

# Fujitsu LifeBook

## C Series

### **BIOS Guide**

LifeBook C Series Model:

C2330

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**FUJITSU COMPUTER SYSTEMS**

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# C 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:

1. Turn on or restart your notebook.
2. Press the [F2] key 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 and left arrow keys to scroll through the other setup menus to review or alter the current settings.

### Navigating through the Setup Utility

The BIOS setup utility consists of six menus: Main, Advanced, Security, Boot, Info, 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 higher selection and [F5] or [-] to go to the next lower selection.
4. To activate a submenu press [Enter].
5. To return to a menu from a submenu, press [Esc].
6. To go to the Exit menu from any other menu, press [Esc].



- 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.

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 match 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, you will have an opportunity to modify the settings of the utility, 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:  

```
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 of your 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 loaded.

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 Main 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.

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.

*\*Note that actual drive labels shown may vary.*



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 double-click on the time in the system tray at the bottom right of the screen.

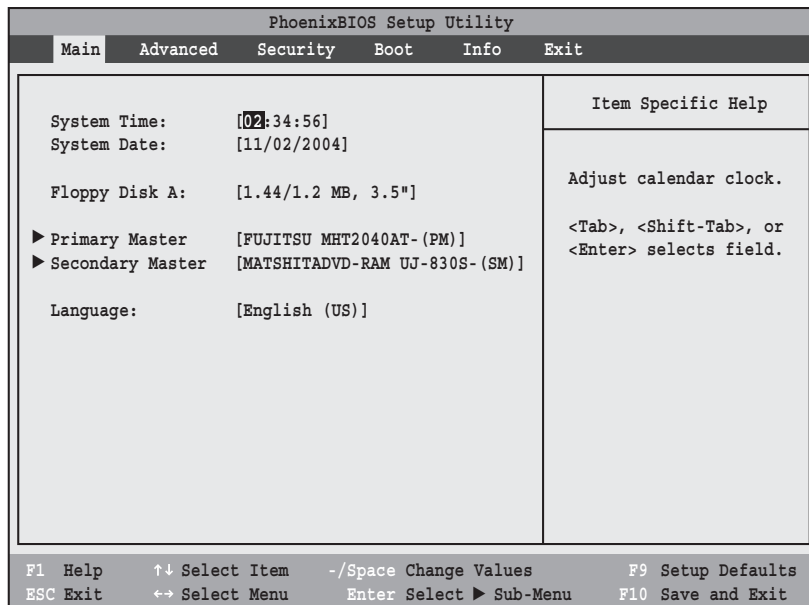


Figure 1. Main Menu

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

Note that the parameters listed below may differ, as determined by your system 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.

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

Note that the parameters listed below may differ, as determined by your system configuration.

Menu Field	Options	Default	Description
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: 10/16/2001. You may change each segment of the date separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.
Floppy Disk A:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• [1.44/1.2 MB 3.5"]</li> </ul>	[1.44/1.2 MB 3.5"]	Enables or disables a floppy disk drive.
Primary Master:	Selects Primary Master submenu	The product # of the Hard Drive	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Primary Master submenu allowing additional device configuration options for this interface.
Secondary Master:	Selects Secondary Master submenu	The product number of the optical drive	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Secondary Master 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.

## Primary Master Submenu of the Main Menu

The Primary Master submenu identifies what ATA devices are installed.

*\*Note that actual hard drive label shown may vary. Depending on the drive type, information such as cylinders, heads and sectors may also be displayed.*

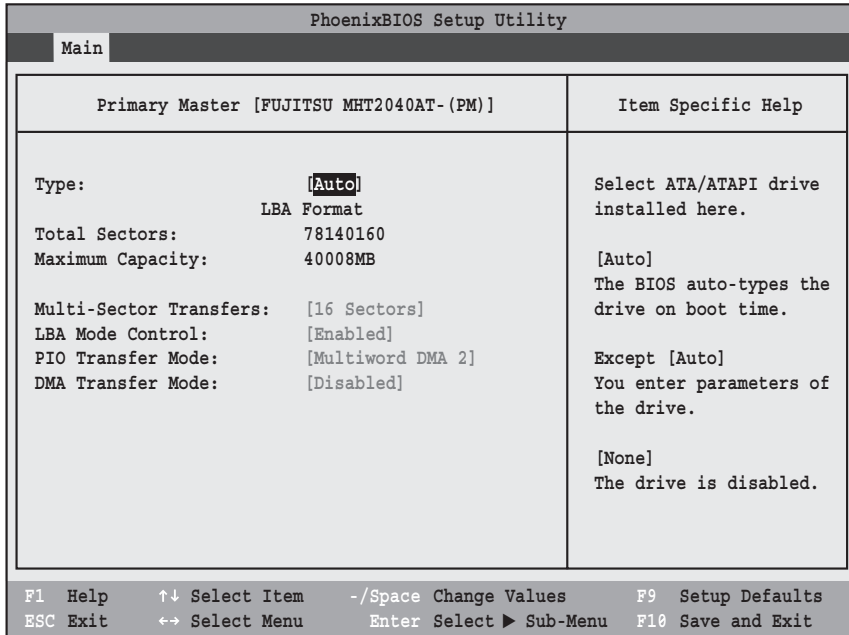


Figure 2. Primary Master Submenu

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

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> <li>Auto</li> <li>None</li> <li>CD-ROM</li> <li>Hard Disk</li> </ul>	[Auto]	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. Select CD-ROM if a CD-ROM drive is installed at this connection. If Hard Disk is selected, you must specify the number of Cylinders, Heads, and Sectors for the drive.
CHS Format (Cylinders, Heads, Sectors)			
Cylinders:	<ul style="list-style-type: none"> <li>A number between 0 and 65,535</li> </ul>	—	This appears only when Hard Disk is selected. When Hard Disk is selected, you can change the value. This field is incremented by pressing the [Spacebar]. This field is decremented by pressing the [-] key. You can also change the field by typing in the number.
Heads:	<ul style="list-style-type: none"> <li>A number between 1 and 16</li> </ul>	—	This appears only when Hard Disk is selected. When it is selected, you can change the value. This field is incremented by pressing the [Spacebar]. This field is decremented by pressing the [-] key. The field can also be changed by typing in the number.

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

Menu Field	Options	Default	Description
Sectors:	<ul style="list-style-type: none"> <li>A number between 0 and 63</li> </ul>	—	This appears only when Hard Disk is selected. When it is selected, you can change the value. This field is incremented by pressing the [Spacebar]. This field is decremented by pressing the [-] key. The field can also be changed by typing in the number.
Maximum Capacity:	<ul style="list-style-type: none"> <li>Display only</li> </ul>	—	Displays the maximum capacity of the drive calculated from the parameters of the hard disk when Hard Disk is selected.
LBA Format (Logical Block Addressing)			
Total Sectors:	—	—	The total number of sectors on your hard disk.
Maximum Capacity	—	—	The maximum capacity of your hard disk.
CHS and LBA Formats			
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>	[16 Sectors]	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>	[Enabled]	Enables or disables Logical Block Addressing in place of Cylinder, Head, Sector addressing. This can't be changed when Auto is selected.
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>	[Multiword DMA 2]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.
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]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.



A bootable CD-ROM may have a floppy disk format or a hard drive format. When the bootable CD-ROM is used, the drive allocations change automatically without changing the BIOS setup. If a floppy disk format CD-ROM is used, the CD-ROM becomes Drive A. The CD-ROM will only take Drive C: (hard drive format) if the internal hard drive is not present or is disabled. The bootable CD-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, but your application software will use the new designations.

Be careful of the operating environment when booting from a CD-ROM or you may overwrite files by mistake.

## Secondary Master Submenu of the Main Menu

The Secondary Master submenu is for the internal CD-ROM drive. The drive type is displayed on this menu as well as the Main menu. Your notebook auto-senses the characteristics of the internal CD-ROM Drive installed. You will not need to modify these settings; they are displayed for your reference. Note that actual drive labels shown may vary.

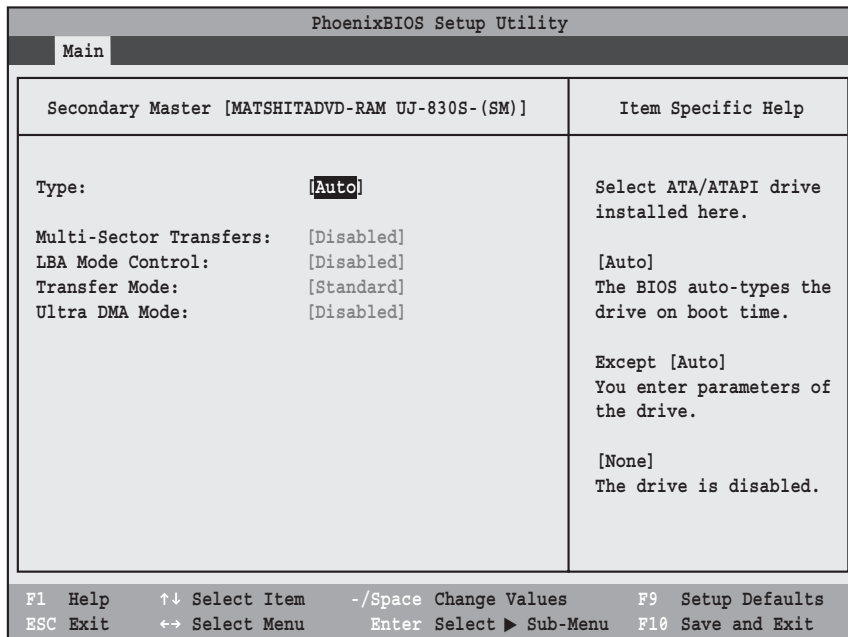


Figure 3. Primary Slave Submenu

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

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> <li>• Auto</li> <li>• None</li> <li>• CD-ROM</li> <li>• Hard Disk</li> </ul>	[Auto]	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. Select CD-ROM or Hard Disk for appropriate drive type installed at this connection.
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 Primary Slave 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]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.
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]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.

### Exiting from Main Menu

When you have finished setting the parameters on this 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 or use the cursor keys to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

## ADVANCED MENU – SETTING DEVICE FEATURE CONTROLS

The Advanced Menu allows you to:

- Set the I/O addresses for the ports.
- Set the communication mode for the parallel and infrared ports.
- Set the features of the keyboard/mouse.
- Select between the display panel and an external CRT display.
- Configure IDE devices in your system.
- Configure CPU features.
- Configure USB features.
- Configure the power button.
- View DMI Event Logging

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

[See Navigating through the Setup Utility for more information.](#)

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.

Note that not all fields appear in all configurations; the fields that appear are dependent upon the system CPU.

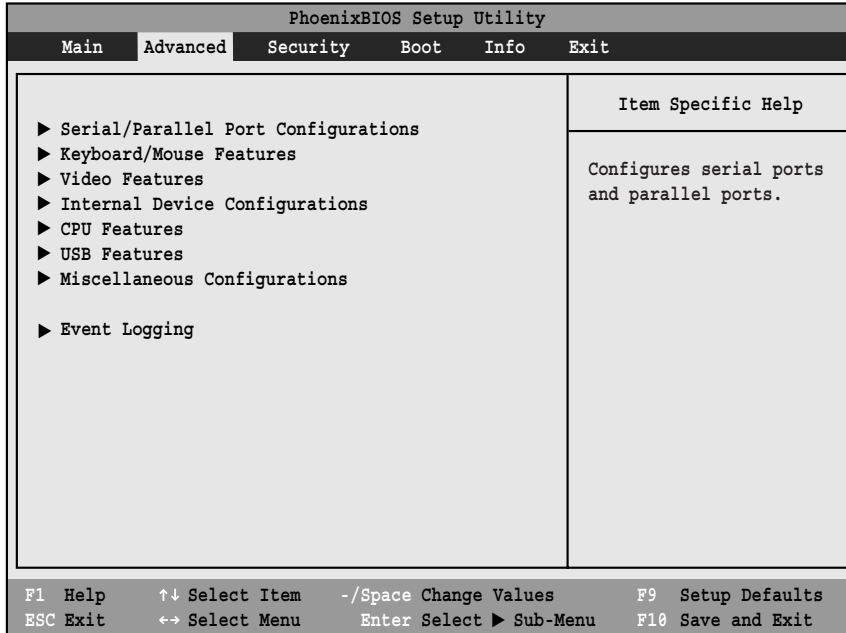


Figure 4. Advanced Menu

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

Menu Field	Description
Serial/Parallel Port Configurations	When selected, opens the Serial/Parallel Port Configurations submenu which allows the user to modify settings for the infrared and parallel ports.
Keyboard/Mouse Features	When selected, opens the Keyboard/Mouse Features submenu, which enables and disables the power-on state for [NumLock].
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 IDE Controller.
CPU Features	When selected, opens the CPU Features submenu, which allows enabling or disabling the SpeedStep™ Technology feature for optimal battery life.
USB Features	When selected, opens the USB Features submenu, which allows enabling or disabling of Legacy Floppy Emulation.
Miscellaneous Configurations	When selected, opens the Miscellaneous Configurations submenu, which allows you to configure the power button.
Event Logging	When selected, opens the event logging submenu.

## Serial/Parallel Port Configuration Submenu of the Advanced Menu

The Serial/Parallel Port Configuration submenu provides the ability to set the I/O addresses and interrupt levels for the serial (infrared) and parallel ports of your notebook.



I/O addresses, DMA channels, and Interrupt levels can be entered in various ways, including via the BIOS setup utility, the control software for the I/O device, or the hardware. If any two ports or devices have the same I/O address assigned, your notebook will not function normally.



- To prevent IRQ and address conflicts, avoid changing the default settings. If you must change the settings, you can call 1-800-8FUJITSU for technical assistance.
- The BIOS will warn you of a resource conflict by placing a yellow asterisk next to each device that is in conflict.
- All I/O addresses in Table 5 are in hexadecimal.

PhoenixBIOS Setup Utility		
Advanced		
Serial/Parallel Port Configurations		Item Specific Help
Serial Port:	<b>Enabled</b>	[Disabled]
I/O Address:	[3F8 - 3FF]	The port is disabled.
Interrupt:	[IRQ 4]	
Infrared Port:	[Enabled]	[Enabled]
Mode:	[FIR]	The port is enabled with user configuration.
I/O Address:	[2E8 - 2EF]	
Interrupt:	[IRQ 3]	
I/O Address:	[400 - 43F]	[Auto]
DMA Channel:	[DMA 3]	Plug & Play OS
Parallel Port:	[Enabled]	configure the port.
Mode:	[Bi-directional]	
I/O Address:	[378-37F]	
Interrupt:	[IRQ 7]	

F1 Help	↑↓ Select Item	-/Space Change Values	F9 Setup Defaults
ESC Exit	↔ Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit

Figure 5. Serial/Parallel Port Configuration Submenu

**Table 5: Fields, Options and Defaults for the Port Configuration Submenu of the Advanced Menu**

Menu Field	Options	Default	Description
Serial Port:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> <li>• Auto</li> </ul>	[Enabled]	When [Enabled] is selected, the port is on. When [Disabled] is selected, the serial port is turned off. When [Auto] is selected, the Plug & Play feature configures the port. Note that for systems running Windows XP, this legacy port is not supported without additional device-specific drivers.
I/O Address:	<ul style="list-style-type: none"> <li>• 3F8 - 3FF</li> <li>• 2F8 - 2FF</li> <li>• 3E8 - 3EF</li> <li>• 2E8 - 2EF</li> </ul>	[3F8 - 3FF]	Select the I/O address for the serial port. (Note that if there is a conflict between the port interrupts or addresses, asterisks will appear adjacent to the affected port names to alert you to the fact. In that case, make a different selection.)
Interrupt:	<ul style="list-style-type: none"> <li>• IRQ 3</li> <li>• IRQ 4</li> <li>• IRQ 10</li> <li>• IRQ 11</li> </ul>	[IRQ 4]	Allows user to set the infrared port base I/O address when the serial port is Enabled. (Note that if there is a conflict between the port interrupts or addresses, asterisks will appear adjacent to the affected port names to alert you to the fact. In that case, make a different selection.)
Infrared Port:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> <li>• Auto</li> </ul>	[Enabled]	When Disabled, the infrared port is off; when Enabled, the infrared port is on. When Auto is selected, the Plug & Play operating system configures the port.
Mode:	<ul style="list-style-type: none"> <li>• IrDA</li> <li>• FIR</li> </ul>	[FIR]	Select the mode for the infrared port: Infrared or Fast Infrared.
I/O Address:	<ul style="list-style-type: none"> <li>• 3F8 - 3FF</li> <li>• 2F8 - 2FF</li> <li>• 3E8 - 3EF</li> <li>• 2E8 - 2EF</li> </ul>	[2E8 - 2EF]	Allows user to set the infrared port base I/O address when the infrared port is Enabled. (Note that if there is a conflict between the port interrupts or addresses, asterisks will appear adjacent to the affected port names to alert you to the fact. In that case, make a different selection.)
Interrupt:	<ul style="list-style-type: none"> <li>• IRQ 3</li> <li>• IRQ 4</li> <li>• IRQ 10</li> <li>• IRQ 11</li> </ul>	[IRQ 3]	Allows user to set the infrared port interrupt when the infrared port is Enabled. (Note that if there is a conflict between the port interrupts or addresses, asterisks will appear adjacent to the affected port names to alert you to the fact. In that case, make a different selection.)

**Table 5: Fields, Options and Defaults for the Port Configuration Submenu of the Advanced Menu**

Menu Field	Options	Default	Description
I/O Address:	<ul style="list-style-type: none"> <li>• 400 - 43F</li> <li>• 480 - 4BF</li> <li>• 500 - 53F</li> <li>• 580 - 5BF</li> </ul>	[400 - 43F]	<p>Allows user to set the infrared port base I/O address when the Fast Infrared (FIR) port is Enabled.</p> <p>(Note that if there is a conflict between the port interrupts or addresses, asterisks will appear adjacent to the affected port names to alert you to the fact. In that case, make a different selection.)</p>
DMA Channel:	<ul style="list-style-type: none"> <li>• DMA 1</li> <li>• DMA 3</li> </ul>	[DMA 3]	Select the direct memory access channel for fast infrared (FIR).
Parallel Port:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> <li>• Auto</li> </ul>	[Enabled]	Configures the parallel port using either no configuration (Disabled), a user defined configuration (Enabled), or by allowing the BIOS or OS to choose the configuration (Auto).
Mode:	<ul style="list-style-type: none"> <li>• Output Only</li> <li>• Bi-directional</li> <li>• ECP</li> </ul>	[Bi-directional]	When the parallel port is enabled this option is available allowing the user to set the mode for the parallel port. Bi-directional allows two-way transfer of information between your notebook and a connected parallel device. Output Only (Half Duplex) allows information to be transferred in only one direction, from your notebook to the printer or similar device. ECP Mode allows communication with the ECP class of parallel I/O devices. Check your device documentation for the proper setting.
I/O address:	<ul style="list-style-type: none"> <li>• 378 - 37F</li> <li>• 278 - 27F</li> <li>• 3BC - 3BF</li> </ul>	[378 - 37F]	Allows user to set the parallel port base I/O address when the parallel port is Enabled.
Interrupt:	<ul style="list-style-type: none"> <li>• IRQ 5</li> <li>• IRQ 7</li> </ul>	[IRQ 7]	Allows user to set the parallel port interrupt when the parallel port is Enabled.

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

The Keyboard/Mouse Features submenu is for selecting the power-on state for the NumLock key.

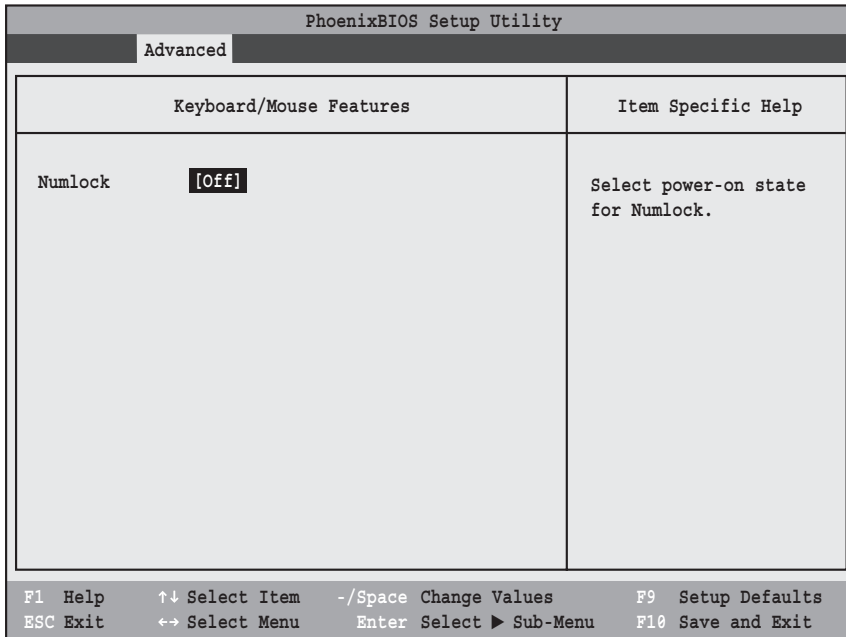


Figure 6. Keyboard/Mouse Features Submenu

Table 6: Fields, Options and Defaults for the Keyboard/Mouse 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 choosing the display.

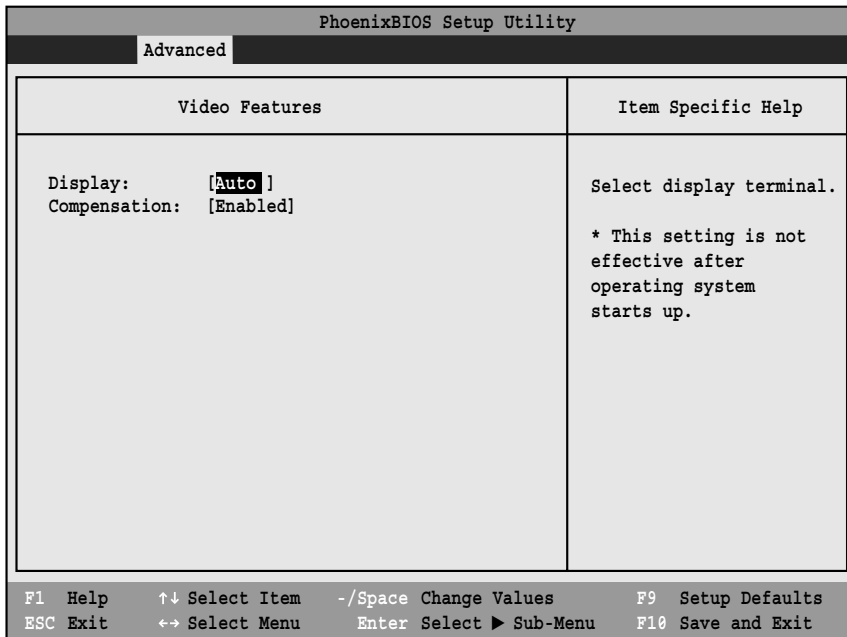


Figure 7. Video Features Submenu

Table 7: 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.
Compensation:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> </ul>	[Enabled]	Enables or disables video compensation.



### Internal Device Configurations Submenu of the Advanced Menu

The Internal Device Configurations submenu allows the user to enable or disable Primary and/or Secondary IDE ports, Modem Controller, and Wireless LAN module.

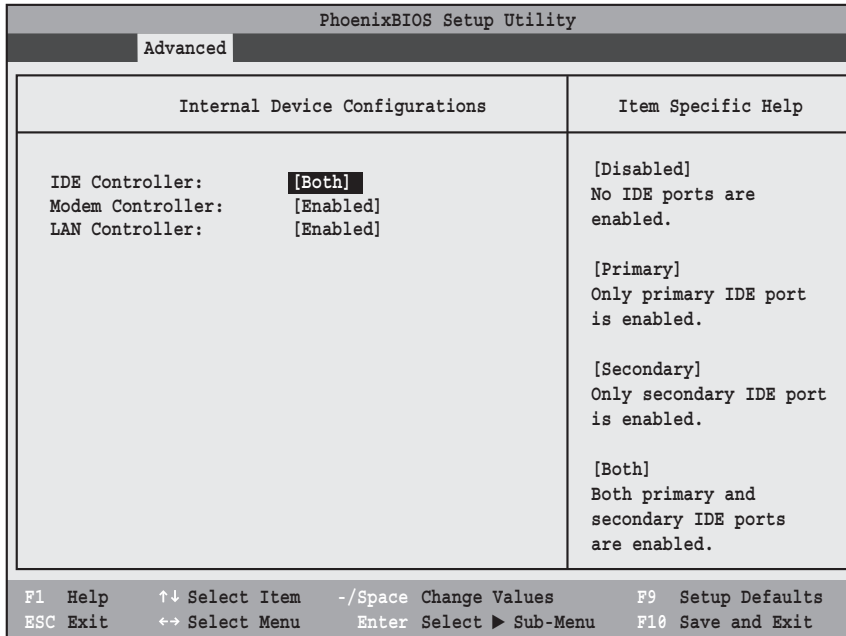


Figure 8. Internal Device Configuration Submenu

Table 8: Fields, Options and Defaults for the Internal Device Configuration Submenu of the Advanced Menu

Menu Field	Options	Default	Description
IDE Controller:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Primary</li> <li>• Secondary</li> <li>• Both</li> </ul>	[Both]	Enables or disables IDE controllers.
Modem Controller:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> </ul>	[Enabled]	Enables or disables the modem.
LAN Controller:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> </ul>	[Enabled]	Enables or disables the LAN device.

## CPU Features Submenu of the Advanced Menu

The CPU Features Submenu configures the system processor. Note that this submenu only appears in certain configurations, based upon the system CPU.

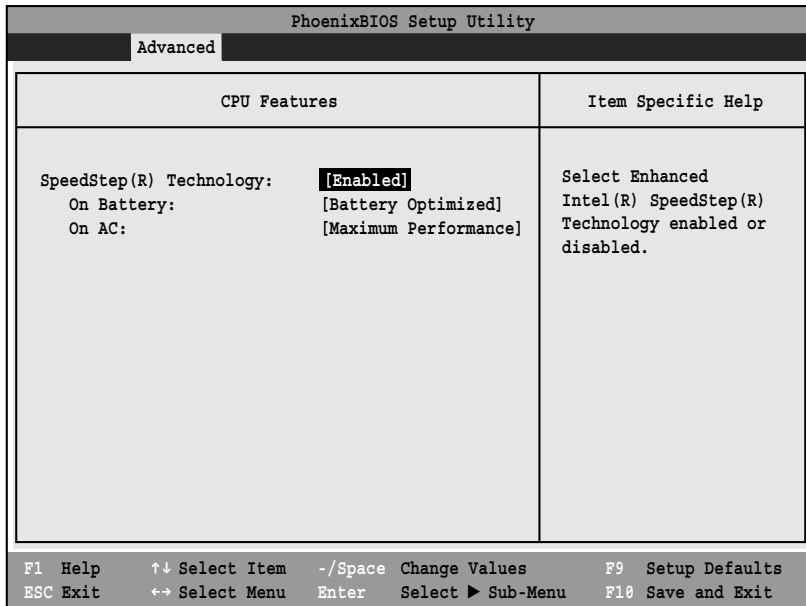


Figure 9. CPU Features Submenu

Menu Field	Options	Default	Description
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, the 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, the CPU speed is determined by the power source used.

## USB Features Submenu of the Advanced Menu

The USB Features Submenu allows for the enabling or disabling of SCSI SubClass support, thus enabling support for USB mass storage devices that belong to the SCSI SubClass. Examples of such devices include USB memory keys and floppy drives.

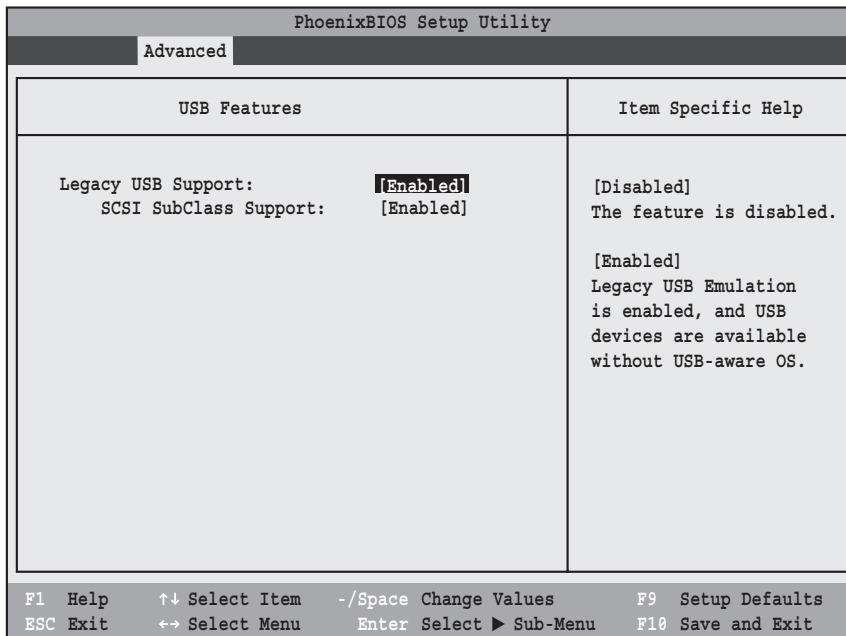


Figure 10. USB Features Submenu

Table 10: 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 USB devices are available without a USB-aware OS. When Disabled is selected, Legacy USB Emulation 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 configures the power button.

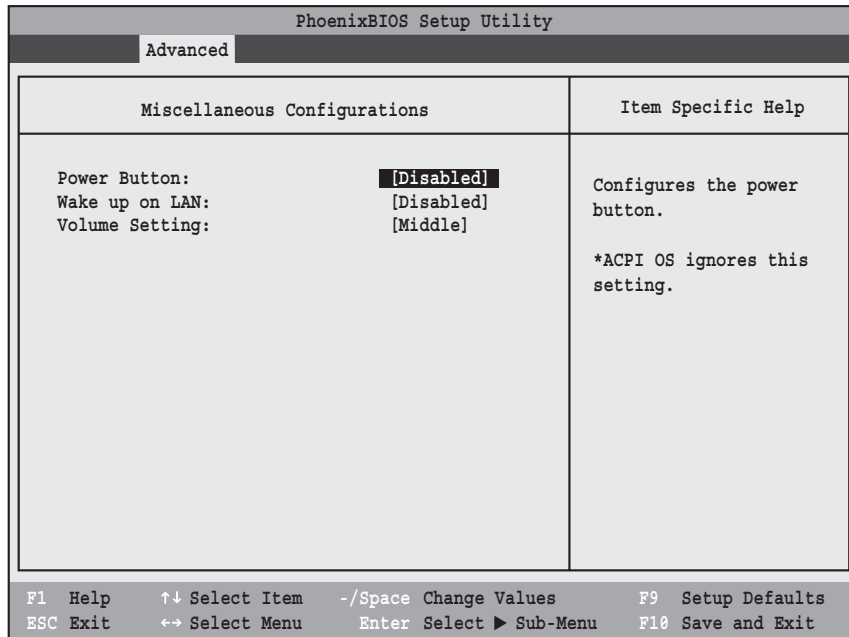


Figure 11. Miscellaneous Configurations Submenu

Table 11: Fields, Options and Defaults for the Miscellaneous Configuration 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]	When Disabled is selected, the power button does not control power. When Power Off is selected, pressing the power button shuts off power to the system.
Wake up on LAN:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> </ul>	[Disabled]	When [Enabled], the system wakes up when the internal LAN device receives a Magic Packet while in Power-Off state.
Volume Setting:	<ul style="list-style-type: none"> <li>• Off</li> <li>• Minimum</li> <li>• Middle</li> <li>• Maximum</li> </ul>	[Middle]	Select the default volume level of the system speakers.

## Event Logging Submenu of the Advanced Menu

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

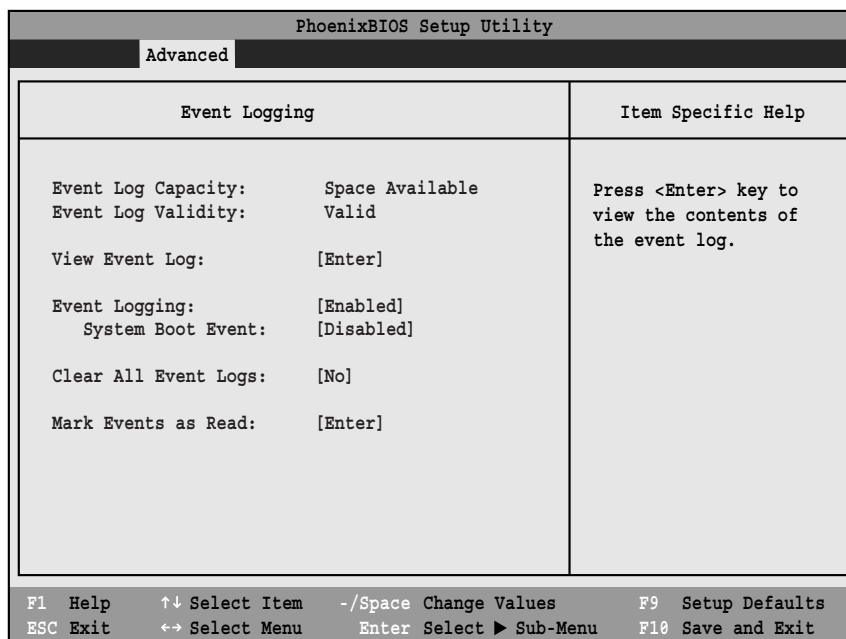


Figure 12. Event Logging Submenu

Table 12: 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:	• Enter	[Enter]	Allows you to view content of event log
Event Logging:	• Disabled • Enabled	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	• Disabled • Enabled	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	• No • Yes	[No]	When set to [Yes] all event logs will be cleared at next boot.
Mark Events as Read:	• Enter	[Enter]	Allows you to make 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 data security configuration. Follow the instructions for Navigating Through the Setup Utility to make any changes. [See Navigating through the Setup Utility for more information.](#)

The 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.



- 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 the power off and on with the power switch and use the correct password on reboot.
- If you make an error when re-entering the password a warning will be displayed on the screen. To try again press [Enter] and retype the password. Press [Esc] to abort the password setting process.
- If Password On Resume is Enabled and Password On Boot is Disabled you will not have to type your password upon resuming the system from the Suspend or Save-to-Disk modes. Password On Resume will work only if Password On Boot is enabled.
- Boot sector protection must be set to [Normal] to install or upgrade an operating system.

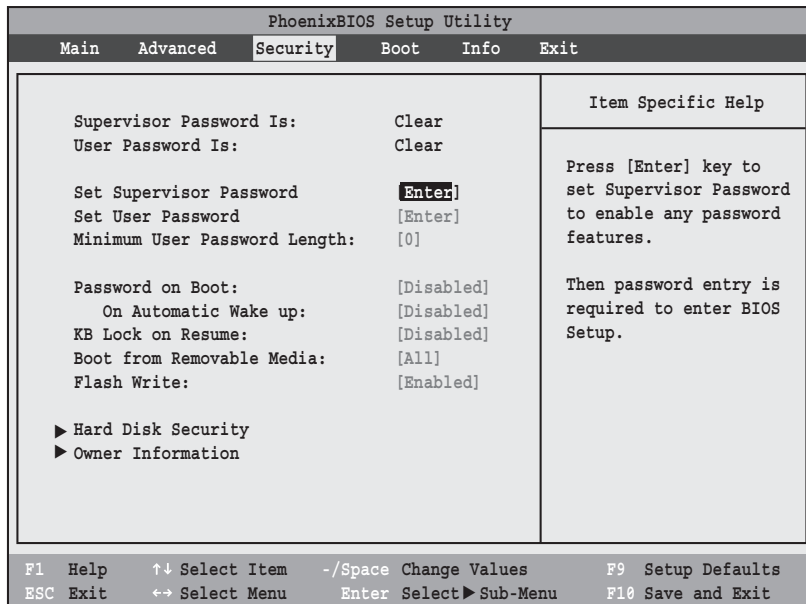


Figure 13. Security Menu

Table 13: 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. The Supervisor Password may be up to seven characters and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press [Enter] instead of entering characters in the Enter New Password field and Re-enter New Password fields. 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 Supervisor Password is set. This field sets, changes, or cancels User Password. User Password may be up to seven characters 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]	Sets the minimum length for the user password. Requires a supervisor password in order to be set.
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 Disabled, no password is required. When set to First Boot, a password (User or Supervisor) is required after the Power On Self Test (POST) before the operating system will be read from a disk. If Every Boot is set, a password (User or Supervisor) is required after the Power On Self Test (POST) every time the system is booted (before the operating system is read from the disk).
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 Suspend or Save to Disk 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]	If Supervisor Only is selected, only the supervisor can boot from removable media. If All is selected, anyone can boot from removable media.
Flash Write:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> </ul>	[Enabled]	When disabled, the BIOS Flash memory is write protected; when enabled, it is not.
Hard Disk Security:	—	—	Configures hard disk security features.
Owner Information:	—	—	Sets Owner information.

## Hard Disk Security Submenu of the Security Menu

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

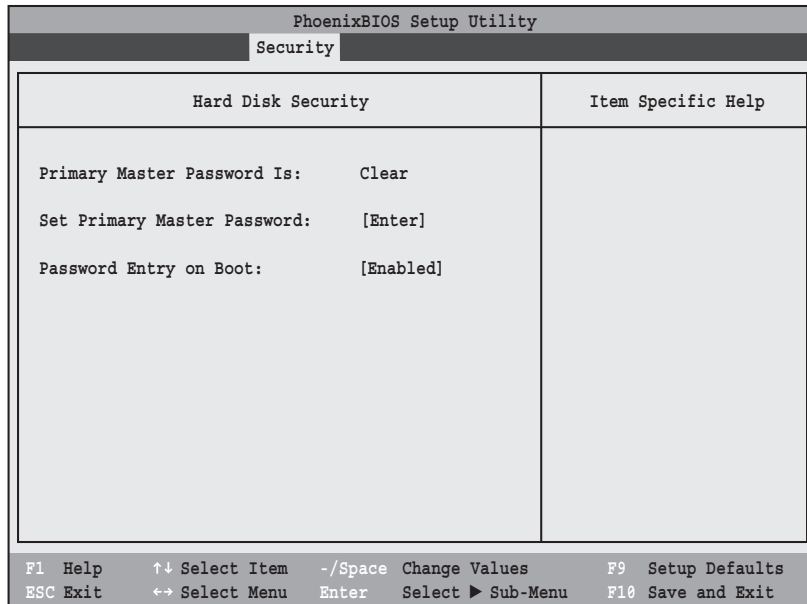


Figure 14. Hard Disk Security Submenu

Table 14: Fields, Options and Defaults for the Hard Disk Security Submenu of the Security Menu

Menu Field	Options	Default	Description
Primary Master Password Is:	—	Clear	Display-only. Default is Clear. When the Primary Master Password has been set, the field changes to Set. When this password is set, the primary hard disk drive cannot be used in another system unless the password is entered.
Set Primary Master Password:	—	[Enter]	Sets, changes or cancels the Primary Master Password. The Primary Master Password may be up to seven characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. When a Primary Master Password is set, it must be used to access the primary hard drive if it is used in another system. Note that the password will not take effect until the system has been rebooted.
Password Entry on Boot:	<ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> </ul>	[Enabled]	When disabled, it is not necessary to enter a Hard Disk Password before booting. The hard disk is still password-protected without entering a password.



## Owner Information Submenu of the Security Menu

The Owner Information Submenu is for setting owner information.

*Note: This submenu can be modified only if a Supervisor's Password has been set previously.*

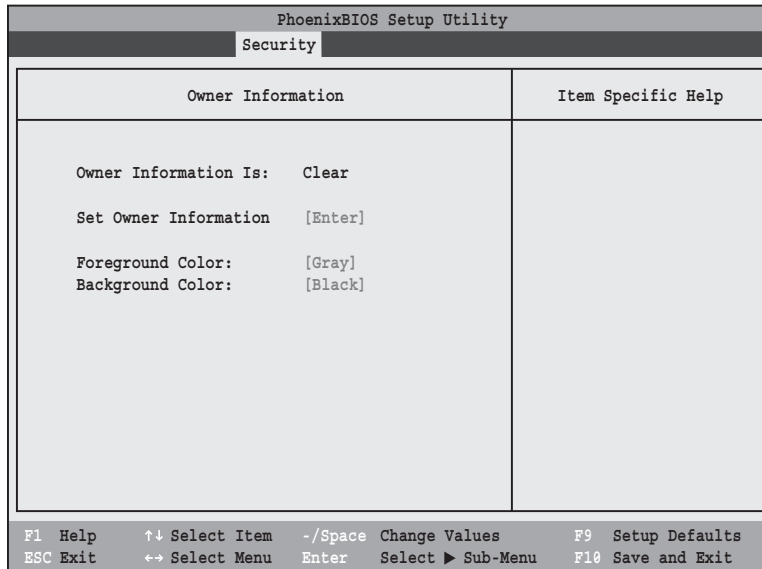


Figure 15. Owner Information Submenu

Table 15: 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]	Select a color for the foreground.
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]	Select a color for the background.

## 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.

## 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 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, and the default settings. Also shown are a description of the field's function and any special information needed to help understand the field's use.

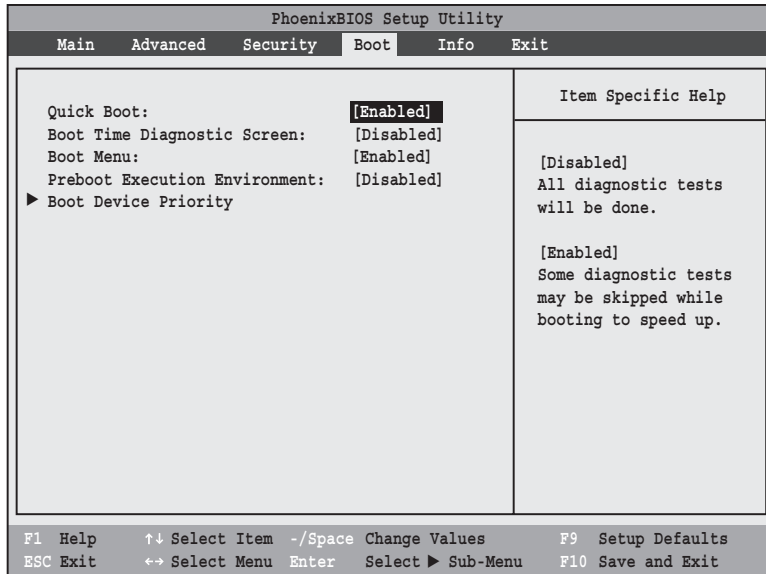


Figure 16. Boot Menu

Table 16: 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]	When disabled, all diagnostic tests are performed when the system is booted up. If [Enabled] is set, some of the tests are skipped in order to speed up the booting process.
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>	[Disabled]	Turns on and off boot from network server options.
Boot Device Priority	<ul style="list-style-type: none"> <li>Selects Boot Device Priority submenu</li> </ul>	—	This menu allows setting up the source for bootup.

## 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.

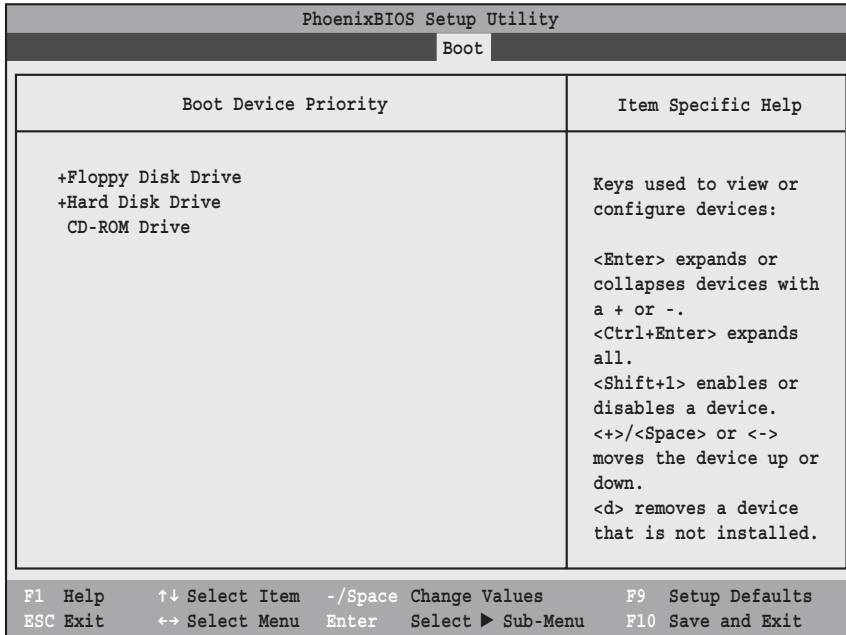


Figure 17. Boot Device Priority Submenu

Table 17: Fields, Options and Defaults for the Boot Device Priority Submenu of the Boot Menu

Menu Field	Description
+Floppy Disk Drive +Hard Disk Drive CD-ROM Drive	The boot selections determine the order in which the BIOS searches for the operating system during a startup sequence. To view all devices related to a source, press [Enter]; to view all devices related to all sources, press [Ctrl] + [Enter]. 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 for that source. [Shift] + [1] enables a device. Pressing [d] removes from the list a device that is not installed. Be sure to save your changed order when you exit the BIOS setup utility.  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 screen 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.

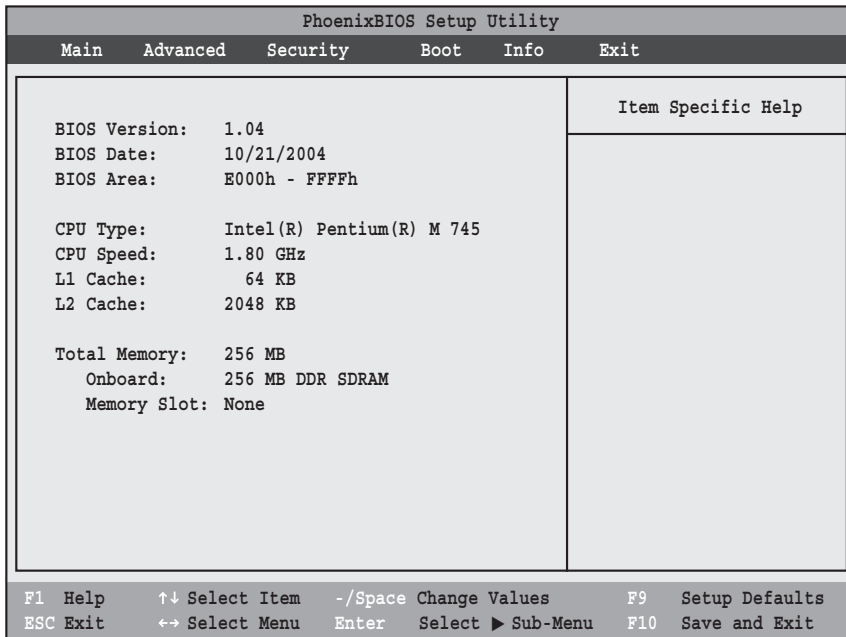


Figure 18. Info Menu

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

Note that some of the parameters reflected below may be different from those on your screen, depending upon system configuration.

Menu Field	Default	Menu Field	Default
BIOS Version:	1.04	L1 Cache:	64 KB
BIOS Date:	10/21/2004	L2 Cache:	2048 KB
BIOS Area:	E000h – FFFFh	Total Memory:	256 MB
CPU Type:	Intel(R) Pentium(R) M 745	Onboard	256 MB DDR SDRAM
CPU Speed:	1.80 GHz	Memory Slot	None

## 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 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.

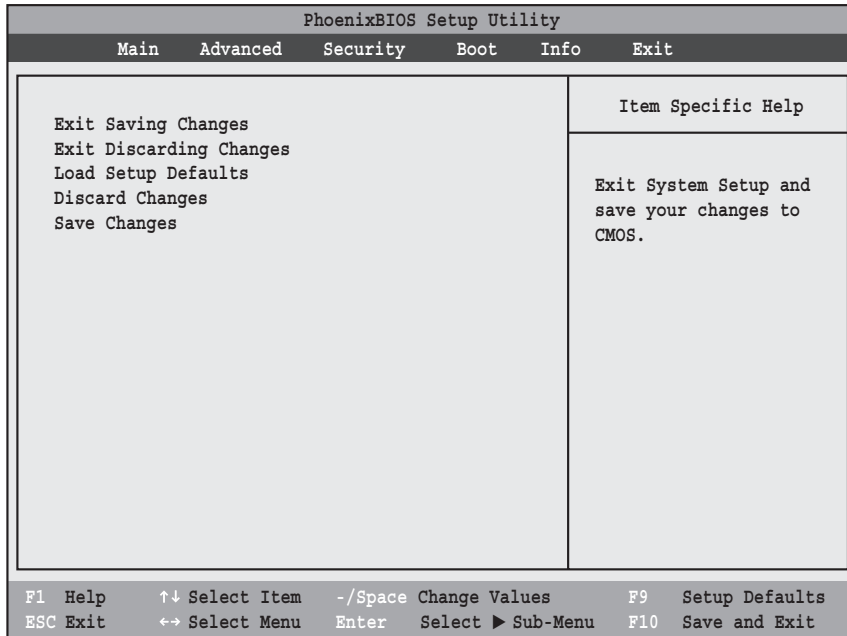


Figure 19. Exit Menu

Table 19: Fields, Options and Defaults for the Exit Menu

Menu Field	Keyboard Shortcut	Description
Exit Saving Changes	Press F10 key	Exit Saving Changes and Exit will store all the entries on every menu of the setup utility to the BIOS memory and then exit the setup utility. A confirmation message <code>Save Configuration changes and exit now? [Yes] [No]</code> will be displayed.
Exit Discarding Changes	—	Selecting Exit Discarding Changes and Exit will exit the setup utility with out writing to the BIOS memory. A setup warning message <code>Configuration has not been saved! Save before exiting? [Yes] [No]</code> will be displayed when your settings have changed. When the BIOS recognizes the Exit Discarding Changes selection it will load the operating system and begin operation.
Load Setup Defaults	Press F9 key	Selecting Load Setup Defaults will load the factory preset default values for all menu fields, then display the message <code>Load default configuration now? [Yes] [No]</code> . 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 19: Fields, Options and Defaults for the Exit Menu**

Menu Field	Keyboard Shortcut	Description
Discard Changes	—	Selecting Discard Changes will load the previous values in BIOS memory for all menu fields. The message <code>Load previous configuration now? [Yes] [No]</code> 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 <code>Save configuration changes now? [Yes] [No]</code> 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.

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