

Introduction

System Overview

This manual was written to help you start using this product as quickly and smoothly as possible. Inside you will find the necessary explanations to solve most problems. In order for this reference material to be of greatest use, refer to the “expanded table of contents” to find relevant topics. This board incorporates the system I/O, and PCI IDE into one board that provides a total PC solution. The mainboard, Intel Celeron/Coppermine PII/PIII processor base PC ATX systems support single processors with ISA Bus, PCI Local Bus, and AGP Bus to support upgrades to your system performance. It is ideal for multi-tasking and fully supports MS-DOS, Windows, Windows NT, Windows ME, Windows 2000, Novell, OS/2, Windows95/98, UNIX, SCO UNIX etc.

This manual also explains how to install the mainboard for operation, and how to setup your CMOS configuration with the BIOS setup program

1. Motherboard Description

1.1 Features

1.1.1 Hardware

CPU

- Socket 370 for Intel Celeron/PIII Processor.
- Intel FC-PGA/PPGA Celeron Processors 300MHz~800MHz or higher processor with 66/100MHz FSB.
- Intel FC-PGA Pentium III Processors 500MHz~1GHz or higher processor with 100/133MHz FSB.
- VIA Cyrix III Processor with 100/133MHz FSB.

Chipset

- North Bridge System Chipset : Intel 815 support a 66/100/133 FSB.
- South Bridge System Chipset : Intel ICH2.

Biggest memory capacity

- 6M815E** is equipped with two DIMM socket to support (8MB to 512MB) 168 pin 3.3v SDRAM SPD(Special Presence Detect).
Maximum memory up to 512MB.

AGP for fast VGA solution

- AGP specification compliant.
- AGP 66 MHz 3.3v for 1X/2X/4X device support.

Bus Slot

- Provide three 32 bit PCI slots.
- Provide one AGP slot and one CNR.

On-Board IDE

- An IDE controller on the ICH2 chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 33/66/100 operation modes.
- Can connect up to four IDE devices.

Board Peripherals

- 1 floppy port supports 2 FDD with 360K,720K,1.2M, 1.44M and 2.88M byte.
- 2 serial ports (COM1+COM2).
- 4 USB ports.
- 1 VGA ports.
- 1 parallel port supports EPP/ECP mode(LPT1).

Audio

- ICH chip integrated.
- AC'97 CODEC on board .

BIOS

- The mainboard BIOS provides “Plug & Play” BIOS which detects the peripheral devices and expansion cards of the board automatically.
- The mainboard provides a Desktop Management Interface (DMI) function which records your mainboard specifications.
- BIOS support CD-ROM, SCSI, LAN BOOT, Temperature sensor, Wake on LAN, Alarm CLK setup with BIOS.

Hardware Monitor Function

- CPU Fan Speed Monitor.
- CPU Temperature Monitor.
- System Voltage Monitor.

WD(Wake on LAN) & WM (Wake on MDEM)

Supports system power up from LAN ring up and Modem ring up.

Support Ring on by modem/Alarm on

Support System power up from Modem ring up or timer of System Required enabled in Ring on by demand Alarm in BIOS.

Display Cache:

-1*AIMM.

-Support 4MB (1M*16 or 2M*32) PC 133 SDRAM .

Intel Accelerated I/O Architecture :

Features a dedicated high speed hub link between the ICH2 and GMCH with a bandwidth of 266MB/sec-twice the **axi-**
mbbandwidth of the PCI bus.

CNR Support :

Two Communication and Networking Riser(CNR) slots provide interface to support very affordable multichannel audio,V.90 analog modem,PNA, 10/100 Ethernet networking,USB hub, as well as future technologies such as XDSL .

Suspend and Go:

Suspend-to-RAM (STR) provides **axi**mpower savings as an alternative to leaving the computer ON and Quickstart so that you do not have to wait for a long time for system boot.

Dual Function Power Button :

Through BIOS, the power button can be defined as the "Stand by" button or as the Soft-Off button.

Integrated Graphics :

Controller supports 3D hyper pipelined architecture, parallel data processing and compression, precise pixel interpolation, full 2D hardware acceleration, and motion video acceleration.

1.1.2 Software

BIOS

- AWARD legal BIOS.
- Supports APM 1.2.
- Supports USB Function.
- Supports ACPI.

Operation System

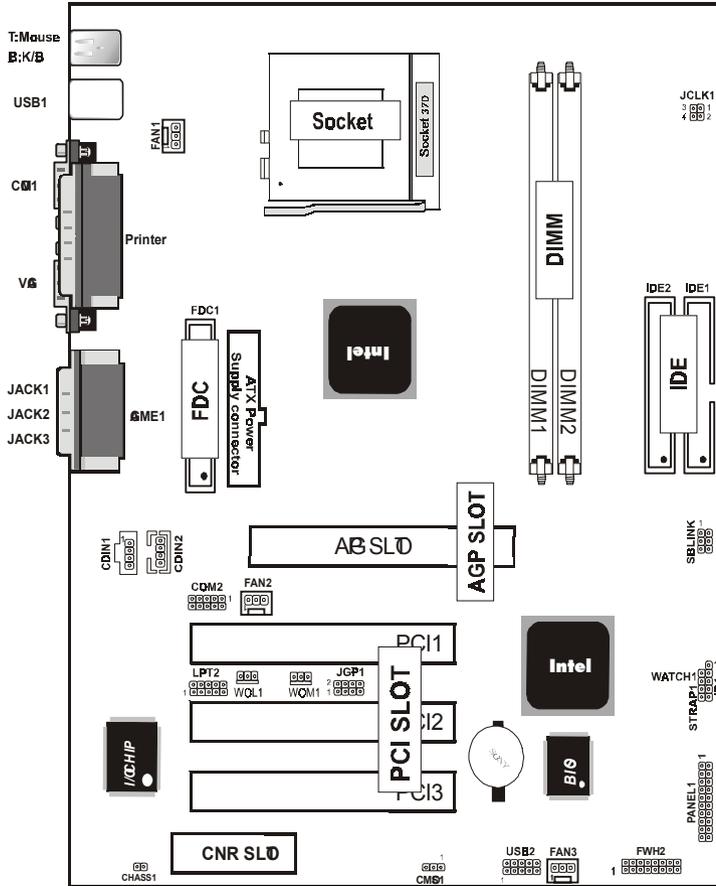
- Offers the highest performance for MS-DOS, Windows, Windows NT, Windows ME, Windows 2000, Novell, OS/2, Windows95/98, UNIX, SCO UNIX etc.

1.1.3 Attachments

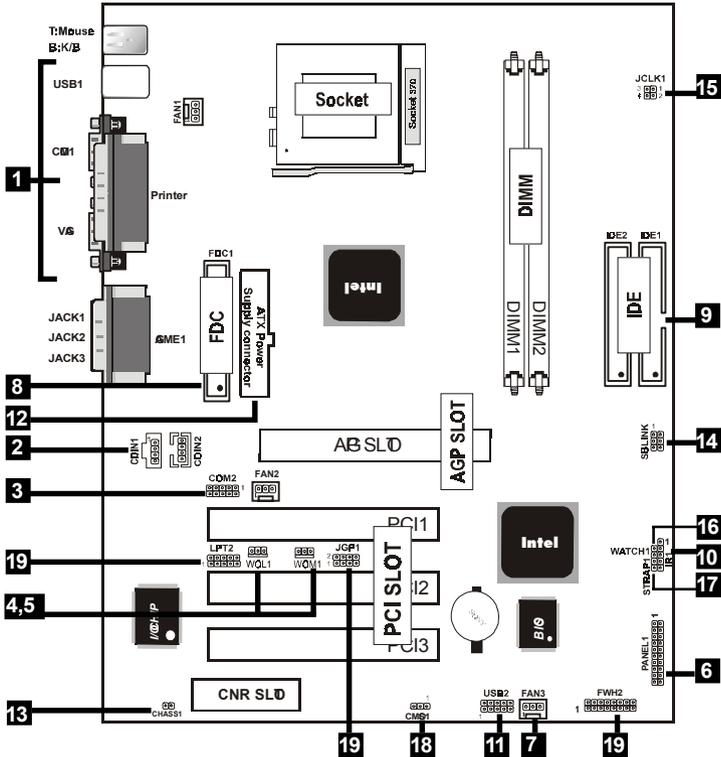
- HDD UDMA 66/100 Cable.
- FDD Cable.
- Flash Memory Written for BIOS Update.
- COM2 Cable.
- Fully Setup CD Driver built in Utility(Ghost, Antivirus, Adobe Acrobat, . .).

1.2 Motherboard Installation

1.2.1 Layout of Motherboard

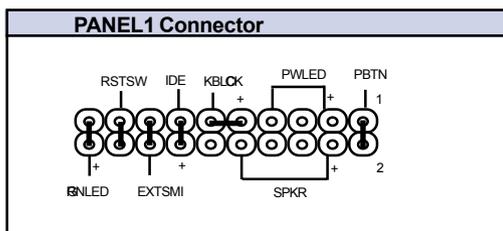


1.3 Motherboard Connectors



- | | |
|--|------------------------------|
| 1.Back Panel I/O Connectors | 2.CD Audio-In Connector |
| 3.Front COM2 Connector | 4.Wake-On LAN Connector |
| 5.Wake-On Modem Connector | 6.Front Panel Connector |
| 7.Fan Connectors(Fan1/2/3) | 8.Floppy Connector |
| 9.IDE Connectors | 10.IR Connector |
| 11.Front USB2 Connector | 12.ATX Power Connector |
| 13.Chassic Connector(CHASS1) | 14.SB-LINK Connector |
| 15.CPU Freq. Selection(JCLK1) | 16.Speaker Selection(WATCH1) |
| 17.AC97 Serial data out(STRAP1) | |
| 18.CMOS Function Selection(CMOS1) | |
| 19.Support Smart Panel(FWH2,LPT2,JGP1)(option) | |

1.3.1 Front Panel Connector(PANEL1)



Speaker Connector (SPK)

An offboard speaker can be installed onto the motherboard as a manufacturing option. An offboard speaker can be connected to the motherboard at the front panel connector. The speaker (onboard or offboard) provides error beep code information during the Power Self-Test when the computer cannot use the video interface. The speaker is not connected to the audio subsystem and does not receive output from the audio subsystem.

Hard Drive LED Connector (IDE)

This connector supplies power to the cabinet IDE activity LED. Read and write activity by devices connected to the Primary or Secondary IDE connectors will cause the LED to light up.

SMI Suspend Switch Lead (EXTSMI)

This allows the user to manually place the system into a suspend mode or Green mode where systematic activity will be instantly decreased to save electricity and expand the life of certain components when the system is not in use. This 2-pin connector (see the figure below) connects to the case-mounted suspend switch. If you do not have a switch for the connector, you may use the "Turbo Switch" instead since it does not have a function. SMI is activated when it detects a short to open circuit. It may require one or two pushes depending on the position of the switch. Wake-up can be controlled by settings in the BIOS but the keyboard will always allow wake-up (the SMI lead cannot wake-up the system). If you want to use this connector, the "Suspend Switch" in the Power Management Setup of the BIOS SOFTWARE section should be on the default setting of Enable.

ATX Power Switch (PBTN)

The system power is controlled by a momentary switch connected to this lead. Pushing the button once will switch the system ON. The system power LED lights when the system power is on.

Power LED Lead (PWLED)

The system power LED lights when the system power is on.

Keyboard Lock (KLOK)

The header is for setting keyboard locked.

SMI LED Lead (RNLED)

The system SMI LED lights when the system suspend is on.

Reset Switch Lead (RSTSW)

The connector can be connected to a momentary SPST type switch that is normally open. When the switch is closed, the motherboard resets and runs the POST.

1.3.2 Floppy Disk Connector(FDC1)

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the board, connect the two plugs on the other end to the floppy drives.

1.3.3 Hard Disk Connectors(IDE1/IDE2)

These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk.

If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE) (Pin 20 is removed to prevent inserting in the wrong orientation when using ribbon cables with pin 20 plugged).

1.3.4 ATX 20-pin Power Connector(PW1)

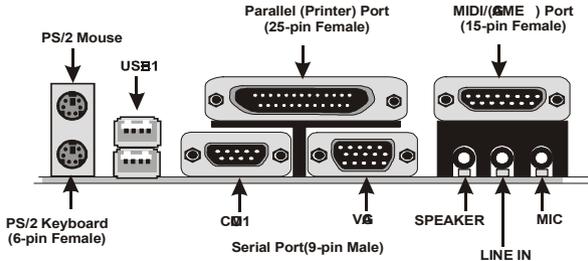
This connector supports the power button on-board. Using the ATX power supply, functions such as Modem Ring Wake-Up and Soft Power Off are supported on this motherboard. This power connector supports instant power-on functionality, which means that the system will boot up instantly when the power connector is inserted on the board.

Pin	Signal	Pin	Signal
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	Ⓜ	13	Ⓜ
4	5V	14	PS-Ⓜ
5	Ⓜ	15	Ⓜ
6	5V	16	Ⓜ
7	Ⓜ	17	Ⓜ
8	PW-Ⓜ	18	-5V
9	5V_SB	19	5V
10	12V	20	5V

1.3.5 Infrared Connector(IR1)

After the IrDA interface is configured, files can be transferred from to portable devices such as laptops, PDAS, and printers using application software.

1.4 Back Panel Connectors

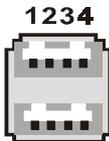


1.4.1 PS/2 Mouse /Keyboard CON.

The motherboard provides a standard PS/2 mouse / Keyboard mini DIN connector for attaching a PS/2 mouse. You can plug a PS/2 mouse / Keyboard directly into this connector.

1.4.2 USB Connectors: USB1/2

The motherboard provides a OHCI(Open Host Controller Interface)Universal Serial Bus Roots for attaching USB devices such as a keyboard, mouse and other USB devices. You can plug the USB devices directly into this connector.



Pin	Signal
1	+5v
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	ND

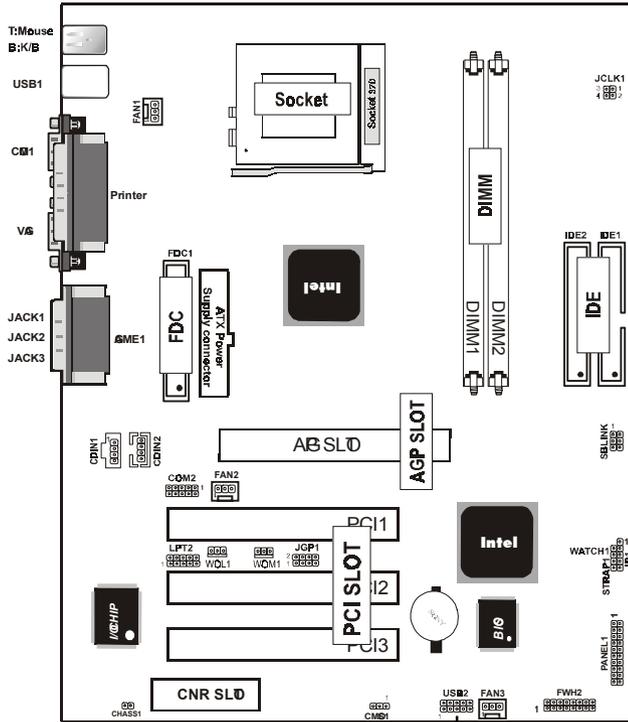
1.4.3 VGA Interface Connector:VGA(15 Pin)

This connector is for output to VGA-compatible devices.

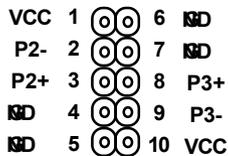
VGA



Front Two USB Connectors:USB2



USB 2



1.5 Serial and Parallel Interface Ports

This system is equipped with two serial ports and one parallel port. Both types of interface ports will be explained in this chapter.

The Serial Interfaces: COM1/COM2

The serial interface port is sometimes referred to as an RS-232 port or an asynchronous communication port. Mice, printers, modems and other peripheral devices can be connected to a serial port. The serial port can also be used to connect your computer system. If you wish to transfer the contents of your hard disk to another system, it can be accomplished by using each machine's serial port.

COM1

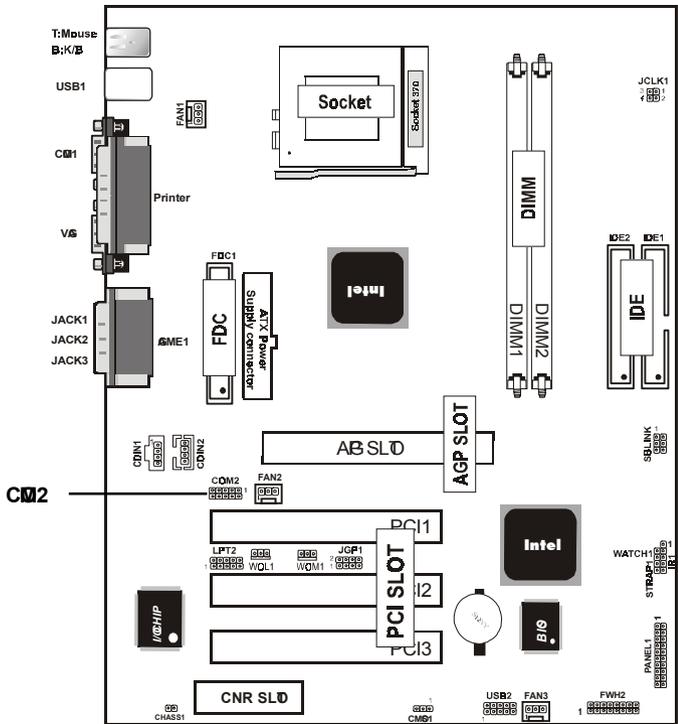


COM2



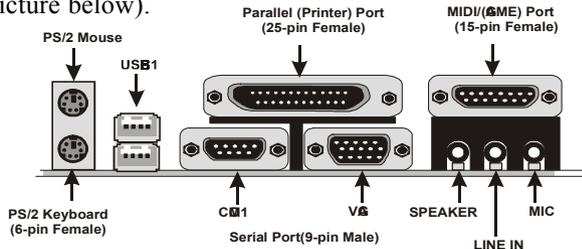
The serial port on this system has one 9-pin connector. Some older computer systems and peripherals used to be equipped with only a 25-pin connector. Should you need to connect your 9-pin serial port to an older 25-pin serial port, you can purchase a 9-to-25 pin adapter.

Signal	DB9 Pin	DB25 Pin
DCD	1	8
RX	2	3
TX	3	2
DTR	4	20
RD	5	7
DSR	6	6
RTS	7	4
CTS	8	5
RI	9	22



Parallel Interface Port

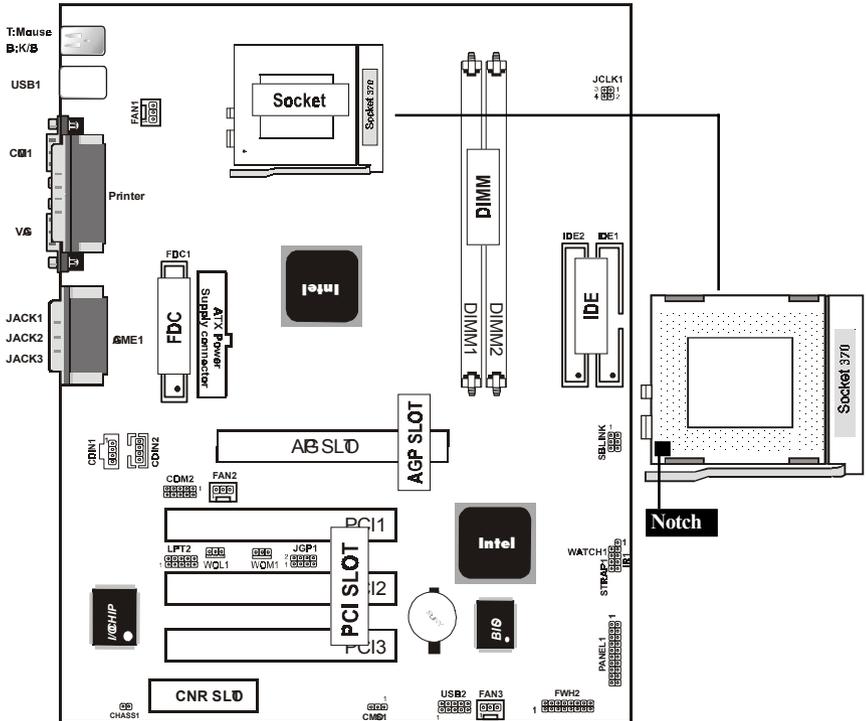
Unlike serial ports, parallel interface ports have been standardized and should not present any difficulty interfacing peripherals to your system. Sometimes called a Centronics port, the parallel port is almost exclusively used with printers. The parallel port on your system has a 25-pin, DB 25 connector (see picture below).



1.6 CPU Installation

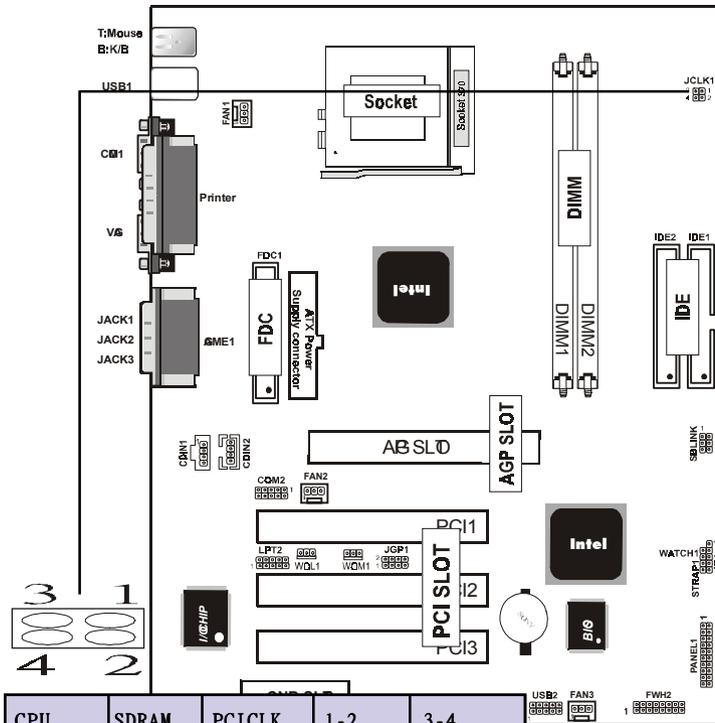
1.6.1 CPU Installation Procedure:Socket 370

1. Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.
2. Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.
3. Press the lever down to complete the installation.
4. Make sure the spec of the heatsink is good enough.

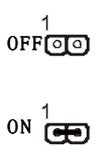


1.6.2 CPU Frequency Selection:JCLK1

Overclocking is operating a CPU/Processor beyond its specified frequency.JCLK1 jumper is used for overclocking.

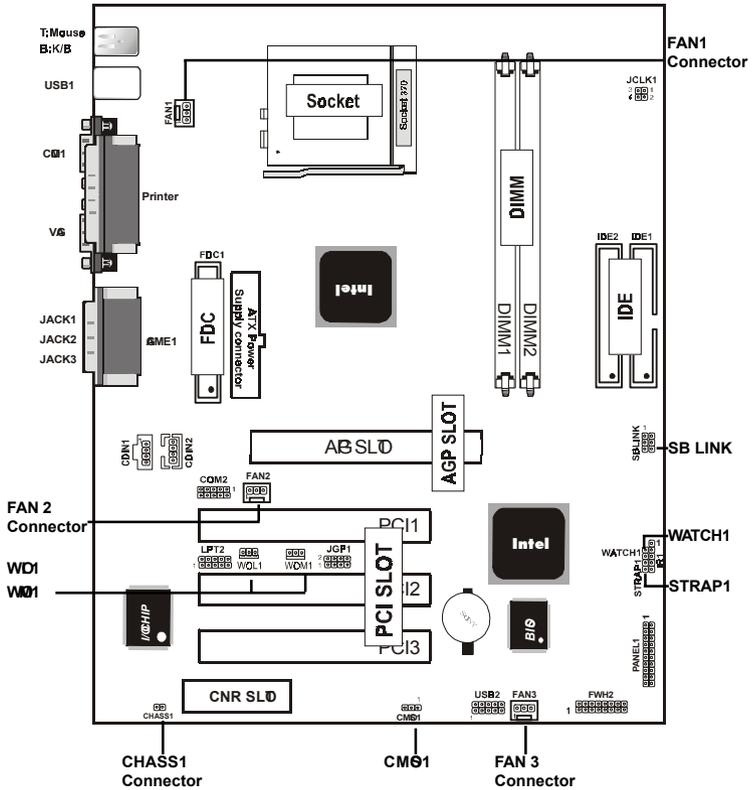


CPU	SDRAM	PCICLK	1-2	3-4
66	100	33.3	ON	ON
100	100	33.3	OFF	ON
133	133	33.3	ON	OFF
Auto (default)	Auto	33.3	OFF	OFF



1.7 Jumper Setting

A jumper has two or more pins that can be covered by a plastic jumper cap, allowing you to select different system options.



1.7.1 CPU/System Fan Connector: Fan1/2/3

Pin	Assignment
1	Ground
2	+12VDC
3	Signal

1.7.2 Wake-On Modem Header: WOL1

Pin	Assignment
 1	5VSB
2	Ground
3	Signal

1.7.3 Wake-On LAN Header: WOL2

Pin	Assignment
 1	5VSB
2	Ground
3	Signal

1.7.4 CMOS Function Select: CMOS1

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

NOTE:

(Please follow the procedure below to clear CMOS data.)

(1) Remove the AC power line. (2) CMOS1 (2-3) Closed. (3) Wait five seconds. (4) CMOS1 (1-2) Closed. (5) AC Power on. (6) Re-set your desired password or clear CMOS data.

1.7.5 SPEAKER Selection: WATCH1

Pin	Assignment
ON 	No Reboot on timeout
OFF 	Normal(default), Reboot on timeout

1.7.6 SB-LINK Connector

The motherboard provides one infrared SB-LINK feature connector for support PCI sound cards.

Pin	Assignment
1	REQ#
2	GND
3	NC
4	GNT#
5	GND
6	SERIRQ



1.7.7 Chassic Intrusion Connector: CHASSIC1

Pin	Assignment
1	CHASI
2	GND

1.7.8 AC97 Serial data out: STRAP1

Pin	Assignment
ON 	Force CPU to safe mode
OFF 	Normal(default), Use register

1.8 DRAM Installation

1.8.1 DIMM

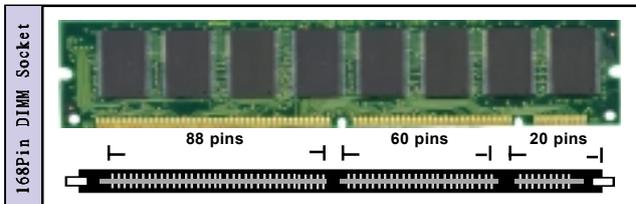
DRAM Access Time 3.3V Unbuffered SDRAM/ PC66/
PC100 and PC133 Type required.

DRAM Type: 8MB, 16MB, 32MB, 64MB, 128MB, 256MB
, 512MB DIMM Module.(168 pin)

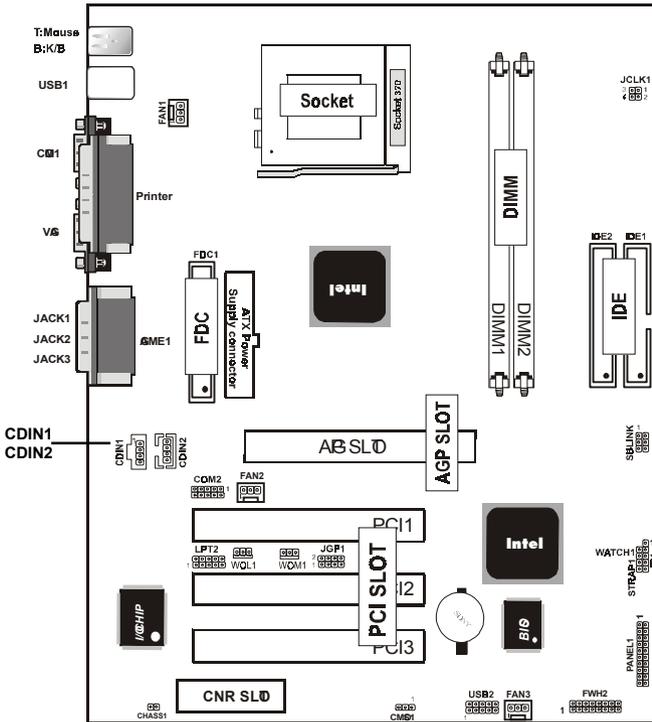
Bank	Memory module
DIMM 1 (Bank 0-1)	16MB, 32MB, 64MB, 128MB, 256MB,512MB 168 pin, 3.3v SDRAM
DIMM 2 (Bank 2-3)	16MB, 32MB, 64MB, 128MB, 256MB,512MB 168 pin, 3.3v SDRAM
	Total System Memory(Max 512MB)

1.8.2 How to install a DIMM Module

1. The DIMM socket has a “Plastic Safety Tab” and the DIMM memory module has an asymmetrical notch”, so the DIMM memory module can only fit into the slot in one direction.
2. Push the tabs out. Insert the DIMM memory modules into the socket at a 90-degree angle then push down vertically so that it will fit into place.
3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.



1.9 Audio Subsystem

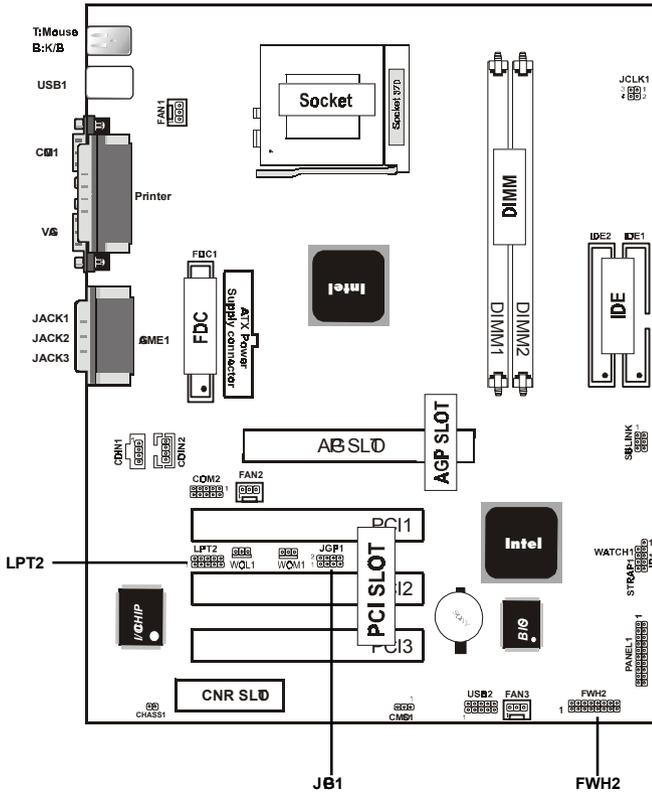


1.9.1 CD Audio-In Connectors: CDIN1/CDIN2

Pin CDIN1	Assignment
1	CD-L
2	ND
3	ND
4	CD-R

Pin CDIN2	Assignment
1	ND
2	CD-L
3	ND
4	CD-R

1.10 Smart Panel Onboard Connector (option)



Note:
 The motherboard provides for Smart Panel. If you refer POST Error Code or Smart Panel function, please refer to Smart Panel (SPM815E) manual.

1.10.1 Second BIOS Connector: FWH2 (option)

Pin	Signal	Pin	Signal
1	VCC	2	NC
3	PCIRST#	4	PCLK_FWH
5	CAD_FWH0	6	P66DTCT
7	CAD_FWH1	8	S66DTCT
9	SD	10	SD
11	CAD_FWH2	12	HINIT#
13	CAD_FWH3	14	FWH_ID0T
15	CAD_FWH4	16	VCC

1.10.2 Parallel Port Connector: LPT2 (option)

Pin	Signal	Pin	Signal
1	ERD4	2	ERD0
3	ERD5	4	ERD1
5	ERD6	6	ERD2
7	ERD7	8	ERD3
9	SD	10	SD

1.10.3 BIOS Port Connector: JB1 (option)

Pin	Signal	Pin	Signal
1	5VSB	2	SLP_S3
3	B27	4	5VSB(R)
5	B28	6	SLP_S5
7	B21	8	5VSB(R)

2. BIOS Setup

Introduction

This chapter discusses the Award Setup program built into the ROM BIOS. The Setup program allows the user to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the setup information when the power is turned off.

The Award BIOS installed in your computer system's ROM (Read Only Memory) is a customized version of an industry standard BIOS. This means that it supports Intel Celeron/Coppermine PII/PIII Processor. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

This AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD(Extended System Configuration Data) write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

APM Support

This AWARD BIOS supports Version 1.1&2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

DRAM Support

SDRAM (Synchronous DRAM) are supported.

Support CPU

This AWARD BIOS supports the Intel Celeron/Coppermine PII/PIII Processor.

Using Setup

In general, you use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

Note:

(BIOS version 1.0 is for reference only. If there is a change in BIOS version, please use the actual version on the BIOS)

Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Esc	Main Menu: Quit without saving changes Submenu: Exit Current page to the next higher level menu
Move Enter	Move to item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+Key	Increase the numeric value or make changes
-Key	Decrease the numeric value or make changes
Esc Key	Main menu-Quit and not save changes into CMOS Status Page Setup Menu and option Page Setup Menu-Exit Current page and return to Main Menu
F1 Key	General help on Setup navigation keys.
F5 Key	Load previous values from CMOS
F6 Key	Load the fail-safe defaults from BIOS default table
F7 Key	Load the optimized defaults
F10 Key	Save all the CMOS changes and exit

2.1 Main Menu

Once you enter AWARD BIOS CMOS Set up Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup function. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

“WARNING”

The information about BIOS defaults on manual (Figure 1,2,3,4,5,6,7,8,9,10,11,12,13,14) is just for reference, please refer to the BIOS installed on the board for updated information.

© Figure 1. Main Menu

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PNP/PCI Configuration	Save & Exit Setup
PC Health Status	Exit Without Saving
Esc : Quit F9 : Menu in BIOS ←→↑↓: Select Item	
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

Standard CMOS Features

This setup page includes all the items in standard compatible BIOS.

Advanced BIOS Features

This setup page includes all the items of the BIOS special enhanced features.

Advanced Chipset Features

This setup page includes all the items of the Chipset special enhanced features.

Integrated Peripherals

This selection page includes all the items of the IDE hard drive and Program Input/Output features.

Power Management Setup

This setup page includes all the items of the power management features.

PnP/PCI Configuration

This setup page includes the user defined or default IRQ Setting.

PC Health Status

This page shows the hardware Monitor information of the system

Frequency / Voltage Control

This setup page controls the CPU's clock and frequency ratio.

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

These settings are more likely to configure a workable computer when something is wrong. If you cannot boot the computer successfully, select the BIOS Setup options and try to diagnose the problem after the computer boots. These settings do not provide optional performance.

Set Supervisor Password

Change, set, or, disable password. It allows you to limit access to the system and Setup, or just to Setup.

Set User Password

You can specify both a User and a Supervisor password. When you select either password option, you are prompted for a 1-6 character password. Enter the password and then retype the password when prompted.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

2.2 Standard CMOS Features

This item in the Standard CMOS Setup Menu is divided into 10 categories. Each category includes no, one or more than one setup item. 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.

© Figure 2. Standard CMOS Features

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software
Standard CMOS Features

Date(mm:dd:yy)	Tue,Jun 6 2000	Item Help
Time (hh:mm:ss)	11:26:10	
IDE Primary Master	None	Menu Level
IDE Primary Slave	None	Change the day,
IDE Secondary Master	None	month,year
IDE Secondary Master	None	and century.
Drive A	1.44M,3.5 in	
Drive B	None	
Video	E8/V8	
Halt Ⓚ	All,But Keyboard	
Base Memory	640K	
Extended Memory	65472K	
Total	1024K	

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

Main Menu Selections

This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	Month DD YYYY	Set the system date. Note that the 'Day' automatically changes when you set the data.
IDE Primary Master	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
IDE Primary Slave	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
IDE Secondary Master	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
IDE Secondary Slave	Options are in its submenu.	Press<Enter> to enter the submenu of detailed.
Drive A Drive B	None 360K,5.25in 1.2M,5.25in 720K,3.5in 1.44M,3.5in 2.88M,3.5in	Select the type of floppy disk drive installed in your system
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

Item	Options	Description
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/Key	Select the situation in which you want the BIOS to stop the POST process and notify.
Base Memory	N/A	Displays the amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of conventional memory detected during boot up.
Total Memory	N/A	Displays the total memory available in the system

2.3 Advanced BIOS Features

© Figure 3. Advanced BIOS Features

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software

Advanced BIOS Features

Virus Warning	Disabled	Item Help
CPU Internal Cache	Enabled	
External Cache	Enabled	Menu Level
CPU L2 Cache ECC Checking	Enabled	
Processor Number Feature	Enabled	Allows you to
Quick Power On Self Test	Disabled	choose the
First Boot Device	Floppy	VIRUS warning
Second Boot Device	CD-ROM	feature for IDE
Third Boot Device	HDD-0	Hard Disk boot
Boot Order Device	Enabled	sector protection.
Swap Floppy Drive	Disabled	If this function
Boot Up Floppy Seek	Enabled	is enabled and
Boot Up NumLock Status	On	someone attempts
Wake A20 Function	Fast	to write data into
Typematic Rate Setting	Disabled	this area, BIOS
Typematic Rate (Chars/Sec)	6	will show a
Typematic Delay (Msec)	250	warning message
Security Function	Setup	on screen and
Select For DRAM >64MB	Non-62	alarm beep
Report No FDD For WIN 95	No	

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

Virus Warning

This option allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will show a warning message on screen and alarmbeep.

The Choices: Disabled(default), Enabled.

CPU Internal Cache

These two categories speed up memory access. However, it depends on CPU/chipset design.

Enabled(default) Enabled cache.

Disabled Disabled cache.

External Cache

This field allows you to Enable or Disable the CPU'S "Level 2" secondary cache. Caching allows better performance.

- Enabled(default)** Enabled cache.
- Disabled** Disabled cache.

CPU L2 Cache ECC Checking

This item allows you to enable/disable CPU L2 Cache ECC Checking.

The Choices: Enabled(default), Disabled.

Processor Number Feature

This item will show up when you install the Pentium III processor.

- Enabled(default)** Pentium Processor Number Feature.
- Disabled** Disabled.

Quick Power On Self Test

This category speeds up Power on self-Test(POST) after you power up the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

- Enabled** Enabled quick POST.
- Disabled(default)** Normal POST.

First/Secondary/Third Boot Device

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

The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, USB-HDD, LAN, Disabled.

Boot Order Device

The Choices: Enabled(default), Disabled.

Swap Floppy Drive

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

The Choices: Disabled(default), Enabled.

Boot Up Floppy Seek

Seek disk drives during boot up. Disabled speeds boot-up.

The Choices: Enabled(default), Disabled.

Boot Up NumLock Status

Select power on state for Numlock.

Off(default)

NumPad is number keys.

On

NumPad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

Normal

A pin in the keyboard controller controls Gate A20.

Fast(default)

Lets chipset control Gate A20.

Typematic Rate Setting

Enabled

Enabled this option to adjust the keystroke repeat rate.

Disabled(default)

Disabled.

Typematic Rate (Char/Sec)

Range between 6(default) and 30 characters per second. This option controls the speed of repeating keystrokes.

Typematic Delay (Msec)

This option sets the time interval for displaying the first and the second characters.

The Choices: 250(default), 500, 750, 1000

Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

System

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

Setup(default)

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

Select For DRAM >64MB

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

The Choices: Non-62(default), 62

Report No FDD For Window 95

No(default)

Assign IRQ6 For FDD.

Yes

FDD Detect IRQ6 Automatically.

2.4 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 resources, such as DRAM and external cache. It also coordinates communications of 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 lost while using your system.

© Figure 4. Advanced Chipset Features

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software
Advanced Chipset Features

SDRAM CAS Latency/Time	3	Item Help
SDRAM Cycle Time Tras/Trc	7/9	
SDRAM RAS -to- CAS Delay	3	Menu Level
SDRAM RAS Precharge Time	3	
System BIOS Cacheable	Disabled	
Video BIOS Cacheable	Disabled	
Memory Hole At 15M-16M	Disabled	
CPU Latency Timer	Enabled	
Delayed Transaction	Enabled	
AGP Graphic Aperture Size	64MB	
System Memory Frequency	Auto	
Chip Video Window Size	64MB	

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

SDRAM CAS latency Time

3(default)

Slower SDRAM DIMM Module.

2

Fastest SDRAM DIMM Module.

SDRAM Cycle Time Tras/Trc

7/9(default)

Set SDRAM Tras/Trc Cycle time 7/9 SCLKs.

5/7

Set SDRAM Tras/Trc Cycle time 5/7 SCLKs.

SDRAM RAS -to- CAS Delay

3(default)

Set SDRAM RAS -to- CAS delay 3 SCLKs.

2

Set SDRAM RAS -to- CAS delay 2 SCLKs.

SDRAM RAS Precharge Time

3(default)

Set SDRAM RAS Precharge Time to 3.

2

Set SDRAM RAS Precharge Time to 2.

System BIOS Cacheable

When enabled, the access to the system BIOS ROM address at F0000H-FFFFFFH is cached.

The Choices: Disabled(default), Enabled.

Video BIOS Cacheable

Enabled

Enabled Video BIOS Cacheable.

Disabled(default)

Disabled Video BIOS Cacheable.

Memory Hole At 15-16M

In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory's space below 16MB.

The Choices: Disabled(default), Enabled.

CPU Latency Timer

Enabled(default)

Enabled.

Disabled

Disabled.

Delayed Transaction

Enabled(default)

Slow speed ISA device in system

Disabled

Disabled.

AGP Graphics Aperture Size

64MB(default)

AGP Graphics Aperture Size is 64 MB.

32MB

AGP Graphics Aperture Size is 32 MB.

System Memory Frequency

Auto(default)

System Memory Frequency to Auto.

100MHz

Set system Memory Frequency to 100MHz.

133MHz

Set system Memory Frequency to 133MHz.

On-Chip Video Window Size

64MB(default)

Set Graphics Aperture Size to 64 MB.

32MB

Set Graphics Aperture Size to 32 MB.

2.5 Integrated Peripherals

© Figure 5. Integrated Peripherals

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software

Integrated Peripherals

Ⓞ Chip Primary PCI IDE	Enabled	Item Help
Ⓞ Chip Secondary PCI IDE	Enabled	
IDE Primary Master PIO	Auto	Menu Level
IDE Primary Slave PIO	Auto	
IDE Secondary Master PIO	Auto	
IDE Secondary Slave PIO	Auto	
IDE Primary Master UDMA	Auto	
IDE Primary Slave UDMA	Auto	
IDE Secondary Master UDMA	Auto	
IDE Secondary Slave UDMA	Auto	
USB Controller	Enabled	
USB Keyboard Support	Disabled	
USB Mouse Support	Disabled	
Init Display First	PCI Slot	
AC97 Audio	Auto	
AC97 Modem	Auto	
IDE HDD Block Mode	Enabled	
Power Ⓞ Function	Button Ⓞly	
KB Power Ⓞ Password	Enter	
Hot Key Power Ⓞ	Ctrl-F1	
Ⓞboard FDC Controller	Enabled	
Ⓞboard Serial Port 1	3F8/IRⓄ	
Ⓞboard Serial Port 2	2F8/IRⓄ	
UART Mode Select	Normal	
RxD,TxD Active	Hi,Lo	
IR Transmission Delay	Enabled	
UR2 Duplex Mode	Half	
Use IR Pins	IR/Rx2Tx2	
Ⓞboard Paraller Port	278/IRⓄ	
Parallel Port Mode	SPP	
EPP Mode Type	EPP1.7	
ECP Mode Use DMA	3	
Ⓞme Port Address	201	
Midi Port Address	330	
Midi Port IRQ	10	

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

ⓂChip Primary PCI IDE

Enabled(default)

Enabled onboard 1st channel IDE port.

Disabled

Disabled onboard 1st channel IDE port.

ⓂChip Secondary PCI IDE

Enabled(default)

Enabled onboard 2nd channel IDE port.

Disabled

Disabled onboard 2nd channel IDE port.

IDE Primary Master PI(Ⓜor onboard IDE 1st channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing **Ⓜde**.

Mode 0~4

Manually set the IDE Accessing **Ⓜde**.

IDE Primary Slave PI(Ⓜor onboard IDE 2nd channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing **Ⓜde**.

Mode 0~4

Manually set the IDE Accessing **Ⓜde**.

IDE Secondary Master PI(Ⓜor onboard IDE 1st channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing **Ⓜde**.

Mode 0~4

Manually set the IDE Accessing **Ⓜde**.

IDE Secondary Slave PI(Ⓜor onboard IDE 2nd channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing **Ⓜde**.

Mode 0~4

Manually set the IDE Accessing **Ⓜde**.

IDE Primary Master UDMA

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Disabled

Disabled.

IDE Primary Slave UDMA

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Disabled

Disabled.

IDE Secondary Master UDMA

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Disabled

Disabled.

IDE Secondary Slave UDMA

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Disabled

Disabled.

USB Controller

Enabled(default)

Enabled USB Controller.

Disabled

Disabled USB Controller.

USB Keyboard Support

Enabled

Enabled USB Keyboard Support.

Disabled(default)

Disabled USB Keyboard Support.

USB Mouse Support

Enabled

Enabled USB Mouse Support.

Disabled(default)

Disabled USB Mouse Support.

Init Display First

PCI Slot(default)

Set Init Display First to PCI Slot.

Onboard AGP

Set Init Display First to onboard AGP.

AC 97 Audio	
Auto(default)	BIOS will automatically detect onboard Audio.
Disabled	Disabled.
AC 97 Modem	
Auto(default)	BIOS will automatically detect onboard Modem
Disabled	Disabled.
IDE HD Block Mode	
Enabled(default)	Enabled.
Disabled	Disabled.
Power On Function	
Password	Enter from 1 to 7 characters to set the Keyboard Power On Password.
Hot Key	Hot Key.
Mouse Left	Mouse Left.
Mouse Right	Mouse Right.
Any Key	Any Key.
Button Only(default)	Button Only.
Keyboard 98	If your keyboard has an Owner key button, you can press the key to power on your system
Keyboard Power On Password	
Enter	Enter from 1 to 7 characters to set the keyboard Power On Password.
Hot Key Power On	
Ctrl-F1(default)	First you must choose the Power On by Hot Key function then Enter from 1 to 8
Ctrl-F2	characters to set the Hot Key
Ctrl-F3	Power On your system
Ctrl-F4	
Ctrl-F5	
Ctrl-F6	
Ctrl-F7	
Ctrl-F8	

Onboard FDC Controller

Enabled(default)

Enabled onboard FDC Controller.

Disabled

Disabled onboard FDC Controller.

Onboard Serial Port1

Select an address and corresponding interrupt for the first and second serial ports.

The Choices: **3F8/IRQ** (default), Auto, (2F8/IRQ3), (3E8/IRQ4), (2E8/IRQ3), Disabled.

Onboard Serial Port 2

Auto

BIOS will automatically setup the Serial Port 2 address.

3F8/IRQ

Enabled onboard Serial Port 2 and address is 3F8.

2F8/IRQ(default)

Enabled onboard Serial Port 2 and address is 2F8.

3E8/IRQ

Enabled onboard Serial Port 2 and address is 3E8.

2E8/IRQ

Enabled onboard Serial Port 2 and address is 2E8.

Disabled

Disabled.

UART Mode Select

This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.

The Choices: **Normal**(default), IrDA, SCR, ASKIR.

UR2 Duplex Mode

This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.

The Choices: **Half** (default), Full.

Onboard Parallel Port

This item allows you to select the I/O address with which to access the onboard parallel port controller.

Disabled.

378/IRQ

278/IRQ(default)

3BC/IRQ

Parallel Port Mode

SPP(default)

Using Parallel port as Standard Parallel Port.

EPP

Using Parallel port as Enhanced Parallel Port.

ECP

Using Parallel port as Extended Capabilities Port.

ECP+EPP

Using Parallel port as ECP+EPP mode.

Game Port Address

201(default)

Set onboard gameport to 201.

209

Set onboard gameport to 209.

Disabled

Disabled.

Midi Port Address

300

Set Midi Port address to 300.

330(default)

Set Midi Port address to 330.

Midi Port IRQ

10(default)

Set Midi Port IRQ to 10.

5

Set Midi Port IRQ to 5.

2.6 Power Management Setup

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

© Figure 6. Power Management Setup

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software

Power Management Setup

ACPI Function	Enabled	Item Help
ACPI Suspend Type	S1(P0)	
Power Management	User Define	Menu Level
Video F Method	DPMS	
Video F In Suspend	Yes	
Suspend Type	Stop A nt	
Modem Use IRQ	3	
Suspend Mode	Disabled	
HDD Power Down	Disabled	
Soft- F by PWR-BTN	Instant- F	
Wake Up by PCI Card	Disabled	
Power F by Ring	Enabled	
Wake Up F LAN	Enabled	
USB KB Wake-up From S3	Disabled	
CPU Thermal-Throttling	50.0%	
Resume by Alarm	Disabled	
Data (of Month) Alarm	0	
Time (of hh:mm:ss) Alarm	0 0 0	
**Reload F bal Timer Events **		
Primary IDE 0	Disabled	
Primary IDE 1	Disabled	
Secondary IDE 0	Disabled	
Secondary IDE 1	Disabled	
FDD, C , LPT Port	Disabled	
PCI PIR A-D #	Disabled	

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

ACPI Function

This item displays status of the Advanced Configuration and Power Management (ACPI).

ACPI Suspend Type

The item allows you to select the suspend type under ACPI operating system

S1(P0)(default) Power on Suspend.

S3(STR) Suspend to RAM.

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes.

1. HDD Power Down.
2. Doze Mode.
3. Suspend Mode.

If you highlight “Press Enter” next to the “Power Management” label and then press the enter key, it will take you a submenu with the following options:

Power Management

This option allows you to set each mode individually.

When not disabled, each of the ranges are from min. to 1 hr. except for HDD Power Down which ranges from min. to 15 min. and disable.

The Choices: User Define (default), Min Saving, Max Saving.

HDD Power Down

By default, this is “Disabled”, meaning that no matter the mode of the rest of the system the hard drive will remain ready. Otherwise, you have a range of choices from 15 minutes or Suspend. This means that you can select to have your hard disk drive be turned off after a selected number of minutes or when the rest of the system goes into a suspend mode.

Disabled(default).

Doze Mode/Suspend Mode

The **Doze Mode**, and **Suspend Mode** fields set the Period of time after each of these modes activates. At Max Saving, these modes activate sequentially (in the given order) after one minute; at Min Saving after one hour.

Video Off In Suspend

This field determines when to activate the video off feature for monitor power management.

The Choices: Yes(default), No

Video 0 Method

This determines the manner in which the monitor is blanked.

V/HSYNC+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 Support
(default)**

Initial display power management signaling.

Suspend Type

Stop Grant(default)

Set Suspend type is stop grant.

Power Suspend

Set Suspend type is Power on Suspend.

Modem Use IRQ

This determines the IRQ, which can be applied in Modem use.

3(default)

4/5/7/9/10/11/NA

Suspend Mode

Disabled(default)

Disabled.

1 min - 1 hr

Set the timer to enter Suspend Mode.

HD Power Down

Disabled(default)

Disabled.

1 - 15 mins

Enabled.

Soft-Off by PWRBTN

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

The Choices: Instant-Off (default), Delay 4 Sec.

Wake Up by PCI card

Enabled	Enabled.
Disabled(default)	Disabled.

Power On By Ring

Disabled	Disabled.
Enabled(default)	Enabled.

Wake Up On LAN

Enabled(default)	Enabled.
Disabled	Disabled.

USB Wake Up From S3

Disabled(default)	Disabled.
Enabled	Enabled.

CPU Thermal-Throttling

50.0%(default)
Monitor CPU Temp. will cause system to slow down
CPU Duty Cycle to 12.5% / 25.0% / 37.5% / 62.5% /
70.5% / 87.5%

Resume by Alarm

Disabled(default)	Disabled.
Enabled	Enabled.

Primary IDE 0/1

Disabled(default)	Disabled.
Enabled	Enabled monitor Primary IDE 0/1 for Green event.

Secondary IDE 0/1

Disabled(default)

Enabled

Disabled.

Enabled monitor Secondary IDE 0/1 for Green event.

FDD, COM, LPT Port

Disabled(default)

Enabled

Disabled.

Enabled monitor FDD, COM, LPT Port.

PCI PIRQ[A-D]#

Disabled(default)

Enabled

Ignore PCI PIRQ[A-D]#

Active.

Monitor PCI PIRQ[A-D]#

Active.

2.7 PnP/PCI Configurations

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 of the CPU itself when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users make any changes to the default settings.

© Figure 7. PnP/PCI Configurations

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software
PnP/PCI Configurations

Reset Configuration Data	Disabled	Item Help
Resources Controlled By	Auto(ESCD)	Menu Level
IR R esources	Press Enter	
PCI/V S Palette Snoop	Disabled	When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt

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

Reset Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds resources from nonconflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved at the system BIOS. If Disabled (Default) is chosen, the system's ESCD will update only when the new configuration varies from the last one. If Enabled is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

IRQ3	assigned to:PCI/ISA PnP
IRQ4	assigned to:PCI/ISA PnP
IRQ5	assigned to:PCI/ISA PnP
IRQ6	assigned to:PCI/ISA PnP
IRQ7	assigned to:PCI/ISA PnP
IRQ8	assigned to:PCI/ISA PnP
IRQ9	assigned to:PCI/ISA PnP
IRQ10	assigned to:PCI/ISA PnP
IRQ11	assigned to:PCI/ISA PnP
IRQ12	assigned to:PCI/ISA PnP
IRQ13	assigned to:PCI/ISA PnP
IRQ14	assigned to:PCI/ISA PnP
IRQ15	assigned to:PCI/ISA PnP
DMA-0	assigned to:PCI/ISA PnP
DMA-1	assigned to:PCI/ISA PnP
DMA-2	assigned to:PCI/ISA PnP
DMA-3	assigned to:PCI/ISA PnP
DMA-4	assigned to:PCI/ISA PnP
DMA-5	assigned to:PCI/ISA PnP
DMA-6	assigned to:PCI/ISA PnP
DMA-7	assigned to:PCI/ISA PnP

The above settings will be shown on the screen only if “Manual” is chosen for the resources controlled by function.

Legacy is the term which signifies that a resource is assigned to the ISA Bus and provides for non-PnP ISA add-on cards. PCI/ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

Resources Controlled By

By Choosing “Auto” (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing “Manual”, the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

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

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the write access to the VGA palette and registers the snoop data. In PCI based systems, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled(default)

Function Disabled.

Enabled

Function Enabled.

2.8 PC Health Status

© Figure 8. PC Health Status

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software

PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current System Temp.		Menu Level
Current CPU Temperature		
Current CPU Fan1 Speed		
Current CPU Fan2 Speed		
Current CPU Fan3 Speed		
VCORE		
+3V		
+5V		
+12V		
-12V		
VBAT(V)		
5VSB(V)		
Shut down Temperature	Disabled	

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

Current Voltage(V) Vcore / VGL / Vcc3/+12V/5V/5VSB/ VBAT

Detect system voltage status automatically.

Current CPU/System Temperature(°C / °F)

This field displays the current CPU temperature, if your computer contains a monitoring system

Current Fan/Power Fan / System Fan Speed

These field displays the current speed of up to System Fans, if your computer contains a monitoring system

CPU Warning Temperature(°C)

Disabled(default)	Disabled.
60°C / 140°F	Monitor CPU T _{emat} 60 °C / 140°F.
50°C / 122°F	Monitor CPU T _{emat} 50 °C / 122°F.
53°C / 127°F	Monitor CPU T _{emat} 53 °C / 127°F.
56°C / 133°F	Monitor CPU T _{emat} 56 °C / 133°F.
63°C / 145°F	Monitor CPU T _{emat} 63 °C / 145°F.
66°C / 151°F	Monitor CPU T _{emat} 66 °C / 151°F.
70°C / 158°F	Monitor CPU T _{emat} 70 °C / 158°F.

Shutdown Temperature(°C / °F)

Disabled(default)	Disabled.
60°C / 140°F	Monitor CPU T _{emat} 60 °C / 140°F, if T _{em} >60 °C / 140°F system will automatically power off.
65°C / 149°F	Monitor CPU T _{emat} 65 °C / 149°F, if T _{em} >65 °C / 149°F system will automatically power off.
70°C / 158°F	Monitor CPU T _{emat} 70 °C / 158°F, if T _{em} >70 °C / 158°F system will automatically power off.
75°C / 167°F	Monitor CPU T _{emat} 75 °C / 167°F, if T _{em} >75 °C / 167°F system will automatically power off.

2.9 Frequency / Voltage Control

© Figure 9. Frequency / Voltage Control

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software

Frequency / Voltage Control

Auto Detect DIMM / PCI CLK	Enabled	Item Help
Spread Spectrum	Disabled	
Clock By Slight Adjust	133	Menu Level
CPU Clock Ratio	X3	

←→↑↓: 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 Choices: Enabled(default), Disabled.

Clock By Slight Adjust

This item allows you to select the CPU clock from 133MHz to 166MHz, 100MHz to 133MHz or 66MHz to 100MHz depending on the CPU Host Clock .

CPU Clock Ratio

This option will not be shown if you are using a CPU with the locked ratio.

X3/X3.5/X4/X4.5/X5/X5.5/X6/X6.5/X7/X7.5/X8

Spread Spectrum

This function is designed for the EMI test only.

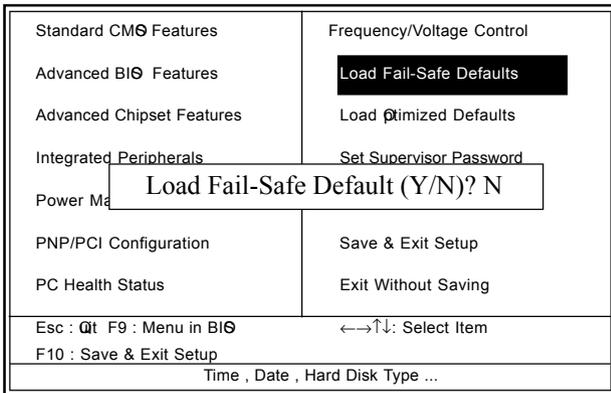
The Choices: Disabled(default), Enabled.

2.10 Load Fail-Safe Defaults

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

© **Figure 10. Load Fail-Safe Defaults**

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software



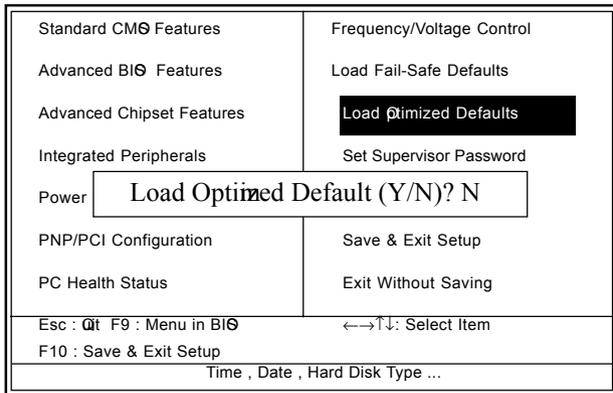
Pressing ‘Y’ loads the default values that are factory settings for optimal performance of system operations.

2.11 Load Optimized Defaults

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

© Figure 11. Load Optimized Defaults

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software

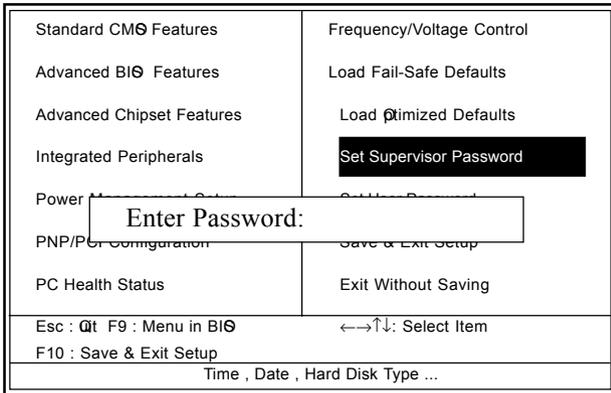


Pressing 'Y' loads the default values that are factory settings for optimal performance of system operations.

2.12 Set Supervisor / User Password

© Figure 12. Set Supervisor / User Password

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software



When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

Enter Password

Type a password, up to eight characters, and press <Enter>. The password you type 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 the password, just press <Enter> when you are prompted to enter a password. A message will confirm that you wish to disable the password. Once the password is disabled, the system will boot and you can enter setup freely.

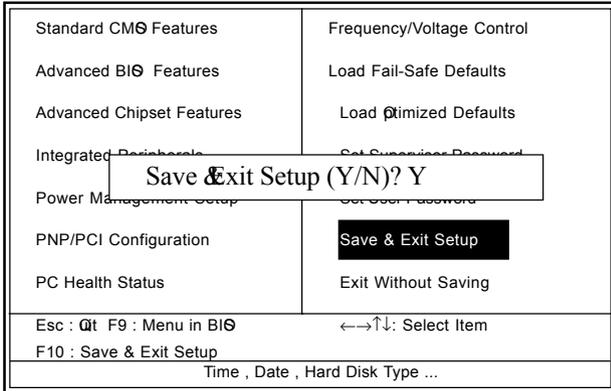
Password Disabled

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

2.13 Save & Exit Setup

© Figure 13. Save & Exit Setup

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software



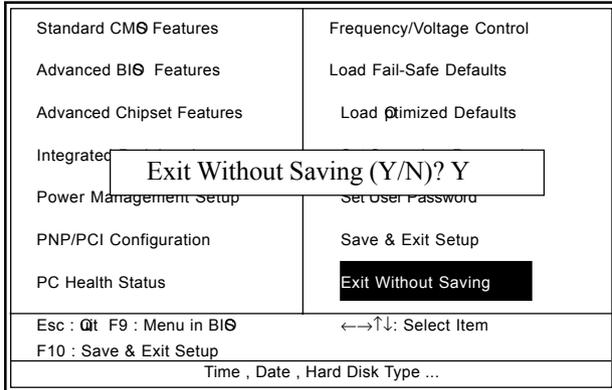
Typing “Y” will quit the Setup Utility and save the user setup value to RTC CMOS RAM.

Typing “N” will return to the Setup Utility.

2.14 Exit Without Saving

© Figure 14. Exit Without Saving

CMOS Setup Utility-Copyright(C) 1984-2001 Award Software



Typing “Y” will quit the Setup Utility without saving to RTC CMOS RAM.

Typing “N” will return to the Setup Utility.

Date : / /

Warranty Card/Technical Fault Report

M/B Model No.: _____ Vender

Serial No. : _____

Date of Purchase: _____

--

Hardware Configuration Used :

CPU	
RAM (Brand,MB)	
Video Card	
Hard Drive	
Other Card	

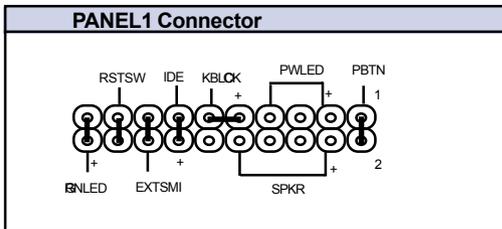
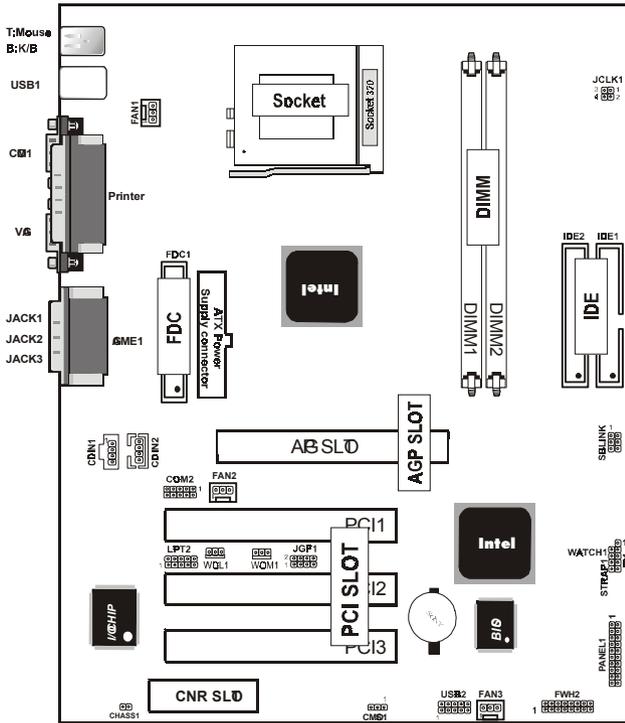
Diagnostic Software Used :

--

Fault Description :

--

The 6M815E Mainboard Layout



6M815E

User's Manual Version 1.0

The information presented in this publication has been carefully prepared to ensure reliability ; however, no responsibility is assumed for inaccuracies. Specifications are subject to change without notice.

IBM, PC/AT, and PC/XT are trademarks of International Business Machines Corporation.

Socket370 is a trademark of Intel Corporation

AWARD is a registered trademark of Phoenix Software Inc.

MS-DOS and WINDOWS NT are registered trademarks of Microsoft Corporation.

Trademarks and/or registered trademarks are the properties of their respective owners.

Table of Contents

Introduction

1. Motherboard Description

1.1 Features	
1.1.1 Hardware	2
1.1.2 Software	5
1.1.3 Attachments	5
1.2 Motherboard Installation	
1.2.1 Layout of Motherboard	6
1.3 Motherboard Connectors	
1.3.1 Front Panel Connectors(PANEL1)	8
1.3.2 Floppy Disk Connector(FDC1)	9
1.3.3 Hard Disk Connectors(IDE1/IDE2)	9
1.3.4 ATX 20-pin Power Connector(PW1)	10
1.3.5 Infrared Connector(IR1)	10
1.4 Back Panel Connectors	
1.4.1 PS/2 Mouse/Keyboard CONN.	11
1.4.2 USB Connectors	11
1.4.3 VGA Interface Connector(VGA)	11
1.5 Serial and Parallel Interface ports	13
1.6 CPU Installation	
1.6.1 CPU Installation Product(Socket 370)	15
1.6.2 CPU Frequency Selection(JCLK1)	16
1.7 Jumper Setting	
1.7.1 CPU Fan Connector(FAN1/2/3)	17
1.7.2 Wake-On-Modem Header(WOM1)	18
1.7.3 Wake-On-LAN Header(WOL1)	18
1.7.4 CMOS Function Select(CMOS1)	18
1.7.5 SPEAKER Selection(WATCH1)	19
1.7.6 SBLINK Connector	19
1.7.7 Chassic Intrusion Connector(CHASSIC1)	19
1.7.8 AC97 Serial data out(STRAP1)	19

Table of Contents

1.8 DRAM Installation	
1.8.1 DIMM	20
1.8.2 How to install a DIMM Module	20
1.9 Audio Subsystem	
1.9.1 CD-Audio-IN Connectors(CDIN1/CDIN2)	21
1.10 Smart Panel Onboard Connector (option)	
1.10.1 Second BIOS Connector(FWH2)	23
1.10.2 Parallel Port Connector(LPT2)	23
1.10.3 GPIO Port Connector(JGP1)	23

2. BIOS Setup

2.1 Main Menu	27
2.2 Standard CMOS Features	30
2.3 Advanced BIOS Features	33
2.4 Advanced Chipset Features	37
2.5 Integrated Peripherals	40
2.6 Power Management Setup	46
2.7 PnP/PCI Configurations	51
2.8 PC Health Status	55
2.9 Frequency/Voltage Control	57
2.10 Load Fail-Safe Defaults	58
2.11 Load Optimized Defaults	59
2.12 Set Supervisor/user Password	60
2.13 Save & Exit Setup	62
2.14 Exit Without Saving	63