
Chapter 4

Award BIOS

This chapter tells how to configure the system parameters. You may update your BIOS via AWARD Flash Utility.

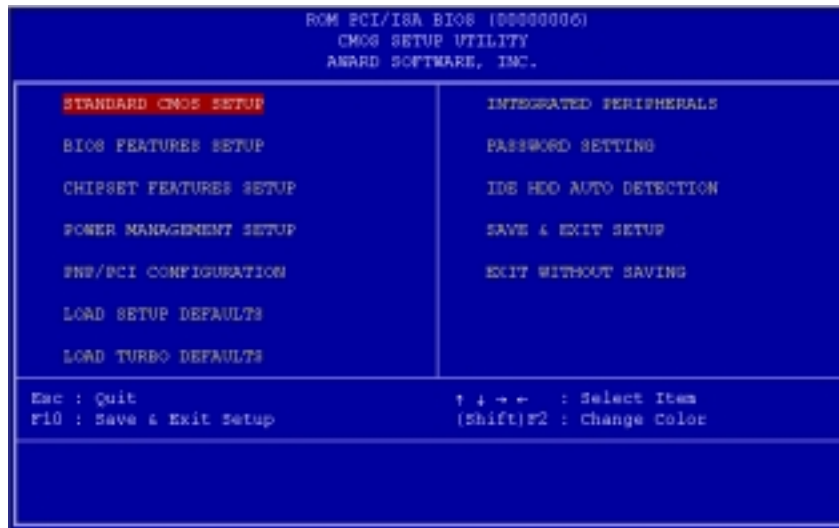


Important: *Because the BIOS code is the most often changed part of the mainboard design, the BIOS information contained in this chapter (especially the Chipset Setup parameters) may be a little different compared to the actual BIOS that came with your mainboard.*

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4.1 Entering the Award BIOS Setup Menu

The BIOS setup utility is a segment of codes/routines residing in the BIOS Flash ROM. This routine allows you to configure the system parameters and save the configuration into the 128 byte CMOS area, (normally in the RTC chip or directly in the main chipset). To enter the BIOS Setup, press **DEL** during POST (Power-On Self Test). The BIOS Setup Main Menu appears as follows.



Tip: Choose "Load Setup Defaults" for recommended optimal performance. Choose "Load Turbo Defaults" for best performance with light system loading. Refer to section 3.7.

The section at the bottom of the screen tells how to control the screen. Use the arrow keys to move between items, **SHIFT F2** to color scheme of the display, **ESC** to exit, and **F10** to save the changes before exit. Another

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section at the bottom of the screen displays a brief description of the highlighted item.

After selecting an item, press  to select or enter a submenu.

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4.2 Standard CMOS Setup

The "Standard CMOS Setup" sets the basic system parameters such as the date, time, and the hard disk type. Use the arrow keys to highlight an item and **PGUP** or **PGDN** to select the value for each item.

```
ROM PCI/ISA BIOS (00000000)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Mon, Dec 29 1997
Time (hh:mm:ss) : 11 : 1 : 28

HARD DISKS      TYPE      SIZE      CYLS HEAD PRECOMP LANDS SECTOR  MODE
-----
Primary Master  : None      0          0   0      0      0      0  -----
Primary Slave   : None      0          0   0      0      0      0  -----
Secondary Master: None      0          0   0      0      0      0  -----
Secondary Slave : None      0          0   0      0      0      0  -----

Drive A : None
Drive B : None

Video : EGA/VGA
Halt on : All Errors

Base Memory:  OK
Extended Memory:  OK
Other Memory:  512K
Total Memory:  512K

ESC : Quit      * ↑ ↓ ← → : Select Item      F9/F10/+/- : Modify
F1 : Help      (Shift)F2 : Change Color
```

Standard CMOS → Date

To set the date, highlight the Date parameter. Press **PGUP** or **PGDN** to set the current date. The date format is month, date, and year.

Standard CMOS → Time

To set the time, highlight the Time parameter. Press **PGUP** or **PGDN** to set the current time in hour, minute, and second format. The time is based on the 24 hour military clock.

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Standard CMOS → Primary Master → Type

Standard CMOS → Primary Slave → Type

Standard CMOS → Secondary Master → Type

Standard CMOS → Secondary Slave → Type

<u>Type</u>	This item lets you select the IDE hard disk parameters that your system supports. These parameters are Size, Number of Cylinder, Number of Head, Start Cylinder for Pre-compensation, Cylinder number of Head Landing Zone and Number of Sector per Track. The default setting is Auto , which enables BIOS to automatically detect the parameters of installed HDD at POST (Power-On Self Test). If you prefer to enter HDD parameters manually, select User. Select None if no HDD is connected to the system.
Auto	
User	
None	
1	
2	
...	
45	

The IDE CDROM is always automatically detected.



***Tip:** For an IDE hard disk, we recommend that you use the "IDE HDD Auto Detection" to enter the drive specifications automatically. See the section "IDE HDD Auto Detection".*

Standard CMOS → Primary Master → Mode

Standard CMOS → Primary Slave → Mode

Standard CMOS → Secondary Master → Mode

Standard CMOS → Secondary Slave → Mode

<u>Mode</u>	The enhanced IDE feature allows the system to use a hard disk with a capacity of more than 528MB. This is made possible through the Logical Block Address (LBA) mode translation. The LBA is now considered as a standard feature of current IDE hard disk on the market because of its capability to support capacity larger than 528MB. Note that if HDD is formatted with LBA On, it will not be able to boot with LBA Off.
Auto	
Normal	
LBA	
Large	

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Standard CMOS → Drive A

Standard CMOS → Drive B

Drive A

None
360KB 5.25"
1.2MB 5.25"
720KB 3.5"
1.44MB 3.5"
2.88MB 3.5"

These items select floppy drive type. The available settings and types supported by the mainboard are listed on the left.

Standard CMOS → Video

Video

EGA/VGA
CGA40
CGA80
Mono

This item specifies the type of video card in use. The default setting is VGA/EGA. Since current PCs use VGA only, this function is almost useless and may be disregarded in the future.

Standard CMOS → Halt On

Halt On

No Errors
All Errors
All, But
Keyboard
All, But Diskette
All, But Disk/Key

This parameter enables you to control the system stops in case of Power-On Self Test (POST) error.

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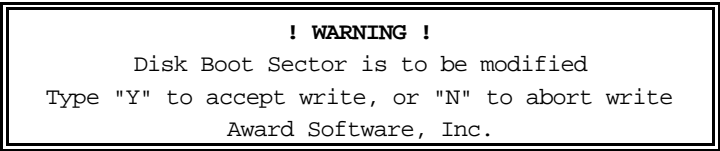
4.3 BIOS Features Setup

This screen appears when you select the option "BIOS Features Setup" from the main menu.



BIOS Features → Virus Warning

Virus Warning	Set this parameter to Enabled to activate the warning message. This feature protects the boot sector and partition table of your hard disk from virus intrusion.
Enabled	
Disabled	Any attempt during boot up to write to the boot sector of the hard disk drive stops the system and the following warning message appears on the screen. Run an anti-virus program to locate the problem.





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BIOS Features → External Cache

External Cache

Enabled
Disabled

Enabling this parameter activates the secondary cache (currently, PBSRAM cache). Disabling the parameter slows down the system. Therefore, we recommend that you leave it enabled unless you are troubleshooting a problem.

BIOS Features → Quick Power On Self Test

Quick Power-on Self-test

Enable
Disabled

This parameter speeds up POST by skipping some items that are normally checked.

BIOS Features → Boot Sequence

Boot Sequence

A,C,SCSI
C,A,SCSI
C,CDROM,A
CDROM,C,A
D,A,SCSI
E,A,SCSI
F,A,SCSI
SCSI,A,C
SCSI,C,A
C only
LS/ZIP,C

This parameter allows you to specify the system boot up search sequence. The hard disk ID are listed below:

C: Primary master

D: Primary slave

E: Secondary master

F: Secondary slave

LS: LS120 drive

ZIP: IOMEGA ZIP drive

BIOS Features → Swap Floppy Drive

Swap Floppy Drive

Enabled
Disabled

This item allows you to swap floppy drives. For example, if you have two floppy drives (A and B), you can assign the first drive as drive B and the second drive as drive A or vice-versa.

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BIOS Features → Boot Up NumLock Status

<u>Boot-up NumLock Status</u>

On
Off

Setting this parameter to On enables the numeric function of the numeric keypad. Set this parameter to Off to disregard the function. Disabling the numeric function allows you to use the numeric keypad for cursor control.

BIOS Features → Memory Parity/ECC Check

<u>Memory Parity/ECC Check</u>

Enabled
Disabled

This item is used to enable or disable parity/ECC check function.

BIOS Features → Typematic Rate Setting

<u>Typematic Rate Setting</u>

Enabled
Disabled

Set this parameter to Enable/Disable the keyboard repeat function. When enabled, continually holding down a key on the keyboard will generate repeatedly keystrokes.

BIOS Features → Typematic Rate (Chrs/Sec)

<u>Typematic Rate</u>

6
8
10
12
15
20
24
30

This item allows you to control the speed of repeated key strokes. The default is 30 characters/sec.

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BIOS Features → Typematic Delay (Msec)

Typematic Delay

250
500
750
1000

This parameter allows you to control the delay time between the first and the second keystroke (where the repeated keystrokes begin). The typematic delay settings are 250, 500, 750, and 1000 msec.

BIOS Features → Security Option

Security Option

Setup
System

The **System** option limits access to both the System boot and BIOS setup. A prompt asking you to enter your password appears on the screen every time you boot the system.

The **Setup** option limits access only to BIOS setup.

To disable the security option, select Password Setting from the main menu, don't type anything and just press <Enter>.

BIOS Features → PCI/VGA Palette Snoop

PCI/VGA Palette Snoop

Enabled
Disabled

Enabling this item informs the PCI VGA card to keep silent (and to prevent conflict) when palette register is updated (i.e., accepts data without responding any communication signals). This is useful only when two display cards use the same palette address and plugged in the PCI bus at the same time (such as MPEQ or Video capture). In such case, PCI VGA is silent while MPEQ/Video capture is set to function normally.

BIOS Features → OS Select for DRAM > 64MB

OS Select for DRAM > 64MB

OS/2
Non-OS/2

Set to OS/2 if your system is utilizing an OS/2 operating system and has a memory size of more than 64 MB.

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BIOS Features → Video BIOS Shadow

<u>Video BIOS</u>
<u>Shadow</u>
Enabled
Disabled

VGA BIOS Shadowing means to copy video display card BIOS into the DRAM area. This enhances system performance because DRAM access time is faster than ROM.

BIOS Features → C800-CBFF Shadow

BIOS Features → CC00-CFFF Shadow

BIOS Features → D000-D3FF Shadow

BIOS Features → D400-D7FF Shadow

BIOS Features → D800-DBFF Shadow

BIOS Features → DC00-DFFF Shadow

<u>C8000-CBFFF</u>
<u>Shadow</u>
Enabled
Disabled

These six items are for shadowing ROM code on other expansion cards. Before you set these parameters, you need to know the specific addresses of that ROM code. If you do not know this information, enable all the ROM shadow settings.

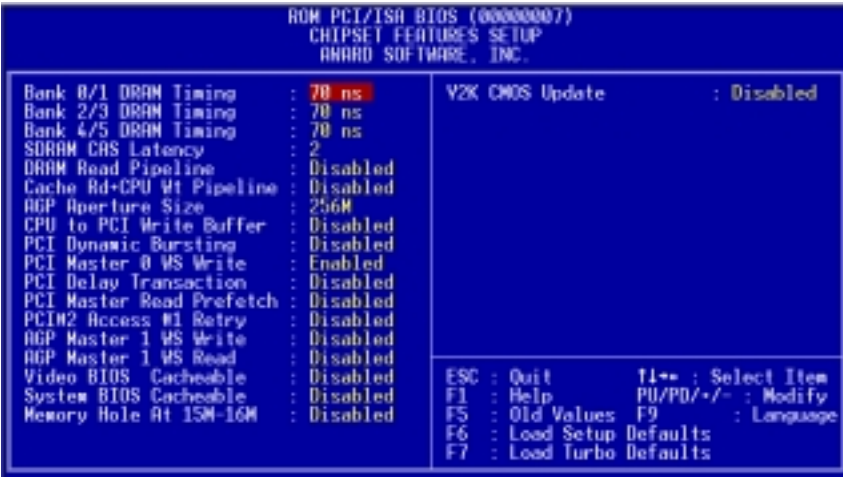


Note: The F000 and E000 segments are always shadowed because BIOS code occupies these areas.

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4.4 Chipset Features Setup

The "Chipset Features Setup" includes settings for the chipset dependent features. These features are related to system performance.



Caution: Make sure you fully understand the items contained in this menu before you try to change anything. You may change the parameter settings to improve system performance. However, it may cause system unstable if the settings are not correct for your system configuration.

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Chipset Features → Bank 0/1 Timing

Chipset Features → Bank 2/3 Timing

Chipset Features → Bank 4/5 Timing

<u>DRAM Timing</u>

60 ns

70 ns

This item is used to set DRAM timing parameters which can be automatically set by BIOS, 60ns and 70ns.

Chipset Features → SDRAM CAS Latency

<u>SDRAM(CAS Lat/RAS-to-CAS)</u>

2

3

These are timing of SDRAM CAS Latency, which is an important parameter affects SDRAM performance, default is 2 clocks. If your SDRAM has unstable problem, change 2 to 3.

Chipset Features → DRAM Read Pipeline

<u>DRAM Read Pipeline</u>

Enabled

Disabled

This item is used to enable or disable DRAM read pipeline.

Chipset Features → Cache Rd+CPU Wt Pipeline

<u>Cache Rd+CPU Wt Pipeline</u>
--

Enabled

Disabled

This item is used to enable or disable both cache read and CPU write pipeline.

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Chipset Features → AGP Aperture Size

AGP Aperture Size

4M
8M
16M
32M
64M
128M
256M

This item lets you determine the effective size of the AGP Graphic Aperture.

Chipset Features → CPU to PCI Write Buffer

CPU to PCI Write Buffer

Enabled
Disabled

This item is used to enable or disable CPU to PCI write buffer.

Chipset Features → PCI Dynamic Bursting

PCI Dynamic Bursting

Enabled
Disabled

This item is used to enable or disable PCI dynamic bursting.

Chipset Features → PCI Master 0 WS Write

PCI Master 0 WS Write

Enabled
Disabled

This item is used to control the PCI master write cycle. If enabled, there is no wait state. If disabled, there will be one wait state for PCI master write.

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Chipset Features → PCI Delay Transaction

PCI Delay Transaction

Enabled
Disabled

This item lets you control the Delayed Transaction function of the VIA 586A chipset (Intel PCI to ISA bridge). This function is used to meet latency of PCI cycles to or from ISA bus. Try to enable or disable it, if you have ISA card compatibility problem.

Chipset Features → PCI Master Read Prefetch

PCI Master Read Prefetch

Enabled
Disabled

This item is used to control PCI master read prefetch. If enabled, chipset will do prefetch only if enhanced command. If disabled, it will be always prefetch.

Chipset Features → PCI#2 Access #1 Retry

PCI#2 Access #1 Retry

Enabled
Disabled

This item is used to enable or disable AGP master retry disconnect. If enabled, AGP master will be disconnected if max retries are attempted without success. PCI#2 means AGP.

Chipset Features → AGP Master 1 WS Write

AGP Master 1 WS Write

Enabled
Disabled

This item is used to enable or disable AGP master 1 wait state write.

Chipset Features → AGP Master 1 WS Read

AGP Master 1 WS Read

Enabled
Disabled

This item is used to enable or disable AGP master 1 wait state read.

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Chipset Features → Video BIOS Cacheable

Video BIOS
Cacheable

Enabled
Disabled

Allows the video BIOS to be cached to allow faster video performance.

Chipset Features → System BIOS Cacheable

System BIOS
Cacheable

Enabled
Disabled

Enabling this item allows you to cache the system BIOS to further enhance system performance.

Chipset Features → Memory Hole At 15M-16M

Memory Hole At
15M-16M

Enabled
Disabled

This option lets you reserve system memory area for special ISA cards. The chipset accesses code/data of these areas from the ISA bus directly. Normally, these areas are reserved for memory mapped I/O card.

Chipset Features → Y2K CMOS Update

Y2K CMOS Update

Enabled
Disabled

This item is designed for some Y2K testing programs, for example, Check It 98. If you are using this kind of program to test your system and fails, enable this item and redo the test again.

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4.5 Power Management Setup

The Power Management Setup screen enables you to control the mainboard's green features. See the following screen.



Power Management → Power Management

Power Management	This function allows you to set the default parameters of power-saving modes. Set to Disable to turn off power management function. Set to User Defined to choose your own parameters.
Max Saving	
Mix Saving	
User Defined	
Disabled	

Mode	Doze	Standby	Suspend	HDD Power Down
Min Saving	1 hour	1 hour	1 hour	15 min
Max Saving	1 min	1 min	1 min	1 min

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Power Management → PM Controlled by APM

PM Controlled by

APM

Yes

No

If "Max Saving" is selected, you can turn on this item, transfer power management control to APM (Advanced Power Management) and enhance power saving function. For example, stop CPU internal clock.

Power Management → Video Off Option

Video Off Option

Always On

All Modes → Off

Suspend → Off

Susp, Standby → Off

To turn off video monitor at which power down mode.

Power Management → Suspend Mode Option

Suspend Mode

Option

PowerOn Suspend

Suspend to Disk

You can select suspend mode by this item. **Power On Suspend** is the traditional Green PC suspend mode, the CPU clock is stop, all other devices are shut off. But power must be kept On to detect activities from modem, keyboard/mouse and returns the system to full power. The system activities is detected by monitoring the IRQ signals or I/O. **Suspend to Disk** saves system status, memory and screen image into hard disk, then the power can be totally Off. Next time, when power is turned On, the system goes back to your original work within just few seconds, which depending on your memory size. You need utility AOZVHDD to reserve disk space.

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Power Management → Operating System

Operating System

DOS
Win 9x

To implement suspend function, you have to specify an operating system. Currently, only DOS and Win95/98 support this function.

Power Management → Power Button Override

Power Button Override

Enabled
Disabled

This is a specification of ACPI and supported by hardware. When **Enabled**, the soft power switch on the front panel can be used to control power On, Suspend and Off. If the switch is pressed less than 4 sec during power On, the system will go into Suspend mode. If the switch is pressed longer than 4 sec, the system will be turned Off. The default setting is **Disabled**, soft power switch is only used to control On and Off, there is no need to press 4 sec, and there is no Suspend.

Power Management → HDD Power Down

HDD Power Down

Disabled
1 Min
.....
15 Min

This option lets you specify the IDE HDD idle time before the device enters the power down state. This item is independent from the power states previously described in this section (Standby and Suspend).

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Power Management → Doze Mode

Doze Mode

Disabled
1 Min
2 Min
4 Min
8 Min
12 Min
20 Min
30 Min
40 Min
1 Hour

This item lets you set the period of time after which the system enters into Doze mode. In this mode, the CPU clock slows down. The ratio is specified in the "Throttle Duty Cycle". Any activity detected returns the system to full power. The system activity (or event) is detected by monitoring the IRQ signals.

Power Management → Suspend Mode

Suspend Mode

Disabled
1 Min
2 Min
4 Min
8 Min
12 Min
20 Min
30 Min
40 Min
1 Hour

This item lets you set the period of time after which the system enters into Suspend mode. The Suspend mode can be Power On Suspend or Suspend to Hard Drive, selected by "Suspend Mode Option".

Power Management → VGA

Power Management → LPT & COM

Power Management → HDD & FDD

Power Management → DMA/Master

COMPorts Activity

ON
OFF

To enable or disable the detection of COM port, LPT, HDD, VGA , and DMA activities for power down state transition.

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Power Management → Modem Wake Up

Modem Wake Up

Disabled
Enabled

This motherboard implements AOpen special circuit to detect modem ring signal and wakeup from soft power off. The most possible applications are automatic answering machine and fax send/receive. It does not like traditional green PC suspend mode, the system can be true power off, (identified by the fan of your power supply is off). You can use external box modem or AOpen MP56/F56 internal modem card for modem ring-on, but MP56/F56 is recommended, since MP56/F56 has special circuit to cooperate with this mainboard and the modem power and system power can be off together.

Power Management → RTC Wake Up Timer

RTC Wake Up Timer

Enabled
Disabled

This option lets you enable or disable the RTC Wake Up function.

Power Management → WakeUp Date (of Month)

WakeUp Date (of Month)

0
1
.....
31

This item is displayed when you enable the RTC Wake Up Timer option. Here you can specify what date you want to wake up the system. For Example, setting to 15 will wake up the system on the 15th day of every month.



Note: Setting this item to 0 will wake up the system on the specified time (which can be set in the WakeUp Time item) every day.

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Power Management → WakeUp Time (hh:mm:ss)

WakeUp Time
(hh:mm:ss)
hh:mm:ss

This item is displayed when you enable the RTC Wake Up Timer option. Here you can specify what time you want to wake up the system.

Power Management → Primary INTR

Primary
ON
OFF

This item is used to enable or disable the detection of IRQ3-15 or NMI interrupt events for power down state transition. Normally, this is applied to network card.

Power Management → IRQ [3-15]

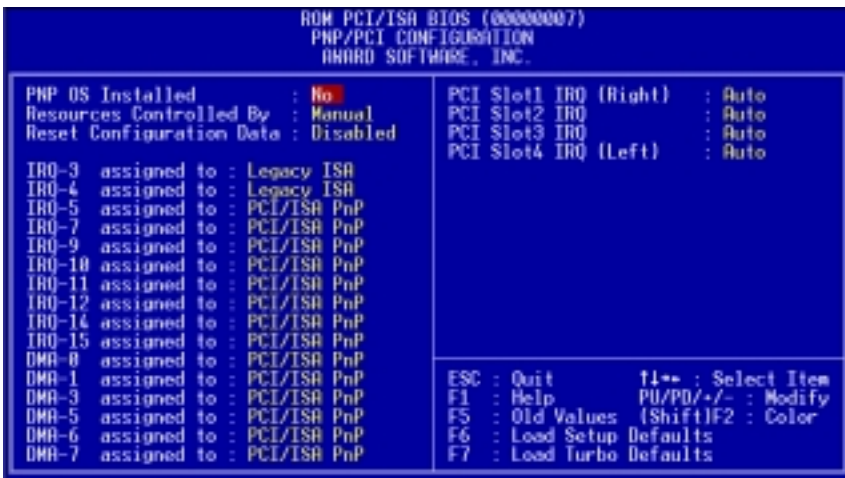
IRQ [3-15],NMI
Primary
Secondary
Disabled

Select Primary or Disabled option to enable or disable the detection of specified IRQ. If the Secondary option was selected, the system will wake up for 2ms after detecting the interrupt, and then return to power down status.

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4.6 PNP/PCI Configuration Setup

The PNP/PCI Configuration Setup allows you to configure the ISA and PCI devices installed in your system. The following screen appears if you select the option "PNP/PCI Configuration Setup" from the main menu.



PNP/PCI Configuration → PnP OS Installed

<u>PnP OS Installed</u>
Yes
No

Normally, the PnP resources are allocated by BIOS during POST (Power-On Self Test). If you are using a PnP operating system (such as Windows 95), set this item to Yes to inform BIOS to configure only the resources needed for booting (VGA/IDE or SCSI). The rest of system resources will be allocated by PnP operating system.

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PNP/PCI Configuration → Resources Controlled By

Resources
Controlled by

Auto
Manual

Setting this option to Manual allows you to individually assign the IRQs and DMAs to the ISA and PCI devices. Set this to **Auto** to enable the auto-configuration function.

PNP/PCI Configuration → Reset Configuration Data

Reset Configuration
Data

Enabled
Disabled

In case conflict occurs after you assign the IRQs or after you configure your system, you can enable this function, allow your system to automatically reset your configuration and reassign the IRQs.

PNP/PCI Configuration → IRQ3 (COM2)

PNP/PCI Configuration → IRQ4 (COM1)

PNP/PCI Configuration → IRQ5 (Network/Sound or Others)

PNP/PCI Configuration → IRQ7 (Printer or Others)

PNP/PCI Configuration → IRQ9 (Video or Others)

PNP/PCI Configuration → IRQ10 (SCSI or Others)

PNP/PCI Configuration → IRQ11 (SCSI or Others)

PNP/PCI Configuration → IRQ12 (PS/2 Mouse)

PNP/PCI Configuration → IRQ14 (IDE1)

PNP/PCI Configuration → IRQ15 (IDE2)

IRQ 3

Legacy ISA
PCI/ISA PnP

If your ISA card is not PnP compatible and requires a special IRQ to support its function, set the selected IRQ to **Legacy ISA**. This setting informs the PnP BIOS to reserve the selected IRQ for the installed legacy ISA card. The default is **PCI/ISA PnP**. Take note that PCI cards are always PnP compatible (except old PCI IDE card).

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PNP/PCI Configuration → DMA 0

PNP/PCI Configuration → DMA 1

PNP/PCI Configuration → DMA 3

PNP/PCI Configuration → DMA 5

PNP/PCI Configuration → DMA 6

PNP/PCI Configuration → DMA 7

DMA 0

Legacy ISA

PCI/ISA PnP

If your ISA card is not PnP compatible and requires a special DMA channel to support its function, set the selected DMA channel to **Legacy ISA**. This setting informs the PnP BIOS to reserve the selected DMA channel for the installed legacy ISA card. The default is **PCI/ISA PnP**. Take note that PCI card does not require DMA channel.

PNP/PCI Configuration → PCI Slot1 IRQ (Right)

PNP/PCI Configuration → PCI Slot2 IRQ

PNP/PCI Configuration → PCI Slot3 IRQ

PNP/PCI Configuration → PCI Slot4 IRQ (Left)

PCI Slot1 IRQ

3

4

5

7

9

10

11

12

14

15

Auto

This item is reserved for engineering purpose to let you assign an IRQ manually to the add-on card on each PCI slot. If you select Auto, system will automatically assign an available value to the device.

It is suggested to use default setting, which is Auto, in order to comply with PnP specification completely.

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4.7 Load Setup Defaults

The "Load Setup Defaults" option loads optimized settings for optimum system performance. Optimal settings are relatively safer than the Turbo settings. We recommend you to use the Optimal settings if your system has large memory size and fully loaded with add-on card (for example, a file server using double-sided 8MB SIMM x4 and SCSI plus Network card occupying the PCI and ISA slots).

Optimal is not the slowest setting for this mainboard. If you need to verify a unstable problem, you may manually set the parameter in the "BIOS Features Setup" and "Chipset Features Setup" to get slowest and safer setting.

4.8 Load Turbo Defaults

The "Load Turbo Defaults" option gives better performance than Optimal values. However, Turbo values may not be the best setting of this mainboard but these values are qualified by the AOpen RD and QA department as the reliable settings especially if you have limited loading of add-on card and memory size (for example, a system that contains only a VGA/Sound card and two SIMMs).

To attain the best system performance, you may manually set the parameters in the "Chipset Features Setup" to get proprietary setting. Make sure that you know and understand the functions of every item in Chipset Setup menu. The performance difference of Turbo from Optimal is normally around 3% to 10%, depending on the chipset and the application.

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4.9 Integrated Peripherals

The following screen appears if you select the option "Integrated Peripherals" from the main menu. This option allows you to configure the I/O features.



Integrated Peripherals → OnChip IDE First Channel

Integrated Peripherals → OnChip IDE Second Channel

<u>OnChip IDE First Channel</u>
Enabled
Disabled

This parameter lets you enable or disable the IDE device connected to the primary IDE connector.

Integrated Peripherals → IDE Prefetch Mode

<u>IDE Prefetch Mode</u>
Enabled
Disabled

This item is used to enable and disable IDE prefetch mode.

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Integrated Peripherals → IDE HDD Block Mode

IDE HDD Block

Mode

Enabled
Disabled

This feature enhances disk performance by allowing multisector data transfers and eliminates the interrupt handling time for each sector. Most IDE drives, except with old designs, can support this feature.

Integrated Peripherals → IDE Primary Master PIO

Integrated Peripherals → IDE Primary Slave PIO

Integrated Peripherals → IDE Secondary Master PIO

Integrated Peripherals → IDE Secondary Slave PIO

IDE Primary Master

PIO

Auto
Mode 1
Mode 2
Mode 3
Mode 4

Setting this item to **Auto** activates the HDD speed auto-detect function. The PIO mode specifies the data transfer rate of HDD. For example: mode 0 data transfer rate is 3.3MB/s, mode 1 is 5.2MB/s, mode 2 is 8.3MB/s, mode 3 is 11.1MB/s and mode 4 is 16.6MB/s. If your hard disk performance becomes unstable, you may manually try the slower mode.



Caution: It is recommended that you connect the first IDE device of each channel to the endmost connector of the IDE cable. Refer to section 2.3 "Connectors" for details on how to connect IDE device(s).

Integrated Peripherals → IDE Primary Master UDMA

Integrated Peripherals → IDE Primary Slave UDMA

Integrated Peripherals → IDE Secondary Master UDMA

Integrated Peripherals → IDE Secondary Slave UDMA

IDE Primary Master

UDMA

Auto
Disabled

This item allows you to set the Ultra DMA/33 mode supported by the hard disk drive connected to your primary IDE connector.



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Integrated Peripherals → USB Controller

USB Controller

Enabled
Disabled

This item is used to enable or disable USB controller.

Integrated Peripherals → USB Legacy Support

USB Legacy Support

Enabled
Disabled

This item lets you enable or disable the USB keyboard driver within the onboard BIOS. The keyboard driver simulates legacy keyboard command and let you use USB keyboard during POST or after boot if you don't have USB driver in the operating system.



Caution: You can not use both USB driver and USB legacy keyboard at the same time. Disable "USB Legacy Support" if you have USB driver in the operating system

Integrated Peripherals → Init Display First

Init Display First

PCI Slot
Onboard

If you installed a PCI VGA card, this item lets you decide which one is the initial display card.

Integrated Peripherals → Onboard FDC Controller

Onboard FDC Controller

Enabled
Disabled

Setting this parameter to **Enabled** allows you to connect your floppy disk drives to the onboard floppy disk connector instead of a separate controller card. Change the setting to Disabled if you want to use a separate controller card.

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Integrated Peripherals → Onboard Serial Port 1

Integrated Peripherals → Onboard Serial Port 2

Onboard Serial Port

1

Auto

3F8/IRQ4

2F8/IRQ3

3E8/IRQ4

2E8/IRQ3

Disabled

This item allow you to assign address and interrupt for the board serial port. Default is **Auto**.



Note: If you are using an network card, make sure that the interrupt does not conflict.

Integrated Peripherals → Onboard UART 2 Mode

Onboard UART 2

Mode

Standard

HPSIR

ASKIR

This item is configurable only if the "Onboard UART 2" is enabled. This allows you to specify the mode of serial port2. The available mode selections are:

- **Standard** - Sets serial port 2 to operate in normal mode. This is the default setting.
- **HPSIR** - Select this setting if you installed an Infrared module in your system via IrDA connector (refer to section 2.3 "Connectors"). This setting allows infrared serial communication at a maximum baud rate of 115K baud.
- **ASKIR** - Select this setting if you installed an Infrared module via IrDA connector (refer to section 2.3 "Connectors"). This setting allows infrared serial communication at a maximum baud rate of 19.2K baud.

AWARD BIOS

Integrated Peripherals → Onboard Parallel Port

Onboard Parallel

Port

3BC/IRQ7

378/IRQ7

278/IRQ7

Disabled

This item controls the onboard parallel port address and interrupt.



Note: If you are using an I/O card with a parallel port, make sure that the addresses and IRQ do not conflict.

Integrated Peripherals → Parallel Port Mode

Parallel Port Mode

Normal

SPP

EPP 1.7 + SPP

EPP 1.9 + SPP

ECP

EPP 1.7 + ECP

EPP 1.9 + ECP

This item lets you set the parallel port mode. The mode options are **Normal** (Standard and Bidirection Parallel Port), EPP (Enhanced Parallel Port) and ECP (Extended Parallel Port). Normal is the IBM AT and PS/2 compatible mode. EPP enhances the parallel port throughput by directly writing/reading data to/from parallel port without latch. ECP supports DMA and RLE (Run Length Encoded) compression and decompression. EPP1.7 and EPP1.9 are protocol difference.

Integrated Peripherals → ECP Mode Use DMA

ECP Mode Use DMA

3

1

This item lets you set the DMA channel of ECP mode.

AWARD BIOS

4.10 Password Setting

Password prevents unauthorized use of your computer. If you set a password, the system prompts for the correct password before boot or access to Setup.

To set a password:

1. At the prompt, type your password. Your password can be up to 8 alphanumeric characters. When you type the characters, they appear as asterisks on the password screen box.
2. After typing the password, press **Enter**.
3. At the next prompt, re-type your password and press **Enter** again to confirm the new password. After the password entry, the screen automatically reverts to the main screen.

To disable the password, press **Esc** when prompted to enter the password. The screen displays a message confirming that the password has been disabled.

4.11 IDE HDD Auto Detection

If your system has an IDE hard drive, you can use this function to detect its parameters and enter them into the "Standard CMOS Setup" automatically.

This routine only detects one set of parameters for your IDE hard drive. Some IDE drives can use more than one set of parameters. If your hard disk is formatted using different parameters than those detected, you have to enter the parameters manually. If the parameters listed do not match the ones used to format the disk, the information on that disk will not be accessible. If the auto-detected parameters displayed do not match those that used for your drive, ignore them. Type **N** to reject the values and enter the correct ones manually from the Standard CMOS Setup screen.

AWARD BIOS

4.12 Save & Exit Setup

This function automatically saves all CMOS values before leaving Setup.

AWARD BIOS

4.13 Exit without Saving

Use this function to exit Setup without saving the CMOS value changes. Do not use this option if you want to save the new configuration.

4.14 NCR SCSI BIOS and Drivers

The NCR 53C810 SCSI BIOS resides in the same flash memory chip as the system BIOS. The onboard NCR SCSI BIOS is used to support NCR 53C810 SCSI control card without BIOS code.

The NCR SCSI BIOS directly supports DOS, Windows 3.1 and OS/2. For better system performance, you may use the drivers that come with the NCR SCSI card or with your operating system. For details, refer to the installation manual of your NCR 53C810 SCSI card.

4.15 How to Upgrade the BIOS

AOpen Easy Flash is more user friendly than traditional flash method. The BIOS binary file and flash routine are combined together and you simply run a single file to complete the flash process.

1. Get new BIOS upgrade program from AOpen's web site. For example, AX59P200.EXE.
2. Reboot the system to DOS mode without loading any memory handler (such as EMM386) or device driver. It needs around 520K free memory space.
3. Execute A:> AX59P200
DO NOT turn off the power during FLASH PROCESS.
4. Reboot the system by turn off the power after flash is completed.
5. Reload the "BIOS SETUP DEFAULT" and reconfigure other items as previous set. Save & Exit. Done!

AWARD BIOS



Note: *The upgrade of new BIOS will permanently replace your original BIOS content after flashing. The original BIOS setting and Win95/Win98 PnP information will be refreshed and you probably need to re-configure your system.*