

AM810ME

Micro ATX Form Factor Mother Board User' s Manual (ver 1.0)

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Chapter 1 Introduction

1-1 Overview

The motherboard utilizes Intel's i810 chipset integrated with new architects such as integrated graphic, sound, ULTRA DMA-66, USB & AMR is designed to FC-PGA or PPGA Celeron / Coppermine P!!! / VIA Cyrix III Socket-370 CPUs.

Intel's i810 is a cost-effective yet high-performance chipset which has integrated graphics controller (i752) with a 24 Bit 230MHz RAMDAC & software MPEG2 decoder. It supports UMA (unified memory architect) mode up to 64MB with main memory or 4MB 3D texture memory (or called display cache, optional function) that can accelerate its 3D graphics performance. The on board AC-97 CODEC chip provides perfect 3D sound function.

The main board also employs ITE I/O LPC controller with full Plug and Play device and keyboard password setup. It supports 2.88 MB Floppy, Dual 16550 compatible (with 16 bytes FIFO, up to 460K baud rate) serial Port, ECP (Enhanced Capabilities Port), EPP (Enhanced Parallel Port) parallel port, SPP(Standard Parallel Port), Infrared IrDA (HPSIR), and Amplitude Shift Keyed IR. (ASKIR) port and hardware monitor functions too.

The main board contains 2*PCI for highest performance I/O add-on adapter cards. The system board supports three Bus Mastering Slots for high-performance I/O add-on cards. It supports Matrix Independent PCI routing for optimal multiple PCI adapter operations and is PCI2.2 specification compliant. 133MB/s data transfer rate can be compared to 33MB/s. It supports back to back sequential CPU to PCI Memory writes to PCI Burst Write for full PCI throughput. The AMR Slot is designed to fit low cost A(Audio) M(Modem) R(Riser) or MR card.

The main board has 2 dual in-line memory modules (DIMM), which can be installed with PC-100 SDRAM memory (PC-133 with i810E Chipset only). The memory subsystem supports up to 512 MB SDRAM of non-buffered 3.3V using standard 168-pin DIMM sockets.

The main board is strengthened with Power Management Wake up Event such as “Modem ring on” which is the new invention to enable PCs to be turned on via the network or modem function. These are also key benefits in PC operation, asset management, new system setup and power conservation.

In addition to the above hardware features, this main board is Jumper-less design which allows user to set CPU frequency through BIOS. With this design, the disadvantages of setting hardware CPU jumpers are improved to a better and easier procedure through BIOS.

In conclusion, the system chipset and design make the main board a high performance, cost-effective, and energy efficient main board which meets a variety of price / performance levels. The main board is an ideal platform for the increasing requirements of today’s and future’s desktop applications.

- CPU Installation

This model is a jumper-less main board, there is no selector needed for CPU frequency selection,, Please load optimized Defaults in the CMOS setting.,

The main board will automatically detect CPU frequency (66/100/133 MHz)

1-2 Specifications

- **Chipset** : The board can apply either i810DC-100 or i810E chipsets listed below:

Type	810-DC100	810-E
North	GMCH	GMCH-E
South	ICH	ICH
FSB	100MHz	133MHz
Display Cache	Yes, 100MHz	Yes, 100MHz
ATA	ATA66	ATA66
PCI REQ/GNT	6	6

- **CPU** : can take current Socket-370 P!!! 66/100/133MHz (133 MHz with i810E only) , Cyrix III & Celeron CPUs.
- **Memory** : accepts 2 * DIMM in PC-100/PC-133(with i810E only) specification memory
- **VGA** : On chip 3D graphics function with shared 4MB 3D texture memory (or called display cache) (shared 4MB display cache optional)
- **Sound** : Provides sound function with AC-97 3D sound CODEC.
- **Expansion Slot** : 2 x PCI slots, 1 x AMR(used for AMR card or MR card)
- **IDE** : support ULTRA DMA-66 mode
- **PCB Board size** : 17.0cm x 24.5cm, Micro ATX form factor
- **Optional Items** :
 - TV-out (Chrontel CH7007 chip is needed)



Caution : System needs at least PC-100 memory & over 5VSB \geq 1 Ampere current ATX power supply for this main board

● **Other features**

- Modem ring on
- Windows 95/98 power off
- Keyboard wake-up
- Mouse wake-up
- DMI, ACPI supported BIOS

1-3 Limitation

There are some limitations on i810 chipset shown as below:

1. Hardware:

- * Must use PC-100 specification DIMM (PC-133 for i810E only)
- * Must use over 5VSB \geq 1 Ampere current.

2. Software (Driver or BIOS):

- * Windows 95 & 98 don't provide driver (utilities) for i810 chipset. User needs to install driver carefully before using this board

1-4 Notice of Hardware Installation

A. Check the package

Please verify that all items listed above are included in your motherboard package. If one of the items is missing, please contact the dealer where you bought your motherboard.

➤ The AM810ME/AM810MECD Motherboard



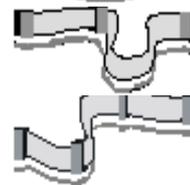
➤ 1 AM693VS User's Manual



➤ 1 Driver Installation CD-ROM



➤ 1 IDE ATA 66/100 Flat-Cable



➤ 1 Floppy Disk Drive Flat-Cable

B. Make sure power is off.

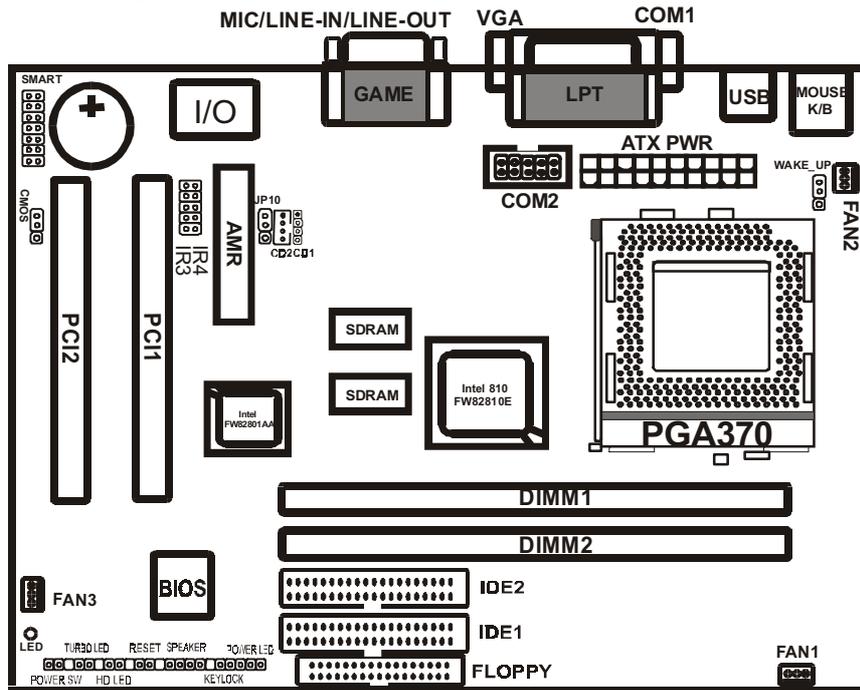
During hardware installation, be sure that there is no power connected in this period.

C. Avoid ESD (Electrical Static Discharge)

While working with this main board, always wear a grounded wristband or ankle strap to avoid ESD (Electrical Static Discharge).

Chapter 2 Installation

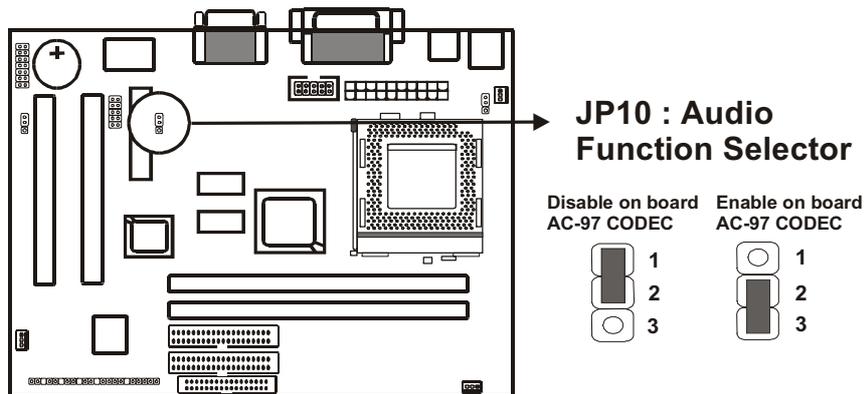
2-1 Layout Reference



2-2 Jumper Setting

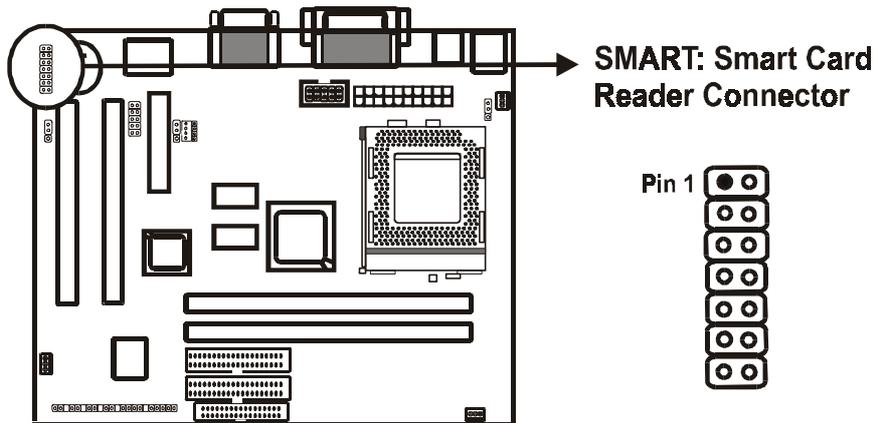
2-2-1 JP10 : Audio Function Selector

JP10 is a 3-pin jumper to enable/disable on board audio function. Set “1-2” to disable on board audio function and use AMR card installed on slot, set “2-3” to enable on board audio function and use MR card installed on slot.



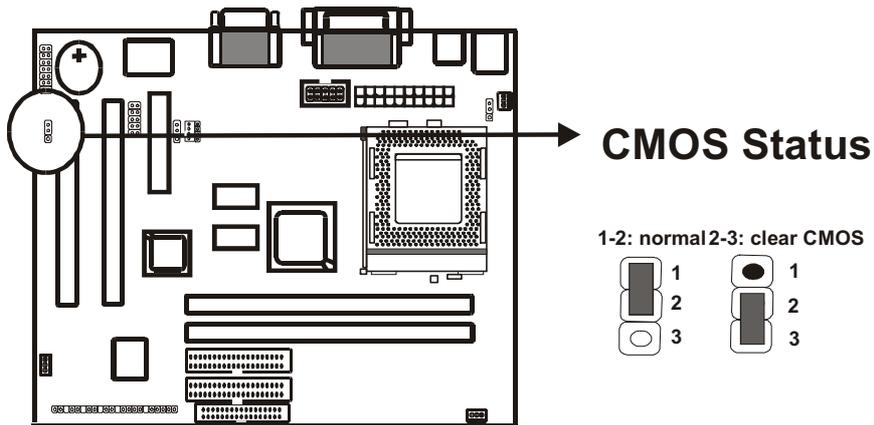
2-2-2 SMART: Smart Card Reader Connector(Optional)

The Smart Card is capable of providing secured storage facilities for sensitive personal information (such as Private keys, Account numbers, Passwords, Medical information, etc...). The Smart Card Reader can be used for a broad range of application in GSM, ID, pay TV, banking, ... and so forth.



2-2-3 CMOS Status

Please clear CMOS if password is forgotten. Below is the details to clear CMOS.



Procedure to clear CMOS:

- Step 1: Shut down the system and disconnect the power supply from AC power.
- Step 2: Pull out the power supply cable from the power connector.
- Step 3: Short the CMOS jumper by putting jumper cap on Pin 2-3 for a few seconds.
- Step 4: Return the cap to pin 1-2 at normal setup.
- Step 5: Link the power cable to the connector & connect AC power to power supply.
- Step 6: Turn on system power.

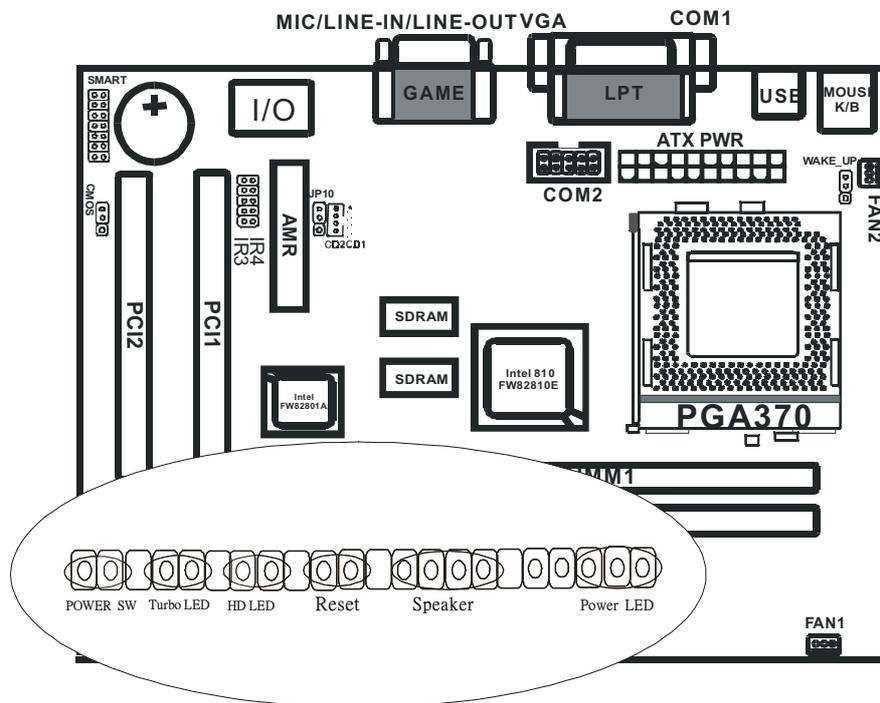
If you'd like to set password, press "Del" Key during system boot up to enter CMOS setup and establish a new password.

2-3 Connectors

There are many connectors on this main board. Refer to the following pages for details.

2-3-1 Front Panel

Front panel has connectors such as “POWER-LED,” “SPEAKER,” “RESET,” “HD-LED,” “TB-LED,” ”POWER-SW.” Please refer to the following further information.



POWER-LED is a 3-pin connector. It is used to connect to the LED on the case front panel. The LED shows the status of the power.

SPEAKER is a 4-pin keyed Berg strip. It is used to connect the case speaker to the main board for sound effect.

RESET is a 2-pin keyed Berg strip, connected to the push button reset switch on the case's front panel. Shorting both pin 1 & pin 2 can reset the system, which is similar to the power off and then on again.

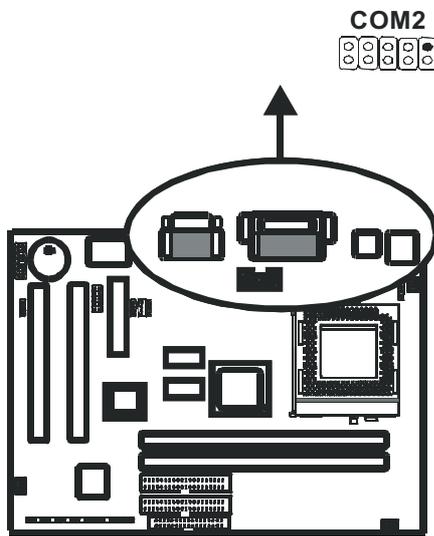
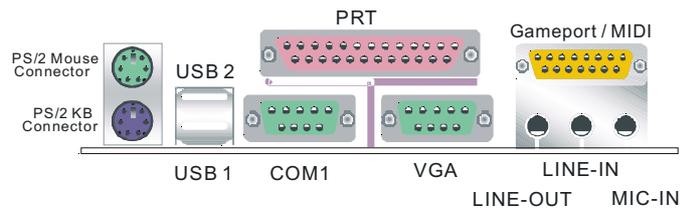
HD-LED (Hard Disk activity LED connector) is a 2-pin keyed Berg strip. It is used to connect to front panel Hard Disk LED.

TURBO-LED is a 2-pin Berg strip on case front panel indicates the current speed status of system.

POWER-SW. is a 2-pin connector which controls power "on" and "off".

2-3-2 Back Panel Connectors

Back Panel Connectors are GAME Port, MIC, LINE-IN, LINE-OUT, COM1/COM2, LPT, USB, PS/2 keyboard, and PS/2 mouse on case back panel. Refer to below details.



COM1 & COM2

The onboard serial port 1 and port 2 are the 9-pin D-subminiature male connector COM1 and COM2. COM1 and COM2 can be disabled in BIOS setup. Please refer to Chapter 3 “Integrated Peripherals” for more information.

KBD/PS2 MOUSE

The onboard PS/2 keyboard and mouse connectors are 6-pin Mini-Din connectors.

LPT

The onboard parallel port is a 25-pin female connector. It supports standard printer port, Enhanced Parallel Port (EPP), Extended Capabilities Port (ECP), Standard Parallel Port (SPP).

USB: USB (Universal Serial Bus) Connector

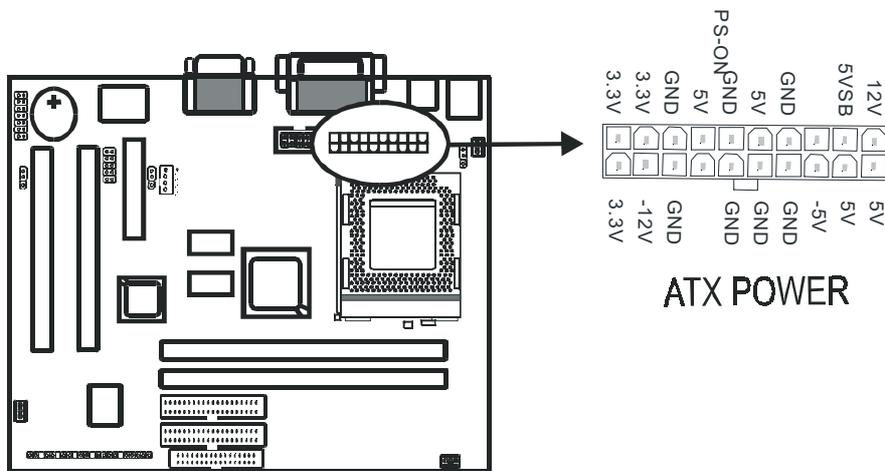
Universal Serial Bus connector, marked as “USB,” is used to connect USB devices. There are 2 USB connectors on this main board.

Midi/Game Port & External Audio Connectors

Midi/Game port has 15 pins connecting to the game joystick. External Audio connectors are “LINE-OUT, LINE-IN, MIC-IN” for audio functions.

2-3-3 ATX Power Supply Connector

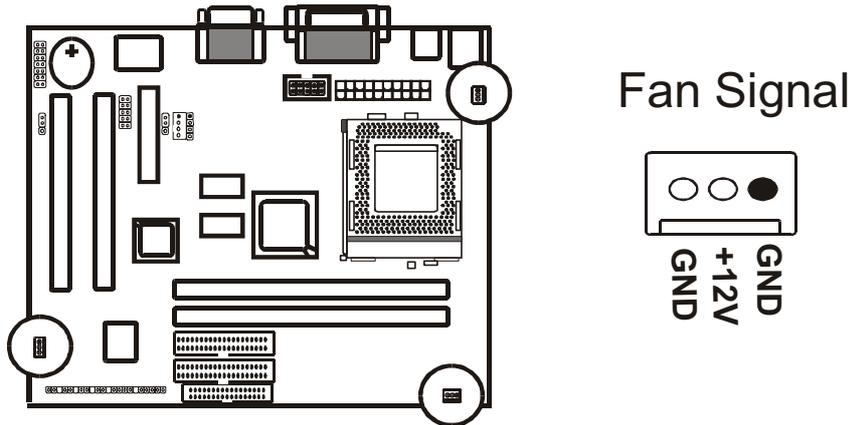
ATX power connector has 20 pins, which is designed for ATX case especially. The ATX power supply supports the function of the “**Soft Power On Momentary switch**” which connects on the front panel switch to the 2-pin **SOFT-PWR** on the system board. While the power switch on the back of ATX power is turned on, the full power will not go into the system board until the front panel switch is momentarily pressed. Push the switch again to turn off the power to the system board.



To support i810 chipset, we suggest that Pin 17 signal 5VSB on ATX Power supply should be able to offer at least 750 mA driving ability.

2-3-4 Fan Connectors

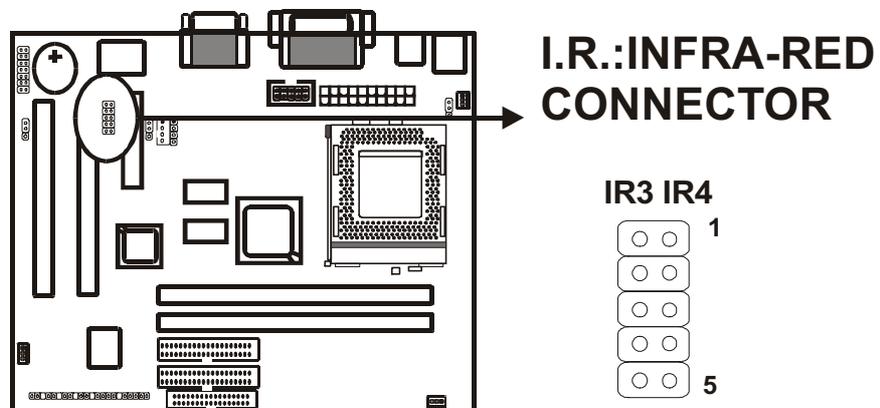
There are 3 fan connectors on this system board, and it is marked as “FAN”. Each fan connector has three pins.



2-3-5 I.R. : IrDA Connector

IR connector supports wireless infrared module. With this module and application software like Laplink, or Win95 Direct Cable Connection, user can transfer data to or from laptops, notebooks, PDA and printers. This connector supports **HPSIR**, **ASKIR**, and **Fast IR**.

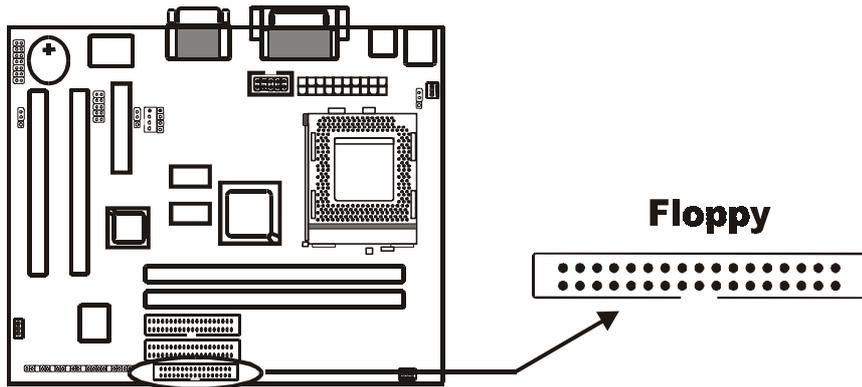
Attach Infrared module to IR connector. Be sure to put in the right orientation during attachment.



	IR3(normal IR)	IR4(consumer IR)
1	VCC	VCC
2	NC	NC
3	IRRX	CIRRX
4	GND	GND
5	IRTX	CIRTX

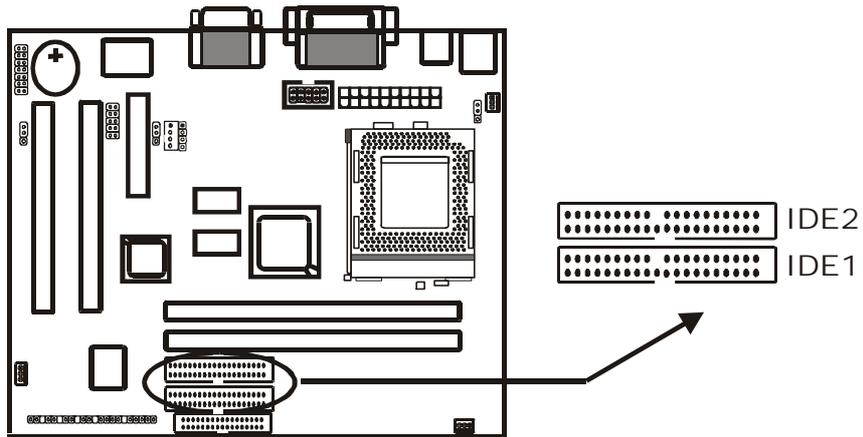
2-3-6 Floppy Disk Connector

Floppy Disk connector has 34 pins and is used to attach the floppy drive cable.



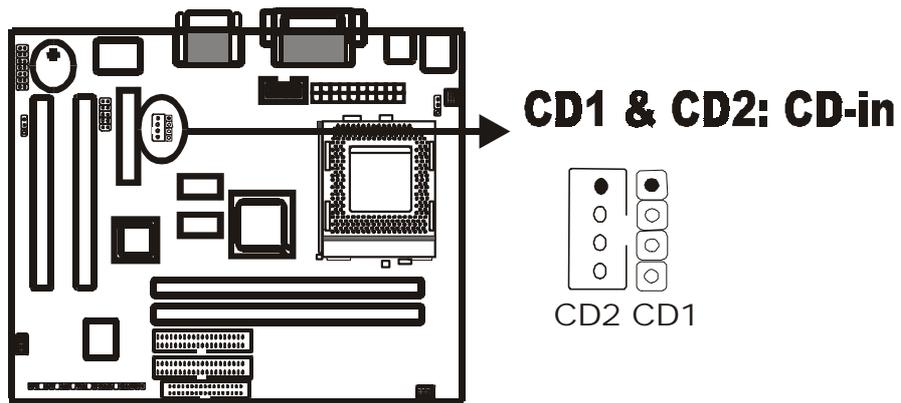
2-3-7 IDE1 & IDE2

IDE1 and IDE2 are 39 – pin IDE connectors (Ultra 66). **IDE1** is primary channel, and **IDE2** is secondary channel. Each channel supports 2 IDE devices, and 4 devices in total for this main board.



2-3-8 CD1& CD2: CD-in

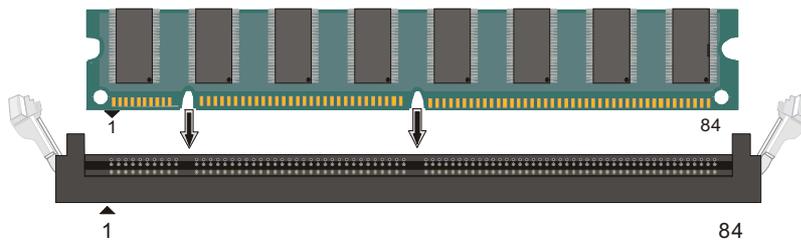
CD1 & CD2 is a CD ROM external audio input signal to line-out (speaker) of the main board.



2-4 DIMM Installation

Please make sure DIMM is 3.3V DIMM. Either DIMM1 or DIMM2 supports 8 MB, 16 MB, 32 MB, 64 MB, and 128MB. Maximum memory for **SDRAM is up to 512 MB**. The user may insert DIMM modules in either DIMM1, or DIMM2.

Insert the module as shown. Due to different number of pins on either side of the breaks, the module will only fit in the orientation as shown. SDRAM DIMM modules have different pin contacts on each side and therefore have a higher pin density.



SDRAM memory supports PC-100 DIMM or above.

Chapter 3 BIOS Setup

3-1 Award® BIOS CMOS Setup



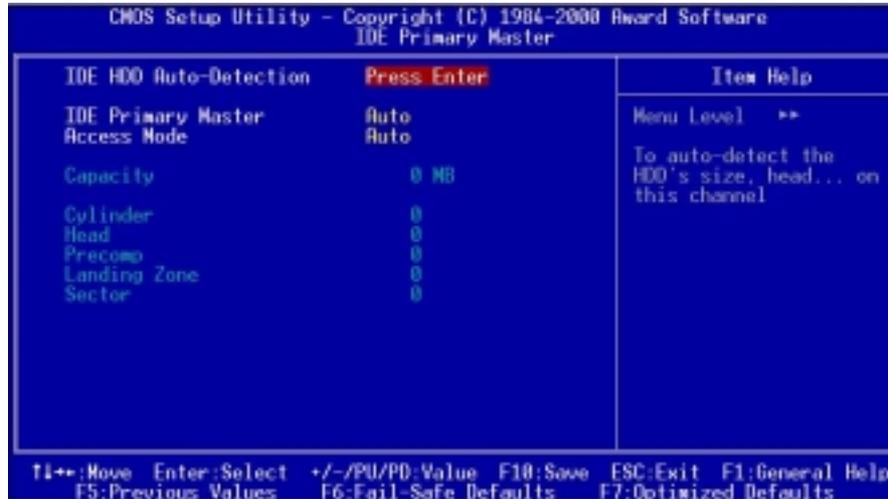
The menu displays all the major selection items and allows user to select any of the shown item. The selection is made by moving cursor (press any direction key) to the item and press <Enter> key. An on-line help message is displayed at the bottom of the screen as cursor is moves to various items which provides user better understanding of each function. When a selection is made, the menu of the selected item will appear. So the user can modify associated configuration parameters.

3-1-1 Standard CMOS Features



The "Standard CMOS Features" allows user to configure system setting such as **current date and time, type of hard disk drive** installed in the system, **floppy drive type**, and the type of **display monitor**. Memory size is auto detected by the BIOS and displayed for your reference. When a field is highlighted (direction keys to move cursor and <Enter> key to select). The entries in the field will be changed by pressing <PageDown> or <PageUp> key or user can enter new data directly from the keyboard.

Hard Disk Configurations



1. IDE HDD Auto-Detection : press this item to Auto Detect the HDD type.

2. IDE Primary Master : select "AUTO" to detect the mode type automatically. Select "NORMAL" users have to redefine the following 4-8 items according to HDD. "NONE" means this item disabled.

3. Access Mode : select "AUTO" to detect the mode type automatically. If your hard disk supports the **LBA** mode, select "**LBA**" or "**LARGE**" or "**CHS**". However, if your hard disk cylinder is more than 1024 and does not support the LBA function, you have to set at "**LARGE**." Select "**NORMAL**" if your hard disk supporting cylinder is below 1024.

-
4. **Cylinder** : the cylinder number of the hard disk.
 5. **Head** : the read/write head number of hard disk. The range is from "1" to "16".
 6. **Precomp** : the cylinder number at which the disk drive changes the write timing.
 7. **Landing Zone**: the cylinder number that the disk drive heads (read/write) are seated when the disk drive is parked.
 8. **Sector** : the sector number of each track defined on the hard disk. The range is from "1" to "64".



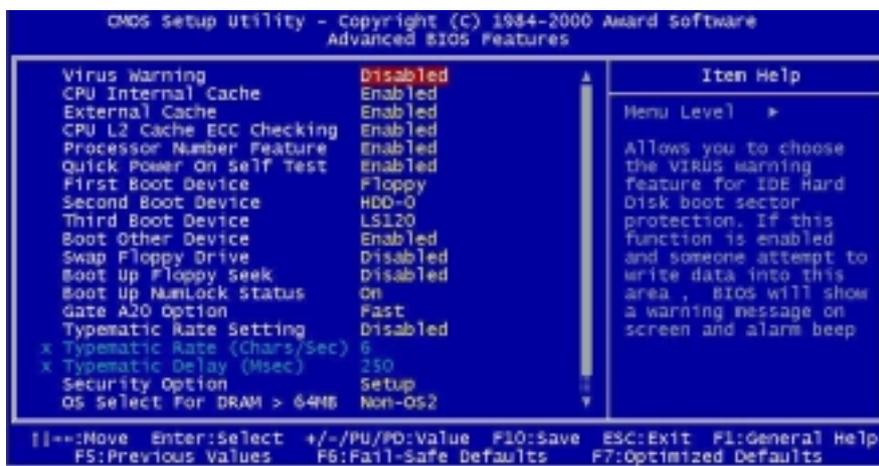
Note1: if hard disk primary master/slave and secondary master/slave were set to "**auto**", the hard disk size and model will be auto detected on display during POST.



Note2: "halt on" is to determine when to halt the system by the BIOS if error occurred during POST.

3-1-2 Advanced BIOS Features

Menu below shows all of the manufacturer's default values of this main board. Move the cursor by pressing <PageDown>/- or <PageUp>/+ key to modify the parameters, press [F1] key to display help message of the selected item. This setup program also provide 2 convenient ways to load the default parameter data from BIOS [F6] and [F7] area if shown data is corrupted. This provides the system a capability to recover from any possible error.



VIRUS WARNING

:Enabled

:Disabled (default)

CPU INTERNAL CACHE

:Enabled : enable L1 cache(default)

:Disabled: disable L1 cache

EXTERNAL CACHE

:Enabled: enable L2 cache (default)

:Disabled: disable L2 cache

CPU L2 CACHE ECC CHECKING

:Enabled enable L2 cache ECC checking (default):

:Disabled: disable L2 cache ECC checking

PROCESSOR NUMBER FEATURE

:Enabled(default)

: Disabled

QUICK POWER ON SELF TEST

This category speeds up power on self test.

:Enabled : BIOS will shorten or skip some check items. (default)

:Disabled: normal speed

FIRST BOOT DEVICE

This category determines which drive the system searches first. System will search in turn for floppy disk drive; then hard disk drive, and finally Floppy drive. Default value is “**FLOPPY**”. Options are as below:

FLOPPY; LS120; HDD-0; SCSI; CDROM; HDD-1; HDD-2; HDD-3; ZIP100; LAN; Disabled

SECOND BOOT DEVICE

This category determines which drive the system searches first. System will search in turn for floppy disk drive; then hard disk drive, and finally Floppy drive. Default value is “**HDD-0**”. Options are as below:

FLOPPY; LS120; HDD-0; SCSI; CDROM; HDD-1; HDD-2; HDD-3; ZIP100; LAN; Disabled

THIRD BOOT DEVICE

This category determines which drive the system searches first. System will search in turn for floppy disk drive; then hard disk drive, and finally Floppy drive. Default value is “**LS120**”. Options are as below:

FLOPPY; LS120; HDD-0; SCSI; CDROM; HDD-1; HDD-2; HDD-3; ZIP100; LAN; Disable

BOOT OTHER DEVICE

:Enabled(default)

:Disabled

SWAP FLOPPY DRIVE

:Enabled: floppy A&B will be swapped.

:Disabled(default): floppy A&B will not be swapped.

BOOT UP FLOPPY SEEK

BIOS will determine if the floppy disk drive is 40 or 80 tracks. 360k type is 40 tracks while 720K/1.2M and 1.44M are all 80 tracks. Default value is enabled.

:Enabled

:Disabled (default)

BOOT UP NUMLOCK STATUS

:On (default)

:Off

GATE A20 OPTION

:Normal

:Fast (default)

TYPOMATIC RATE SETTING

This determines the typematic rate.

:Enabled: enable typematic rate and typematic delay programming.

:Disabled (default) : disable typematic rate and typematic delay programming.

The system BIOS will use default value of this 2 items and the default is controlled by keyboard.

TYPOMATIC RATE(CHARS/SEC)

6 : 6 Characters Per Second (default)

8 : 8 Characters Per Second

10 :10 Characters Per Second

12 : 12 Characters Per Second

15 : 15 Characters Per Second

20 : 20 Characters Per Second

24 : 24 Characters Per Second

30 : 30 Characters Per Second

TYPOMATIC DELAY (MSEC)

This is the interval between the first and second character displayed.

250 : 250 msec (default)

500 : 500 msec

750 : 750 msec

1000 :1000 msec

SECURITY OPTION

Item	Function	Note
Setup (default)	Security protection in CMOS setup menu	After setting password in BIOS CMOS “ Supervisor Password ” or User Password, ” it protects BIOS CMOS setup.
System	Security protection in system boot-up & BIOS setup	This function secures the system under system boot-up and BIOS setup after setting password.

OS SELECT FOR DRAM> 64MB

This option is especially set for OS2 operating system. Set “**OS2**” for RAM memory over 64MB and set “**Non-OS2**” for other operating systems like Windows® 95/98 or NT.

:Non-OS2 (default)

:OS2

HDD S.M.A.R.T CAPABILITY

:Enabled

:Disabled (default)

REPORT NO FDD FOR WIN 95

:No (default)

:Yes

3-1-3 Advanced Chipset Features



SDRAM CAS LATENCY TIME

: 2
: 3 (default)

SDRAM CYCLE TIME TRAS/TRC

: 5/7
: 6/8 (default)

SDRAM RAS- TO- CAS DELAY

This controls the DRAM page miss and row miss leadoff timing.

: 2
: 3 (default)

SDRAM RAS PRECHARGE TIME

SDRAM precharge time by RAS.

: 2
: 3 (default)

SYSTEM BIOS CACHEABLE

define whether system BIOS area cacheable or not.

: **Enabled** (default)
: **Disabled**

VIDEO BIOS CACHEABLE: to define whether video BIOS area cacheable or not.

: **Enabled** (default)
: **Disabled**

MEMORY HOLE AT 15M-16M: this field enables a memory hole in main memory space. CPU cycles matching an enabled hold are passed on to PCI note that a selection can not be changed while the L2 cache is enabled.

: **Enabled**
: **Disabled** (default)

CPU LATENCY TIMER:

:Enabled
:Disabled (default)

DELAY TRANSACTION

:Enabled (default)
:Disabled

ON-CHIP VIDEO WINDOW SIZE

:64M(default)
:Disabled

LOCAL MEMORY FREQUENCY

:100MHz(default)
:133MHz

ONBOARD DISPLAY CACHE SETTING

CAS# Latency
:3(default)
:2

PAGING MODE CONTROL

:Close
:Open (default)

RAS-TO-CAS OVERRIDE

:by CAS # LT(default)
:Override(2)

RAS# TIMING

:Slow
:Fast (default)

RAS# PRECHARGE TIMING

:Slow
:Fast (default)

3-1-4 Integrated Peripherals



ONCHIP PRIMARY PCI IDE

:Enabled(default)
:Disabled

ONCHIP SECONDARY PCI IDE

:Enabled(default)
:Disabled

IDE PRIMARY MASTER PIO

This feature detects your primary master hard disk device.
:Auto (default)
:Mode 0,1,2,3,4

IDE PRIMARY SLAVE PIO

This feature detects your primary slave hard disk device.
:Auto (default)
:Mode 0,1,2,3,4

IDE SECONDARY MASTER PIO

This feature detects your secondary master hard disk device.

:Auto (default)

:Mode 0,1,2,3,4

IDE SECONDARY SLAVE PIO

This feature detects your secondary slave hard disk device.

:Auto (default)

:Mode 0,1,2,3,4

IDE PRIMARY MASTER UDMA

:Auto(default)

:Disabled

IDE PRIMARY SLAVE UDMA

:Auto(default)

:Disabled

IDE SECONDARY MASTER UDMA

:Auto(default)

:Disabled

IDE SECONDARY SLAVE UDMA

:Auto(default)

:Disabled

USB CONTROLLER

:Enabled(default)

:Disabled

USB KEYBOARD SUPPORT

:Enabled

:Disabled(default)

INIT DISPLAY FIRST

:PCI Slot (default)

:Onboard

AC97 AUDIO

:Auto(default)

:Disabled

AC97 MODEM

:Auto
:Disabled(default)

IDE HDD BLOCK MODE

:Enabled(default)
:Disabled

POWER ON FUNCTION

:Any Key
:Button Only(default)
:Keyboard 98
:Password
:Hot Key
:Mouse Move
:Mouse Click

KB POWER ON PASSWORD

:enter (default)

HOT KEY POWER ON

:Ctrl-F1 (default) ~ **Ctrl-F12**

ONBOARD FDC CONTROLLER

Select Enabled if your system has a floppy disk controller(FDC) installed on the system board and if you wish to use it.

:Enabled (default)
:Disabled

ONBOARD SERIAL PORT 1

Select an address and corresponding interrupt for the first serial port.

:Auto (default)
:2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, 3F8/IRQ4, Disabled

ONBOARD SERIAL PORT 2

Select an address and corresponding interrupt for the second serial port.

:Auto (default)
:2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, 3F8/IRQ4, Disabled

UART MODE SELECT

:Normal (default)
:IrDA

:ASKIR
:SCR

UR2 DUPLEX MODE

Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time.

:Full
:Half (default)

ONBOARD PARALLEL PORT

:378/IRQ7 (default)
:278/IRQ5
:3BC/IRQ7
:Disabled

PARALLEL PORT MODE

:SPP (default)
:EPP
:ECP
:ECP + EPP

ECP MODE USE DMA

Select a DMA channel for the parallel port for using during ECP mode.

:3 (default)
:1

PWRON AFTER PWR-FAIL

:Off (default)
:On, Former-Sts

GAME PORT ADDRESS

:201 (default)
:209, Disabled

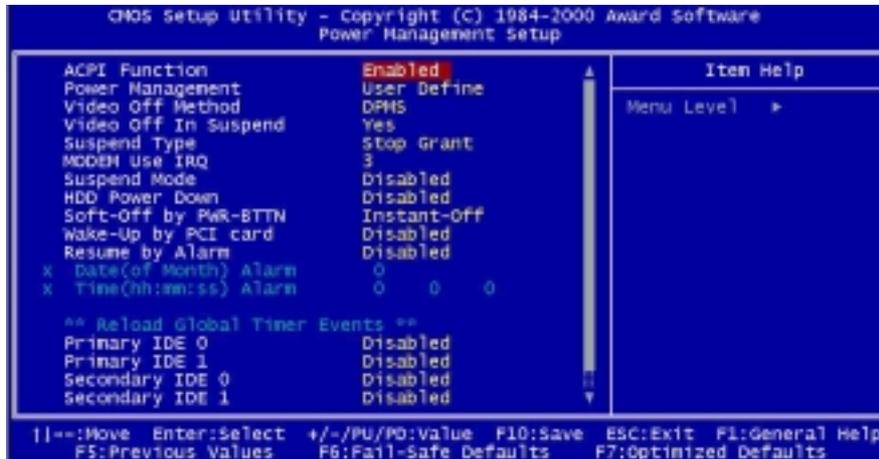
MIDI PORT ADDRESS

:300, 330
:Disabled (default)

MIDI PORT IRQ

:5
:10 (default)

3-1-5 Power Management Setup



ACPI FUNCTION

:Enabled(default)

:Disabled

POWER MANAGEMENT

:User Define(default)--users can configure their own power management

:Min Saving

:Max Saving

VIDEO OFF METHOD

:DPMS(default)

:Blank Screen

:V/H Sync+Blank

VIDEO OFF IN SUSPEND

:Yes (default)

:No

SUSPEND TYPE

:Stop Grant (default)

:PwrOn Suspend

MODEM USE IRQ

:3 (default)

:4, 5, 7, 9, 10, 11, NA

SUSPEND MODE

:Disabled(default), 1 min --- 2 min, 4 min, 8 min, 12 min, 20 min, 30 min, 40 min, 1 Hour

HDD POWER DOWN

:Disabled(default), 1 min --- 15 min

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”.

:Instant-Off (default)

:Delay 4 Sec.

WAKE-UP BY PCI CARD

:Enabled

:Disabled (default)

RESUME BY ALARM

When Enabled, you can set the date and time on RTC (real-time clock) alarm awoken a system which has been powered down.

:Enabled

:Disabled (default)

DATE(OF MONTH) ALARM/TIME(HH:MM:SS)

You can set the date (of month) and timer (hh:mm:ss), any event occurring will awoken a system which has been powered down.

RELOAD GLOBAL TIMER EVENTS

Primary IDE0

:Enabled

:Disabled (default)

Primary IDE1

:Enabled

:Disabled (default)

Secondary IDE0

:Enabled

:Disabled (default)

Secondary IDE1

:Enabled

:Disabled (default)

FDD, COM, LPT Port

:Enabled

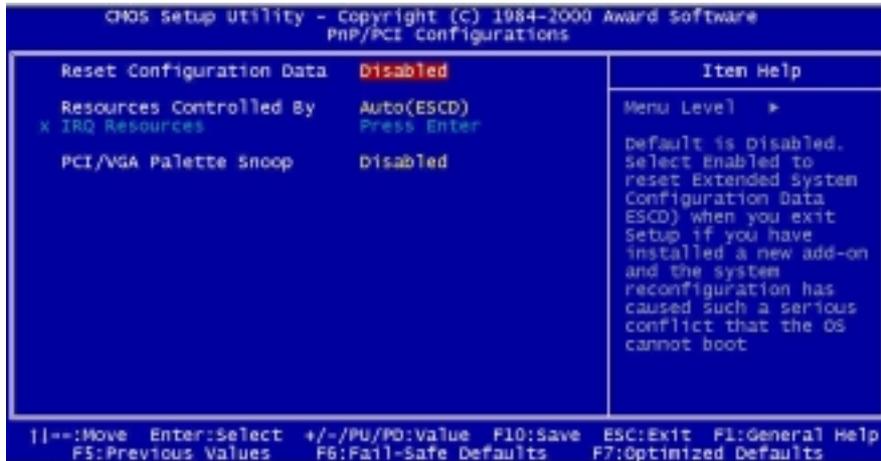
:Disabled (default)

PCI PIRQ (A-D)#

:Enabled

:Disabled (default)

3-1-6 PNP / PCI Configuration Setup



RESET CONFIGURATION DATA

:Disabled(default)

:Enabled--- to reset “**Extended System Configuration Data(ESCD)** when you exit setup if you have installed a new add-on card and the system reconfiguration has caused such a serious conflict that the operating system can not boot up.

RESOURCES CONTROLLED BY

:Manual

The table will show the below items: **IRQ-3 ~ IRQ15 assigned to PCI DEVICES**. The user can adjust the shown items as required.

:Auto (ESCD)

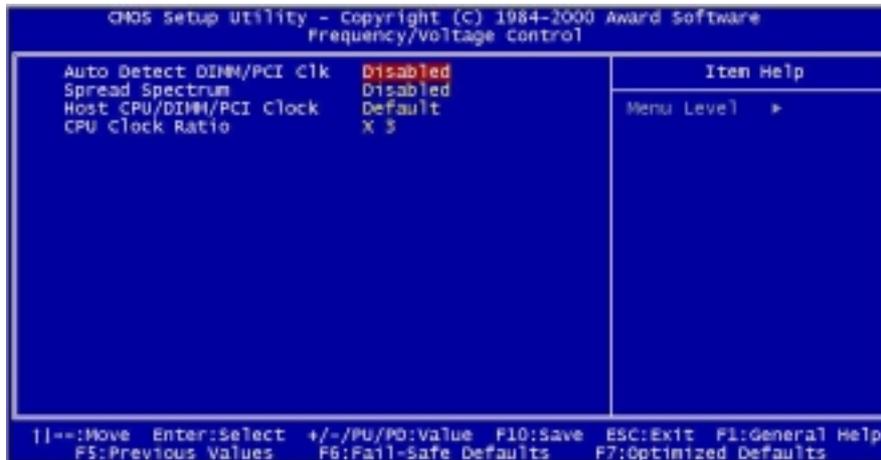
The table will not show the above items, and the system will automatically assign the above setup.

PCI/VGA PALETTE SNOOP

:Disabled (default)

:Enabled

3-1-7 Frequency/Voltage Control



AUTO DETECT DIMM/PCI CLK

: Enabled
: Disabled (default)

SPREAD SPECTRUM

: Enabled
: Disabled (default)

CPU HOST/PCI CLOCK

: Default
: 66/100/133MHz; 68/102/34MHz; 75/112/37MHz; 100/100/33MHz;
103/103/34 MHz; 124/124/41 MHz ; 133/133/44 MHz ;
140/140/46MHz; 150/150/50MHz; 133/100/33MHz; 140/105/35MHz;
150/112/37 MHz ;

CPU RATIO

: x 3 (Default)
: x 3.5 ; x 4 ; x 4.5 ; x 5 ; x 5.5 ; x 6 ; x 6.5 ; x 7 ; x 7.5 ; x 8



This selection is reserved for manufacturers to pass CE test only not available for users.

3-1-8 Supervisor/User Password

The "Supervisor/User Password setting" utility sets the security protection. There are two kinds of password functions in the setup menu : one is "Supervisor Password," and the other is "User Password." Their difference is:

Supervisor Password: this function allows you the right to change the options of setup menu.

User Password: this function only allows you to enter the setup menu but not to change the options of the setup menu except "USER PASSWORD," "SAVE & EXIT SETUP," and "EXIT WITHOUT SAVING."

1. How to set "Supervisor Password" & "User Password"

The setup of "Supervisor Password" and "User Password" has the same steps.

Step 1: **Enter Password** --Press <Enter> after appointing the password.



Step 2: Confirm Password

Type the password again and press <Enter>



If you forget password, please clear CMOS.
(refer to jumper RTC1)

Step 3: Set "Security Option" in "BIOS Features Setup"

After setting password, enter "Security Option" in "BIOS Features Setup." There are 2 options "Setup" & "System." "Setup" will only secure CMOS setup through password. "System" is to secure PC system and password is required during system boot-up in addition to CMOS setup.

2. How to Disable “Supervisor Password” & “User Password”

Step 1: Go to CMOS Setup Menu (need to key in password first)

Step 2: Enter “Supervisor Password” or “User Password”

When it shows “Enter Password”, press the <Enter> key instead of entering a new password when "ENTER PASSWORD" appears. It will inform “PASSWORD DISABLED PRESS ANY KEY TO CONTINUE.” Then, press any key as instructed to disable the password.

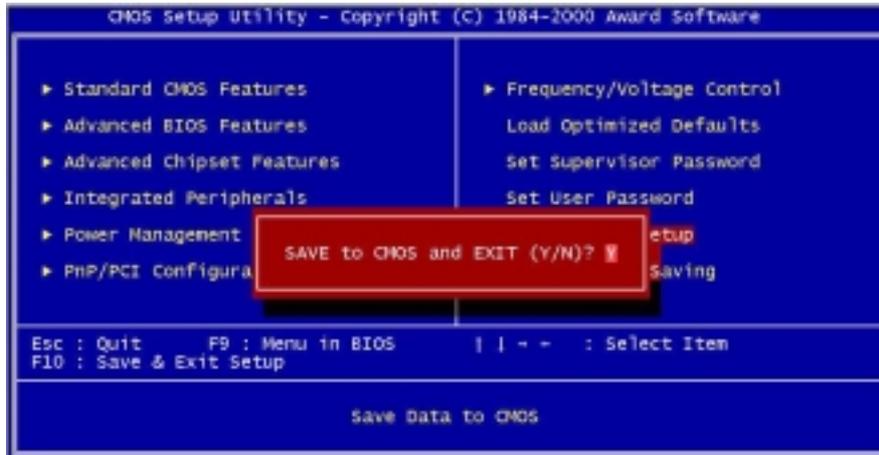


3-1-9 Load Optimized Defaults



"Load Optimized Defaults" loads optimized settings which are stored in the BIOS ROM. The auto-configured settings only affect "BIOS Features Setup" and "Chipset Features Setup" screens. There is no effect on the standard CMOS setup. To use this feature, highlight it on the main screen and press the <Enter> key. A line will appear on screen asking if you want to load the setup default values. Press the <Y> key and then press the <Enter> key. The setup defaults will then load. If not, enter <N>.

3-1-10 Save & Exit Setup



The "Save & Exit Setup" option will bring you back to boot up procedure with all the changes you have made which are recorded in the CMOS RAM.

3-1-11 Quit Without Saving



The **"Quit Without Saving"** option will bring you back to normal boot up procedure without saving any data into CMOS RAM. All of the old data in the CMOS will not be changed.