Setting the Computer BIOS (CMOS)

The computers for Carbon dedicated cabinets are being built with both Asus and Gigabyte motherboards. The BIOS settings are different for the two systems. To determine which motherboard is in your computer, check the audio ports on the computer rear panel. The Asus has four audio ports, and the Gigabyte has six audio ports. You can also start the CMOS Setup Utility and see whether you screens look like the Gigabyte screens in the next section, or the Asus screens in the section starting on page 4.

If your system has a different motherboard, check **http://service.globalvr.com** for updated information.

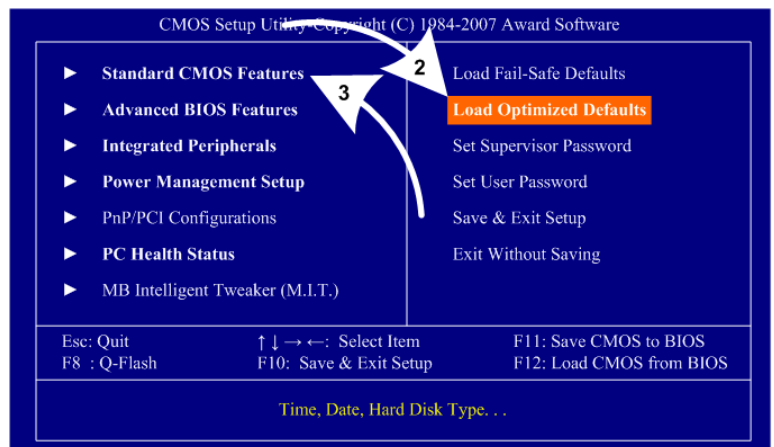## BIOS Setup for Gigabyte GA-G31MX-S2 Motherboard

If you are comfortable using the CMOS Setup Utility, connect a keyboard to the computer and press the **DEL** key during boot to run the Utility, select **Load Optimized Defaults** from the Main Menu, and then change the settings shown in the table below. For more help, refer to the detailed instructions that follow.

Menu	Item	Setting
Standard CMOS Features	Drive A	None
	Halt On	No Errors
Advanced BIOS Features	First Boot Device	CDROM
	Second Boot Device	Hard Disk
	Third Boot Device	Disabled
Integrated Peripherals	USB Keyboard Support	Enabled
	USB Mouse Support	Enabled
Power Management Setup	AC Back Function	Full On
PC Health Status	CPU Smart FAN Control	Disabled

Important: Your screens may not look exactly like the screens shown in this document, and some settings shown on the screens pictures may be different from your system.
Do not change any settings that are not specifically described in this document.

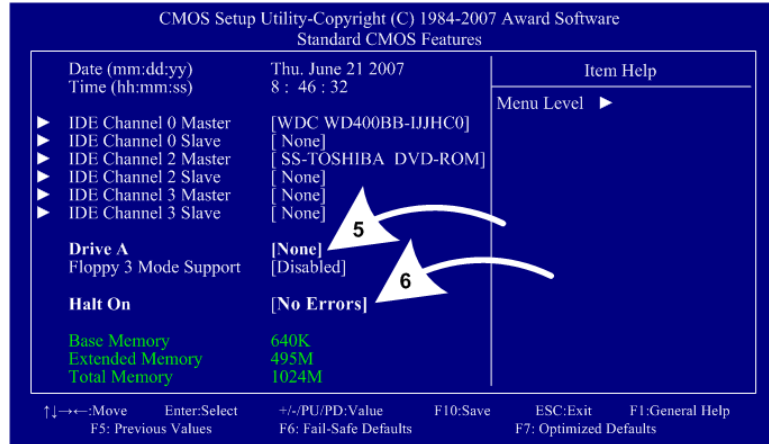1. Power off the computer and connect a keyboard to the computer. Power on and press the **DEL** key during boot. The CMOS Setup Utility Main Menu will appear:

2. Use the Arrow keys (↑↓→←) to select **Load Optimized Defaults**, and press **Enter**.
Press **Y** and **Enter** when prompted to confirm the change.

3. Use the Arrow keys to highlight **Standard CMOS Features**, and then press **Enter**.
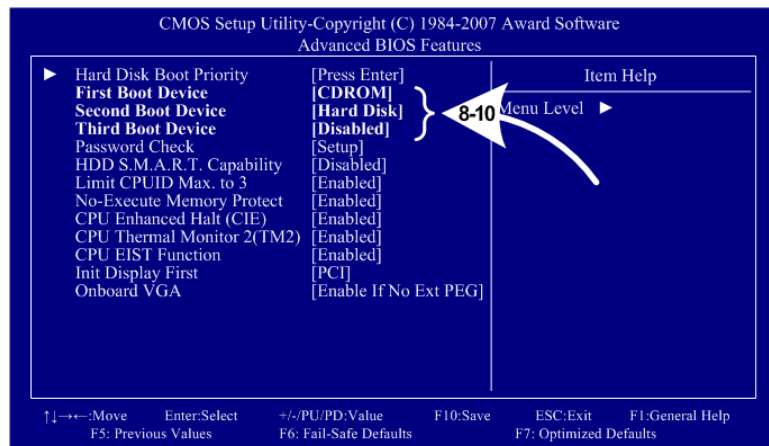
4. A screen similar to the following will appear:

5. Use the Arrow keys to highlight the setting for **Drive A** and press **Enter**. Use the **Page Up** and **Page Down** keys to change the setting to **None**.

6. Change the setting for **Halt On** to **No Errors** the same way.

   Press **ESC** to go back to the Main Menu.

```
                 CMOS Setup Utility-Copyright (C) 1984-2007 Award Software
                                  Standard CMOS Features
  Date (mm:dd:yy)          Thu. June 21 2007              Item Help
  Time (hh:mm:ss)          8 : 46 : 32
                                                     Menu Level   ►
  ►  IDE Channel 0 Master    [WDC WD400BB-IJJHC0]
  ►  IDE Channel 0 Slave     [ None]
  ►  IDE Channel 2 Master    [ SS-TOSHIBA  DVD-ROM]
  ►  IDE Channel 2 Slave     [ None]
  ►  IDE Channel 3 Master    [ None]
  ►  IDE Channel 3 Slave     [ None]       5

     Drive A                 [None]
     Floppy 3 Mode Support   [Disabled]         6

     Halt On                 [No Errors]

     Base Memory             640K
     Extended Memory         495M
     Total Memory            1024M

  ↑↓→←:Move      Enter:Select    +/-/PU/PD:Value    F10:Save     ESC:Exit    F1:General Help
        F5: Previous Values        F6: Fail-Safe Defaults        F7: Optimized Defaults
```

7. Now use the Arrow keys to highlight **Advanced BIOS Features** and press **Enter**. A screen similar to the following will appear:

8. Use the Arrow keys to highlight the setting for **First Boot Device** and press **Enter**. Use the **Page Up** and **Page Down** keys to change the setting to **DVDROM**.

9. Change the setting for **Second Boot Device** to **Hard Disk** the same way.

10. Change the setting for **Third Boot Device** to **Disabled** the same way.

    Press **ESC** to go back to the Main Menu.

```
                 CMOS Setup Utility-Copyright (C) 1984-2007 Award Software
                                  Advanced BIOS Features
  ►  Hard Disk Boot Priority    [Press Enter]              Item Help
     First Boot Device          [CDROM]
     Second Boot Device         [Hard Disk]      8-10  Menu Level   ►
     Third Boot Device          [Disabled]
     Password Check             [Setup]
     HDD S.M.A.R.T. Capability  [Disabled]
     Limit CPUID Max. to 3      [Enabled]
     No-Execute Memory Protect  [Enabled]
     CPU Enhanced Halt (CIE)    [Enabled]
     CPU Thermal Monitor 2(TM2) [Enabled]
     CPU EIST Function          [Enabled]
     Init Display First         [PCI]
     Onboard VGA                [Enable If No Ext PEG]

  ↑↓→←:Move      Enter:Select    +/-/PU/PD:Value    F10:Save     ESC:Exit    F1:General Help
        F5: Previous Values        F6: Fail-Safe Defaults        F7: Optimized Defaults
```
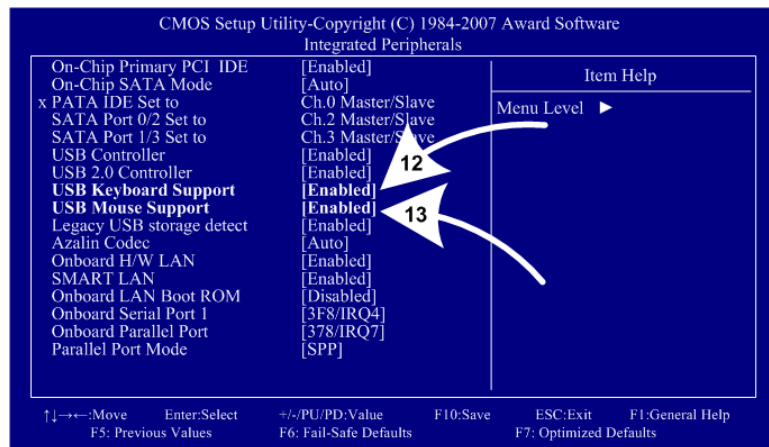
11. Now use the Arrow keys to highlight **Integrated Peripherals** and press **Enter**.

    A screen similar to the following will appear:

12. Use the Arrow keys to highlight the setting for **USB Keyboard Support** and press **Enter**.
    Use the **Page Up** and **Page Down** keys to change the setting to **Enabled**.

13. Use the Arrow keys to highlight the setting for **USB Mouse Support** and press **Enter**.
    Use the **Page Up** and **Page Down** keys to change the setting to **Enabled**.

    Press **ESC** to go back to the Main Menu.

```
                 CMOS Setup Utility-Copyright (C) 1984-2007 Award Software
                                  Integrated Peripherals
     On-Chip Primary PCI  IDE  [Enabled]                   Item Help
     On-Chip SATA Mode         [Auto]
  x  PATA IDE Set to           Ch.0 Master/Slave        Menu Level   ►
     SATA Port 0/2 Set to      Ch.2 Master/Slave
     SATA Port 1/3 Set to      Ch.3 Master/Slave
     USB Controller            [Enabled]
     USB 2.0 Controller        [Enabled]      12
     USB Keyboard Support      [Enabled]
     USB Mouse Support         [Enabled]      13
     Legacy USB storage detect [Enabled]
     Azalin Codec              [Auto]
     Onboard H/W LAN           [Enabled]
     SMART LAN                 [Enabled]
     Onboard LAN Boot ROM      [Disabled]
     Onboard Serial Port 1     [3F8/IRQ4]
     Onboard Parallel Port     [378/IRQ7]
     Parallel Port Mode        [SPP]

  ↑↓→←:Move      Enter:Select    +/-/PU/PD:Value    F10:Save     ESC:Exit    F1:General Help
        F5: Previous Values        F6: Fail-Safe Defaults        F7: Optimized Defaults
```
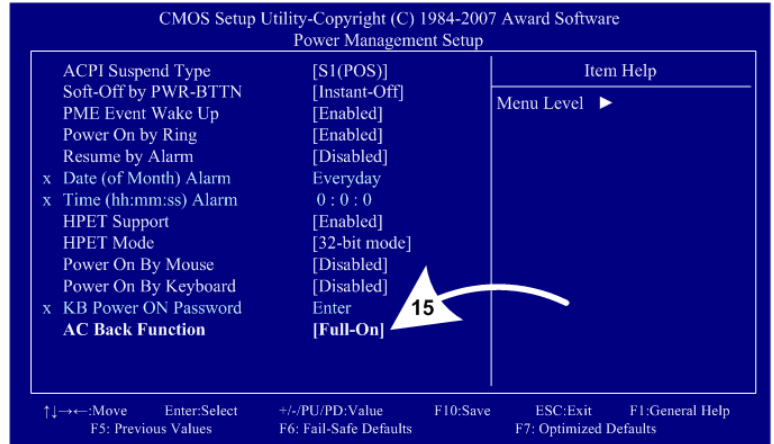
14. Now use the Arrow keys to highlight **Power Management Setup** and press **Enter**.

A screen similar to the following will appear:

15. Use the Arrow keys to highlight the setting for **AC Back Function** and press **Enter**.
Use the **Page Up** and **Page Down** keys to change the setting to **Full-On**.

Press **ESC** to go back to the Main Menu.

```
CMOS Setup Utility-Copyright (C) 1984-2007 Award Software
                    Power Management Setup

 ACPI Suspend Type          [S1(POS)]              Item Help
 Soft-Off by PWR-BTTN       [Instant-Off]
 PME Event Wake Up          [Enabled]        Menu Level  ▶
 Power On by Ring           [Enabled]
 Resume by Alarm            [Disabled]
x Date (of Month) Alarm     Everyday
x Time (hh:mm:ss) Alarm     0 : 0 : 0
 HPET Support               [Enabled]
 HPET Mode                  [32-bit mode]
 Power On By Mouse          [Disabled]
 Power On By Keyboard       [Disabled]         15
x KB Power ON Password      Enter
 AC Back Function           [Full-On]

↑↓→←:Move   Enter:Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1:General Help
      F5: Previous Values       F6: Fail-Safe Defaults     F7: Optimized Defaults
```
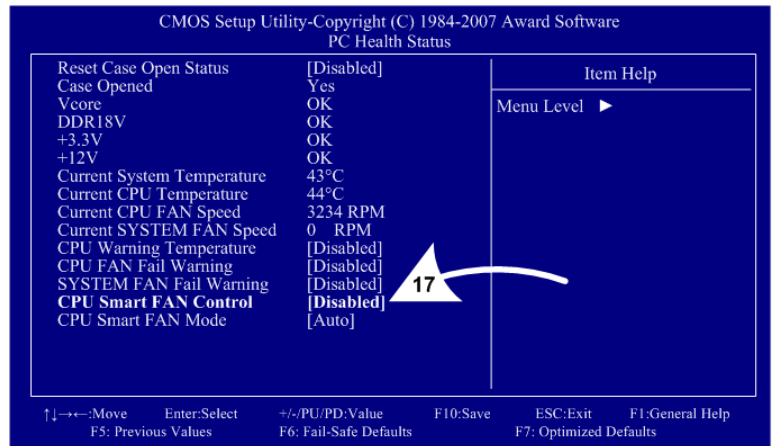
16. Now use the Arrow keys to highlight **PC Health Status** and press **Enter**.

A screen similar to the following will appear:

17. Use the Arrow keys to highlight the setting for **CPU Smart FAN Control** and press **Enter**.
Use the **Page Up** and **Page Down** keys to change the setting to **Disabled**.

Press **ESC** to go back to the Main Menu.

```
CMOS Setup Utility-Copyright (C) 1984-2007 Award Software
                      PC Health Status

 Reset Case Open Status     [Disabled]            Item Help
 Case Opened                Yes
 Vcore                      OK               Menu Level  ▶
 DDR18V                     OK
 +3.3V                      OK
 +12V                       OK
 Current System Temperature 43°C
 Current CPU Temperature    44°C
 Current CPU FAN Speed      3234 RPM
 Current SYSTEM FAN Speed   0   RPM
 CPU Warning Temperature    [Disabled]
 CPU FAN Fail Warning       [Disabled]
 SYSTEM FAN Fail Warning    [Disabled]      17
 CPU Smart FAN Control      [Disabled]
 CPU Smart FAN Mode         [Auto]

↑↓→←:Move   Enter:Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1:General Help
      F5: Previous Values       F6: Fail-Safe Defaults     F7: Optimized Defaults
```

18. Now that all settings are correct, press F10. The following prompt will appear:

Save to CMOS and EXIT (Y/N) Y

19. Make sure "Y" shows at the end of the prompt (use the arrow keys to select, if necessary), and press **Enter** to save the settings and exit.
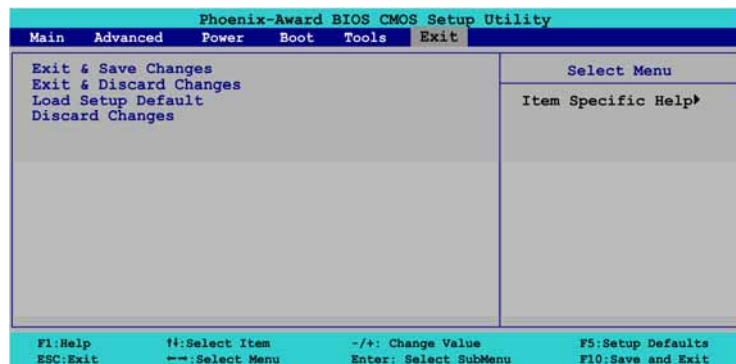
BIOS Setup for Asus P5N-MX Motherboard

If you are comfortable using the CMOS Setup Utility, connect a keyboard to the computer and press the **DEL** key during boot to run the Utility. Select **Load Setup Default** from the **Exit** Menu first, and then check all of the settings shown in the table below. For more help, refer to the detailed instructions that follow.

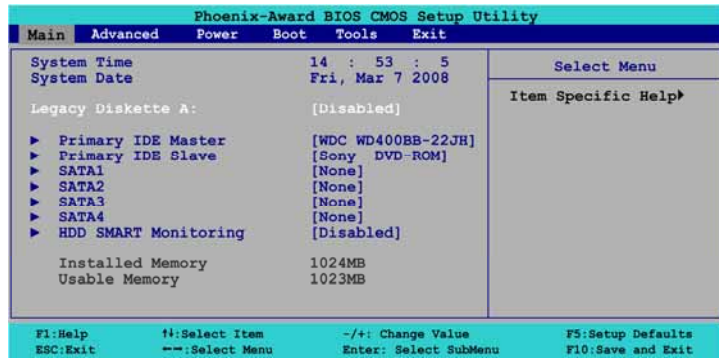| Menu	Submenu (if applicable)	Item	Setting
Exit		Load Setup Default	*(Not applicable)*
Main		Legacy Diskette A:	Disabled
		Primary IDE Master	WDC WD400BB
		Primary IDE Slave	Sony DVD-ROM
Boot	Boot Device Priority	1st Boot Device	CDROM
		2nd Boot Device	Hard Disk
		3rd Boot Device	Disabled
		4th Boot Device	Disabled
	Boot Settings Configuration	Halt On	No Errors
Power	APM Configuration	Restore on AC Power Loss	Power On
	Hardware Monitor	Q-FAN Function	Disabled

Important: Your screens may not look exactly like the screens shown in this document, and some settings shown on the screens pictures may be different from your system.
Do not change any settings that are not specifically described in this document.

1. Power off the game and connect a keyboard to the computer. Power on and press the **DEL** key during boot. The CMOS Setup Utility will start:

2. Use the Arrow keys (← →) to highlight **Exit** from the top of the screen, and the **Exit** menu will appear.

3. Use the Arrow keys (↑↓) to select **Load Setup Default**, and press **Enter**.

4. A prompt will appear saying **Load Setup Defaults (Y/N)?** Make sure **YES** is highlighted and press **Enter** to confirm the change.
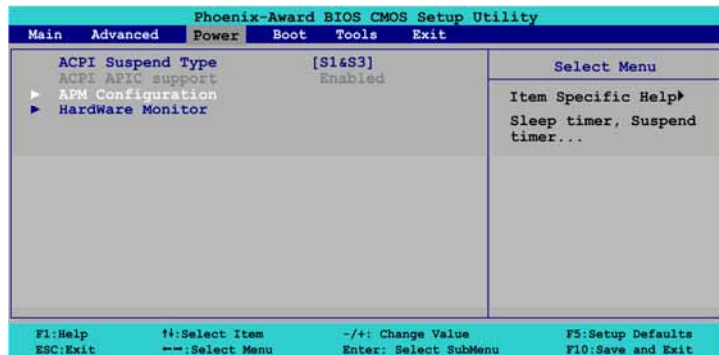
5. Use the Arrow keys (← →) to highlight **Main** from the top of the screen, and the **Main** Menu will appear.

6. Use the Arrow keys (↑↓) to highlight **Legacy Diskette A:** and then use the **+** and **–** keys to change the setting to **Disabled**.

```
          Phoenix-Award BIOS CMOS Setup Utility
  Main  Advanced   Power   Boot   Tools   Exit

  System Time                14 : 53 : 5        Select Menu
  System Date                Fri, Mar 7 2008
                                               Item Specific Help▶
  Legacy Diskette A:         [Disabled]

  ▶  Primary IDE Master      [WDC WD400BB-22JH]
  ▶  Primary IDE Slave       [Sony  DVD-ROM]
  ▶  SATA1                   [None]
  ▶  SATA2                   [None]
  ▶  SATA3                   [None]
  ▶  SATA4                   [None]
  ▶  HDD SMART Monitoring    [Disabled]

     Installed Memory        1024MB
     Usable Memory           1023MB


  F1:Help        ↑↓:Select Item     -/+: Change Value    F5:Setup Defaults
  ESC:Exit       ←→:Select Menu     Enter: Select SubMenu F10:Save and Exit
```

7. Verify **Primary IDE Master** is the hard disk (WDC WD400BB) and **Primary IDE Slave** is the DVD-ROM.
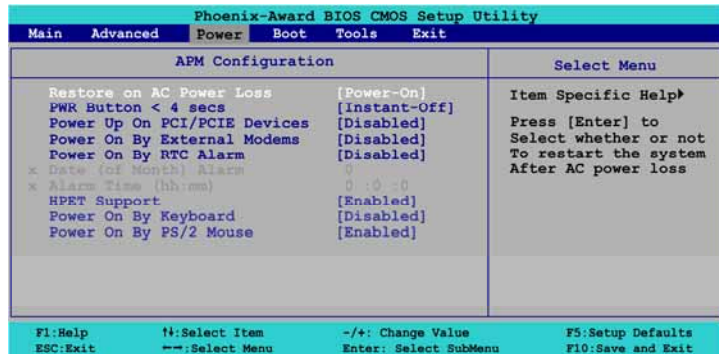
8. Use the Arrow keys (← →) to highlight **Power** from the top of the screen, and the **Power** menu will appear.

9. Use the Arrow keys to highlight **APM Configuration** and press **Enter**.
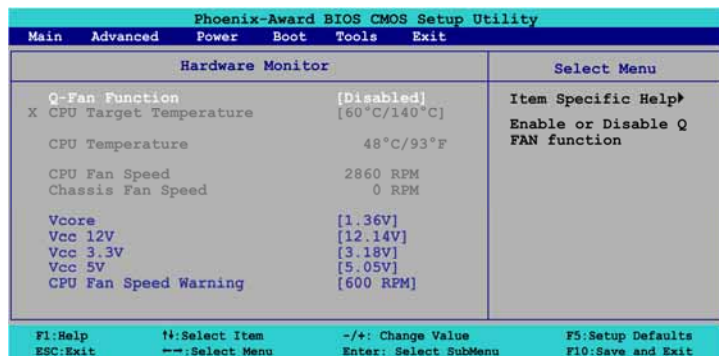
   The **APM Configuration** menu will appear.

```
          Phoenix-Award BIOS CMOS Setup Utility
  Main  Advanced   Power   Boot   Tools   Exit

     ACPI Suspend Type       [S1&S3]            Select Menu
     ACPI APIC support        Enabled
  ▶  APM Configuration                          Item Specific Help▶
  ▶  HardWare Monitor                           Sleep timer, Suspend
                                                timer...








  F1:Help        ↑↓:Select Item     -/+: Change Value    F5:Setup Defaults
  ESC:Exit       ←→:Select Menu     Enter: Select SubMenu F10:Save and Exit
```

10. Use the Arrow keys (↑↓) to highlight **Restore on AC Power Loss** and then use the **+** and **–** keys to change the setting to **Power-On**.

11. Press **Esc** to return to the **Power** menu.

```
          Phoenix-Award BIOS CMOS Setup Utility
  Main  Advanced   Power   Boot   Tools   Exit
            APM Configuration                   Select Menu

     Restore on AC Power Loss   [Power-On]      Item Specific Help▶
     PWR Button < 4 secs        [Instant-Off]
     Power Up On PCI/PCIE Devices [Disabled]    Press [Enter] to
     Power On By External Modems  [Disabled]    Select whether or not
     Power On By RTC Alarm        [Disabled]    To restart the system
  x  Date (of Month) Alarm          0           After AC power loss
  x  Alarm Time (hh:mm)           0 :0 :0
     HPET Support               [Enabled]
     Power On By Keyboard       [Disabled]
     Power On By PS/2 Mouse     [Enabled]




  F1:Help        ↑↓:Select Item     -/+: Change Value    F5:Setup Defaults
  ESC:Exit       ←→:Select Menu     Enter: Select SubMenu F10:Save and Exit
```

12. Use the Arrow keys to highlight **Hardware Monitor** and press **Enter**.
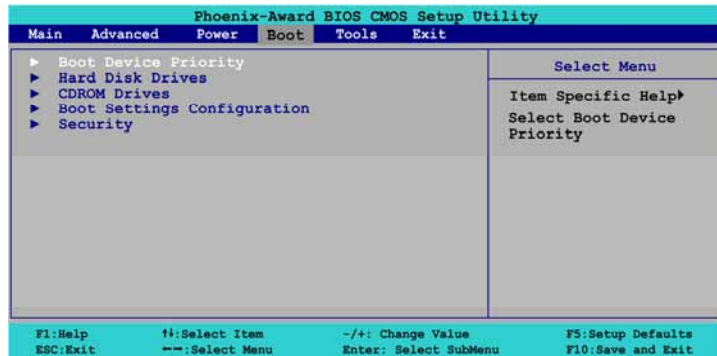
    The **APM Configuration** menu will appear.

13. Use the Arrow keys (↑↓) to highlight **Q-Fan Function** and then use the **+** and **–** keys to change the setting to **Disabled**.
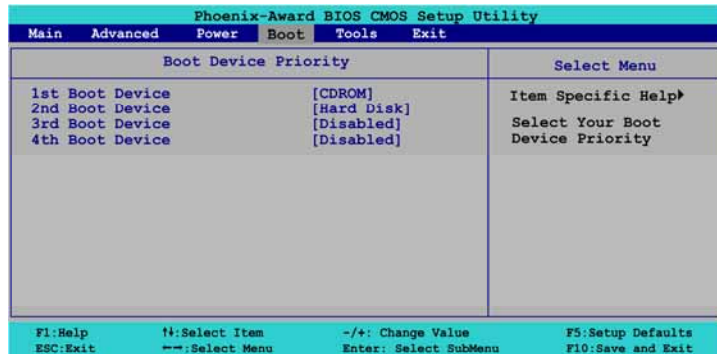
```
          Phoenix-Award BIOS CMOS Setup Utility
  Main  Advanced   Power   Boot   Tools   Exit
            Hardware Monitor                    Select Menu

     Q-Fan Function          [Disabled]         Item Specific Help▶
  X  CPU Target Temperature  [60°C/140°C]
                                                Enable or Disable Q
     CPU Temperature         48°C/93°F          FAN function

     CPU Fan Speed           2860 RPM
     Chassis Fan Speed          0 RPM

     Vcore                   [1.36V]
     Vcc 12V                 [12.14V]
     Vcc 3.3V                [3.18V]
     Vcc 5V                  [5.05V]
     CPU Fan Speed Warning   [600 RPM]


  F1:Help        ↑↓:Select Item     -/+: Change Value    F5:Setup Defaults
  ESC:Exit       ←→:Select Menu     Enter: Select SubMenu F10:Save and Exit
```

14. Use the Arrow keys (← →) to highlight **Boot** from the top of the screen, and the **Boot** menu will appear.

15. Use the Arrow keys (↑↓) to highlight **Boot Device Priority** and press **Enter**.
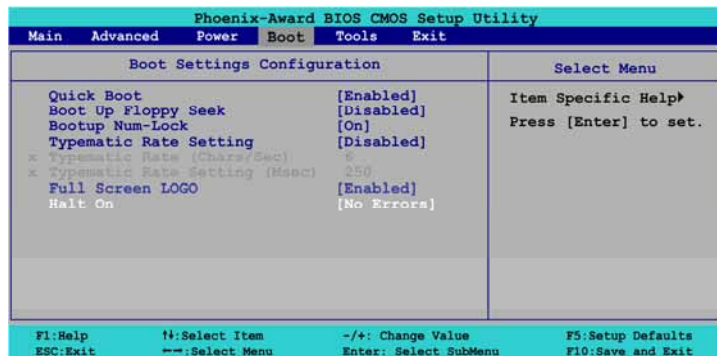
    The **Boot Device Priority** menu will appear.

16. Use the Arrow keys (↑↓) to highlight **1ˢᵗ Boot Device**, and then use the + and − keys to change the setting to **CDROM**.

17. Do the same step to change **2ⁿᵈ Boot Device** to **Hard Disk**, and **3ʳᵈ** and **4ᵗʰ Boot Device** to Disabled, as necessary.

18. Press **Esc** to return to the **Boot** menu.

19. Use the Arrow keys (↑↓) to highlight **Boot Settings Configuration** and press **Enter**.

    The **Boot Settings Configuration** menu will appear

20. Use the Arrow keys (↑↓) to highlight **Halt On** and then use the + and − keys to change the setting to **No Errors**.

21. Press **Esc** to return to the **Boot** menu.

22. Now that all settings are correct, press F10. The following prompt will appear:

    ```
    Save configuration changes and exit now?
             [YES]          NO
    ```

23. Make sure **YES** is highlighted (use the arrow keys ← → to select, if necessary), and press **Enter** to save the settings and reboot the computer.