6A815EPQ

User's Manual Version 1.0

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Introduction

System Overview

This manual was written to help you start using this product as quickly and smoothly as possbile. Inside, you will find the answers 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 provides a total PC solution by incorporating the System , I/O , and PCI IDE. The mainboard is designed for Intel PIII/Celeron/Coppermine processors base PC ATX system, support single processors with CNR 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 , Windows 98SE , SCO UNIX etc.

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

1.Motherboard Description

1.1 Features

1.1.1 Hardware

CPU

-Socket 370 for Intel Celeron/PIII Processors.
-Intel FC-PGA/FC-PGA2/PPGA Celeron Processors 600MHz~900MHz or higher processor with 66/100MHz FSB.
-Intel Pentium III Processors 500MHz~1.13GHz with 100/ 133MHz FSB.
-VIA Cyrix III Processor with 100/133MHz FSB.
-Intel Tualatin Processor with 1.13GHz or higher processor.

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

Biggest memory capacity
6A815EPQ is equipped with three DIMM socket to support (8MB to 512MB) 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.

Bus Slot
-Provides five 32 bit PCI slots.
-Provide one AGP slot and one CNR slot.

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

On-Board IDE

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

-Can connect up to four IDE devices.

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(10 pin)).

-4 USB ports.

-1 parallel port supports SPP/EPP/ECP mode.

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, Alarm Bus CLK setup with BIOS.

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.

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.

Hardware Monitor Function

-CPU Fan Speed Monitor.

-System and CPU Temperature Monitor.

-System Voltage Monitor.

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.

CNR Support :

One 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 .

1.1.2 Software

BIOS

-AWARD legal BIOS.

-Supports APM 1.2.

-Supports USB Function.

-Supports ACPI.

Operation System

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

1.1.3 Attachments

-HDD UDMA66/100 Cable.

-FDD Cable.

-Flash Memory Written for BIOS Update.

-COM2 Cable.

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

-This manual.

1.2 Motherboard Installation

1.2.1 Motherboard Map
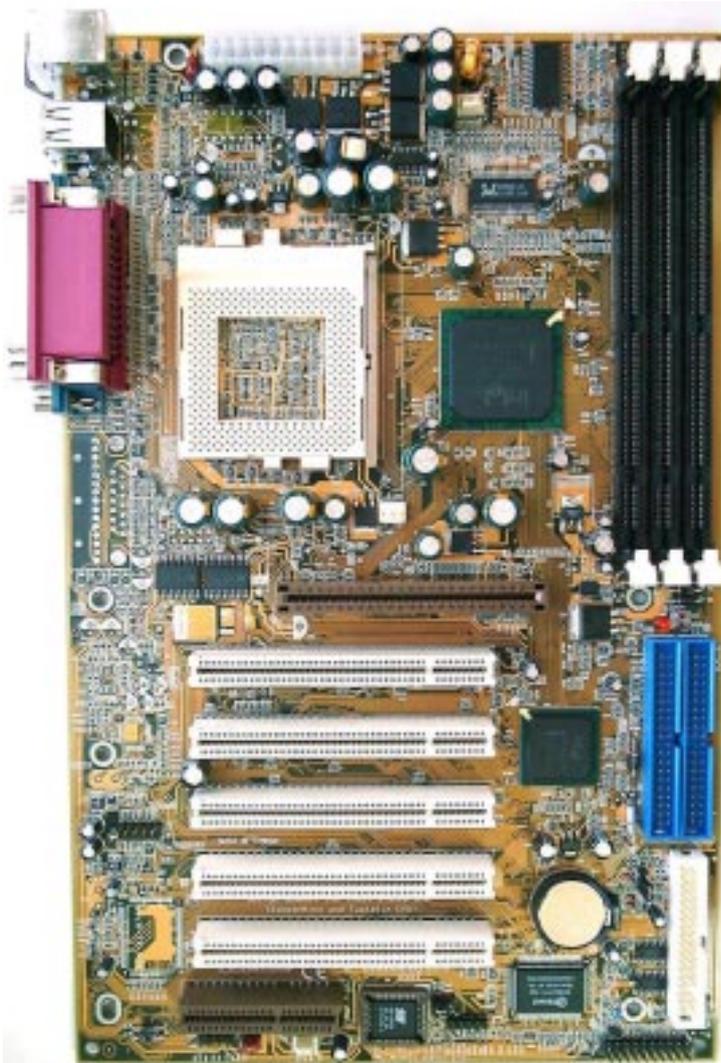
1.2.2 Motherboard Layout
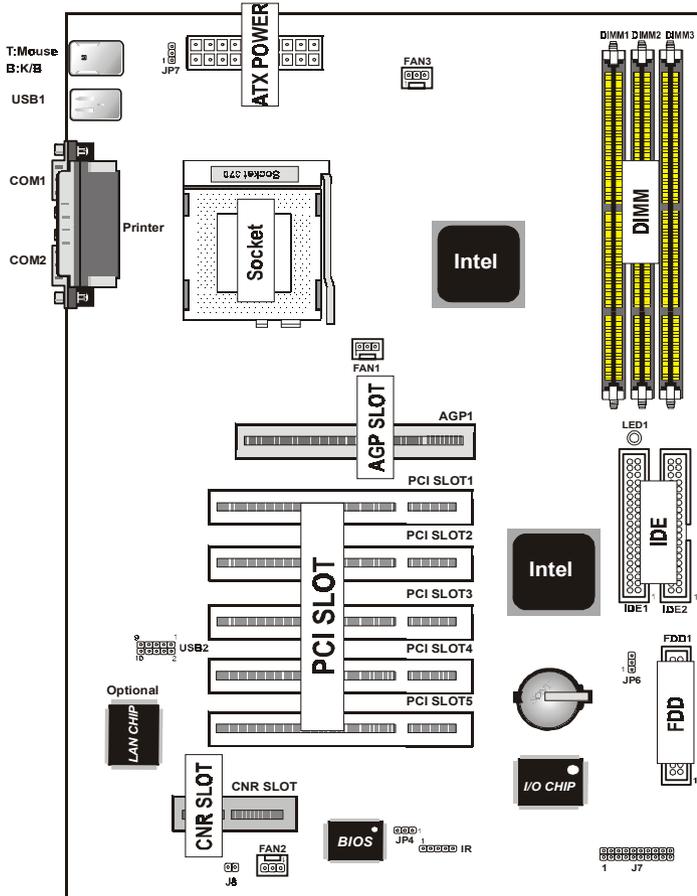
1.3 Motherboard Connectors
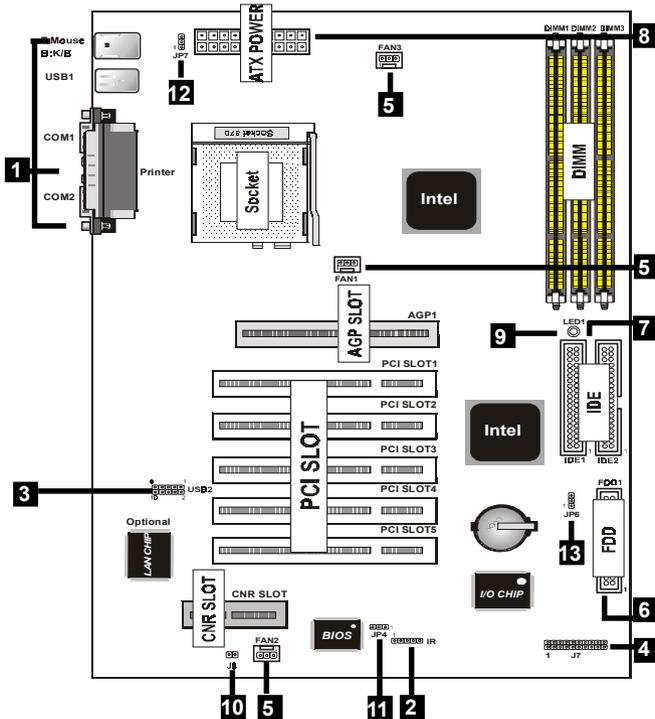
1.Back Panel I/O Connectors   2.IR Connector
3.Front USB2 Connector   4.Front Panel Connector
5.Fan Connectors(Fan1/2/3)   6.Floppy Connector
7.IDE Connectors   8.ATX Power Connector
9.STR LED(LED1)   10.CNR Card Setting(J8)
11.BIOS Flash(JP4)
12.Keyboard wake up Setting(JP7)
13.CMOS Function Setting(JP6)

1.3.1 Front Panel Connector (J7)
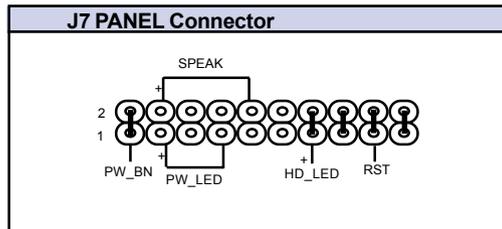
Speaker Connector (SPEAK)

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

Hard Drive LED Connector (HDLED)

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.

ATX Power Switch (PWBN)

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 (PWLED)

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

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 (FDD1)

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

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

1.3.5 Infrared Connector (IR)

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

1.4 Back Panel Connectors
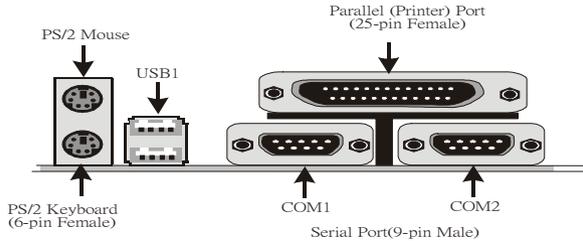
1.4.1 PS/2 Mouse /Keyboard CONN.

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 a keyboard, mouse and other USB devices. You can plug the USB devices directly into this connector.
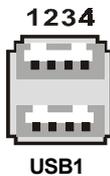
Pin	Signal
1	+5V_SB
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	GND

Front Two USB Connectors: USB2
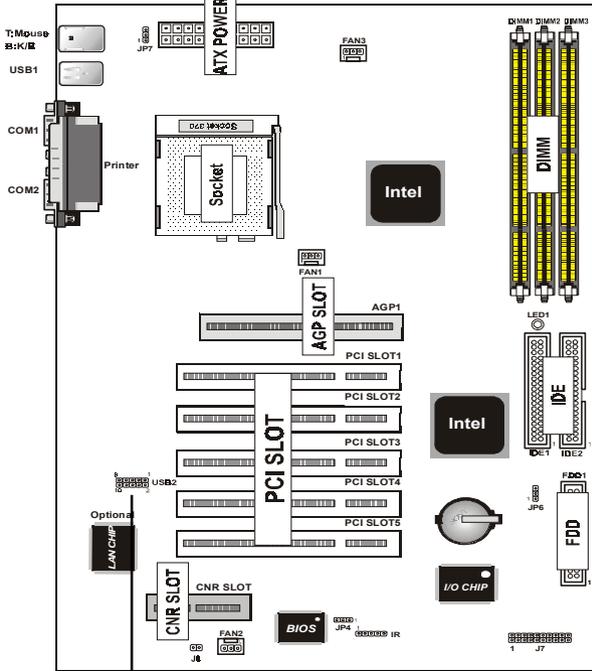
USB2

VCC	1	2	GND
P2-	3	4	GND
P2+	5	6	P3+
GND	7	8	P3-
GND	9	10	VCC

1.5 Serial and Parallel Interface Ports

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

The Serial Interfaces: COM1/COM2

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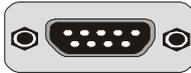
The serial port on this system has one 9-pin connector. Some older computer systems and peripherals used to be equipped with only a 25-pin connector. Should you need to connect your 9-pin serial port to an older 25-pin serial port, you can purchase a 9-to-25 pin adapter.

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

Parallel Interface Port

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

Parallel (Printer) Port
(25-pin Female)

PS/2 Mouse

USB1

PS/2 Keyboard
(6-pin Female)

COM1   COM2

Serial Port(9-pin Male)
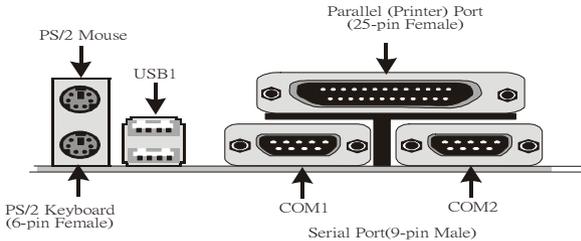
1.6 CPU Installation

1.6.1 CPU Installation Procedure: Socket 370

1. Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.

2. Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.

3. Press the lever down to complete the installation.

4. Make sure the spec of the heatsink is good enough.
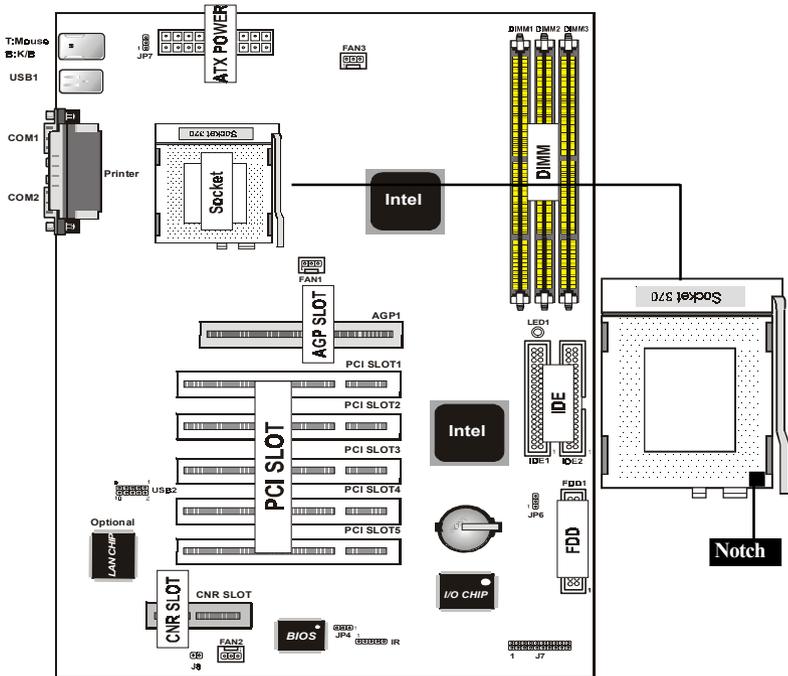
1.7 Jumper Setting

A jumper has two or more pins that can be covered by a plastic jumper cap, allowing you to select different system options.
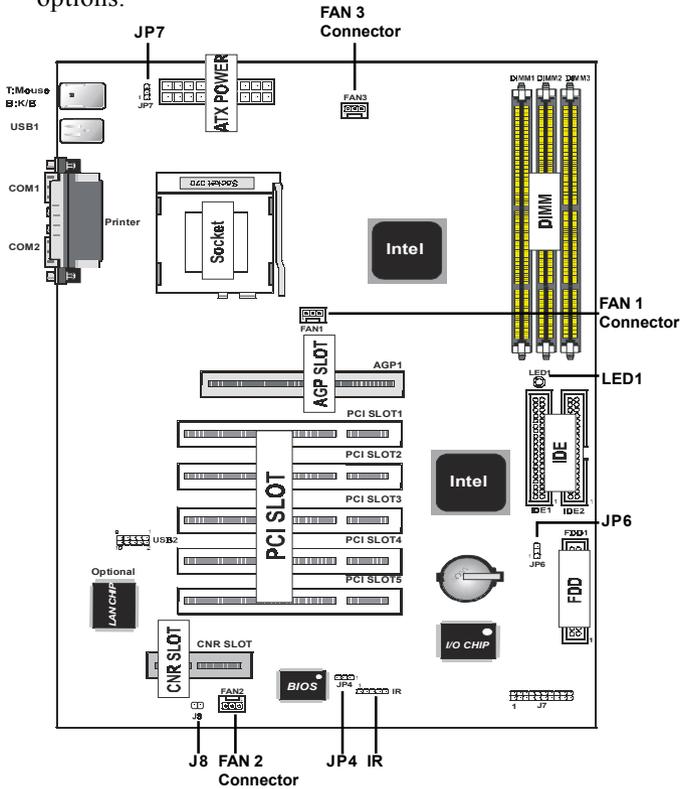
1.7.1 CPU/System Fan Connector: Fan1/2/3

Pin	Assignment
1	Ground
2	+12VDC
3	Signal

1.7.2 BIOS Flash: JP4

Pin	Assignment
1-2	Unlocked (Default)
2-3	Locked

1.7.3 Keyboard wake up Setting: JP7

Pin	Assignment
1-2	Disabled
2-3	Enabled (Default) Keyboard Boot

1.7.4 CMOS Function Setting: JP6

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

NOTE:

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

(1)Remove the AC power line.

(2)JP6(2-3)Closed.

(3)Wait five seconds.

(4)JP6(1-2) Closed.

(5)AC Power on.

(6)Reset your desired password or clear CMOS data.

1.7.5 CNR Card Setting: J8

Pin	Assignment
	Close:secondary (Default)
	Open :primary

1.7.6 STR LED: LED1

The LED is used for the STR ON/OFF state.

1.7.7 IrDA Connector: IR

Pin IR	Assignment
1	+5V
2	
3	IRRX1
4	GND
5	IRTX

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.
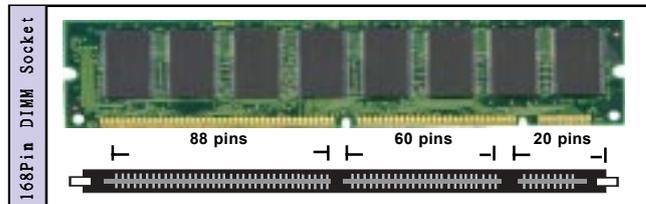
2. BIOS Setup

Introduction

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

The Award BIOS installed in your computer system's ROM (Read Only Memory)is a custom version of an industry standard BIOS. This means that it supports Intel Celeron/ Coppermine PIII Processors. 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 support the Plug and Play Version 1.0A specification. ESCD(Extended System Configuration Data)write is supported.

EPA Green PC Support

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

PCI Bus Support

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

APM Support

This AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management(APM) specification. Power management features are implemented via the System Management Interrupt(SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

DRAM Support

SDRAM (Synchronous DRAM) are supported.

Support CPU

This AWARD BIOS supports the Intel Celeron/Coppermine PIII Processors.

Using Setup

In general, 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 provides more detail about how to navigate in the Setup program by using the keyboard.

Note:

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

Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Esc	Main Menu: Quit without saving changes 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 enter AWARD BIOS CMOS Setup Utility, the Main

Menu will be shown 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 in the manual (Figure

1,2,3,4,5,6,7,8,9,10,11,12,13,14)is just for reference, please

refer to the BIOS installed on the board for updated

information.

◎ **Figure 1. Main Menu**

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

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

Standard CMOS Features

This setup page includes all the items in the standard

compatible BIOS.

Advanced BIOS Features

Introduce all the items of the BIOS special enchanced features.

Advanced Chipset Features

Introduce all the items of the Chipset special enchanced features.

Integrated Peripherals

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

Power Management Setup

Introduce all the items of the power management features.

PnP/PCI Configuration

Introduce the user defined or default IRQ Setting.

PC Health Status

Introduce the hardware Monitor information of the system.

Frequency / Voltage Control

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

Load Fail-Safe Defaults

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 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 re-type the password when prompted.

Save & Exit Setup

Save CMOS value, change to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

2.2 Standard CMOS Features

This item in the Standard CMOS Setup Menu is divided into 10 categories. Each category includes no, one or more than one setup 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) 1984-2001 Award Software

Standard CMOS Features

Date(mm:dd:yy)	Tue,Jun 6 2000	Item Help
Time (hh:mm:ss)	11:26:10	
		Menu Level
IDE Primary Master	Press Enter None	
IDE Primary Slave	Press Enter None	Change the day,
IDE Secondary Master	Press Enter None	month,year
IDE Secondary Master	Press Enter None	and century.
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 Features

◎ **Figure 3. Advanced BIOS Features**

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

Advanced BIOS Features

		Item Help
Virus Warning	Disabled	
CPU Internal Cache	Enabled	Menu Level
External Cache	Enabled	
CPU L2 Cache ECC Checking	Enabled	Allows you to
Processor Number Feature	Enabled	choose the
Quick Power On Self Test	Enabled	VIRUS warning
First Boot Device	Floopy	feature for IDE
Second Boot Device	HDD-0	Hard Disk boot
Third Boot Device	LS120	sector protection.
Boot Other Device	Enabled	If this function
Swap Floppy Drive	Disabled	is enabled and
Boot Up Floppy Seek	Enabled	someone attempts
Boot Up NumLock Status	On	to write data into
Gate A20 Option	Fast	this area,BIOS
Typematic Rate Setting	Disabled	will show a
Typematic Rate (Chars/Sec)	6	warning message
Typematic Delay (Msec)	250	on screen and
Security Option	Setup	sound an alarm
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 attempts to write data into
this area, BIOS will show a warning message on screen and
sound an alarm.

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

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

First/Secondary/Third/Boot Other Device

This BIOS attempts to load the operating system from
the devices in the sequence selected in these items.
The Choices: Floppy, LS120, HDD-0, 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 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 denied if the correct password is not entered in prompt.
Setup (default)	The system will boot, but access to Setup will be denied if the correct password is not entered in prompt.

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.

2.4 Advanced Chipset Features

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and external cache. It also coordinates communications of the PCI bus. It must be stated that these items should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. The only time you might consider making any changes would be if you discovered that data was being lost while using your system.

◎ **Figure 4. Advanced Chipset Features**

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Advanced Chipset Features

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

←→↑↓: 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
    Auto

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: Disabled(default), Enabled.

Video BIOS Cacheable

Enabled	Enabled Video BIOS Cacheable.
Disabled (default)	Disabled Video BIOS Cacheable.

Memory Hole At 15-16M

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

The Choices: Diasbled(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.

2.5 Integrated Peripherals

◎ **Figure 5. Integrated Peripherals**

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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 Mouse Support	Enabled	
USB Keyboard Support	Enabled	
Init Display First	PCI Slot	
AC97 Modem	Auto	
AC97 Audio	Disabled	
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	Disabled	
Midi Port Adress	Disabled	
Midi Port IRQ	Disabled	

←→↑↓: 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 Mouse Support
    Enabled (default)   Enabled USB Mouse Support.
    Disabled   Disabled USB Mouse Support.

USB Keyboard Support
    Enabled (default)   Enabled USB Keyboard Support.
    Disabled   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	BIOS will automatically detect onboard Audio.
Disabled (default)	Disabled.

AC 97 Modem

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

IDE HDD Block Mode

Enabled (default)	Enabled.
Disabled	Disabled.

Power On Function

Password	Enter from 1 to 7 characters to set the Keyboard Power On Password.
Hot Key	Hot Key.
Mouse Left	Mouse Left.
Mouse Right	Mouse Right.
Any Key	Any Key.
Button Only	Button Only.
Keyboard 98	If your keyboard has an 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   First you must choose the
    Ctrl-F1   Power On by Hot Key function
    Ctrl-F2   then Enter from 1 to 8
    Ctrl-F3   characters to set the Hot Key
    Ctrl-F4   Power On your system.
    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 to select which Infra Red(IR)
function of the onboard I/O chip you wish to use.
The Choices: Normal(default), IrDA, SCR, ASKIR.

UR2 Duplex Mode
This item allows you to select the Infra Red(IR) function
of the onboard I/O chip you wish to use.
The Choices: Half (default), Full.

Onboard Parallel Port

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

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

PWRON After PWR-Fail

This option will determine how the system will power on after a power failure.

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 Capabilites Port.
ECP/EPP	Using Parallel port as ECP/EPP mode.

Game Port Address

201	Set onboard game port to 201.
209	Set onboard game port to 209.
Disabled (default)	Disabled.

Midi Port Address

300	Set Midi Port address to 300.
330	Set Midi Port address to 330.
Disabled (default)	Disabled.

Midi Port IRQ

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

2.6 Power Management Setup

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

◎ **Figure 6. Power Management Setup**

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

Power Management Setup

```
┌─────────────────────────────────────────────────────────────┐
│  ACPI Function                  Enabled       │ Item Help    │
│  ACPI Suspend Type              S1(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-BTN            Instant-Off   │              │
│  Wake Up by PCI Card            Disabled      │              │
│  Power On by Ring               Enabled       │              │
│  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      │              │
│  PCIPIRQ[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 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.

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.

Suspend Mode

The Suspend Mode fields set the Period of time after each of these modes activates. At Max Saving, these modes activate sequentially (in the given order) after one minute; at Min Saving after one hour.
The Choices: Disabled(default)**,** 1 min - 1 Hour.

HDD Power Down

By default, this is "Disabled", meaning that no matter the mode of the rest of the system, the hard drive will remain ready. Otherwise, you have a range of choices from 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.

The Choices: Disabled(default), 1 - 15 mins.

Modem Use IRQ

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

3 (default)

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

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

Enabled (default)	Enabled.
Disabled	Disabled.

CPU Thermal-Throttling

50.0% (default)

Monitor CPU Temp. will cause system to slow down

CPU Duty Cycle to 12.5% / 25.0% / 37.5% / 62.5% / 70.5% / 87.5%

Resume by Alarm
> **Disabled (default)**   Disabled.
> **Enabled**   Enabled.

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

Secondary IDE 0/1
> **Disabled (default)**   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.

2.7 PnP/PCI Configurations

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

◎ Figure 7. PnP/PCI Configurations

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PnP/PCI Configurations

```
┌─────────────────────────────────────────────────┬──────────────────┐
│ PNP OS Installed              No                 │ Item Help        │
│ Reset Configuration Data      Disabled           │                  │
│ Resources Controlled By       Auto(ESCD)         │ Menu Level       │
│ IRQ Resources                 Press Enter        │                  │
│                                                  │ When resources   │
│ PCI/VGA Palette Snoop         Disabled           │ 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 initalized by the PnP operating 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 be 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 are no IRQ/DMA and I/O port conflicts.

IRQ Resources

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

PCI / VGA Palette Snoop

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

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

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

| **Disabled** (default) | Function disabled. |
| **Enabled** | Function enabled. |

2.8 PC Health Status

◎ **Figure 8. PC Health Status**

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PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current System Temp.	39℃/102 ℉	
Current CPU Temperature	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	
-5V	-5.75V	
VBAT(V)	3.05V	
5VSB(V)	4.75V	

←→↑↓: 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 /+-12V/+-5V/5VSB/VBAT

Detect system's voltage status automatically.

Current CPU/System Temperature(℃/℉)

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

Current CPU Fan1/Fan2/Fan3 Speed

This field displays the current speed of the System Fans, if your computer contains 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℉

2.9 Frequency / Voltage Control

◎ Figure 9. Frequency / Voltage Control

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

Frequency / Voltage Control

```
┌─────────────────────────────────────────┬──────────────┐
│ Auto Detect DIMM / PCI CLK    Disabled   │ Item Help    │
│ Spread Spectrum Modulated     Disabled   │              │
│ CPU Host/PCI Clock            66~166     │ 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 Clock

This item allows you to select CPU Host Clock .
The Choices: 66~166MHz(default).
you can key in DEC number.

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/X8.5/
9X/9.5X/10X/10.5X/11X/11.5X/12X.

Spread Spectrum Modulated

This function is 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**

CMOS Setup Utility-Copyright (C) 1984-2001 Award Software
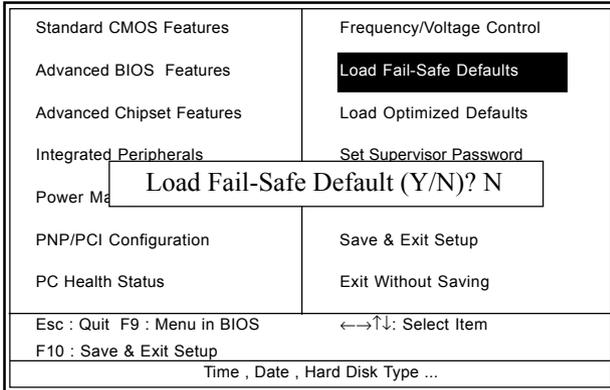
Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
Power Ma Load Fail-Safe Default (Y/N)? N	
PNP/PCI Configuration	Save & Exit Setup
PC Health Status	Exit Without Saving
Esc : Quit F9 : Menu in BIOS	←→↑↓: Select Item
F10 : Save & Exit Setup	
Time , Date , Hard Disk Type ...	

Pressing 'Y' loads the default values that are factory settings

for optimal performance of system operations.

2.11 Load Optimized Defaults

When you press <Enter> on this item, you get a

confirmation dialog box with a message similar to:

◎ **Figure 11. Load Optimized Defaults**

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

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
Power Manage	Load Optimized Default (Y/N)? N
PNP/PCI Configuration	Save & Exit Setup
PC Health Status	Exit Without Saving

Esc : Quit F9 : Menu in BIOS   ←→↑↓: Select Item
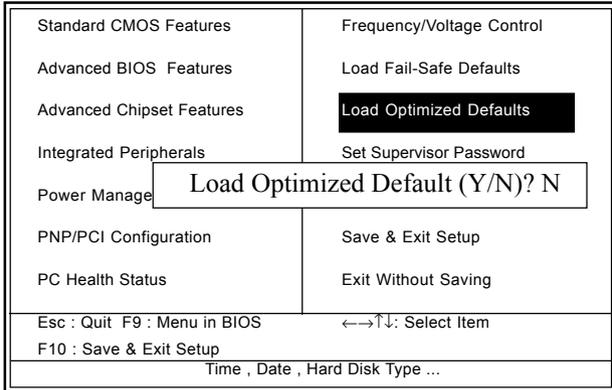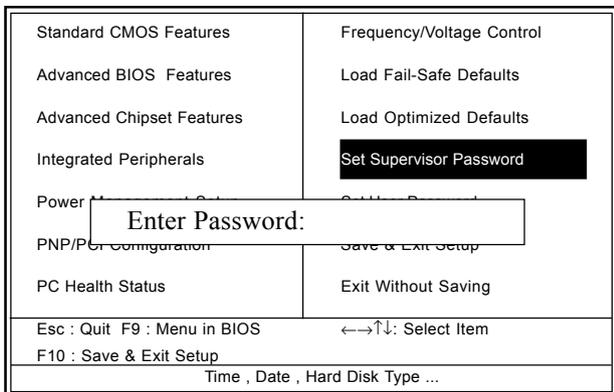F10 : Save & Exit Setup
Time , Date , Hard Disk Type ...

Pressing 'Y' loads the default values that are factory settings

for optimal performance of system operations.

2.12 Set Supervisor / User Password

◎ **Figure 12. Set Supervisor / User Password**

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

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PNP/PCI Configuration	Save & Exit Setup
PC Health Status	Exit Without Saving

Enter Password:

Esc : Quit F9 : Menu in BIOS   ←→↑↓: Select Item
F10 : Save & Exit Setup

Time , Date , Hard Disk Type ...

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

Enter Password

Type a password, up to eight characters, and press <Enter>. The password you type now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <ESC> to abort the selection and not enter a password. To disable the password, just press <Enter> when you are prompted to enter a password. A message will confirm that you wish to disable the password. Once the password is disabled, the system will boot and you can enter setup freely.
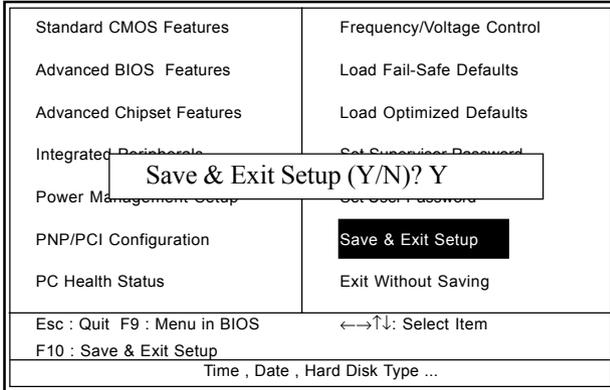
Password Disabled

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

2.13 Save & Exit Setup

◎ Figure 13. Save & Exit Setup

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

```
┌─────────────────────────────────────────────────────────────────┐
│  Standard CMOS Features          Frequency/Voltage Control        │
│                                                                   │
│  Advanced BIOS  Features         Load Fail-Safe Defaults          │
│                                                                   │
│  Advanced Chipset Features       Load Optimized Defaults          │
│                                                                   │
│  Integrated Peripherals     ┌───────────────────────────────┐    │
│                             │  Save & Exit Setup (Y/N)? Y    │    │
│  Power Management Setup      └───────────────────────────────┘    │
│                                                                   │
│  PNP/PCI Configuration           Save & Exit Setup                │
│                                                                   │
│  PC Health Status                Exit Without Saving              │
├─────────────────────────────────────────────────────────────────┤
│  Esc : Quit  F9 : Menu in BIOS      ←→↑↓: Select Item             │
│  F10 : Save & Exit Setup                                          │
├─────────────────────────────────────────────────────────────────┤
│                  Time , Date , Hard Disk Type ...                 │
└─────────────────────────────────────────────────────────────────┘
```
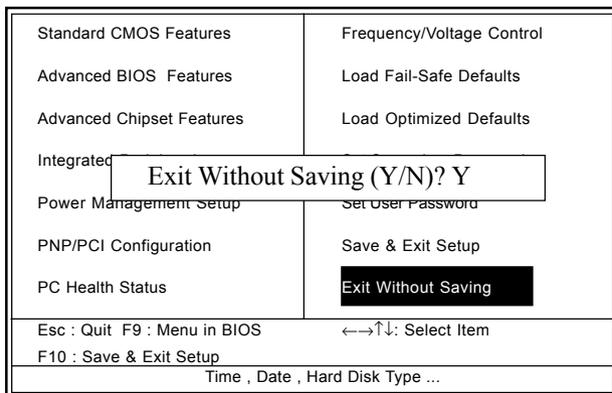
Typing "Y" will quit the Setup Utility and save the user setup value to RTC CMOS RAM.

Typing "N" will return to the Setup Utility.

2.14 Exit Without Saving

◎ **Figure 14. Exit Without Saving**

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

```
┌─────────────────────────────────────────────────────────┐
│ Standard CMOS Features        Frequency/Voltage Control   │
│                                                           │
│ Advanced BIOS  Features       Load Fail-Safe Defaults     │
│                                                           │
│ Advanced Chipset Features     Load Optimized Defaults     │
│                                                           │
│ Integrated ┌─────────────────────────────────────────┐   │
│            │   Exit Without Saving (Y/N)? Y          │   │
│ Power Management Setup         Set User Password     │   │
│            └─────────────────────────────────────────┘   │
│ PNP/PCI Configuration          Save & Exit Setup          │
│                                                           │
│ PC Health Status              ▌Exit Without Saving        │
├─────────────────────────────────────────────────────────┤
│ Esc : Quit  F9 : Menu in BIOS    ←→↑↓: Select Item        │
│ F10 : Save & Exit Setup                                   │
├─────────────────────────────────────────────────────────┤
│              Time , Date , Hard Disk Type ...             │
└─────────────────────────────────────────────────────────┘
```

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

Typing "N" will return to the Setup Utility.

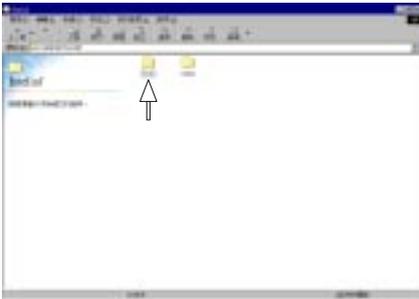## 3. Driver Installation

Introduction

There are motherboard drivers and utilities included in
ACORP Bonus CD disc. You don't need to install all of them
in order to boot your system. But after you finish the
hardware installation, you have to install your operation
system first (such as windows 98) before you can install any
drivers or utilities. Please refer to your operation system
installation guide.

> *Note*:*Please follow recommended procedure*
> to install Windows 95 and Windows 98.

3.1 Auto-run Menu

You can use the auto-run menu of Bonus CD disc.
Choose the utility or driver and select model name.

3.2 Installing Intel INF Driver

You can install the Intel inf driver (IDE Bus master
(For Windows NT use), Intel ATAPI Vendor Support
Driver, Intel AGP, IRQ Routing Driver (For Windows 98
use), Intel Registry (INF) Driver) from the Bonus Pack
CD disc auto-run menu.

**(1)
Click
"Intel Driver" Item.**

**(2)
Click
"Intelinf" Item.
(For Windows NT no
Support)**

(3)
Click "Disk1" Item.

(4)
Click "Setup".

(5)
Click "Next".

3.3 Installing Ultra ATA Driver

It is necessary to install Bus Master IDE drive to support
ATA hard disk. You can find the Ultra ATA driver from the
Bonus Pack CD disc auto-run menu.

(1)
Click
"Intel Driver" Item.

(2)
Click
"Uatadrv" Item.
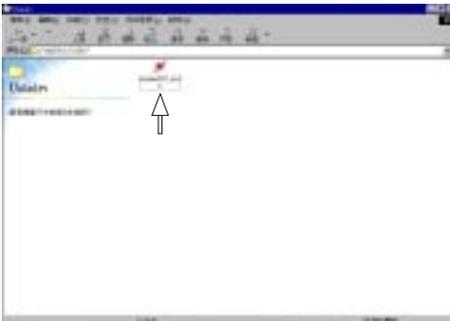
(3)
Click
"intelata603_multi".

*Note: Installing this Bus Master
IDE driver may cause Suspend
to Hard Drive failure.*

3.4 Installing Hardware Monitoring Utility

You can install Hardware Monitoring Utility to monitor CPU temperature, fans and system voltage. The hardware monitoring function is automatically implemented by the BIOS and utility software. No hardware installation is needed.

(1)
Click "Intel Driver" Item.

(2)
Click "HWM" Item.
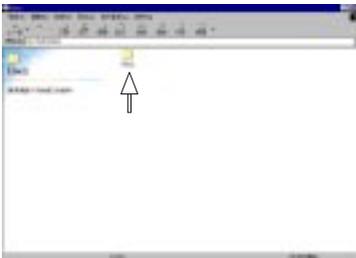
(3)
Click "Setup" Item.
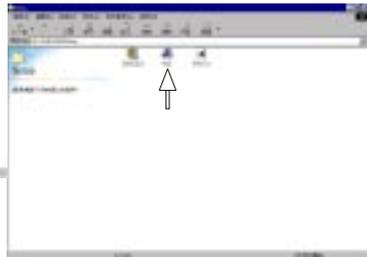
(4)
Click "Setup".

(5)
**Click "OK".**

3.5 Easy Over Clock Driver

1. Boostek is an overclocking utility.

2. If you want to overclock, you should, make sure of the following:

      a.Setup CPU/SDRAM frequency in BIOS.

      (EX: CPU/SDRAM=66/100, 100/100, 133/100 or 133/133)

      b.Adjust the FSB of CPU to the frequency you want, then press "Run Setting" to start overclocking.

      (SDRAM, 3V66, PCI will be adjusted in the same rate at same time)

3. Boostek-9x for win95/98
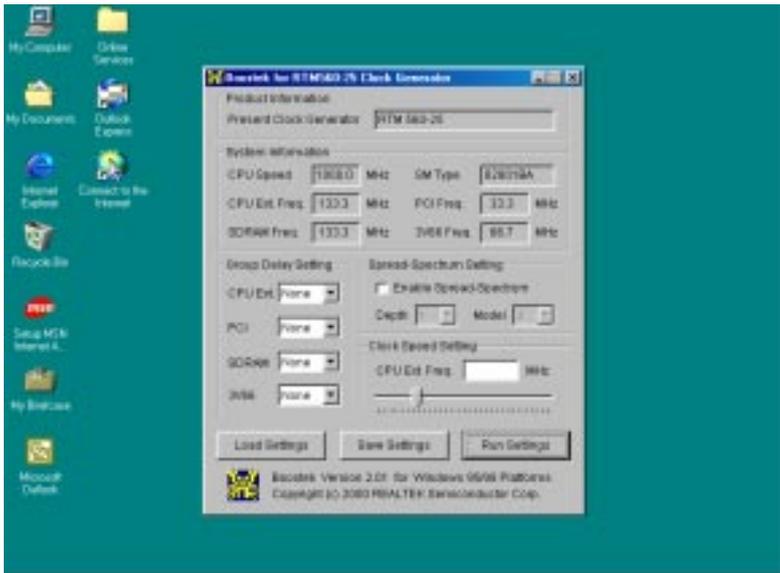
4. Boostek-2000-NT for Win2000/ Winnt 4.0

(1)
Click
"Intel Driver" Item.
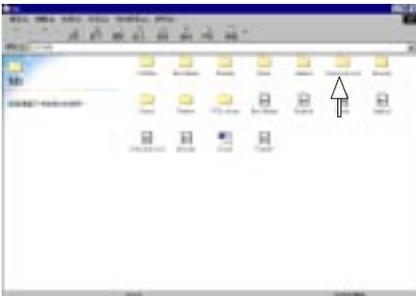
(2)
Click
"Overclock-tool" Item.
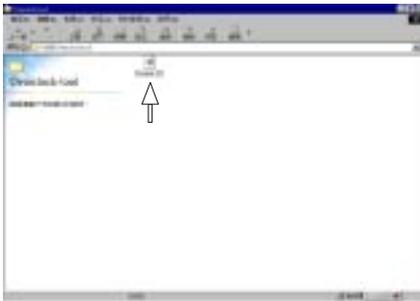
**(3)
Click
"Realtek-AP" Item.**

**(4)
Boostekis "Overclock" Run Setting.**