The BIOS setup, also called CMOS setup, is a crucial part of the proper setting up of a PC – the BIOS (Basic Input Output System) tells the operating system the characteristics of the main basic components of your PC. Because of this, an incorrectly set up BIOS can result in some devices not being recognised by the operating system, in significantly below par performance, even poorer performance for 64-bit operating systems like Vista 64-bit, Windows 7 64-bit, or Windows 2008 64-bit, in overclocking which could result in your motherboard “frying”, or in device conflicts.

Thus, if you are building a new PC, or upgrading an existing one, you should know how to set up your BIOS.

The two most important issues as regards the BIOS setup are:

- Who makes it, e.g. Award, American Megatrends (AMI), Phoenix, etc...
- What revision of the BIOS your motherboard has, e.g. v4.51, v5.00, etc..

In this guide and manual we are providing setup guidelines for the American Megatrends Inc (AMI) v02.61 BIOS for AM2/AM2+/AM3 motherboards (AMD chipset).

**Getting into the AMI 2.61 BIOS**

- Cold boot your PC (ie. start it from the OFF state).

- When you see AMIBIOS © 2009 American Megatrends Inc at the top of the screen, press the Delete key repeatedly till you get a blue screen with the following title and footer:

  BIOS Setup Utility

  v02.61 © Copyright 1985-2009, American Megatrends, Inc.
You are now in the BIOS/CMOS setup.

The Main BIOS Menu

When you successfully get into the BIOS setup, you will be presented with the following horizontal menu, and you will already be in the MAIN section:

- Main
- Advanced
- Power
- Boot
- Tools
- Exit

The sections that follow provide guidelines on how to set up the various settings in each section of the BIOS. We have concentrated only on those settings that may need changing – if a setting does not appear in this document, leave it as you found it.

You can move between sections of the BIOS using the Left and Right arrow keyboard keys.

Check the right-hand side of the screen – at all times it displays which keyboard keys are available to you to move around or to change the options – or you can press F1 at any time to view the keyboard keys that you can use.

MAIN

System Time – System Date : Set both the System Date and System Time. You can move between the various parts of the date and of the time using the TAB key. To move between the System Time and System Date use the UP and DOWN keyboard arrow keys.

This is an absolutely vital setting.

IDE Configuration : Go into it and make sure your IDE controllers are enabled, that your Serial-ATA devices are set to all the devices available, and that RAID is turned off (unless, of course, you want to set up a RAID system).

System Information : Go into it and make sure the summary shows what you expect to be in your PC as regards the CPU (processor) and Memory (RAM).
ADVANCED

CPU Configuration
Cool ‘n’ Quiet : We set it to **DISABLED** but if this is a home PC and you normally leave it ON all the time, day and night, then you may want to switch this ON to conserve electricity and run your PC cooler at the slight expense of responsiveness performance.

CPU Configuration
CPU Prefetching : Make sure this is set to **ENABLED** (setting it to **DISABLED** will seriously slow down your PC).

Chipset
Southbridge Configuration
Front Panel Select : HD Audio

Chipset
Southbridge Configuration
HPET (ACPI HPET table) : **ENABLED**

Onboard Devices Configuration
Serial Port : **DISABLED** (no-one uses serial ports nowadays)

Onboard Devices Configuration
Parallel Port : **DISABLED** (unless you are using a very old printer which does not have a USB connection – all printers are USB nowadays)

PCIPnP
Plug and Play O/S : **YES** (all operating systems are Plug and Play nowadays, whether it is Windows, NetWare, or Linux – why the default for this setting is **NO** beggars belief)

USB Configuration
USB Functions : **ENABLED**

USB Configuration
USB 2.0 Controller : **ENABLED**

USB Configuration
Legacy USB Support : **AUTO** (so that your PC can recognize external hard drives, floppy drives, CD/DVD drives)

USB Configuration
USB 2.0 Controller Mode : **HiSpeed**
**POWER**

*Suspend Mode* : **AUTO**  
*ACPI 2.0 Support* : **ENABLED**  
*ACPI APIC Support* : **ENABLED**  
*Hardware Monitor*  
**Smart Q-FAN function** : **DISABLED**  
(It is our experience that, across all motherboard manufacturers and across various models from the same manufacturer, some motherboards occasionally get wrong the automatic adjustment of the CPU fan speed with the result that your CPU overheats and the alarm sounds – for this reason we always disable this setting which in turn results in the CPU fan always spinning at its maximum number of RPM, revolutions per minute, regardless of whether the CPU is busy, and therefore running hotter, or not; this is called going for safety first!).

**BOOT**

*Boot Device Priority*  
**1st Boot Device** : Set that to your **DVD Drive** if you are about to set up your PC with the DVD drive, or set it to your boot **Hard Disk** for normal PC usage.

*Boot Device Priority*  
**2nd Boot Device** : **DISABLED**

*Boot Device Priority*  
**3rd Boot Device** : **DISABLED**

*Boot Device Priority*  
**4th Boot Device** : **DISABLED**

*Boot Settings Configuration*  
**Quick Boot** : **DISABLED** (Disabling “Quick Boot” enables you to catch the POST screen, the BIOS Summary screen, where you can press **Delete** in order to be able to enter the BIOS – it also enables you to notice problems highlighted in the POST screen at boot-up).
### Boot Settings Configuration

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boot Settings Configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Screen Logo</td>
<td>DISABLED</td>
<td>(Disabling the “Full Screen Logo” allows you to be able to see the BIOS Summary screen where you can check that everything is fine just before the PC boots up into Windows).</td>
</tr>
<tr>
<td>Boot-up NUM Lock</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td>Wait for ‘F1’ if Error</td>
<td>ENABLED</td>
<td></td>
</tr>
<tr>
<td>Hit DEL message display</td>
<td>ENABLED</td>
<td></td>
</tr>
</tbody>
</table>

### Security

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Supervisor Password</td>
<td></td>
<td>Go ahead and set up a password to prevent users other than you from being able to modify the BIOS (something which can happen by accident if someone accidentally hits the Delete key as the PC is booting up).</td>
</tr>
</tbody>
</table>

### Exit & Save Changes

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit &amp; Save Changes</td>
<td></td>
<td>Press Enter on this option to make sure all the changes you made are saved.</td>
</tr>
</tbody>
</table>

### The End

That’s it. You’re done.

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