

# Fujitsu LifeBook

## S Series

### **BIOS Guide**

LifeBook S Series Model:  
S6110

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**FUJITSU PC CORPORATION**

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# S 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 ARROW] or [LEFT ARROW] key 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 seven menus: Main, Advanced, Security, Power, 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] to change to the next higher selection and [F5] or [-] to go to the next lower 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.



### POINTS

- 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 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 the opportunity to modify the settings of the setup 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 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.

**POINTS**

- If your notebook beeps a series of beeps that sounds like a code and the display is blank, please refer to the Troubleshooting Section. 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.

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. (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. Note that the actual drive labels shown may vary.



### POINT

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

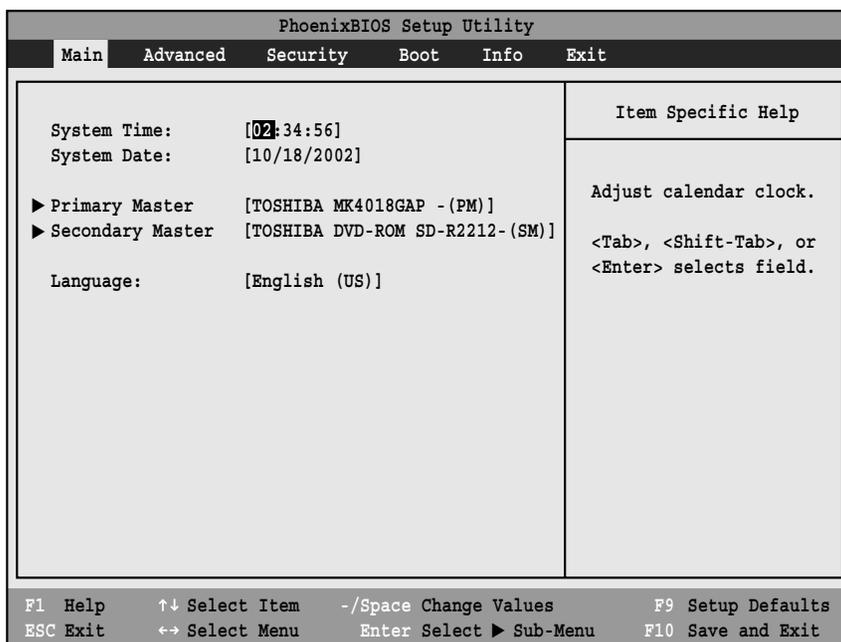


Figure 1. Main Menu

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

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: 03/20/1998. 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

Menu Field	Options	Default	Description
Primary Master:	<ul style="list-style-type: none"> <li>▪ Selects Primary Master submenu</li> </ul>	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:	<ul style="list-style-type: none"> <li>▪ Selects Secondary Master submenu</li> </ul>	The product # of the CD 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.

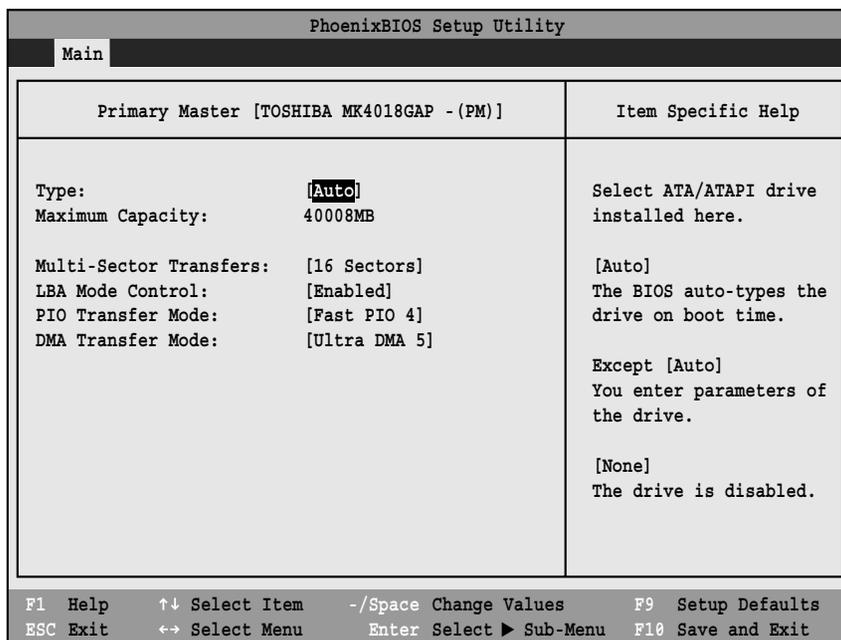


Figure 2. Primary Master Submenu

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>▪ SuperDisk</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. Select SuperDisk if a SuperDisk drive is installed at this connection. If Hard Disk is selected, you must specify the number of Cylinders, Heads, and Sectors for the drive.
Cylinders:	<ul style="list-style-type: none"> <li>▪ A number between 0 and 65,535</li> </ul>	—	This item appears only when Hard Disk Auto is selected. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.
Heads:	<ul style="list-style-type: none"> <li>▪ A number between 1 and 16</li> </ul>	—	This item appears only when HArD Disk. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.
Sectors:	<ul style="list-style-type: none"> <li>▪ A number between 0 and 63</li> </ul>	—	This item appears only when Hard Disk is selected. This field is changed by incrementing (pressing the [Spacebar]) or 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 Auto or Hard Disk are selected.

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

Menu Field	Options	Default	Description
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> <li>▪ 32 Sectors</li> <li>▪ 64 Sectors</li> <li>▪ 128 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 option cannot be changed when Auto is selected.
PIO 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> </ul>	[Fast PIO 4]	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. Multi-word 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.
DMA Transfer Mode:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Multiword DMA 1</li> <li>▪ Multiword DMA 2</li> <li>▪ Ultra DMA 0</li> <li>▪ Ultra DMA 1</li> <li>▪ Ultra DMA 2</li> <li>▪ Ultra DMA 3</li> <li>▪ Ultra DMA 4</li> <li>▪ Ultra DMA 5</li> </ul>	[Ultra DMA 5]	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.

### CAUTION

- A bootable CD-ROM may have either a floppy disk or 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, however, 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 drive installed. You will

not need to modify these settings; they are displayed for your reference.

Note that actual drive labels shown may vary.

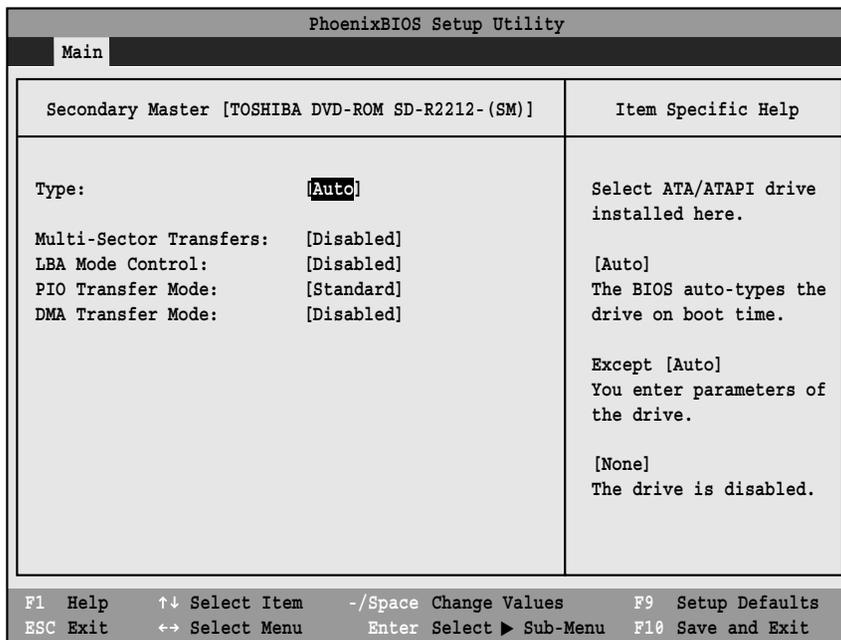


Figure 3. Secondary Master Submenu

Table 3: Fields, Options and Defaults for the Secondary 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>▪ SuperDisk</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, SuperDisk 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> <li>▪ 32 Sectors</li> <li>▪ 64 Sectors</li> <li>▪ 128 Sectors</li> </ul>	[Disabled]	This option cannot be changed when Auto is selected. Specify the number of sectors per block for multiple sector transfer.

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

Menu Field	Options	Default	Description
LBA Mode Control:	<ul style="list-style-type: none"> <li>▪ Enabled</li> <li>▪ Disabled</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.
PIO 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> </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.
DMA Transfer Mode:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Multiword DMA 1</li> <li>▪ Multiword DMA 2</li> <li>▪ Ultra DMA 0</li> <li>▪ Ultra DMA 1</li> <li>▪ Ultra DMA 2</li> <li>▪ Ultra DMA 3</li> <li>▪ Ultra DMA 4</li> <li>▪ Ultra DMA 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 or to move to another menu.

## ADVANCED MENU – SETTING DEVICE FEATURE CONTROLS

The Advanced Menu allows you to:

- Enable or disable support for Plug & Play operating systems.
- Set the I/O addresses for the serial and parallel ports.
- Set the communication mode and Infrared.
- Set the features of the keyboard/mouse.
- Select between the display panel and/or an external CRT display.
- Configure PCI devices in your system.
- Configure CPU features.
- Configure USB features.
- Configure miscellaneous features such as Wake Up On LAN.

- Configure DMI Event Logging.  
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 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.

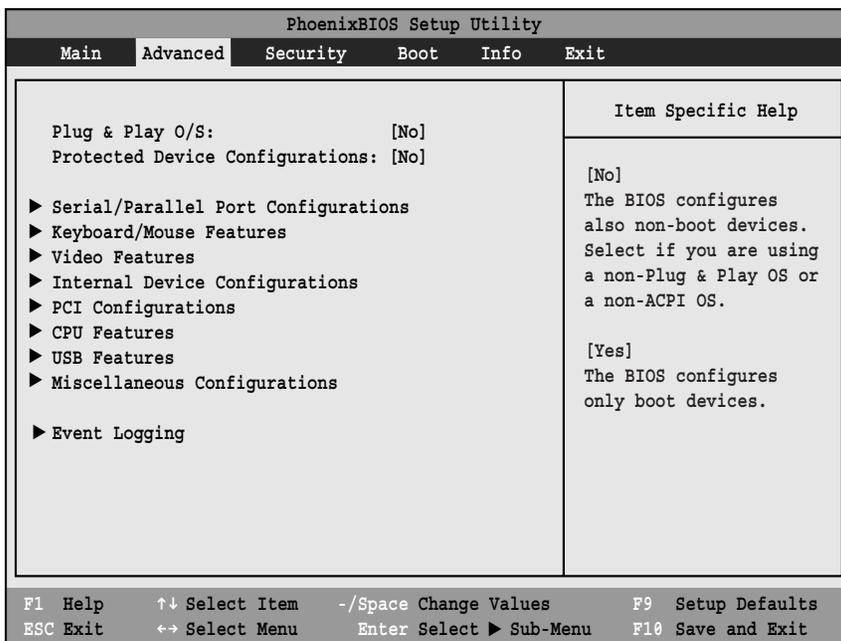


Figure 4. Advanced Menu

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

Menu Field	Options	Default	Description
Plug & Play O/S:	<ul style="list-style-type: none"> <li>▪ No</li> <li>▪ Yes</li> </ul>	[No]	Select <b>Yes</b> if you are using a Plug & Play capable operating system. Select <b>No</b> if you need the BIOS to configure non-boot devices.
Protected Device Configurations:	<ul style="list-style-type: none"> <li>▪ No</li> <li>▪ Yes</li> </ul>	[No]	No: allows Plug & Play operating system to change device system settings. Yes: prevents a Plug & Play operating system from changing system settings. *ACPI operating system ignores this setting.
Serial/Parallel Port Configurations	—	—	When selected, opens the Serial/Parallel Port Configurations sub-menu which allows the user to modify settings for serial, infrared and parallel ports.
Keyboard/Mouse Features	—	—	When selected, opens the Keyboard/Mouse Features submenu, which allows setting external and internal keyboard and mouse parameters.
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 Floppy Disk, IDE, and LAN Controllers.
PCI Configurations	—	—	When selected, opens additional menus to configure PCI devices.
CPU Features	—	—	Configures CPU features.
USB Features	—	—	Configures USB features.
Miscellaneous Configurations	—	—	Configures miscellaneous features, such as Wake Up On LAN and 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.

### CAUTION

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, serial or parallel, have the same I/O address assigned your notebook will not function normally. Please keep a record of original settings before making any changes in the event that a restoration is required. See your hardware and software documentation as well as the setup utility to determine settings, limitations, etc.

### POINTS

- 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:	[Enabled]	[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]	The port is configured depending on 'Plug & Play OS' setting.
Parallel Port:	[Enabled]	
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 Serial/Parallel Port Configuration Submenu of 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]	Configures the serial port using either no configuration (Disabled), a user defined configuration (Enabled), or by allowing the BIOS or OS to choose the configuration (Auto).
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]	Allows user to set the serial port base I/O address when serial port is Enabled.
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 serial port interrupt when serial port is Enabled.
Infrared Port:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> <li>▪ Auto</li> </ul>	[Enabled]	Configures the infrared 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>▪ IrDA</li> <li>▪ FIR</li> </ul>	[FIR]	When the infrared port is enabled this option is available allowing the user to set the mode for the infrared port.
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 I/O address when the infrared port is Enabled.
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.
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]	Allows user to set the infrared port I/O address when the infrared port is Enabled.
DMA Channel:	<ul style="list-style-type: none"> <li>▪ DMA 1</li> <li>▪ DMA 3</li> </ul>	[DMA 3]	Allows user to set the infrared port DMA Channel when the infrared port is Enabled.
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 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.
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 setting the parameters of the integrated and external mouse and keyboard.

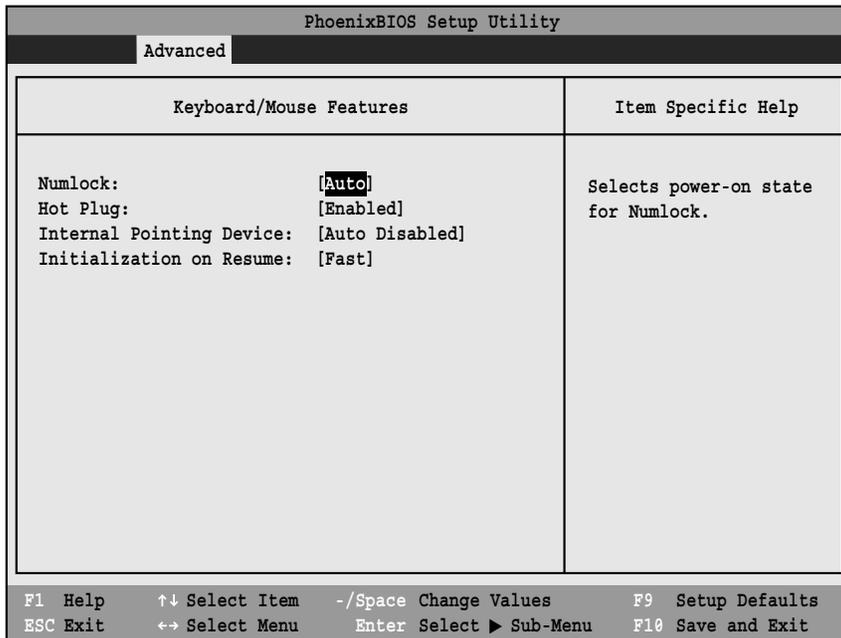


Figure 6. Keyboard/Mouse Features Submenu

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>▪ Auto</li> <li>▪ On</li> <li>▪ Off</li> </ul>	[Auto]	Sets the NumLock function state when the computer completes booting.
Hot Plug:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables and disables the ability to plug a mouse or keyboard into the PS/2 port and have it immediately recognized and active.
Internal Pointing Device:	<ul style="list-style-type: none"> <li>▪ Auto Disabled</li> <li>▪ Manual Setting</li> <li>▪ Always Enabled</li> <li>▪ Always Disabled</li> </ul>	[Auto Disabled]	Sets the device controlling the mouse cursor on the screen. Always Enabled makes the pointing device always enabled whether there is an external mouse or not. Always Disabled makes the pointing device always disabled. Auto Disabled disables the internal pointing device when an external pointing device is connected to the PS/2 port. Manual Setting allows the device to be enabled or disabled using a Hot Key.
Initialization on Resume:	<ul style="list-style-type: none"> <li>▪ Fast</li> <li>▪ Normal</li> </ul>	[Fast]	When Fast is selected, initialization for the external PS/2 devices is optimized to speed up on Resume. When Normal is selected, initialization is not optimized.

### Video Features Submenu of the Advanced Menu

The Video Features Submenu is for setting the display parameters.

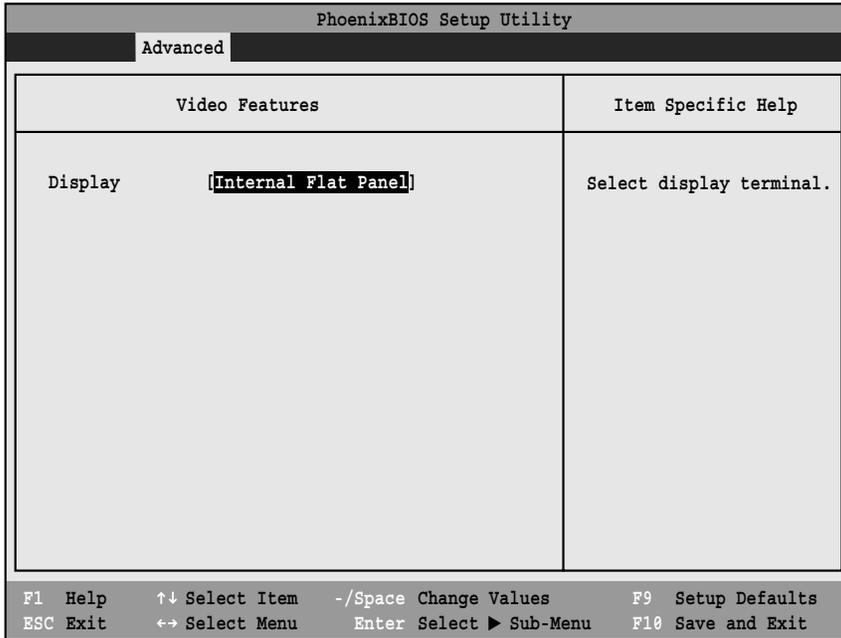


Figure 7. Video Features Submenu

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>▪ Simultaneous</li> </ul>	[Internal Flat Panel]	Selects where the video signal will be routed.

## Internal Device Configurations Submenu of the Advanced Menu

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

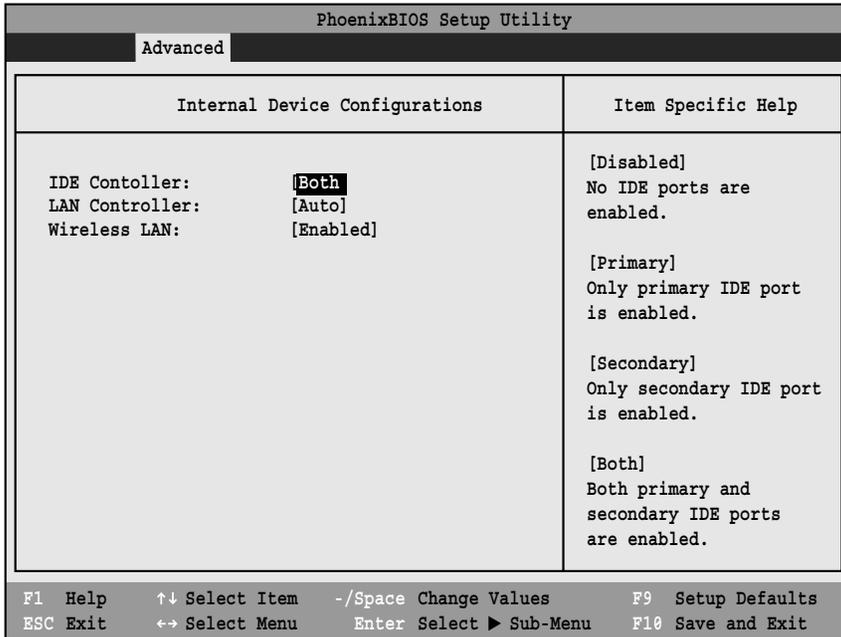


Figure 8. Internal Device Configuration Submenu

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 selected IDE devices.
LAN Controller:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> <li>▪ Auto</li> </ul>	[Auto]	Enables or disables the LAN device. When Auto is selected, the LAN card will be disabled when the system is running on battery power.
Wireless LAN:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the Wireless LAN device.

### PCI Configuration Submenu of the Advanced Menu

The PCI Configuration submenu allows the user to reserve specific interrupts (IRQs) for legacy ISA devices, and to enable or disable built in PCI device modules.



**POINT**

The BIOS setting for your communication device is variable depending on your notebook's configuration.



Figure 9. PCI Configurations Submenu

Table 9: Fields, Options and Defaults for the PCI Configurations Submenu of the Advanced Menu

Menu Field	Options	Default	Description
IRQ Reservation	—	—	Reserve specific IRQs for use by legacy ISA devices.

## IRQ Reservation Submenu of the PCI Configuration Submenu

The IRQ Reservation submenu of the PCI Configuration submenu allows the user to mark various IRQs as reserved for use by legacy ISA devices. When an IRQ is reserved, the BIOS does not use it for embedded PCI or ISA devices.

### CAUTION

Only IRQ's 9, 10, & 11 can be reserved without conflict.

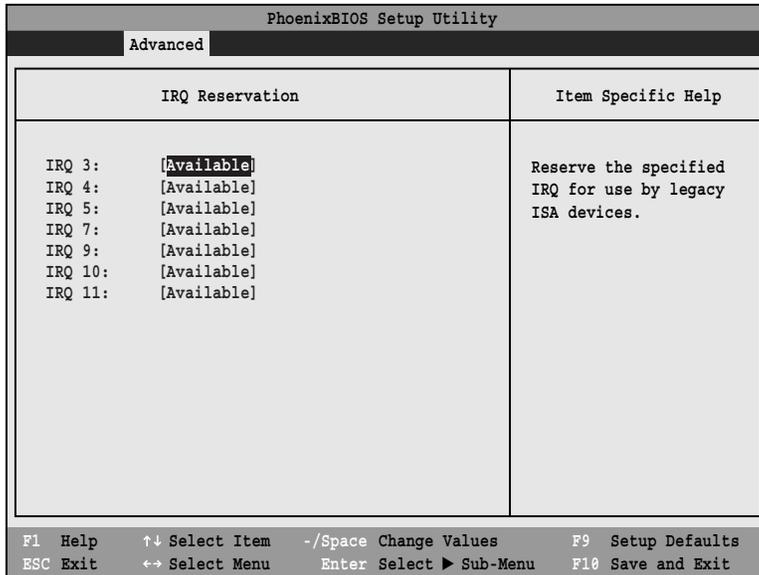


Figure 10. IRQ Reservation Submenu

Table 10: Fields, Options and Defaults for the IRQ Reservation Submenu of the PCI Configuration Submenu

Menu Field	Options	Default	Description
IRQ 3:	<ul style="list-style-type: none"> <li>▪ Available</li> <li>▪ Reserved</li> </ul>	[Available]	Reserves IRQ 3. If Reserved is selected, the BIOS reserves IRQ 3 for use by legacy ISA devices and does not use it for embedded PCI or ISA devices. IRQ 3 is removed from the IRQ bitmap in the PCI IRQ routing table.
IRQ 4:	<ul style="list-style-type: none"> <li>▪ Available</li> <li>▪ Reserved</li> </ul>	[Available]	Reserves IRQ 4.
IRQ 5:	<ul style="list-style-type: none"> <li>▪ Available</li> <li>▪ Reserved</li> </ul>	[Available]	Reserves IRQ 5.
IRQ 7:	<ul style="list-style-type: none"> <li>▪ Available</li> <li>▪ Reserved</li> </ul>	[Available]	Reserves IRQ 7.
IRQ 9:	<ul style="list-style-type: none"> <li>▪ Available</li> <li>▪ Reserved</li> </ul>	[Available]	Reserves IRQ 9.
IRQ 10:	<ul style="list-style-type: none"> <li>▪ Available</li> <li>▪ Reserved</li> </ul>	[Available]	Reserves IRQ 10.
IRQ 11:	<ul style="list-style-type: none"> <li>▪ Available</li> <li>▪ Reserved</li> </ul>	[Available]	Reserves IRQ 11.

## CPU Features Submenu of the Advanced Menu

The CPU Features Submenu configures the system processor.

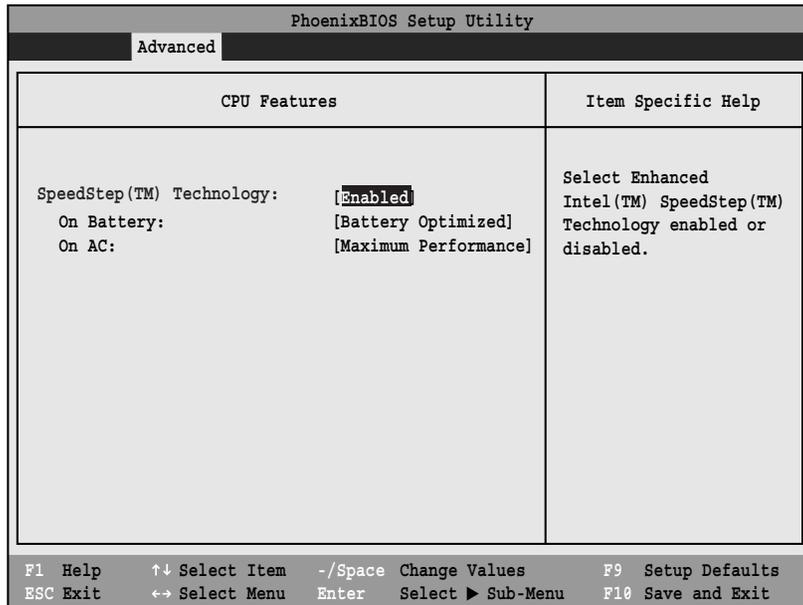


Figure 11. CPU Features Submenu

Menu Field	Options	Default	Description
Speed-Step <sup>(TM)</sup> Technology:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Auto is selected, the CPU speed changes based upon the power source change. When Max. Perf. is selected, the CPU speed is maximized. When Batt. Opt. is selected, the CPU speed is optimized for battery operation. When Disabled is selected, the CPU speed is fixed to the battery optimized speed.
On Battery:	<ul style="list-style-type: none"> <li>▪ Maximum Performance</li> <li>▪ Battery Optimized</li> <li>▪ Maximum Battery</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 Maximum Battery is selected, CPU <i>speed</i> is 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>▪ Maximum Battery</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 Maximum Battery is selected, CPU <i>speed</i> is 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 configures the USB features for your system.

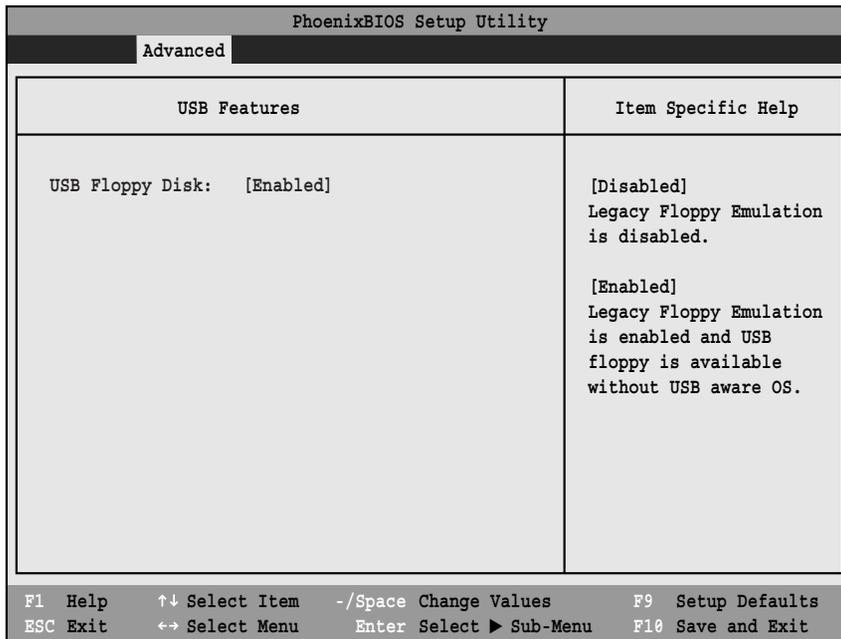


Figure 12. USB Features Submenu

Table 12: Fields, Options and Defaults for the ACPI Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
USB Floppy Disk:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Disabled is selected, legacy floppy emulation is disabled. When Enabled is selected, legacy floppy emulation is enabled and USB floppy is available without USB-aware OS.

## Miscellaneous Configurations Submenu of the Advanced Menu

The Miscellaneous Configurations Submenu configures the miscellaneous features for your system.

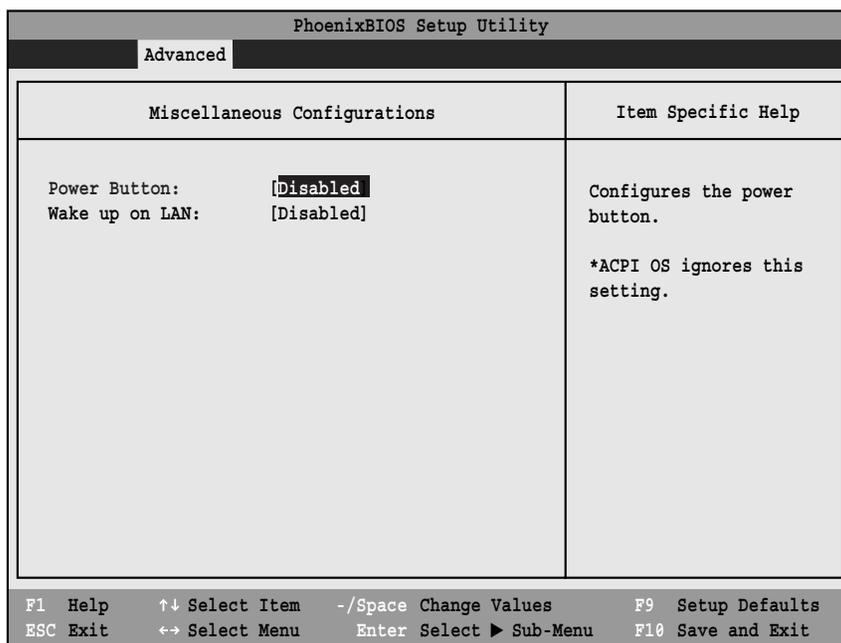


Figure 13. Miscellaneous Configurations Submenu

Table 13: Fields, Options and Defaults for the Miscellaneous Configurations Submenu

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 respond to a press. When Power Off is selected, the button turns the power off.
Wake up on LAN:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	When Enabled is selected, the system will wake up when the internal LAN device receives a Magic Packet while the system is powered off.

## Event Logging Submenu of the Advanced Menu

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

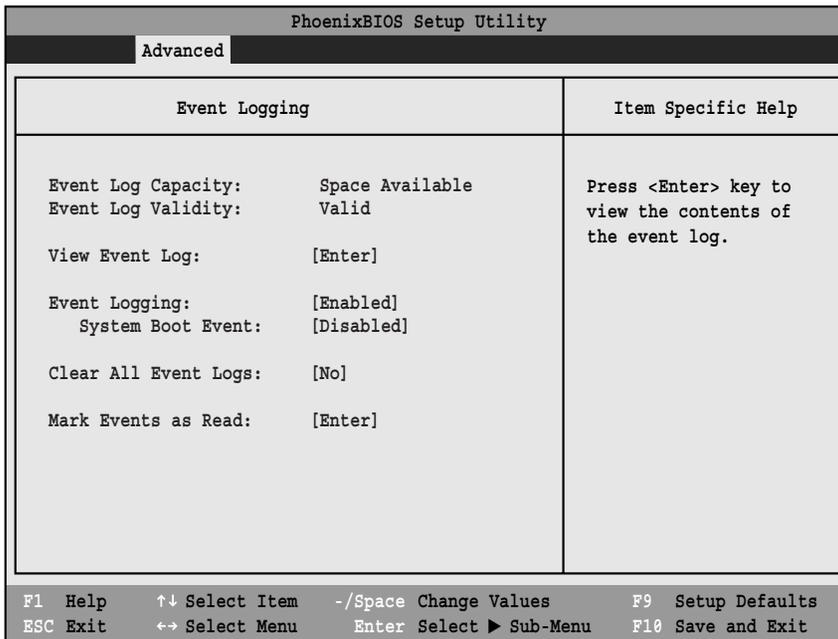


Figure 14. Event Logging Submenu

Table 14: 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 make all events currently in the event log as 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 on page 2 for more information*)

The following tables show the names of the menu fields for the Security menu and its submenus, 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.

### CAUTION

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.

### POINT

- 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.
- If the Password on Resume is Enabled and the 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 boot is enabled.
- Boot sector protection must be set to [Normal] to install or upgrade an operating system.

PhoenixBIOS Setup Utility					
Main	Advanced	Security	Boot	Info	Exit
Supervisor Password Is:			Clear	Item Specific Help  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]		
KB Lock on Resume:			[Disabled]		
Boot from Removable Media:			[All]		
Floppy Disk Access:			[All]		
▶ Hard Disk Security					
▶ Owner Information					
Hard Disk Boot Sector:			[Normal]		
Security Panel On Resume:			[Enabled]		
F1	Help	↑↓ Select Item	-/Space Change Values	F9	Setup Defaults
ESC	Exit	↔ Select Menu	Enter Select ▶ Sub-Menu	F10	Save and Exit

Figure 15. Security Menu

Table 15: 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]	[Enter]	Sets, changes or cancels Supervisor Password. The Supervisor Password may be up to seven characters long and 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]	[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]	[0]	Sets the minimum length for User Password.
Password on Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ First Boot</li> <li>▪ Every Boot</li> </ul>	[Disabled]	When Enabled, a password (User or Supervisor) is required 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. If no Supervisor Password is set this feature is not available and no password is required.
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 keyboard and mouse inputs are locked out upon unattended boot via LAN until the password is entered. When both passwords are set, the User password is always used to lock. Password entry before OS boot is disabled upon unattended boot.
Boot from Removable Media:	<ul style="list-style-type: none"> <li>▪ All</li> <li>▪ Supervisor only</li> </ul>	[All]	Enable password allows supervisor access only.
Floppy Disk Access:	<ul style="list-style-type: none"> <li>▪ All</li> <li>▪ Supervisor only</li> </ul>	[All]	Enable password allows supervisor access only.
Hard Disk Security:	—	—	Configures hard disk security features.
Owner Information:	—	—	Sets Owner information.
Hard Disk Boot Sector:	<ul style="list-style-type: none"> <li>▪ Normal</li> <li>▪ Write Protected</li> </ul>	[Normal]	Sets protection mode for hard disk drive.
Security Panel On Resume	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Allows the Security Panel Feature to be enabled or disabled upon Suspend from Resume.

## Hard Disk Security Submenu of the Security Menu

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

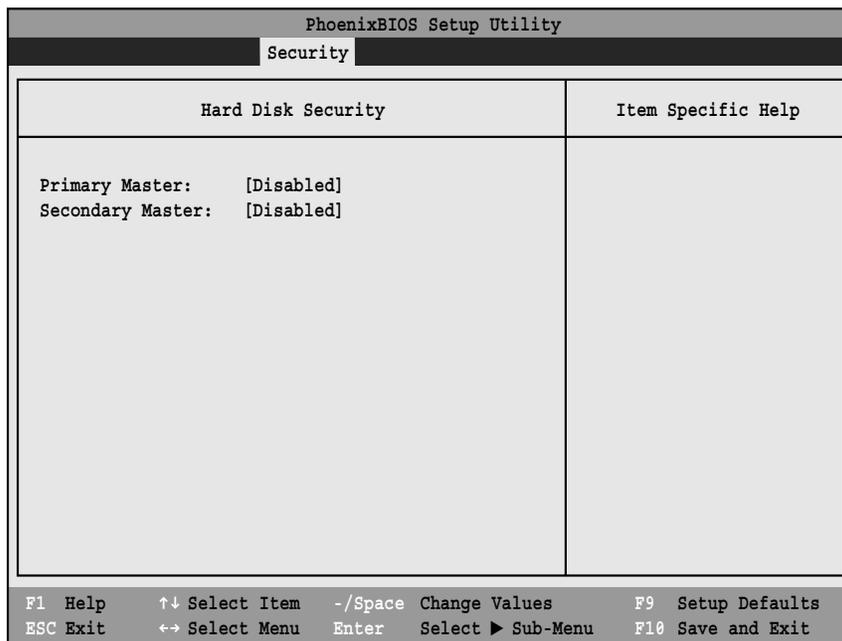


Figure 16. Hard Disk Security Submenu

Table 16: Fields, Options and Defaults for the Hard Disk Security Submenu of the Security Menu

Menu Field	Options	Default	Description
Primary Master:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Disabled: No password protection. Enabled: Hard drive password protected. Password must be entered to access data on drive. Requires a Supervisor password in order to be set.
Secondary Master:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Disabled: No password protection. Enabled: Hard drive password protected. Password must be entered to access data on drive. Requires a Supervisor password in order to be set.

## Owner Information Submenu of the Security Menu

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

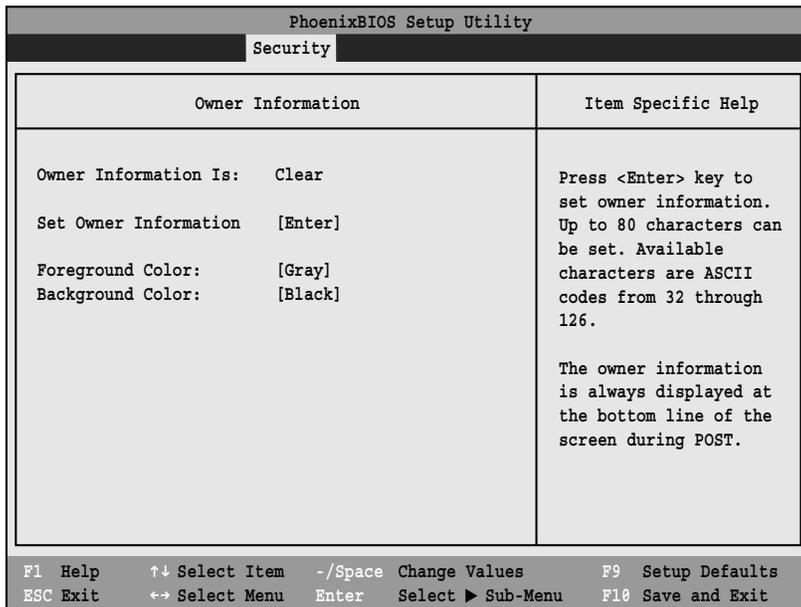


Figure 17. Owner Information Submenu

Table 17: 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 style="width: 25%;">▪ Black</li> <li style="width: 25%;">▪ Red</li> <li style="width: 25%;">▪ Gray</li> <li style="width: 25%;">▪ Light Red</li> <li style="width: 25%;">▪ Blue</li> <li style="width: 25%;">▪ Magenta</li> <li style="width: 25%;">▪ Light Blue</li> <li style="width: 25%;">▪ Light Magenta</li> <li style="width: 25%;">▪ Green</li> <li style="width: 25%;">▪ Brown</li> <li style="width: 25%;">▪ Light Green</li> <li style="width: 25%;">▪ Yellow</li> <li style="width: 25%;">▪ Cyan</li> <li style="width: 25%;">▪ White</li> <li style="width: 25%;">▪ Light Cyan</li> <li style="width: 25%;">▪ Bright White</li> </ul>	[Gray]	Set foreground color.
Background Color:	<ul style="list-style-type: none"> <li style="width: 25%;">▪ Black</li> <li style="width: 25%;">▪ Red</li> <li style="width: 25%;">▪ Gray</li> <li style="width: 25%;">▪ Light Red</li> <li style="width: 25%;">▪ Blue</li> <li style="width: 25%;">▪ Magenta</li> <li style="width: 25%;">▪ Light Blue</li> <li style="width: 25%;">▪ Light Magenta</li> <li style="width: 25%;">▪ Green</li> <li style="width: 25%;">▪ Brown</li> <li style="width: 25%;">▪ Light Green</li> <li style="width: 25%;">▪ Yellow</li> <li style="width: 25%;">▪ Cyan</li> <li style="width: 25%;">▪ White</li> <li style="width: 25%;">▪ Light Cyan</li> <li style="width: 25%;">▪ Bright White</li> </ul>	[Black]	Sets background color.

### 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* 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.

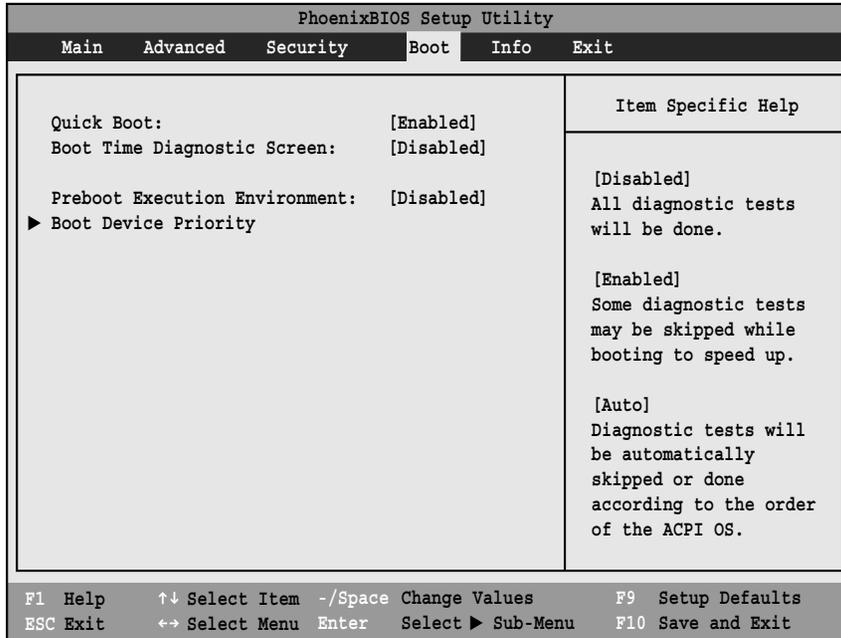


Figure 18. Boot Menu

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

Menu Field	Options	Default	Description
Quick Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> <li>▪ Auto</li> </ul>	[Enabled]	Turns on and off booting with a truncated set of Power On Self Test. (Fewer tests mean faster turn on.)
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.
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:	Selects the Boot Device Priority submenu	—	This menu allows setting up the source for the operating system. See "Boot Device Priority Submenu" in the following section.

## The 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.

### CAUTION

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

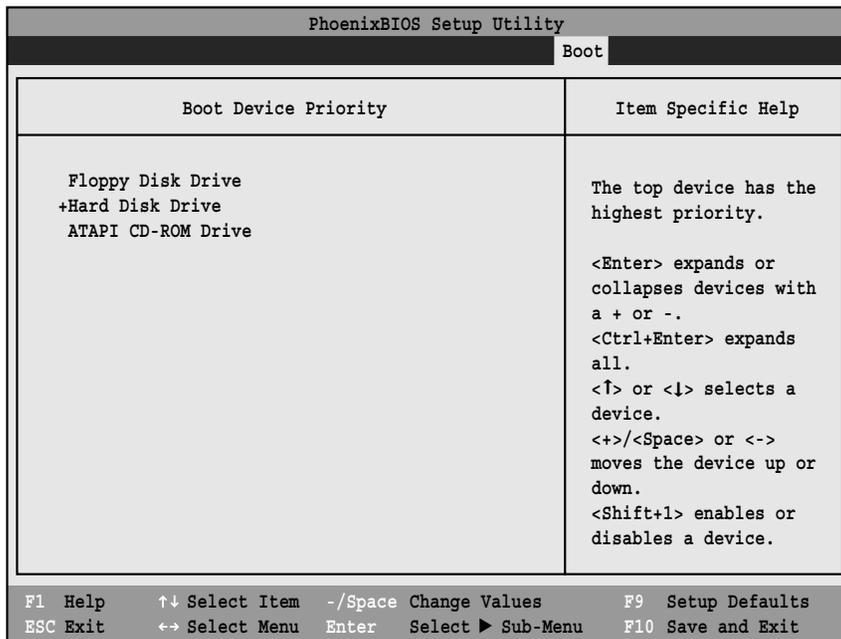


Figure 19. Boot Device Priority Submenu

Table 19: Fields, Options and Defaults for the Boot Device Priority Submenu of the Boot Menu

Menu Field	Options	Default	Description
Floppy Disk Drive	—	—	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 for that source. Be sure to save your changed order when you exit the BIOS setup utility.
+Hard Disk Drive	—	—	
ATAPI CD-ROM Drive	—	—	

### 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 are not editable.

### POINT

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

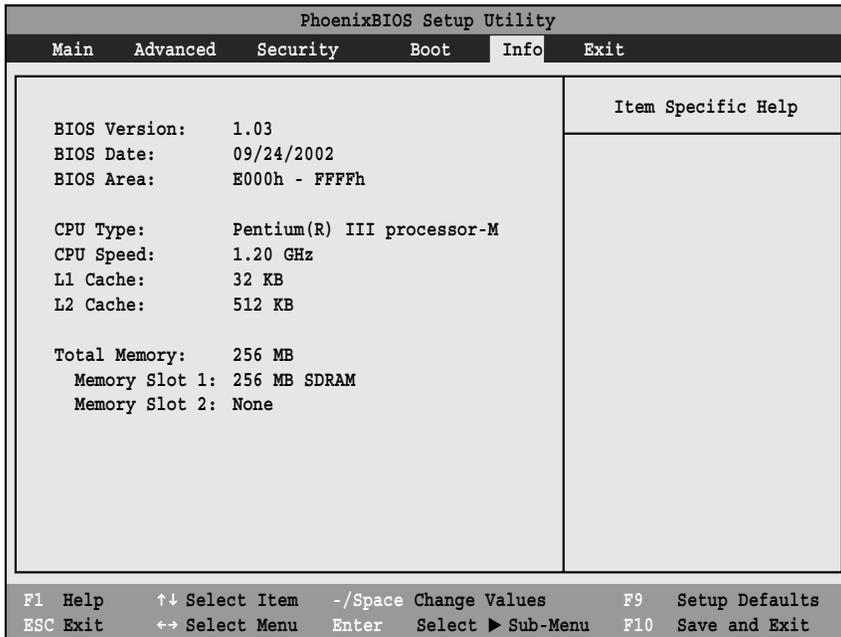


Figure 20. Info Menu

**Table 20: Fields, Options and Defaults for the Info Menu**

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

Menu Field	Default	Menu Field	Default
BIOS Version:	1.03	L1 Cache:	32 KB
BIOS Date:	09/24/2002	L2 Cache:	512 KB
BIOS Area:	E000h – FFFFh	Total Memory:	256 MB
CPU Type:	Pentium(R) III processor	Memory Slot 1:	256 MB SDRAM
CPU Speed:	1.20 GHz	Memory Slot 2:	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* 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.

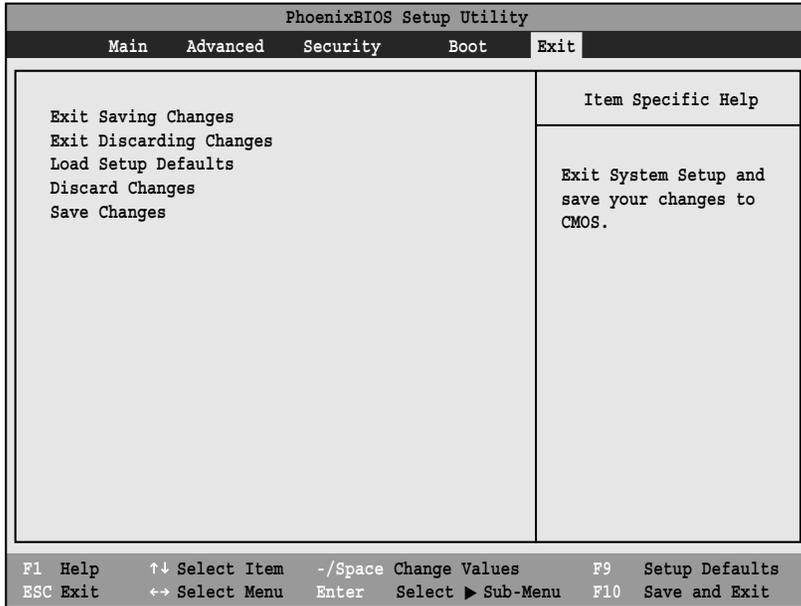


Figure 21. Exit Menu

Table 21: Fields, Options and Defaults for the Exit Menu

Menu Field	Description
Exit Saving Changes	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 <i>Save Configuration changes and exit now? [Yes] [No]</i> will be displayed.
Exit Discarding Changes	Selecting Exit Discarding Changes and Exit 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 <i>Load default configuration now? [Yes] [No]</i> . 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.
Discard Changes	Selecting Discard Changes will load the previous values in BIOS memory for all menu fields. The message <i>Load previous now? [Yes] [No]</i> will be displayed. When confirmed the 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 causes the new settings in all menus to be written to the BIOS memory. The message <i>Save configuration changes now? [Yes] [No]</i> will be displayed. When confirmed, the setup utility will return to the Exit menu. To go to another menu, follow the directions in the Navigating Through the Setup Utility section.