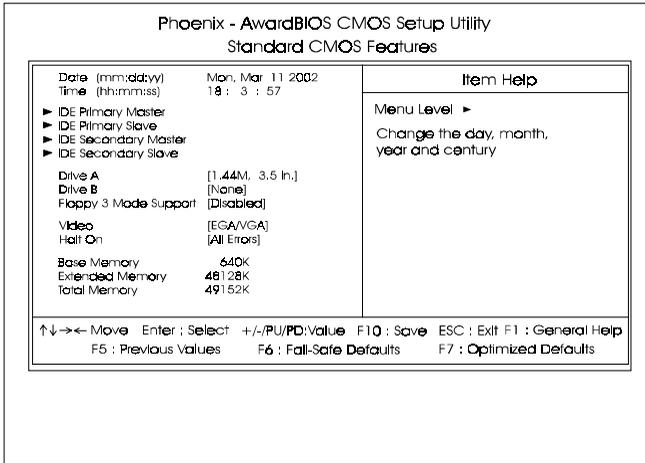




## Standard CMOS Setup



The Standard CMOS Setup screen is displayed above. Each item may have one or more option settings. The system BIOS automatically detects memory size, thus no changes are necessary. Use the arrow keys to highlight the item and then use **PgUp** or **PgDn** keys to select the value you want in each item.

### Date

To set the date, highlight the *Date* field and then press **Page Up/Page Down** or +/- keys to set the current date. Follow the month, day and year format.

### Time

To set the time, highlight the *Time* field and then press **Page Up/Page Down** or +/- keys to set the current time. Follow the hour, minute, and second format.

---

## Hard Disks

This field records the specifications for all non-SCSI hard drives installed in the system. The onboard PCI IDE connectors provide Primary and Secondary channels for connecting up to four IDE hard disks or other IDE devices. Each channel can support up to two hard disks, the first of which is the *Master* and the second is the *Slave*.

### Hard Disk Configurations

<b>Capacity:</b>	The hard disk size. The unit is Bytes.
<b>Cylinder:</b>	The cylinder number of the hard disk.
<b>Head:</b>	The read/write head number of hard disk.
<b>Precomp:</b>	The cylinder number at which the disk drive changes the write current.
<b>Landing Zone:</b>	The cylinder number that the disk drive heads (read/write) are seated when the disk drive is parked.
<b>Sector:</b>	The sector number of each track defined on the hard disk.

## Drive A / Drive B

This field records the types of floppy drives installed in the system. To enter the configuration value for a particular drive, highlight its corresponding field and then select the drive type using the **left-** or **right-arrow** key.

## Floppy 3 Mode Support

This is a Japanese standard floppy type drive. The standard stores 1.2MB in a 3.5 inch diskette.

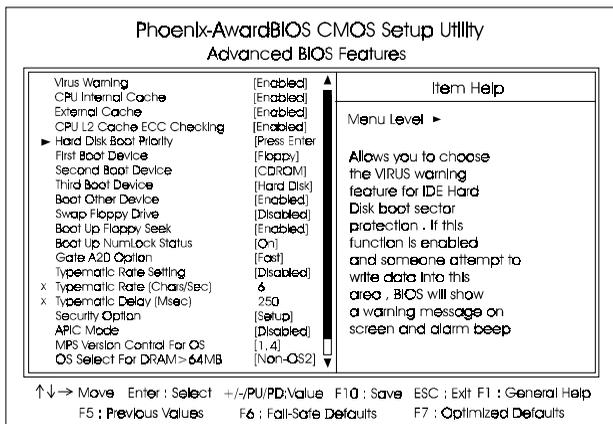
## Video

Set this field to the type of video display card installed in the system.

## Halt On

This field determines which types of errors will cause the system to halt.

## Advanced BIOS Features



### Virus Warning

This feature allows users to enable the computer virus warning for IDE hard disk boot sector protection. If enabled, BIOS will show a warning message and alarm will beep whenever someone write data into this area. The options are: Enabled, Disabled.

### CPU Internal Cache

When enabled, improves the system performance. Disable this item when testing or trouble-shooting. The options are: Enabled, Disabled.

### External Cache

When enabled, supports CPU L2 cache. This feature allows you to disable the cache function when the system performance is unstable to run some software. The options are: Enabled, Disabled.

### Hard Disk Boot Priority

This feature will auto detect all hard disks of bootable device on the system. It also allows users to select hard disk device booting priority.

### First/Second/Third Boot Device

This feature allows user to select the boot device priority. The options are: Floppy, LS120, Hard Disk, CDROM, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, USB-HDD, LAN, Disabled.

### Boot Other Device

This feature allows user to select the boot device priority.  
The options are: Enabled, Disabled.

### Swap Floppy Drive

Allows you to switch the order in which the operating system accesses the floppy drives during boot up.  
The options are: Enabled, Disabled.

### Boot Up Floppy Seek

When enabled, assigns the BIOS to perform floppy diskette drive tests by issuing the time-consuming seek commands.  
The options are: Enabled, Disabled.

### Boot Up Numlock Status

When set to On, allows the BIOS to automatically enable the Num Lock Function when the system boots up. The options are: On, Off.

### Gate A20 Option

When set at Fast, allows a faster access response under Protected mode.  
The options are: Fast, Normal.

### Typematic Rate Setting

The term typematic means that when a keyboard key is held down, the character is repeatedly entered until the key is released.  
The options are: Disabled, Enabled.

### Typematic Rate (Chars/Sec)

This feature is available only if the above item, Typematic Rate Setting, is set at Enabled. Sets the rate of a character repeat when the key is held down. The options are: 6, 8, 10, 12, 15, 20, 24, 30.

### Typematic Delay (Msec)

This feature is available only if the item, Typematic Rate Setting, is set at Enabled. Sets the delay time before a character is repeated.  
The options are: 250, 500, 750, 1000 millisecond.

### Security Option

Allows you to set the security level of the system.  
The options are: Setup, System.

### APIC Mode

Allows you to decide if the system enters the APIC (Advanced Programmable Interrupt Controller) mode or not for more IRQs can be released.  
The options are: Enabled, Disabled.

### MPS Version Control For OS

When two CPUs onboard (not this board) this feature allows you to select MPS (Multi-Processor Spec.) version control for OS when logo test executes. The options are: 1.1, 1.4.

### OS Select For DRAM > 64MB

If your operating system (OS) is OS/2, select the option OS2. Otherwise, stay with the default setting Non-OS2.  
The options are: Non-OS2, OS2.

### HDD S.M.A.R.T. Capability

S.M.A.R.T. stands for Self-Monitoring and Analysis Reporting Technology which allows your hard disk drive to report any read/write errors and issues a warning with LDCM installed.  
The options are: Disabled, Enabled.

### Video BIOS Shadow

Enabling this feature will copy the video BIOS to shadow RAM, it will improve the system performance.  
The options are: Enabled, Disabled.

### BIOS Guardian

It allows the system to prevent computer viruses. Users will need to disable it to update BIOS. The options are: Enabled, Disabled.



**NOTE:** Please disable this BIOS feature about BIOS Guardian before you start to reflash BIOS.

### **BIOS Guardian and Reflash BIOS**

BIOS Guardian by default is enabled, thus effectively acts as a fire-wall against viruses that can attack the BIOS while the system is running. It must be disabled before reflash BIOS.

The steps below show you how to off and on BIOS Guardian when reflash BIOS:

1. Press **Del** key while booting. Go to *CMOS Setup Utility* menu.
2. Go to *Advanced BIOS Features* submenu.
3. Set the feature *BIOS Guardian* at Disabled.
4. Save the setting and exit. The system restarts.
5. POST screen holds. A message about BIOS Guardian shows.
6. Press Space bar.
7. Reflash BIOS. Restart the system after complete it.
8. POST screen holds. A message about BIOS Guardian shows.
9. Press **G** key. The feature BIOS Guardian will be enabled again.

### **Full Screen LOGO Show**

It decides whether or not the full screen logo is shown during system booting up. The options are: Enabled, Disabled.



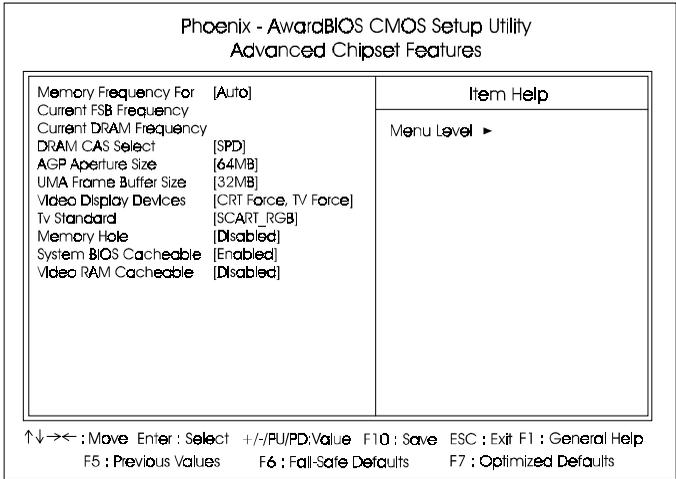
#### **NOTE:**

1. LogoGenie supports Award BIOS only.
2. If you create a Logo file (.bmp) by LogoGenie, the file size must be 640 x 464 x 256 colors.

To enable this utility, please proceed as follows:

1. Insert CD Pro. Select LogoGenie from the Menu and follow the installation instructions.
2. After LogoGenie has been installed, go to Windows Start Box. In Programs Menu, select LogoGenie, then select LogoGenie.
3. Press F1 to read Help file to understand how to use this software if it is new to you.

## Advanced Chipset Features



### Memory Frequency For

This feature allows users to set the memory frequency.  
The options are: Auto, DDR-200, DDR-266, SYNC.

### DRAM CAS Select

This feature allows user to select the CAS latency time for the installed DDR SDRAMs.  
The options are: SPD, 2, 2.5.

### AGP Aperture Size

It decides the mapped size in system memory for AGP graphics data.  
The options are: 32MB, 64MB, 128MB, 256MB.

### UMA Frame Buffer Size

It allows user to select the main memory frame size of AGP use.  
The options are: 8MB, 16MB, 32MB, 64MB, 128MB, 256MB.

### Video Display Devices

It allows user to select the video display device.  
The options are: Auto; CRT Only; TV Only; CRT Force, Other Auto; TV Force, Other Auto; CRT Force, TV Force.

### TV Standard

It allows user to select the TV output signal format.

The options are: NTSC, PAL, PAL-M, PAL-60, NTSC-JAP, PAL-CN, PAL-N, SCART-RGB.

### Memory Hole

When set at Enabled, the memory hole at 15MB address will be relocated to the 15M-16MB address range of the ISA or PCI cycle when the CPU accesses the 15M-16MB address area. When set at Disabled, the memory hole at 15MB address will be treated as a DRAM cycle when the CPU accesses the 15M-16MB address area. The options are: Disabled, Enabled.

### System BIOS Cacheable

Setting at Enabled will allow the caching of the BIOS ROM F0000H-FFFFFH, resulting in better system performance. It may cause system error when some program try to access the memory area.

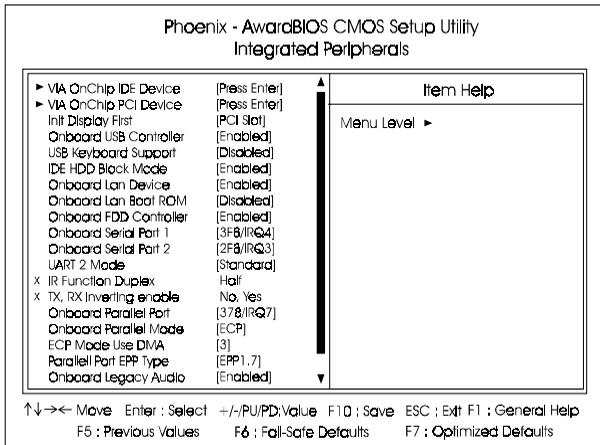
The options are: Disabled, Enabled.

### Video RAM Cacheable

When enabled, allows the video RAM area to be cacheable.

The options are: Enabled, Disabled.

## Integrated Peripherals



## **VIA OnChip IDE Device**

### **OnChip IDE Channel0**

When enabled, allows you to use the onboard primary PCI IDE. If a hard disk controller card is used, set at Disabled.

The options are: Enabled, Disabled.

### **OnChip IDE Channel1**

When enabled, allows you to use the onboard secondary PCI IDE. If a hard disk controller card is used, set at Disabled.

The options are: Enabled, Disabled.

### **IDE Prefetch Mode**

When set at Enabled, it allows data to be posted to and prefetched from the primary IDE data ports. Data prefetching is initiated when a data port read occurs. The read prefetch eliminates latency to the IDE data ports and allows them to be performed back to back for the highest possible PIO data transfer rates. The first data port read of a sector is called the demand read. Subsequent data port reads from the sector are called prefetch reads. The demand read and all prefetch reads must be of the same size (16 or 32 bits). The options are: Enabled, Disabled.

### **Primary Master PIO**

Allows an automatic or a manual configuration of the PCI primary IDE hard disk (master) mode. The options are: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

### **Primary Slave PIO**

Allows an automatic or a manual configuration of the PCI primary IDE hard disk (slave) mode. The options are: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

### **Secondary Master PIO**

Allows an automatic or a manual configuration of the PCI secondary IDE hard disk (master) mode. The options are: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

---

### Secondary Slave PIO

Allows an automatic or a manual configuration of the PCI secondary IDE hard disk (slave) mode. The options are: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

### Primary Master UDMA

Allows you to select the first PCI IDE channel of the first master hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto, Disabled.

### Primary Slave UDMA

Allows you to select the first PCI IDE channel of the first slave hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto, Disabled.

### Secondary Master UDMA

Allows you to select the second PCI IDE channel of the secondary master hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto, Disabled.

### Secondary Slave UDMA

Allows you to select the second PCI IDE channel of the secondary slave hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Auto, Disabled.

### VIA OnChip PCI Device

#### VIA-3058 AC97 Audio

It allows users to disable AC97 link in South Bridge.  
The options are: Auto, Disabled.

### Init Display First

When you install a PCI VGA card on the board, this feature allows you to select the first initiation of the monitor display from PCI or onboard AGP.  
The options are: PCI Slot, AGP.

### OnChip USB Controller

Disable this option if you are not using the onboard USB feature.  
The options are: Disabled, Enabled.

### USB Keyboard Support

When a USB keyboard is installed, please set at Enabled.  
The options are: Disabled, Enabled.

### IDE HDD Block Mode

When enabled, the system executes read/write requests to hard disk in block mode. The options are: Enabled, Disabled.

### Onboard Lan Device

This feature allows users to enable or disable the onboard Lan device.  
The options are: Enabled, Disabled.

### Onboard Lan Boot ROM

This feature allows users to enable or disable the onboard Lan boot ROM to boot system.  
The options are: Enabled, Disabled.

### Onboard FDD Controller

When enabled, the floppy diskette drive (FDD) controller is activated.  
The options are: Enabled, Disabled.

### Onboard Serial Port 1

If the serial port 1 uses the onboard I/O controller, you can modify your serial port parameters. The options are: 3F8/IRQ4, 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3, Disabled, Auto.

### Onboard Serial Port 2

If the serial port 2 uses the onboard I/O controller, you can modify your serial port parameters. The options are: 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, 3F8/IRQ4, Disabled, Auto.

### UART 2 Mode

Select an operating mode for the second serial port. Set at Standard, if you use COM2 as the serial port as the serial port, instead as an IR port. The options are: Standard, ASKIR, HPSIR.

---

### IR Function Duplex

This feature is available only if the above item, UART2 Mode, is set at ASKIR or HPSIR. It allows you to select the infrared data transaction way. The options are: Half, Full.

### TX, RX Inverting Enable

This feature is available only if the above item, UART2 Mode, is set at ASKIR or HPSIR. It allows you to select the active signals of the reception end and the transmission end.

The options are: No, Yes; Yes, Yes; No, No; Yes, No.

### Onboard Parallel Port

Allows you to select from a given set of parameters if the parallel port uses the onboard I/O controller.

The options are: 378/IRQ7, 278/IRQ5, 3BC/IRQ7, Disabled.

### Onboard Parallel Port Mode

Allows you to connect with an advanced printer.

The options are: Normal, EPP, ECP, ECP/ECP.

### ECP Mode Use DMA

This feature allows you to select Direct Memory Access (DMA) channel if the ECP mode is selected. The options are: 3, 1.

### Parallel Port EPP Type

This feature allows you to select the EPP type for the parallel port.

The options are: EPP1.9, EPP1.7.

### Onboard Legacy Audio

Set Audio to be compatible with legacy mode.

The options are: Enabled, Disabled.

### SB I/O Base Address

This feature allows you to select the SB I/O base address, if the onboard Legacy audio is chosen. The options are: 220H, 240H, 260H, 280H.

### SB IRQ Select

This feature allows you to select the SB IRQ, if the onboard Legacy audio is chosen. The options are: IRQ 5, IRQ 7, IRQ 9, IRQ 10.

### SB DMA Select

This feature allows you to select the SB DMA channel, if the onboard Legacy audio chosen.

The options are: DMA 1, DMA 2, DMA 3, DMA0.

### MPU-401

This feature allows you to enable MPU-401, if the onboard Legacy audio chosen. The options are: Disabled, Enabled.

### MPU-401 I/O Address

This feature allows you to select the MPU-401 I/O address, if the onboard Legacy audio chosen.

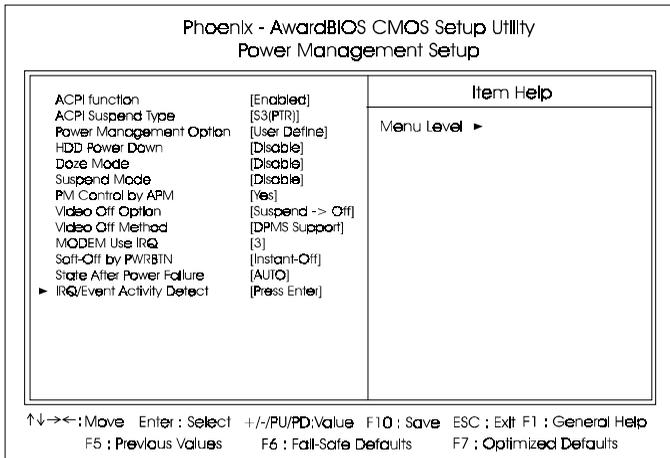
The options are: 310-313H, 320-323H, 330-333H, 300-303H.

### Game Port (200-207H)

This feature allows you to select the game port (200-207H), if the onboard Legacy audio chosen.

The options are: Enabled, Disabled.

## Power Management Setup



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### ACPI Function

This item allows you to disable the ACPI function.  
The options are: Enabled, Disabled.

### ACPI Suspend Type

This item allows you to select suspend mode when the system in ACPI mode. The options are: S1 (POS), S3 (PTR), S1&S3.

### Power Management

This item allows you to adjust the power management features.  
Select User Define for configuring your own power management features.  
Min Saving initiates all predefined timers in their minimum values. Max Saving, on the other hand, initiates maximum values.  
The options are: User Define, Min Saving, Max Saving.

### HDD Power Down

The option lets the BIOS turn the HDD motor off when system is in Suspend mode. Selecting 1 Min..15 Min allows you define the HDD idle time before the HDD enters the Power Saving Mode.  
The options 1 Min..15 Min will not work concurrently. When HDD is in the Power Saving Mode, any access to the HDD will wake the HDD up.  
The options are: Disabled, 1 Min..15 Min.

### Doze Mode

When disabled, the system will not enter Doze mode. The specified time option defines the idle time the system takes before it enters Doze mode.  
The options are: Disable, 1, 2, 4, 6, 8, 10, 20, 30, 40 Min, 1 Hour.

### Suspend Mode

When disabled, the system will not enter Suspend mode. The specified time option defines the idle time the system takes before it enters Suspend mode. The options are: Disable, 1, 2, 4, 6, 8, 10, 20, 30, 40 Min, 1 Hour.

### PM Control by APM

The option No allows the APM (Advanced Power Management) specification be ignored. Selecting Yes will allow the BIOS wait for APM's prompt before it enters Doze mode, Standby mode, or Suspend mode. If the APM is installed, it will prompt the BIOS to set the system into power saving mode when all tasks are done. The options are: No, Yes.

### Video Off Option

This feature provides the selections of the video display power saving mode. The option Suspend - Off allows the video display to go blank if the system enters Suspend mode. The option All Modes - Off allows the video display to go blank if the system enters Doze mode or Suspend mode. The option Always On allows the video display to stay in Standby mode even when the system enters Doze or Suspend mode.

The options are: Suspend - Off, All Modes -> Off, Always On.

### MODEM Use IRQ

This feature allows you to select the IRQ# to meet your modem IRQ#.

The options are: NA, 3, 4, 5, 7, 9, 10, 11.

### Soft-Off by PWR-BTTN

The selection Delay 4 Sec. will allow the system shut down after 4 seconds after the power button is pressed. The selection Instant-Off will allow the system shut down immediately once the power button is pressed.

The settings are: Instant-Off, Delay 4 Sec.

### State After Power Failure

The item allows you to select the state that your personal computer returns to after a power failure. If set at Off, the system will not boot after a power failure. If set On, the system will restart after power failure.

The settings are: Auto, On, Off.

### *IRQ/Event Activity Detect*

### USB Resume From S3

When set at Enabled, it allows USB devices that linked with the system to activate the system from ACPI S3 power saving mode.

The options are Disabled, Enabled.

### VGA

When set at On, any VGA activity will awake the system.

The options are: OFF, ON.

### LPT & COM

When LPT/COM is selected, any access of LPT and COM ports will awake the system. Likewise, either LPT or COM is chosen, the system will be awoken by any activity of LPT or COM port.

The options are: LPT/COM, LPT, COM, NONE.

### HDD & FDD

When it is set at ON, any access happened at hard drives and floppy drives will awake the system.

The options are: OFF, ON.

### PCI Master

To set this feature at ON activates that Power Management feature (PM) wake-up event for the PCI bus master card.

The options are: OFF, ON.

### PowerOn by PCI Card

When set at Enabled, any PCI-PM event awakes the system from a PCI-PM controlled state.

The options are Disabled, Enabled.

### Modem Ring Resume

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakes the system from a soft off state.

The options are: Enabled, Disabled.

### RTC Alarm Resume

*Enabled* allows you to set the time the system will be turned on from the system power-off status. The options are: Enabled, Disabled.

### Date (of Month)

This feature allows you to set the day of the alarm starts when the RTC Alarm Resume From Soft Off is set to be Enabled. The options are: 0, 1..31.

### Resume Time (hh:mm:ss)

If an ATX power supply is installed and when RTC Alarm Resume is Enabled, this feature allows you to set the time of the alarm starts when the RTC Alarm Resume From Soft Off is set to be Enabled.

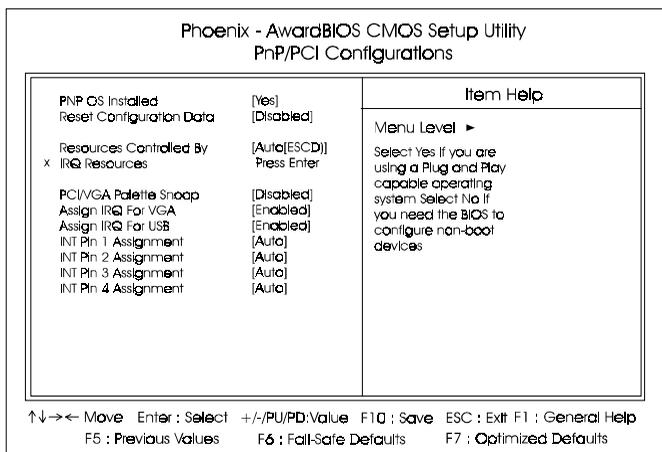
The options are: 7: 0: 0. hh (*hour*) - 0, 1, 2,..., 23; mm (*minute*) - 0, 1, 2,...,59; ss (*second*) - 0, 1, 2,...,59.

### IRQs Activity Monitoring

After the time period which you set, the system advances from doze mode to suspend mode in which the CPU clock stops and the screen display is off. At this moment, if the IRQ activity occurs, the system goes back to full-on mode directly. If the IRQ activity which is defined as Non Primary takes place, the system remains off until the corresponding IRQ handler finishes. The options of IRQ 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 are: Enabled, Disabled.

## PnP/PCI Configurations

Chapter 3  
BIOS Setup



### PnP OS Installed

If your operating system is a Plug-and-Play one, such as Windows NT, Windows 95, select Yes. The options are: No, Yes.

---

### Reset Configuration Data

Enabling it to reset the system Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on card and the system reconfiguration has caused such a serious conflict that the operating system can not boot. The options are: Disabled, Enabled.

### Resources Controlled By

If set at Auto, the BIOS arranges all system resources. If there exists conflict, select Manual. The options are: Auto (ESCD), Manual.

The manual options of **IRQ- / DMA-** assigned to are: PCI/ISA PnP, Legacy ISA.

### PCI/VGA Palette Snoop

Set this feature to be enabled if any ISA adapter card installed in the system requires the VGA palette snoop function.

The options are: Disabled, Enabled.

### Assign IRQ For VGA

If your PCI VGA card devices do not need an IRQ, select Disabled; therefore, an IRQ can be released for the system use.

The options are: Enabled, Disabled.

### Assign IRQ For USB

If your USB devices do not need an IRQ, select Disabled; therefore, an IRQ can be released for the system use.

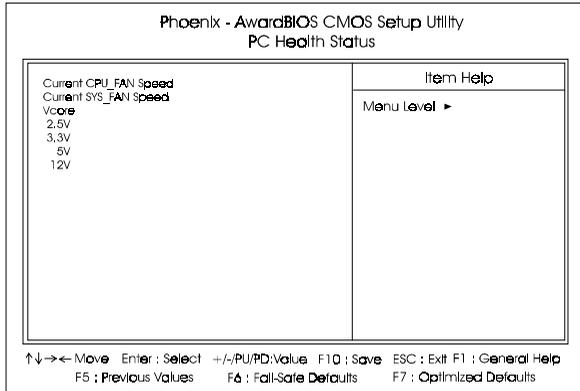
The options are: Enabled, Disabled.

### INT Pin 1/2/3/4 Assignment

This feature allows you to assign the PCI IRQ numbers for PCI slots. Selecting the default, Auto, allows the PCI controller to automatically allocate the IRQ numbers.

The options are: Auto, 3, 4, 5, 7, 9, 10, 11, 12, 14, 15.

## PC Health Status

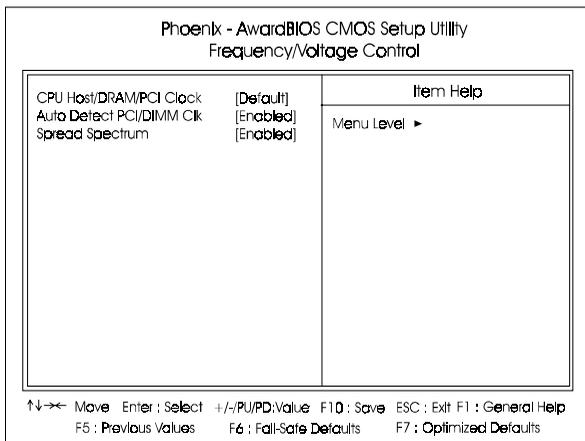


It allows you and technicians to monitor data provided by the BIOS on this mainboard. Some of them are not user-configurable.

[Current CPU\\_FAN Speed / Current SYS\\_FAN Speed / Vcore / 2.5V / 3.3V / 5V / 12V](#)

These items allow end users and technicians to monitor data such as CPU and case cooling fans rotating speed.

## Frequency/Voltage Control



### CPU Host/DRAM/PCI Clock

This feature allows you to select the combinations of CPU frequency, inslot DRAM frequency, and PCI clock. The default setting, Default, will detect this combination automatically. If you set a unappropriate option which leads to a booting problem, keep pressing the Insert key until the display appears will solve it. The options lists all combinations that provided by the system BIOS.

### Auto Detect DIMM/PCI Clk

When enabled, BIOS will detect the PCI slot and DIMM slot. If no any device in, BIOS will auto disable its clock.

The options are: Enabled, Disabled.

### Spread Spectrum

This feature is used to disable the spread Spectrum function.

The options are: Enabled, Disabled.

## Load Fail-Safe Defaults

This submenu is selected to diagnose the problem after the computer boots, if the computer will not boot. These settings do not give optimal performance.

## Load Optimized Defaults

This submenu is selected for default settings which provide the best system performance.

## Supervisor/User Password

To enable the Supervisor/User passwords, select the item from the Standard CMOS Setup. You will be prompted to create your own password. Type your password up to eight characters and press Enter. You will be asked to confirm the password. Type the password again and press Enter. To disable password, press Enter twice when you are prompted to enter a password. A message appears, confirming the password is disabled.

Under the BIOS Feature Setup, if *Setup* is selected under the Security Option field and the Supervisor/User Password is enabled, you will be prompted password every time you try to enter the CMOS Setup Utility. If *System* is selected and the Supervisor/User Password is enabled, you will be requested to enter the Password every time when you reboot the system or enter the CMOS Setup utility.

## Save and Exit Setup

After you have made changes under Setup, press Esc to return to the main menu. Move cursor to Save and Exit Setup or press F10 and then press Y to change the CMOS Setup. If you did not change anything, press Esc again or move cursor to Exit Without Saving and press Y to retain the Setup settings. The following message will appear at the center of the screen to allow you to save data to CMOS and exit the setup utility: **SAVE to CMOS and EXIT (Y/N)?**

## Exit without Saving

If you select this feature, the following message will appear at the center of the screen to allow you to exit the setup utility without saving CMOS modifications: **Quit Without Saving (Y/N)?**