

ME62/ME63/ME64
Intel 810 Family Based
Twin Processors Main Board
User's Manual

Shuttle® Spacewalker™ ME62/ME63/ME64

Twin processor based AGPset Mainboard Manual Version 1.0

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Technical Support

- Contact Your Dealer
- Check Shuttle's Web Site
- Shuttle's (RMA or Warranty?) Policy

1 INTRODUCTION

1.1 To Different Users

First-Time DIY System Builder

Welcome to the DIY world! Building your own computer system is not as difficult as you may think. To make your first computer DIY experience a success, right from the start, we have designed the **Chapter 3 Hardware Installation** section in a step-by-step fashion for all the first-time DIY system builders.

Prior to installation, we also suggest you to read the whole manual carefully to gain a complete understanding of your new Shuttle ME62/ME63/ME64 mainboard.

Experienced DIY User

Congratulations on your purchase of the Shuttle ME62/ME63/ME64 mainboard. You will find that installing your new Shuttle ME62/ME63/ME64 mainboard is just that easy. Bundled with an array of onboard functions, the highly-integrated ME62/ME63/ME64 mainboard provides you with a total solution to build the most stable and reliable system. Refer to section **3.2 Jumper Settings** and **Chapter 4 Software Utility** to find out how to get the best out of your new mainboard. **Chapter 5 BIOS Setup** also contains relevant information on how to tune up your system to achieve higher performance.

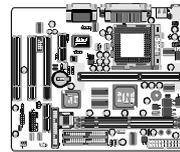
System Integrator

You have wisely chosen Shuttle ME62/ME63/ME64 to construct your system. Shuttle ME62/ME63/ME64 incorporates all the state-of-the-art technology of the i810(E) chipset from Intel. It integrates the most advanced functions you can find to date in a compact Micro/Flex ATX board. Refer to section **3.2 Jumper Settings** and **Chapter 4 Software Utility** for an in-depth view of system construction.

1.2 Item Checklist

Check all items you received with your ME62/ME63/ME64 mainboard to make sure nothing is missing. The complete package should include:

- * One Shuttle ME62/ME63/ME64 Mainboard
(with onboard Slot 1 and Socket 370, built-in Intel i810(E) chipset , MicroATX form factor, including 2xUSB, 2xSerial, and 1xParallel ports, plus 1xPS/2 Keyboard, and 1xPS/2 Mouse connectors.)



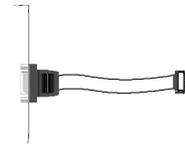
- * One ATA/66 Ribbon Cable



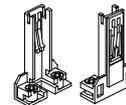
- * One Floppy Ribbon Cable



- * One 9-pin COM2 Cable



- * One set of Universal Retention Mechanism



- * One ME/62/ME63/ME64 User's Manual



- * One Shuttle Spacewalker Bundled CD-ROM containing:

- The ME62/ME63/ME64 user's manual on PDF format
- The Intel INF driver
- The Intel 810(E) VGA driver
- The audio CODEC driver
- The Awdflash Utility



2 FEATURES

The ME62/ME63/ME64 mainboard is carefully designed for the demanding PC user who wants high performance and maximum intelligent features in a compact package.

2.1 Specifications

* CPU Support

< Slot 1 >

Pentium III processors : 500 ~ 666+ MHz

Pentium II processors : 233/66 ~ 333/66 and 350/100 ~ 500/100 MHz

Celeron SEPP processors : 266 ~ 433+ MHz

< Socket 370 >

PGA 370 Celeron processors: 266/66 ~ 500+/66 MHz

PGA 370 Celeron processors: 500+/100 MHz (for future CPU upgrade)

* Chipset

ME62/ME63 : Features 66/100 MHz Intel 810 / 810DC100 system chipset with integrated 2D/3D AGP graphics engine, onboard AC97 Codec digital link sound controller, and I/O subsystems which support UltraDMA 33/66 devices allowing up to 66 MB/sec of disk data transfer speed.

ME64 : Features 66/100/133 MHz Intel 810E system chipset with integrated 2D/3D AGP graphics engine, onboard AC97 Codec digital link sound controller, and I/O subsystems which support UltraDMA 33/66 devices allowing up to 66 MB/sec of disk data transfer speed.

* Versatile Memory Support

ME62/ME63 : Equipped with two DIMM banks of 66MHz/100MHz compliant SDRAM to provide up to 512MB of system memory.

ME64 : Equipped with two DIMM banks of 66MHz/100MHz/133MHz compliant SDRAM to provide up to 512MB of system memory.

* Built-In 2D/3D Graphics Controller

The onboard Intel 810(E) chipset integrates a high-performance 2D/3D graphics controller which provides a full 2D H/W acceleration, and 3D Hyper Pipelined Architecture.

*** PCI Expansion Slots**

Provides three 32-bit PCI slots.

*** UPT and AMR Expansion Slots**

Provides one UPT (USB-PanelLink-TV out) slots and featuring one AMR (Audio/Modem Riser) slot.

*** LPC Super I/O Onboard**

Provides a variety of I/O interfaces:

- 1 × Floppy interface for 3.5-inch FDD with 720KB, 1.44MB, 2.88MB format.
- 1 × PS/2 mouse connector
- 1 × PS/2 Keyboard connector
- 2 × DB9 Serial connectors 16550 UART compatible
- 1 × Infrared communications port ASKIR and HPSIR compatible.
(Serial port COM2 can also be redirected to an external IrDA Adapter for wireless connection.)
- 1 × DB25 Parallel port supporting Standard Parallel Port (SPP), Enhanced Parallel Port (EPP), and Extended Capabilities Port (ECP) data transmission schemes.

*** USB Interface Onboard**

- 2 × USB connectors on back-panel or 10 pin header for USB connectors on front panel.

*** PCI Bus Master IDE Controller Onboard**

Two UltraDMA 33/66 Bus Master Dual-channel IDE ports provide support to a maximum of four IDE devices (one Master and one Slave per channel). The IDE Bus implements data transfer speeds of up to 33/66 MB/sec and also supports Enhanced PIO Modes 3 & 4.

*** ATX Power Supply Connector**

ATX power supply unit can connect to the onboard 20-pin ATX power connector, supporting Suspend and Soft-On/Off by dual-function power button.

* **Advanced Configuration and Power Interface**

Features four power savings modes: S1 (Power On Suspend), S3 (Suspend to RAM), S4 (Suspend to Disk), and S5 (Soft-Off). ACPI provides more efficient Energy Savings Features controlled by your operating system that supports OS Direct Power Management (OSPM) functionality.

* **System BIOS**

Provides licensed Award BIOS V6.0 PG on Intel Firmware Hub with 4 Mb flash core (Intel 4Mb FWH). Supports Green PC, Desktop Management Interface (DMI) and bundled with NCR SCSI BIOS.

* **Micro/Flex ATX Form Factor**

System board conforms to the Micro/Flex ATX specification.
Board dimensions: 228mm × 190mm (9.0" x 7.5")

* **Advanced Features**

- **Dual Function Power Button** - The system can be in one of two states, one is Suspend mode and the other is Soft-Off mode. Pushing the power button for less than 4 seconds places the system into Suspend mode. When the power button is pressed for longer than 4 seconds, the system enters the Soft-Off mode.
- **Keyboard/Mouse Power-On** - This mainboard implements a special jumper to enable a system power-on function by keyboard or PS/2 mouse.
- **Wake-on-LAN (WOL)** - The onboard WOL connector can be attached to a network card that supports this function to wake up the system via the LAN.
- **Modem Ring Power-On** - The system can be powered on automatically by activation of the modem ring.

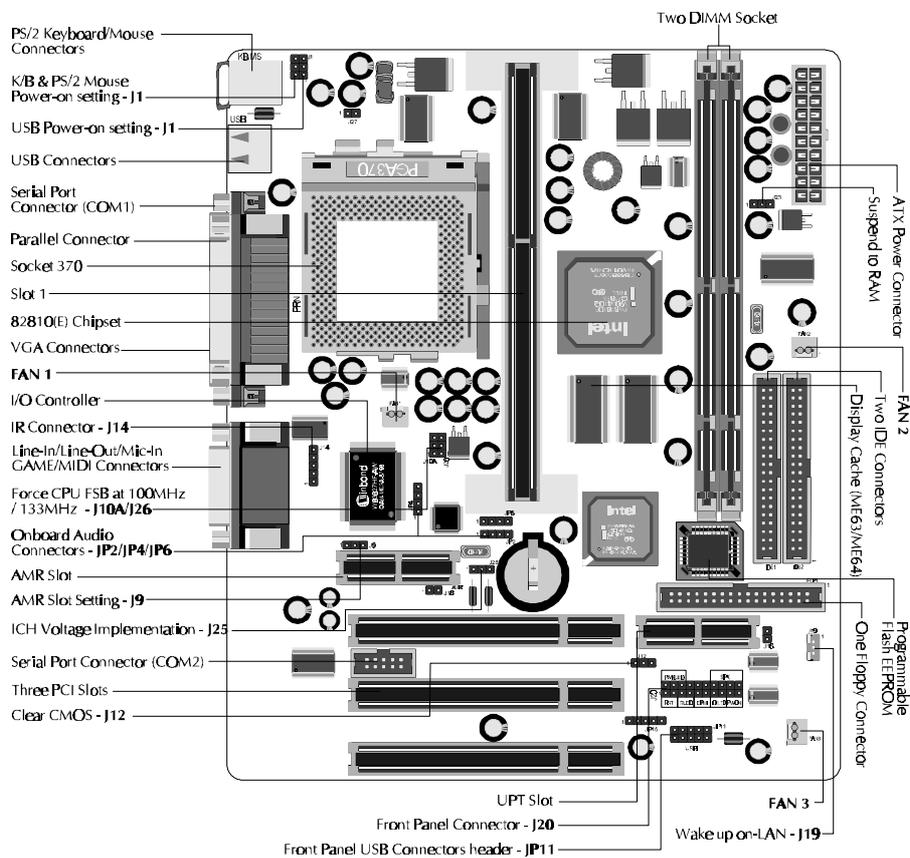
* **Intelligent Features**

- **Voltage Monitoring** - Monitors various voltages of key elements, such as the CPU, and other critical system voltage levels to ensure stable current reach to mainboard components. System voltages include Vcore/ VTT on CPU, and +5V, +12V, -5V, -12V on system.
- **Fan Status Monitoring** - To prevent overheating of CPU, the CPU fan is monitored for RPM and failure. (CPU Cooling FAN with RPM sensor is required.)

3 HARDWARE INSTALLATION

This section outlines how to install and configure your ME62/ME63/ME64 mainboard. Refer to the following mainboard layout to help you identify various jumpers, connectors, slots, and ports. Then follow these steps designed to guide you through a quick and correct installation of your system.

3.1 Step-by-Step Installation

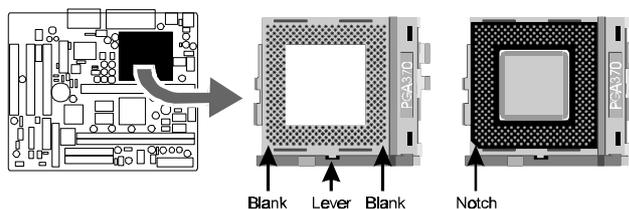


Step 1

Install the CPU:

<The Installation of PPGA Celeron Processor>

1. Locate the CPU ZIF (Zero Insertion Force) socket on the upper-right sector of your mainboard (between the back-panel connectors and the DIMM memory banks).
2. Pull the CPU ZIF socket lever slightly sideways away from the socket to unlock the lever, then bring it to an upward vertical position.
3. Place your PGA 370 Celeron processor in the ZIF socket. Note that the CPU's edges have been purposely designed non-symmetrical to prevent from inserting the processor in the wrong direction. The following diagram demonstrates the correct placement of the CPU in the ZIF socket. You can see that the two blunt-edged corners should face towards the socket-lever.



4. Slightly push the CPU into the socket without applying excessive force while making sure there is no gap between CPU and socket. Then lower the socket-lever all the way down to its horizontal position and lock it to secure the CPU in place.
5. The PGA 370 CPU requires a set of heatsink/fan to ensure proper cooling of the processor. If not already mounted on your CPU, you must purchase the heatsink/fan separately and have it installed. Plug the cable from the heatsink/fan to the CPU fan power connector located at the immediate right of the ZIF socket. Note that there are several types of CPU fan connectors. Normally, if your mainboard supports the hardware monitoring function, a 3-pin fan power connector should allow your system to detect the CPU fan's speed. The CPU fan can also run with a 2-pin fan power connector, however, detection of CPU fan's speed is not supported. Another type of CPU fan may feature a large 4-pin fan power connector, which does not support CPU fan's speed detection and must connect directly to the system's power supply unit.

<The Installation of Pentium II/III Processor>

1. Mark your CPU Frequency

Checking the working frequency of your cpu that should be clearly marked on the CPU cover or write your own combination in the space provided.

2. Pentium II/III Processor Installation

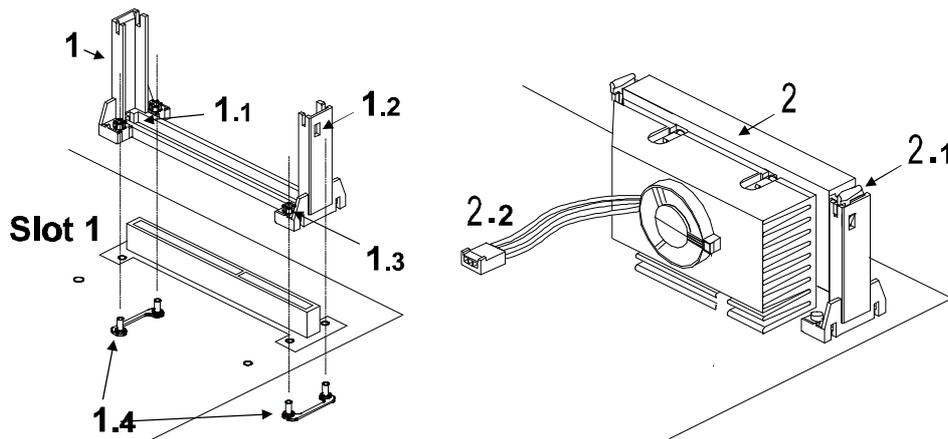
< Locate the Retention Mechanism >

To install a CPU, first turn off your system and remove its cover.

- ✧ Locate the Retention Mechanism (1) around the Slot 1.
- ✧ Take care of the Square Cut Mark (1.1).
- ✧ Fix (1) by inserting Attach Mounts (1.4) up through holes (A1...A4) in the bottom of the mainboard, and screw the four captive nuts (1.3).

< Install the CPU >

- ✧ Insert CPU (2) into the Retention Mechanism (1).
- ✧ Ensure that the alignment notch in the processor fits over the plug (1.2), then push processor down firmly until it is seated.
- ✧ Push the latches (2.1) on the processor outward until they click into place.
- ✧ Connect power cable (2.2) of Fan/Heat Sink.



3. Celeron Processor Installation

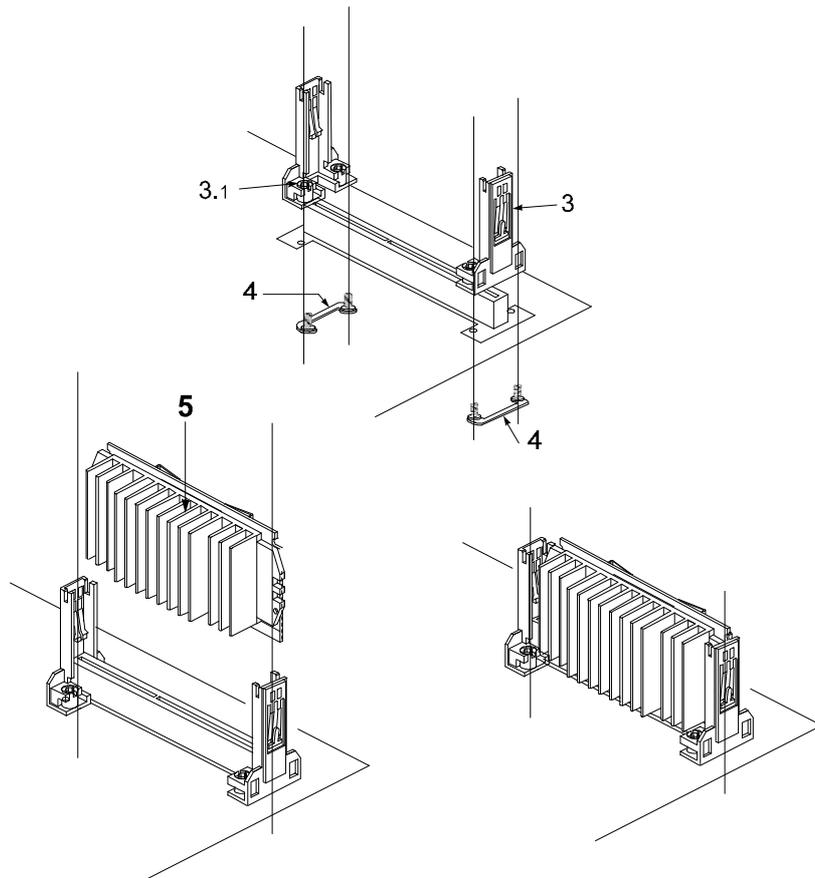
< Locate the Retention Mechanism >

To install a CPU, first turn off your system and remove its cover.

- ✧ Insert two Retention Mechanism (3) on opposite side of Slot 1.
- ✧ Fix (3) by inserting Attach Mounts (4) up through holes (A1...A4) in the bottom of the mainboard, and screw the four captive nuts (3.1).

< Install the CPU >

- ✧ Hold the processor (5) so that the Heatsink is facing toward the DIMM sockets on the mainboard.
- ✧ Slide the processor into the RM. Push the processor down firmly, with even pressure on both sides of the top, until it is seated.



Step 2.

Set Jumpers

This mainboard is jumperless! The default jumper settings have been set for the common usage standard of this mainboard. Therefore, you do not need to reset the jumpers unless you require special adjustments as in any of the following cases:

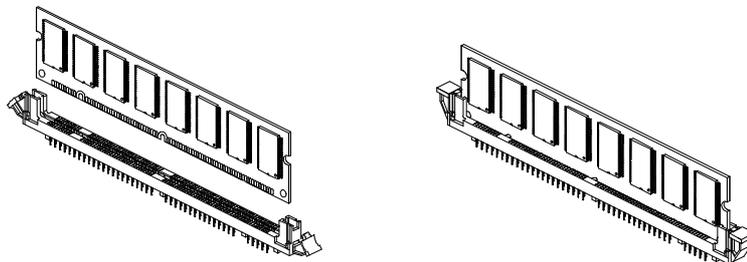
1. Over-clock your CPU
2. Disable the onboard audio before installing an add-on sound card
3. Clear CMOS
4. Clear system password
5. Set the wake up function by keyboard/PS2 mouse

For first-time DIY system builders, we recommend that you do not change the default jumper settings if you are not totally familiar with mainboard configuration procedures. The factory-set default settings are tuned for optimum system performance. For the advanced users who wish to customize their system, section **3.2 Jumper Settings** will provide detailed information on how to configure your mainboard manually.

Step 3

Install SDRAM System Memory

To install memory, insert SDRAM memory module(s) in any one or two DIMM banks. Note that SDRAM modules are directional and will not go in the DIMM slots unless properly oriented. After the module is fully inserted into the DIMM socket, lift the clips of both sides of the DIMM bank to lock the module in place.



Step 4

Install Internal Peripherals in System Case

Before you install and connect the mainboard into your system case, we recommend that you first assemble all the internal peripheral devices into the computer housing, including but not limited to the hard disk drive (IDE /HDD), floppy disk drive (FDD), CD-ROM drive, and ATX power supply unit. This will greatly facilitate in making the connections to the mainboard described below.

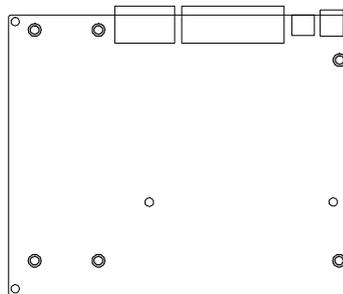
To install IDE & FDD drives, follow this procedure:

1. Set the required jumpers on board each device according to the instructions provided by the manufacturer. (IDE devices, HDD and CD-ROM, have to set jumpers to Master or Slave mode depending on whether you install more than one device of each kind.)
2. Connect IDE cable and FDD cable on the back-panel of the internal peripheral devices. Note that the cable should be oriented with its colored stripe (usually red or magenta) connected to pin#1 both on the mainboard IDE or FDD connector and on the device as well.
3. Connect an available power cable from your system power supply unit to the back-panel of each peripheral device. Note that the power cable is directional and cannot fit in if not properly positioned.

Step 5

Mount the Mainboard on the Computer Chassis

1. You may find that there are a lot of different mounting hole positions both on your computer chassis and on the mainboard. To choose a correct mounting hole, the key point is to keep the back-panel of the mainboard in a close fit with your system case, as shown below.



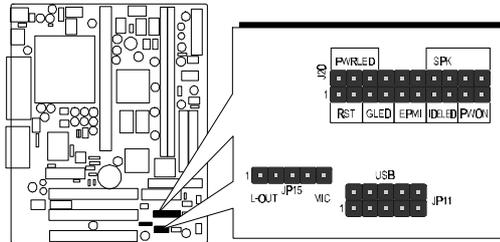
2. After deciding on the proper mounting holes, position the studs between the frame of the chassis and the mainboard. The studs are used to fix the mainboard and to keep a certain distance between the system chassis and the mainboard, in order to avoid any electrical shorts between the board and the metal frame of the chassis. (If your computer case is already equipped with mounting studs, you will need to tighten screws to attach the mainboard.)

Note: In most computer housings, you will be able to find 4 or more attachment points to install mounting studs and fix the mainboard. If there aren't enough matching holes, then make sure to install at least 3 mounting studs to ensure proper attachment of the mainboard.

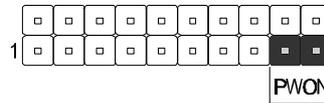
Step 6

Connect Front Panel Switches/LEDs/Speaker/USB connectors

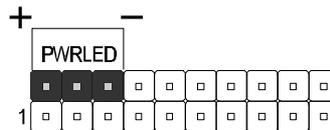
You can find there are several different cables already existing in the system case and originating from the computer's front-panel devices (HDD LED, Power LED, Reset Switch, PC Speaker or connectors for USB devices etc.) These cables serve to connect the front-panel switches, LEDs and USB connectors to the mainboard's front-panel connectors group (J20 and JP11), as shown below.



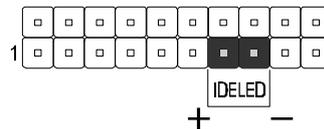
1. ATX Soft Power On/Off



2. Power_LED



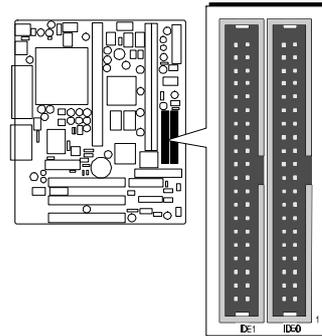
3. HDD_LED



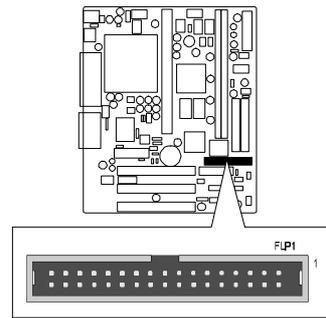
Step 7

Connect IDE & Floppy Disk Drives

1. IDE cable connector



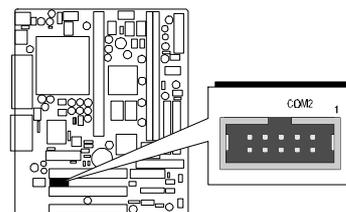
2. FDD cable connector



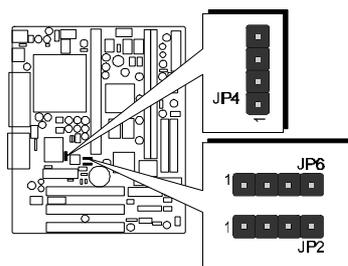
Step 8

Connect Other Internal Peripherals

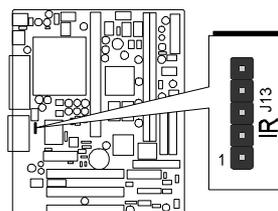
1. COM 2 cable connector



2. CD_IN, AUX_IN, TAD_IN connector



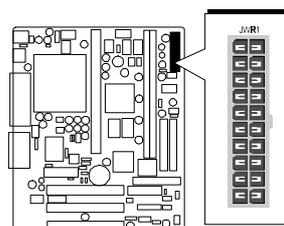
3. SIR/CIR connector



Step 9

Connect the Power Supply

1. System power connector

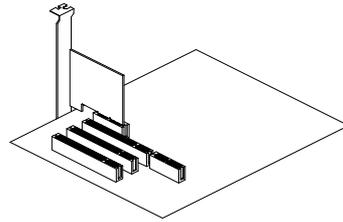


Step 10

Install Add-on Cards in Expansion Slots

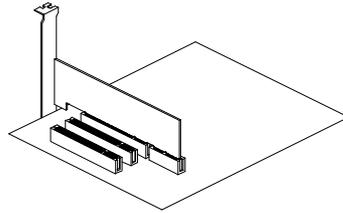
1. Audio Modem Riser (AMR) Card

Note: You may purchase the optional.
Modem Riser Card.

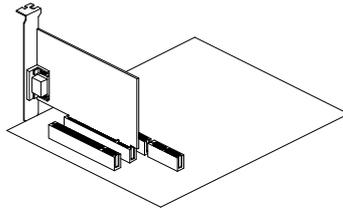


2. USB -PanelLink-TV out (UPT) Card

Note: You may purchase the optional.
CV11 : TV-Out Card.
CV12 : Panel Link Card.
CV14 : USB Hub Card.
CV15 : USB Host Card.



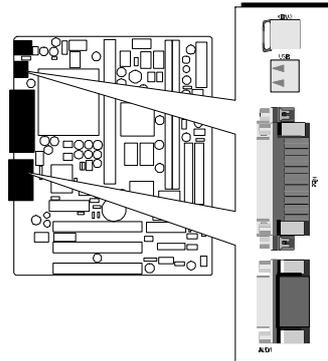
3. PCI Card



Step 11

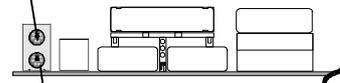
Connect External Peripherals to Back Panel

You are now ready to put the computer case back together and get on to the external peripherals connections to your system's back-panel.



1. PS/2 Mouse and Keyboard

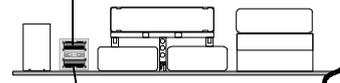
PS/2 Mouse



PS/2 keyboard

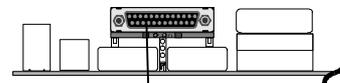
2. USB Devices

USB1



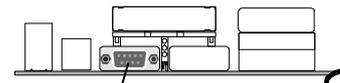
USB0

3. Parallel Port



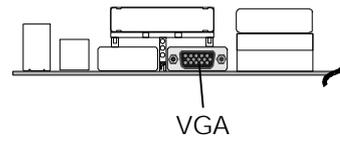
Parallel Port

4. COM1 Port

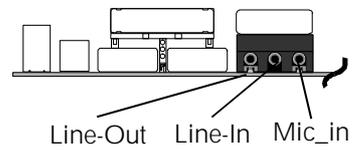


COM1

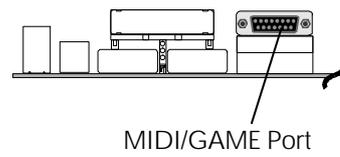
5. VGA connector



6. Audio Line_in / Line_out / Mic_in



7. MIDI/Game Port



Step 12

First Time System Boot Up

To assure the completeness and correctness of your system installation, you may check the above installation steps once again before you boot up your system for the first time.

1. Insert a bootable system floppy disk (DOS 6.2x, Windows 95/98/NT, or others) which contains FDISK and FORMAT utilities into the FDD.
2. Turn on the system power.
3. First, you must use the FDISK utility to create a primary partition of the hard disk. You can also add an extended partition if your primary partition does not use all of the available hard disk space. If you choose to add an extended partition, you will have to create one or more logical partitions to occupy all the space available to the extended partition. The FDISK utility will assign a drive letter (i.e., C:, D:, E:,...) to each partition which will be shown in the FDISK program. After FDISK procedure, reboot your system by using the same system floppy disk.

Note: DOS 6.2x and Windows 95A can only support up to 2.1GB of HDD partition. If you use the FDISK utility with one of the operating systems mentioned above, you can only divide your HDD into partitions no larger than 2.1GB each.

4. Now, use the FORMAT utility to format all the partitions you've created. When formatting the primary partition (C:), make sure to use the `FORMAT C: /S` command.

Note: `FORMAT C: /S` can transfer all the necessary system files into the primary partition of your hard disk. Then, your HDD will become a bootable drive.

5. Install all the necessary drivers for CD-ROM, Mouse, etc.
6. Setup the complete operating system according to your OS installation guide.

Step 13

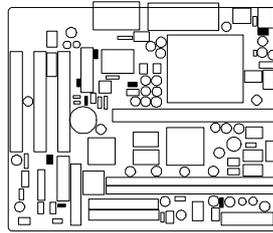
Install Drivers & Software Components

Please note that all the system utilities and drivers are designed for Win 9x operating systems only. Make sure your Windows 9x operating system is already installed before running the drivers installation CD-ROM programs.

1. Insert the ME62/ME63/ME64 bundled CD-ROM into your CD-ROM drive. The auto-run program will display the drivers main installation window on screen.
2. Select the Mainboard related program.
3. Install the INF driver for Win9x.
4. Select the select the Video related program.
5. Install the video driver.
6. Return to the main installation window and select the Audio related program.
7. Install the AD1881 driver.

3.2 Jumper Settings

Several hardware settings are made through the use of jumper caps to connect jumper pins on the mainboard. Pin #1 is located on the top or on the left when holding the mainboard with the keyboard connector or other back-panel connectors opposite from you, as shown below.



3-pin and multi (> 3) pin jumpers show as follows:
Pin #1 on the left:



Pin #1 on the top:



Jumpers with two pins are shown as  for Short [On] or  for Open [Off]. To Short jumper pins, simply place a plastic jumper cap over the desired pair of pins.

Caution!

1. Do not remove the mainboard from its antistatic protective packaging until you are ready to install it.
2. Carefully hold the mainboard by its edges and avoid touching its components. When putting the mainboard down, place it on top of its original packaging film, on an even surface, and components side up.
3. Wear an antistatic wrist strap or take other suitable measures to prevent electrostatic discharge (ESD) whenever handling this equipment.

Jumpers & Connectors Guide

Use the mainboard layout on page 11 to locate CPU socket, memory banks, expansion slots, jumpers and connectors on the mainboard during the installation. The following list will help you identify jumpers, slots, and connectors along with their assigned functions:

CPU/Memory/Expansion Slots

Slot 1	: CPU Socket for Slot 1 Pentium II/III processors
Socket 370	: CPU Socket for PGA 370 Celeron processors
J4, J5	: Two DIMM Sockets for 8, 16, 32, 64, 128, 256 MB 3.3V SDRAM
AMR	: AMR Expansion Slot for Audio / Modem Riser Cards
UPT	: USB Hub / Panel Link / TV-out Expansion Slot for CV11, CV12
PCI	: Three 32-bit PCI Expansion Slots

Jumpers

① J1	: Keyboard & PS/2 Mouse Power-On (requires to always set J1 jumper in order to enable either or both KB & PS/2 mouse power-on functions. In addition, you need to set Power On Function in BIOS setup.)
② J25	: ICH Voltage
③ J9	: AMR Slot Setting
④ J10A & J26	: Force CPU FSB at 100/133MHz
⑤ J12	: Clear CMOS
⑥ J16	: Boot-Block Protection
⑦ J23	: Enable / Disable Suspend To RAM
⑧ J27	: Factory Reserved

Back Panel Connectors

⑨ KB	: PS/2 Keyboard
⑨ MS	: PS/2 Mouse
⑩ USB	: 2 × USB (Universal Serial Bus)
⑪ COM1	: Serial Port 1 (DB9 male)

-
- ⑫ VGA : VGA Port (DB15 female)
 - ⑬ PRINTER : Parallel Port (DB25 female)
 - ⑭ LINE-OUT : Line-Out Port
 - ⑮ LINE-IN : Line-In Port
 - ⑯ MIC-IN : Mic-In Port
 - ⑰ GAME/MIDI : MIDI/Game Port

Front Panel Connectors (J20, JP11 and JP15)

- ⑱ PWON : ATX Power On/Off Momentary Type Switch
- ⑲ GLED : Green LED (ON when system in power savings mode)
- ⑳ EPMI : Hardware System Management Interface Momentary Type switch.
- ㉑ IDE LED : IDE Drive Active LED
- ㉒ RST : Hardware Reset Switch
- ㉓ SPK : Housing Internal Speaker
- ㉔ PWR : System Power LED
- ㉕ USB : Front Panel USB Connector Header (JP11)
- ㉖ L-OUT/MIC : Line-Out and Mic-In Header (JP15)

Internal Peripherals Connectors

- ㉗ FDD : Floppy Disk Drive Interface
- ㉗ IDE0 : IDE Primary Interface (Dual-channel)
- ㉗ IDE1 : IDE Secondary Interface (Dual-channel)

Other Connectors:

- ㉘ JWR1 : ATX Power (20-pin header)
- ㉙ FAN1 : CPU Cooling Fan Power
- ㉙ FAN2 : Housing Cooling Fan Power
- ㉙ FAN3 : AMR Cooling Fan Power
- ㉚ COM2 : COM2 Connector
- ㉛ J13 : SIR/CIR Connector
- ㉜ J19 : Wake-On-LAN Connector
- ㉝ JP2 : AUX in
- ㉞ JP4 : TAD in
- ㉞ JP6 : CD Audio in

1 Set PS/2 or USB Keyboard/ Mouse Power-On Function (J1)

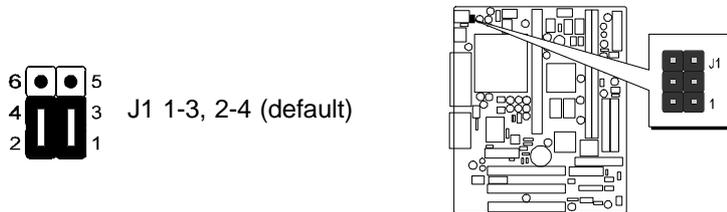
ME62/ME63/ME64 mainboard provides an easy power-on function by PS/2 Keyboard/Mouse or USB Keyboard/Mouse.

Note: When you enable Keyboard Power-On, you also need to configure the proper hot-key combination < Ctrl> + < function key F1 ~ F12> in BIOS setup program.

To Power on the system by PS/2 or USB keyboard, simply strike the proper hot-key. (A hot-key is the combination of < Ctrl> + < configured function key F1 ~ F12>)

To power on the system by PS/2 or USB mouse, you only need to double-click the mouse on the right or left button. (Note that power-on by serial mouse is not supported)

To enable/disable PS/2 or USB keyboard/mouse power-on function, follow the steps outlined below:



Step 1. Adjust the jumper group J1 as shown in the following table.

PS/2, USB Keyboard/Mouse Power-On - J1		
Both PS/2 and USB Keyboard/Mouse Power-On Disabled	PS/2 Keyboard/Mouse Power-On Enabled	USB Keyboard/Mouse Power-On Enabled

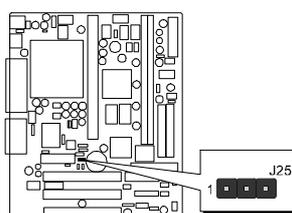
Step 2. Set the Power On field to the proper value in Integrated Peripherals menu of BIOS setup.

② ICH Voltage Setting (J25)

This jumper allows you to select the voltage supplied to the Intel 82801AA (ICH). The default voltage should be used unless some IDE devices need more voltage supplied.

1  Pin 1-2 (3.3V) default

1  Pin 2-3 (3.9V)



③ AMR Slot Setting (J9)

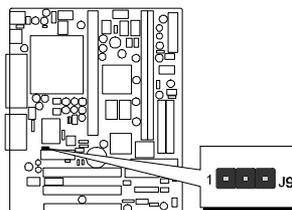
The slot supports a specially designed audio and/or modem card called an AMR. Main processing is done through software and controlled by the motherboard's Intel Controller Hub (ICH). There are two types of AMR, one defined as primary and another defined as secondary. This motherboard uses the primary channel so that a secondary AMR can coexist. The onboard CODEC must be disabled when using a primary AMR.

NOTE: If the user need to disabled onboard CODEC, please enter the BIOS setup program Integrated Peripherals groups, to disabled the AC97 Audio item.

NOTE: An AMR is not included with this motherboard.

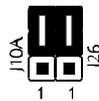
1  Secondary (Default)

1  Primary

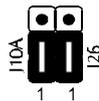


4 Configuring CPU Host Clock (J10A, J26)

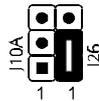
ME62/ME63/ME64 provide jumper J10A and J26 to set CPU host clock auto-detect by system BIOS or hardware configure the CPU host clock to 66MHz, 100MHz or 133MHz manually for over-clocking your 66MHz-based processor up to 100MHz, or over-clocking your 100MHz-based processor up to 133MHz.



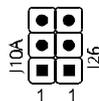
Set CPU host clock Auto-detecting and setting by system BIOS. (Default)



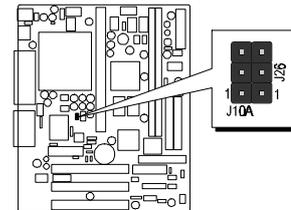
Set CPU host clock hard-configure to 66MHz.



Set CPU host clock hard-configure to 100MHz.



Set CPU host clock hard-configure to 133MHz.



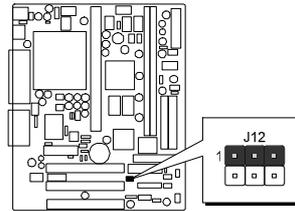
However, ME62/ME63/ME64 provide over clocking feature to processor host clock, it is not a recommended practice, for this may cause severe damage to the system.

Warning : Over-clocking is not a recommended practice for it may damage both the mainboard and the processor.

5 Clear CMOS (J12)

J12 is used to clear CMOS data. Clearing CMOS will result in permanently erasing the previous system configuration settings and restoring the original (factory-set) system settings.

- 1  Pin 1-2 (Default)
- 1  Pin 2-3 (Clear CMOS)

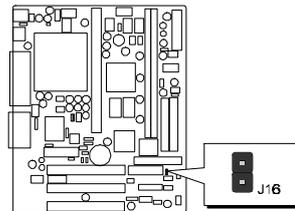


- Step 1. Turn off the system power (PC-> Off)
- Step 2. Remove jumper cap from J12 pins 1-2
- Step 3. Place the jumper cap on J12 pin 2-3 for a few seconds
- Step 4. Return the jumper cap to pin 1-2
- Step 5. Turn on the system power (PC-> On)

6 Boot-Block Protection (J16)

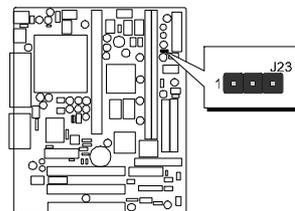
J16 is used to protect the Boot-Block in BIOS. If the virus infects the Boot-Block section, your system will not be able to boot forever. You may choose to open the jumper for Boot-Block protection; however, please close the jumper if you need to reflash the BIOS. A protected Boot-Block may cause your BIOS reflash failed.

-  Close (Default)



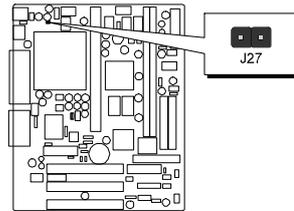
7 Suspend to RAM (J23)

- 1  Pin 1-2 (Disabled Suspend to RAM)
- 1  Pin 2-3 (Suspend to RAM) (Default)



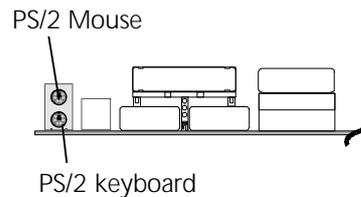
8 Factory Reserved (J27)

 Open (Default)



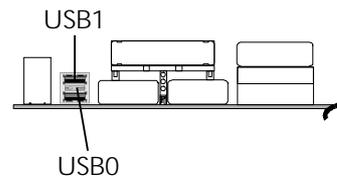
9 PS/2 Keyboard & PS/2 Mouse Connectors

Two 6-pin female PS/2 keyboard & Mouse connectors are located at the rear panel of the mainboard. Depending on the computer housing you use (desktop or minitower), the PS/2 Mouse connector is situated at the top of the PS/2 Keyboard connector when the mainboard is laid into a desktop, as opposed to a minitower where the PS/2 Mouse connector is located at the right of the PS/2 Keyboard's. Plug the PS/2 keyboard and mouse jacks into their corresponding connectors.



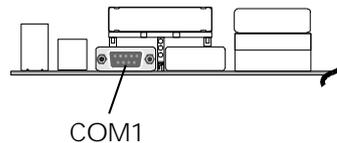
10 USB0/USB1 Port Connectors

Two female connectors USB0/USB1 share the same USB (Universal Serial Bus) bracket at the rear panel of your mainboard. Plug each USB device jack into an available USB0/USB1 connector.



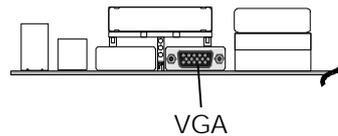
11 COM1 Connector

This mainboard can accommodate one serial device on COM1. Attach a serial device cable to the DB9 serial port COM1 at the back panel of your computer.



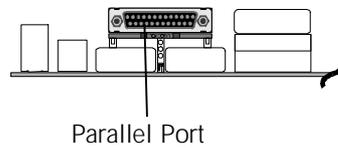
12 VGA Connector

One 15-pin VGA connector is located at the rear panel of the mainboard.



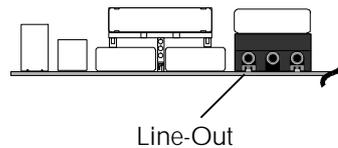
13 Parallel Port Connector

One DB25 female parallel connector is located at the rear panel of the mainboard. Plug the connection cable from your parallel device (printer, scanner, etc.) into this connector.



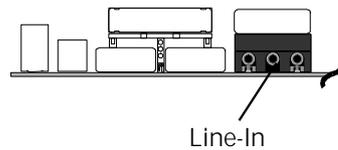
14 Line-Out

Line-Out is a stereo output port through which the combined signal of all internal and external audio sources on the board is output. It can be connected to 1/8-inch TRS stereo headphones or to amplified speakers.



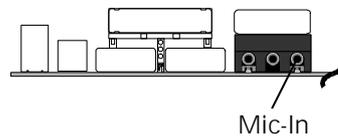
15 Line-In

Line-In is a stereo line-level input port that accepts a 1/8-inch TRS stereo plug. It can be used as a source for digital sound recording, a source to be mixed with the output, or both.



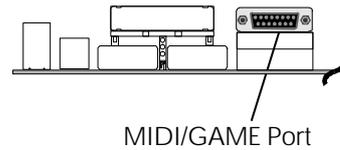
16 Mic-In

MIC-IN is a 1/8-inch jack that provides a mono input. It can use a dynamic mono or stereo microphone with a resistance of not more than 600 Ohms.



17 MIDI/GAME Port

The MIDI/GAME port is a 15-pin female connector. This port can be connected to any IBM PC compatible game with a 15-pin D-sub connector.

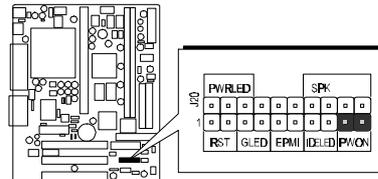


MIDI Instrument Connection

You will need a MIDI adapter to connect a MIDI compatible instrument to the sound card. The MIDI adapter can in turn be connected to the Joystick/MIDE port. You will also need the MIDI sequencing software to run MIDI instruments with your computer.

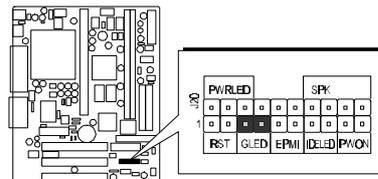
18 ATX Power On/Off Switch Connector (PWON)

The Power On/Off Switch is a momentary type switch used for turning on or off the system's ATX power supply. Attach the connector cable from the Power Switch to the 2-pin PWON header on the mainboard.



19 Green LED Connector (GLED)

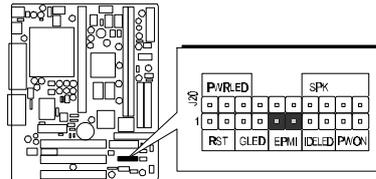
The Green LED (GLED) indicates that the system is currently in one of the power savings mode (Doze/Standby/Suspend). When the system resumes to normal operation, mode, the Green LED will go off. Attach a 2-pin Green LED cable to GLED header.



Note : Please notice the Speaker and all the LED connector is directional. If your chassis's LED does not light during running, please simply change to the opposite direction.

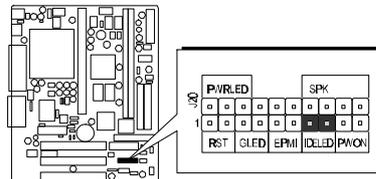
20 EPMI Connector (EPMI)

Hardware System Management Interface (EPMI) header may attach to a 2-pin momentary switch. Press the EPMI switch to force the system into power savings mode; press again to resume normal operation.



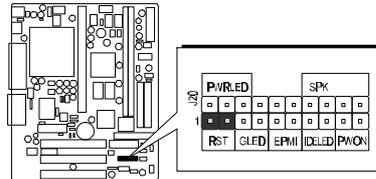
21 HDD LED Connector (IDE LED)

Attach the connector cable from the IDE device LED to the 2-pin HDD LED header. The HDD LED lights up whenever an IDE device is active.



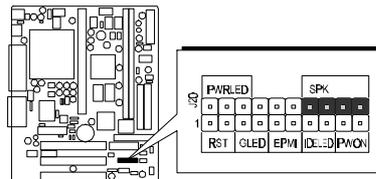
22 Hardware Reset Connector (RST)

Attach the 2-pin hardware reset switch cable to the RST header. Pressing the reset switch causes the system to restart.



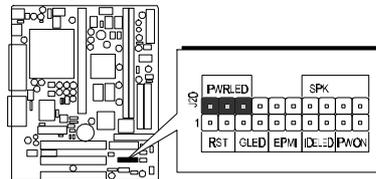
23 Speaker Connector (SPK)

Attach the PC speaker cable from the case to the 4-pin speaker connector (SPK).



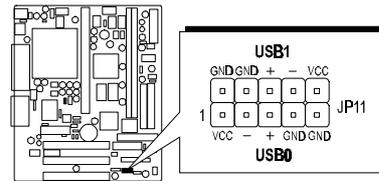
24 PWR LED Connector (PWRLED)

Attach the 3-pin Power-LED connector cable from the housing front panel to the PWR header on the mainboard. The power LED stays lit while the system is running.



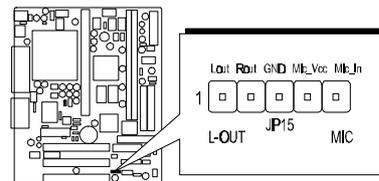
25 Front Panel USB Connector Header

This header used to connect the cable attached to USB connectors which mounted on front panel. USB connectors on front panel shared same signal with USB connectors on back panel, only a USB connector available on front panel or on back panel to each USB0 or USB1.



26 Line-Out and Mic-In Header

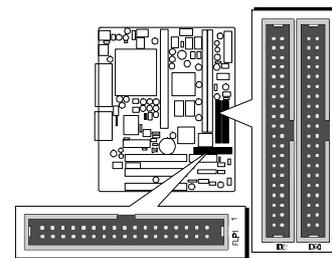
This header used to connect the cable attached to Line-Out and Mic-In phone jack which mounted on front panel. This header shared same signal with Line-Out/Mic-In on back panel.



27 Enhanced IDE Ports and Floppy Connector

The ME62/ME63/ME64 mainboard features two 40-pin dual-channel IDE device connectors (IDE1/IDE0) providing support for up to four IDE devices, such as CD-ROM and Hard Disk Drives (H.D.D.). This mainboard also includes one 34-pin floppy disk controller (FDC) to accommodate the Floppy Disk Drive (F.D.D.). Moreover, this mainboard comes with one 80pin ATA66 ribbon cable to connect to IDE H.D.D. and one 34-pin ribbon cable for F.D.D. connection.

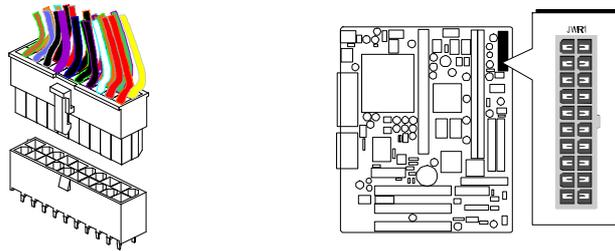
Note: Please connect you system H.D.D. on IDE 0



Important: Ribbon cables are directional, therefore, make sure to always connect with the red cable stripe on the same side as pin #1 of the IDE1/IDE0 or FDC connector on the mainboard.

28 ATX Power Supply Connector (JWR1)

Locate the 20-pin male header ATX power connector (JWR1) on your mainboard. Plug the power cable from the ATX power supply unit directly into JWR1 ATX power supply connector.



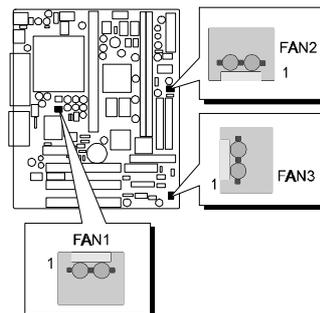
Note 1: The ATX power connector is directional and will not go in unless the guides match perfectly making sure that pin#1 is properly positioned.

Note 2: Make sure the latch of the ATX power connector clicks into place to ensure a solid attachment.

Note 3: This mainboard requires an ATX power supply of at least 200 watts with power good signal.

29 Cooling Fan Connectors for CPU1 (FAN1), CPU2 (FAN2), & Chassis (FAN3)

The mainboard provides three onboard 12V cooling fan power connectors to support CPU1 (FAN1), CPU2 (FAN2), and Chassis device (FAN3) cooling fans.



Note: Both cable wiring and type of plug may vary depending on the fan maker. Keep in mind that the red wire should always be connected to the + 12V header and the black wire to the ground (GND) header.

30 COM2 Connector

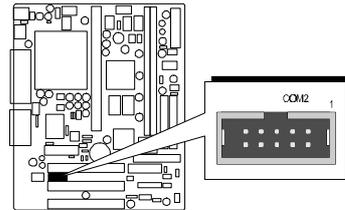
Pin Assignments:

1 = DCD- 2 = RX 3 = TX

4 = DTR- 5 = Ground

6 = DSR- 7 = RTS- 8 = CTS-

9 = RI- 10 = NC



31 SIR/CIR Connector (J13)

If you have an Infrared device, this mainboard can implement SIR (Standard IR) and CIR (Cirsumer IR) transfer function. To enable the IR transfer function, follow these steps:

SIR Pin Assignments:

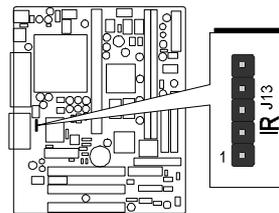
1 = VCC 2 = VCC 3 = IRRX

4 = Ground 5 = IRTX

CIR Pin Assignments:

1 = VCC 2 = CIRRX 3 = NC

4 = Ground 5 = NC

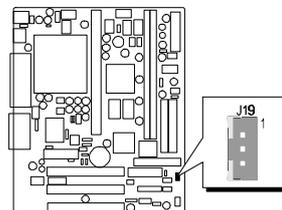


Step 1. Attach the 5-pin infrared device cable to J13 connector. (Refer to the above diagram for IR pin assignment.)

Step2. Configure the Infrared transfer mode in the UR2 Mode field of Integrated Peripherals menu in BIOS Setup. This mainboard supports IrDA, ASKIR, Normal and SCR transfer modes.

32 Wake-on LAN Connector (J19)

Attach a 3-pin connector from the LAN card which supports the Wake-On-LAN (WOL) function. This function lets users wake up the connected system through the LAN card.



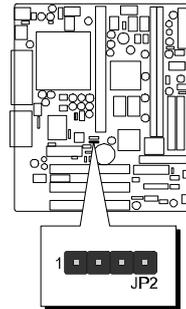
33 Audio Connector AUX_In (JP2)

Port JP2 can be used to connect a stereo audio input from such as CD-ROM, TV-tuner or MPEG card.

Pin Assignments:

1 = AUX_L 2 = Ground

3 = Ground 4 = AUX_R



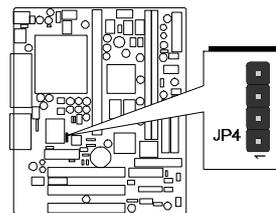
34 Audio Connector TAD_In (JP4)

Port JP4 can be used to connect a modem audio line to ME62/ME63/ME64 mainboard. Typically, you would use this connector when running the voice mail software on your system for audio input and output.

Pin Assignments:

1 = PHONE 2 = Ground

3 = Ground 4 = MONO



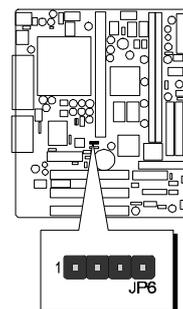
35 Audio Connector CD_In (JP6)

Port JP6 is used to attach an audio connector cable from the CD-ROM drive.

JP6 Pin Assignments:

1 = Right Channel 2 = Ground

3 = Left Channel 4 = Ground



3.3 System Memory Configuration

The ME62/ME63/ME64 mainboard has two 168-pin DIMM sockets that allow you to install from 16MB up to 512MB of system memory with SDRAM (Synchronous DRAM). Each DIMM (Dual In-line Memory Module) socket can accommodate 16MB, 32MB, 64MB, 128MB, and 256MB 3.3V single or double side SDRAM modules. DIMM sockets are arranged in two banks, each memory bank made of one socket and providing a 64 bit wide data path.

Install Memory:

Install memory in any or all of the banks and in any combination, as follows.

DIMM Socket	Memory Modules	Module Quantity
DIMM 1	16MB, 32MB, 64MB, 128MB, 256MB 168-pin 3.3V SDRAM DIMM	x 1
DIMM 2	16MB, 32MB, 64MB, 128MB, 256MB 168-pin 3.3V SDRAM DIMM	x 1

Note: You do not need to set any jumper to configure memory since the BIOS utility can detect the system memory automatically. You can check the total system memory value in the BIOS Standard CMOS Setup menu.

Upgrade Memory:

You can easily upgrade the system memory by inserting additional SDRAM modules in available DIMM banks. The total system memory is calculated by simply adding up the memory in all DIMM banks. After upgrade, the new system memory value will automatically be computed and displayed by the BIOS Standard CMOS Setup menu.

4 SOFTWARE UTILITY

4.1 Mainboard CD Overview

Note: The ME62/ME63/ME64 mainboard attachment CD contents are subject to change without notice.

To start your mainboard CD disc, just insert it into your CD-ROM drive and the CD AutoRun screen should appear. If the AutoRun screen does not appear, double click or run D:\Autorun.exe (assuming that your CD-ROM drive is drive D:)

Navigation Bar Description:

Install Mainboard Software - Installing INF driver for Windows 9x.

Install Display Adaptor Driver Software - Installing Intel 82810(E) Integrated VGA driver.

Install Audio Device Software - Installing onboard AD1881 CODEC audio driver.

Manual - ME62/ME63/ME64 series mainboard user's manual in PDF format.

Link to Shuttle Homepage - Link to shuttle website homepage.

Browse this CD - Allows you to see the contents of this CD.

Quit - Close this CD.



4.2 Install INF Driver

Insert the attachment CD into your CD-ROM drive and the CD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in **My Computer** to bring up **Shuttle Mainboard Software Setup** screen.

Select using your pointing device (e.g. mouse) on the "Install Mainboard Software" bar.



Once you made your selection, a Setup window which automatically runs the installation.

When the files are done copying make sure you **reboot** the system to insure that the files are installed correctly.

Note : When the Windows 95/98 first reboot after Intel INF drivers installed, some new hardware devices will be found and added. For those new hardware devices, related software driver will be searched for installing. The user may find the software drivers retain on directory C:\windows\system if some of software drivers could not be found during searching.

4.3 Install Display Adaptor Driver Software

Insert the attachment CD into your CD-ROM drive and the CD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in My Computer to bring up Shuttle Mainboard Software Setup screen.

Select using your pointing device (e.g. mouse) on the "Install Display Adaptor Driver Software" bar.



Then Display Adaptor Driver Installation windows will appear on your screen. Click on the "Install Intel 810(E) Driver" bar.



Once you made your selection, a Setup window which automatically runs the installation.

When the files are done copying make sure you **reboot** the system to insure that the files are installed correctly.

4.4 Install Audio Device Software

Insert the attachment CD into your CD-ROM drive and the CD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in **My Computer** to bring up **Shuttle Mainboard Software Setup** screen.

Select using your pointing device (e.g. mouse) on the **"Install Audio Device Software"** bar.



Then **Ad1881 Audio Driver** windows will appear on your screen. Click on the **"Install Ad1881 Driver"** bar.



Once you made your selection, a Setup window which automatically runs the installation.

When the files are done copying make sure you **reboot** the system to insure that the files are installed correctly.

4.5 To View the User's Manual

Insert the attachment CD into your CD-ROM drive and the CD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in **My Computer** to bring up **Shuttle Mainboard Software Setup** screen.

Select using your pointing device (e.g. mouse) on the **"Manual"** bar.



Then **Online Information** windows will appear on your screen. Click on the **"Install Acrobat Reader 3.0"** bar if you need to install acrobe reader.



Then click on **"ME62/ME63/ME64 Manual"** bar to view ME62/ME63/ME64 user's manual.

5 BIOS SETUP

ME62/ME63/ME64 BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This information is stored in battery-backed RAM so that it retains the Setup information even if the system power is turned off.

The system BIOS is managing and executing a variety of hardware related functions in the system, including:

System date and time

Hardware execution sequence

Power management functions

Allocation of system resources

5.1 Entering BIOS

To enter the BIOS (Basic Input / Output System) utility, follow these steps:

- Step 1.** Power on the computer and the system will perform its POST (Power-On Self Test) routine checks.
- Step 2.** Press < Del > key immediately or at the following message:
"Press DEL to enter SETUP"
or simultaneously press < Ctrl > , < Alt > , < Esc > keys

Note 1. If you miss the train (the message disappears before you can respond) and you still wish to enter BIOS Setup, restart the system and try again by turning the computer OFF and ON again or by pressing the < RESET > switch located at the computer's front panel. You may also reboot by simultaneously pressing the < Ctrl > , < Alt > , < Del > keys.

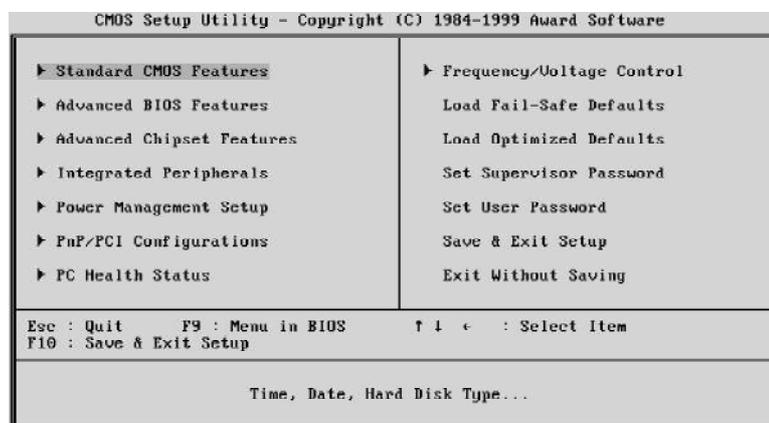
Note 2. If you do not press the keys in time and system does not boot, the screen will prompt an error message and you will be given the following options:

"Press F1 to Continue, DEL to Enter Setup"

Step 3. As you enter the BIOS program, the CMOS Setup Utility will prompt you the Main Menu, as shown in the next section.

5.2 The Main Menu

Once you enter the AwardBIOS(tm) CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions and two exit choices. Use the arrow keys to select among the items and press < Enter > to accept and enter the sub-menu.



Note that a brief description of each highlighted selection appears at the bottom of the screen.

Setup Items

The main menu includes the following main setup categories. Recall that some systems may not include all entries.

Standard CMOS Features

Use this menu for basic system configuration.

Advanced BIOS Features

Use this menu to set the Advanced Features available on your system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize your system's performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management Setup

Use this menu to specify your settings for power management.

PnP / PCI Configuration

This entry appears if your system supports PnP / PCI.

PC Health Status

This entry shows the current system temperature, Voltage and FAN speed.

Frequency/Voltage Control

Use this menu to specify your settings for frequency/voltage control.

Load Fail-Safe Defaults

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

Load Optimized Defaults

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

Supervisor / User Password

Use this menu to set User and Supervisor Passwords.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Save

Abandon all CMOS value changes and exit setup.

Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		
Standard CMOS Features		
Date (mm:dd:yy)	Tue, Oct 5 1999	Item Help
Time (hh:mm:ss)	13 : 38 : 18	Menu Level ▶
▶ IDE Primary Master	Press Enter 6449 MB	Change the day, month, year and century
▶ IDE Primary Slave	Press Enter 2113 MB	
▶ IDE Secondary Master	Press Enter None	
▶ IDE Secondary Slave	Press Enter None	
Drive A	1.44M, 3.5 in.	
Drive B	None	
Video	EGA/UGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	65472K	
Total Memory	1024K	
↑↓:Move Enter:Select +/~/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

Date

< Month> < DD> < YYYY>

Set the system date. Note that the 'Day' automatically changes when you set the date.

Time

< HH : MM : SS>

Set the system time.

IDE Primary Master

Options are in its sub menu.

Press < Enter> to enter the sub menu of detailed options.

IDE Primary Slave

Options are in its sub menu.

Press < Enter> to enter the sub menu of detailed options.

IDE Secondary Master

Options are in its sub menu.

Press < Enter > to enter the sub menu of detailed options.

IDE Secondary Slave

Options are in its sub menu.

Press < Enter > to enter the sub menu of detailed options.

Drive A/Drive B

Select the type of floppy disk drive installed in your system.

- The choice: None, 360K, 5.25 in, 1.2M, 5.25 in, 720K, 3.5 in, 1.44M, 3.5 in, 2.88M, 3.5 in

Video

Select the default video device.

- The choice: EGA/VGA, CGA 40, CGA 80, MONO

Halt On

Select the situation in which you want the BIOS to stop the POST process and notify you.

- The choice: All Errors, No Errors, All, but Keyboard, All, but Diskette, All, but Disk/Key

Base Memory

Displays the amount of conventional memory detected during boot up.

- The choice: N/A

Extended Memory

Displays the amount of extended memory detected during boot up.

- The choice: N/A

Total Memory

Displays the total memory available in the system.

- The choice: N/A

IDE Adapters

The IDE adapters control the hard disk drive. Use a separate sub menu to configure each hard disk drive.

IDE HDD Auto-detection

Press Enter to auto-detect the HDD on this channel. If detection is successful, it fills the remaining fields on this menu.

- Press Enter

IDE Primary Master

Selecting 'manual' lets you set the remaining fields on this screen. Selects the type of fixed disk. "User Type" will let you select the number of cylinders, heads, etc. Note: PRECOMP=65535 means NONE!

- The choice: None, Auto, Manual.

Access Mode

Choose the access mode for this hard disk.

- The choice: Normal, LBA, Large, Auto.

Capacity

Disk drive capacity (Approximated). Note that this size is usually slightly greater than the size of a formatted disk given by a disk checking program.

- Auto Display your disk drive size.

The following options are selectable only if the 'IDE Primary Master' item is set to 'Manual'

Cylinder

Set the number of cylinders for this hard disk.

- Min = 0, Max = 65535

Head

Set the number of read/write heads.

- Min = 0, Max = 255

Precomp

Warning: Setting a value of 65535 means no hard disk.

➤ Min = 0, Max = 65535

Landing zone

Set the Landing zone size.

➤ Min = 0, Max = 65535

Sector

Number of sectors per track.

➤ Min = 0, Max = 255

Advanced BIOS Features

This section allows you to configure your system for basic operation. You have the opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing and security.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software Advanced BIOS Features		Item Help
Virus Warning	Disabled	Menu Level ▶ Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep
Processor Number Feature	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD 0	
Third Boot Device	LS/ZIP	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Disabled	
Boot Up NumLock Status	Off	
TypeMatic Rate Setting	Disabled	
× TypeMatic Rate (Chars/Sec)	6	
× TypeMatic Delay (Msec)	250	
Security Option	Setup	
US Select For DRAM > 64MB	Non USZ	
Report No FDD For WIN 95	No	

F1+:Move Enter:Select +/-/PU/PD:Ualue F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Virus Warning

Allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.

Enabled Activates automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.

Disabled No warning message will appear when anything attempts to access the boot sector or hard disk partition table.

➤ The choice: Enabled/Disabled.

Processor Number Feature

Allows you to Enabled/Disabled , The Pentium III Processor Serial Number.

➤ The choice: Enabled/Disabled.

First/Second/Third/Other Boot Device

The BIOS attempts to load the operating system from the devices in the sequence selected in these items.

- The Choice: Floppy, LS/ZIF, HDD, SCSI, CDROM, LAN, Disabled.

Swap Floppy Drive

If the system has two floppy drives, you can swap the logical drive name assignments.

- The choice: Enabled/Disabled.

Boot Up Floppy Seek

Seeks disk drives during boot up. Disabling speeds boot up.

- The choice: Enabled/Disabled.

Boot Up NumLock Status

Select power on state for NumLock.

- The choice: Off/On.

Gate A20 Option

Select if chipset or keyboard controller should control GateA20.

Normal A pin in the keyboard controller controls GateA20

Fast Lets chipset control GateA20

- The choice: Normal, Fast.

Typematic Rate Setting

Key strokes repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be selected.

- The choice: Enabled/Disabled.

Typematic Rate (Chars/Sec)

Sets the number of times a second to repeat a key stroke when you hold the key down.

- The choice: 6, 8, 10, 12, 15, 20, 24, 30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.

- The choice: 250, 500, 750, 1000.

Security Option

Select whether the password is required every time the system boots or only when you enter setup.

System The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.

Setup The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt.

➤ The choice: System, Setup.

Note: To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press < Enter > , it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.

OS Select For DRAM > 64MB

Select the operating system that is running with greater than 64MB of RAM on the system.

➤ The choice: Non-OS2, OS2.

Report No FDD For Win 95

Whether report no FDD for Win 95 or not.

➤ The choice: Yes, No.

Advanced Chipset Features

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It also coordinates communications between the conventional ISA bus and the PCI bus. It must be stated that these items should never need to be altered.

The default settings have been chosen because they provide the best operating conditions for your system. The only time you might consider making any changes would be if you discovered that data was being lost while using your system.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software	
Advanced Chipset Features	
SDRAM CAS Latency Time	3
SDRAM Cycle Time Trcas/Trc	6/8
SDRAM RAS-to-CAS Delay	3
SDRAM RAS Precharge Time	3
System BIOS Cacheable	Disabled
Video BIOS Cacheable	Disabled
Memory Hole At 15M-16M	Disabled
CPU Latency Timer	Disabled
Delayed Transaction	Enabled
On-Chip Video Window Size	64MB
Local Memory Frequency	100 Mhz
* Onboard Display Cache Setting *	
CAS# Latency	3
Paging Mode Control	Open
RAS-to-CAS Override	by CAS# LT
RAS# Timing	Slow
RAS# Precharge Timing	Slow

Item Help
Menu Level ▶

F1+:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

DRAM Settings

The first chipset settings deal with CPU access to dynamic random access memory (DRAM).

The default timings have been carefully chosen and should only be altered if data is being lost.

Such a scenario might well occur if your system had mixed speed DRAM chips installed so that greater delays may be required to preserve the integrity of the data held in the slower memory chips.

SDRAM CAS Latency Time

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.

➤ The Choice: 2, 3

SDRAM Cycle Time Tras/Trc

Select the number of SCLKs for an access cycle.

- The Choice: 5/7, 6/8.

SDRAM RAS-to-CAS Delay

This field lets you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. Fast gives faster performance; and Slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

- The Choice: 2, 3.

SDRAM RAS Precharge Time

If an insufficient number of cycles is allowed for the RAS to accumulate its charge before DRAM refresh, the refresh may be incomplete and the DRAM may fail to retain data. Fast gives faster performance; and Slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

- The Choice: 2, 3.

System BIOS Cacheable

Selecting Enabled allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

- The choice: Enabled, Disabled.

Video BIOS Cacheable

Select Enabled allows caching of the video BIOS, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

- The Choice: Enabled, Disabled.

Memory Hole At 15M-16M

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

- The Choice: Enabled, Disabled.

Delayed Transaction

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enabled to support compliance with PCI specification version 2.1.

- The Choice: Enabled, Disabled.

On-Chip Video Window Size

Select the on-chip video window size for VGA drive use.

- The Choice: 32MB, 64MB, Disabled.

Local Memory Frequency

Select the memory frequency.

- The Choice: 100MHz, 133MHz.

*** Onboard Display Cache Setting ***

Setting the onboard display cache timing.

CAS # Latency

Select the local memory clock periods.

- The Choice: 2, 3

Paging Mode Control

Select the paging mode control.

- The Choice: Close, Open.

RAS-to-CAS Override

Select the display cache clock periods control.

- The Choice: by CAS# LT, Override(2).

RAS# Timing

This item controls RAS# active to Protegra, and refresh to RAS# active delay (in local memory clocks).

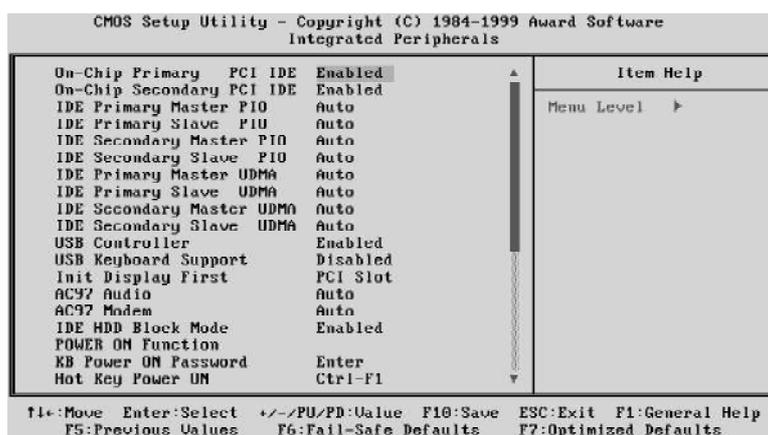
- The Choice: Fast, Slow.

RAS# Precharge Timing

This item controls RAS# precharge (in local memory clocks).

- The choice: Fast, Slow.

Integrated Peripherals



OnChip Primary/Secondary PCI IDE

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select Enabled to activate each channel separately.

- The choice: Enabled, Disabled.

IDE Primary/Secondary Master/Slave PIO

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

- The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

IDE Primary/Secondary Master/Slave UDMA

Ultra DMA/66 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/66, select Auto to enable BIOS support.

- The Choice: Auto, Disabled.

USB Controller

Select Enabled if your system contains a Universal Serial Bus (USB) controller and you have USB peripherals.

➤ The choice: Enabled, Disabled.

USB Keyboard Support

Select Enabled if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard.

➤ The choice: Enabled, Disabled.

Init Display First

This item allows you to decide to active whether PCI Slot or on-chip VGA first.

➤ The choice: PCI Slot, Onboard .

AC97 Audio/Modem

This item allows you to decide to enable/disable the 810 chipset family to support AC97 Audio/Modem.

➤ The choice: Enabled, Disabled.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support.

➤ The choice: Enabled, Disabled

POWER ON Function

This item is used to defined Keyboard & PS/2 mouse power-on function enabled or disabled. The options are Button Only, HOT-Key and PS/2 Mouse.

Button Only - Only soft-on/off button on the front panel is available.

KB Power ON Password

This item set the keyboard power-on password. When using keyboard to power on , just Enter the password.

Hot Key Power ON

Power-on by soft-on/off button and keyboard are available. The user may set power-on hot-key from < Ctrl> < F1> to < Ctrl> < F12> .

Onboard FDC Controller

This item specifies onboard floppy disk drive controller. This setting allows you to connect your floppy disk drives to the onboard floppy connector. Choose the "Disabled" settings if you have a separate control card.

➤ The choice: Enabled, Disabled.

Onboard Serial Port1/Port2

This item is used to define onboard serial port 1 / port 2 to 3F8/IRQ4, 2F8/IRQ3.

UART Mode Select

The main board support IrDA (HPSIR) and Amplitudes Shift Keyed IR (ASKIR) infrared through COM2 port. This item specifies onboard Infra Red mode to IrDA 1.0, ASKIR, MIR 0.57M, MIR 1.15M, FIR or Standard (Disabled).

Note : FIR is not available currently.

RxD, TxD Active

This item specifies the Active level for RxD & TxD signal.

➤ The choice: Hi,Lo , Lo,Hi , Lo,Lo , Hi,Hi.

IR Transmission Delay

This item enabled/disabled the delay of the IR state change from Rx to Tx mode or Tx to Rx mode.

UR2 Duplex Mode

This item specifies onboard infrared transfer mode to full-duplex.

This item will not show up when IrDA, ASKIR, or MIR UR2 modes are selected.

Use IR Pins

This item select the InfraRed module pin out.

Onboard Parallel Port

This item specifies onboard parallel port address to 378H, 278H, 3BCH or Disabled.

Parallel Port Mode

This item specifies onboard parallel port mode. The options are SPP, EPP, ECP, and EPP + ECP.

EPP Mode Select

This item select the EPP Mode, EPP 1.9 or EPP 1.7.

ECP Mode Use DMA

This item specifies DMA (Direct Memory Access) channel when ECP device is in use. The options are DMA 1 and DMA 3. This item will not show up when SPP and EPP printer mode is selected.

PWRON After PWR-Fail

This item to set the ATX power supply status when power resume after unexpected power fail. When off is selected, power supply will maintain on soft-off status, when power is resume. When on is selected, power supply will turn on, and when former-sts is selected, power supply will maintain on the status before unexpected power fail.

Game Port Address

This item select the Game Port Address, 201H or 209H.

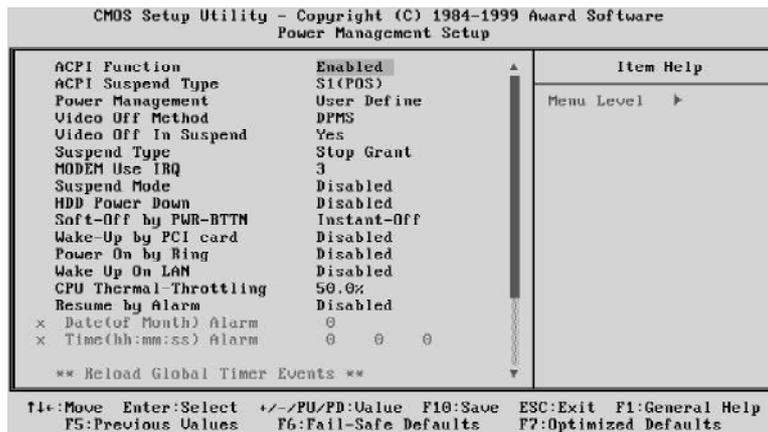
Midi Port Address

This item select the Midi Port Address, 330H, 300H, or 290H.

Midi Port IRQ

This item select the Midi Port IRQ, 5 or 10.

Power Management Setup



The Power Management Setup allows you to configure you system to most effectively save energy while operating in a manner consistent with your own style of computer use.

ACPI Function

This item allows you to enable/disable the Advanced Configuration and Power Management (ACPI).

- The choice: Enabled, Disabled.

ACPI Suspend Type

This item allows you to select sleep state when suspend.

- The choice: S1(POS), S3(STR).

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes: HDD Power Down, Doze Mode, Suspend Mode

- Min. Power Saving** Minimum power management.
 - Doze Mode = 1 hr.
 - Standby Mode = 1 hr.
 - Suspend Mode = 1 hr.
 - HDD Power Down = 15 min.

Max. Power Saving Maximum power management --
ONLY AVAILABLE FOR SL CPU's.
Doze Mode = 1 min.
Standby Mode = 1 min.
Suspend Mode = 1 min.
HDD Power Down = 1 min.

User Defined Allows you to set each mode individually.
When not disabled, each of the ranges are
from 1 min. to 1 hr. except for HDD Power
Down which ranges from 1 min. to 15 min.
and disable.

- The choice: Min Saving, Max Saving, User Define.

Video Off Method

This determines the manner in which the monitor is blanked.

V/H SYNC + Blank This selection will cause the system to turn off
the vertical and horizontal synchronization
ports and write blanks to the video buffer.

Blank Screen This option only writes blanks to the video
buffer.

DPMS Initial display power management signaling.

- The choice: V/H SYNC+ Blank, Blank Screen, DPMS

Video Off In Suspend

This determines the manner in which the monitor is blanked.

- The choice: Yes, No.

Suspend Type

Select the Suspend Type.

- The choice: PwrOn Suspend, Stop Grant.

MODEM Use IRQ

This determines the IRQ in which the MODEM can use.

- The choice: 3, 4, 5, 7, 9, 10, 11, NA.

Suspend Mode

When enabled and after the set time of system inactivity, all devices
except the CPU will be shut off.

- The choice: 1Min, 2Min, 4Min, 8Min, 12Min, 20Min, 30Min,
40Min, 1Hour, Disabled.

HDD Power Down

When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

- The choice: 1Min, 2Min, 4Min, 8Min, 12Min, 20Min, 30Min, 40Min, 1Hour, Disabled.

Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung."

- The choice: Delay 4 Sec, Instant-Off.

Wake-Up by PCI card

This item Enabled/Disabled PCI card wakeup for PCI Spec 2.2.

- The choice: Enabled, Disabled.

Power ON by Ring

This item determine the system will resume by activating of modem ring.

- The choice: Enabled, Disabled.

Wake Up On LAN

This item determine the system will resume by activity of LAN. If enabled this feature system will power-on itself from power off when the activity of LAN.

Note ME62/ME63 /ME64 support Wake-ON-LAN function with Intel LAN card only.

- The choice: Enabled, Disabled.

CPU Thermal-Throttling

Select the CPU Therma-Throttling rate.

- The choice: 12.5%, 25.0%, 37.5%, 50.0%, 62.5%, 75.0%, 87.5%.

Resume by Alarm

This item determine the system will resume by activity of R.T.C. If enabled this feature and enter resume date and time. When date and time expire, system will power-on itself from power off.

- The choice: Enabled, Disabled.

Date (of Month) Alarm

This item select the alarm date.

- Key in a DEC number: Min=0, Max=31.

Time (hh : mm : ss) Alarm

This item select the alarm time.

*** **Reload Global Timer Events** ***

If any of these items is set to Disabled, that system activity event will not be monitored to reload global timer.

If these items is set to Enabled, that system activity event will be monitored to reload global timer.

These items include Primary IDE0/1, Secondary IDE 0/1, Floppy Disk, Serial Port, Parallel Port and PCI PIRO [A-D]#.

PnP/PCI Configuration

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software PnP/PCI Configurations		
PNP OS Installed	No	Item Help Menu Level → Select Yes if you are using a Plug and Play capable operating system. Select No if you need the BIOS to configure non-boot devices.
Reset Configuration Data	Disabled	
Resources Controlled By	Auto(ESCD)	
x IRQ Resources	Press Enter	
x Memory Resources	Press Enter	
PCI/UGA Palette Snoop	Disabled	
INT Pin 1 Assignment	Auto	
INT Pin 2 Assignment	Auto	
INT Pin 3 Assignment	Auto	
INT Pin 4 Assignment	Auto	

F4: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

PNP OS Installed

This item allows you to determine install PnP OS or not.

➤ The choice: Yes, No.

Reset Configuration Data

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system can not boot.

➤ The choice: Enabled, Disabled .

Resource controlled By

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows 95.

If you set this field to "manual" choose specific resources by going into each of the sub menu that follows this field (a sub menu is preceded by a ">").

- The choice: Auto(ESCD), Manual.

IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

IRQ3/4/5/7/9/10/11/12/14/15 assigned to

This item allows you to determine the IRQ assigned to the ISA bus and is not available to any PCI slot. Legacy ISA for devices compliant with the original PC AT bus specification, PCI/ISA PnP for devices compliant with the Plug and Play standard whether designed for PCI or ISA bus architecture.

- The choice: Legacy ISA and PCI/ISA PnP.

Memory Resources

This sub menu can let you control the memory resource.

Reserved Memory Base

Reserved a low memory for the legacy device(non-PnP device).

- The choice: C800, CC00, D000, D800, DC00, D400, N/A.

Reserved Memory Length

Reserved a low memory length for the legacy device(non-PnP device).

- The choice: 8K, 16K, 32K, 64K.

PCI/VGA Palette Snoop

Leave this field at Disabled.

- The choice: Enabled, Disabled.

INT Pin 1/INT Pin 4 Assignment

Select the PCI IRQ assignment for each PCI INT Pin.

- The choice: Auto, 3, 4, 5, 7, 9, 10, 11, 12, 14, 15.

PC Health Status

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		
PC Health Status		
CPU Warning Temperature	Disabled	Item Help
Current System Temp.	XXX/XXF	Menu Level →
Current CPU1 Temperature	XXX/XXF	
Current CPU2 Temperature	XXX/XXF	
Current CPUFAN1 Speed	XXXXRPM	
Current CPUFAN2 Speed	XXXXRPM	
Current CPUFAN3 Speed	XXXXRPM	
IN0(U)	XXV	
IN1(U)	XXV	
IN2(U)	XXV	
+5 U	XXV	
+12 U	XXV	
-12 U	-XXV	
-5 U	XXV	
UBAT(U)	XXV	
SUSB(U)	XXV	
Shutdown Temperature	75°C/167°F	

F1: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

CPU Warning Temperature

Since the mainboard support CPU temperature monitoring and over-heat alert. This item allows the user to set the threshold of CPU warning temperature. When CPU temperature over the threshold, system will slow down clock to prevent CPU damage.

- The choice: Disabled, 50°C/122°F, 53°C/127°F, 56°C/133°F, 60°C/140°F, 63°C/145°F, 66°C/151°F, 70°C/158°F.

Current System Temp

Since the mainboard support System temperature monitoring and over-heat alert. This item indicate the current main board temperature.

Current CPU1/2 Temperature

Since the mainboard support CPU temperature monitoring and over-heat alert. This item indicate the current Processor temperature.

Current CPUFAN1/2/3 Speed

The mainboard can detect three fans rotation speed for CPU cooler and system.

IN0(V) ~ IN2(V), +5V ~ -5V

The mainboard support CPU and mainboard voltages monitoring. The onboard hardware monitor is able to detect the voltages output of the voltage regulators and power supply.

VBAT(V)

Battery voltage.

5VSB(V)

5V standby voltage by MicroATX power.

Shutdown Temperature

Select the combination of lower and upper limits for the system shutdown temperature, if your computer contains an environmental monitoring system. If the temperature extends beyond either limit, the system shuts down.

➤ The choice: 60°C/140°F, 65°C/149°F, 70°C/158°F, 75°C/167°F.

Frequency/Voltage Control

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		Frequency/Voltage Control	
Auto Detect DIMM/PCI Clk	Disabled	Item Help	
Spread Spectrum	Disabled	Menu Level ▶	
CPU Host/SDRAM Clock	Default		
CPU Ratio	X Z		

F4: Move Enter: Select +/-: PU/PD: Value F10: Save ESC: Exit F1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

Auto Detect DIMM/PCI Clk

This item allows you to enable/disable auto detect DIMM/PCI Clock.

- The choice: Enabled, Disabled.

Spread Spectrum

This item allows you to enable/disable the spread spectrum modulate.

- The choice: Disabled, 0.25%(Center), 0.5%(Down).

CPU Host/SDRAM Clock

- The choice: Default, 66/100MHz, 70/109MHz, 72/112MHz, 75/105MHz, 100/100MHz, 105/109MHz, 109/112MHz, 112/105MHz, 133/100MHz, 140/150MHz, 124/124MHz, 133/100MHz, 150/150MHz, 140/140MHz.

CPU Ratio

This item allows you to select the CPU ratio.

- The choice: 2X, 2.5X, 3X, 3.5X, 4X, 4.5X, 5X, 5.5X, 6X, 6.5X, 7X, 7.5X, 8X.

Load Fail-Safe Defaults

When you press < Enter > on this item you get a confirmation dialog box with a message similar to:

Load Fail-Safe Defaults (Y/N) ? N

Pressing 'Y' loads the BIOS default values for the most stable, minimal-performance system operations.

Load Optimized Defaults

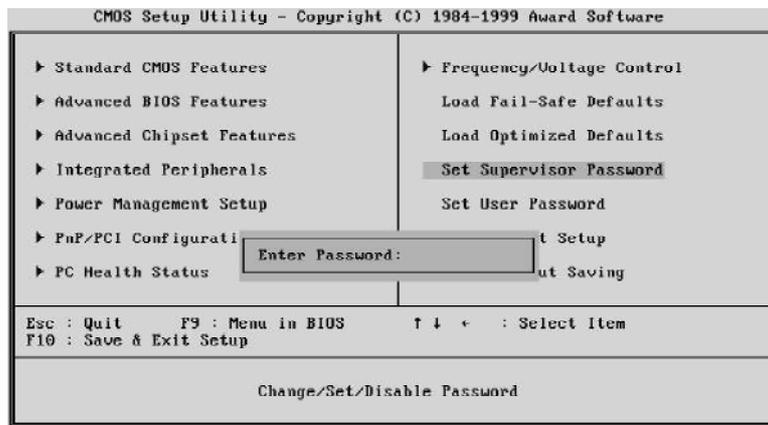
When you press < Enter > on this item you get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N) ? N

Pressing 'Y' loads the default values that are factory settings for optimal performance system operations.

Supervisor/User Password Setting

You can set either supervisor or user password, or both of them. The differences between are:



Supervisor Password and User Password

The options on the Password screen menu make it possible to restrict access to the Setup program by enabling you to set passwords for two different access modes: Supervisor mode and User mode.

In general, Supervisor mode has full access to the Setup options, whereas User mode has restricted access to the options. By setting separate Supervisor and User password, a system supervisor can limit who can change critical Setup values.

Enter Password

Type the password, up to eight characters, and press < Enter > . The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press < Enter > . You may also press < Esc > to abort the selection and not enter a password.

To disable password, just press < Enter > when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

Password Disable

If you select System at Security Option of BIOS Features Setup Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup. If you select Setup at Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

Warning : Retain a record of your password in a safe place. If you forget the password, the only way to access the system is to clear CMOS, please refer to page 33 "Clear CMOS".

Save & Exit Setup

Pressing < Enter > on this item asks for confirmation:

Save to CMOS and EXIT (Y/N)? Y

Pressing "Y" stores the selections made in the menus in CMOS - a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS. After saving the values the system is restarted again.

Exit Without Saving

Pressing < Enter > on this item asks for confirmation:

Quit without saving (Y/N)? Y

This allows you to exit Setup without storing in CMOS any change. The previous selections remain in effect. This exits the Setup utility and restarts your computer.