FB11

MAINBOARD
MANUAL

Handling Precautions

Warning:
1. Static electricity may cause damage to the integrated circuits on the mainboard. Before handling any motherboard outside of its protective packaging, ensure that your body is not electrostatically charged.
2. There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or an equivalent type of battery as recommended by the manufacturer.
3. Discard used batteries according to the manufacturer's instructions.

Observe the following basic precautions when handling the motherboard or other computer components:

- Wear a static wrist strap which fits around your wrist and is connected to a natural earth ground.

- Touch a grounded or anti-static surface or a metal fixture such as a water pipe.

- Ensure add-on cards, mainboards, and models do not come into contact with the golden fingers connectors, plugged into the expansion slot.

The above methods prevent static build-up and allow it to be discharged properly.

Trademark
All trademarks mentioned in this manual are registered property of the respective owners.

Handling Precautions
This manual may not, in whole or in part, be photocopied, reproduced, transcribed, translated, or transmitted in whatever form without the written consent of the manufacturer, except for copies retained by the purchaser for personal archival purposes.

Quick Installation

The mainboard has several user-adjustable jumpers on the board that allow you to configure your system to suit your requirements. This chapter contains information on the various jumper settings on your mainboard.

To set up your computer, you must complete the following steps:

■ Step 1 - **Set system jumpers/switches**

■ Step 2 - **Install memory modules**

■ Step 3 - **Install the Central Processing Unit (CPU)**

■ Step 4 - **Install expansion cards**

■ Step 5 - **Connect ribbon cables, cabinet wires, and power supply**

■ Step 6 - **Set up BIOS software**

■ Step 7 - **Install supporting software tools**

WARNING: Excessive torque may damage the mainboard. When using an electric screwdriver on the mainboard, make sure that the torque is set to the allowable range of 5.0 ~ 8.0kg/cm.

Mainboard components contain very delicate Integrated Circuit (IC) chips. To prevent static electricity from harming any of the mainboard's sensitive components, you should follow the following precautions whenever working on the computer:

1. Unplug the computer when working on the inside.
2. Hold components by the edges and try not to touch the IC chips, leads, or circuitry.
3. Wear an anti-static wrist strap which fits around the wrist.
4. Place components on a grounded anti-static pad or on the bag that came with the component whenever the components are separated from the system.

Mainboard Layout
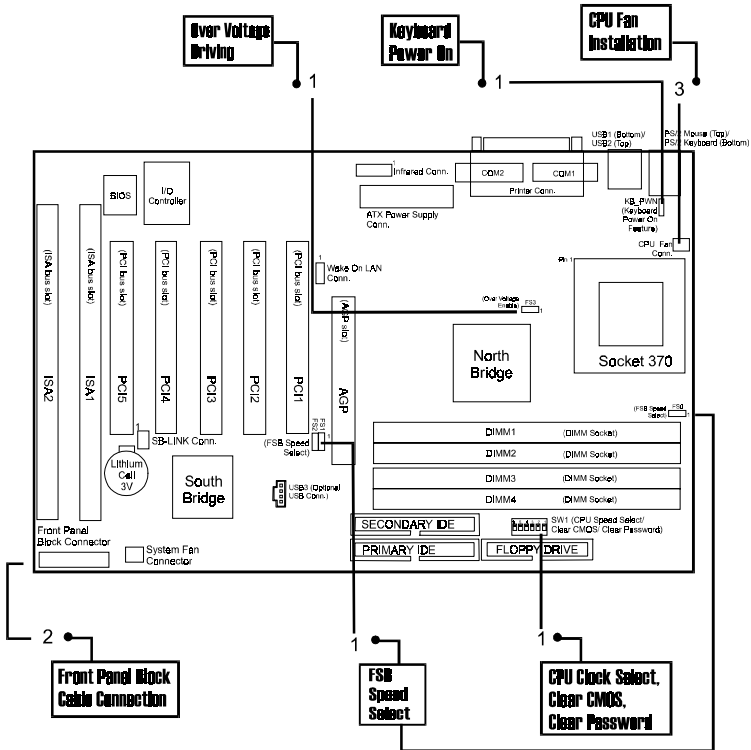
1). CPU Speed Select, Clear CMOS, Clear Password, Front Side Bus Speed Select, Over Voltage Driving, Keyboard Power On

CPU Speed (Hz)			SW1-1	SW1-2	SW1-3	SW1-4
133M	100M	66M				
466M	350M	233M	ON	OFF	ON	OFF
533M	400M	266M	ON	ON	OFF	ON
600M	450M	300M	ON	ON	OFF	OFF
667M	500M	333M	ON	OFF	OFF	ON
733M	550M	366M	ON	OFF	OFF	OFF
800M	600M	400M	OFF	ON	ON	ON
866M	650M	433M	OFF	ON	ON	OFF
933M	700M	466M	OFF	OFF	ON	ON
1G	750M	500M	OFF	OFF	ON	OFF
1066M	800M	533M	OFF	ON	OFF	ON

Note: For the ratio that higher than 8.0x, please use a ratio-locked CPU and also select Auto Detect on FSB Selection if you use an Intel CPU.
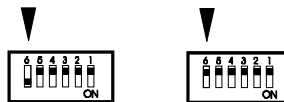
SW1-5 (Clear CMOS)
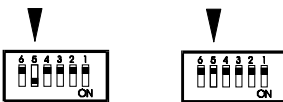
Enable
(Clear CMOS)
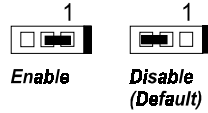

Disable
(Default)

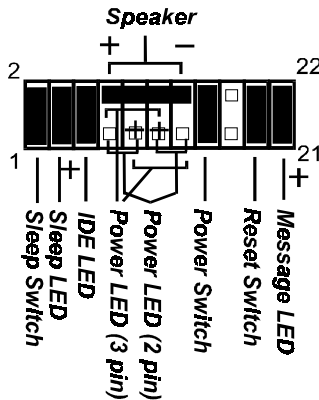### SW1-6 (Clear Password)

Enable
(Clear Password)

Disable
(Default)

CPU	Front Side Bus	FS0	FS1	FS2
Cyrix	66	1-2	2-3	2-3
	100		2-3	1-2
	133		1-2	1-2
Intel	66	2-3	2-3	2-3
	100		2-3	open
	133		open	open
	Auto Detect		1-2	1-2

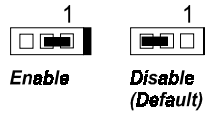## FS3 (Over Voltage Driving)

Enable   Disable (Default)

Caution:
Voltage and Frequency above CPU's and chipset's original specifications are NOT guaranteed to be stable.

2). Front Panel Block Cable Connection

Speaker

Sleep Switch
Sleep LED
IDE LED
Power LED (3 pin)
Power LED (2 pin)
Power Switch
Reset Switch
Message LED

KB_PWN (Keyboard Power On)

Enable   Disable (Default)

3). CPU Fan Installation

This connector is linked to the CPU fan. When the system is in suspend mode, the CPU fan will turn off; when it reverts back to full on mode, the fan will turn back on. Without sufficient air circulation, the CPU may overheat resulting in damage to both the CPU and the mainboard.

Damage may occur to the mainboard and/or the CPU fan if these pins are used incorrectly. These are not jumpers, do not place jumper caps over these pins.

General Information

About the Mainboard

The new Socket 370 1stMainboard FB11 supports the latest high speed Intel® Pentium® III 450 – 850 MHz and Celeron ™ 433 – 633* MHz processors at FSB speeds of 66/100/133 MHz. Support for the new Cyrix Joshua processors is also provided at a FSB speed of 100MHz. The 1stMainboard FB11 is constructed around the ever popular and reliable Intel® 440BX chipset and with 4 DIMM offers support for up to 1 GB of SDRAM memory with ECC.

The 1stMainboard FB11 comes with a versatile range of I/O features such as 2 serial ports, 1 parallel port, 1 PS/2 mouse and 1 keyboard connector, 2 USB connectors and 1 front USB pin-header (mfg. option). In addition, the 1stMainboard FB11 comes equipped with 2 dual channeled enhanced PCI bus master IDE connectors. This ATX sized solution has plenty of room for expansion through 1 AGP, 5 PCI and 2 ISA slots.

The 1stMainboard FB11 also boasts Auto Power Failure Recovery, Keyboard/ Mouse Power On functions, is ACPI ready and is also PC99 (ISA option) and Y2K compliant. Included is the CD Pro disc with enhanced drivers and the new CD Plus package containing 9 bundled soft-ware solutions including Clip Art, Norton AntiVirus, Ghost Virtual Drive.

* Not yet tested

Package Checklist

If you discover any item below was damaged or lost, please contact your vendor.

- Ö The mainboard   Ö This user manual
- Ö One FDD cable   Ö One HDD cable
- Ö Two Software CDs (CD Pro, CD Plus and its manual)

Install Memory Modules

This mainboard provides four onboard DIMM sockets supporting 3.3V (un-buffered) SDRAM DIMM modules. Either 32, 64, 128, 256, 512 MB DIMM can be installed on these three sockets. The maximum total memory supported is up to 1 GB.

Install and Remove DIMMs

1. Locate the DIMM slots on the mainboard.
2. Install the DIMM straight down into the DIMM slot using both hands.
3. The clip on both ends of the DIMM slot will close up to hold the DIMM in place when the DIMM reaches the slot's bottom.

Top View of DIMM Socket
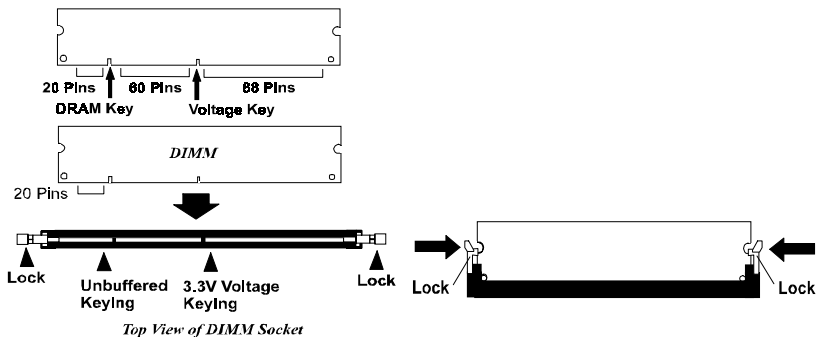
Press the clips with both hands to remove the DIMM.

Install the CPU

The mainboard has built-in Switching Voltage Regulator to support CPU Vcore autodetection. That is, it has the ability to detect and recognize the CPU voltage, clock, ratio and enables users to set up the CPU frequency from the BIOS Setup Screen. Users can adjust the frequency through "Frequency / Voltage Control" of the BIOS Setup Screen.

To install the CPU, do the following:
1. Lift the lever on the side of the CPU socket.
2. Handle the chip by its edges and try not to touch any of the pins.
3. Place the CPU in the socket. The chip has a notch to correctly locate the chip. Align the notch with pin one of the socket. Pin one is located in the blank triangular area. Do not force the chip. The CPU should slide easily into the socket.
4. Swing the lever to the down position to lock the CPU in place.
5. Place the cooling fan with heatsink on top of the installed CPU.

NOTE: The pin alignments might be different for different mainboards. Please follow the directions in step three above to locate pin one and install the CPU.

Connectors

FLOPPY	Floppy Diskette Drive Connector
PRIMARY, SECONDARY	IDE HDD Device Connectors
POWER	ATX Power Connector
SB_LINK	PCI Add-On Audio Card Connector
CPU_FAN	CPU Fan Connector
CHS_FAN	Chassis Fan Connectors
WOL	Wake on LAN Connector
IR	Infrared Port Module Connector
FPNL1 (Front Panel Block Connector)	Connectors for LEDs and Switches on Front Panel
COM1, COM2	Serial Port Connectors
LPT	(Parallel Port) Printer Connector
KB, MS	PS/2 Keyboard and PS/2 Mouse Connector
USB0/1/3	Universal Serial Bus Connectors
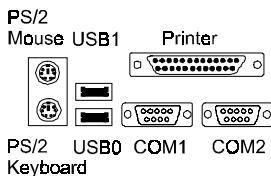
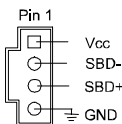## Pin Assignments of Some Connectors
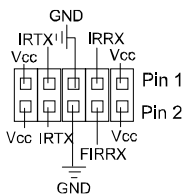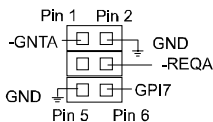
BIOS Setup

Standard CMOS Features allows you to record some basic system hard ware configuration and set the system clock and error handling. If the mainboard is already installed in a working system, you will not need to select this option anymore. However, if the configuation stored in the CMOS memory on the mainboard gets lost or damaged, or if you change the system hardware configuration, you will need to specify the configuration values. The configuration values usually get lost or corrupted when the power of the onboard CMOS battery weakens.

Advanced BIOS Features contains the entries that allows you to improve the system performance, or lets you set up some system features according to your preference. Some entries here are required by the board's design to remain in their default settings.

Advanced Chipset Features controls the configuration of the mainboard's chipset.

Integrated Peripherals allows you to configure the parameters that your peripheral devices provided to take advantage of them.

Power Management Setup allows you to reduce the system power consumption. It provides some features for turning off the video display and shutting down some peripheral devices, such as hard disks, after a specified time period.

PnP/PCI Configurations allows you to set up the PCI bus slots. All PCI bus slots on the system use INTA#, thus all installed PCI adapter cards must be set to this value.

PC Health Status allows you and technicians to monitor data provided by the BIOS on this mainboard. Some of them are not user-configurable.

Frequency/Voltage Control allows you to configure the frequency and voltage of your processor.

Load Fail-Safe Defaults is for settings that provide a more efficient computer. If the computer will not boot, select this option and try to diagnose the problem after the computer boots. These settings do not give optimal performance.

Load Optimal Defaults is selected for settings which provide the best system performance.

Set Supervisor/User Password
To enable the Supervisor/User passwords, select the item from the Standard CMOS Setup. You will be prompted to create your own password. Type your password up to eight characters and press Enter. You will be asked to confirm the password. Type the password again and press Enter. To disable password, press Enter twice when you are prompted to enter a password. A message appears, confirming the password is disabled

Under the BIOS Feature Setup, if *Setup* is selected under the Security Option field and the Supervisor/User Password is enabled, you will be prompted password every time you try to enter the CMOS Setup Utility. If *System* is selected and the Supervisor/User Password is enabled, you will be requested to enter the Password every time when you reboot the system or enter the CMOS Setup utility.

Save & Exit Setup allows you to write the current settings to CMOS and exit.

Exit Without Saving allows you to exit without writing the current settings to CMOS.

NOTE: BIOS Guardian by default is enabled. **It must be disabled in order to reflash BIOS**, thus effectively acts as a fire-wall against viruses that can attack the BIOS while the system is running.

BIOS Guardian can be disabled as follows:
1. Go to BIOS Set Up Menu. (Press **Del** key while booting.)
2. Go to *BIOS Features Setup* Submenu.
3. Disable **BIOS Guardian**.
4. Save the setting, and restart system.