

6A815E

User's Manual Version 1.0

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Chapter 1

1

Introduction

How This Manual is Organized

This manual is divided into the following sections:

- Chapter 1 Introduction** : Manual information and checklist.
- Chapter 2 Features** : Information and Specifications concerning this mainboard.
- Chapter 3 Installation** : Instructions on setting up the board.

Package Checklist

Please check that your package is complete . If you discover any item damaged or missing , please contact with your retailer immediately.

- ⌚ The 6A815E mainboard.
- ⌚ 1 x IDE UDMA66 ribbon cable.
- ⌚ 1 x COM2 cable.
- ⌚ 1 x Floppy ribbon cable.
- ⌚ 6A815E support software:
CD driver and utilites.
- ⌚ This user's Manual

Chapter 2

2

Features

Features of the 6A815E Mainboard

The 6A815E is designed for the PC user who want many new key features processed by the fastest CPU in a economic package. This mainboard :

- ⌘ **New general CPU support :**
 - Socket 370 for Intel PPGA/FC-PGA PII/PIII processor.
 - Socket 370 Celeron (300MHz~733MHz) or higher processor.
 - Socket 370 VIA Cyrix III 500~600MHz processor.
 - Socket 370 Coppermine (500MHz~1GHz) or higher processor.

- ∞ **Chipset :**
-GMCH Chipset :Intel 815 support a 66/100/133 FSB.
-ICH Chipset :Intel ICH2.

- ∞ **Biggest memory capacity :**
6A815E is equipped with three DIMM socket to support (16MB, 32MB, 64MB, 128MB,256MB) 168 pin 3.3v SDRAM SPD(Special Presence Detect).Maximum memory up to 512MB.

-Supports up to 3 double sided DIMMs at 100MHz system memory bus.
-Supports up to 2 double sided or 3 single sided DIMMs at 133MHz system memory bus.

- ∞ **AGP for fast VGA solution :**
-AGP specification compliant.
-AGP 66 MHz 3.3v/1.5v for 1X/2X/4X device support.

- ∞ **PCI Expansion Slot :**
Provide five 32 bit PCI slots.

- ∞ **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 device.

- ∞ **On-Board Peripherals:**
-1 floppy port supports 2 FDD with 360K,720K,1.2M, 1.44M and 2.88M byte.
-2 serial ports (COM1+COM2 (10pin)).
-4 USB ports.
-1 VGA ports.
-1 parallel port supports SPP/EPP/ECP mode.
-1 RJ-45 connector. (option)

- ∞ **Audio:**
- ICH2 chip integrated.
- AC'97 CODEC on board ,support 3D sound effect.

∞ **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 modem, LAN, Alarm Bus CLK setup with BIOS.

∞ **Intel Accelerated Hub Architecture :**

Features a dedicated high speed hub link between the ICH2 and GMCH with a bandwidth of 266MB/sec-twice the maximum bandwidth 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, Home PNA, 10/100 Ethernet networking, USB hub, as well as future technologies such as XDSL .

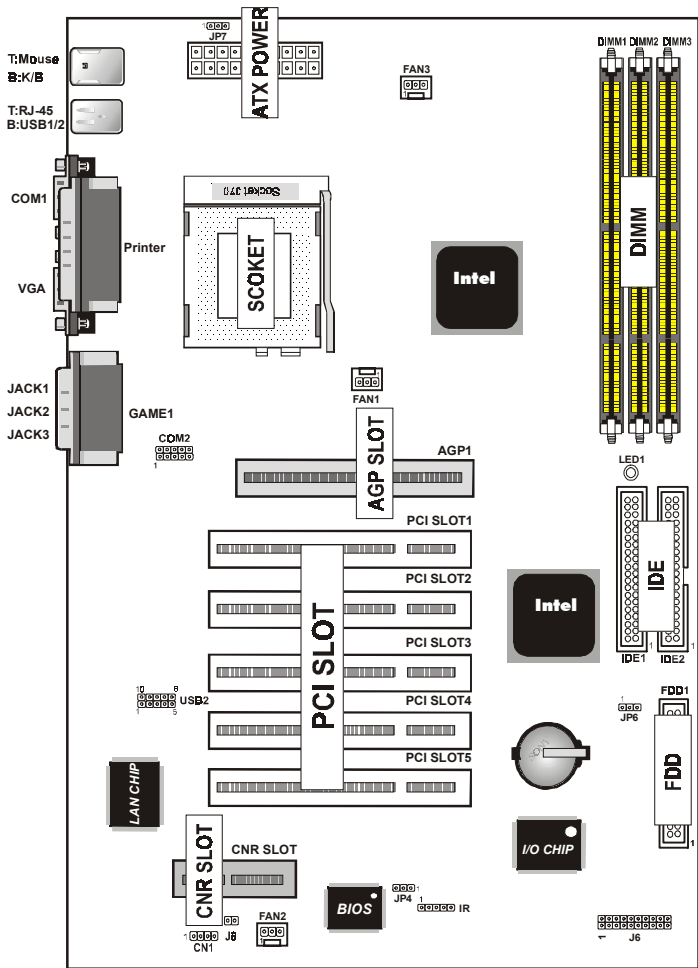
∞ **Fan Status Monitoring and Alarm Temperature Monitoring/Voltage Monitoring and Alert.**

∞ **Integrated Graphics :**

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

- ⌘ **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 modem and Alarm on in BIOS.
- ⌘ **PC Health Monitoring :**
Provides an easy way to examine and manage system status information, such as CPU and system voltages, temperatures, and fan status through the onboard hardware.
- ⌘ **Suspend and Go :**
Suspend-to-RAM (str) provides maximum power 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.

The 6A815E Mainboard layout



Chapter 3

3

Installation

Jumper

Jumper		Refer to page
◆ JP6	- Real time Clock RTC Clean	12
◆ J6	- HD_LED	23
◆ J6	- Reset Switch	23
◆ J6	- Power LED	23
◆ J6	- Speaker Connector	24
◆ J6	- ATX Power Switch	24
◆ JP4	- BIOS Flash Jumper	25
◆ JP7	- Keyboard Wake up Setting	26
◆ J8	- CNR Card Use Setting	26

Expansion Slot

Which page

♦ 168 pin DIMM Socket	13
♦ Socket 370	16
♦ AGP (Accelerator Graphic Port) SLOT	18
♦ PCI SLOT 1,2,3,4,5 -32bits PCI SLOT	18
♦ CNR(Communication and Networking Riser) SLOT	18

Connectors

Refer to page

♦ KB1(DP) - PS/2 Keyboard port	19
♦ KB1(UP) - PS/2 Mouse port.	19
♦ USB - USB1,2,3,4 Port	19
♦ COM1 - COM 1 serial port (9 pin)	19
♦ COM2 - Serial port COM 2 Header(1-10pin)	19
♦ LPT1 - Parallel port	19
♦ VGA - Moniter output connector (15 pin)	20
♦ RJ-45 - LAN connector	20
♦ FDD1 - FLOPPY connector	20
♦ IDE1 - Primary IDE connector	20
♦ IDE2 - Secondary IDE connector	20
♦ FAN1 - FAN CONN. for CPU	21
♦ FAN2 - FAN CONN. for SYS	21
♦ FAN3 - FAN CONN. for MB	21
♦ IR - IrDA connector	22
♦ PW1 - ATX Power Connector	24
♦ CN1 - CD Audio connector	25
♦ LED1 - STR LED	26

System Installation Setup

Before using your computer, you must finish the following steps:

1. Set jumpers on mainboard
2. Install SDRAM module.
3. Install the Processor.
4. Connect Ribbon Cables, Cabinet Wires, and Power supply.
5. Install Add on Cards.
6. Setup the BIOS software.
- 7. Make sure your ATX Power Supply the 5VSB output has 1 Ampere or more.**
- 8. First turn off the ATX Power Supply when you setup the SDRAM Module.**





Static Electricity Precaution

- ⌚ Keep the mainboard and other system components in their anti-static packaging until you are ready to install them.
- ⌚ Do all preparative work on a static-free surface with the main board components facing up.
- ⌚ Unplug your computer when working on the inside.
- ⌚ Wear an Anti-static wrist strap.
- ⌚ Hold the system components, boards or cards by its edges only. Be careful not to touch any of IC chips, circuitry, contacts or connections, especially gold contacts on the mainboard.

Jumper Settings

Jumpers

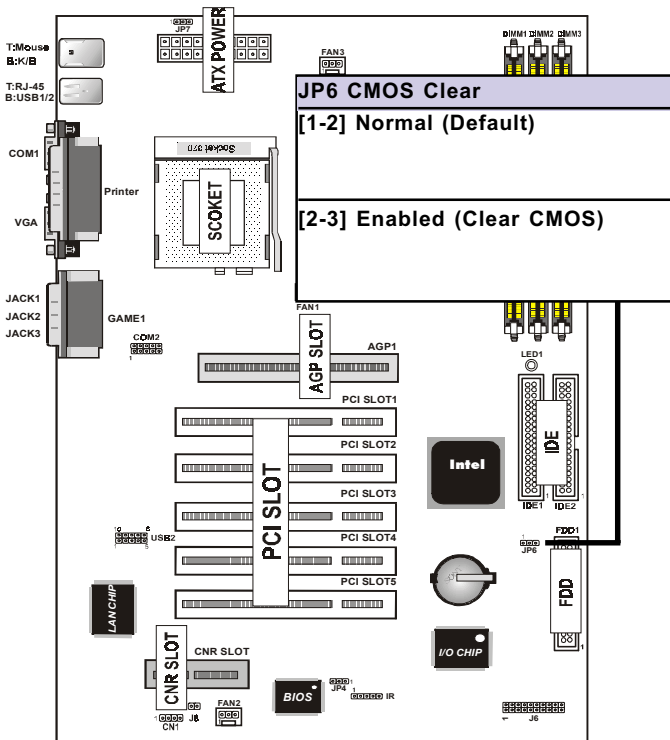
Several hardware settings are made through the use of jumper caps to connect jumper pins (Jxx) on the mainboard. See "Map of the mainboard" for locations of jumpers.

The jumper settings will be described numerically such as [----], [1-2], [2-3] for no connection, connect pins 1 & 2, and connect pins 2 & 3 respectively. Pin 1 for our mainboard is always on top one or on the left when holding the mainboard with the keyboard away from yourself. "P1" is written besides pin 1 on jumper with three pins. The jumpers will also be shown graphically such as  to connect pin 1 & 2 and  to connect 2 & 3. Jumpers with two pins will be shown as  for Short (on) and  for Open (off). For manufacturing simplicity it may be sharing pins from other groups. Use the diagrams in this manual instead of following the pin layout on the board. Settings with two jumper numbers require that both jumpers be moved together. To connect the pin, simply place a plastic jumper cap over the two pins as diagrammed.

Real Time Clock (RTC) RAM - JP6 :

The CMOS RAM is powered by the onboard button cell battery. To clear the RTC data:

- (1) Turn off your computer,
- (2) Move this jumper to "2-3Pin Clear Data",
- (3) Move the jumper back to "Default",
- (4) Turn on your computer,
- (5) Hold down <Delete > during bootup and enter BIOS setup to re-enter user Preferences.



System Memory (DIMM Module)

This **6A815E** main board supports three 168 pin DIMM of 16 MB, 32 MB, 64 MB, 128 MB ,256MB to form a memory size between 16MB to 256MB.

The DRAM can be either 45ns,50ns,or60ns SDRAMs.

Install memory in any or all Banks in Combination:

Note:

- Supports up to 3 double sided DIMMs at 100MHz system memory bus.
- Supports up to 2 double sided or 3 sided DIMMs at 133MHz system memory bus.

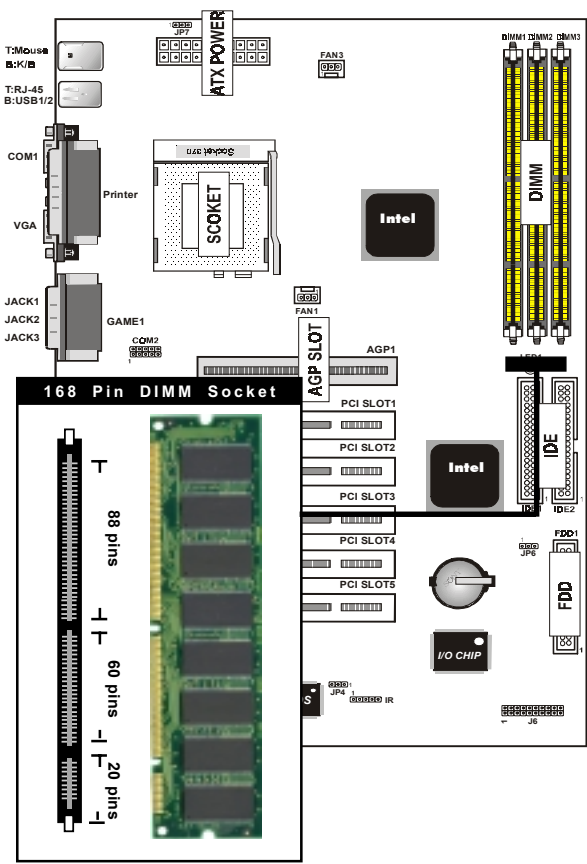
Bank	Memory module
DIMM 1	16MB,32MB,64MB,128MB,256MB
(Bank 0-1)	168 pin,3.3v SDRAM
DIMM 2	16MB,32MB,64MB,128MB,256MB
(Bank 2-3)	168 pin 3.3v,SDRAM
DIMM 3	16MB,32MB,64MB,128MB,256MB
(Bank 4-5)	168 pin 3.3v,SDRAM
Total System Memory(Max 512MB)	

Note :

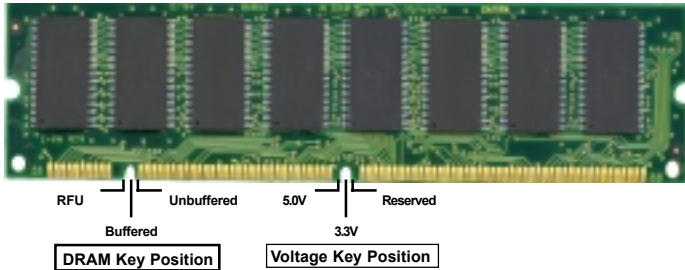
- ◆ The DIMM Slot does not support any 5V EDO DIMM module.
- ◆ The DIMM Slot does not support any 5V SDRAM DIMM module.
- ◆ Memory speed setup is required through "Auto Configuration" in BIOS chipset Setup of BIOS SOFTWARE. If several speed memories are used, You must set Auto Configuration to low. Example If both 50ns, 60ns are used, Please set Auto configuration to 60ns.
- ◆ It's allowed any DIMM module put in any DIMM slot. It's allowed there are different capacity DIMM module in all DIMM slot.
- ◆ Please shut down the ATX Power when you setup the DIMM Module.

DIMM Memory Installation

Insert the module (s) as shown. Because the number pins are different 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.



The Dual Inline Memory Module (DIMM) memory module must be 3.3v . You can identify the type of DIMM module by the illustration below:



168 Pin DRAM DIMM Notch Key Definitions

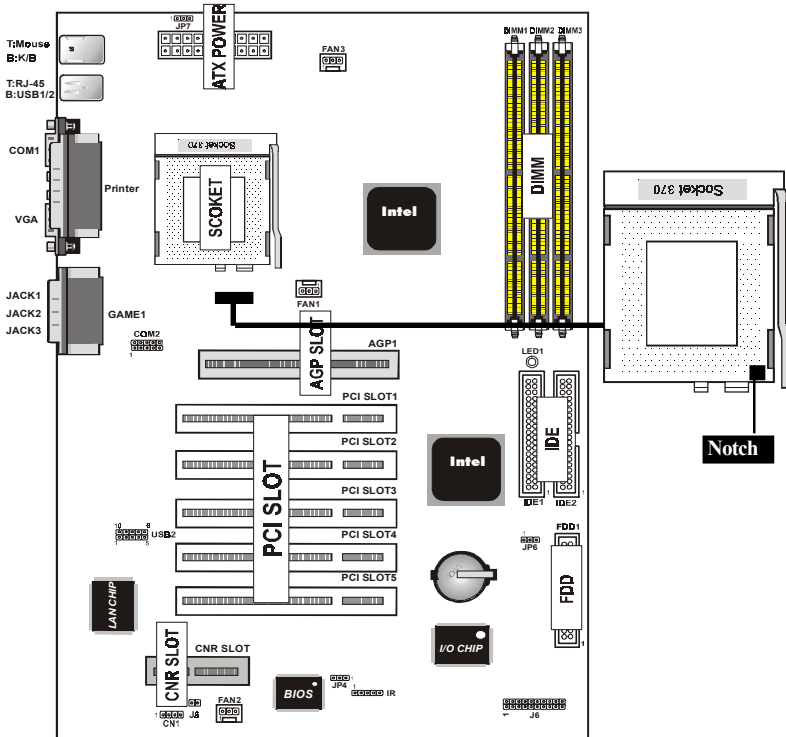
The notch on the DIMM module will shift between left, center, or right to identify the type and also to prevent the wrong type to be inserted into the DIMM slot on the Mainboard. You must ask your retailer for Specifications before purchasing.

Four clock signals are supported on this mainboard

CPU Installation

The motherboard provides a ZIF socket 370. The CPU that came with the motherboard should have a fan attached to it to prevent overheating . If this is not the case then purchase a fan before you turn on your system.

To install a CPU , first turn off your system and remove its cover. Locate the ZIF socket and open it by first pulling the lever sideways away from the socket then upwards to a 90-degree right angle. Insert the CPU with the correct orientation shown . The notched corner should point towards the end of the lever. Because the CPU has a corner pin for two of the four corners, the CPU will only fit in the orientation as shown.



Selecting the CPU Frequency

CPU voltage auto-detection and allow user to set CPU frequency through BIOS setup, no jumper or switch is needed. The correct CPU information is saved into EPROM, with these technologies, the disadvantages of Pentium base jumper-less design are eliminated. There will be no worry of wrong CPU voltage detection and no need to re-open the housing if CMOS battery loss. The CPU frequency selection is set by going into:

Choose “**CPU SPEED SETTING**” from the BIOS and a screen with frequency/voltage control items appears.

CPU Clock Ratio

This item lets you select the ratio of Core/Bus frequency. Have the following selection: 3x, 3.5x, 4x, 4.5x, 5x, 5.5x, 6x, 6.5x, 7.0x, 7.5x,8.

CPU Host/PCI Clock/PC133

This item lets you set external clock (bus clock). The possible settings are 66,100 and 133 MHZ....

Clearance Requirements

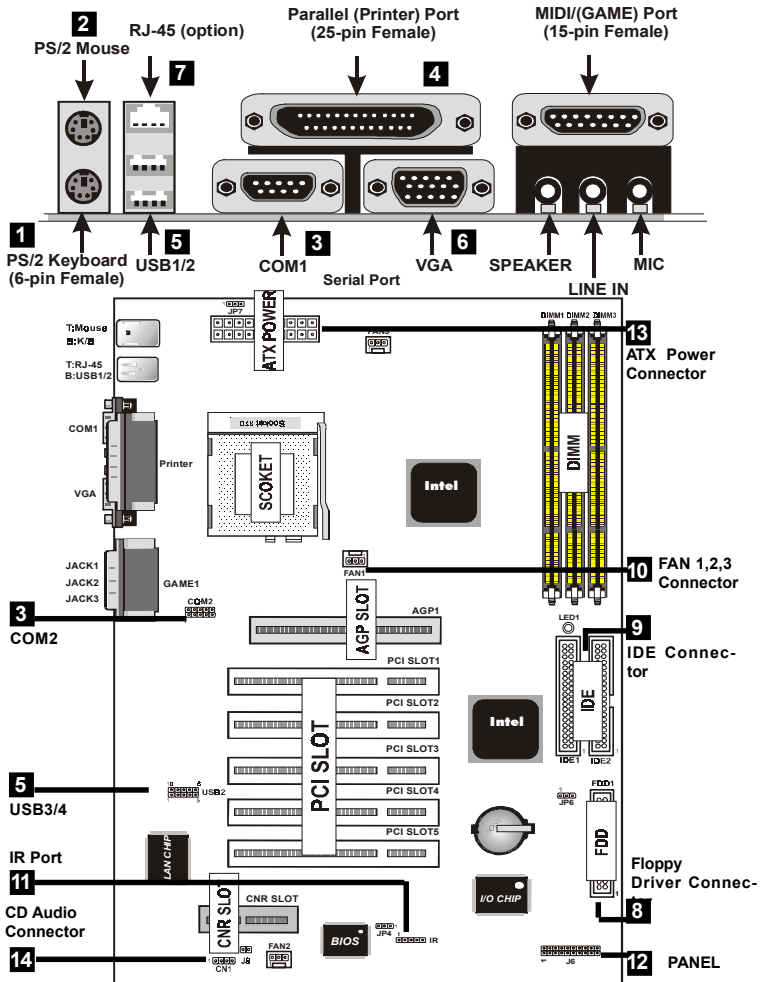
To maintain proper airflow once the processor is installed on the mainboard, the processor and fan heatsink require certain space clearances. The clearance above the processor must be at least 0.3 inches. The clearance on at least 3 of 4 sides of the processor and fan heatsink must be at least 0.2 inches. All cables (for Floppy drive, Hard drive,CD-ROM,and so on) must be routed clear of the processor and its airspace.

Fan Exhaust

The processor must be kept cool by using a processor with heatsink and fan attached . The temperature of the air filled with the fan/ heatsink cannot exceed 45 °C(113 °F) . The ambient or room temperature must be below 37 °C (99 °F) .

EXTERNAL CONNECTORS

Both Ribbon cable and Connectors on board are with direction signs to avoid that user insert wrong directions. On the other hand, the ribbon cables should always be connected with the red stripe on the pin 1 of side of the connector.



1. PS/2 Keyboard port

This connection is for a standard keyboard using an PS/2 plug (mini DIN) . This connector will not allow standard AT size (large DIN) keyboard plugs. You may use a DIN to mini DIN adapter on standard AT keyboards.

2. PS/2 Mouse port

This system will direct IRQ12 to PS/2 mouse.

3. Serial Port COM 1 and COM 2 port

The one serial ports can be used for pointing devices or other serial devices. See "Onboard Serial Port" in chipset Feature Setup of the BIOS SOFTWARE.Serial port COM 2 Header(1-10pin).

NOTE:

Serial {D-type 9pin (F) } must be connected to the serial port.

4. Parallel Printer port

You can enable the parallel port and choose the IRQ through " Onboard Parallel Port" in Chipset. Feature Setup of the BIOS SOFTWARE.

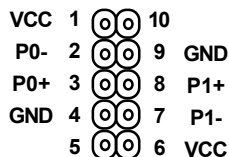
5. - Universal Serial BUS Ports 1,2

Two USB ports are available for connecting USB devices.

- Universal Serial BUS Ports 3,4

Two USB ports are available on the back panel. Therefore,we provide a 10 pin ribbon cable with bracket to connect Built-in on-board USB header.

USB 3,4



6. **VGA Connectors (15-pin)**

This connectors support monitor.

7. **RJ-45 Connector (option)**

Onboard 10/100MB PCI Fast Ethernet Network.

The RJ-45 connectors at the time of purchase and is located on top of the USB connectors. The connector allows the motherboard to connect to a Local Area Network (LAN) through a network hub .

8. **Floppy drive connector**

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

9. **Primary / Secondary IDE connectors (Two 40-pin Blocks)**

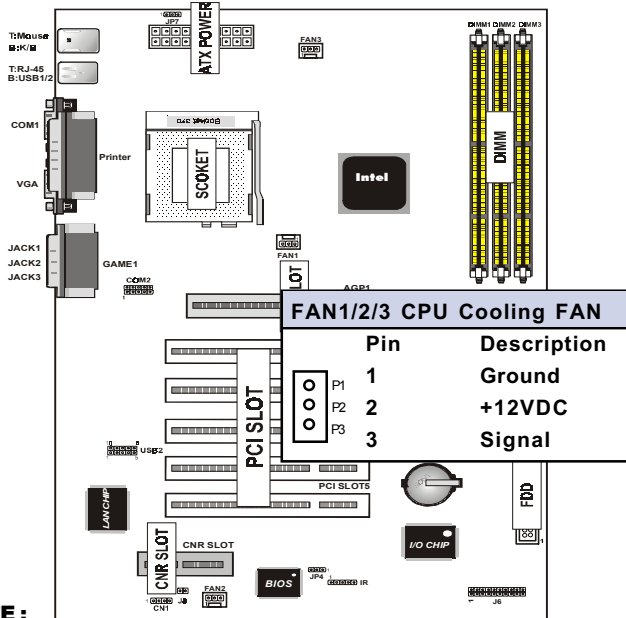
These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk no space(s) . If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS 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) .

Tip :

You may configure two hard disks to be both Master using one ribbon cable on the primary IDE connector. You may install one operating system on an IDE drive and another on a SCSI drive and select one of the two through BIOS Feature Setup.

10. FAN1 , FAN2 , FAN3 CPU Cooling Fan (FAN/PWR)

These connectors support cooling fans of 500mAmp (6Watt) or less. Orientate the fans so that the heatsink fins allow airflow to go across the onboard heat sink(s) instead of the expansion slots. Depending on the fan manufacturer, the wiring and plug may be different. The red wire should be positive, while the black should be ground. Connect the fan's plug to the board taking into consideration the polarity of this connector.



NOTE :

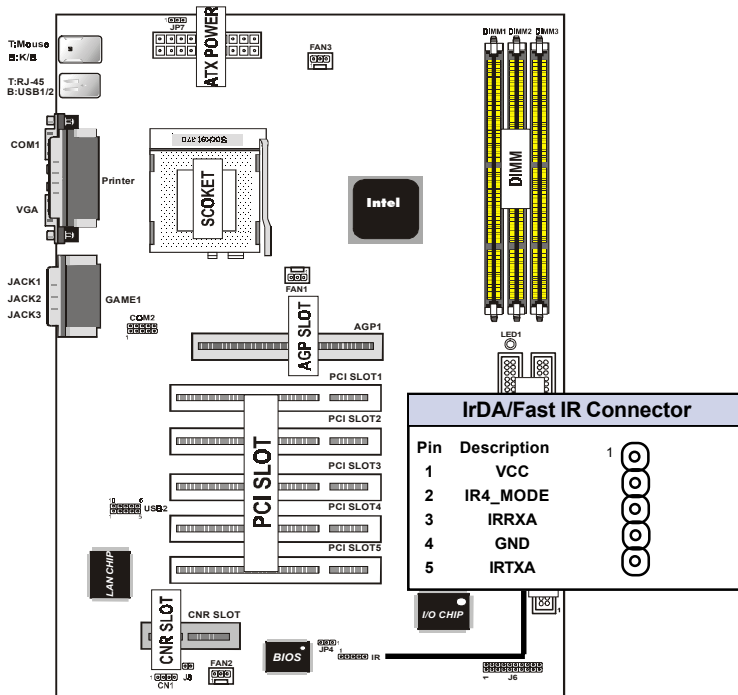
The "Rotation" signal is to be used only by a specially designed fan with rotation signal.

WARNING :

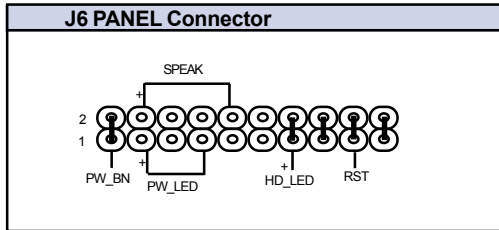
The CPU and/or motherboard will overheat if there is no air flowing across the CPU and onboard heatsinks. Damage may occur to the motherboard and/or the CPU fan if these pins are incorrectly used. These are not jumpers, do not place jumper caps over these pins.

11. IrDA / Fast IR-Compliant infrared module connector - IR

This connector supports the optional wireless transmitting and receiving infrared module. This module mounts to a small opening on system cases that support this feature. You must also configure the setting through “UART2 Use Infrared” in Chipset Feature Setup to select whether UART2 is directed for use with COM2 or IrDA. Use the five pins as shown on the Back View and connect a ribbon cable from the module to the motherboard according to the pin definitions.



12.J6



a. IDE activity LED (HD-LED)

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

b. Power LED Lead (PW_LED)

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

c. Reset Switch Lead (RST)

This 2-pin connector connects to the case-mounted reset switch for rebooting your computer without having to turn off your power switch. This is a preferred method of rebooting in order to prolong the life of the system's power supply.

d. Speaker Connector (SPEAKER)

This 4-pin connector connects to the case-mounted speaker.

e. ATX Power Switch (PW_BN)

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's power is on.

13. ATX Power Supply Connector (20-pin block) - PW1

This connector connects to a ATX power supply. The plug from the power supply will only insert in one orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that the pins are aligned.

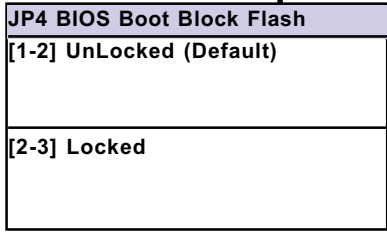
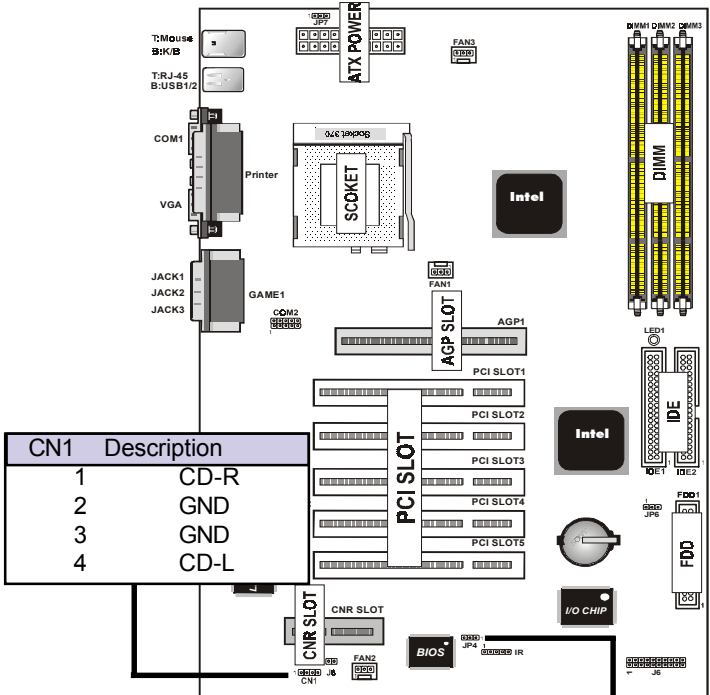
IMPORTANT:

Make sure that the ATX power supply can take at least 10mAmp load on the 5Volt standby lead (5VSB). You may experience difficulty in powering on your system without this.

Pin	Description	Pin	Description
1	3.3V	2	3.3V
3	GND	4	5V
5	GND	6	5V
7	GND	8	PW-OK
9	5VSB	10	12V
11	3.3V	12	-12V
13	GND	14	PS-ON
15	GND	16	GND
17	GND	18	-5V
19	5V	20	5V

14. CD Audio Connector- CN1

The 4-pin connectors enable the system to receive the audio output from the CD-ROM.

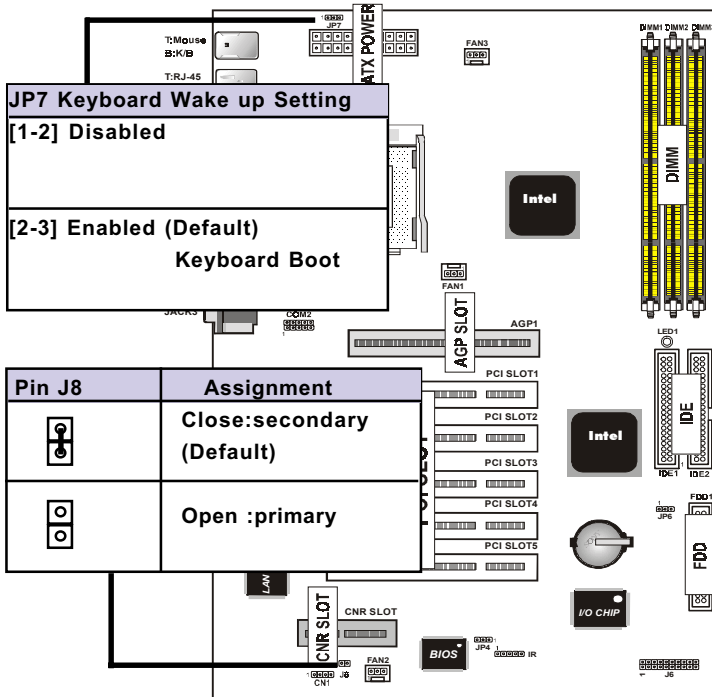


15. BIOS Boot Block Flash Jumper-JP4

The Jumper is used to locked/unlocked BIOS Boot Block Flash. This Jumper should be unlock when flashing/programming the BIOS.

16. Keyboard Wake up Setting- JP7

The Jumper is used to Keyboard boot setting.



17. CNR Card Use Setting- J8

The Jumper is used to CNR Card use setting.

18. STR LED-LED1

The LED is used to STR ON/OFF state.

Chapter 4

4

Award BIOS Setup

Introduction

This chapter discusses the Award Setup program built into the ROM BIOS. The Setup program allows 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 custom version of an industry standard BIOS. 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.

APM Support

These AWARD BIOS supports Version 1.1&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.

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel specification.

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.

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 Submenus: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

Advanced BIOS Features

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

Advanced Chipset Features

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

Integrated Peripherals

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

Power Management Setup

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

PnP/PCI Configuration

This setup page includes IRQ Setting by user define or default.

PC Health Status

This page shows the hardware Monitor information of the system.

Frequency / Voltage Control

This setup page is control CPU's clock and frequency ratio.

Load Fail-Safed 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.

4.2 Standard CMOS Features

This item in Standard CMOS Setup Menu is 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.

© Figure 2. Standard CMOS Features

CMOS Setup Utility-Copyright(C) 1984-2000 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	Press Enter None	Menu Level
IDE Primary Slave	Press Enter None	Change the day, month,year and century.
IDE Secondary Master	Press Enter None	
IDE Secondary Master	Press Enter None	
Drive A	1.44M,3.5 in	
Drive B	None	
Floppy 3 Mode Support	Disabled	
Video	EGA/VGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	391168K	
Total	392192K	

←→↑↓: 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 sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Primary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu 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.

4.3 Advanced BIOS Features

© Figure 3. Advanced BIOS Features

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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	
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	Allows you to choose the VIRUS warning feature for IDE
Second Boot Device	HDD-0	Hard Disk boot sector protection.
Third Boot Device	LS120	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
Boot Other Device	Enabled	
Swap Floppy Device	Disabled	
Boot Up Floppy Seek	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
Typematic Rate (Chars/Sec)	6	
Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM >64MB	Non-OS2	
HDD S.M.A.R.T. Capability	Disabled	
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 attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.

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 fields allow 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

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

The Choices: Enabled(default), Disabled.

Processor Number Feature

The 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 seeds 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(default) Enabled quick POST.
Disabled Normal POST.

First/Secondary/Third/Boot Other Device

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

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

Swap Floppy Seek

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

The Choices:Enabled,Disabled(default).

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.

On(default)

Numpad is number keys.

Off

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 defined if the correct password is not entered in prompt.

Setup(default)

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

HDD S.M.A.R.T. Capability

Enabled

Enabled HDD S.M.A.R.T. Capability.

Disabled(default)

Disabled HDD S.M.A.R.T. Capability.

OS Select For DRAM >64MB

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

The Choices:Non-OS2(default),OS2

Report No FDD For Window 95

No(default)

Assign IRQ6 For FDD.

Yes

FDD Detect IRQ6 Automatically.

4.4 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 memory resources, such as DRAM and external cache. It also coordinates communications 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.

© Figure 4. Advanced Chipset Features

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Software advanced Chipset Features

SDRAM CAS Latency/Time	3	Item Help
SDRAM Cycle Time Tras/Trc	6/8	
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	
On-Chip Video Window Size	64MB	
AGP Graphic Aperture Size	64MB	
System Memory Frequency	Auto	

←→↑↓: 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

6/8(default)

Set SDRAM Tras/Trc Cycle time in 6/8 SCLKs.

5/7

Set SDRAM Tras/Trc Cycle time in 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.

Delayed Transaction

Enabled(default)

Slow speed ISA device in system.

Disabled

Disabled.

On-Chip Video Window Size

64MB(default)

Set Graphics Aperture Size to 64 MB.

32MB

Set Graphics Aperture Size to 32 MB.

Memory Hole At 15M-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.

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.

4.5 Integrated Peripherals

© Figure 5. Integrated Peripherals

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Software Integrated Peripherals

On-Chip Primary PCI IDE	Enabled	Item Help
On-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	
Init Display First	PCI Solt	
AC97 Audio	Auto	
IDE HDD Block Mode	Enabled	
Power On Function	Button Only	
KB Power On Password	Enter	
Hot Key Power On	Ctrl-F1	
Onboard FDC Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	
Onboard Serial Port 2	2F8/IRQ3	
UART Mode Select	Normal	
RxD,TxD Active	Hi,Lo	
IR Transmission Delay	Enabled	
UR2 Duplex Mode	Half	
Use IR Pins	IR/Rx2Tx2	
Onboard Paraller Port	378/IRQ7	
Parallel Port Mode	SPP	
EPP Mode Type	EPP1.7	
ECP Mode Use DMA	3	
PWRON After PWR-Fail	Off	
Game Port Address	201	
Midi Port Adress	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

On-Chip Primary PCI IDE

Enabled(default)

Enabled onboard 1st channel IDE port.

Disabled

Disabled onboard 1st channel IDE port.

On-Chip Secondary PCI IDE

Enabled(default)

Enabled onboard 2nd channel IDE port.

Disabled

Disabled onboard 2nd channel IDE port.

IDE Primary Master PIO (for onboard IDE 1st channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Mode 0~4

Manually set the IDE Accessing mode.

IDE Primary Slave PIO (for onboard IDE 2nd channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Mode 0~4

Manually set the IDE Accessing mode.

IDE Secondary Master PIO (for onboard IDE 1st channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Mode 0~4

Manually set the IDE Accessing mode.

IDE Secondary Slave PIO (for onboard IDE 2nd channel)

Auto(default)

BIOS will automatically detect the IDE HDD Accessing mode.

Mode 0~4

Manually set the IDE Accessing mode.

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 USB Controller.

Disabled

USB Keyboard Support

Enabled

Enabled USB Keyboard Support.

Disabled(default)

Disabled USB Keyboard 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.

IDE HDD Block Mode

Enabled(default)

Enabled.

Disabled

Disabled.

Power On by 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

Button Only.

Keyboard 98

If your keyboard have Owner key button,you can press the key to power on your system.

KB Power On Password

Enter

Enter from 1 to 7 characters to set the keyboard Power On Password.

Hot Key Power On

Ctrl-F1

First you must to choose the Power On by Hot Key function then Enter from 1 to 8 characters to set the Hot Key Power On your system.

Ctrl-F2

Ctrl-F3

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/Port2

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

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

UART Mode Select

This item allows you decide 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 decide which Infra Red(IR) function of the onboard I/O chip.

The Choices:Half (default),Full.

Onboard Parallel Port

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

Disabled.

378/IRQ7. (default)

278/IRQ5.

3BC/IRQ7.

PWRON After PWR-Fail

The Choices:Off(default),On.

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 game port is 201.
209	Set onboard game port is 209.
Disabled	Disabled.

Midi Port Address

300	Set Midi Port address is 300.
330(default)	Set Midi Port address is 330.

Midi Port IRQ

10(default)	Set Midi Port IRQ 10.
5	Set Midi Port IRQ 5.

4.6 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) 1984-2000 Award
Software Power Management Setup

ACPI Function	Enabled	Item Help
ACPI Suspend Type	S1(POS)	
Power Management	User Define	Menu Level
Video Off Method	DPMS	
Video Off In Suspend	Yes	
Suspend Type	Stop Grant	
Modem Use IRQ	3	
Suspend Mode	Disabled	
HDD Power Down	Disabled	
Soft-Off by PWR-BTTN	Instant-Off	
Wake Up by PCI Card	Disabled	
Power On by Ring	Enabled	
USB KB Wake-Up From S3	Disabled	
PWRON After PWR-Fail	Off	
CPU Thermal-Throttling	50.0%	
Resume by Alarm	Disabled	
Data (of Month) Alarm	0	
Time (of hh:mm:ss) Alarm	0 0 0	
**Reload Global Timer Events **		
Primary IDE 0	Disabled	
Primary IDE 1	Disabled	
Secondary IDE 0	Disabled	
Secondary IDE 1	Disabled	
FDD,COM,LPT Port	Disabled	
PCI PIRQ[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 display 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(POS)(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 the literal “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 1 min. to 1 hr. except for HDD Power Down which ranges from 1 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 the rest of system, the hard drive will remain ready.

Otherwise, you have a range of choices from 1 to 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 or 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 actives. 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 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 Support (default)

Initial display power management signaling.

Suspend Type

Stop Grant(default)

Set Suspend type is stop grant.

PwrOn 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 Hour

Set the timer to enter Suspend Mode.

HDD 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.

USB KB/Mouse Wake From S3

Disabled(default)	Disabled.
Enabled	Enabled.

CPU Termal-Throttling

50.0%(default)
Monitor CPU Temp. will cause system 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)	Disabled.
Enabled	Enabled monitor Secondary IDE 0/1 for Green event.

FDD,COM,LPT Port

Disabled(default)

Disabled.

Enabled

Enabled monitor FDD,COM,
LPT Port.

PCI PIRQ[A-D]#

Disabled(default)

Ignore PCI PIRQ[A-D]#

Active.

Enabled

Monitor PCI PIRQ[A-D]#

Active.

PWRON After PWR-Fail

The Choices:Off(default),On.

4.7 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 uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced user should make any changes to the default settings.

© Figure 7. PnP/PCI Configurations

CMOS Setup Utility-Copyright(C) 1984-2000 Award
Software PnP/PCI Configurations

PNP OS Installed	No	Item Help
Reset Configuration Data	Disabled	
Resources Controlled By	Auto(ESCD)	Menu Level
IRQ Resources	Press Enter	
PCI/VGA 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

PnP OS Installed

When set to YES, BIOS will only initialize the PnP cards used for booting (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operation system like Windows 95. When set to No, BIOS will initialize all the PnP cards. Therefore for non-PnP operating system (DOS, Netware), this option must set to No.

Reset Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds resources from conflict. 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 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, where the bus, 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 forward 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)	Disabled the function.
Enabled	Enabled the function.

4.8 PC Health Status

© Figure 8. PC Health Status

CMOS Setup Utility-Copyright(C) 1984-2000 Award
Software PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current System Temp.	39°C / 102 °F	Menu Level
Current CPU1 Temp.	44°C / 111 °F	
Current CPU Fan1 Speed	0PRM	
Current CPU Fan2 Speed	5578PRM	
IN0(V)	1.61V	
IN1(V)	1.82V	
IN2(V)	3.31V	
+5V	4.99V	
+12V	11.91V	
-12V	-12.11V	
-5V	-5.75V	
VBAT(V)	3.05V	
5VSB(V)	4.75V	
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 / VGTL / Vcc3/+12V/5V/5VSB/ VBAT

Detect system's voltage status automatically.

Current CPU1 Temperature(°C / °F)

This field displays the current CPU temperature,if you computer contain a monitoring system.

Current Fan/Power Fan / System Fan Speed

These field displays the current speed of up to System Fans,if you computer contain a monitoring system.

CPU Warning Temperature(°C)

Disabled(default)	Disabled.
60°C / 140°F	Monitor CPU Temp.at 60°C / 140°F.
50°C / 122°F	Monitor CPU Temp.at 50°C / 122°F.
53°C / 127°F	Monitor CPU Temp.at 53°C / 127°F.
56°C / 133°F	Monitor CPU Temp.at 56°C / 133°F
63°C / 145°F	Monitor CPU Temp.at 63°C / 145°F
66°C / 151°F	Monitor CPU Temp.at 66°C / 151°F
70°C / 158°F	Monitor CPU Temp.at 70°C / 158°F

Shutdown Temperature(°C / °F)

Disabled(default)	Disabled.
60°C / 140°F	Monitor CPU Temp.at 60°C / 140°F, if Temp.>60°C / 140°F system will automatically power off.
65°C / 149°F	Monitor CPU Temp.at 65°C / 149°F, if Temp.>65°C / 149°F system will automatically power off.
70°C / 158°F	Monitor CPU Temp.at 70°C / 158°F, if Temp.>70°C / 158°F system will automatically power off.
75°C / 167°F	Monitor CPU Temp.at 75°C / 167°F, if Temp.>75°C / 167°F system will automatically power off.

4.9 Frequency / Voltage Control

© Figure 9. Frequency / Voltage Control

CMOS Setup Utility-Copyright(C) 1984-2000 Award
Software Frequency / Voltage Control

Auto Detect DIMM / PCI CLK	Disabled	Item Help
Spread Spectrum	Disabled	
CPU Host/PCI/Spread Spec.	Default	Menu Level
CPU Clock Ratio	X7	

←→↑↓: 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:Disabled(default),Enabled.

CPU Host/PCI/Spread Spec.

This item allows you to select CPU Host Clock (CPU/ PCI).

NOTE:

If unfortunately, the system's frequency that you are selected is not functioning, there are two methods of booting-up the system.

Method1:Clear the COMS data by setting the JP6((2-3) closed) as "On" status. All the COMS data will be loaded as default setting.

Method2:Press the<Insert>key and Power button simultaneously, after that keep-on pressing the<Insert>key until the Power-on screen showed. This action will boot-up the system according to FSB of the processor..

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 EMI test only.

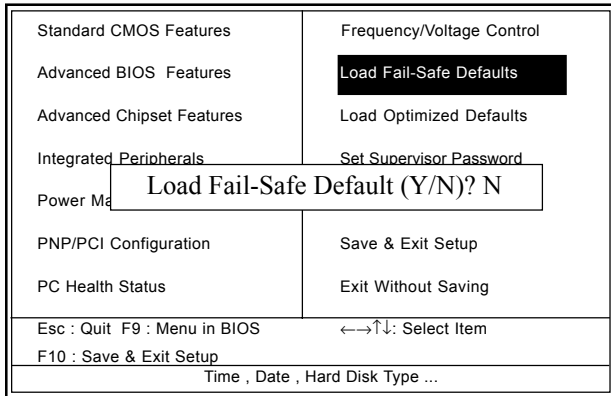
The Choices: Disabled (default), Enabled.

4.10 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**

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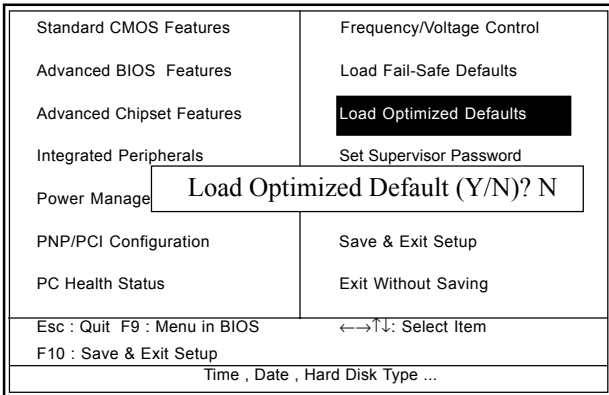
Pressing 'Y' loads the default values that are factory settings for optimal performance system operations.

4.11 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

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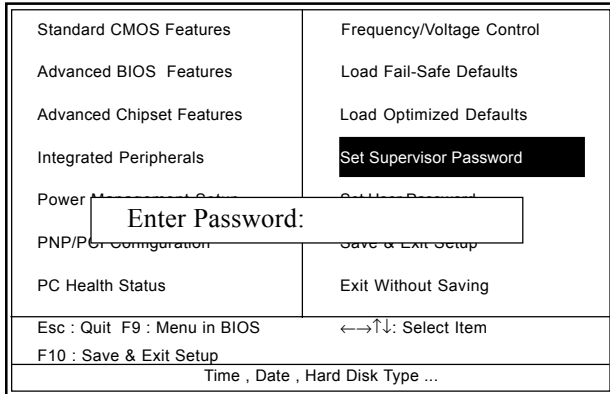


Pressing ‘Y’ loads the default values that are factory settings for optimal performance system operations.

4.12 Set Supervisor / User Password

© Figure 12. Set Supervisor / User Password

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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 the 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 password, just press <Enter> when you are prompted to enter 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.

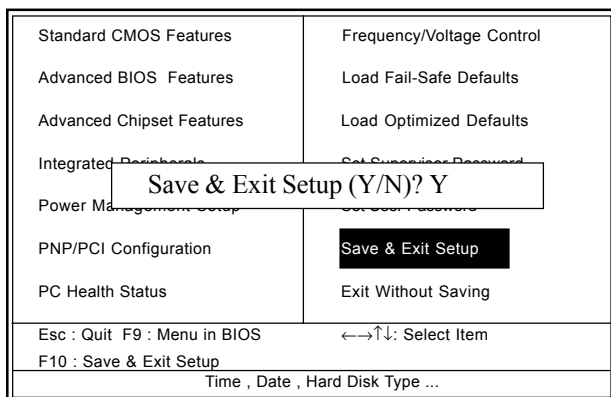
Password Disabled

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 Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

4.13 Save & Exit Setup

© Figure 13. Save & Exit Setup

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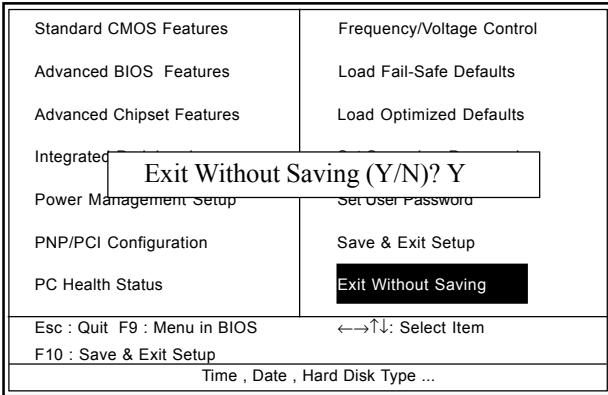
Type “Y” will quit the Setup Utility and save the user setup value to RTC CMOS RAM.

Type “N” will return Setup Utility.

4.14 Exit Without Saving

© Figure 14. Exit Without Saving

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

Type “N” will return Setup Utility.

Date : / /

Warranty Card/Technical Fault Report

M/B Model No.: _____

Vender

Serial No. : _____

Date of Purchasing: _____

Hardware Configuration Used :

--

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

Diagnostic Software Used :

--

Fault Description :

--