6BA15

User's Manual Version 1.0

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

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1. Motherboard Description

Table of Contents

Introduction

System Overview

This manual was written to help you start using this product as quickly and smoothly as possbile. Inside you will find adequate 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/Copperime PII/PIII processor base PC ATX system,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

1.1 Features

1.1.1 Hardware

CPU

-Intel Pentium III processor and Intel Celeron Processor in FC-PGA package.

-Supports processor 370-Pin Socket .

-Socket processor 300MHz~933MHz or higher processor.

Chipset

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

-South Bridge System Chipset :Intel ICH.

Biggest memory capacity

6A815 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.

AGP for fast VGA solution

-AGP specification compliant.

-AGP 66 MHz 3.3v/1.5v for 2X/4X device support.

PCI Expansion Slot

Provide five 32 bit PCI slots.

On-Board IDE

-An IDE controller on the ICH chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 66 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).
-2 USB ports.
-1 VGA ports.
-1 parallel port supports SPP/EPP/ECP mode.

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

Debug LED

Supports BIOS Port 80H POST Code output to debug LED.

WOL (Wake on LAN)

Supports system power up from LAN ring up .

WOM (Wake on MODEM)

Supports system power up from Modem ring up .

IrDA Port

Support this serial fast communication up to 115.2Kbps.

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.

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 UDMA66 Cable.

-FDD Cable.

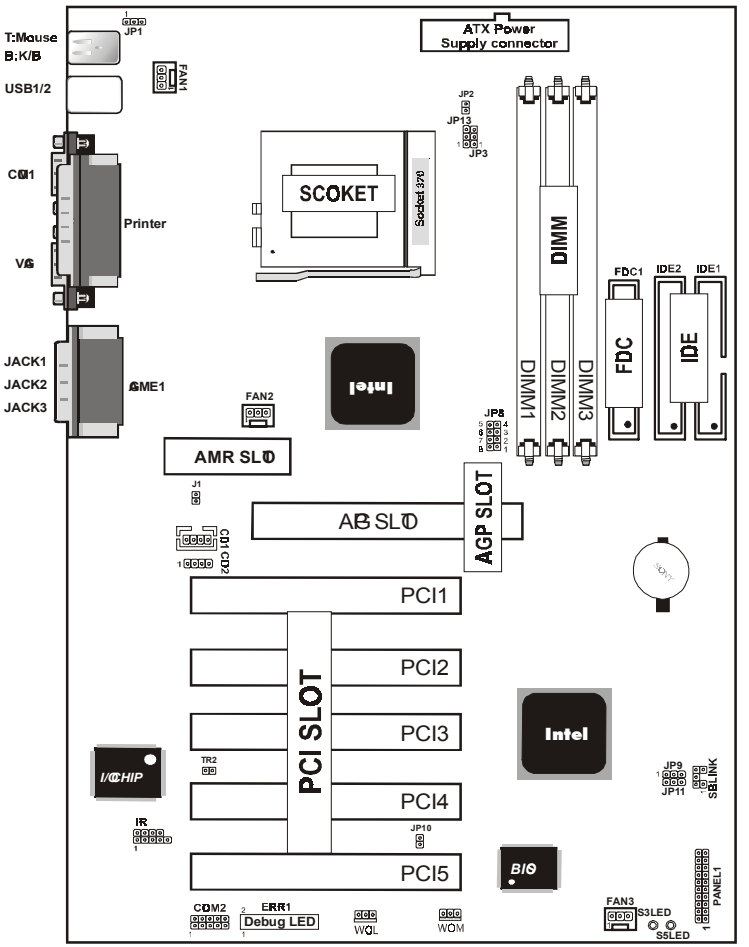
-Flash Memory Written for BIOS Update.

-COM2 Cable.

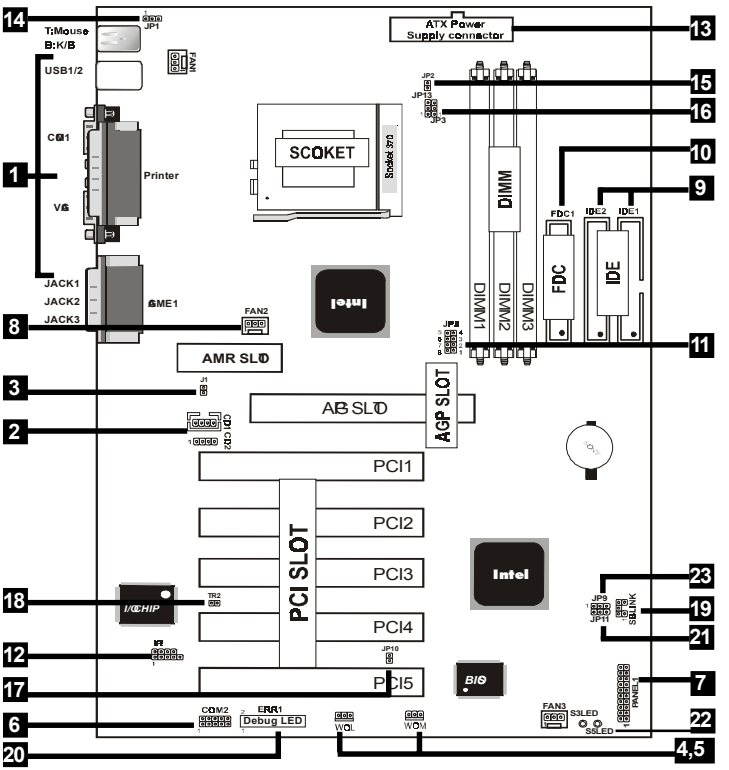
-Fully Setup Driver CD build in Utility(Ghost, Anitivirus, Adobe Acrobat. . .).

1.2 Motherboard Installation

1.2.1 Layout of Motherboard

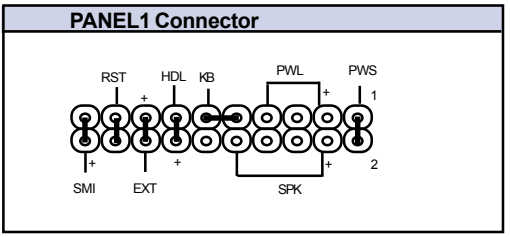


1.3 Motherboard Connectors



1.Back Pannel I/O Connectors 2.CD Audio-In Connector
3.AMR Set Function(J1) 4.Wake-On MODEM Connector
5.Wake-On-LAN Connector 6.Front COM2 Connector
7.Front Panel Connector 8.Fan connectors(Fan1/2/3)
9.IDE Connectors 10.Floppy Connectors
11.CPU Clock Selection(JP8) 12.IR Connector
13.ATX Power Connector 14.KB/MS PWR-ON(JP1)
15.CPU Vcore Range(JP2) 16.CPU Type Select(JP3/JP13)
17.BIOS Flash Select(JP10) 18.Thermistor(TR2)(option)
19.SB-LINK Connector 20.Debug LED (ERR1)
21.Speaker Output Select(JP11) 22.Suspend Type LED
23.CMOS Function Selection(JP9)

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 pannel connector. The speaker (onboard offboard) provides error beep code information during the Power Self-Test when the computer cannot use the vedio interface. The speaker is not connected to the audio subsystem and does not receive output from the audio subsystem

Hard Drive LED Connector (HDL)

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 (EXT)

This allows the user to manually place the system into a suspend mode or Green mode where system 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 contact and therefore leaving it shorted will not cause any problems. 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, "Suspend Switch" in the Power Management Setup of the BIOS SOFTWARE section should be on the default setting of Enable.

ATX Power Switch (PWS)
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 .
Power LED Lead (PWL)
The system power LED lights when the system power is on.
SMI LED Lead (SMI)
The system SMI LED lights when the system suspend is on.
Keyboard Lock (KL)
The header is for setting keyboard locked.
Reset Switch Lead (RST)
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 plug on the other end to the floppy drives.

1.3.3 Hard Disk Connectors(IDE1/IDE2)

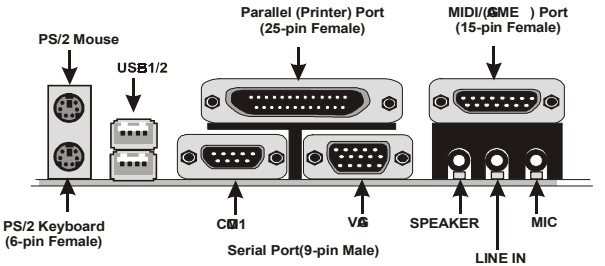
These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk .
If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports 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 sush 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	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

1.4 Back Pannel Connectors



1.4.1 PS/2 Mouse /Keyboard CONN.

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:keyboard, mouse and other USB devices. You can plug the USB devices directly into this connector.

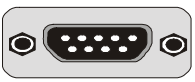
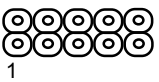
Pin	Signal
1	+5v
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	GND

1.5 Serial and Parallel Interface Ports

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

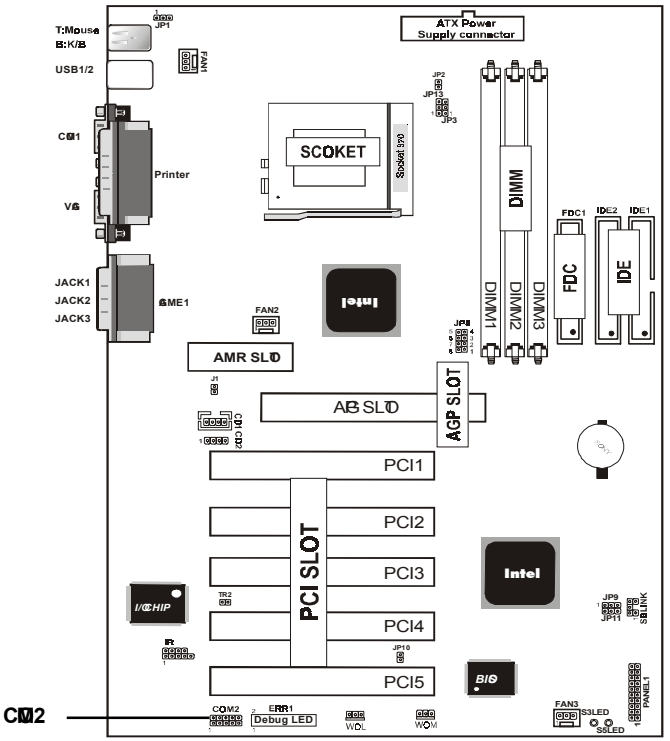
The Serial Interface: COM1/COM2

The serial interface port is sometimes refered 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 

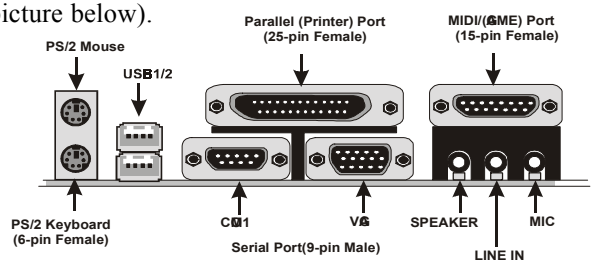
The serial port on this system have one 9-pin connector. Some older computer systems and peripherals used to be equipped with only 25-pin connector. Should you need to connect your 9-pin serial port to an older 25-pin serial port, you can purchase a 9-to-25 pin adapter.

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



Parallel Interface Port

Unlike the serial ports, parallel interface port has been standardized and should not present any difficulty interfacing peripherals to your system. Sometimes called 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

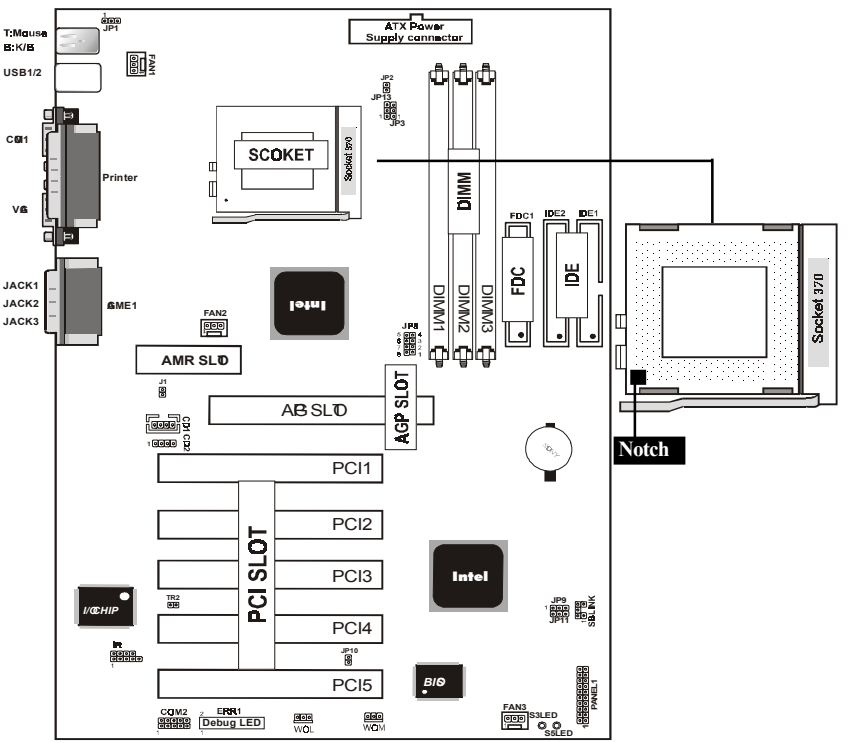
1.6.1 CPU Installation Procedure:Socket 370

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.

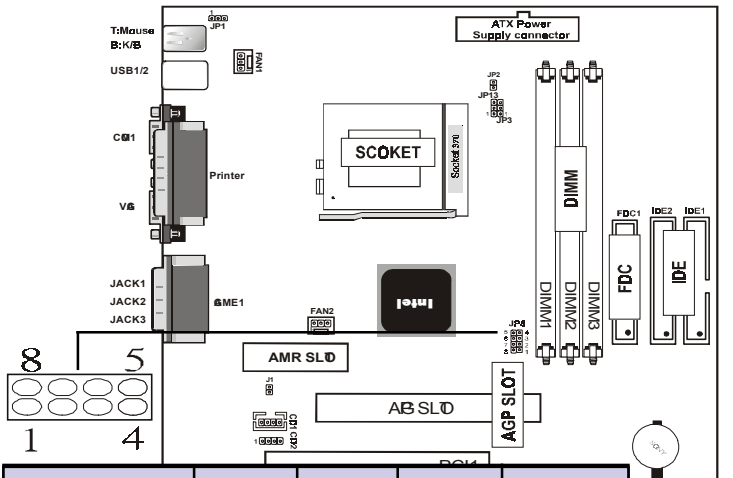
3.Press the lever down to complete the installation.

4.Make sure the spec of heatsink is good enough.



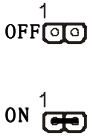
1.6.2 CPU Clock Selection:JP8

Overclocking is operating a CPU/Processor beyond its specified frequency.JP8 jumper is used for overclocking.



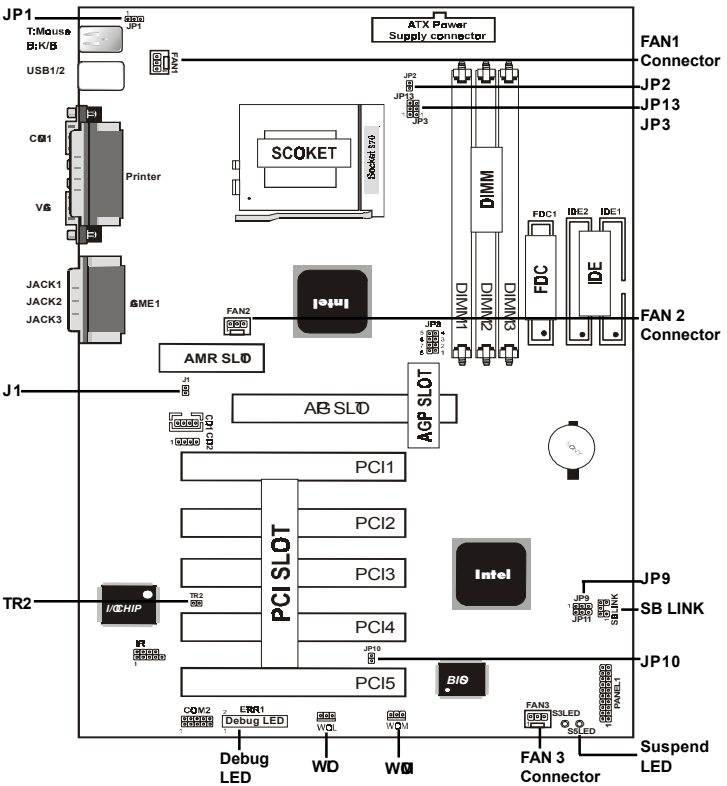
FREQ. Ratio	1-8	2-7	3-6	4-5
Auto Detect (Default)	ON	OFF	OFF	ON
66MHz	OFF	ON	ON	OFF
100MHz	OFF	OFF	ON	OFF
133MHz	OFF	ON	OFF	OFF

FREQ. Ratio	1-8	2-7	3-6	4-5
Auto Detect (Default)	ON	OFF	OFF	ON
66MHz	OFF	ON	ON	OFF
100MHz	ON	OFF	ON	OFF
133MHz	OFF	ON	OFF	ON



1.7 Jumper Setting

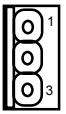
A jumper has two or more pins that can be covered by a plastic jumper cap, allowing you to select different system options.



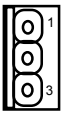
1.7.1 CPU/System Fan Connector:Fan1/2/3

Pin	Assignment
1	Ground
2	+12VDC
3	Signal

1.7.2 Wake-On Modem Header:WOM

Pin	Assignment
 1	5VSB
2	Ground
3	Signal

1.7.3 Wake-On LAN Header:WOL

Pin	Assignment
 1	5VSB
2	Ground
3	Signal

1.7.4 AMR Set Function:J1

Pin	Assignment
	Enabled AMR Slot (Default)
	Disabled AMR Slot

1.7.5 CMOS Function Selection:JP9

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

NOTE:

(Please follow the procedure as below to clear CMOS data.)
(1)Remove AC power line.(2)JP9(2-3)Closed.(3)Wait five seconds.(4)JP9(1-2) Closed.(5)AC Power on.(6)Reset your desired password or clear CMOS data.

1.7.6 KB/MS PWR-ON:JP1

The JP1 Jumper is for setting keyboard power.This function is provided by keyboard and PS/2 mouse Wake-up function.

Pin	Assignment
1-2	Diabled
2-3	Enabled (Default)

1.7.7 CPU Vcore Range:JP2

Pin	Assignment
	1.30V-2.05V Short (Default)
	1.30V-3.50V Open

1.7.8 CPU Type Select:JP3/JP13

Pin	Assignment
1-2	Intel CPU (Default)
2-3	Cyrix CPU

1.7.9 BIOS Flash Setting:JP10

Pin	Assignment
	Locked(defacult)
	Unlocked

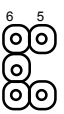
1.7.10 Thermisor:TR2 (option)

This used to check the system temperature. The TR2 a 2-pin connector which can be inserted with a 20cm length thermistor.

1.7.11 SB-LINK Connector

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

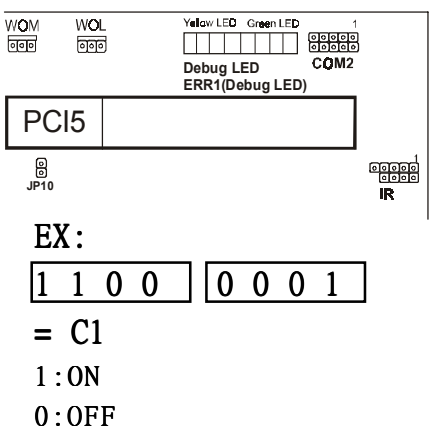
Pin	Assignment
1	GNT#
2	GND
3	KEY
4	REQ#
5	GND
6	SERIRQ



1.7.12 Debug LED:ERR1

The motherboard provides one infrared Debug LED feature LED for support BIOS POST 80H Debug Code.

0:0000	8:1000
1:0001	9:1001
2:0010	A:1010
3:0011	B:1011
4:0100	C:1100
5:0101	D:1101
6:0110	E:1110
7:0111	F:1111



Please refer POST Error Code.

If shows C1 that means memory errors.

POST Error Code

POST (hex)	Description
CFh	Test CMOS R/W functionality.
C0h	Early chipset initialization: -Disable shadow RAM -Disable L2 cache (socket 7 or below) -Program basic chipset registers
C1h	Detect memory -Auto-detection of DRAM size, type and ECC. -Auto-detection of L2 cache (socket 7 or below)
C3h	Expand compressed BIOS code to DRAM
C5h	Call chipset hook to copy BIOS back to E000 & F000 shadow RAM.
01h	Expand the Xgroup codes locating in physical address 1000:0
02h	Reserved
03h	Initial Superio_Early_Init switch.
04h	Reserved
05h	1. Blank out screen 2. Clear CMOS error flag
06h	Reserved
07h	1. Clear 8042 interface 2. Initialize 8042 self-test
08h	1. Test special keyboard controller for Winbond 977 series Super I/O chips. 2. Enable keyboard interface.

POST (hex)	Description
09h	Reserved
0Ah	1.Disable PS/2 mouse interface (optional). 2.Auto detect ports for keyboard & mouse followed by a port & interface swap (optional). 3.Reset keyboard for Winbond 977 series Super I/O chips.
0Bh	Reserved
0Ch	Reserved
0Dh	Reserved
0Eh	Test F000h segment shadow to see whether it is R/W-able or not. If test fails, keep beeping the speaker.
0Fh	Reserved
10h	Auto detect flash type to load appropriate flash R/W codes into the run time area in F000 for ESCD & DMI support.
11h	Reserved
12h	Use walking 1's algorithm to check out interface in CMOS circuitry. Also set real-time clock power status, and then check for override.
13h	Reserved
14h	Program chipset default values into chipset. Chipset default values are MODBINable by OEM customers.

POST (hex)	Description
15h	Reserved
16h	Initial onboard clock generator if Early_Init_Onboard_Generator is defined. See also POST 26h.
17h	Reserved
18h	Detect CPU information including brand, SMI type (Cyrix or Intel) and CPU level (586 or 686).
19h	Reserved
1Ah	Reserved
1Bh	Initial interrupts vector table. If no special specified, all H/W interrupts are directed to SPURIOUS_INT_HDLR & S/W interrupts to SPURIOUS_soft_HDLR.
1Ch	Reserved
1Dh	Initial EARLY_PM_INIT switch.
1Eh	Reserved
1Fh	Load keyboard matrix (notebook platform)
20h	Reserved
21h	HPM initialization (notebook platform)
22h	Reserved
23h	1.Check validity of RTC value: e.g. a value of 5Ah is an invalid value for RTC minute. 2. Load CMOS settings into BIOS stack. If CMOS checksum fails, use default value instead.

POST (hex)	Description
24h	Prepare BIOS resource map for PCI & PnP use. If ESCD is valid, take into consideration of the ESCD's legacy information.
25h	Early PCI Initialization: -Enumerate PCI bus number. -Assign memory & I/O resource. -Search for a valid VGA device & VGA BIOS, and put it into C000:0.
26h	1.If Early_Init_Onboard_Generator is not defined Onboard clock gen erator initialization. Disable respective clock resource to empty PCI & DIMM slots. 1.Init onboard PWM 2.Init onboard H/W monitor devices
27h	Initialize INT 09 buffer
28h	Reserved
29h	1.Program CPU internal MTRR (P6 & PII) for 0-640K memory address. 2.Initialize the APIC for Pentium class CPU. 3.Program early chipset according to CMOS setup. Example: onboard IDE controller. 4.Measure CPU speed.
2Ah	Reserved
2Bh	Invoke Video BIOS
2Ch	Reserved

POST (hex)	Description
2Dh	1.Initialize double-byte language font (Optional) 2.Put information on screen display, including Award title, CPU type, CPU speed, full screen logo.
2Eh	Reserved
2Fh	Reserved
30h	Reserved
31h	Reserved
32h	Reserved
33h	Reset keyboard if Early_Reset_KB is defined e.g. Winbond 977 series Super I/O chips. See also POST 63h.
34h	Reserved
35h	Test DMA Channel 0
36h	Reserved
37h	Test DMA Channel 1.
38h	Reserved
39h	Test DMA page registers.
3Ah	Reserved
3Bh	Reserved
3Ch	Test 8254
3Dh	Reserved
3Eh	Test 8259 interrupt mask bits for channel 1.
3Fh	Reserved
40h	Test 8259 interrupt mask bits for channel 2.
41h	Reserved
42h	Reserved

POST (hex)	Description
43h	Test 8259 functionality.
44h	Reserved
45h	Reserved
46h	Reserved
47h	Initialize EISA slot
48h	Reserved
49h	1.Calculate total memory by testing the last double word of each 64K page. 2.Program write allocation for AMD K5 CPU.
4Ah	Reserved
4Bh	Reserved
4Ch	Reserved
4Dh	Reserved
4Eh	1.Program MTRR of M1 CPU 2.Initialize L2 cache for P6 class CPU & program CPU with proper cacheable range. 3.Initialize the APIC for P6 class CPU. 4.On MP platform, adjust the cacheable range to smaller one in case the cacheable ranges between each CPU are not identical.
4Fh	Reserved
50h	Initialize USB Keyboard & Mouse.
51h	Reserved
52h	Test all memory (clear all extended memory to 0)

POST (hex)	Description
53h	Clear password according to H/W jumper (Optional)
54h	Reserved
55h	Display number of processors (multi-processor platform)
56h	Reserved
57h	1.Display PnP logo 2.Early ISA PnP initialization -Assign CSN to every ISA PnP device.
58h	Reserved
59h	Initialize the combined Trend Anti-Virus code.
5Ah	Reserved
5Bh	(Optional Feature) Show message for entering AWDFLASH.EXE from FDD (optional)
5Ch	Reserved
5Dh	1.Initialize Init_Onboard_Super_IO 2.Initialize Init_Onbaord_AUDIO.
5Eh	Reserved
5Fh	Reserved
60h	Okay to enter Setup utility; i.e. not until this POST stage can users enter the CMOS setup utility.
61h	Reserved
62h	Reserved
63h	Reset keyboard if Early_Reset_KB is not defined.

POST (hex)	Description
63h	Reset keyboard if Early_Reset_KB is not defined.
64h	Reserved
65h	Initialize PS/2 Mouse
66h	Reserved
67h	Prepare memory size information for function call: INT 15h ax=E820h
68h	Reserved
69h	Turn on L2 cache
6Ah	Reserved
6Bh	Program chipset registers according to items described in Setup & Auto-configuration table.
6Ch	Reserved
6Dh	1.Assign resources to all ISA PnP devices. 2.Auto assign ports to onboard COM ports if the corresponding item in Setup is set to “AUTO”.
6Eh	Reserved
6Fh	1.Initialize floppy controller 2.Set up floppy related fields in 40: hardware.
70h	Reserved
71h	Reserved
72h	Reserved
73h	Reserved
74h	Reserved

POST (hex)	Description
75h	Detect & install all IDE devices: HDD, LS120, ZIP, CDROM…..
76h	(Optional Feature) Enter AWDFLASH.EXE if: -AWDFLASH.EXE is found in floppy drive. -ALT+F2 is pressed.
77h	Detect serial ports & parallel ports.
78h	Reserved
79h	Reserved
7Ah	Detect & install co-processor
7Bh	Reserved
7Ch	Init HDD write protect.
7Dh	Reserved
7Eh	Reserved
7Fh	Switch back to text mode if full screen logo is supported. -If errors occur, report errors & wait for keys. -If no errors occur or F1 key is pressed to continue: ◆Clear EPA or customization logo.
80h	Reserved
81h	Reserved
82h	1.Call chipset power management hook. 2.Recover the text fond used by EPA logo (not for full screen logo) 3.If password is set, ask for password.

POST (hex)	Description
83h	Save all data in stack back to CMOS
84h	Initialize ISA PnP boot devices
85h	1.USB final Initialization 2.Switch screen back to text mode
86h	Reserved
87h	NET PC: Build SYSID Structure.
88h	Reserved
89h	1.Assign IRQs to PCI devices 2.Set up ACPI table at top of the memory.
8Ah	Reserved
8Bh	1.Invoke all ISA adapter ROMs 2.Invoke all PCI ROMs (except VGA)
8Ch	Reserved
8Dh	1.Enable/Disable Parity Check according to CMOS setup 2.APM Initialization
8Eh	Reserved
8Fh	Clear noise of IRQs
90h	Reserved
91h	Reserved
92h	Reserved
93h	Read HDD boot sector information for Trend Anti-Virus code

POST (hex)	Description
94h	1.Enable L2 cache 2.Program Daylight Saving 3.Program boot up speed 4.Chipset final initialization. 5.Power management final initialization 6.Clear screen & display summary table 7.Program K6 write allocation 8.Program P6 class write combining
95h	Update keyboard LED & typematic rate
96h	1.Build MP table 2.Build & update ESCD 3.Set CMOS century to 20h or 19h 4.Load CMOS time into DOS timer tick 5.Build MSIRQ routing table.
FFh	Boot attempt (INT 19h)

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 DIMM Module.(168 pin)

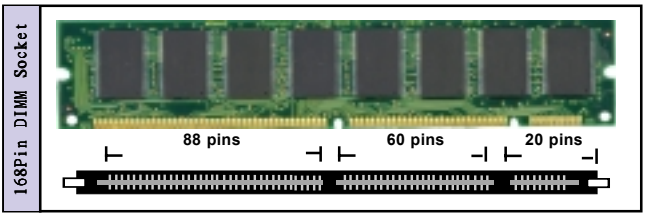
Bank	Memory module
DIMM 1	16MB,32MB,64MB,128MB,256MB
(Bank 0-1)	168 pin,3.3v SDRAM
DIMM 2	16MB,32MB,64MB,128MB,256MB
(Bank 2-3)	168 pin 3.3v,SDRAM
DIMM 3	16MB,32MB,64MB,128MB,256MB
(Bank 4-5)	168 pin 3.3v,SDRAM
	Total System Memory(Max 512MB)

1.8.2 How to install a DIMM Module

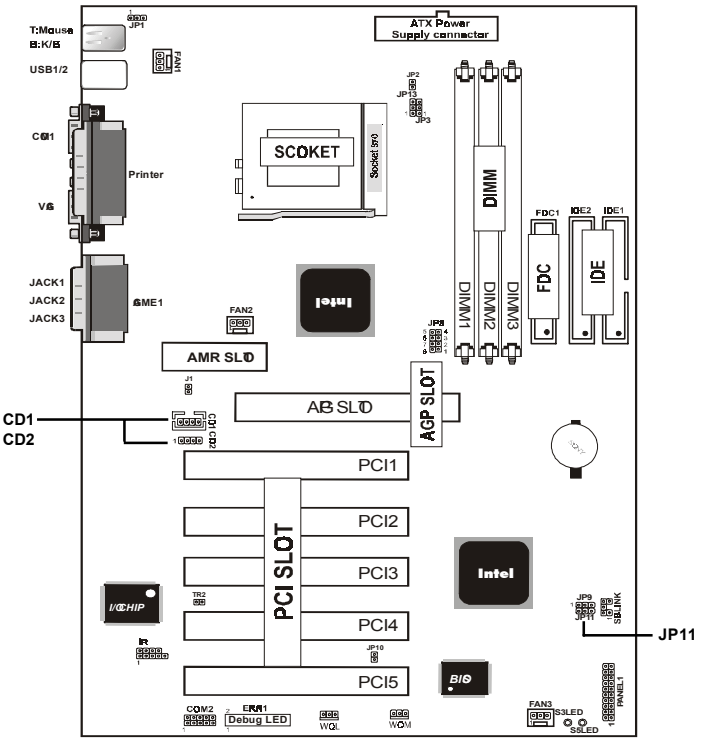
1.The DIMM socket has a “Plastic Safety Tab” and the DIMM memory module has an asymmetrical notch”, so the DIMM memory module can only fit into the slot in one direction.

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:CD1/CD2

Pin CD1	Assignment
1	GND
2	CD-L
3	GND
4	CD-R

Pin CD2	Assignment
1	CD-L
2	GND
3	GND
4	CD-R

1.9.2 Speaker Output Select:JP11

Pin	Assignment
1-2	Output to PC-SPK (Default)
2-3	Output to AC-97 SPK

2. 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. This means that it supports Intel Celeron/ Copperime 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.

APM Support

These 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.

PCI Bus Support

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

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 update information.

◎ Figure 1. Main Menu

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

Standard CMOS Setup	Frequency/Voltage Control
Advanced BIOS Setup	Load Fail-Safe Defaults
Advanced Chipset Setup	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 F10 : Save & Exit Setup	←→↑↓: Select Item
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 BIOS special enchanced features.

Advanced Chipset Features

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

Integrated Peripherals

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

Power Management Setup

This setup page includes all the items 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 seccessfully, 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 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 Setup

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software standard CMOS Setup

Date(mm:dd:yy)	Tue,Jun 6 2000	Item Help
Time (hh:mm:ss)	11:26:10	Menu Level
IDE Primary Master	None	
IDE Primary Slave	None	Change the day, month,year and century.
IDE Secondary Master	None	
IDE Secondary Master	None	
Drive A	1.44M,3.5 in	
Drive B	None	
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.

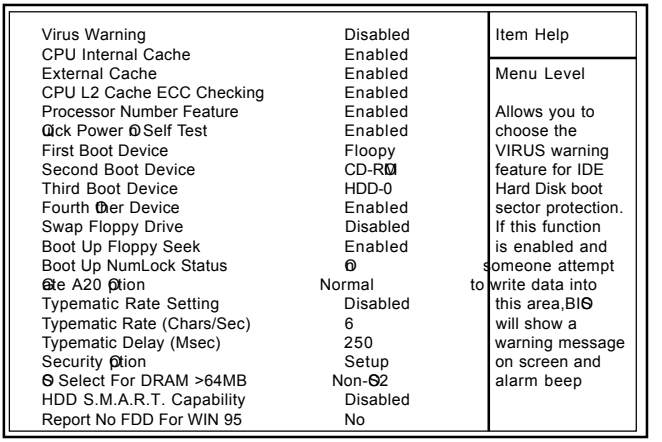
Item	Options	Description
Date	Month DD YYYY	Set the system date. note that the 'Day' automatically changes when you set the data.
IDE Primary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Primary Slave	Options are in its sub menu.	Press<Enter> to enter the sub 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

2.3 Advanced BIOS Setup

◎ Figure 3. Advanced BIOS Setup

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software advanced BIOS Setup



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 PentiumIII processor.

Enabled(default)	PentiumProcessor 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/Fourth 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 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.

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(default)	A pin in the keyboard controller controls Gate A20.
Fast	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.

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

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.

Report No FDD For Window 95

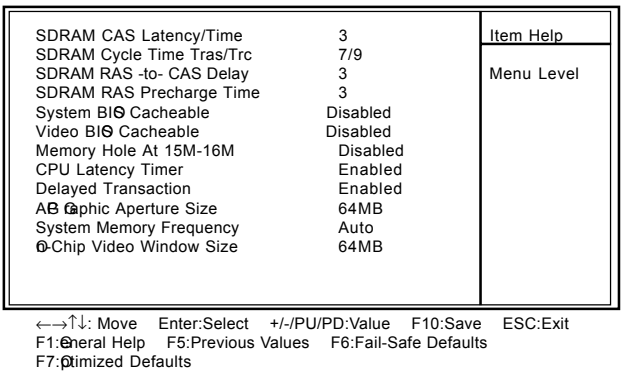
No(default)	Assign IRQ6 For FDD.
Yes	FDD Detect IRQ6 Automatically.

2.4 Advanced Chipset Setup

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 lost while using your system

◎ Figure 4. Advanced Chipset Setup

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software advanced Chipset Setup



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 in 7/9 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.

System BIOS Cacheable

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

The Choices: Diasbled (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) 1984-2000 Award

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	Onboard AGP	
AC97 Audio	Auto	
Flash Write Protect	Enabled	
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	278/IRQ5	
Parallel Port Mode	EPP	
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	Disabled USB Controller.

USB Keyboard Support

Enabled	Enabled USB Keyboard Support.
Disabled(default)	Disabled USB Keyboard Support.

Init Display First

PCI Slot	Set Init Display First to PCI Slot.
Onboard AGP(default)	Set Init Display First to onboard AGP.

AC 97 Audio

Auto(default)	BIOS will automatically detect onboard Modem
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(default)	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(default)	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	

Flash Write Protect

Enabled(default)	BIOS can't be writed.
Disabled	BIOS can be writed.

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

Onboard Serial Port 2

Auto	BIOS will automatically setup the Serial Port 2 address.
3F8/IRQ4	Enabled onboard Serial Port 2 and address is 3F8.
2F8/IRQ3(default)	Enabled onboard Serial Port 2 and address is 2F8.
3E8/IRQ4	Enabled onboard Serial Port 2 and address is 3E8.
2E8/IRQ3	Enabled onboard Serial Port 2 and address is 2E8.
Disabled	Disabled.

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
278/IRQ5 (default)
3BC/IRQ7

PWRON After PWR-Fail

The Choices: Off (default),On.

Parallel Port Mode

SPP	Using Parallel port as Standard Parallel Port.
EPP(default)	Using Parallel port as Extended Parallel Port.
ECP	Using Parallel port as Extended Capabilites 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.

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) 1984-2000 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	
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 Susped 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.

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.

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]#

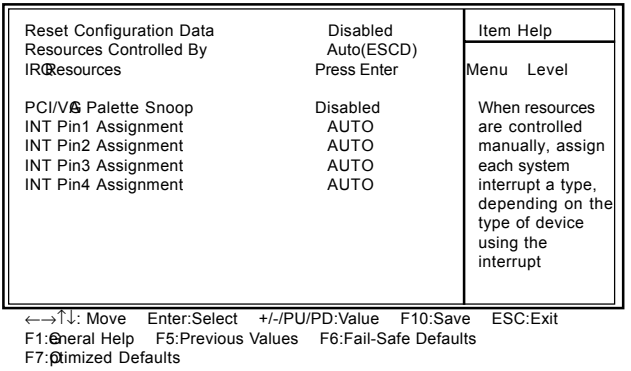
Disabled(default)	Ignore PCI PIRQ[A-D]# Active.
Enabled	Monitor PCI PIRQ[A-D]# Active.

2.7 PnP/PCI Configurations

This section describes configuring the PCI bus systemPCI or Personal Computer Interconnect,is a systemwhich 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 somevery technical itemsand 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



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 sistuation, you should disable this option.

Disabled (default)	Disabled the function.
Enabled	Enabled the function.

2.8 PC Health Status

◎ Figure 8. PC Health Status

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Software PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current System Temp.	39℃/102 ℉	
Current CPU1 Temp.	44℃/111 ℉	Menu Level
Current CPU Fan1 Speed	0PRM	
Current CPU Fan2 Speed	5578PRM	
Current CPU Fan3 Speed		
IN0(V)	1.61V	
IN1(V)	1.82V	
IN2(V)	3.31V	
+5V	4.99V	
+12V	11.91V	
-12V	-12.11V	
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 / VTT / Vcc3/+-12V/5V/5VSB/ VBAT

Detect system's voltage status automatically.

Current CPU1/System Temperature(℃/℉)

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(℃)

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

Shutdown Temperature(℃/℉)

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

2.9 Frequency / Voltage Control

◎ Figure 9. Frequency / Voltage Control

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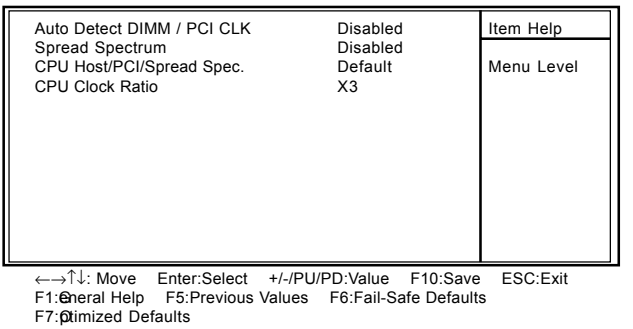
Software Frequency / Voltage Control



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 frequrency that you are selected is not functioning, there are two methods od booting-up the system

Method1:Clear the COMS data by setting the JP9((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 id designed to 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**

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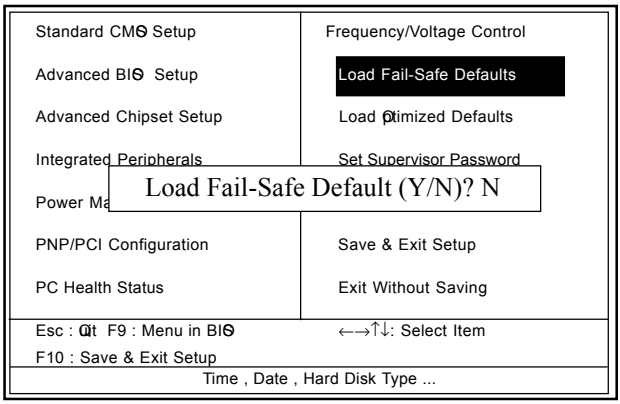
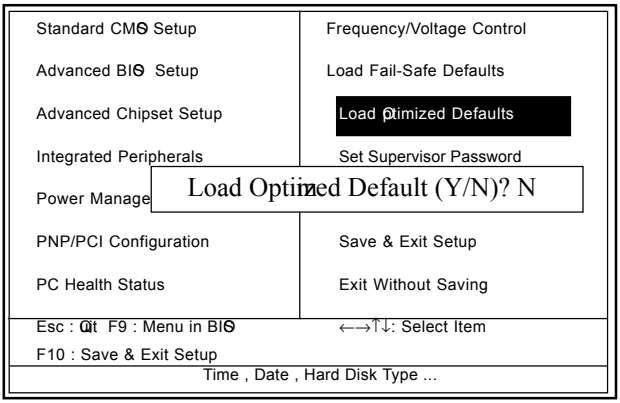


Pressing 'Y' loads the default values that are factory settings for optimal performance system operations.

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**



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

2.12 Set Supervisor / User Password

◎ Figure 12. Set Supervisor / User Password

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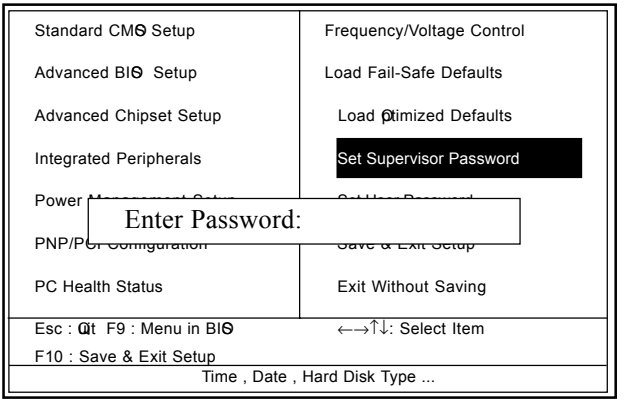

When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

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 about 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.

2.13 Save & Exit Setup

◎ Figure 13. Save & Exit Setup

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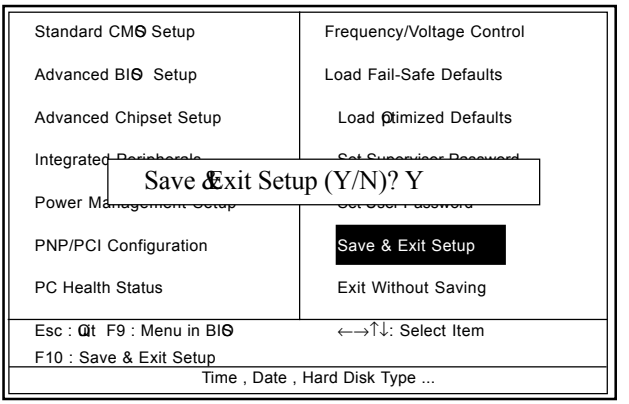

Type “Y” will quit the Setup Unility and save the user setup value to RTC CMOS RAM.

Type “N” will return Setup Unility.

2.14 Exit Without Saving

◎ Figure 14. Exit Without Saving

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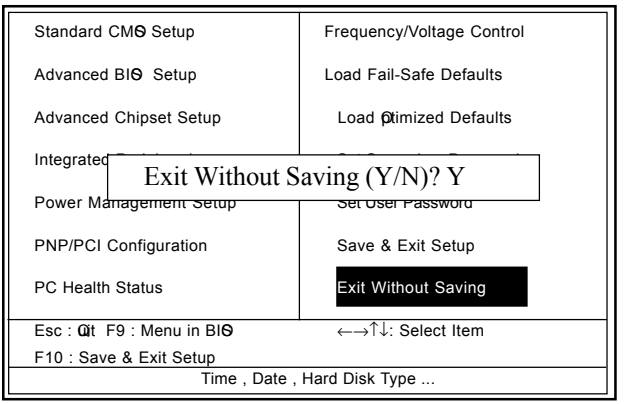


Type “Y” will quit the Setup Unility without saving to RTC CMOS RAM.

Type “N” will return Setup Unility.

Date : / /

Guarantee Sheet/Technical Fault Report

M/B Model No.: _____ **Vender**

Serial No. : _____

Date of Purchasing: _____

Hardware Configuration Used :

CPU	
RAM	
Video Card	
Hard Drive	
Other Card	

Diagnostic Software Used :

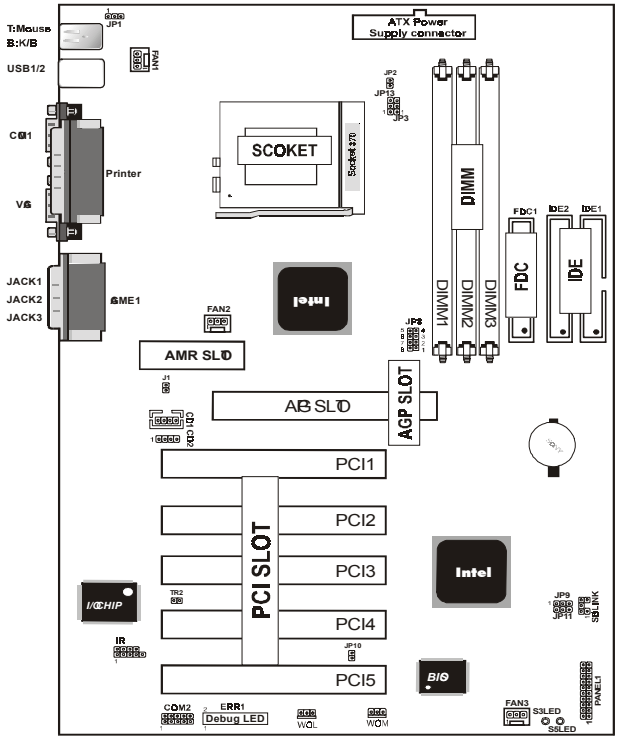
Fault Description :

Technical Support :

WWW : www.acorp.com.tw

FAE : fae@acorp.com.tw

The 6A815 Mainboard Layout



Panel Connectors:PANEL1

PANEL1 Connector