

# PCM-5893 BIOS Setup Menu Definition

## Main Menu

### **Standard CMOS Features**

Use this menu for basic system configuration. (Date, time, IDE, etc.)

### **Advanced BIOS Features**

Use this menu to set the advanced features available on your system.

### **Advanced Chipset Features**

Use this menu to change the values in the chipset registers and optimize your system performance.

### **Integrated Peripherals**

Use this menu to specify your settings for integrated peripherals. (Primary slave, secondary slave, keyboard, mouse etc.)

### **Power Management Setup**

Use this menu to specify your settings for power management. (HDD power down, power on by ring, KB wake up, etc.)

### **PnP/PCI Configurations**

This entry appears if your system supports PnP/PCI.

### **PC Health Status**

This menu allows you to set the shutdown temperature for your system.

### **Frequency/Voltage Control**

Use this menu to specify your settings for auto detect DIMM/PCI clock and spread spectrum.

### **Load Fail-Safe Defaults**

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

### **Load Optimized Defaults**

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While AWARD has designated the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

### **Set Supervisor/User Password**

Use this menu to set Supervisor/User Passwords.

### **Save and Exit Setup**

Save CMOS value changes to CMOS and exit setup.

### **Exit Without Saving**

Abandon all CMOS value changes and exit setup.

# Standard CMOS Features

## Date and Time Configuration

The BIOS determines the day of the week from the other date information. This field is for information only. Press the left or right arrow key to move to the desired field (date, month, year). Press the PgUp/- or PgDn/+ key to change the setting, or type the desired value into the field. The time format is based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00 hours. Press the left or right arrow key to move to the desired field. Press the PgUp/- or PgDn/+ key to increment the setting, or type the desired value into the field.

## IDE Channel 0/1 Master/Slave

### IDE HDD Auto-Detection

The BIOS supports up to two IDE drives. This section does not show information about other IDE devices, such as a CD-ROM drive, or other hard drive types, such as SCSI drives.

*NOTE: We recommend that you select type AUTO for all drives. The BIOS can automatically detect the specifications and optimal operating mode of almost all IDE hard drives. When you select AUTO for a hard drive, the BIOS will detect its specifications*

### IDE Channel 0/1 Master/Slave

If you do not want to select "AUTO", other methods of selecting the drive type are available:

- 1.NONE: No drive type to be selected.
- 2.Manual: This will allow you to manually set the drive type you are using in your system. (See as below)

### Access Mode [Default: Auto]

**Auto:** The BIOS automatically determines the optimal mode.

**CHS:** This allows the user to enter their own hardware values.

**Large:** For drives that do not support LBA and have more than 1024 cylinders.

**LBA (Logical Block Addressing):** During drive access, the IDE controller transforms the data address described by sector, head, and cylinder number into a physical block address, significantly improving data transfer rates for drives with greater than 1024 cylinders.

Here is a brief explanation of drive specifications:

**Capacity:** Disk drive capacity (approximate). Note that this size is usually slightly greater than the size of a formatted disk given by a disk-checking program.

**Cylinder:** Number of cylinders.

**Head:** Number of heads.

**Precomp:** Write pre-compensation cylinder .

**Landing Zone:** Landing zone.

**Sector:** Number of sectors.

**Drive A** [Default: 1.44M, 3.5 in]

**Drive B** [Default: None]

Select the correct specifications for the diskette drive(s) installed in the computer.

**None**

No diskette drive installed

**360K, 5.25 in**

5-1/4 inch PC-type standard drive; 360 kilobyte capacity

**1.2M, 5.25 in**

5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity

**720K, 3.5 in**

3-1/2 inch double-sided drive; 720 kilobyte capacity

**1.44M, 3.5 in**

3-1/2 inch double-sided drive; 1.44 mega byte capacity

**2.88M, 3.5 in**

3-1/2 inch double-sided drive; 2.88 mega byte capacity

**Video**

**Halt On** [Default: All, But Keyboard]

During the power-on-self-test (POST), the computer stops if the BIOS detects a hardware error. You can tell BIOS to ignore certain errors during POST and continue the boot-up process.

**Memory** [Default: AutoDetect]

You cannot change any values in the Memory fields; they are only for your information. RAM is counted in kilobytes (KB: approximately one thousand bytes) and megabytes (MB: approximately one million

bytes). RAM is the computer's working memory, where the computer stores programs and data currently being used, so they are accessible to the CPU. Modern personal computers may contain up to 64 MB, 128

MB, or more.

**Base Memory** [Default: AutoDetect]

Typically 640 KB. Also called conventional memory. The DOS operating system and conventional applications use this area.

**Extended Memory** [Default: AutoDetect]

Above the 1-MB boundary. Early IBM personal computers could not use memory above 1 MB, but current PCs and their software can use extended memory.

**Total Memory** [Default: AutoDetect]

The fields show the total installed random access memory (RAM).

## Advanced BIOS Features

### CPU Feature [Default: Autodetect]

Items will only be enabled when current CPU is supported Thermal Monitor feature.

|  |   |
|--|---|
| Delay Prior to Thermal<br>[Default: 16 Min]  | The Delay Prior To Thermal BIOS feature controls the activation of the Thermal Monitor's automatic mode. It allows you to determine when the Pentium 4's Thermal Monitor should be activated in automatic mode after the system boots. For example, with the default value of 16 Minutes, the BIOS activates the Thermal Monitor in automatic mode 16 minutes after the system starts booting up. |
| Thermal Management<br>[Default: Auto Detect] | Set up to support CPU Thermal Monitor 2 (TM2) or not.   |
| TM2 Bus Ratio<br>[Default: 0]                | Set up TM2 Bus Ratio.   |
| TM2 Bus VID<br>[Default: 0.8375]             | Set up TM2 Bus VID  |
| Limit CPUID MaxVal<br>[Default: Disabled]    | Enabled / Disabled CPUID MaxValue. Only enabled if shown and use older OS like NT4.   |
| NX BIOS Control<br>[Default: Enabled]        | Enabled / Disabled NX BIOS Control.   |

### Removable Device Priority [Default: Auto Detect]

Select Removable Boot Device Priority

### Hard Disk Boot Priority [Default: Auto Detect]

BIOS will display a list of bootable Hard Disk installed on the system. Select boot sequence for onboard Hard Disk, Add-in cards, SCSI, RAID, etc.

Use <↑> or <↓> to select a device, then press<+> to move it up, or <-> to move it down the list.

Press <ESC> to exit this level of menu.

### CD-ROM Boot Priority [Default: Auto Detect]

Select CD-ROM Boot Device Priority

### Virus Warning [Default: Disabled]

When enabled, you receive a warning message if a program (specifically, a virus) attempts to write to the boot sector or the partition table of the hard disk drive. You should then run an anti-virus program. Keep in mind that this feature protects only the boot sector, not the entire hard drive.

*NOTE: Many disk diagnostic programs that access the boot sector table can trigger the virus-warning message. If you plan to run such a program, we recommend that you first disable the virus warning.*

### CPU L1&L2 Cache [Default: Enabled]

Enable/Disable CPU L1&L2 Cache. Set to "Enabled" for faster system performance.

**CPU L3 Cache** [Default: Enabled]

Enable/Disable CPU L3 Cache. Set to "Enabled" for faster system performance.

**Hyper-Threading Technology** [Default: Enabled]

System will detect automatically and show up when you install the Intel® Pentium® 4 processor with HT Technology. Set to "Enabled" for faster system performance.

**Quick Power On Self Test** [Default: Enabled]

Select Enabled to reduce the amount of time required to run the power-on-self-test (POST). A quick POST skips certain steps.

**USB Floppy Disk Type** [Default: Auto]

Auto – By USB Device

Floppy – Emulation to Floppy Mode

HDD – Emulation to HDD mode

**First Boot Device/Second Boot Device/Third Boot Device**

**[Default: First: Hard Disk, Second: Floppy, Third: CDROM]**

Floppy Select the boot device priority by Floppy.

LS120 Select the boot device priority by LS120.

Hard Disk Select the boot device priority by Hard Disk.

CDROM Select the boot device priority by CDROM.

ZIP Select the boot device priority by ZIP.

USB-FDD Select the boot device priority by USB-FDD.

USB-ZIP Select the boot device priority by USB-ZIP.

USB-CDROM Select the boot device priority by USB-CDROM.

USB-HDD Select the boot device priority by USB-HDD.

LAN Select the boot device priority by LAN.

Disabled Select the boot device priority by Disabled.

**Boot Other Device** [Default: Enabled]

Set to "Enabled" if you wish the system to boot to other devices if no bootable image found in First/Second/Third Boot device.

**Swap Floppy Drive** [Default: Disabled]

This field is effective only in systems with two floppy drives. Selecting enabled assigns physical drive B to logical drive A, and physical drive A to logical drive B.

**Boot Up Floppy Seek** [Default: Enabled]

When Enabled, the BIOS tests (seeks) floppy drives to determine whether they have 40 or 80 tracks. Only 360-KB floppy drives have 40 tracks; drives with 720 KB, 1.2 MB, and 1.44 MB capacity all have 80 tracks. Because very few modern PCs have 40-track floppy drives, we recommend you to choose "Disabled" to save time.

**Boot Up NumLock Status** [Default: On]

Toggle between On or Off to control the state of the NumLock key when the system boots. When

toggled On, the numeric keypad generates numbers instead of controlling cursor operations.

**Gate A20 Option [Default: Fast]**

Gate A20 refers to the way the system addresses memory above 1 MB (extended memory). When set to Fast, the system chipset controls Gate A20. When set to Normal, a pin in the keyboard controller controls Gate A20. Setting Gate A20 to Fast improves system speed, particularly with OS/2 and Windows.

**Typematic Rate Setting [Default: Disabled]**

Keystrokes repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be selected.

**Typematic Rate (Char/Sec) [Default: 6]**

When the typematic rate setting is enabled, you can select a typematic rate (the rate at which character repeats when you hold down a key) of 6, 8, 10, 12, 15, 20, 24, 30.

**Typematic Delay (Msec) [Default: 250]**

When the typematic rate setting is enabled, you can select a typematic delay (the delay before key strokes begin to repeat) of 250, 500, 750 or 1000 milliseconds.

**Security Option [Default: Setup]**

If you have set a password, select whether the password is required every time the System boots, or only when you enter Setup.

**APIC Mode [Default: Enabled]**

Enable/Disable Advanced Programmable interrupt controller. This option allows system to have Intel's new PIC standard supporting more interrupt lines for onboard devices.

*Note: This option should be only enabled when system is running on ACPI power management mode.*

**MPS Version Control For OS [Default: 1.4]**

MultiProcessor Specification Support. Choose 1.4 if not sure.

**OS Select For DRAM > 64MB [Default: Non-OS2]**

Select the operating system that is running with greater than 64MB or RAM on the system. Set this option to OS2 only if OS2 Operating System is installed.

**Report No FDD For Win 95 [Default: Yes]**

Select "Yes" to release IRQ6 when the system contains no floppy drive, for compatibility with Windows 95 logo certification. In the Integrated Peripherals screen, select Disabled for the Onboard FDD Controller field.

**Video BIOS Shadow [Default: Enabled]**

**C8000-CBFFF Shadow [Default: Disabled]**

**CC000-CFFFF Shadow [Default: Disabled]**

**D0000-D3FFF Shadow [Default: Disabled]**

**D4000-D7FFF Shadow [Default: Disabled]**

**D8000-DBFFF Shadow [Default: Disabled]**

**DC000-DFFFF Shadow [Default: Disabled]**

Software that resides in a read only memory (ROM) chip on a device is called firmware. The Award BIOS permits shadowing of firmware such as the system BIOS, video BIOS, and similar operating instructions that come with some expansion peripherals such as a SCSI adaptor. Shadowing copies firmware from ROM into system RAM, where the CPU can read it through the 16-bit or 32-bit DRAM bus. Firmware not shadowed must be read by the system through the 8-bit X-bus. Shadowing improves the performance of the system BIOS and similar ROM firmware for expansion peripherals. But it also reduces the amount of high memory (640 KB to 1 MB) available for loading device drivers, etc. Enable shadowing into each section of memory separately. Many system designers hardwire shadowing of the system BIOS and eliminate a System BIOS Shadow option. Video BIOS shadows into memory are C0000-C7FFF. The remaining areas shown on the BIOS Features Setup screen may be occupied by other expansion card firmware. If an expansion peripheral in your system contains ROM-based firmware, you need to know the address range the ROM occupies to shadow it into the correct area of RAM.

**Small Logo (EPA) Show      [Default: Enabled]**

If you want to show your logo, please enable it.

## Advanced Chipset Features

### **DRAM Timing Selectable [Default: By SPD]**

When select to “By SPD”, the DRAM timing parameters are set according to DRAM SPD (Serial Presence Detect). When disabled, one can manually set the DRAM timing parameters through the sub items below. Set to “By SPD” if not sure.

### **CAS Latency Time: [Default: 2]**

Controls the latency between the SDRAM Read command and the time data actually becomes available.

### **Active to Precharge Delay: [Default: 8]**

Delay between DRAM Activate Command to Precharge Command

### **DRAM RAS# to CAS# Delay [Default: 4]**

Controls the latency between the DDR SDRAM active command and the read/write command.

### **DRAM RAS# Precharge [Default: 3]**

Controls the idle clocks after issuing a precharge command to the DDR SDRAM.

### **DRAM Data Integrity Mode [Default: Non-ECC]**

Select Parity or ECC (error-correcting code), according to the type of installed DRAM.

### **Memory Frequency For [Default: Auto]**

Allows you to set the DDR operating frequency.

### **System BIOS Cacheable [Default: Enabled]**

Selecting Enabled allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

### **Video BIOS Cacheable [Default: Disabled]**

Selecting Enabled allows caching of the video BIOS ROM at F0000h-FFFFFh, resulting in better video performance. However, if any program writes to this memory area, a system error may result.

### **Memory Hole At 15M-16M [Default: Disabled]**

Enable this function to allow ISA ROM to map to 15-16M and support Legacy ISA devices. If you don't utilize legacy ISA devices in your system, you are recommended to disable this function to enhance graphic performance.

### **AGP Aperture Size (MB) [Default: 64]**

Aperture size will ensure that all writes posted in the global write buffer to the graphics aperture are retired to DRAM before initiating any CPU-PCI cycle. This can be used to ensure synchronization between the CPU and AGP master.

### **\*\* VGA Setting \*\***

### **On-Chip VGA [Default: Enabled]**

Enable/Disable the on-chip VGA.

### **On-Chip Frame Buffer Size [Default: 32M]**

Determine video frame buffer size.



**Boot Display** **[Default: LCD + CRT]**

This option is used with various visual display peripherals. This function allows the end user to select the type of visual display peripheral they are incorporated with the single board computer.

**Panel Type** **[Default: Panel #1]**

When your display devices include LCD panel, you have to select the type of panel you are incorporating with your single board computer. Consult your panel manual for detail information.

**TV Format** **[Default: NTSC]**

Choose the format for TV.

## Integrated Peripherals

### OnChip IDE Device

|   |   |
|---|---|
| OnChip Primary / Secondary<br>PCI IDE<br>[Default: Enabled]       | The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select Enabled to activate each channel separately.   |
| IDE Primary / Secondary<br>Master / Slave PIO<br>[Default: Auto]  | The four IDE PIO (Programmable Input/Output) fields let you set a PIO mode (0-1) for each of the two IDE devices and the two storage devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.  |
| IDE Primary / Secondary<br>Master / Slave UDMA<br>[Default: Auto] | Ultra DMA33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver. If both your hard drive and IDE cable support Ultra DMA 33 select Auto to enable BIOS support.  |
| IDD HDD Block Mode<br>[Default: Enabled]                          | When enable this feature, the BIOS will automatically detect if your hard disk supports block transfers and set the proper block transfer settings for it.  |
| OnChip Serial ATA<br>[Default: Disabled]                          | <p><b>Disabled:</b> Disable this function.</p> <p><b>Auto:</b> BIOS will auto detect. (Default value)</p> <p><b>Combined:</b> Set On-Chip SATA mode to Combined, you can use up to 4 HDDs on the motherboard; 2 for SATA and the other for PATA IDE.</p> <p><b>Enhanced:</b> Set On-Chip SATA mode to Enhanced, the motherboard allows up to 6 HDDs to use.</p> <p><b>SATA Only:</b> Set On-Chip SATA to SATA only.</p> |
| SATA mode<br>[Default: IDE]                                       | Set up SATA Hard Drive to IDE or RAID mode  |
| Serial ATA Port Mode<br>[Default: Primary Master]                 | Set up Serial ATA Port mode to Primary / Secondary, Master / Slave or SATA0 / SATA1 according to “Combined / Enhanced / SATA Only” selected on “OnChip Serial ATA” option.  |

### Onboard Device

|   |   |
|---|---|
| USB Controller<br>[Default: Enabled]        | Enable / Disable USB Controller.  |
| USB 2.0 Controller<br>[Default: Enabled]    | Enable / Disable USB 2.0 Controller. High speed mode will turn on when high speed device were attached. |
| USB Keyboard Support<br>[Default: Disabled] | Select Enabled if a USB keyboard is installed on the system.  |

|   |   |
|---|---|
| USB Mouse Support<br>[Default: Disabled]  | Select Enabled if a USB Mouse is installed on the system.   |
| AC97 Audio<br>[Default: Auto]             | Auto Detect / Disable Onboard AC97 Device.  |
| Init Display First<br>[Default: PCI Slot] | You can select AGP or PCI slot to initialize it as the primary display before initializing any other display device on the system.                                    |
| OnBoard LAN<br>[Default: Enabled]         | The default setting for this item is "Enabled". If you don't need to use onboard LAN function, just configure it as "Disabled" without any efforts on jumper setting. |

## SuperIO Device

*Note: Normally, the boards' I/O chips will occupy a certain portion of memory space. For each I/O device the computer provides an I/O address. The more devices attached the more address needed to organize the memory storage areas. If all the I/O devices were running through the same address, your devices would come to a near halt. Also the corresponding interrupt needs to be selected.*

|   |  |
|---|--|
| OnBoard FDC Controller<br>[Default: Enabled]  | Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install an add-in FDC or the system has no floppy drive, select Disabled in this field.  |
| OnBoard Serial Port 1 / Serial Port 2<br>1: [Default: 3F8/IRQ4]<br>2: [Default: 2F8/IRQ3] | <p><b>Auto:</b> BIOS will automatically setup the port address.</p> <p><b>3F8/IRQ4:</b> Enable onboard Serial port and address is 3F8, IRQ set to 4. (Default value)</p> <p><b>2F8/IRQ3:</b> Enable onboard Serial port and address is 2F8, IRQ set to 3.</p> <p><b>3E8/IRQ4:</b> Enable onboard Serial port and address is 3E8, IRQ set to 4.</p> <p><b>2E8/IRQ3:</b> Enable onboard Serial port and address is 2E8, IRQ set to 3.</p> <p><b>Disabled:</b> Disable onboard Serial port.</p> |
| COM2 RS232/422/485 Type<br>[Default: RS232]   | Select Com2 type if hardware supports 422/485.   |
| UART Mode Select<br>[Default: Normal]   | <p>If you don't disable Onboard Serial Port 2, you will have to select an operating mode for the second serial port:</p> <p><b>Normal:</b> RS-232C serial port</p> <p><b>IrDA:</b> IrDA-compliant serial infrared port</p> <p><b>ASKIR:</b> Amplitude shift keyed infrared port</p>  |
| UR2 Duplex Mode<br>[Default: Half]  | <p>Select the value required by the IR device connected to the IR port.</p> <p>Full-duplex mode permits simultaneous two-direction transmission.</p> <p>Half-duplex mode permits transmission in one direction only at a time.</p>   |
| Use IR Pins<br>[Default: IR-Rx2Tx2]   | Choose type of IR Pins.  |
| Onboard Parallel Port   | Select a logical LPT port address and corresponding interrupt for the  |

|                                      |  |
|--------------------------------------|--|
| [Default: 378/IRQ7]                  | physical parallel port   |
| Parallel Port Mode<br>[Default: SPP] | Select Parallel port mode:<br>SPP Using Parallel port as Standard Parallel Port.<br>EPP Using Parallel port as Enhanced Parallel Port.<br>ECP Using Parallel port as Extended Capabilities Port.<br>ECP+EPP Using Parallel port as ECP & EPP mode. |
| EPP Mode Select<br>[Default: EPP1.7] | You can use this feature to choose which version of EPP to use. For better performance, use EPP 1.9. If you are facing connection issues, try to set it to EPP 1.7.  |
| ECP Mode Use DMA<br>[Default: 3]     | Select a DMA channel for the Parallel port.  |

### **Other Device**

|   |   |
|---|---|
| Expansion Slot<br>Application<br>[Default: PCI] | ISA ==>Supports full ISA compatible functions.<br>PCI ==>Supports up to six master device on PCI. |
|---|---|

## Power Management Setup

**Power-Supply Type** [Default: ATX]

Choose System Power Supply Type. ATX or AT depends on the Hardware Specification.

**ACPI Function** [Default: Enabled]

Enable / Disable ACPI function.

**Power Management** [Default: Min Saving]

Select Max Saving mode or Min Saving mode or define desired Suspend Mode, HDD Power Down functions by User Define.

**Video Off Method** [Default: DPMS]

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. DPMS: Initial display power management signaling. Blank Screen: This option only writes blanks to the video buffer.

**Video Off In Suspend** [Default: Yes]

Enable / Disable Video off in suspend mode.

**Suspend Type** [Default: Stop Grant]

Select suspend type to Stop Grant or Power On suspend.

**Modem Use IRQ** [Default: 3]

Name the interrupt request (IRQ) line assigned to the modem (if any) on your system. Activity of the selected IRQ always awakens the system.

**Suspend Mode** [Default: Disabled]

Disable this function or select 1 min, 2 min, 4 min, 8 min, 12 min, 20min, 30 min, 40 min, 1 hour.

**HDD Power Down** [Default: Disabled]

Disable this function or select from 1 to 15 minutes.

**Soft-Off by PWR-BTTN** [Default: Instant-Off]

If you select "Instant -Off", pushing the on/off button will instantly shut down the system. If you select "Delay 4 sec", you have to push the on/off button lasting for 4 seconds to shut down the system. In this mode, one touch on the on/off button won't shut down the system but place it in a very low-power-usage state, with only enough circuitry receiving power to detect power button activity or Resume by Ring activity.

**CPU THRM-Throttling** [Default: 50.0%]

Allow to select CPU duty cycle in throttle mode.

**Wake-Up by PCI card** [Default: Disabled]

Allow to turn on the system through a PCI LAN or modem card.

**Power On by Ring** [Default: Enabled]

Allow to turn on the system by Modem Ring.

**Resume by Alarm** [Default: Disabled]

You can set "Resume by Alarm" item to enabled and key in Date/Time to power on system.

**Disabled:** Disable this function. (Default value)

**Enabled:** Enable alarm function to power up system, if RTC Alarm Lead To Power On is Enabled.

Date (of Month) Alarm: Everyday, 1~31

Time (hh: mm: ss) Alarm: (0~23) : (0~59) : (0~59)

## PnP/PCI Configurations

### **PNP OS Installed** [Default: No]

Select Yes if the system operating environment is Plug and Play aware, for example Windows 95.

Select No if you need the BIOS to configure non-boot devices.

### **Reset Configuration Data** [Default: Disabled]

Normally, you leave this field disabled. Select enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system cannot boot.

### **Resource Controlled By** [Default: Auto (ESCD)]

The Award Plug and Play BIOS has the capacity to automatically configure the entire Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows 95. If you set this field to Manual, please choose specific resources by going into each of the sub menu that follows this field (a sub menu is proceeded by a ">")

### **IRQ Resource** [Default: PCI/ISA PnP]

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt. There are two types for choice: Legacy ISA and PCI/ISA PnP. Legacy ISA: Devices compliant with the original PC AT bus specification, requiring a specific interrupt (such as IRQ4 for serial port 1) PCI/ISA PnP: Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

### **DMA Resources** [Default: PCI/ISA PnP]

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

|                    |  |
|--------------------|--|
| <b>Legacy ISA</b>  | Devices compliant with the original PC AT bus specification, requiring a specific DMA channel        |
| <b>PCI/ISA PnP</b> | Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture. |

### **PCI/VGA Palette Snoop** [Default: Disabled]

The palette snooping feature informs the PCI devices that an ISA graphics device is installed in the system so that the later can function correctly.

### **\*\* PCI Express relative items \*\***

### **Maximum Payload Size** [Default: 4096]

Determine maximum payload size of PCI express interface.

## PC Health Status

### **CPU Warning Temperature [Default: 70]**

Select the combination of lower and upper limits for the CPU temperature. If the CPU temperature extends beyond either limit, any warning mechanism programmed into your system will be activated.

### **Shutdown Temperature [Default: Disable]**

The shutdown temperature for the computer shuts down by itself.

### **CPU Temperature**

Current CPU Temperature.

### **CPU Fan Speed**

Current CPU fan speed.

### **System Temperature**

Current system temperature.

### **System Fan Speed**

Current system fan speed.

### **Vcore**

Current Vcore voltage value.

### **+1.5V**

Current onboard 1.5V voltage value.

### **+3.3V**

Current onboard 3.3V voltage value.

### **+5V**

Current onboard 5V voltage value.

### **+12V**

Current onboard 12V voltage value.

### **-12V**

Current onboard -12V voltage value.

### **-5V**

Current onboard -5V voltage value.

### **VBAT(V)**

Current onboard VBAT voltage value.

### **5VSB(V)**

Current onboard 5VSB voltage value.



## Frequency/Voltage Control

### **CPU Clock Ratio** [Default: Auto detect]

This option will not be shown or not be available if you are using a CPU with the locked ratio.

This setup option will automatically assign by CPU detection.

For C-Stepping P4: 8X, 10X~24X

For Northwood CPU: 12X~24X

The option will display "Locked" and read only if the CPU ratio is not changeable.

### **Auto Detect PCI Clk** [Default: Enabled]

This item allows you to enable/disable auto detect PCI clock.

### **Spread Spectrum** [Default: Disabled]

When the system clock generates pulses, the extreme value of the pulse generates excess EMI.

Enabling pulse spectrum spread modulation changes the extreme pulse spikes to flat curves thus reducing EMI. This benefit may in some cases be outweighed by problems with timing-critical devices, such as a clock-sensitive SCSI device.

### **CPU Clock** [Default: Auto detect]

100MHz ~ 355MHz Set CPU Host Clock from 100MHz to 355MHz.

If you use FSB400 Pentium 4 processor, "CPU Clock" should set to 100MHz. If you use FSB533

Pentium 4 processor, "CPU Clock" should set to 133MHz. If you use FSB800 Pentium 4

Processor, "CPU Clock" should set to 200MHz.