
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.*

AWARD BIOS

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, F9 to change language, ESC to exit, and F10 to save the changes before exit. Another section at the bottom of the screen displays a brief description of the highlighted item.

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



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  or  to select the value for each item.

Standard CMOS à Date

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

Standard CMOS à Time

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

Standard CMOS à IDE Primary Master à Type

Standard CMOS à IDE Primary Slave à Type

Standard CMOS à IDE Secondary Master à Type

Standard CMOS à IDE Secondary Slave à Type

<u>IDE Primary Master</u>

Auto
Manual
None

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 Manual. Select None if no HDD is connected to the system.

The IDE CDROM is always automatically detected.

AWARD BIOS



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 à Drive A Standard CMOS à 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 à 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 à 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.

4.3 Advanced BIOS Features

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

Advanced BIOS Features à Virus Warning

<u>Virus Warning</u>	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. 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.
Enabled	
Disabled	

! WARNING !

Disk Boot Sector is to be modified
Type "Y" to accept write, or "N" to abort write
Award Software, Inc.

Advanced BIOS Features à CPU Internal Cache

<u>CPU Internal Cache</u>	Enabling this parameter activates the CPU internal cache. Disabling the parameter slows down the system. Therefore, we recommend that you leave it enabled unless you are troubleshooting a problem.
Enabled	
Disabled	

Advanced BIOS Features à External Cache

<u>External Cache</u>	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.
Enabled	
Disabled	

AWARD BIOS

Advanced BIOS Features à CPU L2 Cache ECC

<u>CPU L2 Cache ECC</u>

Enabled
Disabled

This item lets you enable or disable L2 Cache ECC checking.

Advanced BIOS Features à Quick Power On Self Test

<u>Quick Power on Self test</u>
--

Enable
Disabled

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

Advanced BIOS Features à First Boot Device

<u>First Boot Device</u>

A:
LS/ZIP
C:
SCSI
CDROM
D:
E:
F:
LAN
Disabled

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
Zip: IOMEGA ZIP Drive

Advanced BIOS Features à Second Boot Device

<u>Second Boot Device</u>

A:
LS/ZIP
C:
SCSI
CDROM
D:
E:
F:
LAN
Disabled

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
Zip: IOMEGA ZIP Drive

AWARD BIOS

Advanced BIOS Features à Third Boot Device

Third Boot Device

A:
LS/ZIP
C:
SCSI
CDROM
D:
E:
F:
LAN
Disabled

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
Zip: IOMEGA ZIP Drive

Advanced BIOS Features à Boot Other Device

Boot Other Device

Enabled
Disabled

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

Advanced BIOS Features à 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.

Advanced BIOS Features à Boot Up NumLock Status

Boot Up NumLock Status

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.

Advanced BIOS Features à Typematic Rate Setting

Typematic Rate Setting

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.

AWARD BIOS

Advanced BIOS Features à Typematic Rate (Chars/Sec)

<u>Typematic Rate</u>	This item allows you to control the speed of repeated keystrokes. The default is 30 characters/sec.
6	
8	
10	
12	
15	
20	
24	
30	

Advanced BIOS Features à Typematic Delay (Msec)

<u>Typematic Delay</u>	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.
250	
500	
750	
1000	

Advanced BIOS Features à Security Option

<u>Security Option</u>	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.
Setup	
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>.

Advanced BIOS Features à OS Select for DRAM > 64MB

<u>OS Select for DRAM > 64MB</u>	Set to OS/2 if your system is utilizing an OS/2 operating system and has a memory size of more than 64 MB.
OS/2	
Non-OS/2	

4.4 Advanced Chipset Features

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 setting is not correct for your system configuration.

Advanced Chipset Features à SDRAM CAS Latency Time

SDRAM CAS Latency Time

2
3

These are timing of SDRAM CAS Latency and RAS to CAS Delay, calculated by clocks. They are important parameters affects SDRAM performance, default is 2 clocks. If your SDRAM has unstable problem, change 2/2 to 3/3.

Advanced Chipset Features à SDRAM Cycle Time

SDRAM Cycle Time

5/7
6/8

This item will affect SDRAM performance. If the system fails to bootup, please set this item to 6/8.

Advanced Chipset Features à SDRAM RAS-to-CAS Delay

SDRAM RAS-to-CAS Delay

3
2

SDRAM RAS-to-CAS Delay is an important parameter that affects SDRAM performance. If the system fails to bootup, please set this item to 3.

AWARD BIOS

Advanced Chipset Features à SDRAM RAS Precharge Time

<u>SDRAM RAS Precharge Time</u>
--

3
2

The RAS Precharge means the timing to inactive RAS and the timing for DRAM to do precharge before next RAS can be issued. RAS is the address latch control signal of DRAM row address. The default setting is **3 clocks**.

Advanced Chipset Features à Video BIOS Cacheable

<u>Video BIOS Cacheable</u>
--

Enabled
Disabled

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

Advanced Chipset Features à Video RAM Cacheable

<u>Video RAM Cacheable</u>

Enabled
Disabled

This item lets you cache Video RAM A000 and B000.

Advanced Chipset Features à Memory Hole At 15M-16M

<u>Memory Hole At 15M-16M</u>
--

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.

Advanced Chipset Features à Delayed Transaction

<u>Delayed Transaction</u>

Enabled
Disabled

This item lets you control the Delayed Transaction function of the PIIX4 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.

AWARD BIOS

Advanced Chipset Features à On-Chip Video

On-Chip Video

Enabled
Disabled

This item is used to enable or disable the onchip AGP.

Advanced Chipset Features à Cas# Latency

Cas# Latency

2
3

Cas# Latency is an important parameter that affects SDRAM performance. If the system fails to bootup, please set this item to 3.

Advanced Chipset Features à Paging Mode Control

Paging Mode Control

Slow
Fast

This item will affect SDRAM performance. If the system fails to bootup, please set this item to Slow.

Advanced Chipset Features à RAS-to-CAS Override

RAS-to-CAS Override

Slow
Fast

This item will affect SDRAM performance. If the system fails to bootup, please set this item to Slow.

Advanced Chipset Features à RAS# Timing

RAS# Timing

Slow
Fast

This item will affect SDRAM performance. If the system fails to bootup, please set this item to Slow.

Advanced Chipset Features à RAS# Precharge

RAS# Precharge

Slow
Fast

This item will affect SDRAM performance. If the system fails to bootup, please set this item to Slow.

AWARD BIOS

4.5 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 à On-Chip Primary PCI IDE
Integrated Peripherals à On-Chip Secondary PCI IDE

**On-Chip Primary
PCI IDE**

Enabled
Disabled

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

Integrated Peripherals à IDE Primary Master PIO
Integrated Peripherals à IDE Primary Slave PIO
Integrated Peripherals à IDE Secondary Master PIO
Integrated Peripherals à 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 "Connectors" for details on how to connect IDE device(s).*

AWARD BIOS

Integrated Peripherals à IDE Primary Master UDMA
Integrated Peripherals à IDE Primary Slave UDMA
Integrated Peripherals à IDE Secondary Master UDMA
Integrated Peripherals à 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.

Integrated Peripherals à USB Controller

USB Controller

Enabled
Disabled

This item lets you enable or disable the USB controller.

Integrated Peripherals à USB Keyboard Support

**USB Keyboard
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 à 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 à AC97 Audio

AC97 Audio

Enabled
Disabled

This item is used to enable or disable the onboard audio.

AWARD BIOS

Integrated Peripherals à AC97 Modem

AC97 Modem

Enabled
Disabled

This item is used to enable or disable the AC97 modem. If disabled, an AMR modem card can't work properly.

Integrated Peripherals à 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 à Power On Function

Power On Function

Any Key
Button Only
Keyboard 98
Password
Hot Key
Mouse Left
Mouse Right

This item is used to select Wake on Keyboard/Mouse mode.

Any Key: This function allows you wake up the system by clicking any key.

Button Only: Disable Wake on KB/MS function. You can boot up your system by power button only.

Keyboard 98: If selecting this option, you can boot up the system by power button and the "Wake" key on Keyboard 98.

Password: Disable the function of power button and let the system can only be powered on through the preset keys (like a password).

Hot Key: If selecting this option, you also need to specify the hot key from "Hot Key Power On" item.

Mouse Left: This function allows you wake up the system by clicking left mouse button twice successively.

Mouse Right: This function allows you wake up the system by clicking right mouse button twice successively.



Caution: To implement Wake On Keyboard/Mouse function, you must set JP28 to Enabled.

Caution: Wake On Mouse function applies to PS/2 mouse only.

Caution: If you set a Password but forget it, please clear CMOS.

AWARD BIOS

Integrated Peripherals à KB Power On Password

<u>KB Power On Password</u>

You can specify 1-5 keys as a password.

Integrated Peripherals à Hot Key Power On

<u>Hot Key Power On</u>

Ctrl-F1
Ctrl-F2
Ctrl-F3
Ctrl-F4
Ctrl-F5
Ctrl-F6
Ctrl-F7
Ctrl-F8
Ctrl-F9
Ctrl-F10
Ctrl-F11
Ctrl-F12

If you select "Hot Key" option in "Power On Function" Item, you need to specify a hot key here.

Integrated Peripherals à Onboard FDC Controller

<u>Onboard FDC Controller</u>

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.

AWARD BIOS

Integrated Peripherals à Onboard Serial Port 1 Integrated Peripherals à 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 a network card, make sure that the interrupt does not conflict.

Integrated Peripherals à UART Mode Select

UART Mode Select

IrDA
ASKIR
Normal

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:

- **ASKIR** – Select this setting if you installed an Infrared module via IrDA connector (refer to section 2.3 "Connectors"). This ASKIR setting allows infrared serial communication at a maximum baud rate of 56K baud.
- **HPSIR** – Select this setting if you installed an Infrared module in your system via IrDA connector (refer to section 2.3 "Connectors"). The HPSIR setting allows infrared serial communication at a maximum baud rate of 115K baud.
- **FIR** – Select this setting if you installed an Infrared module via IrDA connector (refer to section 2.3 "Connectors"). This FIR (Fast IR) setting allows infrared serial communication at a maximum baud rate of 4M baud.
- **Normal** – Sets serial port 2 to operate in normal mode. This is the default setting.

AWARD BIOS

Integrated Peripherals à RxD, TxD Active

RxD, TxD Active

Hi, Hi
Hi, Lo,
Lo, Hi
Lo, Lo

This item is used to select RxD (Receive Data) and TxD (Transmit Data) mode for UART, for instance, IR device, modem, etc. Normally, we suggest you keep the default setting. Please see the documentation that comes with your device.

Integrated Peripherals à IR Transmission Delay

IR Transmission Delay

Enabled
Disabled

If Enabled is selected, there will be a 4 character delay when SIR is changed from TX mode to RX mode.

Integrated Peripherals à Onboard Parallel Port

Onboard Parallel Port

3BC/IRQ7
378/IRQ7
278/IRQ5
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 à Parallel Port Mode

Parallel Port Mode

SPP
EPP
ECP
ECP + EPP

This item lets you set the parallel port mode. The mode options are SPP (Standard and Bidirection Parallel Port), EPP (Enhanced Parallel Port) and ECP (Extended Parallel Port). SPP 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.

AWARD BIOS

Integrated Peripherals à EPP Mode Select

EPP Mode Select

EPP1.7
EPP1.9

This item lets you select EPP mode.

Integrated Peripherals à ECP Mode Use DMA

ECP Mode Use DMA

3
1

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

Power Management à PWRON After PWR-Fail

PWRON After PWR-Fail

Former-Sts
On
Off

A traditional ATX system should remain at power off stage when AC power resumes from power failure. This design is inconvenient for a network server or workstation, without an UPS, that needs to keep power-on. This item is used to solve this problem. Selecting On lets the system can automatically power-on after AC power resumes; in the other hand, the system will power-off if you select Off. If Former-Sts option is selected, the system will power-on or power-off based on the original state.

Integrated Peripherals à Game Port Address

Game Port Address

Disabled
201
209

This item is used to assign an address for the Game port.

Integrated Peripherals à MIDI Port Address

MIDI Port Address

Disabled
330
300

This item is used to assign an address for the MIDI port.

AWARD BIOS

Integrated Peripherals à MIDI Port IRQ

<u>MIDI Port IRQ</u>
5
7

This item is used to assign an IRQ for the MIDI port.

AWARD BIOS

4.6 Power Management Setup

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

Power Management à ACPI Function

ACPI Function

Enabled
Disabled

If your OS is ACPI enabled you have to set this item to Enabled, or there may be unexpected errors. If your OS is APM mode, you can remain the Disabled setting.

Power Management à Power Management

Power Management

Max Saving
Mix Saving
User Define
Disabled

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 Define to choose your own parameters.

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

Power Management à Video Off Method

Video Off Method

V/H SYNC + Blank
DPMS
Blank Screen

This determines the way that the monitor is off. Blank Screen writes blanks to video buffer. V/H SYNC+Blank allows BIOS to control VSYNC and HSYNC signals. This function applies only for DPMS (Display Power Management Standard) monitor. The DPMS mode uses DPMS function provided by VGA card.

AWARD BIOS

Power Management à Video Off In Suspend

Video Off In Suspend

No
Yes

The item is used to decide whether the video is off in the suspend mode.

Power Management à Suspend Type

Suspend Type

PWRON Suspend
Stop Grant

You can select suspend mode by this item. If **PWRON Suspend** is selected, the CPU will enter into Doze mode. If **Stop Grant** is selected, the CPU clock will enter into Sleep mode. In both of these modes, the system activities are detected by monitoring the IRQ signals or I/O.

Power Management à Modem Use IRQ

Modem Use IRQ

3
4
5
7
9
10
11
N/A

This item lets you set an IRQ for the modem.

Power Management à 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".

AWARD BIOS

Power Management à 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).

Power Management à Soft-Off by PWR-BTTN

Soft-Off by PWR-BTTN

Delay 4 sec.
Instant-Off

This is a specification of ACPI and supported by hardware. When **Delay 4 sec.** is selected, 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 **Instant-Off**, 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 à Wake On LAN

Wake On LAN

Enabled
Disabled

This option lets you specify enable or disable LAN Wake Up function.

Power Management à CPU THRM-Throttling

CPU THRM-Throttling

87.5%
75.0%
62.5%
50.0%
37.5%
25.0%

Clock Throttling means at the Doze/Standby state, the CPU clock count in a given time (not the frequency) is reduced to the ratio specified in this parameter. Actually, the period per CPU clock is not changed. For example, a 66MHz CPU clock remains the same 30ns clock period when system goes into Doze/Suspend. The chipset generates the STPCLK (stop clock) signal periodically to prevent CPU for accepting clock from clock generator. For full power on, the CPU can receive 66M count in one second. If the Slow Clock Ratio is set to 50%, the CPU will only receive 33M clock count in one second. This will effectively reduce CPU speed as well as CPU power.

AWARD BIOS

Power Management à Resume By Alarm

Resume By Alarm

Enabled
Disabled

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

Power Management à Date (of Month)

Date (of Month)

0
1
.....
31

This item is displayed when you enable the Wake On RTC 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 Wake On RTC Timer item) every day.

Power Management à Time (hh:mm:ss)

Time (hh:mm:ss)

hh:mm:ss

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

Power Management à Primary IDE 0

Power Management à Primary IDE 1

Power Management à Secondary IDE 0

Power Management à Secondary IDE 1

Power Management à FDD, COM, LPT Port

Power Management à PCI PIRQ [A-D]

Primary IDE 0

Enabled
Disabled

These items enable or disable the detection of IDE, floppy, serial and parallel port activities for power down state transition. Actually it detects the read/write to/from I/O port.

AWARD BIOS

4.7 PNP/PCI Configurations

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 Configurations" from the main menu.

PNP/PCI Configuration à 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, DMAs, and I/O address.

PNP/PCI Configuration à 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 à **IRQ3** (COM2)

PNP/PCI Configuration à **IRQ4** (COM1)

PNP/PCI Configuration à **IRQ5** (Network/Sound or Others)

PNP/PCI Configuration à **IRQ7** (Printer or Others)

PNP/PCI Configuration à **IRQ9** (Video or Others)

PNP/PCI Configuration à **IRQ10** (SCSI or Others)

PNP/PCI Configuration à **IRQ11** (SCSI or Others)

PNP/PCI Configuration à **IRQ12** (PS/2 Mouse)

PNP/PCI Configuration à **IRQ14** (IDE1)

PNP/PCI Configuration à **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).

AWARD BIOS

PNP/PCI Configuration → PCI/VGA Palette Snoop

<u>PCI/VGA Palette Snoop</u>

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.

AWARD BIOS

4.8 PC Health Status

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 Configurations" from the main menu.

PC Health Status à CPU Warning Temperature

<u>CPU Warning Temperature</u>

Disabled
50
53
56

This item is used to specify a CPU warning temperature. When the CPU's temperature is higher than this predefined value, the CPU's speed will automatically slow down and there will be a warning from BIOS.

4.9 Frequency/Voltage Control

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 Configurations" from the main menu.

Frequency/Voltage Control à Clock Spread Spectrum

Clock Spread Spectrum

Enabled
Disabled

This item is used to set clock spread spectrum for EMI testing. Normally, you don't need to change the default setting.

Frequency/Voltage Control à Clock Speed Setup

Clock Speed Setup

66.8, 72, 75, 83.3, 90,
95, 100.2, 105, 107,
110, 112, 114, 117,
119, 121, 124, 125,
127, 129, 130, 133.6,
136, 138, 140, 145,
150, and 155 MHz.

x 3, x 3.5, x 4, x 4.5, x
5, x 5.5, x 6, x 6.5, x 7,
x 7.5, and x8

The item is used to select the CPU clock speed.

AWARD BIOS

4.10 Load Setup Defaults

The "Load Setup Defaults" option loads optimized settings for optimum system performance. Optimal settings are relatively safer than the Turbo settings. All the product verification, compatibility/reliability test report and manufacture quality control are based on "Load Setup Defaults". We recommend that you use this settings for normal operation. "Load Setup Defaults" is not the slowest setting for this motherboard. If you need to verify an unstable problem, you may manually set the parameter in the "BIOS Features Setup" and "Chipset Features Setup" to get slowest and safer setting.

4.11 Load Turbo Defaults

The "Load Turbo Defaults" option gives better performance than "Load Setup Defaults". It is provided for the convenience of power user who wants to push the motherboard to get better performance. Turbo setting does not go through all the detail reliability and compatibility test, it is tested only with limited configuration and loading (for example, a system that contains only a VGA card and two DIMMs). Use Turbo setting only when you fully understand the items in Chipset Setup menu. The performance improvement of Turbo setting is normally around 3% to 5%, depending on the chipset and the application.

4.12 Set Password

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 again to confirm the new password. After the password entry, the screen automatically reverts to the main screen.

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

4.13 Save & Exit Setup

This function automatically saves all CMOS values before leaving Setup.

4.14 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.

4.15 Load EEPROM Defaults

Except "Load Setup Default" and "Load Turbo Default", you may also use "Save EEPROM Default " to save your own settings into EEPROM, and reload by using this item.

AWARD BIOS

4.16 Save EEPROM Defaults

You may use this item to save your own settings into EEPROM. Then, if the data in CMOS is lost or you forget the previous settings, you may use "Load EEPROM Default " to reload.

4.17 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. Download this self-extracting file and execute it to get the binary BIOS file, flash and checksum utilities.
2. Run "CHECKSUM MX3WLxx.BIN" to see if the checksum of the downloaded file is exactly the same as indicated. If not, do the downloading again.
3. Save "AOFL170.EXE" and "MX3WLxx.BIN" to a DOS floppy disk. Reboot your system with this disk without loading any memory handler (such as EMM386) or device driver to get as much free space as possible.
4. Execute A:>AOFL170 MX3WLxx.BIN.
DO NOT turn off the power during flashing process, until you are asked to!
5. Reboot system and press "DEL" to enter BIOS setup, load "BIOS SETUP DEFAULT", then SAVE and EXIT. Done!



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.