PhoenixBIOS Setup Utility

System Parameters and Standard Settings

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INTRODUCING BIOS SETUP

Your computer comes with a hardware configuration program called BIOS Setup that allows you to view and set system parameters.

The BIOS (Basic Input/Ouput System) is a layer of software, called 'firmware', that translates instructions from software (such as the operating system) into instructions that the computer hardware can understand. The BIOS settings also identify installed devices and establish special features.

USE BIOS SETUP TO:

- set the current time and date,
- customise your hardware settings according to your needs,
- secure your computer with a password.

ENTERING BIOS SETUP

You can access the BIOS program just after you turn on your computer. Just press the **F2** key when the following prompt appears:

Press <F2> to enter Setup.

When you press **F2** to enter BIOS Setup, the system interrupts the Power-On Self-Test (POST).

If the system detects an error during POST, it prompts you with a double beep and a message: *Press <F1> to resume*. If you press **F1**, the system enters the BIOS Setup program. If you want to fix the error, carefully read the error message that appears above the prompt (taking notes if you want) and press **F2**.

> *Note: If you receive this message repeatedly and the date displayed by your computer is inaccurate, then your CMOS battery may have lost charge. Contact your Technical Support Centre for advice.*

BIOS SETUP SCREENS

After you press **F2**, the system displays the BIOS Setup interface. Use the left and right arrow keys to toggle through the BIOS Setup menu items.

LOOKING AT SCREENS

BIOS setup screens have four areas:
- Menu items - the top of the screen. This area highlights which menu is active.
- Parameters - the left side of the screen. This area lists parameters and their current settings.
- Available Options and Help - the right side of the screen. This area lists alternate settings and Help text for each parameter.
- Key Legend - the bottom of the screen. These lines display the keys that move the cursor and select parameters.

Options that are greyed out are not available for the current selection. Settings displayed in blue are automatically detected by your computer.

USING KEYS

The following table lists the BIOS Setup keys and their functions:

Key	Function
F1	Displays a general help screen
← & →	Moves between the available menus.
↑ & ↓	Moves the cursor between the displayed parameters.
Enter	Selects a sub-menu (sub-menus are indicated with a ➤ at the beginning of the line), a menu command (such as Exit Discarding Changes), or displays the options available for the currently selected parameter.
F5/F6	Steps forward/backward through the settings available for the selected parameter.
Tab	For some parameter settings, moves the cursor between the subfields. For example, for *System Time*, Tab moves the cursor from *hour* to *minute* to *second*.
Esc	Exits any pop-up window. and from any menu screen, pressing Escape jumps directly to the Exit menu.
F9	Loads the default configurations, as recorded before the computer left the factory.
F10	Saves and exits the BIOS setup utility.

Table 1: BIOS Setup Keys and Associated Functions

SETUP MENUS

The Setup Utility features five menus which are listed on the menu bar at the top of the screen.

Main - use this menu for basic system configuration.

Advanced - use this menu to set printer port addresses and interrupts, I/0 device configuration and more.

Security - use this menu to set user and administrator passwords, and configure the hard disk boot sector protection.

Boot - use this menu to set the boot sequence.

Exit - use this menu to exit the Setup utility with various save or discard options.

These menus are described in detail in the following pages.

> *Note: BIOS menu entries and settings may have changed since this document was created.*

Main Menu

Use the Main menu screen to view the System Time, System Date and to modify drive parameters and related settings via the HDD Sub-menu.

Factory settings are shown in **red**.

Parameter	Options	Description
System Time	hh/mm/ss	Sets the time. Enter the current hour, minute and second in hr/min/sec, 24-hour format. To set the time use the *Tab* or *Enter* keys to move from field to field. Simply type the new number required.
System Date	mm/dd/yyyy	Sets your system's calendar month, day and year. These settings remain in memory even after you turn off system power. To set the date use the *Tab* or *Enter* keys to move from field to field. Simply type the new number required.
Language	**English (US)** Japanese (JP)	Sets the BIOS Setup Utility language.
Internal HDD	Press **Enter** to open the HDD Sub-menu.	Displays the hard disk drive capacity. Warning: changing any entries in this sub-menu can cause permanent loss of the data on your hard disk drive. Refer to the HDD submenu description on page 6 for more information.
Internal CD/DVD	This field is read-only and cannot be changed from BIOS Setup. Example: CD/DVD	Displays the optical device detected during boot.
System Memory	This field is read-only and cannot be changed from BIOS Setup. Example: 640 KB	Displays the amount of conventional memory detected during boot.
Extended Memory	This field is read-only and cannot be changed from BIOS Setup. Example: 195072 KB	Displays the amount of extended memory detected during boot.

Table 2: Main Menu

Parameter	Options	Description
CPU Type	This field is read-only and cannot be changed from BIOS Setup. Example: Intel(R) Pentium(R) 4 Mobile	Displays the CPU type.
CPU Speed	This field is read-only and cannot be changed from BIOS Setup. Example: 1.60 GHz	Displays the CPU speed.
BIOS Version	This field is read-only and cannot be changed from the BIOS Setup. Example: 2A03-V102-1A10/348A0500	Displays the BIOS revision number.
Product Name	This field is read-only and cannot be changed from the BIOS Setup.	Displays the product's name.
Serial Number	This field is read-only and cannot be changed from the BIOS Setup.	Displays the product's serial number.

Table 2: Main Menu *(Continued)*

INTERNAL HDD SUB-MENU

Use the Internal HDD Sub-menu to modify drive parameters and related settings.
Use the **F5**/**F6** keys to toggle between the *Type* field options.
Factory settings are shown in **red**.

Depending on the setting you choose for the *Type* field (described below), the available subfields will vary.

Parameter	Options	Description
Type	**Auto** None CD-ROM User	When set to **Auto**, the BIOS detects what the drive is capable of, not the translation mechanism that was used to format the drive. If a drive is run in a mode other than the mode in which it was partitioned and formatted, unpredictable results may occur, including data loss. When set to **None**, this informs the system to ignore this drive. When set to **CD-ROM**, allows the manual entry of some fields. Refer to page 7 for more information. When set to **User**, allows the manual entry of some of the fields described below. In most cases, we recommend you not to configure your hard disk drive manually using the CHS (Cylinders, Heads, Sectors) mode. This should be done only for hard disk drives which do not support the LBA mode, or are not automatically detected. Refer to page 8 for more information.

Table 3: *Type* field options

When *Type* is set to **Auto**, the following subfields are displayed:

Parameter	Options	Description
Total Sectors	This field is read-only and cannot be changed from the BIOS Setup. Example: 78140160	Displays the hard disk drive total number of sectors (LBA mode).
Maximum Capacity	30006MB	Displays the hard disk drive maximum capacity (LBA mode).
Multi-Sector Transfers	16 Sectors	*Note: this field is automatically detected and cannot be changed by the user.*
LBA Mode Control	Enabled	*Note: this field is automatically detected and cannot be changed by the user.*
32 Bit I/O	**Disabled** Enabled	Enables/disables 32 bit IDE data transfers.
Transfer Mode	FPIO 4 / DMA 2	*Note: this field is automatically detected and cannot be changed by the user.*

Table 4: *Type* field set to **Auto**

Parameter	Options	Description
Ultra DMA Mode	Mode 5	*Note: this field is automatically detected and cannot be changed by the user.*

Table 4: *Type* field set to **Auto** *(Continued)*

When *Type* is set to **CD-ROM**, the following subfields are displayed:

Parameter	Options	Description
Multi-Sector Transfers	Disabled 2 Sectors 4 Sectors 8 Sectors **16 Sectors**	Specifies the number of sectors per block for multiple sector transfers.
LBA Mode Control	**Enabled** Disabled	Enabling LBA causes Logical Block Adressing to be used in place of Cylinders, Heads & Sectors (CHS).
32 Bit I/O	**Disabled** Enabled	Enables/disables 32 bit IDE data transfers.
Transfer Mode	Standard Fast PIO 1 Fast PIO 2 Fast PIO 3 Fast PIO 4 FPIO 3 / DMA 1 **FPIO 4 / DMA 2**	Selects the method used for moving data to/from the drive.
Ultra DMA Mode	Disabled Mode 0 Mode 1 Mode 2 Mode 3 Mode 4 **Mode 5**	Selects the Ultra DMA mode used for moving data to/from the drive.

Table 5: *Type* Field set to **CD-ROM**

When *Type* is set to **User**, the following subfields are displayed:

Parameter	Options	Description
Cylinders	16383	In most cases, we recommend you not to configure your hard disk drive manually using the CHS (Cylinders, Heads, Sectors) mode. This should be done only for hard disk drives which do not support the LBA mode, or are not automatically detected.
Heads	16	
Sectors	63	
Maximum Capacity	8455MB	Displays the drive maximum capacity (using the CHS mode).
Total Sectors	58605120	Displays the hard disk drive total number of sectors (LBA mode).
Maximum Capacity	30006MB	Displays the drive maximum capacity (using the LBA mode).
Multi-Sectors Transfers	Disabled 2 Sectors 4 Sectors 8 Sectors **16 Sectors**	Specifies the number of sectors per block for multiple sector transfers.
LBA Mode Control	**Enabled** Disabled	Enabling LBA causes Logical Block Adressing to be used in place of Cyliinders, Heads & Sectors (CHS).
32 Bit I/O	**Disabled** Enabled	Enables/disables 32 bit IDE data transfers.
Transfer Mode	Standard Fast PIO 1 Fast PIO 2 Fast PIO 3 Fast PIO 4 FPIO 3 / DMA 1 **FPIO 4 / DMA 2**	Selects the method used for moving data to/from the drive.

Table 6: *Type* field set to **User**

Parameter	Options	Description
Ultra DMA Mode	Disabled Mode 0 Mode 1 Mode 2 Mode 3 Mode 4 **Mode 5**	Selects the Ultra DMA mode used for moving data to/from the drive.

Table 6: *Type* field set to **User** *(Continued)*

ADVANCED MENU

Use the Advanced menu to set various boot and DOS-mode functions.

Factory settings are shown in **red**.

Parameter	Options	Description
Internal Mouse	**Enabled** Disabled	**Enabled** forces the touchpad to be enabled regardless of whether a mouse is present. **Disabled** prevents the touchpad from functioning, but frees IRQ 12.
LCD Panel View Expansion	**Enabled** Disabled	**Enabled** expands the panel view. The enabled setting sometimes affects graphics quality. **Disabled** reduces the panel view in some video modes.
Silent Boot	Disabled **Enabled** Black	When set to **Enabled**, the logo screen appears during boot. When set to **Disabled**, the POST messages appear during boot. When set to **Black**, a black screen appears during boot.
USB Operation Mode	1.1 Mode **2.0 Mode**	Sets the supported USB operation mode.
Remote Power On	Enabled **Disabled**	When set to **Enabled**, allows the LAN board to wake up the system.
Intel(R) SpeedStep(TM) Technology	**Enabled** Disabled	When set to **Enabled**, the system performs at the optimised performance set under the operating system (if applicable). When set to **Disabled**, the system preserves as much battery power as possible. *This option is only available for Pentium-based computers.*
Legacy USB Support	**Enabled** Disabled	Enables or disables the USB bus support when in connection with USB device.

Table 7: Advanced Menu

SECURITY MENU

Use the Security Menu to establish system passwords:

Factory settings are shown in **red**.

PASSWORD PROTECTION

Your computer supports a password for system security on several levels. Keep in mind that you must set the supervisor password before the BIOS Setup utility allows you to set a user password.

Once you set a supervisor password, you must type it before you can enter BIOS Setup, and then depending on the selections made in the Security menu, access the system at start-up or Hibernation (Save To File).

> **Note**: *when entering BIOS Setup using the user password, only a limited number of fields can be changed; the most sensitive items are read-only.*

Parameter	Options	Description
Supervisor Password Is	Example: Clear	This field is read-only and automatically filled according to the changes made to the fields below.
User Password Is	Example: Clear	This field is read-only and automatically filled according to the changes made to the fields below.
Set Supervisor Password	[Enter]	Establishes password protection when entering the BIOS setup. If the *Password on boot* option is enabled, this password will also be requested when switching on the computer or resuming from Hibernation mode.
Set User Password	[Enter]	Establishes password protection when entering the BIOS setup. If the *Password on boot* option is enabled, this password will also be requested when switching on the computer or resuming from Hibernation mode. A supervisor password must be set before a User password can be used. A User Password can be used to enter the BIOS setup program, but some menu items will be unavailable.
Password on boot	**Disabled** Enabled	Indicates whether or not a password is required during system boot. Either the *Supervisor* or *User* password will be accepted.
Fixed disk boot sector	**Normal** Write Protect	Write Protect the boot sector of the hard disk drive to avoid infection by some virus types.
Assign HDD Password	[Enter]	Establishes password protection to restrict access to the contents of the hard disk drive. This password allows you to protect your hard disk drive should it be moved to another computer. If the new computer uses the same password protection scheme a password request will appear: • If the correct password is entered then the hard disk drive will function as normal. • If the new computer does not use the same password protection scheme, or if the password is not entered then it will not be possible to access the drive. *Note: the Primary HDD Password option must be enabled.*
Primary HDD Password	Enabled **Disabled**	Enables/disables the primary HDD password.

Table 8: Security Menu

ESTABLISHING PASSWORDS

BIOS SETUP AND BOOT PASSWORDS

To establish password protection for entering the BIOS Setup utility or accessing the computer at start up, you must set the supervisor password before setting a user password.

• To enter a password simply select **Set Supervisor Password**, type the password of your choice, press **Enter**, re-enter the password to confirm, press **Enter** again, and when prompted, press **Enter** to continue. Click on **Set User Password** and repeat this procedure to set the user password.

• To initiate password protection while you step away from your system, simply put your system in Hibernation (Save To File) mode.

HARD DISK DRIVE PASSWORD

Your computer allows you to establish password protection for the internal hard disk drive. This protection restricts access to the drive, only if the drive is removed from your computer and installed in another system. You are not prompted to enter your hard disk drive password while the drive remains in your current system.

The HDD password is written to the system BIOS and to the hard disk drive to ensure that the password protection travels with the drive when moved from system to system.

Establishing a Hard Disk Drive Password

1. In the BIOS Setup, select the *Security* menu.
2. Select **Assign HDD Password** and press **Enter**.
3. Type the password of your choice and press **Enter**.
4. Type it again to confirm, and press **Enter**. When the *Setup Notice* pops up, press **Enter** to continue. Press the **F10** key to save changes and exit the BIOS Setup.

Changing Hard Disk Drive Passwords

1. In the BIOS Setup, select the *Security* menu.
2. Select **Assign HDD Password** and press **Enter**.
3. Type the current password and press **Enter**.

4. Type the new password of your choice and press **Enter**. Type it again to confirm, and press **Enter**.

Note: *if you do not wish to establish another password, press* **Enter** *without entering any value in theses fields*.

Moving the Hard Disk Drive

When a password-protected hard disk drive is moved from its original system and installed in another system, error messages appear indicating that the drive is locked. If the system is equipped with the same hard disk drive password protection feature, a *Security Setup* window will pop up, requiring the user to enter the password to unlock the drive.

If you wish to move a hard disk drive from one system to another, make sure to clear the hard disk drive password before you do so.

BOOT MENU

Use this menu to modify the boot options, and to specify the order of the bootable devices.

BOOT ORDER

The entries from this field represent devices that can be used to start your computer. When your computer starts it will search each device, following the order defined in the list, for any 'boot' (start-up) instructions available. If a disk is found that contains such information, it will be used to start your computer.

This can be useful if the disk contains a 'rescue' program, that will solve a serious problem with your computer (your Recovery Disk or Recovery CD does this). Consequently, you should keep removable devices above your main hard drive in this list. Should your computer's hard drive develop a major fault, you will also be able to use a bootable CD or floppy disk to start your computer.

Move the devices up or down the list by using the **F5** or **F6** keys on the keyboard. Should you have more than one of the type of device specified, you can expand the entry to see a list of peripherals by pressing the **Enter** key.

Parameter	Options	Description
Network Boot	Enabled **Disabled**	When set to **Enabled**, allows your computer to access the network at start-up using a special configuration file, usually in order to access special services or programs.

Table 9: Boot Menu

Parameter	Description
Diskette Drive	Refers to any additional floppy disk drive you have attached to your computer.
ATAPI CD-ROM Drive	Refers to the computer's optical disc drive.
Network	Refers to the network to which the computer is connected.
Hard Drive	Refers to the internal hard disk drive. This is your normal boot device. Pressing Enter on Hard Drive shows the computer's hard disk drive model name.

Table 10: Boot Order

Note: *please note that some USB devices may not be detected by the BIOS Setup (USB optical disc drive, for instance). However, if you need to boot from this device, you will be able to do so without making any changes in the BIOS Setup Boot Order.*

EXIT MENU

Use this menu to implement or discard the changes you made to the BIOS Setup, and/or to exit the utility. Select any parameter and press **Enter** to perform the corresponding action.

> *Note: you will always be prompted for confirmation.*

The Battery Refresh feature is also found in this menu. We recommend you to refresh the battery regularly (about once a month) in order to keep it in perfect working condition and optimise its performances.

Parameter	Description
Exit Saving changes	Accepts changes made to current settings, and exits BIOS Setup.
Exit Discarding Changes	Exits Setup without applying any changes that have been made during this session.
Load Setup Defaults	Loads default configuration settings that were defined before the computer left the factory.
Discard Changes	Reverses any changes that have been made during this session.
Save Changes	Replaces the default configuration settings with the current settings.
Battery Refresh	Refreshes the battery. 1. Press **Enter** to display a confirmation dialogue box. 2. Unplug the AC adapter, and press **Enter**. 3. When prompted to do so, press **Y** to start the refreshing process. 4. The system will automatically discharge the battery. When the countdown reaches 0%, the system will automatically shutdown. *Note: if the battery was completely charged, this process may take several hours to complete.* 5. To finish the refresh process you will have to recharge the battery. Plug in the AC adapter and charge the battery until the Battery Power LED turns off. You may use the computer during this time.

Table 11: Exit Menu