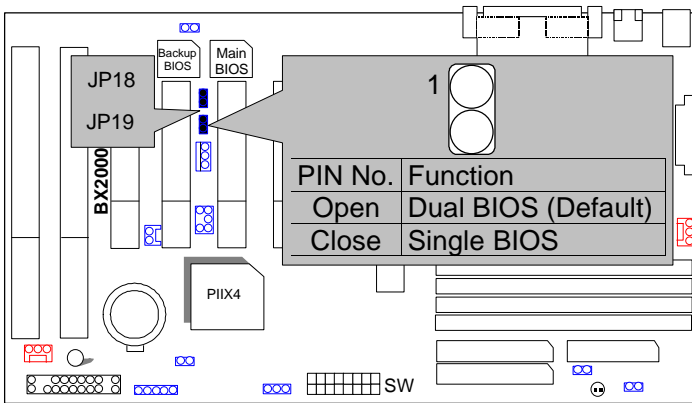
JP12 : CASE OPEN



JP14 : CLEAR CMOS FUNCTION

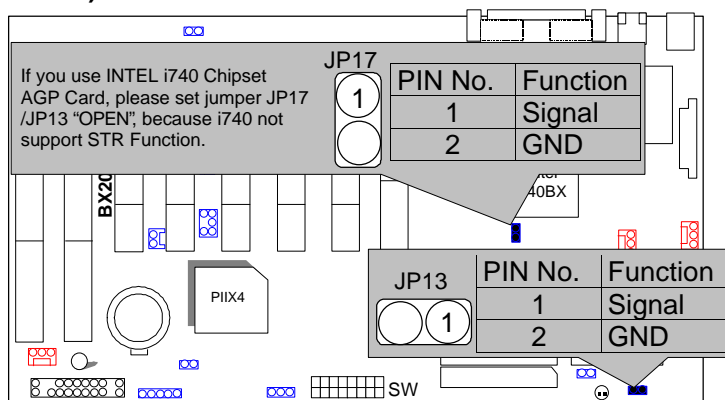


JP18/JP19 : Single/Dual BIOS (Optional)

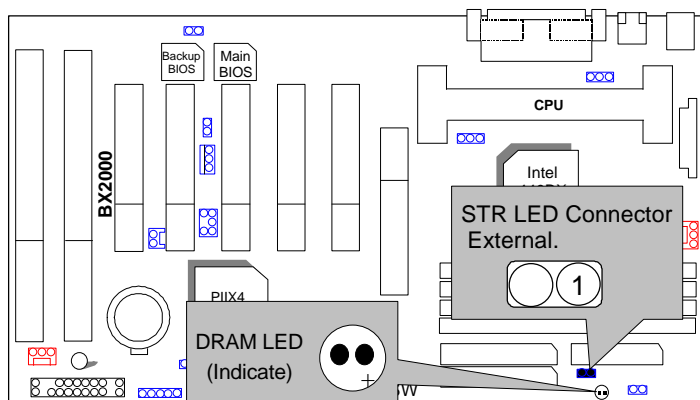


JP13 / JP17 : Close STR Enable

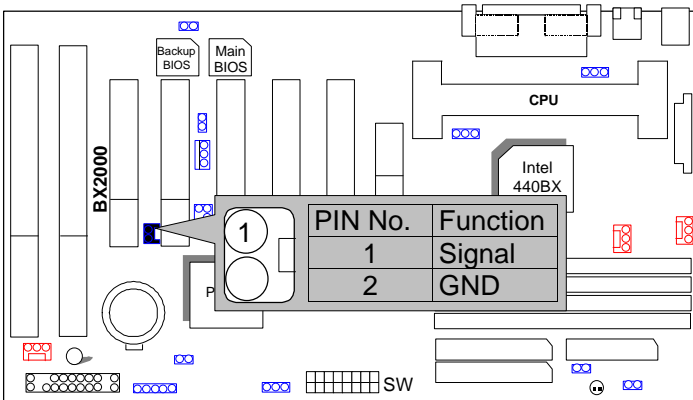
**(If you want to use STR Function, please set jumper JP13 & JP17 Closed.)**



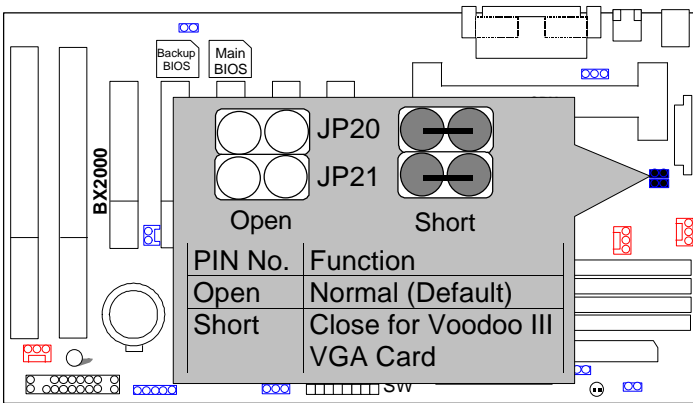
JP16 : STR LED CONN.



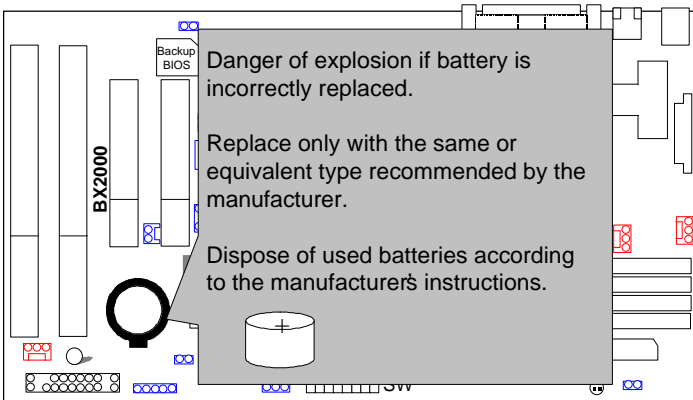
J16: RING POW ON



JP20 & JP21 (PCB 1.1 and after use)



**BAT1: BATTERY**



**III. Top Performance Test Setting:**

The following performance data list is the testing results of some popular benchmark testing programs. Users have to modify the value for each item in chipset features as follow for top performance setting.

```

ROM PCI/ISA BIOS (2A69KG0E)
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC.

Reset Case Open Status : No
Case Opened : No
Slow Down CPU Duty Cycle : Normal
Shutdown Temp.(°C/°F) : 75/167
* Temp. Select (°C/°F)
CPU : 70/158
* Temperature Alarm
CPU : No
* Current Temp.(°C/°F)
CPU : 33/91
* Fan Fail Alarm
CPU: No POWER: No PANEL: No
* Current Fan Speed (RPM)
CPU: 5443 POWER: 0 PANEL: 0
* Current Voltage (V)
UCORE : 1.95 VCTL : 1.52 UCC3: 3.36
+ 5V: 5.08 +12V: 12.52 -12V: -11.86
- 5V: - 5.09 UBAT: 3.28 5USB: 5.05

EDO CAS# Wait State : 1
EDO RAS# Wait State : 1
SDRAM CAS Latency Time : 2
DRAM Data Integrity Mode : Non-ECC
System BIOS Cacheable : Enabled
Video BIOS Cacheable : Enabled
Video RAM Cacheable : Disabled
16Bit I/O Recovery Time : 1
Memory Hole At 15M-16M : Disabled
Delayed Transaction : Disabled
Clock Spread Spectrum : Disabled

ESC : Quit ↑↓↓ : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Old Values (Shift) F2 : Color
F6 : Load BIOS Defaults
F7 : LOAD PERFORMANCE DEFAULTS
    
```



These data are just referred by users, and there is no responsibility for different testing data values gotten by users. (Different Hardware & Software configuration will result in different benchmark testing results.)

- CPU Pentium® II / III processor
- DRAM (32 x 2) MB SDRAM (MICRON MT 48LC2M8A1 -8)
- CACHE SIZE 512 KB included in CPU
- DISPLAY GA-630 AGP Display Card (4MB SGRAM)
- STORAGE Onboard IDE (Seagate ST34520A)
- O.S. Windows NT™4.0 (Service Pack 4)
- DRIVER Display Driver at 1024 x 768 x 16bit colors x 75Hz.  
TRIONES Bus Master IDE Driver 3.60

Processor	Intel Pentium® II / III	
	350MHz(100x3.5)	500MHz(100x5)
<b>Winbench99</b>		
CPU mark32	906	1260
FPU Winmark	1800	2550
Business Disk	4260	4440
Hi-End Disk	10400	10600
Business Graphics	169	227
Hi-End Graphics	292	403
<b>Winstone99</b>		
Business	27.4	33
Hi-End	24.9	30.8