

## ***Viotech 3100+ BIOS Manual***

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# **BIOS Setup**

### **Introduction**

The purpose of this manual is to describe the settings in the AMI BIOS Setup program on this motherboard. The Setup program allows users to modify the basic system configuration and save these settings to CMOS RAM. The power of CMOS RAM is supplied by a battery so that it retains the Setup information when the power is turned off.

Basic Input-Output System (BIOS) determines what a computer can do without accessing programs from a disk. This system controls most of the input and output devices such as keyboard, mouse, serial ports and disk drives. BIOS activates at the first stage of the booting process, loading and executing the operating system. Some additional features, such as virus and password protection or chipset fine-tuning options are also included in BIOS.

The rest of this manual will guide you through the options and settings in BIOS Setup.

### **Plug and Play Support**

This AMI BIOS supports the Plug and Play Version 1.0A specification.

### **EPA Green PC Support**

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

### **APM Support**

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

### **ACPI Support**

AMI ACPI BIOS support Version 1.0/2.0 of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

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### **PCI Bus Support**

This AMI BIOS also supports Version 2.3 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

### **DRAM Support**

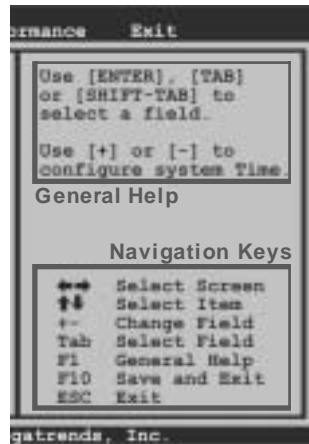
DDR2 SDRAM (Double Data Rate II Synchronous DRAM) is supported.

### **Supported CPUs**

This AMI BIOS supports the AMD CPU

### **Using Setup**

When starting up the computer, press <Del> during the **Power-On Self-Test (POST)** to enter the BIOS setup utility. In the BIOS setup utility, you will see **General Help** description at the top right corner, and this is providing a brief description of the selected item. **Navigation Keys** for that particular menu are at the bottom right corner, and you can use these keys to select item and change the settings.



### **Notice**

- The default BIOS settings apply for most conditions to ensure optimum performance of the motherboard. If the system becomes unstable after changing any settings, please load the default settings to ensure system's compatibility and stability. Use Load Setup Default under the Exit Menu.
- For better system performance, the BIOS firmware is being continuously updated. The BIOS information described in this manual is for your reference only. The actual BIOS information and settings on board may be slightly different from this manual.
- The content of this manual is subject to be changed without notice. We will not be responsible for any mistakes found in this user's manual and any system damage that may be caused by wrong-settings.

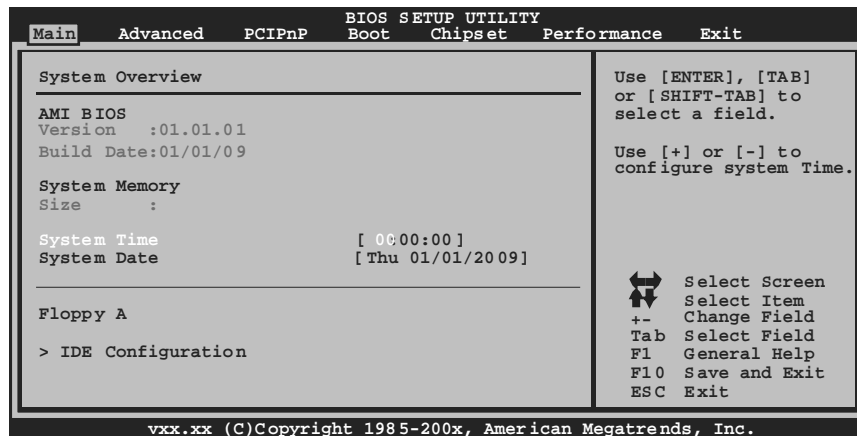
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### 1 Main Menu

Once you enter AMI BIOS Setup Utility, the Main Menu will appear on the screen providing an overview of the basic system information.



#### AMI BIOS

Shows system information including BIOS version and built date.

#### System Memory

Shows system memory size, VGA shard memory will be excluded..

#### System Time

Set the system internal clock.

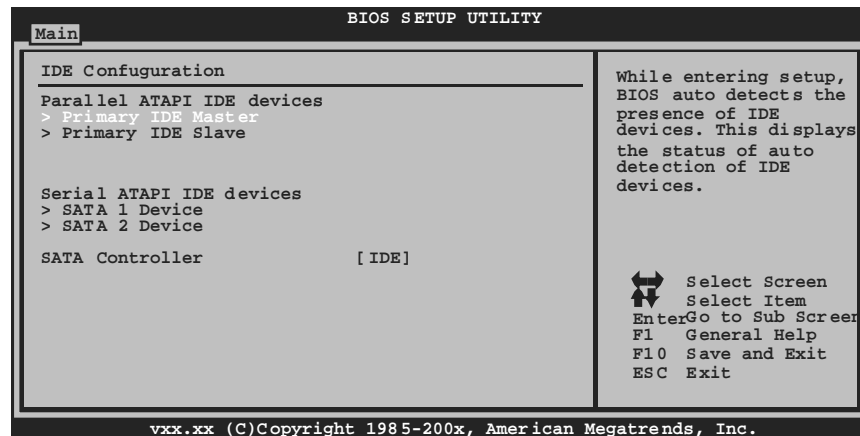
#### System Date

Set the system date. Note that the 'Day' automatically changes when you set the date.

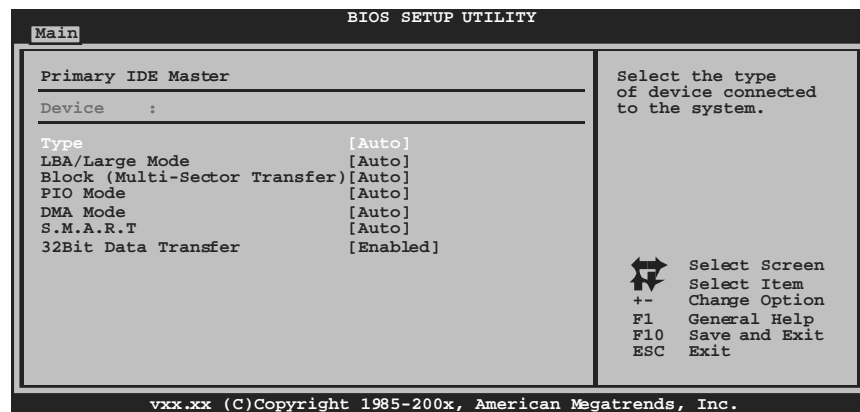
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### IDE Configuration

The BIOS will automatically detect the presence of IDE/SATA devices. There is a sub-menu for each IDE/SATA device. Select a device and press <Enter> to enter the sub-menu of detailed options.



### Primary IDE Master/Slave ; SATA 1/2 Device



The BIOS detects the information and values of respective devices, and these information and values are shown below to the name of the sub-menu.

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### ***Type***

Select the type of the IDE/SATA drive.

Options: Auto (Default) / CDROM / ARMD / Not Installed

### ***LBA/Large Mode***

Enable or disable the LBA mode.

Options: Auto (Default) / Disabled

### ***Block (MultiSector Transfer)***

Enable or disable multi-sector transfer.

Options: Auto (Default) / Disabled

### ***PIO Mode***

Select the PIO mode.

Options: Auto (Default) / 0 / 1 / 2 / 3 / 4

### ***DMA Mode***

Select the DMA mode.

Options: Auto (Default) / SWDMA0 ~ 2 / MWDMA0 ~ 2 / UDMA0 ~ 5

### ***S.M.A.R.T***

Set the Smart Monitoring, Analysis, and Reporting Technology.

Options: Auto (Default) / Disabled / Enabled

### ***32Bit Data Transfer***

Enable or disable 32-bit data transfer.

Options: Enabled (Default) / Disabled

## **SATA Controller**

This item allows you to choose the SATA operation mode.

Options: IDE (Default) / RAID

## **SATA Option ROM**

This item will appear only if SATA Controller is set "RAID".

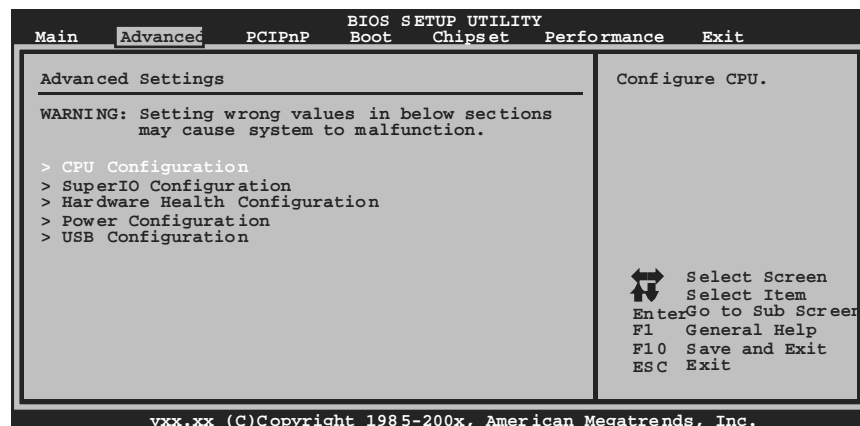
Options: Enabled (Default) / Disabled

## 2 Advanced Menu

The Advanced Menu allows you to configure the settings of CPU, Super I/O, Power Management, and other system devices.

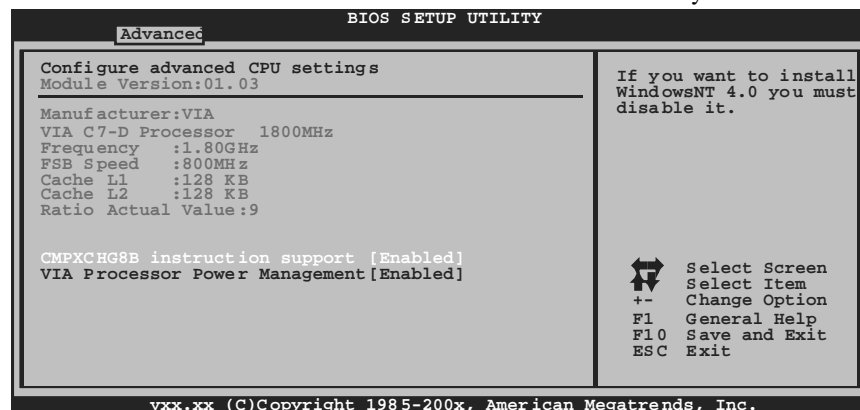
### Notice

- Beware of that setting inappropriate values in items of this menu may cause system to malfunction.



### CPU Configuration

This item shows the CPU information that the BIOS automatically detects.



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### CMPXCHG8B instruction support

If you want to install Windows NT 4.0 you must disable it.

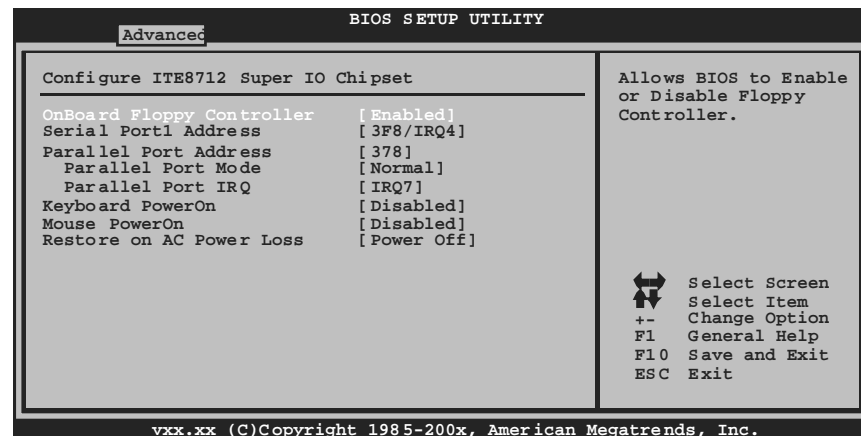
Options: Enabled (Default) / Disabled

### VIA Processor Power Management

Enabled: CPU speed is set to maximum; Disabled: CPU speed is set to minimum.

Options: Enabled (Default) / Disabled

### SuperIO Configuration



### Onboard Floppy Controller

Select enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you installed another FDC or the system uses no floppy drive, select disabled in this field.

Options: Enabled (Default) / Disabled

### Serial Port1 Address

Select an address and corresponding interrupt for the first and second serial ports.

Options: 3F8/IRQ4 (Default) / 2F8/IRQ3 / 3E8/IRQ4 / 2E8/IRQ3/Disabled



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### **Parallel Port Address**

This item allows you to determine access onboard parallel port controller with which I/O Address.

Options: 378 (Default) / 278 / 3BC / Disabled

### **Parallel Port Mode**

This item allows you to determine how the parallel port should function.

Options: Normal (Default)    Using Parallel port as Standard Printer Port.  
          EPP                    Using Parallel Port as Enhanced Parallel Port.  
          ECP                   Using Parallel port as Extended Capabilities Port.  
          ECP+EPP              Using Parallel port as ECP & EPP mode.

### **ECP Mode DMA Channel**

This item allows you to select parallel port ECP DMA.

Options: DMA3 (Default) / DMA0 / DMA1

### **Parallel Port IRQ**

This item allows you to select the IRQ for the onboard parallel port.

Options: IRQ7 (Default) / IRQ5 / Disabled

### **Keyboard PowerOn**

This item allows you to control the keyboard power on function.

Options: Disabled (Default) / Specific Key / Stroke Key / Any Key

### **Specific Key Enter**

This item will show only when Keyboard PowerOn is set "Specific Key."

### **Stroke Keys Selected**

This item will show only when Keyboard PowerOn is set "Stroke Key."

Options: Ctrl+F1 (Default) / Wake Key / Power Key / Ctrl+F2 / Ctrl+F3 /  
          Ctrl +F4 / Ctrl+F5 / Ctrl+F6

### **Mouse PowerOn**

This item allows you to control the mouse power on function.

Options: Disabled (Default) / Enabled

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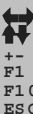
### Restore on AC Power Loss

This setting specifies how your system should behave after a power fail or interrupts occurs. By choosing Disabled will leave the computer in the power off state. Choosing Enabled will restore the system to the status before power failure or interrupt occurs.

Options: Power Off (Default) / Power ON / Last State

### Hardware Health Configuration

This item shows the system temperature, fan speed, and voltage information.

BIOS SETUP UTILITY	
Advanced	
Hardware Health Configuration	
H/W Health Function	[Enabled]
Shutdown Temperature	[Disabled]
CPU Temperature	
CPU FAN	
System1 FAN	
CPU Vcore	
Chipset Voltage	
+3.30V	
+12.0V	
FSB Voltage	
Memory Voltage	
5V(SB)	
Enables Hardware Health Monitoring Device.	
	
Select Screen	
Select Item	
+- Change Option	
F1 General Help	
F10 Save and Exit	
ESC Exit	
vxx.xx (C) Copyright 1985-200x, American Megatrends, Inc.	

### H/W Health Function

If with a monitoring system, the system will show PC health status during POST stage.

Options: Enabled (Default) / Disabled

### Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item is only effective under Windows 98 ACPI mode.

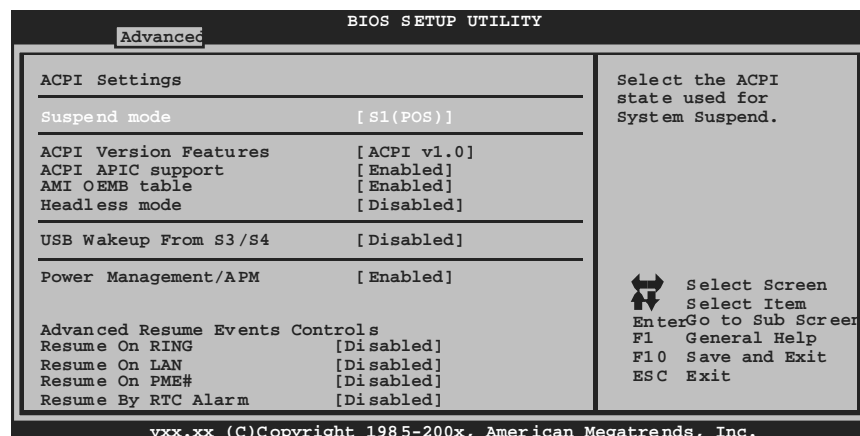
Options: Disabled (Default) / 60°C/140°F / 65°C/149°F / 70°C/158°F / 75°C/167°F / 80°C/176°F / 85°C/185°F / 90°C/194°F

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### ACPI Configuration



#### Suspend mode

The item allows you to select the suspend type under the ACPI operating system.

Options: S1 (POS) (Default)      Power on Suspend  
          S3 (STR)                Suspend to RAM  
          Auto                    POS+STR

#### Repost Video on S3 Resume

The item allows you to determine whether to invoke VGA BIOS post on S3/STR resume.

Options: No (Default) / Yes

#### ACPI Version Features

The item allows you to select the version of ACPI.

Options: ACPI v1.0 (Default) / ACPI v2.0 / ACPI v3.0

#### ACPI APIC support

This item is used to enable or disable the motherboard's APIC (Advanced Programmable Interrupt Controller). The APIC provides multiprocessor support, more IRQs and faster interrupt handling.

Options: Enabled (Default) / Disabled

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### **AMI OEMB table**

Set this value to allow the ACPI BIOS to add a pointer to an OEMB table in the Root System Description Table (RSDT) table.

Options: Enabled (Default) / Disabled

### **Headless mode**

This is a server-specific feature. A headless server is one that operates without a keyboard, monitor or mouse. To run in headless mode, both BIOS and operating system (e.g. Windows Server 2003) must support headless operation.

Options: Disabled (Default) / Enabled

### **USB Device Wakeup from S3/S4**

This item allows you to enable or disabled the USB resume from S3/S4 function.

Options: Disabled (Default) / Enabled

### **Power Management/APM**

This item allows you to enable or disabled Power Management function.

Options: Enabled (Default) / Disabled

### **Resume On RING**

This item allows you control the wake on ring function.

Options: Disabled (Default) / Enabled

### **Resume On LAN**

This item allows you control the wake on LAN function.

Options: Disabled (Default) / Enabled

### **Resume On PME#**

When you select Enabled, a PME signal from PCI card returns the system to Full ON state.

For this function to work, you may need a LAN add-on card which supports the Wake on LAN function. Set the Wake on LAN (WOL) jumper on motherboard to enable if applicable.

Options: Disabled (Default) / Enabled

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### **Resume On RTC Alarm**

When “Enabled”, you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.

Options: Disabled (Default) / Enabled

### **RTC Alarm Date (Days)**

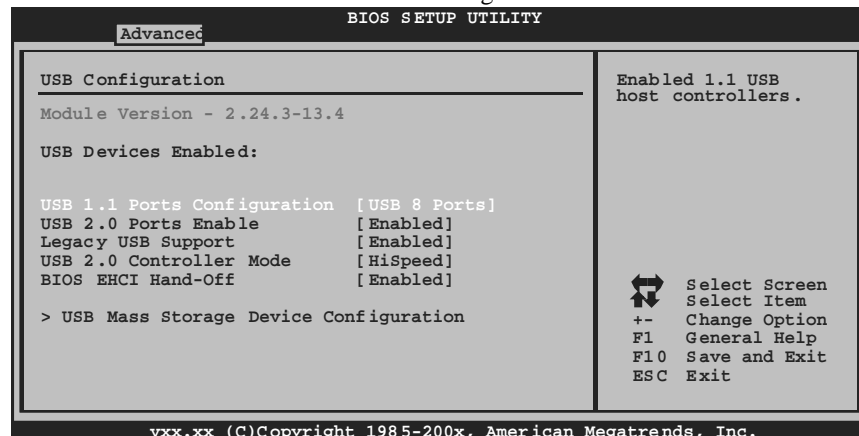
You can choose which date the system will boot up.

### **System Time**

You can choose the system boot up time, input hour, minute and second to specify.

### **USB Configuration**

This item shows the USB controller and using USB device information.



### **USB 1.1 Ports Configuration**

This item allows you to control the USB 1.1 mode of the USB controller..

Options: USB 8 Ports(Default)

### **USB 2.0 Ports Enable**

This item allows you to control the USB 2.0 mode of the USB controller..

Options: Enabled (Default) / Disabled

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### Legacy USB Support

This item determines if the BIOS should provide legacy support for USB devices like the keyboard, mouse, and USB drive. This is a useful feature when using such USB devices with operating systems that do not natively support USB (e.g. Microsoft DOS or Windows NT).

Options: Enabled (Default) / Disabled

### USB 2.0 Controller Mode

This item allows you to select the operation mode of the USB 2.0 controller.

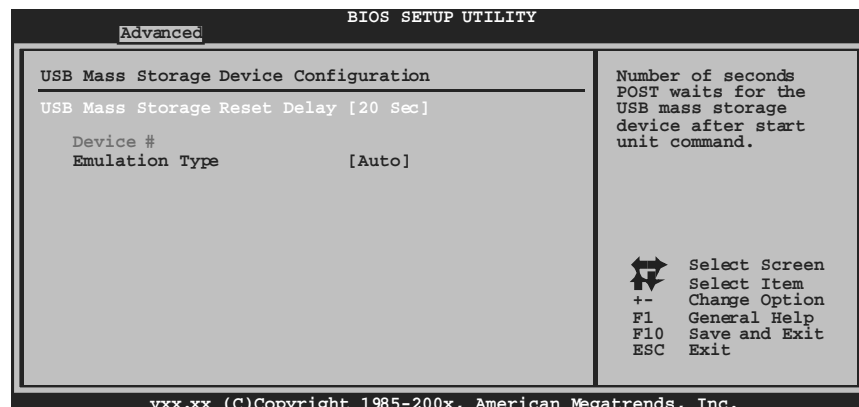
Options: HiSpeed (Default)    USB 2.0-480Mbps  
FullSpeed                    USB 1.1-12Mbps

### BIOS EHCI Hand-Off

This item allows you to enable support for operating systems without an EHCI hand-off feature.

Options: Enabled (Default) / Disabled

### USB Mass Storage Device Configuration



#### **USB Mass Storage Reset Delay**

This item allows you to set the reset delay for USB mass storage device.

Options: 20 Sec (Default) / 10 Sec / 30Sec / 40Sec

#### **Emulation Type**

This item allows you to select the emulation type of the USB mass storage device.

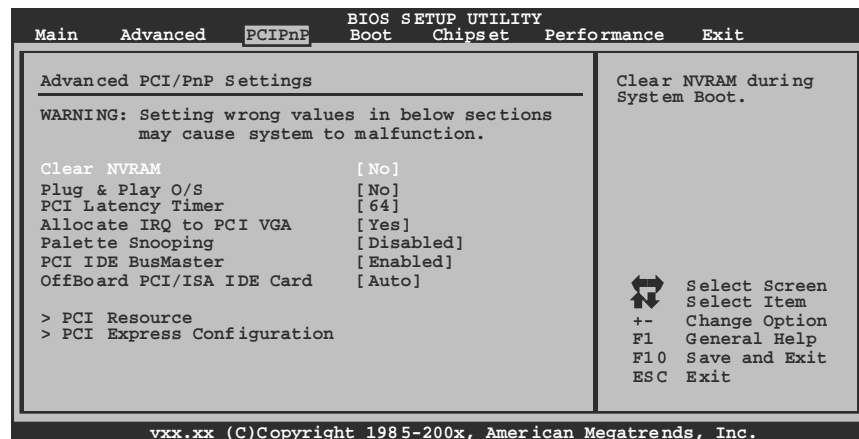
Options: Auto (Default) / Floppy / Forced FDD / Hard Disk / CDROM

### 3 PCIPnP Menu

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itselfuses when communicating with its own special components.

#### Notice

- Beware of that setting inappropriate values in items of this menu may cause system to malfunction.



#### Clear NVRAM

This item allows you to clear the data in the NVRAM (CMOS) by selecting “Yes”.

Options: No (Default) / Yes

#### Plug & Play OS

When set to YES, BIOS will only initialize the PnP cards used for the boot sequence (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Window™ 95. When set to NO, BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, Netware™), this option must set to NO.

Options: No (Default) / Yes

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### **PCI Latency Timer**

This item controls how long a PCI device can hold the PCI bus before another takes over. The longer the latency, the longer the PCI device can retain control of the bus before handing it over to another PCI device.

Options: 64 (Default) / 0-255

### **Allocate IRQ to PCI VGA**

This item allows BIOS to choose a IRQ to assign for the PCI VGA card.

Options: Yes (Default) / No

### **Palette Snooping**

Some old graphic controllers need to “snoop” on the VGA palette and then map it to their display as a way to provide boot information and VGA compatibility. This item allows such snooping to take place.

Options: Disabled (Default) / Enabled

### **PCI IDE BusMaster**

This item is a toggle for the built-in driver that allows the onboard IDE controller to perform DMA (Direct Memory Access) transfers.

Options: Enabled (Default) / Disabled

### **OffBoard PCI/ISA IDE Card**

Some PCI IDE cards may require this to be set to the PCI slot number that is holding the card.

Options: Auto (Default) / PCI Slot 1 ~ 6

### **OffBoard PCI/ISA Primary & Secondary IRQ**

This item allows you to set IRQ of non-onboard PCI/ISA IDE controller adapter.

Options: Disabled (Default) / INTA / INTB / INTC / INTD / Hardwired




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### PCI Resource

BIOS SETUP UTILITY	
PCIPnP	
<b>PCI Resource</b>	
IRQ3	[Available]
IRQ4	[Available]
IRQ5	[Available]
IRQ7	[Available]
IRQ9	[Available]
IRQ10	[Available]
IRQ11	[Available]
IRQ14	[Available]
IRQ15	[Available]
DMA Channel 0	[Available]
DMA Channel 1	[Available]
DMA Channel 3	[Available]
DMA Channel 5	[Available]
DMA Channel 6	[Available]
DMA Channel 7	[Available]
Reserved Memory Size	[Disabled]

Available: Specified  
IRQ is available to be  
used by PCI/PnP  
devices.

Reserved: Specified  
IRQ is reserved for  
use by Legacy ISA  
devices.

 Select Screen  
Select Item  
+- Change Option  
F1 General Help  
F10 Save and Exit  
ESC Exit

vxx.xx (C)Copyright 1985-200x, American Megatrends, Inc.

#### IRQ3/4/5/7/9/10/11/14/15

These items will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. The option "Available" means the IRQ is going to assign automatically.

Options: Available (Default) / Reserved

#### DMA Channel 0/1/3/5/6/7

These items will allow you to assign each DMA channel a type, depending on the type of device using the channel. The option "Available" means the channel is going to assign automatically.

Options: Available (Default) / Reserved

#### Reserved Memory Size

This item allows BIOS to reserve certain memory size for specific PCI device.

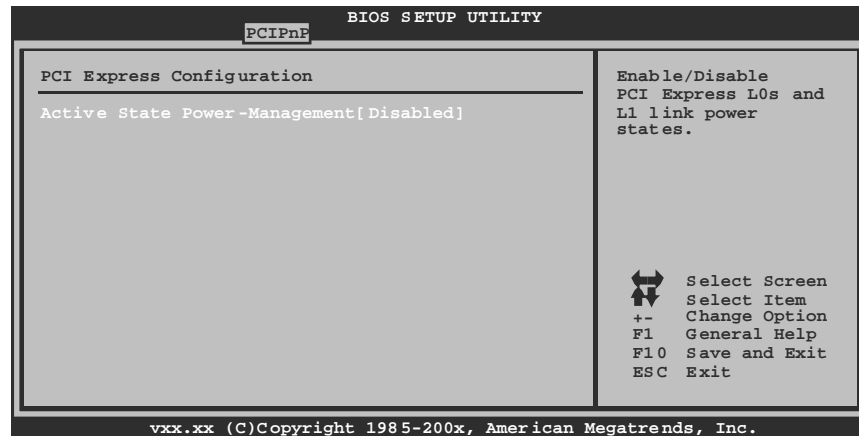
Options: Disabled (Default) / 16K / 32K / 64K

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### PCI Express Configuration

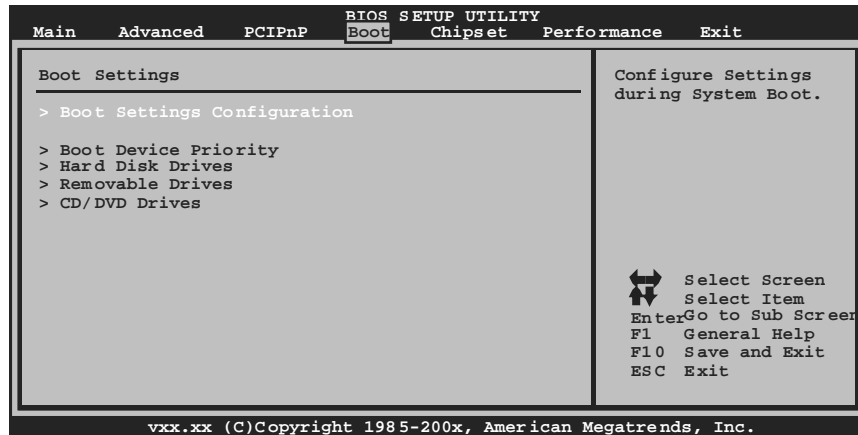


### **Active State Power-Management**

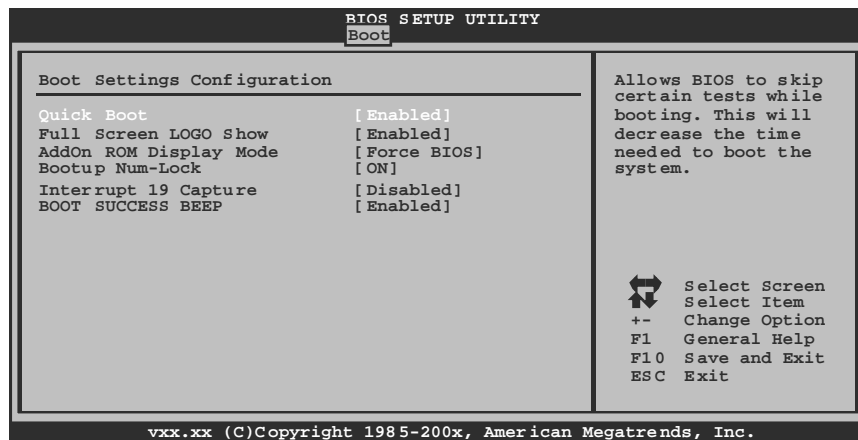
This item sets the ASPM configuration for the PCI Express devices before the operating system boots. This function is for OS which does not support ASPM.  
Options: Disabled (Default) / Enabled

### 4 Boot Menu

This menu allows you to setup the system boot options.



#### Boot Settings Configuration



#### Quick Boot

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

Options: Enabled (Default) / Disabled

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### **Full Screen LOGO Show**

This item allows you to enable/disable Full Screen LOGO Show function.

Options: Enabled (Default) / Disabled

### **AddOn ROM Display Mode**

This item sets the display mode for option ROM.

Options: Force BIOS (Default) / Keep Current

### **Bootup Num-Lock**

Selects the NumLock State after the system switched on.

Options: ON (Default) / OFF

### **Interrupt 19 Capture**

Interrupt 19 is the software interrupt that handles the boot disk function. When set to Enabled, this item allows the option ROMs to trap interrupt 19.

Options: Disabled (Default) / Enabled

### **BOOT SUCCESS BEEP**

When this item is set to Enabled, BIOS will let user know boot success with beep.

Options: Enabled (Default) / Disabled

### **Boot Device Priority**

Items in this sub-menu specify the boot device priority sequence from the available devices. The number of device items that appears on the screen depends on the number of devices installed in the system.

Options: Removable / Hard Disk / CDROM / Legacy LAN / Disabled

### **Hard Disk Drives**

The BIOS will attempt to arrange the hard disk boot sequence automatically. You can also change the booting sequence. The number of device items that appears on the screen depends on the number of devices installed in the system.

Options: Pri. Master / Pri. Slave / Sec. Master / Sec. Slave / USB HDD0 /  
USB HDD1 / USB HDD2 / Bootable Add-in Cards

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### **Removable Drives**

The BIOS will attempt to arrange the removable drive boot sequence automatically. You can also change the booting sequence. The number of device items that appears on the screen depends on the number of devices installed in the system.

Options: Zip100 / USB-FDD0 / USB-FDD1 / USB-ZIP0 / USB-ZIP1 / LS120

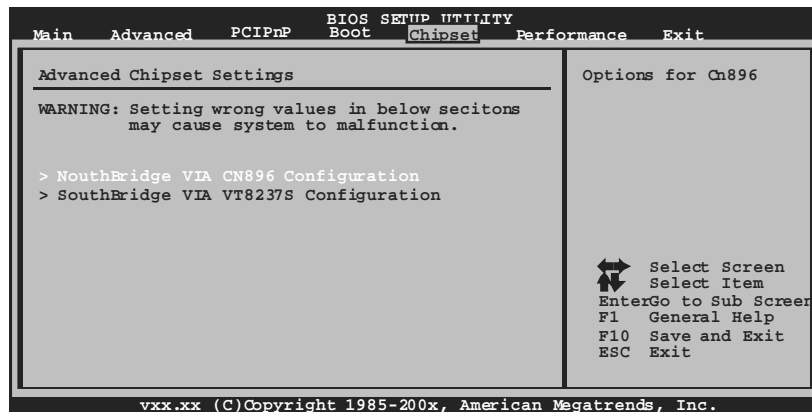
### **CD/DVD Drives**

The BIOS will attempt to arrange the CD/DVD drive boot sequence automatically. You can also change the booting sequence. The number of device items that appears on the screen depends on the number of devices installed in the system.

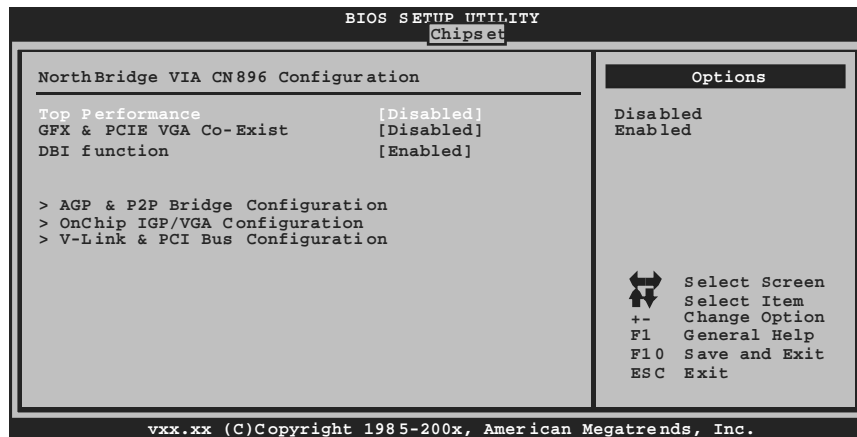
Options: Pri. Master / Pri. Slave / Sec. Master / Sec. Slave / USB CDROM0 /  
USB CDROM 1

### 5 Chipset Menu

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM. It also coordinates communications with the PCI bus.



#### North Bridge VIA CN896 Configuration



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### Top Performance

This item allows you to activate Top Performance for your system. If the system is not steady, this item should be set to Disabled.

Options: Disabled (Default) / Enabled

### GFX & PCIE VGA Co-Exist

This item allows you to activate GFX & PCIE VGA Co-Exist function.

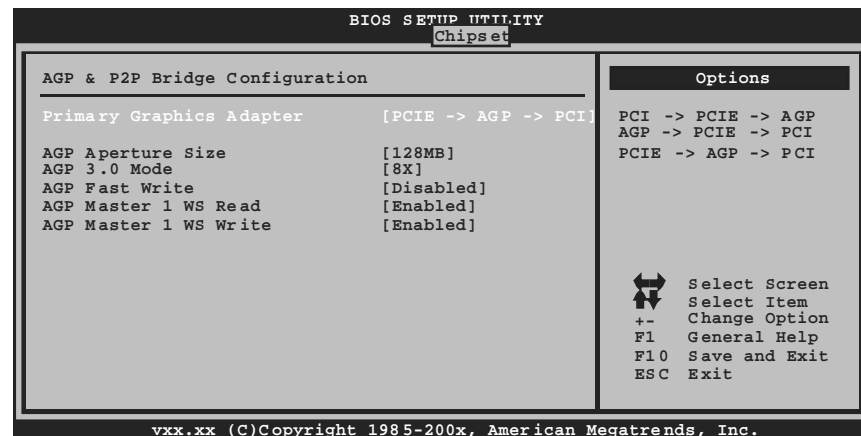
Options: Disabled (Default) / Enabled

### DBI Function

This item allows you to activate DBI function.

Options: Enabled (Default) / Disabled

### AGP & P2P Bridge Configuration



#### **Primary Graphic Adapter**

This item allows you to set the priority of VGA controller.

Options: PCIE -> AGP -> PCI (Default) / AGP ->PCIE -> PCI / PCIE -> AGP ->PCI

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### ***AGP Aperture Size***

This item allows you to set Aperture Size of AGP.

Options: 32MB (Default) / 64MB / 128MB / 256MB / 512MB / 1GB

### ***AGP 3.0 Mode***

This item allows you to set AGP 3.0 Mode.

Options: 8X (Default) / 4X

### ***AGP Fast Write***

This item allows you to activate AGP Fast Write function.

Options: Disabled (Default) / Enabled

### ***AGP Master 1 WS Read***

This item allows you to activate AGP Master 1 WS Read function.

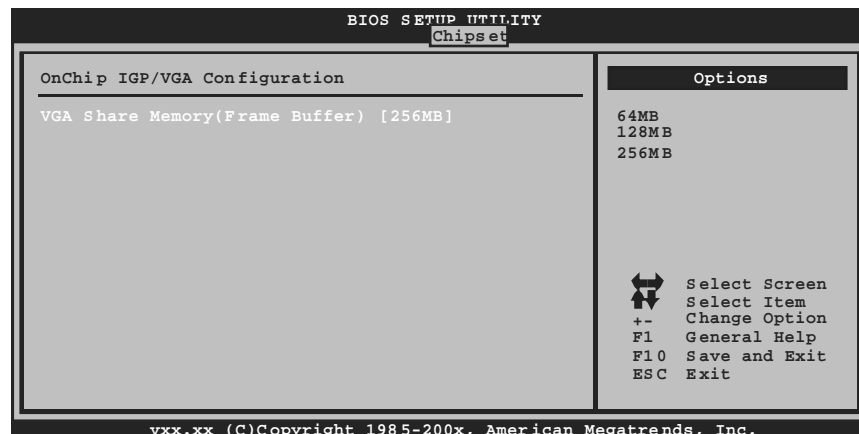
Options: Disabled (Default) / Enabled

### ***AGP Master 1 WS Write***

This item allows you to activate AGP Master 1 WS Write function.

Options: Disabled (Default) / Enabled

## **OnChip IGP/VGA Configuration**



### ***VGA Share Memory (Frame Buffer)***

This item allows you to set Share Memory of VGA.

Options: 256MB (Default) / 64MB / 128MB

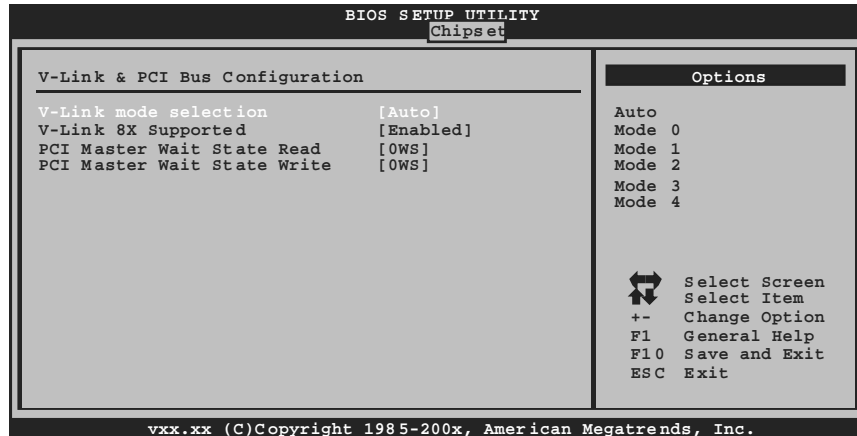


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### V-Link & PCI Bus Configuration



#### ***V-Link mode selection***

This item allows you to select V-Link mode.

Options: Auto (Default) / Mode 0 / Mode 1 / Mode 2 / Mode 3 / Mode 4

#### ***V-Link 8X Supported***

This item allows you to activate V-Link 8X Supported.

Options: Enabled (Default) / Disabled

#### ***PCI Master Wait Stated Read/Write***

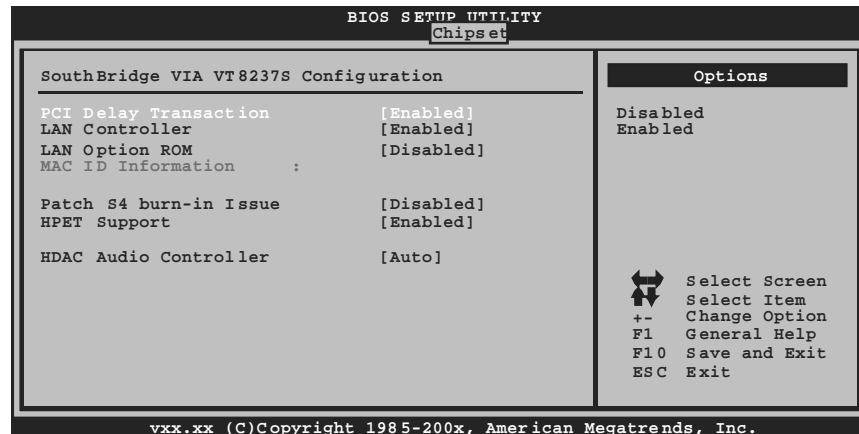
Options: 0WS (Default) / 1WS

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### SouthBridge VIA VT8237S Configuration



#### PCI Delay Transaction

This item allows you to enable or disable PCI Delay Transaction.

Options: Enabled (Default) / Disabled

#### LAN Controller

This option allows you to control the onboard LAN controller.

Options: Enable (Default) / Disable

#### LAN Option ROM

This item allows you to enable or disable the Onboard LAN Boot ROM.

Options: Disabled (Default) / Enabled

#### MAC ID Information

This item shows the MAC ID.

#### Patch S4 burn-in Issue

This item allows you to enable or disable Patch S4 burn-in.

Options: Disabled (Default) / Enabled

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### **HPET Support**

This item allows you to enable or disable High Precision Event Timer.

Options: Enabled (Default) / Disabled

### **HDAC Audio Controller**

This item allows you to control the HDAC Audio support.

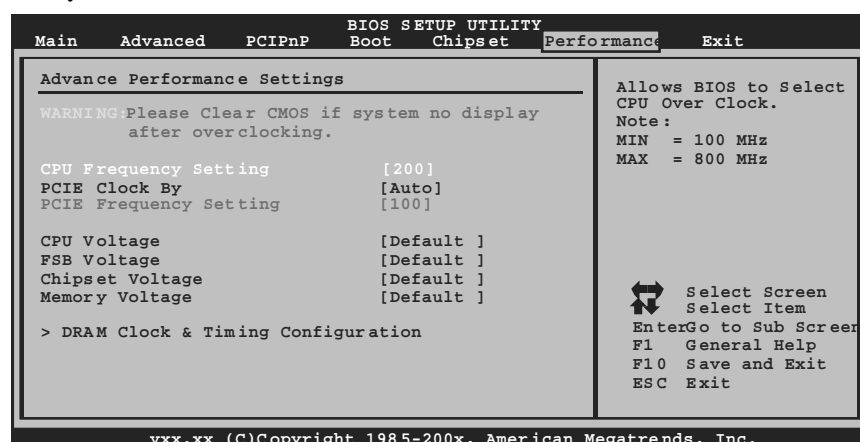
Options: Auto (Default) / Always Disabled

## 6 Performance Menu

This submenu allows you to change voltage and clock of various devices.  
(However, we suggest you use the default setting. Changing the voltage and clock improperly may damage the device.)

### Notice

- Beware of that setting inappropriate values in items of this menu may cause system to malfunction.



### CPU Frequency Setting

This item allows you to select the CPU Frequency.  
Options: 200 (Default) / Min= 100MHz; Max= 800MHz

### PCIE Clock By

This item allows you to select the PCIE dock control  
Options: Auto (Default) / Manual

### PCIE Frequency Setting

This item allows you to select the PCIE dock control  
Options: 100 (Default) / Min=100; Max=150

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### **CPU Voltage**

This item allows you to select CPU Voltage Control.

Options: Default (Default) / +0.10V / +0.20V / +0.30V

### **FSB Voltage**

This item allows you to select FSB Voltage Control.

Options: Default (Default) / +0.05V / +0.10V / +0.15V

### **Chipset Voltage**

This item allows you to select Chipset Voltage Control.

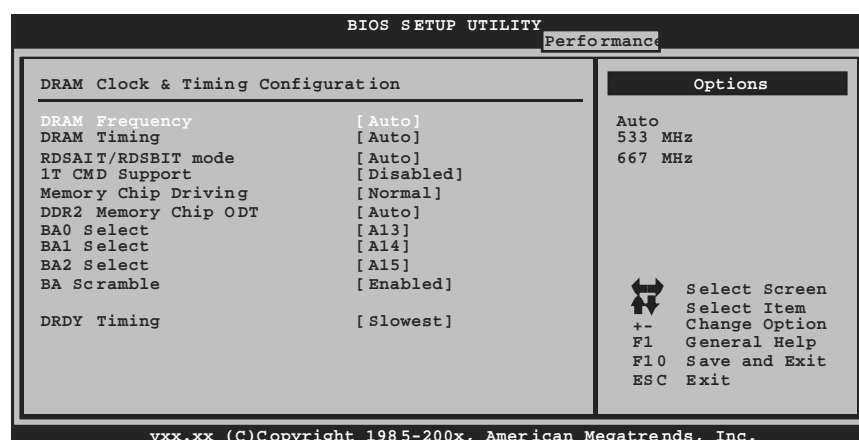
Options: Default (Default) / +0.05V / +0.10V / +0.15V

### **Memory Voltage**

This item allows you to select Memory Voltage Control.

Options: Default (Default) / +0.1V / +0.2V / +0.3V / +0.4V / +0.5V / +0.6V

### **DRAM Clock & Timing Configuration**



### **DRAM Frequency**

This item allows you to control the Memory Clock.

Options: Auto (Default) / 533 MHz / 667 MHz

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### **DRAM Timing**

This item allows you to choose to manually or automatically regulate the DRAM Timing.

Options: Auto (Default) / Manual / Turbo / Ultra

### **DRAM CAS# Latency [DDR/DDR2]**

Options: 2.5/4 (Default) / 1.5/2 / 2.0/3 / 3.0/5

### **DRAM Bank Interleave**

Options: 4-Way (Default) / Disabled / 2-Way / 8-Way

### **Precharge to Active (Trp)**

Options: 4T (Default) / 2T / 3T / 5T

### **Active to Precharge (Tras)**

Options: 7T (Default) / 5T ~ 20T

### **Active to CMD (Trcd)**

Options: 4T (Default) / 2T / 3T / 5T

### **REF to ACT/REF to REF (Trfc)**

Options: 21T (Default) / 8T ~ 71T

### **ACT(0) to ACT(1) (Trrd)**

Options: 3T (Default) / 2T / 4T / 5T

### **Read to Precharge (Trtp)**

Options: 2T (Default) / 3T

### **Write to Read CMD (Trtr)**

Options: 1T/2T (Default) / 2T/3T

### **Write Recovery Time (Twr)**

Options: 4T (Default) / 2T / 3T / 5T

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### **RDSAIT/RDSBIT mode**

This item allows you to set the mode of RDSAIT/RDSBIT.

Options: Auto (Default) / Manual

### **RDSAIT/RDSBIT selection**

Options: 03 (Default) / 0A ~ 0F / 10 ~ 19 / 1A ~ 1F / 20 ~ 29 / 2A ~ 2F / 30 / 3A ~ 3F / 00 ~ 02

### **1T CMD Support**

This item allows you to activate 1T CMD Support.

Options: Disabled (Default) / Auto

### **Memory Chip Driving**

This item allows you to set Memory Chip Driving function.

Options: Normal (Default) / Weak

### **DDR2 Memory Chip ODT**

Options: Auto (Default) / Disabled / 75 ohm / 150 ohm

### **BA0 Select**

Options: A13 (Default) / A15 / A17 / A19

### **BA1 Select**

Options: A14 (Default) / A12 / A16 / A18

### **BA2 Select**

Options: A15 (Default) / A14 / A18 / A19

### **BA Scramble**

Options: Enabled (Default) / Disabled

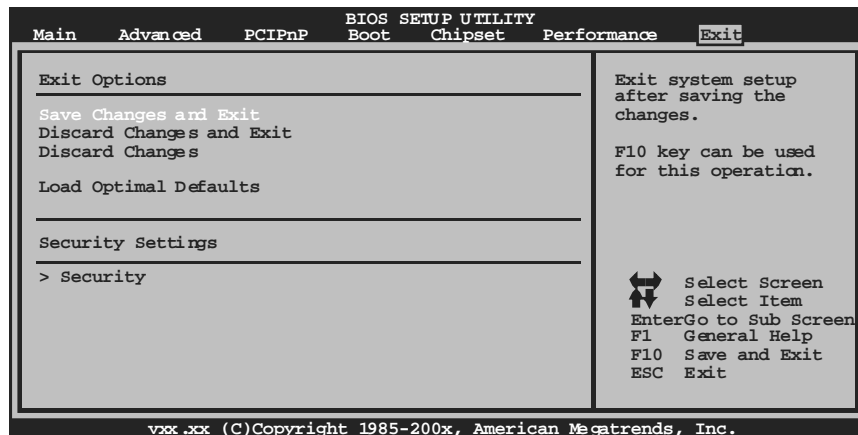
### **DRDY Timing**

This item allows you to select DRDY Timing function.

Options: Slowest (Default) / Default / Optimize

## 7 Exit Menu

This menu allows you to load the optimal default settings, and save or discard the changes to the BIOS items.



### Save Changes and Exit

Save all configuration changes to CMOS RAM and exit setup.

### Discard Changes and Exit

Abandon all changes made during the current session and exit setup.

### Discard Changes

Abandon all changes made during the current session and restore the previously saved values.

### Load Optimal Defaults

This selection allows you to reload the BIOS when problem occurs during system booting sequence. These configurations are factory settings optimized for this system.



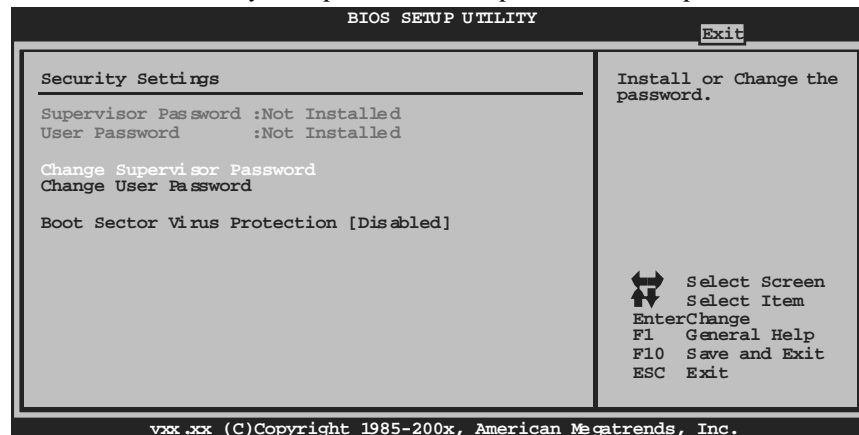
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### **Security**

This sub-menu allows you to provide/revise supervisor and user password.



#### **Change Supervisor Password**

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.

#### **Change User Password**

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.

#### **Boot Sector Virus Protection**

This option allows you to choose the VIRUS Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

Options: Disabled (Default) / Enabled