

# Fujitsu LifeBook

## V Series

### **BIOS Guide**

LifeBook V Series Model:

V1010

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FUJITSU COMPUTER SYSTEMS CORPORATION

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# V Series BIOS

## BIOS SETUP UTILITY

The BIOS Setup Utility is a program that sets up the operating environment for your notebook. Your BIOS is set at the factory for normal operating conditions, therefore there is no need to set or change the BIOS environment to operate your notebook.

The BIOS Setup Utility configures:

- Device control feature parameters, such as changing I/O addresses and boot devices.
- System Data Security feature parameters, such as passwords.

### Entering the BIOS Setup Utility

To enter the BIOS Setup Utility, do the following (or use the TrustedCore Menu, as detailed in the next section):

1. Turn on or restart your notebook.
2. Press [F2] once the Fujitsu logo appears on the screen. This will open the main menu of the BIOS Setup Utility with the current settings displayed.
3. Press the [RIGHT ARROW] or [LEFT ARROW] key to scroll through the other setup menus to review or alter the current settings.

### Using the TrustedCore Menu

When the Fujitsu logo appears on the screen, press the [Enter] key or click on the left mouse or touchpad button; the TrustedCore Menu will appear.

The TrustedCore Menu provides shortcuts to the following menus and information screens:

- BIOS Setup
- Diagnostic Screen
- Boot Menu
- Patent Information
- System Information
- Continue Booting

Clicking on any of the fields will invoke the screen, information, or action described.

The Boot Menu can also be invoked by pressing the [F12] key when the Fujitsu logo appears on the screen.

### Navigating through the Setup Utility

The BIOS setup utility consists of six menus: Info, System, Advanced, Security, Boot, and Exit. This document explains each menu in turn, including all submenus and setup items.

The following procedures allow you to navigate the setup utility menus:

1. To select a menu, use the cursor keys: [←], [→]
2. To select a field within a menu or a submenu, use the cursor keys: [↑], [↓].
3. To select the different values for each field, press the [Spacebar] or [+] to change to the next lower selection and [F5] or [-] to go to the next higher selection.
4. To activate a submenu press the [Enter] key.
5. To return to a menu from a submenu, press the [Esc] key.
6. To go to the Exit menu from any other menu, press the [Esc] key.

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- Selecting a field causes a help message about that field to be displayed on the right-hand side of the screen.



- Pressing the Enter key with the highlight on a selection that is not a submenu or auto selection will cause a list of all options for that item to be displayed. Pressing the Enter key again will select the highlighted choice.
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7. Pressing the [F9] key resets all items in the BIOS to the default values.
8. Pressing the [F10] key saves the current configuration and exits the BIOS Setup Utility. You will be asked to verify this selection before it is executed.
9. Pressing the [F1] key gives you a general help screen.

### Entering the Setup Utility After a Configuration Change or System Failure

If there has been a change in the system configuration that does not agree with the parameter settings stored in your BIOS memory, or there is a failure in the system, the system beeps and/or displays an error message after the Power On Self Test (POST). If the failure is not too

severe, it will give you an opportunity to modify the setup utility settings, as described in the following steps:

1. When you turn on or restart the computer there is a beep and/or the following message appears on the screen:  
Error message - please run SETUP program Press <F1> key to continue, <F2> to run SETUP
2. If an error message is displayed on the screen, and you want to continue with the boot process and start the operating system anyway, press the [F1] key.



- If your notebook emits a series of beeps that sounds like a code and the display is blank, please refer to the Troubleshooting Section in the system User's Guide. The Troubleshooting Section includes a list of error messages and their meanings.
- If your data security settings require it, you may be asked for a password before the operating system will be opened.

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3. If an error message is displayed on the screen, and you want to enter the setup utility, press the [F2] key.
  4. When the setup utility starts with a fault present, the system displays the following message:  
Warning!  
Error message  
[Continue]
  5. Press any key to enter the setup utility. The system will then display the Info Menu with current parameters values.

## MAIN MENU – SETTING STANDARD SYSTEM PARAMETERS

The Main Menu allows you to set or view the current system parameters. Follow the instructions for Navigating Through The Setup Utility to make any changes. (See *Navigating through the Setup Utility on page 2 for more information.*)

The following tables show the names of the menu fields for the Main menu and its submenus, all of the options for each field, the default settings and a description of

the field's function and any special information needed to help understand the field's use.



System Time and System Date can also be set from your operating system without using the setup utility. Use the Date and Time icon on your Windows Control panel or type time or date from the MS-DOS prompt.

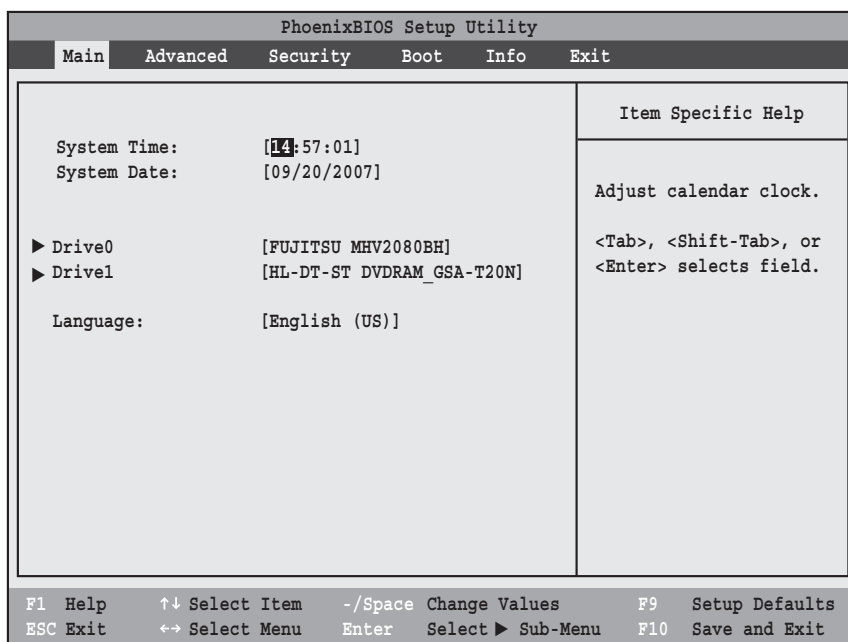


Figure 1. Main Menu

**Table 1: Fields, Options and Defaults for the Main Menu**

Note that the parameters listed in the following table may vary depending upon your system's configuration.

Menu Field	Options	Default	Description
System Time:	—	—	Sets and displays the current time. Time is in a 24 hour format of hours:minutes:seconds with 2 digits for each. (HH:MM:SS). Example: 16:45:57. You may change each segment of the time separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.
System Date:	—	—	Sets and displays the current date. Date is in a month/day/year numeric format with 2 digits each for month and day and 4 digits for year. (MM/DD/YYYY) for example: 03/20/2006. You may change each segment of the date separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.

**Table 1: Fields, Options and Defaults for the Main Menu**

Note that the parameters listed in the following table may vary depending upon your system's configuration.

Menu Field	Options	Default	Description
Drive0	Selects Drive0 submenu	The product number of the hard drive.	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Drive0 submenu allowing additional device configuration options for this interface.
Drive1	Selects Drive1 submenu	The product number of the CD-ROM drive.	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Drive1 submenu allowing additional device configuration options for this interface
Language:	<ul style="list-style-type: none"> <li>▪ English (US)</li> <li>▪ Japanese (JP)</li> </ul>	[English (US)]	The default setting differs between the US/European and the Japanese model. Selects the display language for the BIOS. (Note that this field may appear blank until the first time it is selected.)

## Drive0 Submenu of the Main Menu

The Drive0 submenu identifies what ATA devices are installed.

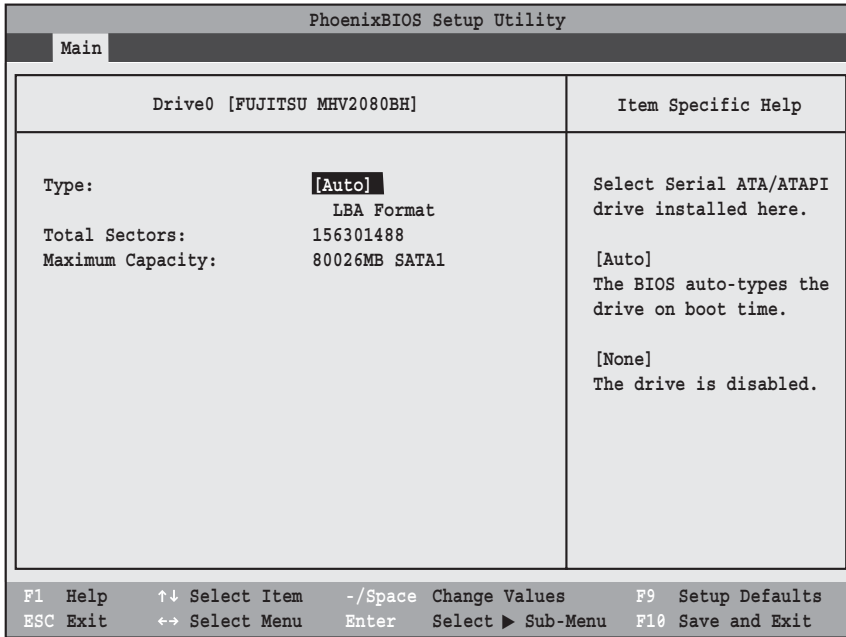


Figure 2. Drive0 Submenu

Table 2: Fields, Options and Defaults for the Drive0 Submenu of the Main Menu

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> <li>▪ Auto</li> <li>▪ None</li> </ul>	[Auto]	Automatically selects the ATA/ATAPI device type. To change the selection, press the spacebar. Select Auto to have the type automatically identified by the BIOS at POST. Select None if you don't want to select a primary master.
<b>LBA Format</b>		<b>Logical Block Addressing (LBA)</b>	
Total Sectors:	---	---	The total number of sectors on your hard disk
Maximum Capacity:	---	---	The maximum capacity of your hard disk

## Drive1 Submenu of the Main Menu

The Drive1 submenu allows you to configure secondary ATA devices, such as an optical drive.

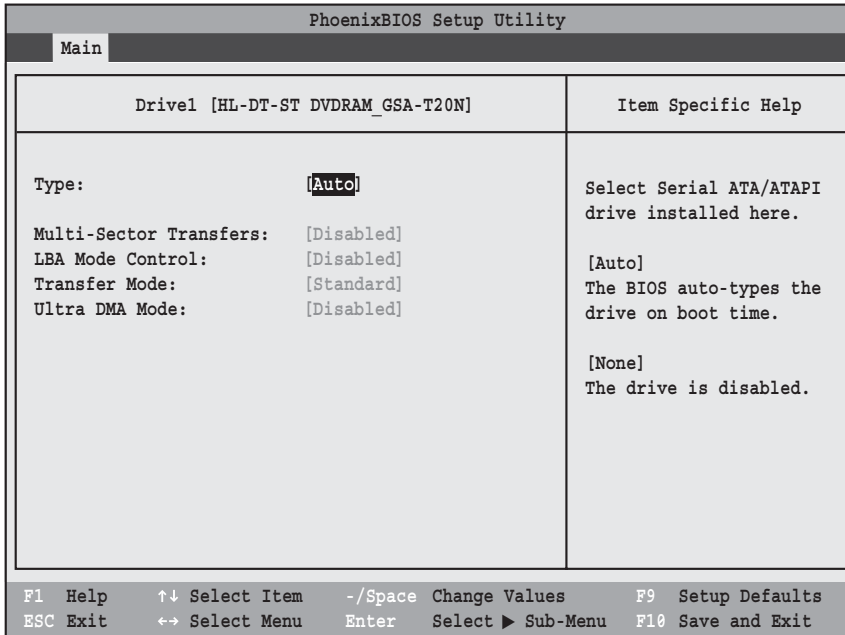


Figure 3. Drive1 Submenu

Table 3: Fields, Options and Defaults for the Drive1 Submenu of the Main Menu

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> <li>▪ Auto</li> <li>▪ None</li> </ul>	[Auto]	<p>NOTE: The Type field does not appear as a drop-down menu. Tap the spacebar to cycle through the selections.</p> <p>Selects the ATA/ATAPI device type. Select Auto to have the type automatically identified by the BIOS at POST. If None is selected, all of the following Set-up items do not appear.</p>
Multi-Sector Transfers:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ 2 Sectors</li> <li>▪ 4 Sectors</li> <li>▪ 8 Sectors</li> <li>▪ 16 Sectors</li> </ul>	[Disabled]	This option cannot be changed when Auto is selected. Specify the number of sectors per block for multiple sector transfer.
LBA Mode Control:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Enables or disables Logical Block Addressing in place of Cylinder, Head, Sector addressing. This option cannot be changed when Auto is selected.

**Table 3: Fields, Options and Defaults for the Drive1 Submenu of the Main Menu**

Menu Field	Options	Default	Description
Transfer Mode:	<ul style="list-style-type: none"> <li>▪ Standard</li> <li>▪ Fast PIO 1</li> <li>▪ Fast PIO 2</li> <li>▪ Fast PIO 3</li> <li>▪ Fast PIO 4</li> <li>▪ Multiword DMA 1</li> <li>▪ Multiword DMA 2</li> </ul>	[Standard]	This option cannot be changed when Auto is selected. Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. Multiword DMA is automatically set to mode 1 for Fast PIO 1, Fast PIO 2, Fast PIO 3, and set to mode 2 for Fast PIO 4 / DMA.
Ultra DMA Mode:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Mode 0</li> <li>▪ Mode 1</li> <li>▪ Mode 2</li> <li>▪ Mode 3</li> <li>▪ Mode 4</li> <li>▪ Mode 5</li> </ul>	[Disabled]	This option cannot be changed when Auto is selected. Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode.



## ADVANCED MENU – SETTING DEVICE FEATURE CONTROLS

The Advanced Menu allows you to:

- Set the keyboard and mouse features.
- Select between the display panel and an external CRT display or video projector.
- Enable or disable compensation for your display.
- Enables or disables the internal controllers.
- Configure CPU and USB features in your system.

Follow the instructions for Navigating Through the Setup Utility to make any changes.

The following tables show the names of the menu fields for the Advanced Menu and its submenus, all of the options for each field, the default settings and a description of the field’s function and any special information needed to help understand the field’s use.

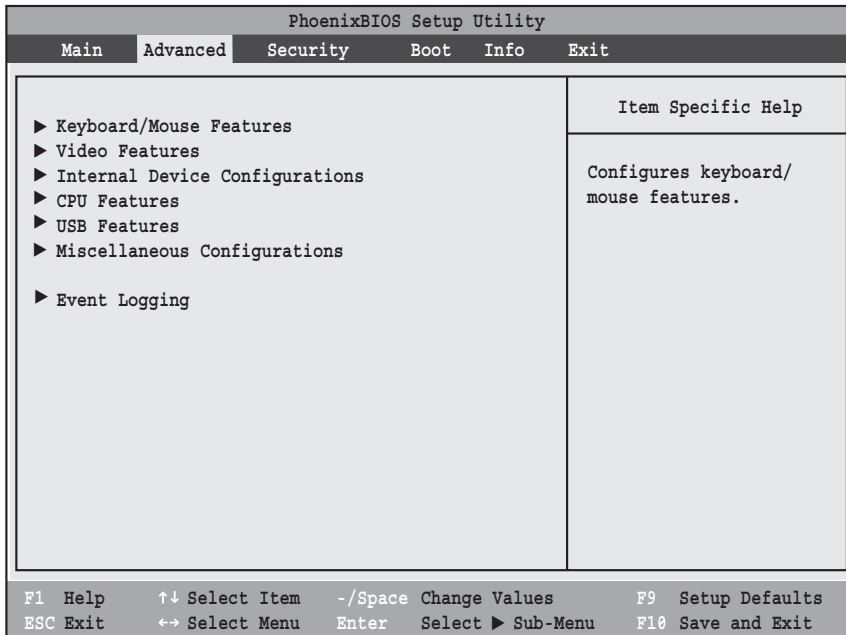


Figure 4. Advanced Menu

Table 4: Fields, Options and Defaults for the Advanced Menu

Menu Field	Description
Keyboard/Mouse Features	When selected, opens the Keyboard/Mouse Features submenu, which allows turning NumLock on or off.
Video Features	When selected, opens the Video Features submenu, which allows setting of the display parameters, including routing of video signals to different displays.
Internal Device Configurations	When selected, opens the Internal Device Configuration submenu, which allows enabling or disabling the Serial ATA, IDE, and LAN Controllers.
CPU Features	When selected, opens the CPU Features submenu to allow you to enable or disable the SpeedStep® Technology feature and XD Bit functionality.
USB Features	When selected, opens the USB Features submenu to allow you to enable or disable the legacy support and SCSI SubClass support (e.g., floppy disk drive, external optical drive).

**Table 4: Fields, Options and Defaults for the Advanced Menu**

Menu Field	Description
Miscellaneous Configurations	When selected, opens the Miscellaneous Configurations submenu to allow you to enable or disable the power button and the Wake Up On LAN feature, and to set the Volume Setting.
Event Logging	When selected, opens the event logging submenu.

### Keyboard/Mouse Features Submenu of the Advanced Menu

The Keyboard Features submenu is for enabling or disabling the NumLock feature.

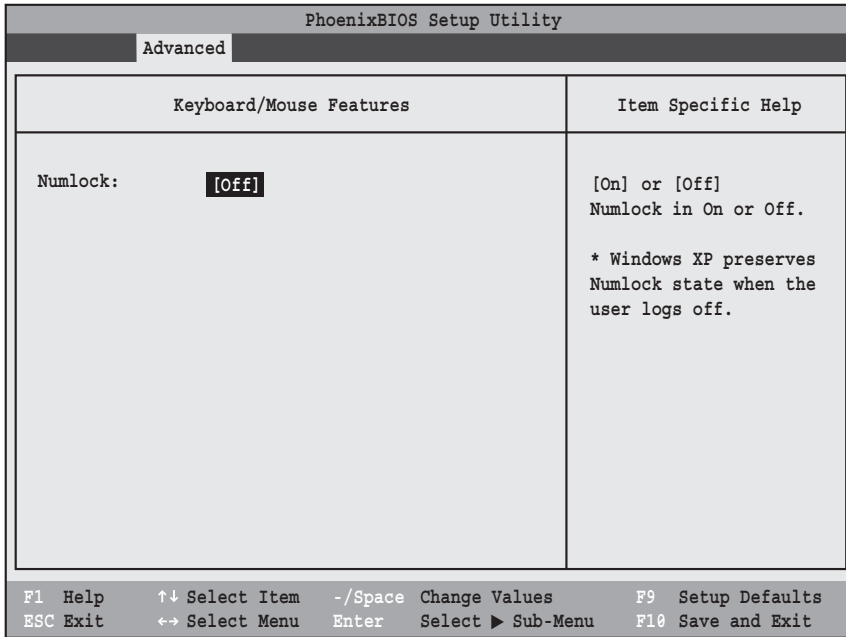


Figure 5. Keyboard Features Submenu

Table 5: Fields, Options and Defaults for the Keyboard Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Numlock:	<ul style="list-style-type: none"> <li>▪ On</li> <li>▪ Off</li> </ul>	[Off]	Sets the NumLock function state when the computer completes booting.

## Video Features Submenu of the Advanced Menu

The Video Features Submenu is for setting the display parameters.

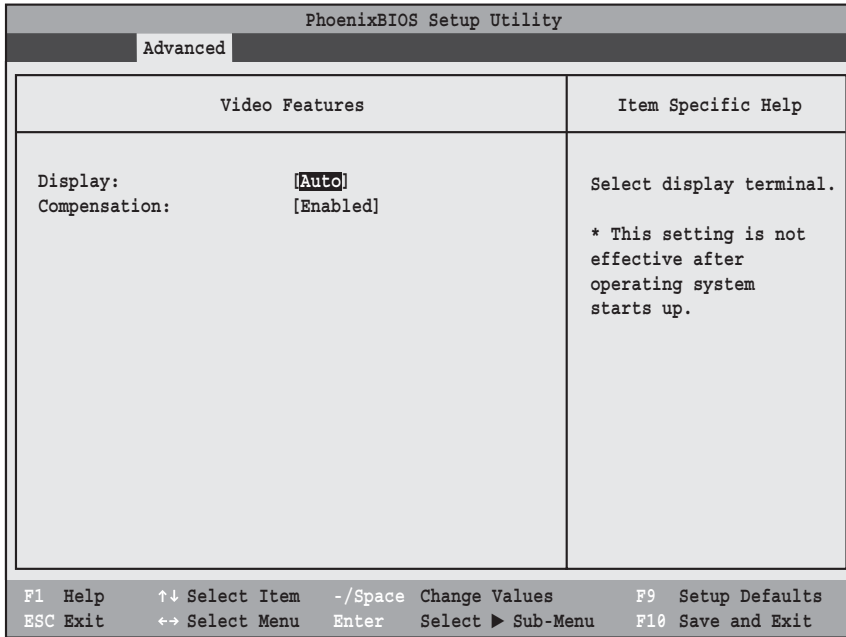


Figure 6. Video Features Submenu

Table 6: Fields, Options and Defaults for the Video Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Display:	<ul style="list-style-type: none"> <li>▪ Internal Flat Panel</li> <li>▪ External</li> <li>▪ Auto</li> </ul>	[Auto]	Selects where the video signal will be routed. Note: The Windows video driver overrides this setting.
Compensation:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables compensation which controls spacing on the display. When enabled, displays with less than pixel resolution 1024 x 768 or 800 x 600 will still cover the entire screen. A resolution below 800 x 600 will fill the screen, but due to the low resolution, will appear blocky and may not be acceptable.

## Internal Device Configurations Submenu of the Advanced Menu

The Internal Device Configuration submenu allows the user to configure other internal devices.

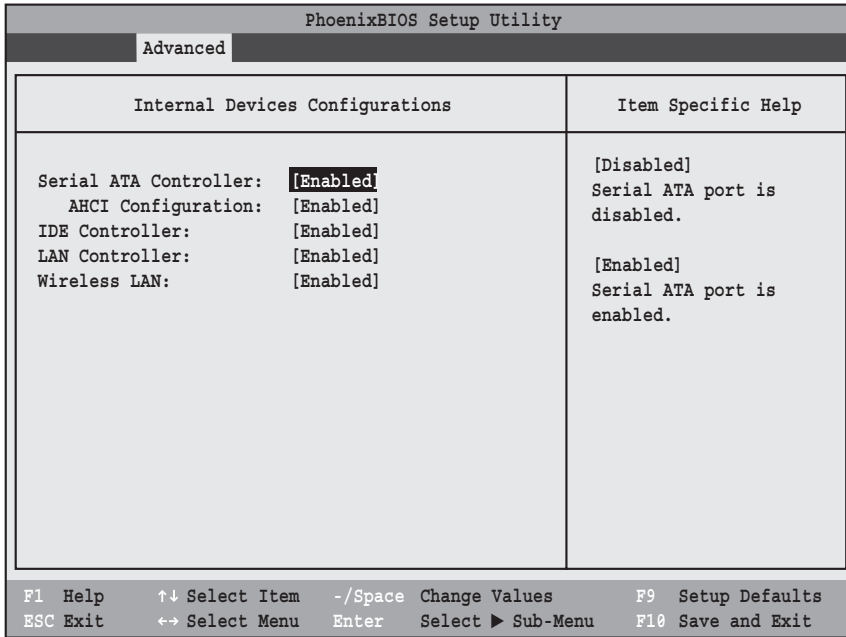


Figure 7. Internal Device Configuration Submenu

Table 7: Fields, Options and Defaults for the Internal Device Configuration Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Serial ATA Controller:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the Serial ATA port.
AHCI Configuration:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the AHCI (Advanced Host Controller Interface).
IDE Controller:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables selected IDE devices.
LAN Controller:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the LAN controller.
Wireless LAN:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the Wireless LAN controller.

## CPU Features Submenu of the Advanced Menu

The CPU Features Submenu provides options for enabling or disabling the SpeedStep® Technology feature.

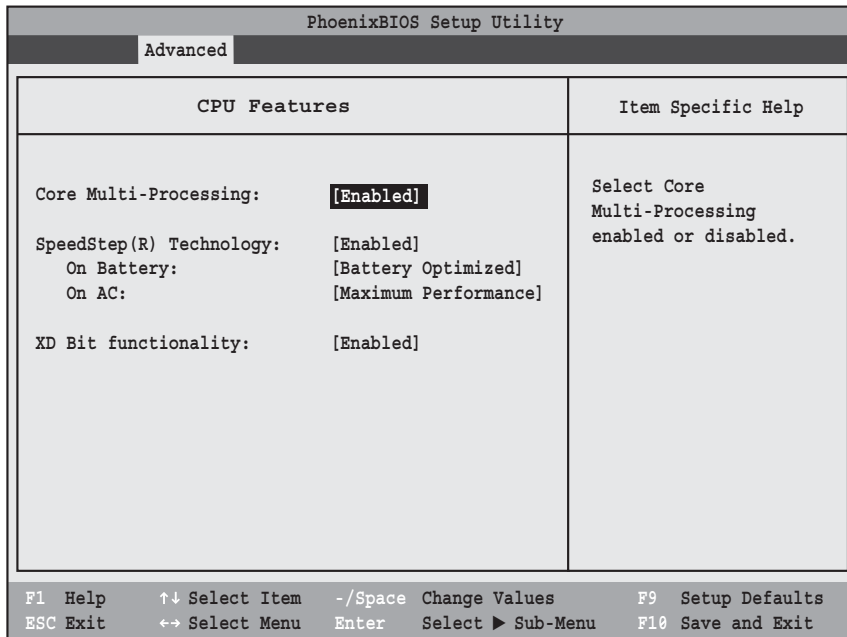


Figure 8. CPU Features Submenu

Table 8: Fields, Options and Defaults for the CPU Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Core Multi-Processing	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the multi-processing functionality of the Core processor.
SpeedStep® Technology:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Enabled is selected, CPU speed and battery use can be selected from On Battery and On AC. When Disabled is selected, SpeedStep Technology is disabled.
On Battery:	<ul style="list-style-type: none"> <li>▪ Maximum Performance</li> <li>▪ Battery Optimized</li> <li>▪ Automatic</li> </ul>	[Battery Optimized]	When Maximum Performance is selected, CPU speed is maximized. When Battery Optimized is selected, CPU <i>power requirements</i> are optimized for battery operation. When Automatic is selected, CPU speed is determined by the power source used.
On AC:	<ul style="list-style-type: none"> <li>▪ Maximum Performance</li> <li>▪ Battery Optimized</li> <li>▪ Automatic</li> </ul>	[Maximum Performance]	When Maximum Performance is selected, CPU speed is maximized. When Battery Optimized is selected, CPU <i>power requirements</i> are optimized for battery operation. When Automatic is selected, CPU speed is determined by the power source used.

Table 8: Fields, Options and Defaults for the CPU Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
XD Bit functionality:	<ul style="list-style-type: none"><li>▪ Disabled</li><li>▪ Enabled</li></ul>	[Enabled]	Allows the user to enable and disable the Execute Disable Bit functionality. Execute Disable Bit allows the processor to classify areas in memory where application code can and cannot execute. In the event an internet worm attempts to insert code in the buffer, the processor disables code execution to prevent damage or worm propagation.

## USB Features Submenu of the Advanced Menu

The USB Features Submenu provides options for enabling or disabling legacy USB support.

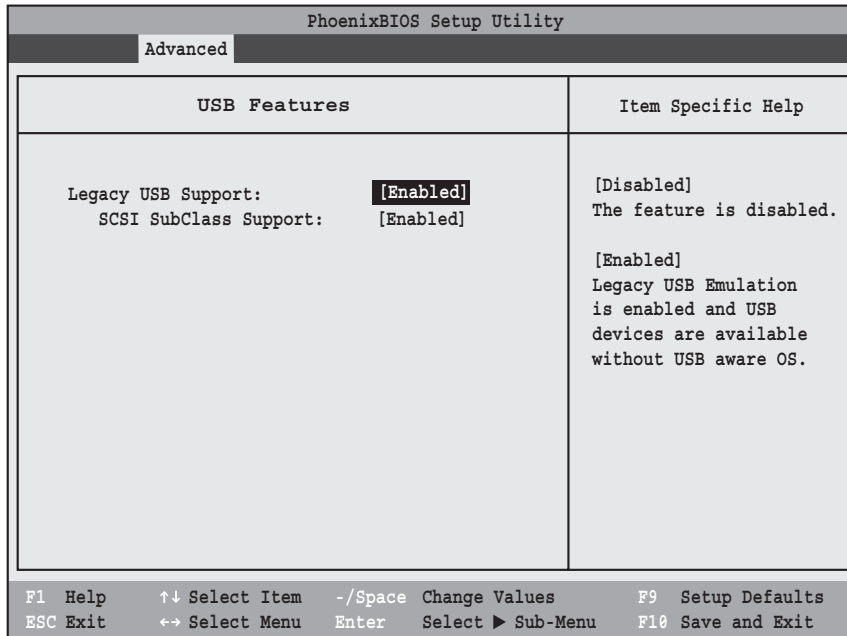


Figure 9. USB Features Submenu

Table 9: Fields, Options and Defaults for the USB Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Legacy USB Support:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Enabled is selected, Legacy USB Emulation is enabled and the USB devices are available without a USB-aware OS. When Disabled is selected, Legacy USB support is disabled.
SCSI SubClass Support:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Enabled is selected, USB devices that belong to the SCSI subclass in the mass storage class (e.g., USB Memory Key) are enabled. Note that enabling this feature may cause the system to hang during POST, depending on the device that is connected.



## Miscellaneous Configurations Submenu of the Advanced Menu

The Miscellaneous Configurations Submenu provides options for enabling or disabling the power button and the Wake Up On LAN or USB features, and for setting the volume.

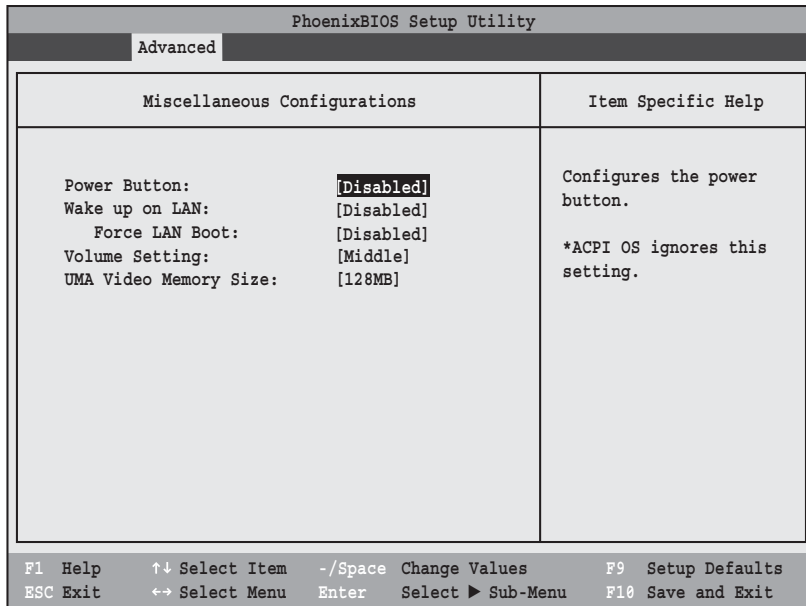


Figure 10. Miscellaneous Configurations Submenu

Table 10: Fields, Options and Defaults for the Miscellaneous Configurations Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Power Button:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Power Off</li> </ul>	[Disabled]	Selecting Disabled disables the power button. Selecting Power Off allows you to turn off system power with the power button.
Wake up on LAN:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Selecting Enabled allows the system to wake up when the internal LAN device receives a signal while in power-off state. Select Disabled to disables the feature.
Force LAN Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	This is only active when Wake up on Lan: is enabled. When enabled, the system will attempt to boot up from the LAN before attempting to boot from any other device. This occurs regardless of the BIOS boot priority settings or if Preboot Execution Environment is disabled.
Volume Setting:	<ul style="list-style-type: none"> <li>▪ Off</li> <li>▪ Minimum</li> <li>▪ Middle</li> <li>▪ Maximum</li> </ul>	[Middle]	Allows you to set or disable the system volume level. Note that once the operating system initializes, the volume settings will be determined by the OS volume settings.
UMA Video Memory Size:	<ul style="list-style-type: none"> <li>▪ 64MB</li> <li>▪ 128MB</li> <li>▪ 224MB</li> </ul>	[128MB]	Maximum size allocated for shared video memory. Video memory is dynamically allocated as needed by Intel(R) Dynamic Video Memory Technology (DVMT).

## Event Logging Submenu of the Advanced Menu

The Event Logging Submenu configures event logging features for DMI events.

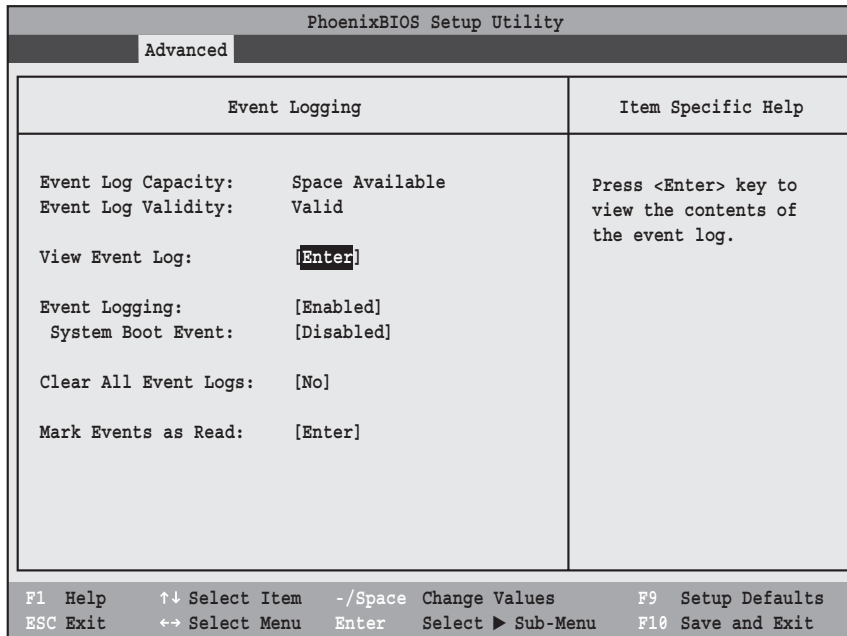


Figure 11. Event Logging Submenu

Table 11: Fields, Options and Defaults for the Event Logging Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Event Log Capacity:		Space Available	Display only
Event Log Validity:		Valid	Display only
View Event Log:	<ul style="list-style-type: none"> <li>▪ Enter</li> </ul>	[Enter]	Allows you to view content of event log
Event Logging:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	<ul style="list-style-type: none"> <li>▪ No</li> <li>▪ Yes</li> </ul>	[No]	When set to [Yes] all event logs will be cleared at next boot.
Mark Events as Read:	<ul style="list-style-type: none"> <li>▪ Enter</li> </ul>	[Enter]	Allows you to mark all events currently in the event log as having been read.

## SECURITY MENU – SETTING THE SECURITY FEATURES

The Security menu allows you to set up the data security features of your notebook to fit your operating needs and to view the current security configuration. Follow the instructions for navigating through the Setup Utility to make any changes. (See *Navigating through the Setup Utility on page 2 for more information.*)

The following tables show the names of the menu fields for the Security menu and its submenus, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use. The default condition is no passwords required and no write protection.



If you set a password, write it down and keep it in a safe place. If you forget the password you will have to contact your support representative to regain access to your secured functions and data.



- If you make an error when re-entering the password a [Warning] will be displayed on the screen. To try again press the Enter key and then retype the password. Press the Esc key to abort the password setting process.
- Entering a password incorrectly 3 times in a row will cause the keyboard and mouse to be locked out and the warning [System Disabled] to be displayed. If this happens restart the computer by turning off and on the power with the power switch and use the correct password on reboot.
- If the Power Management Security is Enabled and the Password on Boot is Disabled you will not have to type your password upon resuming the system from the Standby or Hibernate modes. Power Management Security will work only if Password boot is enabled.

PhoenixBIOS Setup Utility			
Main	Advanced	Security	Boot Info Exit
Supervisor Password Is:	Clear		<b>Item Specific Help</b>  Press <Enter> key to set Supervisor Password to enable any password features.  Then password entry is required to enter BIOS Setup.
User Password Is:	Clear		
Set Supervisor Password	[Enter]		
Set User Password	[Enter]		
Minimum User Password Length:	[0]		
Password on Boot:	[Disabled]		
On Automatic Wake up:	[Disabled]		
KB Lock on Resume:	[Disabled]		
Boot from Removable Media:	[All]		
Flash Write:	[Enabled]		
▶ Hard Disk Security			
▶ Owner Information			
F1 Help    ↑↓ Select Item    -/Space Change Values    F9 Setup Defaults ESC Exit    ←→ Select Menu    Enter Select ▶ Sub-Menu    F10 Save and Exit			

Figure 12. Security Menu

**Table 12: Fields, Options and Defaults for the Security Menu**

Menu Field	Options	Default	Description
Supervisor Password is:	—	Clear	A display-only field. Set is displayed when the system supervisor password is set and Clear when it is not.
User Password is:	—	Clear	A display-only field. Set is displayed when the general user password is set, and Clear when it is not.
Set Supervisor Password	—	[Enter]	Sets, changes or cancels the Supervisor Password. Supervisor's Password may be up to seven characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Supervisor Password is set it must be used to access the BIOS setup utility.
Set User Password	—	[Enter]	This field can only be accessed if the Supervisor Password is set. Sets, changes or cancels the User Password. The User Password may be up to seven characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a User Password is set it must be used to access the BIOS setup utility.
Minimum User Password Length:	—	[0]	Supervisor can set password length (0 to 8) for user password. User cannot set a password shorter than the minimum length.
Password on Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ First Boot</li> <li>▪ Every Boot</li> </ul>	[Disabled]	When set to First Boot, a password (User or Supervisor) is required just once after the Power On Self Test (POST) before the operating system will be read from a disk. When set to Every Boot, a password (User or Supervisor) is required every time after the Power On Self Test (POST) before the operating system will be read from a disk. When set to Disabled no password is required.
On Automatic Wake up:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	When set to Disabled, it is not necessary to enter a password to wake up from LAN or Real Time Clock (RTC). When Enabled, it is still necessary to enter a password after automatic wake-up.
KB Lock on Resume:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	When set to Enabled, the PS/2 mouse and keyboard inputs are locked out upon Resume from Standby or Hibernate mode until you enter the password. When set to Disabled no password is required. If no Supervisor Password is set, this feature is not available and no password is required.
Boot from Removable Media:	<ul style="list-style-type: none"> <li>▪ All</li> <li>▪ Supervisor only</li> </ul>	[All]	When All is selected, booting from removable media is not restricted. When Supervisor Only is selected, only the Supervisor (i.e., the user who enters Supervisor password), can boot from removable media.
Flash Write:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When set to [Disabled], the BIOS Flash memory is write protected.
Hard Disk Security:	—	—	Configures hard disk security features
Owner Information:	—	—	Sets Owner information.

### Exiting from the Security Menu

When you have finished setting the parameters on the Security Menu, you can either exit from setup utility or move to another menu. If you wish to exit from setup utility, press the Esc key to go to the Exit Menu. If you wish to move to another menu, use the cursor keys.

## Hard Disk Security Submenu of the Security Menu

The Hard Disk Security Submenu is for configuring hard disk security features.

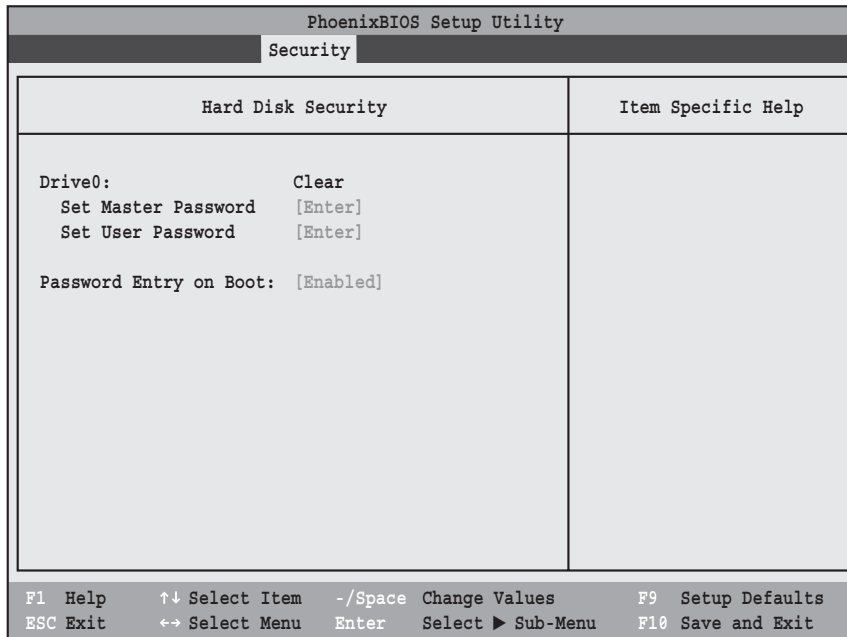


Figure 13. Hard Disk Security Submenu

Table 13: Fields, Options and Defaults for the Hard Disk Security Submenu of the Security Menu

Menu Field	Options	Default	Description
Drive0:	---	Clear	The default is Clear. When the Drive0 Password has been set in the field below, the field changes to Set.
Set Master Password:	---	[Enter]	When the Master Password has been set, the field can be changed. When enabled, the hard disk is locked with the password. Data in the locked disk cannot be read on any systems other than the original system on which it is locked or systems that have the identical password setting.
Set User Password	---	[Enter]	When the User Password has been set, the field can be changed. When enabled, the hard disk is locked with the password. Data in the locked disk cannot be read on any systems other than the original system on which it is locked or systems that have the identical password setting.
Password Entry on Boot:	<ul style="list-style-type: none"> <li>■ Disabled</li> <li>■ Enabled</li> </ul>	[Enabled]	When disabled, the master password entry is not required before booting the operating system, but the hard disk is still password-protected without password entry.

### Owner Information Submenu of the Security Menu

The Owner Information Submenu is for setting owner information. Note that the owner information cannot be set without having entered a Supervisor password.

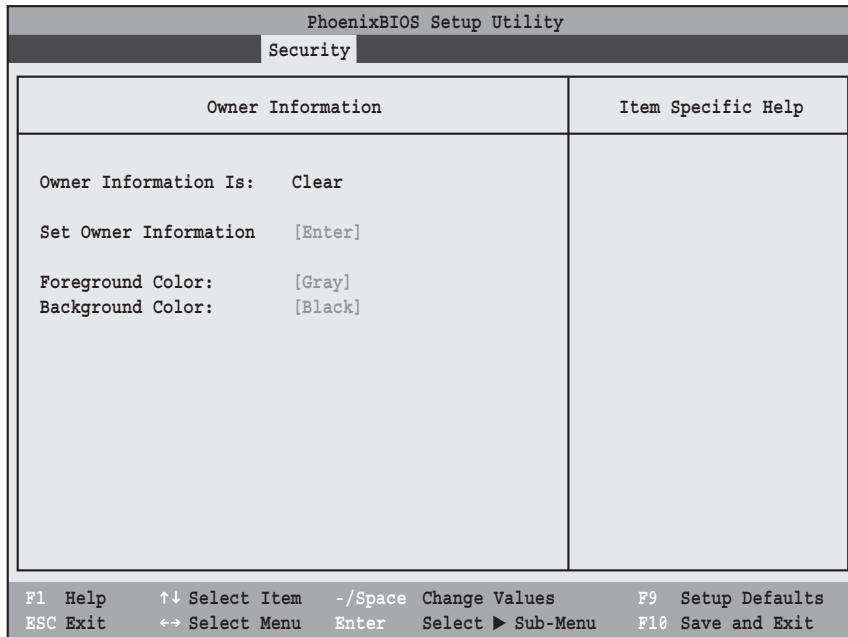


Figure 14. Owner Information Submenu

Table 14: Fields, Options and Defaults for the Owner Information Submenu of the Security Menu

Menu Field	Options	Default	Description
Owner Information Is:	—	Clear	Display only.
Set Owner Information:	—	[Enter]	Field to write owner information, (i.e., name).
Foreground Color:	<ul style="list-style-type: none"> <li>▪ Black</li> <li>▪ Blue</li> <li>▪ Green</li> <li>▪ Cyan</li> <li>▪ Red</li> <li>▪ Magenta</li> <li>▪ Brown</li> <li>▪ White</li> <li>▪ Gray</li> <li>▪ Light Blue</li> <li>▪ Light Green</li> <li>▪ Light Cyan</li> <li>▪ Light Red</li> <li>▪ Light Magenta</li> <li>▪ Yellow</li> <li>▪ Bright White</li> </ul>	[Gray]	Set foreground color.
Background Color:	<ul style="list-style-type: none"> <li>▪ Black</li> <li>▪ Blue</li> <li>▪ Green</li> <li>▪ Cyan</li> <li>▪ Red</li> <li>▪ Magenta</li> <li>▪ Brown</li> <li>▪ White</li> <li>▪ Gray</li> <li>▪ Light Blue</li> <li>▪ Light Green</li> <li>▪ Light Cyan</li> <li>▪ Light Red</li> <li>▪ Light Magenta</li> <li>▪ Yellow</li> <li>▪ Bright White</li> </ul>	[Black]	Set background color.

## BOOT MENU – SELECTING THE OPERATING SYSTEM SOURCE

The Boot Menu is used to select the order in which the BIOS searches sources for the operating system. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating through the Setup Utility on page 2 for more information.*)

The following tables show the names of the menu fields for the Boot menu and its submenu, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.

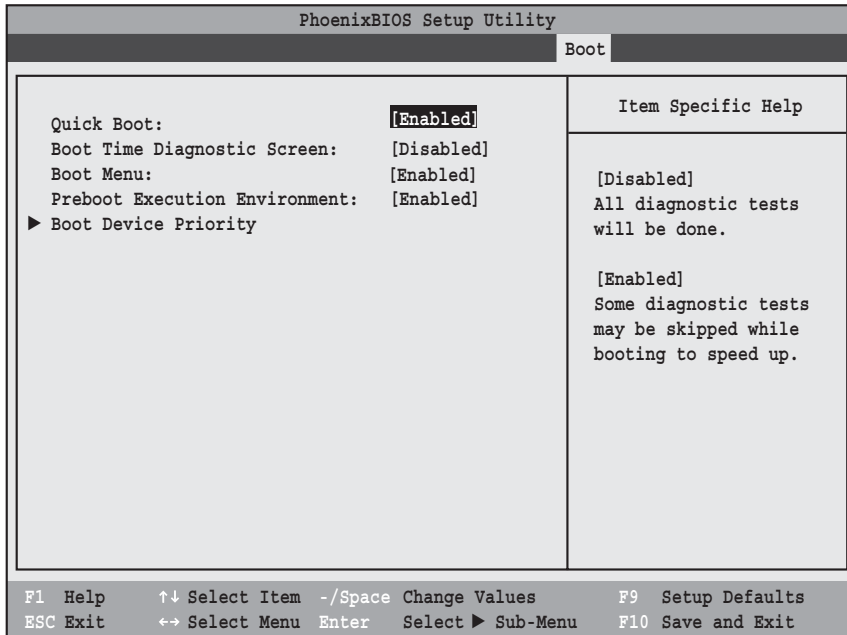


Figure 15. Boot Menu

Table 15: Fields, Options and Defaults for the Boot Menu

Menu Field	Options	Default	Description
QuickBoot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Turns on and off booting with a truncated set of Power On Self Test. (Fewer tests mean faster booting.)
Boot-time Diagnostic Screen:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Turns on and off display of test results instead of Fujitsu logo screen during Power On Self Test.
Boot Menu:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	This field is not active unless the Supervisor's Password has been set. When disabled, access to the Boot Menu with the [F12] key is disabled. When enabled, the Boot Menu is enabled and the [F12] key will allow you to display it.
Preboot Execution Environment:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Turns on and off the preboot execution environment feature.
Boot Device Priority	—	—	This menu allows setting up the source for the operating system. See "The Boot Device Priority Submenu" in the following section.

## Boot Device Priority Submenu of the Boot Menu

The Boot Device Priority Submenu is for setting the order of checking of sources for the operating system.

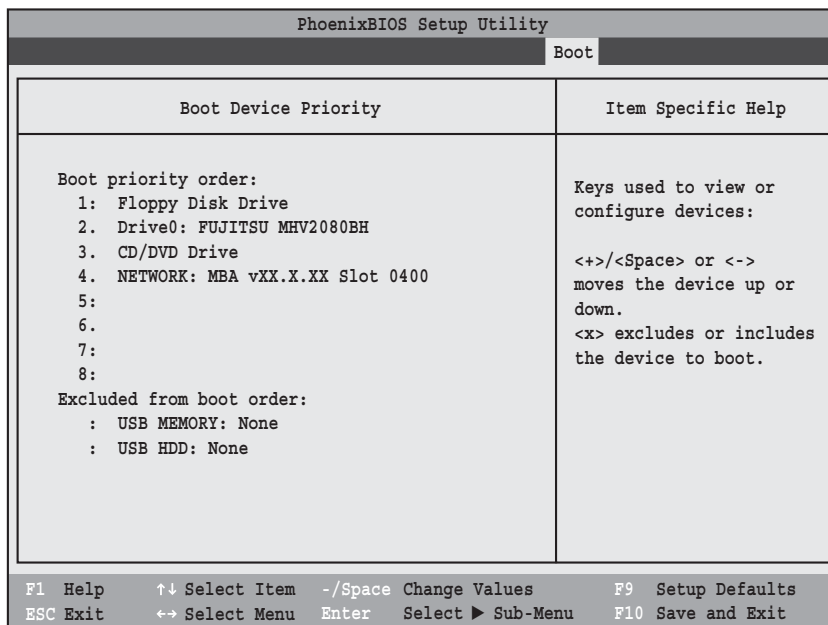


Figure 16. Boot Device Priority Submenu



- Be aware of the operating environment when booting from a CD-ROM/DVD-ROM or you may overwrite files by mistake.
- A bootable CD-ROM/DVD-ROM has either a floppy disk format or a hard drive format. When the bootable CD-ROM/DVD-ROM is used, the drive allocations change automatically without changing the BIOS setup. If a floppy disk format is used, the CD-ROM/DVD-ROM becomes Drive A. The CD-ROM/DVD-ROM will only take drive C: (hard drive format) if the internal hard drive is not present or is disabled. The bootable CD-ROM/DVD-ROM can never use a C: designation if a formatted internal hard drive is present since the C: designator is always reserved for the internal hard drive. The boot sequence ignores the new drive designations, however, your application software will use the new designations.

Table 16: Fields, Options and Defaults for the Boot Device Priority Submenu of the Boot Menu

Menu Field	Description
1; Floppy Disk Drive 2: Drive0 3: CD/DVD Drive 4: NETWORK 5: 6: 7: 8: Excluded from boot order: : USB MEMORY: None : USB HDD: None	The boot selections determine the order in which the BIOS searches for the operating system during a startup sequence. To change the order, highlight one source by using the [up] or [down] cursor keys and then press the [+] or [-] key to change the order number. The selections that appear above may be different for your system, depending upon configuration.  NOTE: Be aware that if you use the CD-ROM drive as the first boot device, certain files may be overwritten, depending upon your operating environment.



### **Exiting from Boot Menu**

When you have finished setting the boot parameters with the Boot menu, you can either exit from the setup utility or move to another menu. If you wish to exit from the setup utility press the Esc key to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

## INFO MENU - DISPLAYS BASIC SYSTEM INFORMATION

The Info menu is a display only screens that provides the configuration information for your notebook.

The following table shows the names of the menu fields for the Info menu and the information displayed in those fields. These fields are for information purposes only, and cannot be modified by the user.



The information, including CPU type and speed, and total memory, displayed on this screen varies according to the unit you purchased.

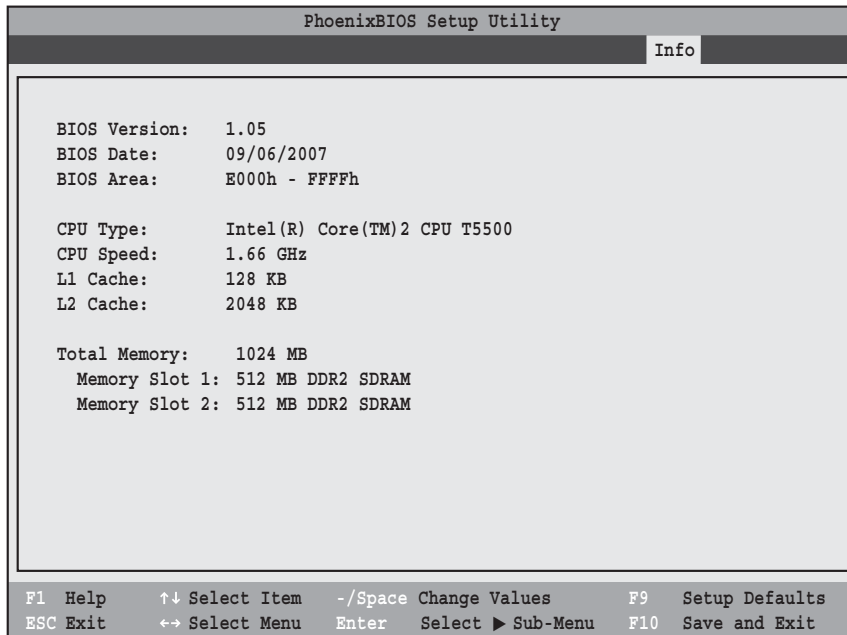


Figure 17. Info Menu

**Table 17: Fields, Options and Defaults for the Info Menu**

Note that the parameters listed in the following table may be different, depending upon the system configuration.

Menu Field	Default	Menu Field	Default
BIOS Version:	X.XX	L1 Cache:	128 KB
BIOS Date:	XX/XX/XXXX	L2 Cache:	2048 KB
BIOS Area:	E000h – FFFFh	Total Memory:	1024 MB
CPU Type:	Genuine Intel(R) Core(TM)2 CPU T5500	Memory Slot 1:	512 MB DDR2 SDRAM
CPU Speed:	1.66 GHz	Memory Slot 2:	512 MB DDR2 SDRAM

## EXIT MENU – LEAVING THE SETUP UTILITY

The Exit Menu is used to leave the setup utility. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating through the Setup Utility* on page 2 for more information.)

The following table shows the names of the menu fields for the Exit menu, the default settings and a description of the field's function and any special information needed to help understand the field's use.

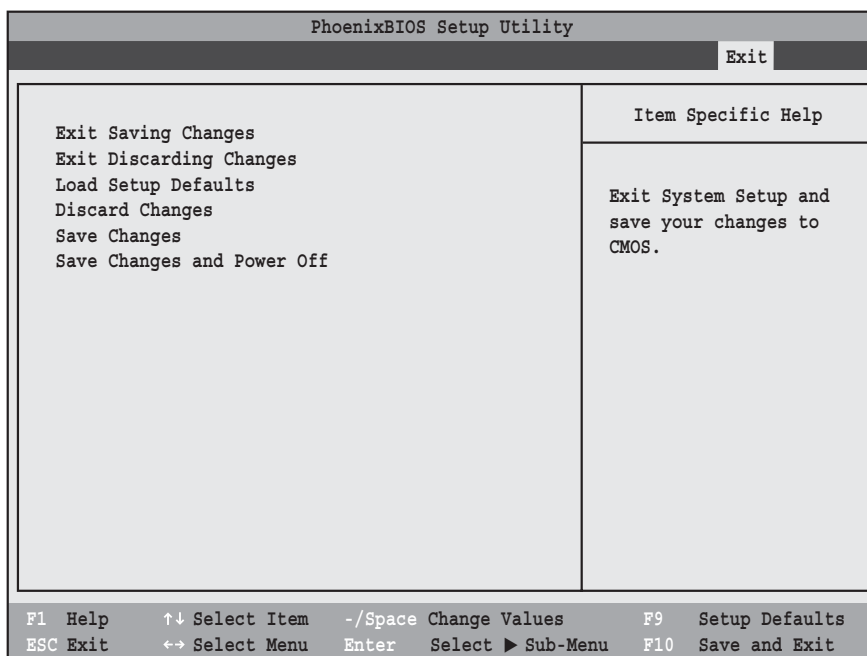


Figure 18. Exit Menu

Table 18: Fields, Options and Defaults for the Exit Menu

Menu Field	Description
Exit Saving Changes	Exit Saving Changes will store the entries on all setup utility menus to the BIOS memory and then exit the setup utility. A confirmation message Save Configuration changes and exit now? [Yes] [No] will be displayed.
Exit Discarding Changes	Selecting Exit Discarding Changes will exit the setup utility with out writing to the BIOS memory. When the BIOS recognizes this selection it will load the operating system and begin operation.
Load Setup Defaults	Selecting Load Setup Defaults will load the factory preset default values for all menu fields, then display the message Load default configuration now? [Yes] [No]. When confirmed the setup utility will return to the Exit Menu. To return to another menu follow the directions in the Navigating Through the Setup Utility Section.

**Table 18: Fields, Options and Defaults for the Exit Menu**

Menu Field	Description
Discard Changes	Selecting Discard Changes will load the previous values in BIOS memory for all menu fields. The message Load previous now? [Yes] [No] will be displayed. When confirmed the setup utility will return to the Exit menu. To return to another menu, follow the directions in the Navigating Through the Setup Utility Section.
Save Changes	Selecting Save Changes will cause the new settings in all menus to be written to the BIOS memory. The message Save configuration changes now? [Yes] [No] will be displayed. When confirmed, the setup utility will return to the Exit menu. To return to another menu, follow the directions in the Navigating Through the Setup Utility section.
Save Changes and Power Off	Selecting Save Changes and Power Off will cause the new settings in all menus to be written to the BIOS memory, after which the system will power itself off. The message Save configuration changes and power off now? [Yes] [No] will be displayed. When confirmed, the setup utility save the settings and the system will power off.