

Fujitsu LifeBook

B Series

BIOS Guide

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B2620

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FUJITSU PC CORPORATION

B 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, 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 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 the 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, 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 emits a series of beeps that sounds like a code and the display is blank, 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.

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.

Figure 1. Main Menu

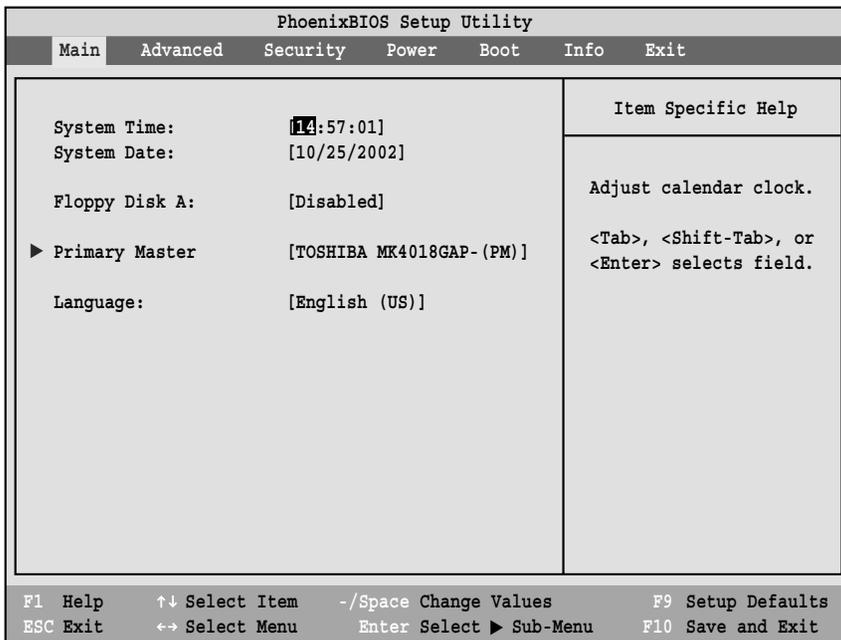


Table 1: Fields, Options and Defaults for the Main Menu

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.

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

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: 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.
Floppy Disk A:	<ul style="list-style-type: none"> • Disabled • 1.44/1.2 MB 3.5" 	[Disabled]	Enables or disables floppy disk A.
Primary Master:	<ul style="list-style-type: none"> • Selects Primary Master submenu 	[TOSHIBA MK4018GAP-(PM)]	Displays 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.
Language:	<ul style="list-style-type: none"> • English (US) • Japanese (JP) 	[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/ATAPI devices are installed.

Note: Actual hard drive label shown may vary. Depending on the drive type, information such as cylinders, heads and sectors may or may not be displayed.

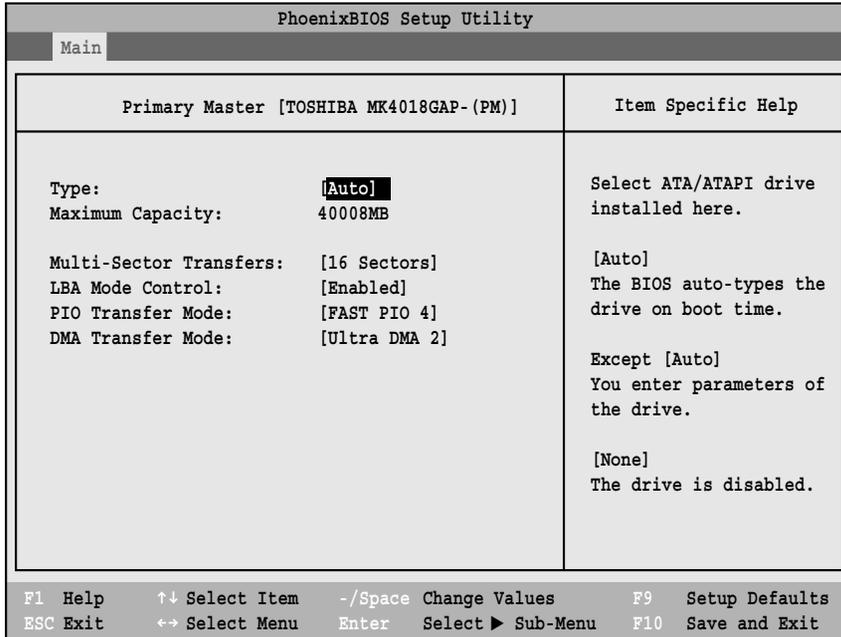


Figure 2. Primary Master Submenu

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"> • Auto • None • Hard Disk 	[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. 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"> • A number between 0 and 65,535 	—	This item appears only when the type is identified as Hard Disk. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Space-bar]) or by typing in the number.
Heads:	<ul style="list-style-type: none"> • A number between 1 and 16 	—	This item appears only when the type is identified as Hard Disk. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Space-bar]) or 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"> • A number between 0 and 63 	—	This item appears only when the type is identified as Hard Disk. When Hard Disk is selected, you can change the value. This field is changed by incrementing (pressing the [Spacebar]) or by typing in the number.
Maximum Capacity:	<ul style="list-style-type: none"> • Display only 	—	Displays the maximum capacity of the drive calculated from the parameters of the hard disk when Hard Disk is selected.
Multi-Sector Transfers:	<ul style="list-style-type: none"> • Disabled • 2 Sectors • 4 Sectors • 8 Sectors • 16 Sectors • 32 Sectors • 64 Sectors • 128 Sectors 	[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"> • Disabled • Enabled 	[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"> • Standard • Fast PIO 1 • Fast PIO 2 • Fast PIO 3 • Fast PIO 4 	[Fast PIO 4]	Selects the method for moving data to/from the drive. Auto-type 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"> • Disabled • Multiword DMA 1 • Multiword DMA 2 • Ultra DMA 0 • Ultra DMA 1 • Ultra DMA 2 	[Ultra DMA 2]	Selects the method for moving data to/from the drive. 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:

- Enable or disable support for Plug & Play operating systems.
- Set the I/O addresses for the serial and parallel ports.
- Set the communication mode for the parallel port and infrared port.
- Select between the display panel and an external CRT display.
- Enable or disable compensation for your display.
- Configure PCI devices in your system.

- Configure CPU features.
- Configure USB features.

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

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

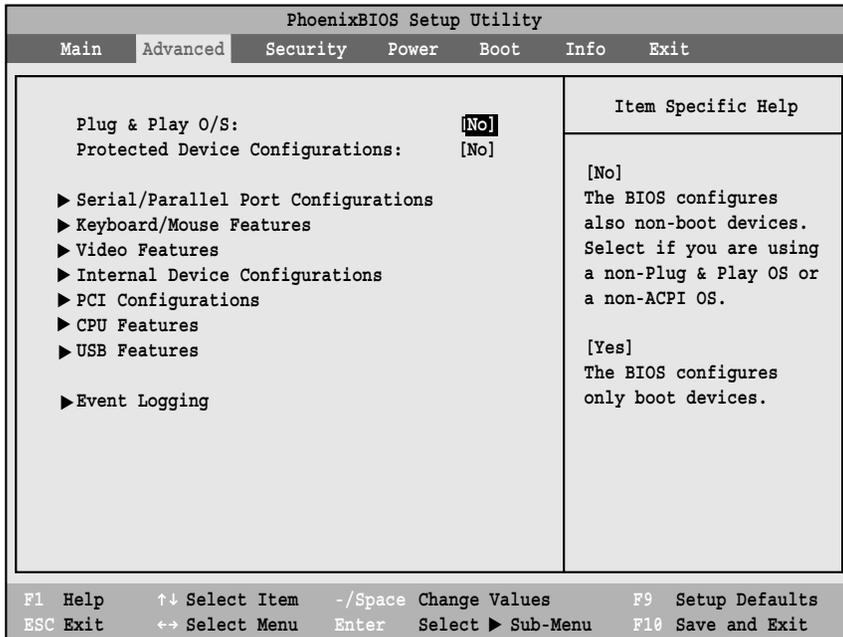


Figure 3. Advanced Menu

Table 3: Fields, Options and Defaults for the Advanced Menu

Menu Field	Options	Default	Description
Plug & Play O/S:	<ul style="list-style-type: none"> • No • Yes 	[No]	Select Yes if you are using a Plug & Play capable operating system. Select No if you need the BIOS to configure non-boot devices.
Protected Device Configuration:	<ul style="list-style-type: none"> • No • Yes 	[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 submenu 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 Configurations 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 Processor Serial Number features of Pentium(R) III processor. LifeBooks with the Intel SpeedStep software pre-installed will provide the user the ability to set the processor performance.
CPU Features	—	—	When selected, opens the CPU Features submenu, which allows setting of Intel SpeedStep features.
USB Features	—	—	When selected, opens the USB Features submenu, which allows enabling or disabling USB.
Event Logging	—	—	When selected, opens the event logging submenu.

Serial/Parallel Port Configurations Submenu of the Advanced Menu

The Serial/Parallel Port Configurations 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 4 are in hexadecimal.

PhoenixBIOS Setup Utility		
Advanced		
Serial/Parallel Port Configurations		Item Specific Help
Serial Port:	[Enabled]	
I/O Address:	[3F8 - 3FF]	[Disabled]
Interrupt:	[IRQ 4]	The port is disabled.
Infrared Port:	[Enabled]	
Mode:	[FIR]	[Enabled]
I/O Address:	[2E8 - 2EF]	The port is enabled
Interrupt:	[IRQ 3]	with user configuration.
I/O Address:	[118 - 11F]	
DMA Channel:	[DMA 3]	[Auto]
Parallel Port:	[Enabled]	The port is configured
Mode:	[Bi-directional]	depending on 'Plug &
I/O Address:	[378 - 37F]	Play OS' setting.
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 4. Serial/Parallel Port Configurations Submenu

Table 4: Fields, Options and Defaults for the Serial/Parallel Port Configurations Submenu of Advanced Menu

Menu Field	Options	Default	Description
Serial Port:	<ul style="list-style-type: none"> • Disabled • Enabled • Auto 	[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"> • 3F8 - 3FF • 2F8 - 2FF • 3E8 - 3EF • 2E8 - 2EF 	[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"> • IRQ 3 • IRQ 4 • IRQ 5 	[IRQ 4]	Allows user to set the serial port interrupt when serial port is Enabled.
Infrared Port:	<ul style="list-style-type: none"> • Disabled • Enabled • Auto 	[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"> • IrDA • FIR 	[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"> • 3F8-3FF • 2F8-2FF • 3E8 - 3EF • 2E8 - 2EF 	[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"> • IRQ 3 • IRQ 4 • IRQ 5 	[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"> • 100 - 107 • 108 - 10F • 110 - 117 • 118 - 11F 	[118 - 11F]	Allows user to set the infrared port I/O address when the infrared port is Enabled.
DMA Channel:	<ul style="list-style-type: none"> • DMA 1 • DMA 3 	[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"> • Disabled • Enabled • Auto 	[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).

Table 4: Fields, Options and Defaults for the Serial/Parallel Port Configurations Submenu of Advanced Menu

Menu Field	Options	Default	Description
Mode:	<ul style="list-style-type: none"> • Output Only • Bi-directional • ECP 	[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.
I/O address:	<ul style="list-style-type: none"> • 378 - 37F • 278 - 27F • 3BC - 3BF 	[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"> • IRQ 5 • IRQ 7 	[IRQ 7]	Allows user to set the parallel port interrupt when the parallel port is Enabled.

Keyboard/Mouse Features Submenu of the Advanced Menu

Keyboard/Mouse Features submenu is for setting parameters of the integrated and external mouse and keyboard.

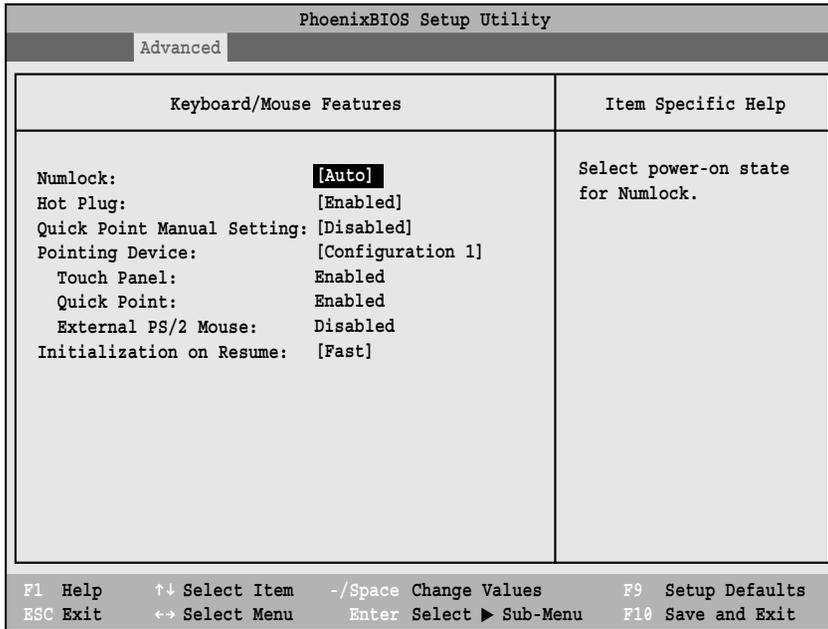


Figure 5. Keyboard/Mouse Features Submenu

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

Menu Field	Options	Default	Description
Numlock:	<ul style="list-style-type: none"> • Auto • On • Off 	[Auto]	Sets the NumLock function state when the computer completes booting.
Hot Plug:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Enabled]	Enables and disables the ability to plug a mouse or keyboard into the PS/2 port and have it immediately recognized and active.
Quick Point Manual Setting:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Disabled]	Enables and disables the ability to use Hot key to enable or disable the Quick Point.
Pointing Device: Touch Panel: Quick Point: External PS/2 Mouse:	<ul style="list-style-type: none"> • Configuration 1 • Configuration 2 • Configuration 3 • Configuration 4 	[Configuration 1]	Selects pointing device configurations. Configuration 1: Touch Panel: Enabled / Quick Point: Enabled / External PS/2 Mouse: Disabled Configuration 2: Touch Panel: Enabled / Quick Point: Disabled / External PS/2 Mouse: Enabled Configuration 3: Touch Panel: Disabled / Quick Point: Enabled / External PS/2 Mouse: Enabled Configuration 4: Touch Panel: Disabled / Quick Point: Exclusive Enabled / External PS/2 Mouse: Enabled

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

Menu Field	Options	Default	Description
Initialization on Resume:	<ul style="list-style-type: none">• Fast• Normal	[Fast]	When Fast is selected, the initialization of external PS/2 devices is optimized to speed up on resume. When Normal is selected, initialization is not optimized. Note that this feature is designed for Windows XP systems only. When external PS/2 devices don't function after resume, set to Normal .

Video Features Submenu of the Advanced Menu

The Video Features Submenu is for setting the display parameters.

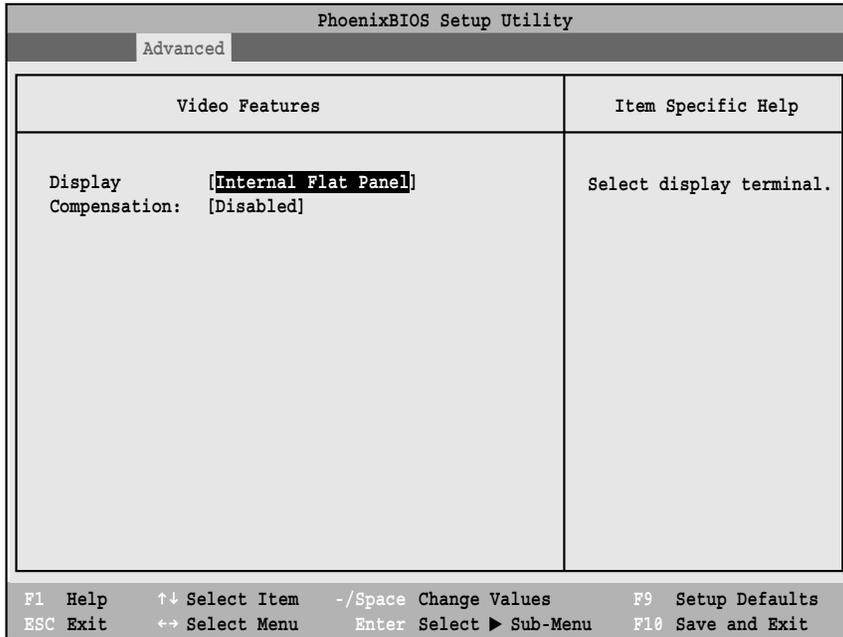


Figure 6. Video Features Submenu

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

Menu Field	Options	Default	Description
Display:	<ul style="list-style-type: none"> • Internal Flat-Panel • External • Simultaneous 	[Internal Flat-Panel]	Selects where the video signal will be routed.
Compensation:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Disabled]	Enables or disables compensation which controls spacing on the display. When enabled, displays with less than pixel resolution 800 x 600 will still cover the entire screen.

Internal Device Configurations Submenu of the Advanced Menu

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

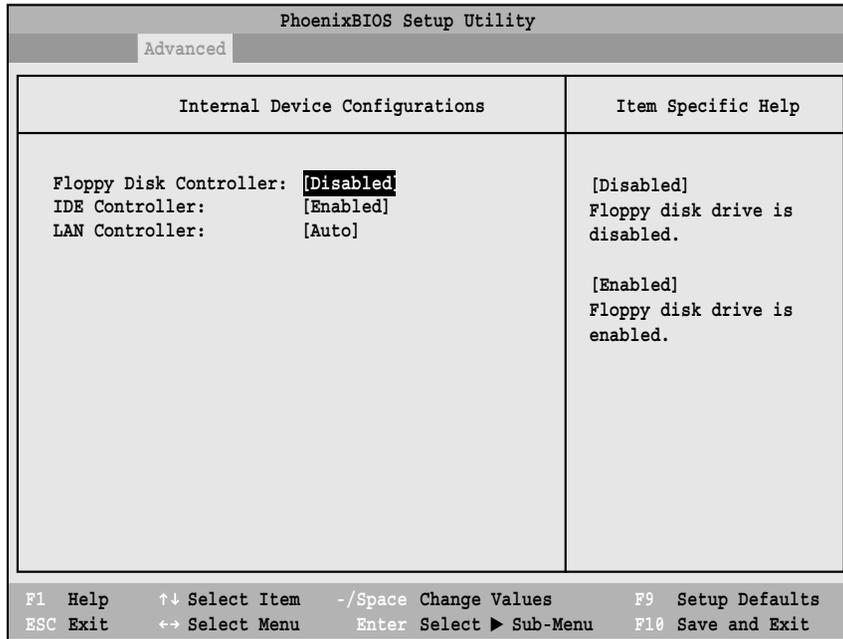


Figure 7. Internal Device Configurations Submenu

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

Menu Field	Options	Default	Description
Floppy Disk Controller:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Disabled]	Enables or disables the Floppy Disk Drive.
IDE Controller:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Enabled]	Enables or disables selected IDE devices.
LAN Controller	<ul style="list-style-type: none"> • Enabled • Disabled • Auto 	[Auto]	Enables or disables LAN controller. NOTE: This field may not be present if you have a wireless LAN installed.

PCI Configurations Submenu of the Advanced Menu

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

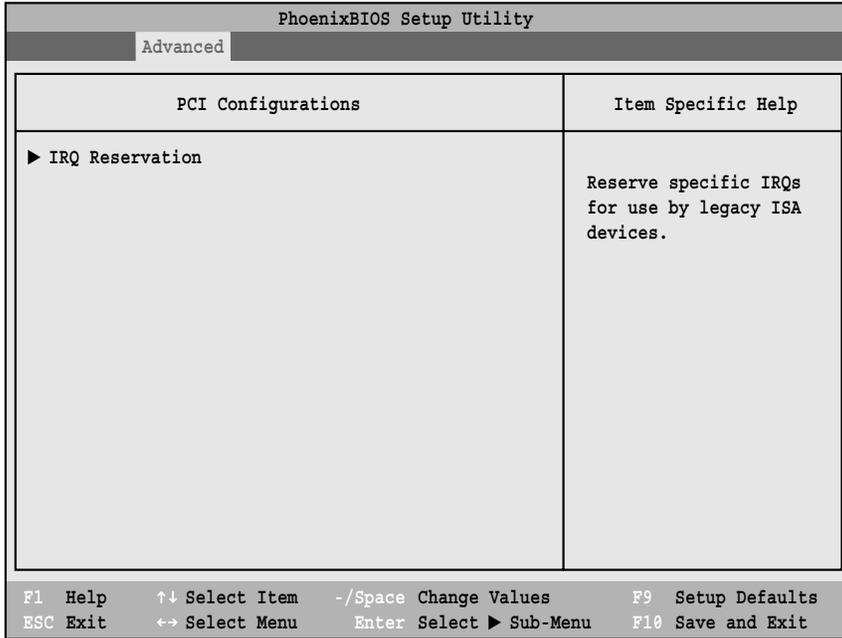


Figure 8. PCI Configurations Submenu

Table 8: 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 Configurations Submenu

The IRQ Reservation submenu of the PCI Configurations 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.

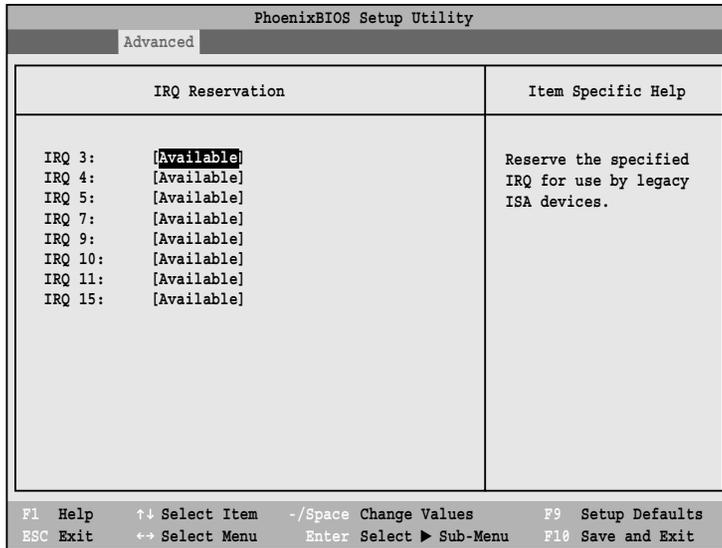


Figure 9. IRQ Reservation Submenu

Table 9: Fields, Options and Defaults for the IRQ Reservation Submenu of the PCI Configurations Submenu

Menu Field	Options	Default	Description
IRQ 3:	<ul style="list-style-type: none"> • Available • Reserved 	[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"> • Available • Reserved 	[Available]	Reserves IRQ 4
IRQ 5:	<ul style="list-style-type: none"> • Available • Reserved 	[Available]	Reserves IRQ 5
IRQ 7:	<ul style="list-style-type: none"> • Available • Reserved 	[Available]	Reserves IRQ 7
IRQ 9:	<ul style="list-style-type: none"> • Available • Reserved 	[Available]	Reserves IRQ 9
IRQ 10:	<ul style="list-style-type: none"> • Available • Reserved 	[Available]	Reserves IRQ 10
IRQ 11:	<ul style="list-style-type: none"> • Available • Reserved 	[Available]	Reserves IRQ 11
IRQ 15:	<ul style="list-style-type: none"> • Available • Reserved 	[Available]	Reserves IRQ 15

CPU Features Submenu of the Advanced Menu

The CPU Features submenu configures certain features of the CPU in the system.

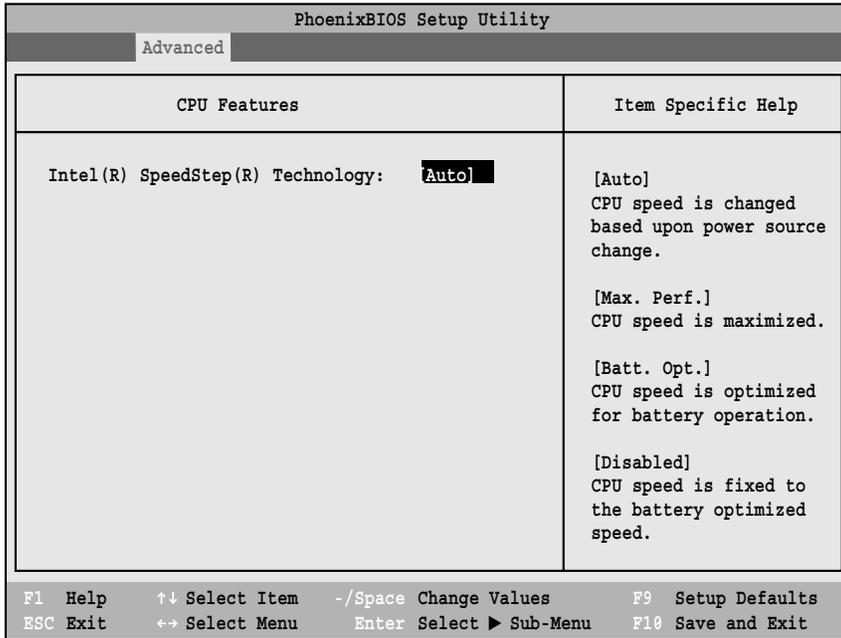


Figure 10. CPU Features Submenu

Table 10: Fields, Options and Defaults for the CPU Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Intel(R) SpeedStep(R) Technology:	<ul style="list-style-type: none"> • Auto • Max. Perf. • Batt. Opt. • Disabled 	[Auto]	When Auto is selected, the CPU speed is determined by the power source used. When Max. Perf. is selected, CPU speed is maximized. When Batt. Opt. is selected, CPU speed is optimized for battery operation. When Disabled is selected, CPU speed is fixed to battery optimized speed.

USB Features Submenu of the Advanced Menu

The USB Features submenu configures the USB capabilities of the system.

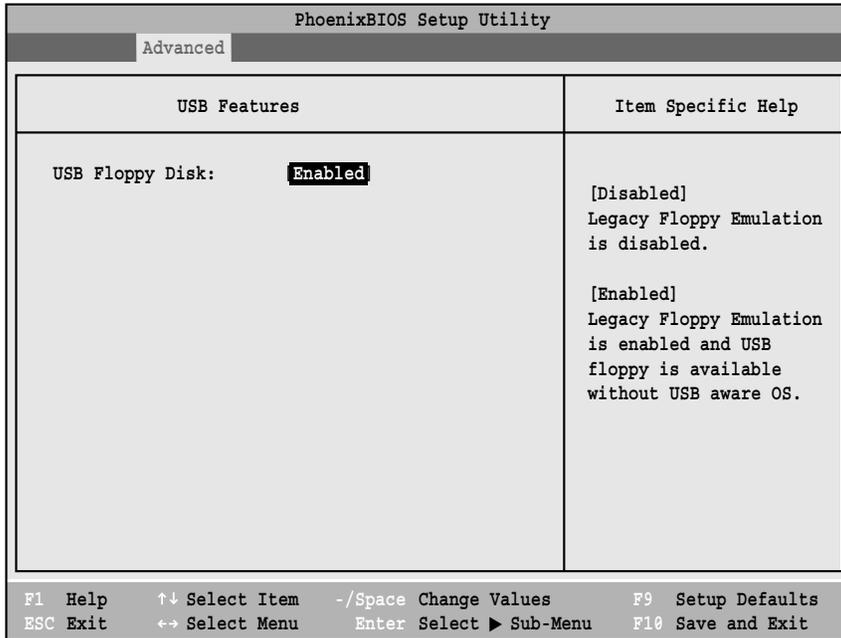


Figure 11. USB Features Submenu

Table 11: Fields, Options and Defaults for the USB Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
USB Features:	<ul style="list-style-type: none"> Disabled Enabled 	[Enabled]	When enabled, Legacy Floppy Emulation is enabled.

Event Logging Submenu of the Advanced Menu

The Event Logging submenu is for setting up the logs for DMI event logging.

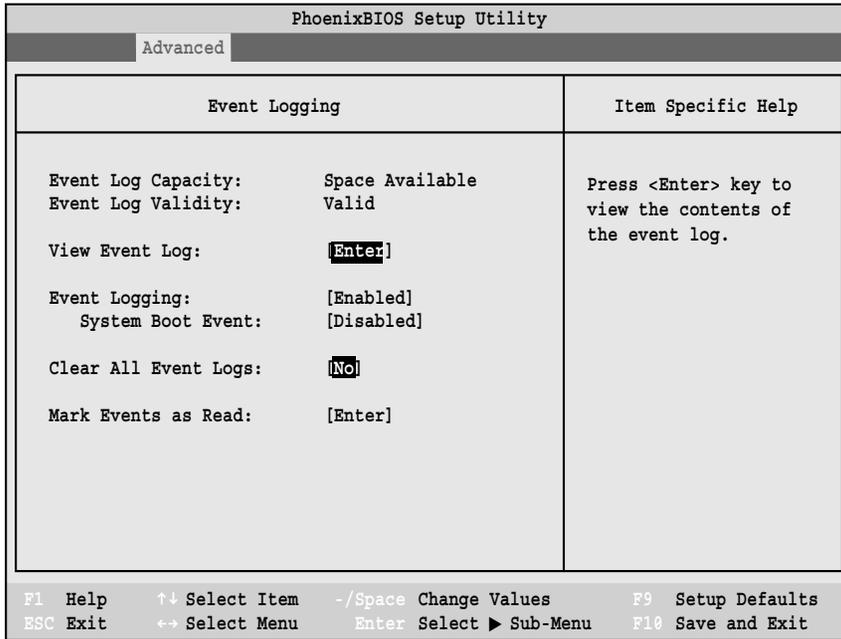


Figure 12. Event Logging Submenu

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:	<ul style="list-style-type: none"> Enter 	[Enter]	Allows you to view content of event log.
Event Logging:	<ul style="list-style-type: none"> Disabled Enabled 	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	<ul style="list-style-type: none"> Disabled Enabled 	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	<ul style="list-style-type: none"> No Yes 	[No]	When set to [Yes] all event logs will be cleared at next boot.
Mark Events as Read:	<ul style="list-style-type: none"> Enter 	[Enter]	Allows you to select 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.

POINTS

- 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.
- Boot sector protection must be set to [Normal] to install or upgrade an operating system.

CAUTIONS

- Entering a password incorrectly three times in a row will cause the keyboard and mouse to be locked out and the warning [System Disabled] to be displayed. If this happens, restart the computer by turning off and on the power with the power switch and use the correct password on reboot.
- If the 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. Power Management Security will work only if Password on Boot is enabled.

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

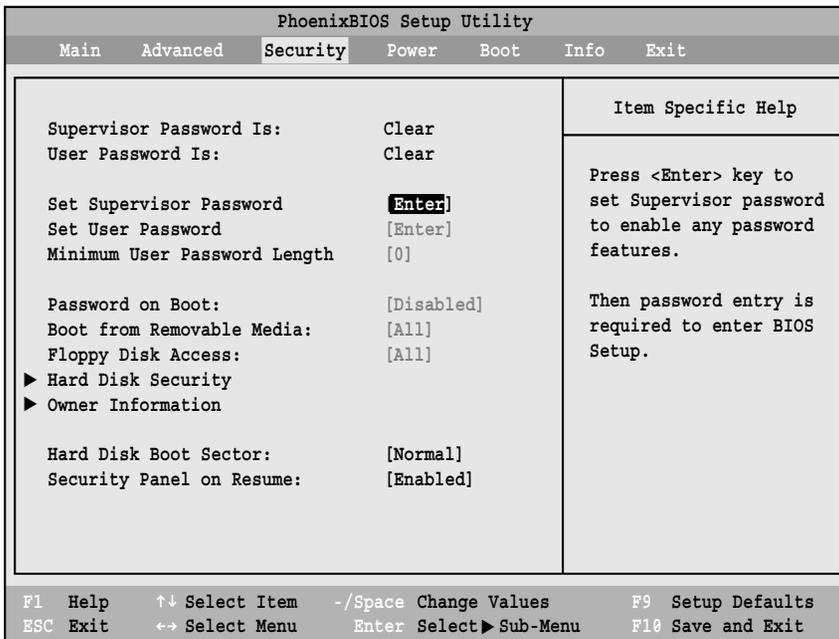


Figure 13. Security Menu

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 Supervisor Password. Supervisor 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 [Enter] instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Supervisor Password is set it must be used to access the BIOS setup utility.
Set User Password	—	[Enter]	This field can only be accessed if the Supervisor Password is set. Sets, changes or cancels the User Password. A 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 setup utility.
Minimum User Password Length:	—	[0]	—
Password on Boot:	<ul style="list-style-type: none"> • Disabled • First Boot • Every Boot 	[Disabled]	When set to Disabled, no password is required. When set to First Boot, password entry is required only before first boot. When Every Boot is selected, password is required every time the system is booted.
Boot from Removable Media:	<ul style="list-style-type: none"> • All • Supervisor only 	[All]	When Supervisor Only is selected, only the Supervisor can boot from removable media. Only the user who enters the Supervisor Password before OS boot is treated as the Supervisor. When All is selected, booting from removable media is not restricted.
Floppy Disk Access:	<ul style="list-style-type: none"> • All • Supervisor only 	[All]	When Supervisor Only is selected, only the Supervisor can access the floppy disk. Only the user who enters the Supervisor Password before OS boot is treated as a Supervisor. When All is selected, floppy disk access is not restricted.
Hard Disk Security:	—	—	Configures hard disk security features.
Owner Information:	—	—	Sets Owner information.
Hard Disk Boot Sector:	<ul style="list-style-type: none"> • Normal • Write Protected 	[Normal]	Sets protection mode for hard disk drive.
Security Panel on Resume:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Enabled]	Allows you to enable or disable the Security Panel feature upon Resume from Suspend.

Exiting from the Security Menu

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

Hard Disk Security Submenu of the Security Menu

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

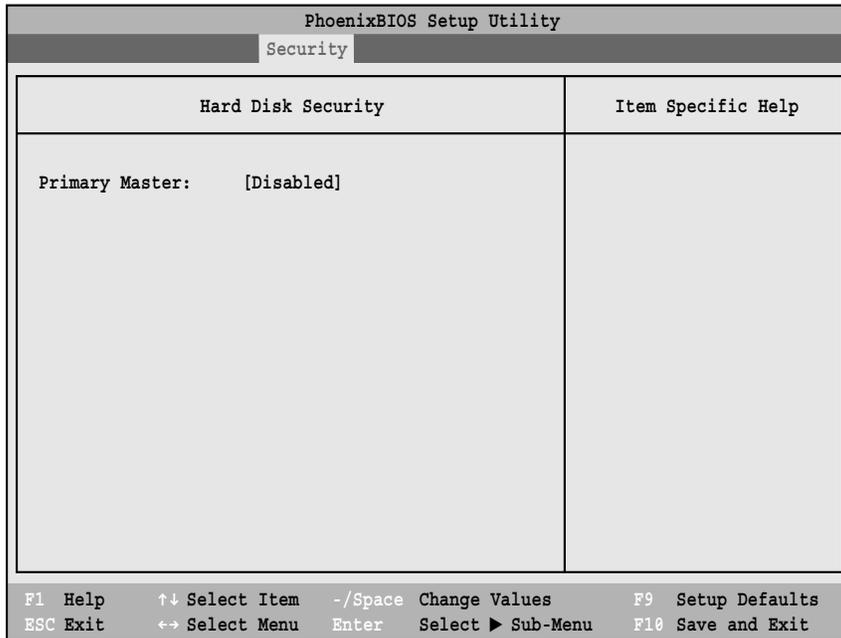


Figure 14. Hard Disk Security Submenu

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

Menu Field	Options	Default	Description
Primary Master:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Disabled]	<p>Disabled: No password protection.</p> <p>Enabled: Hard drive is locked with the password. Data in the locked disk cannot be read on any systems other than the original system on which it was locked, or on systems that have the identical password setting.</p>

Owner Information Submenu of the Security Menu

The Owner Information submenu is for setting owner information.

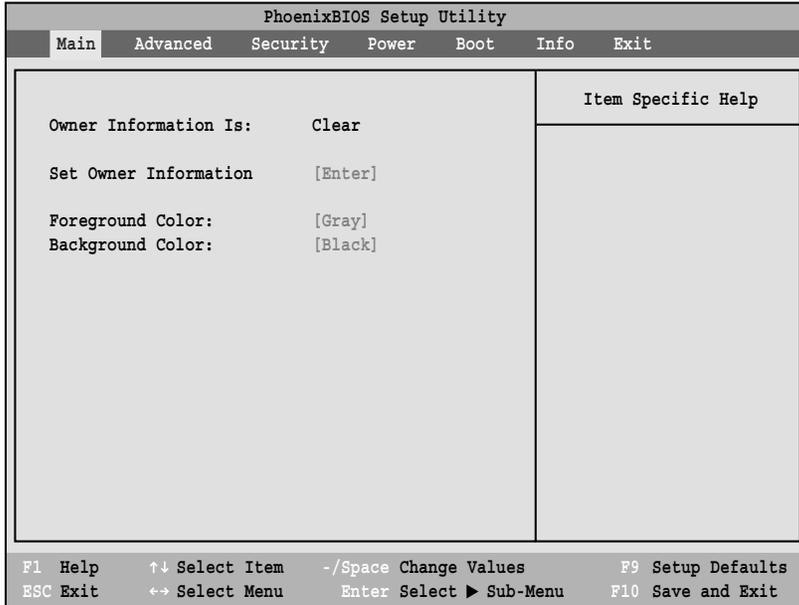


Figure 15. Owner Information Submenu

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"> • Black • Blue • Green • Cyan • Red • Magenta • Brown • White • Gray • Light Blue • Light Green • Light Cyan • Light Red • Light Magenta • Light Yellow • Bright White 	[Gray]	
Background Color:	<ul style="list-style-type: none"> • Black • Blue • Green • Cyan • Red • Magenta • Brown • White • Gray • Light Blue • Light Green • Light Cyan • Light Red • Light Magenta • Light Yellow • Bright White 	[Black]	

POWER MENU – SETTING POWER MANAGEMENT FEATURES

The Power menu allows you to set and change the power management parameters. Follow the instructions for Navigating Through the Setup Utility to make any changes.

POINTS

- In operating systems using ACPI, Auto-suspend Timeout, Hard Disk Timeout, and Video Timeout features are available exclusively through the operating system.
- When resuming from a Save-to-Disk suspension there will be a delay while the contents of system memory and operating parameters are loaded from the hard drive.

CAUTIONS

- In Save-to-Disk mode there is no indication on the Status Indicator to let you know you are suspended rather than shut off from the power switch. You may want to make a habit of always trying the Suspend/Resume button before using the power switch.
- Resume-on-Modem ring when enabled will draw power from the bridge battery alone when your system is running off battery power. This may potentially drain your bridge battery. Disabling Wake-on-Modem ring will prevent this from happening.

The following tables show the names of the menu fields for the Power 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.

PhoenixBIOS Setup Utility			
Main	Advanced	Security	Power
Power Savings: [Customized] Hard Disk Timeout: [Off] Display Timeout: [Off] Standby Timeout: [4 Minutes] Auto Suspend Timeout: [15 Minutes]			Item Specific Help
Suspend Mode: [Suspend] Auto Save To Disk: [Off]			Select Power Management Mode. Choosing modes changes system power management settings. Maximum Power Savings conserves the greatest amount of system power while Maximum Performance conserves power but allows greatest system performance. To alter these setting, choose Customize. To turn off power management, choose Disabled.
Resume On Modem Ring: [Off] Resume On Time: [Off] Resume Time: [00:00:00]			
▶ Advanced Features			
▶ Advanced Features			
F1 Help	↑↓ Select Item	-/Space Change Values	F9 Setup Defaults
ESC Exit	←→ Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit

Figure 16. Power Menu

Table 16: Fields, Options and Defaults for the Power Menu (for APM operating systems only)

Menu field	Options	Default	Description
Power Savings:	<ul style="list-style-type: none"> • Disabled • Customized • Maximum Power Savings • Maximum Performance 	[Customized]	Sets the power savings parameters to a factory installed combination of parameters, a custom set of parameters set by you or no power saving features.
Hard Disk Timeout:	<ul style="list-style-type: none"> • Off • 30 seconds to 20 Minutes 	[Off]	Sets the length of time that the hard drive can be inactive before your notebook automatically turns off the power to the hard drive controller and drive motor. If you choose a factory installed combination of parameters this field will display the setting. If you choose to customize the parameters you will be able to set this yourself. The options available vary from Off, which has no inactivity shutoff, to 20 minutes.
Display Timeout:	<ul style="list-style-type: none"> • Off • 2 to 20 Minutes 	[Off]	Sets the length of time without any user input device activity before the display is turned off. If you choose a factory combination of parameters, this field will display the setting. If you choose to customize the parameters, you will be able to set this yourself. Off has no inactivity shutoff.
Standby Timeout:	<ul style="list-style-type: none"> • Off • 1 to 16 Minutes 	[4 Minutes]	Sets the length of time without any user input device activity before the CPU is set to half speed and the display and the hard drive are turned off. If you choose a factory combination of parameters this field will display the setting. If you choose to customize the parameters you will be able to set it yourself.
Auto Suspend Timeout:	<ul style="list-style-type: none"> • Off • 5 to 60 minutes 	[15 Minutes]	Sets the length of time without any I/O activity before your notebook goes into Suspend mode. If you choose a factory combination of parameters this field will display that setting. If you choose to customize the parameters you will be able to set this yourself. Off has no inactivity suspension.
Suspend Mode:	<ul style="list-style-type: none"> • Suspend • Save to Disk* <p>*To use Save to Disk automatically in Windows 98, set Suspend Mode to Save to Disk mode.</p>	[Suspend]	Sets the form of suspension state. If you choose Suspend, you will suspend operation with power to system memory, and everything else powered down or in a very low power state. If you choose Save-to-Disk your notebook will save all of system memory and the operating parameters to the hard drive before turning your notebook to the pseudo-off condition.
Auto Save to Disk:	<ul style="list-style-type: none"> • Off • After 1 Hour 	[Off]	When set to "After 1 Hour", your notebook will automatically save all system memory and the operating parameters to the hard drive and go to pseudo-off if the notebook is left in Suspend mode for more than an hour.
Resume On Modem Ring:	<ul style="list-style-type: none"> • Off • On 	[Off]	Sets whether or not to Resume from a suspension state when a message is received by telephone line. This feature will not operate if the Save-to-Disk mode is enabled. This feature applies to internal and external modems.

Table 16: Fields, Options and Defaults for the Power Menu (for APM operating systems only)

Menu field	Options	Default	Description
Resume On Time:	<ul style="list-style-type: none"> • Off • On 	[Off]	Sets whether or not to resume from a suspension state at a designated time. This feature is available from either the Suspend or Save-to-Disk modes.
Resume Time:	—	[00:00:00]	Sets the designated time, on a 24-hour clock, when the notebook is to automatically resume operation from the Suspend state. The format of the clock setting is hours:minutes:seconds. Each segment of the time is set separately, either by incrementing or by typing in the numbers. You move between the segments with the [Tab] key or the [Shift]+[Tab] keys. This only applies when Resume on Time is set to On.
Advanced Features:	—	—	When selected, opens the Advanced Features submenu which allows setting additional power saving parameters.

Factory Installed Values for Power Saving Profiles

	Hard Disk Timeout	Video Timeout	Standby Timeout	Auto Suspend Timeout
Customized:	Off	Off	4 Minutes	15 Minutes
Maximum Power Savings:	30 Seconds	2 Minutes	1 Minute	5 Minutes
Maximum Performance:	Off	Off	Off	15 Minutes
Disabled:	Off	Off	Off	Off
Sample Customized Profile: (To get even better battery life keep the display and volume settings as low as possible and use the sample customized profile.)	2 Minutes	1 Minute	1 Minute	5 Minutes

Advanced Features Submenu of the Power Menu

The Advanced Features submenu is for setting some non-time related power saving parameters.

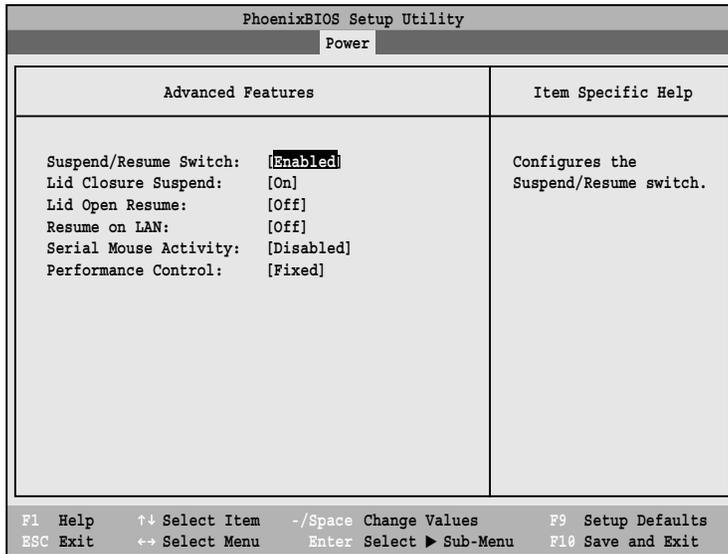


Figure 17. Advanced Features Submenu

Table 17: Fields, Options and Defaults for the Advanced Features Submenu of the Power Menu

Menu Field	Options	Default	Description
Suspend/Resume Switch:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Enabled]	Sets the function of the Suspend/Resume button when your notebook is in an active state. The resume function can not be disabled as it works regardless of any other settings.
Lid Closure Suspend:	<ul style="list-style-type: none"> • Off • On 	[On]	Enables and disables having closure of the Display panel put your notebook in Suspend mode.
Lid Open Resume:	<ul style="list-style-type: none"> • Off • On 	[Off]	Enables and disables having opening the Display panel acting as an automatic resume.
Resume On LAN:	<ul style="list-style-type: none"> • Off • On 	[Off]	When this feature is set to On, the system will wake when the internal LAN device receives a Magic Packet while in Suspend Mode. (This is not present if a wireless LAN is installed.)
Serial Mouse Activity:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Disabled]	Enables and disables having activity on the serial port cause the system to reactivate from inactivity timeouts.
Performance Control:	<ul style="list-style-type: none"> • Auto • Fixed 	[Fixed]	Enables and disables the ACPI Performance Control.

Exiting from Power Menu

When you have finished setting the boot parameters with the Power 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.

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.

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.

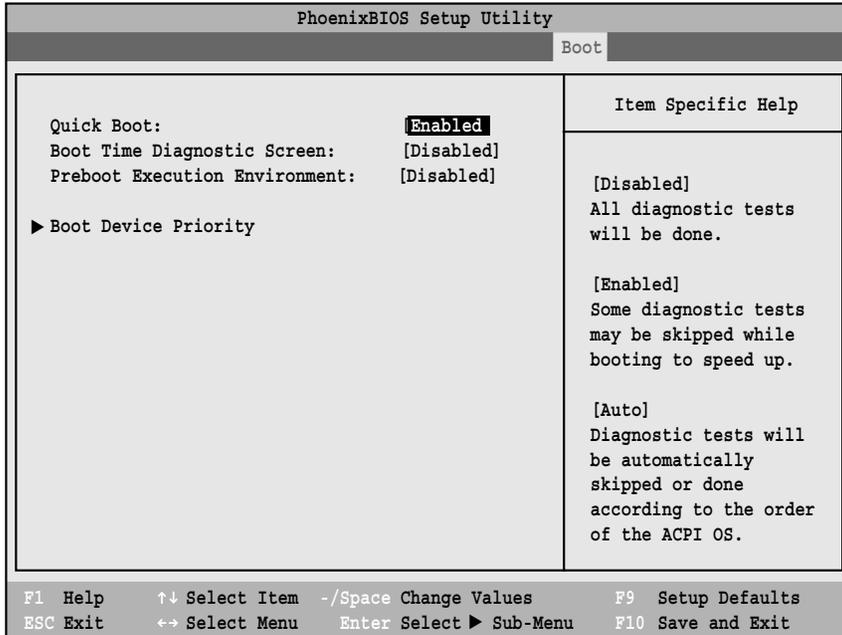


Figure 18. Boot Menu

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

Menu Field	Options	Default	Description
QuickBoot:	<ul style="list-style-type: none"> Disabled Enabled Auto 	[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"> Disabled Enabled 	[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"> Disabled Enabled 	[Disabled]	Turns on and off the preboot execution environment feature. Note that if your system has a wireless LAN installed, this field may not be present.
Boot Device Priority	<ul style="list-style-type: none"> Selects the Boot Device Priority submenu 	—	This menu allows setting up the source for the operating system.

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.

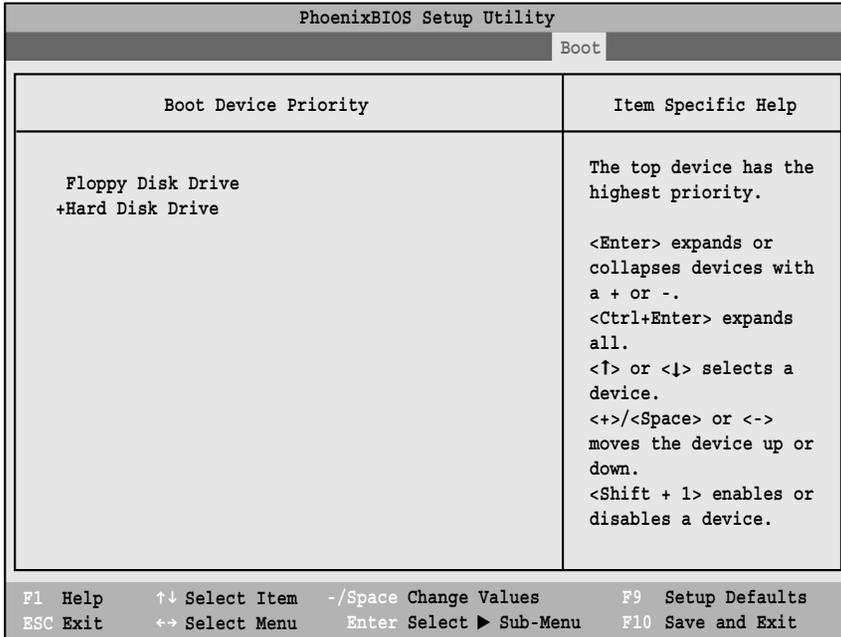


Figure 19. Boot Device Priority Submenu

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

Menu Field	Options	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	<ul style="list-style-type: none"> • TOSHIBA MK4018GAP-(PM) • Bootable Add-in Cards 	—

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 are not editable (except for the Asset Number as in the Point below).



POINTS

- The asset number is an optional user-entered field and can be entered through the use of third party DMI Compliant software, such as LANdesk Client Manager.
- The information displayed on this screen is variable according to the unit you purchased.

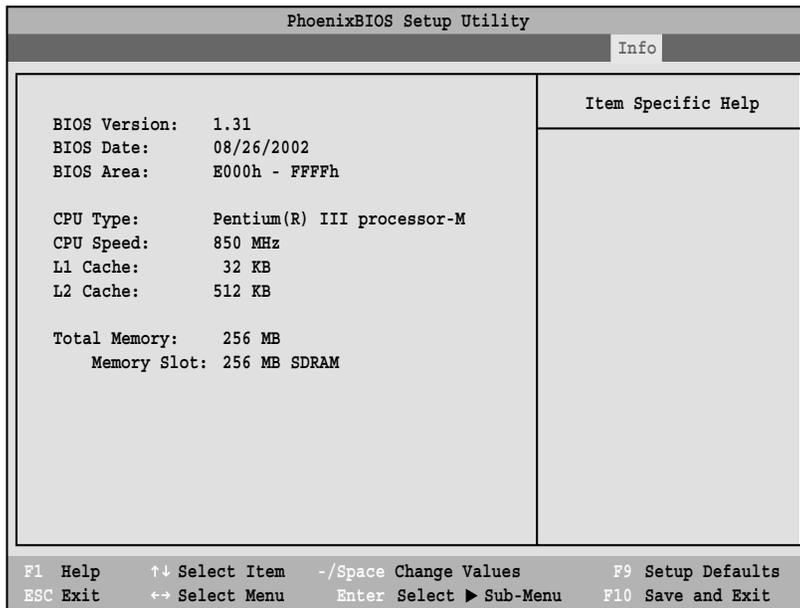


Figure 20. Info Menu

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

Menu Field	Default	Menu Field	Default
BIOS Version:	1.31	L1 Cache:	32 KB
BIOS Date:	08/26/2002	L2 Cache:	512 KB
BIOS Area:	E000h – FFFFh	Total Memory:	256 MB
CPU Type:	Pentium(R) III processor-M	Memory Slot:	256 MB SDRAM
CPU Speed:	850 MHz		

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.

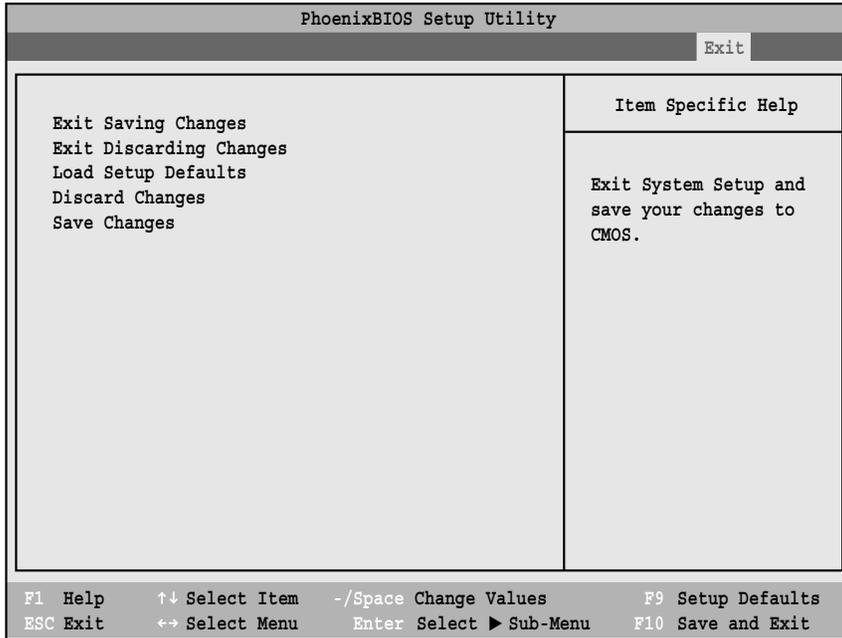


Figure 21. Exit Menu

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.

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

Menu Field	Optional Keyboard Shortcut	Description
Exit Saving Changes	Press the 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. When the BIOS recognizes this selection it will load the operating system and begin operation.
Load Setup Defaults	Press the 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 21: Fields, Options and Defaults for the Exit Menu

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