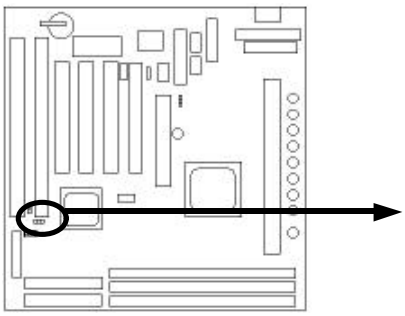
SECTION 2.
HARDWARE INSTALLATION

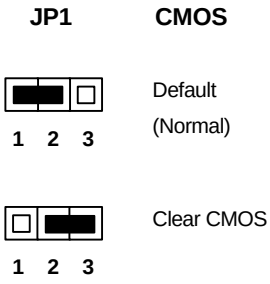
This section gives you a step-by-step procedure on how to install your system. Follow each section accordingly.

2-1 Jumper Settings

Please refer the following figures for the locations of the jumpers on the mainboard.

2-1.1 CMOS Clear Setting

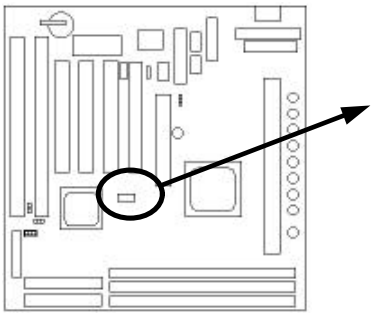


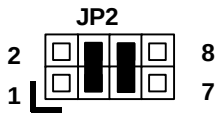


To clear CMOS, please follow the steps below:

1. Power off the system and unplug the chassis AC power cord.
2. Short JP1 at pin 2-3 for few seconds.
3. Set JP1 back to its Normal position at pin 1-2.
4. Plug the AC power cord to the chassis.
5. Power on the system and load the BIOS setup default.

2-1.2 CPU Type & CPU Clock Setting





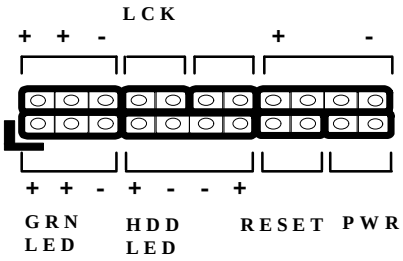
	CPU Type	JP2
Default:	266MHz	3-4 & 5-6

This mainboard supports Pentium II / Celeron CPU up to 333MHz. Install your CPU type with the following jumper settings.

Clock Ratio	CPU Type	JP2 Setting
3.5X	233MHz	1-2
4X	266MHz	3-4 & 5-6
4.5X	300MHz	3-4
5X	333MHz	5-6

2-2 Connectors

2-2.1 Panel Connector



- **PWR LED** Power LED Connector (3 pins)
- **KBLCK** Keyboard Lock Switch Connector (2 pins)
- **SLP** Suspend Switch Connector (2 pins)
- **SPEAKER** Chassis Speaker Connector (4 pins)
- **GRN LED** Green Status LED Connector (3 pins)
- **HDD LED** HDD LED Connector (4 pins)
- **RESET** Reset Switch Connector (2 pins)
- *** PWR ON** ATX Power Switch Connector and Suspend Switch Connector (2 pins)

*** PWR ON: ATX Power Switch and Suspend Switch Connector**

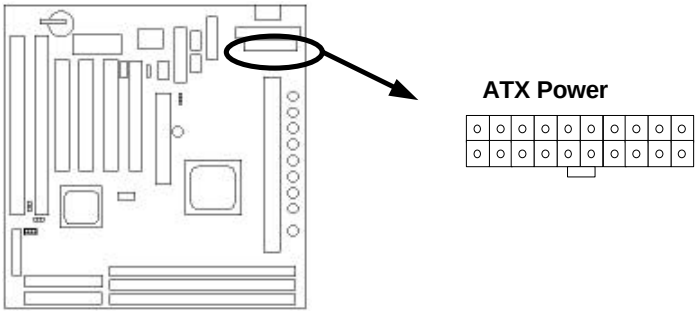
Attach the ATX power button or suspend switch cable to this connector.

In the ATX power system, this connector will be not only an ATX power button, but a suspend switch as well. Details are describes as below:

When the system is off, push the power button to turn the system on. When the system is on, push the power button rapidly within 4 seconds to switch the system to the suspend mode, and, by pushing and holding the button for more than 4 seconds, it will turn the system completely off. When the system is in the suspend mode, push the power button rapidly to turn the system on.

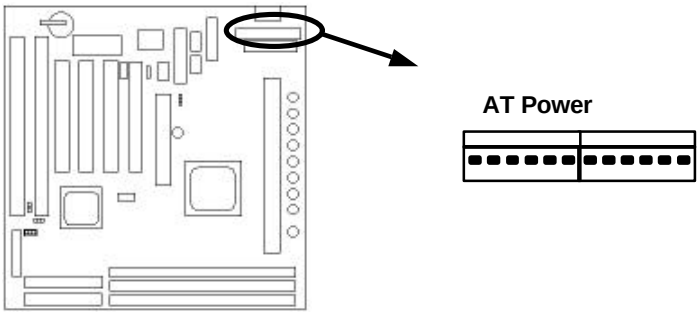
2-2.2 ATX Power Connector

Connect the 20-pin ATX power supply cable to this power connector. Make sure the right plug-in direction and the power supply is off before connecting or disconnecting the power cable.



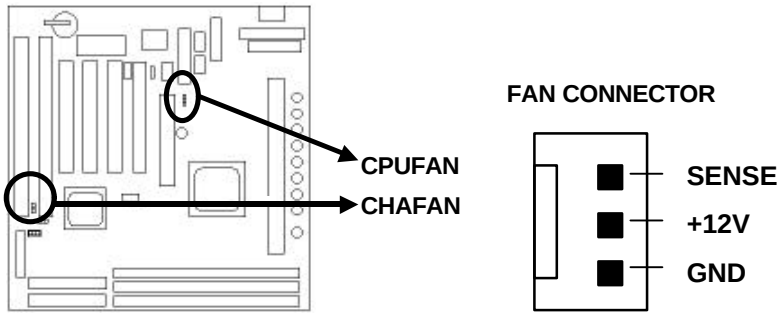
2-2.3 AT Power Connector

Connect the 12-pin AT power supply cable to this power connector. Make sure the right plug-in direction and the power supply is off before connecting or disconnecting the power cable.



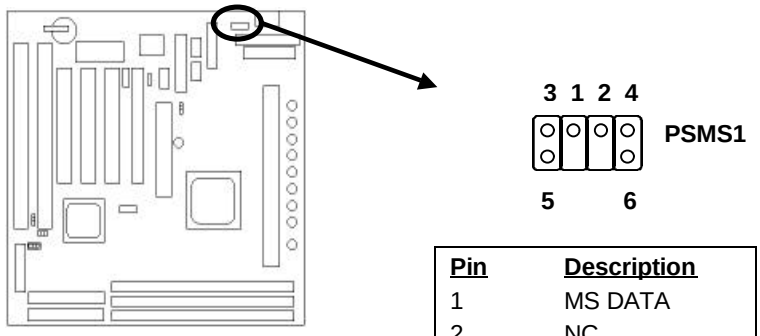
2-2.4 Fan Connectors

Connect the CPU and Chassis Fan cables to the 3-pin fan connectors shown below. The fan connectors are marked as CPUFAN and CHAFAN on the mainboard.



2-2.5 PS/2 Mouse Connector

Connect the PS/2 mouse to the onboard 6-pin Mini-Din connector marked as PSMS1.

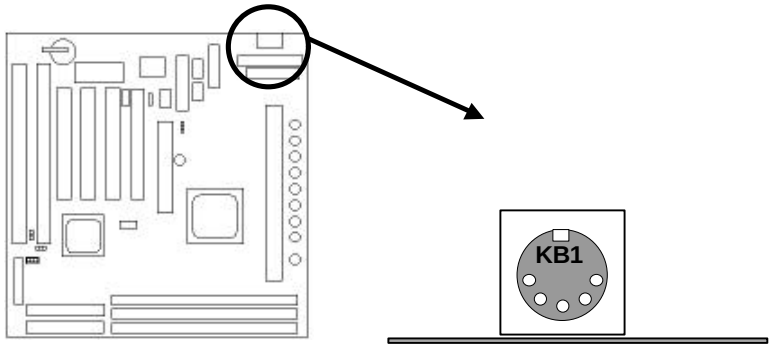


Pin	Description
1	MS DATA
2	NC
3	GND
4	+5V
5	MS CLK
6	NC

2-2.6 Keyboard Connect

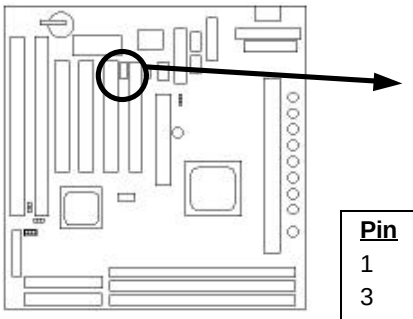
Connect the AT keyboard to t
KB1.

II.HARDWARE INSTALLATION



2-2.7 USB Device Connector

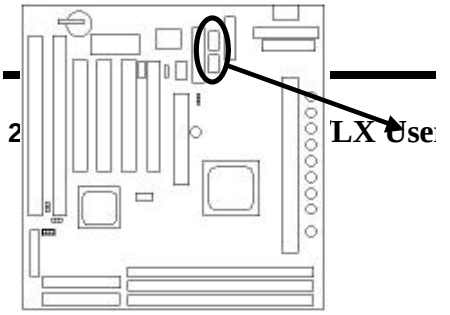
Connect your USB device(s) to the onboard USB connector marked as USB.



Pin	Description	Pin	Description
1	V0	2	V1
3	D0-	4	D1-
5	D0+	6	D1+
7	GND	8	GND
9	NC	10	NC

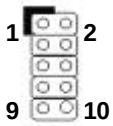
2-2.8 Serial Device(CC

Connect your serial device(s)
as COM1 and COM2.



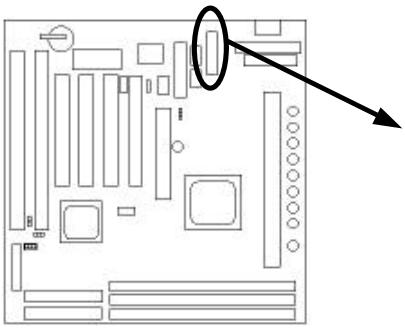
2 LX Use Manu

2-2.9 Printer Connctor



COM2

Connect your local printer to the onboard 25-pin printer connector marked as Printer.



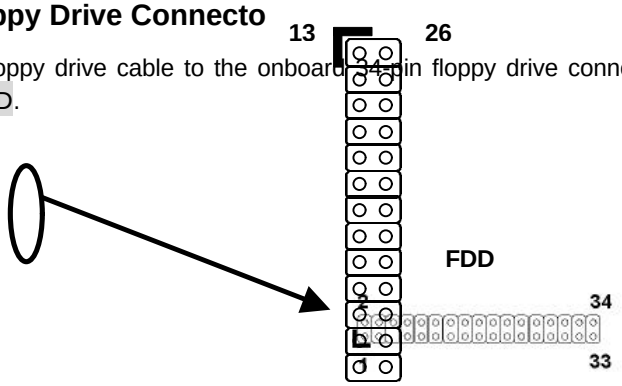
Printer

1 14

2-2.10 Floppy Drive Connecto

13 26

Connect the floppy drive cable to the onboard 34-pin floppy drive connector marked as FDD.

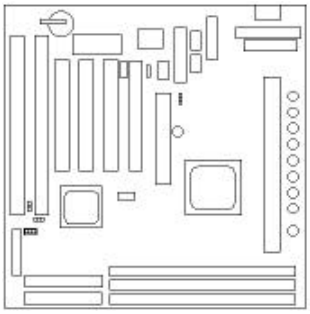


FDD

34

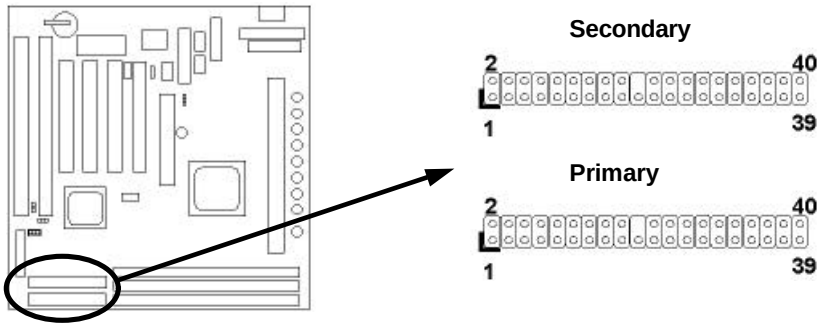
33

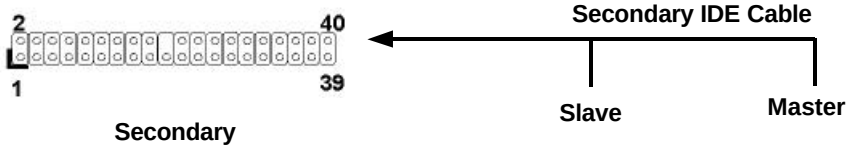
II.HARDWARE INSTALLATION

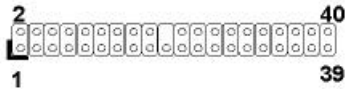


2-2.11 IDE Hard Disk and CD-ROM Connector

Connect your IDE devices to the onboard 40-pin IDE connectors marked as Primary and Secondary.







Primary

Primary IDE Cable

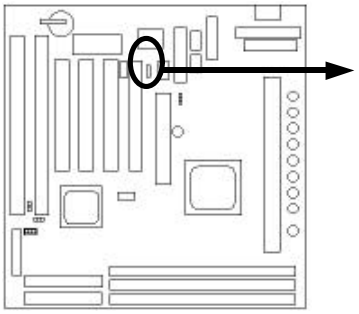
Slave **Master**

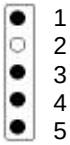
It is suggested that you connect the IDE devices to your IDE cables as the figure shown above. Each IDE channel, either Primary or Secondary, supports two IDE devices which must be set differently to master mode and slave mode.

(Refer to your hard disk and CD-ROM user s manual for detailed settings of IDE master and slave mode.)

2-2.12 IrDA Connector

Connect your IR device to the onboard IrDA connector marked as IR.



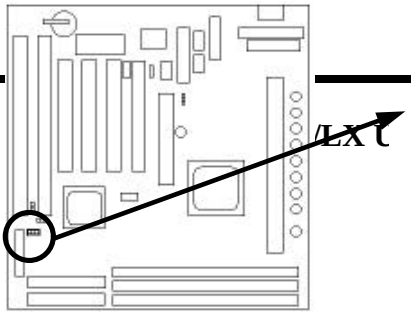


IR

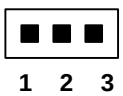
Pin	Description
1	+5V
2	NC
3	IRRX
4	GND
5	IRTX

2-2.13 Wake on LAN Connector

This mainboard supports wake up on LAN function. To use this function, you need a Wake on LAN supported network card and software.



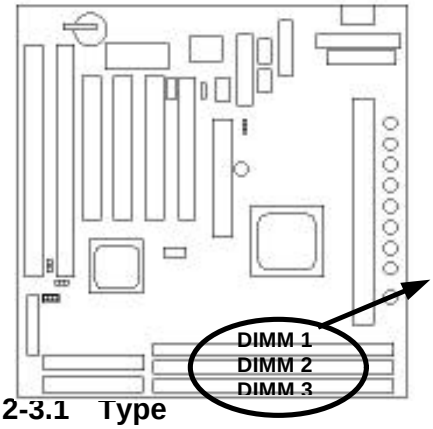
Wake on LAN



Pin	Description
1	+5V Standby
2	GND
3	Signal

2-3 System Memory Installation

There are 3 pcs 168-pin **DIMM** (Dual Inline Memory Module) sockets on the mainboard which support SDRAM and EDO DRAM memory.



For LX mainboard, there are 3 168-pin DIMM sockets (DIMM1, DIMM2 & DIMM3) that allow you to install system memory up to 384MB SDRAM.

For EX mainboard, there are 2 168-pin DIMM sockets (DIMM 2 & DIMM3) that allow you to install system memory up to 256MB SDRAM.

2-3.1 Type

This mainboard supports SDRAM DIMM and EDO DIMM.

For every single DIMM socket, maximum is 128MB if SDRAM is installed, and maximum is 256MB if EDO is installed.

2-3.2 Speed

For SDRAM, the memory speed normally marked as: -15, -12, -10, -8, -7.

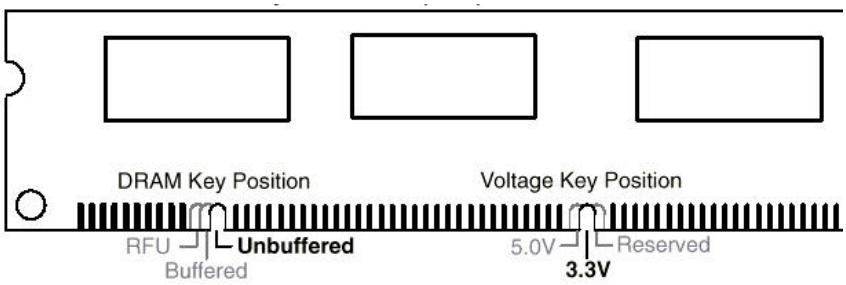
The meaning is,

-15 = 15ns, and the maximum clock is 66MHz
-12 = 12ns, and the maximum clock is 83MHz
-10 = 10ns, and the maximum clock is 100MHz
-8 = 8ns, and the maximum clock is 125MHz
-7 = 7ns, and the maximum clock is 142MHz

For EDO, the access time can be 50ns, 60ns.

2-3.3 Buffered and Non-buffered

Only the non-buffered DIMM can be used in this mainboard. The difference between buffered and non-buffered DIMM can be identified by the notch position shown below.



2-3.4 2-clock and 4-clock signal

Both 2-clock and 4-clock SDRAM DIMM supported by this mainboard.

2-3.5 Parity and Non-parity

This mainboard supports 64 bit Non-parity and 72 bit Parity DIMM modules.

2-3.6 Memory Auto detection by BIOS

This mainboard BIOS can automatically detect the DIMM memory size and type, so you do not need to adjust any hardware or software settings.

2-3.7 Suggested Memory combination

This mainboard supports the following SDRAM combination.

DIMM Data Chip	Bit size per side	Single/Double side	No. of chip	DIMM size
1M by 16	1M X 64	Single side	4	8MB
1M by 16	1M X 64	Double side	8	16MB
2M by 8	2M X 64	Single side	8	16MB
2M by 8	2M X 64	Double side	16	32MB
4M by 4	4M X 64	Single side	16	32MB
2M by 32	2M X 64	Single side	2	16MB
2M by 32	2M X 64	Double side	4	32MB
4M by 16	4M X 64	Single side	4	32MB
4M by 16	4M X 64	Double side	8	64MB
8M by 8	8M X 64	Single side	8	64MB
8M by 8	8Mx64	Double side	16	128MB
16M by 4	16Mx64	Single side	16	128MB

This mainboard supports the following EDO combination.

DIMM Data Chip	Bit size per side	Single/Double side	No. of chip	DIMM size
1M by 4	1M X 64	Single side	4	8MB
1M by 4	1M X 64	Double side	8	16MB
1M by 16	2M X 64	Single side	8	16MB
1M by 16	2M X 64	Double side	16	32MB
2M by 8	4M X 64	Single side	16	32MB
2M by 8	2M X 64	Single side	2	16MB
2M by 32	2M X 64	Single side	2	16MB
2M by 32	2M X 64	Double side	4	32MB

4M by 4	4M X 64	Single side	16	32MB
4M by 4	4M X 64	Double side	32	64MB
4M by 16	4M X 64	Single side	4	32MB
4M by 16	4M X 64	Double side	8	64MB
8M by 8	8M X 64	Single side	8	64MB
8M by 8	8M X 64	Double side	16	128MB
16M by 4	16Mx64	Single side	16	128MB
16M by 4	16Mx64	Double side	32	256MB

For LX mainboard,

Total Memory Size = DIMM1 + DIMM2 + DIMM3

For EX mainboard,

Total Memory Size = DIMM1 + DIMM2