

# Fujitsu LifeBook

## A Series

### **BIOS Guide**

LifeBook A Series Model:

A3110

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**FUJITSU COMPUTER SYSTEMS CORPORATION**

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

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

### Navigating through the Setup Utility

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

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

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

6. To go to the Exit menu from any other menu, press the [Esc] key.



- 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 an opportunity to modify the setup utility settings, as described in the following steps:

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



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

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. (See *Navigating through the Setup Utility on page 2 for more information.*)

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

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



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

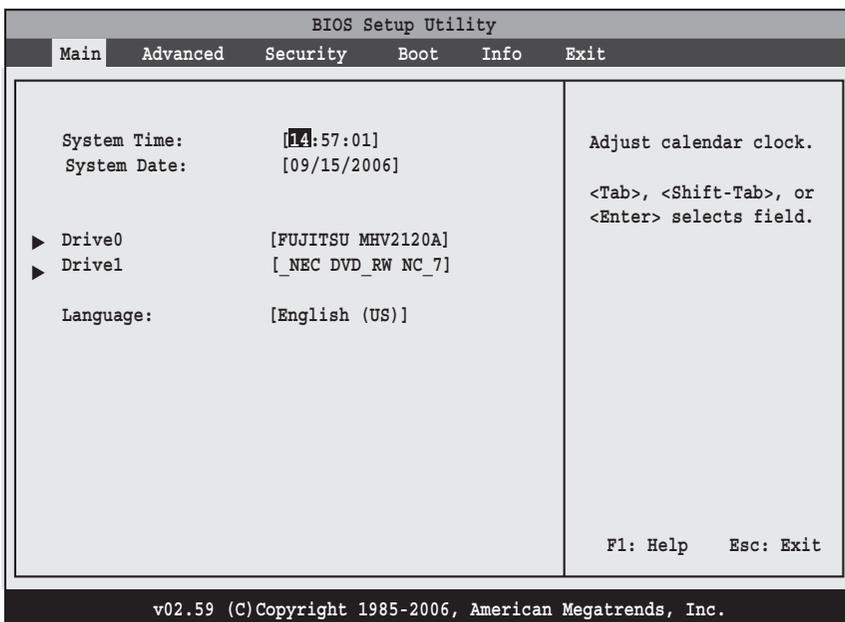


Figure 1. Main Menu

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

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

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

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

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

Menu Field	Options	Default	Description
System Date:	—	—	Sets and displays the current date. Date is in a month/day/year numeric format with 2 digits each for month and day and 4 digits for year. (MM/DD/YYYY) for example: 03/20/2006. You may change each segment of the date separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.
Drive0	Selects the Drive0 Serial ATA drive submenu	The product number of the hard drive.	Display the type of device on this ATA/IDE interface. Pressing the Enter key selects the Serial ATA Drive0 submenu which displays the default values and settings for this interface.
Drive1:	Selects the Drive1 Serial ATA drive submenu	The product number of the CD-ROM drive.	Display the type of device on this ATA/IDE interface, if there is one. Pressing the Enter key selects the Serial ATA Drive1 submenu which displays the default values and settings 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.

## Drive0 Submenu of the Main Menu

The Drive0 submenu identifies what ATA devices are installed and the default values and settings of the devices.

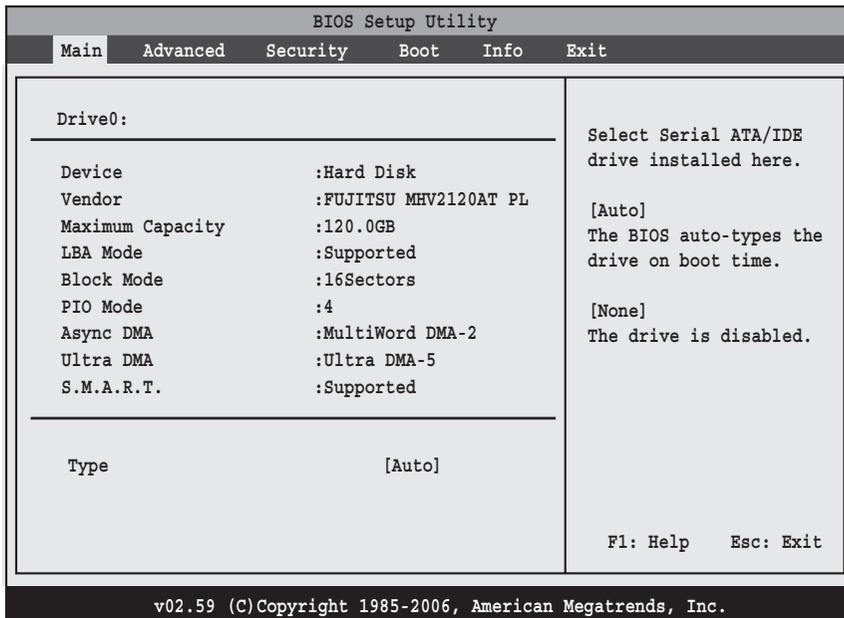


Figure 2. Drive0 Master Submenu

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

Note that the information displayed on this screen may differ from that which appears on your screen, depending upon your system configuration.

Menu Field	Options	Default	Description
The fields that appear on this screen are for display only, and reflect the default settings for the Drive0 device.			
Device	---	Hard Disk	Displays the type of Drive0 ATA/IDE drive.
Vendor	---	(Device Name)	Displays the maker of the Drive0 device.
Maximum Capacity:	---	(HDD Size)	The maximum capacity of your hard disk
LBA Mode	---	Supported	Displays whether Logical Block Addressing is supported by the device.
Block Mode	---	16 Sectors	Displays the number of sectors per block.
PIO Mode	---	4	Displays the method for moving data to/from the Drive0 device.
Async DMA	---	Multiword DMA-2	Displays the Multiword DMA method for moving data to/from the Drive0 device.

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

Note that the information displayed on this screen may differ from that which appears on your screen, depending upon your system configuration.

Menu Field	Options	Default	Description
Ultra DMA	---	Ultra DMA-5	Displays the Ultra DMA method for moving data to/from the Drive0 device.
S.M.A.R.T.	---	Supported	Displays whether Self-Monitoring Analysis Reporting Technology is supported. (MSART is a hard drive feature; warns of problems before total failure).
Type:	<ul style="list-style-type: none"> <li>▪ Auto</li> <li>▪ None</li> </ul>	[Auto]	Selects the hard drive device type. Select Auto to have the type automatically identified by the BIOS at POST. If None is selected, all of the Setup items above do not appear.

### Drive1 Submenu of the Main Menu

The Drive1 submenu allows you to configure secondary ATA devices.

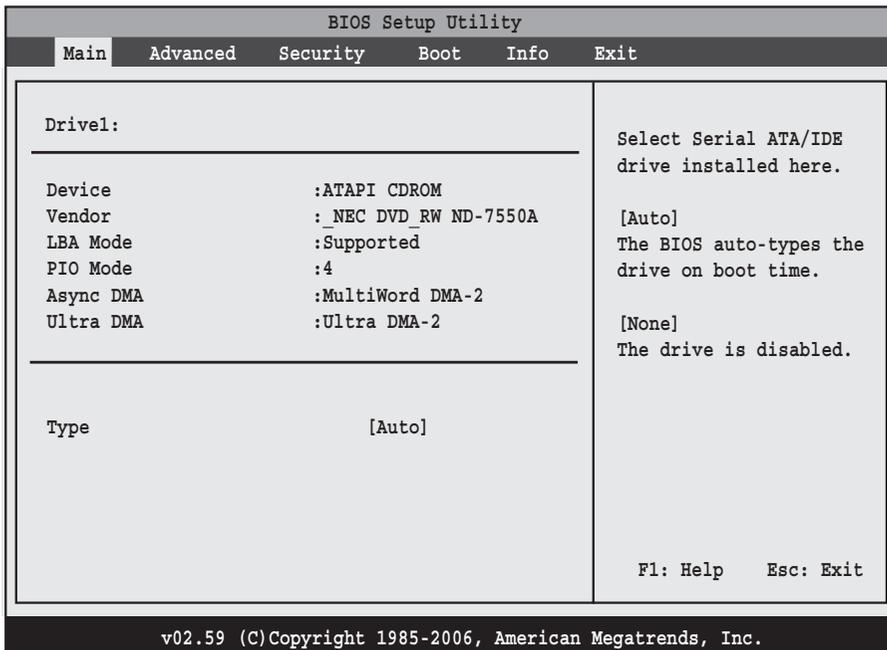


Figure 3. Drive1 Submenu

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

Menu Field	Options	Default	Description
The fields that appear on this screen are for display only, and reflect the default settings for the Drive1 device.			
Device	---	Hard Disk	Displays the type of Drive1 ATA/IDE drive.
Vendor	---	(Device Name)	Displays the maker of the Drive1 device.
LBA Mode	---	Supported	Displays whether Logical Block Addressing is supported by the device.
PIO Mode	---	4	Displays the method for moving data to/from the Drive1 device.
Async DMA	---	Multiword DMA-2	Displays the Multiword DMA method for moving data to/from the Drive1 device.
Ultra DMA	---	Ultra DMA-5	Displays the Ultra DMA method for moving data to/from the Drive1 device.

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

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"><li>▪ Auto</li><li>▪ None</li></ul>	[Auto]	Selects the hard drive device type. Select Auto to have the type automatically identified by the BIOS at POST. If None is selected, all of the Setup items above do not appear.

**Exiting from Main Menu**

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

## ADVANCED MENU – SETTING DEVICE FEATURE CONTROLS

The Advanced Menu allows you to:

- Set the keyboard and mouse features.
- Select between the display panel and an external CRT or flat panel display.
- Enable or disable compensation for your display.
- Enable or disable the IDE, Bluetooth, and LAN controllers.

- Configure CPU and USB features in your system.

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

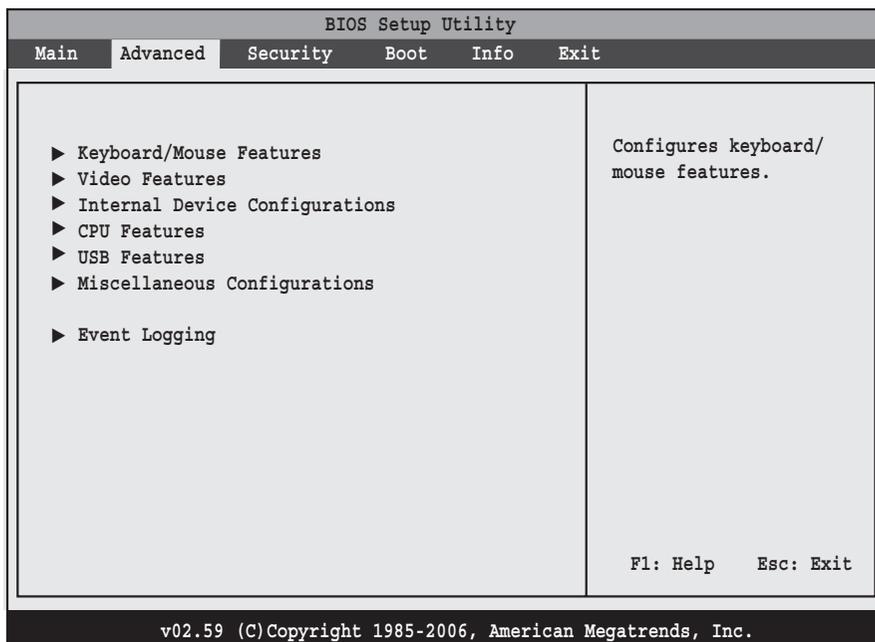


Figure 4. Advanced Menu

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

Menu Field	Description
Keyboard/ Mouse Features	Opens the Keyboard/Mouse Features submenu, which allows setting external and internal keyboard and mouse parameters.
Video Features	Opens the Video Features submenu, which allows setting of the display parameters, including routing of video signals to different displays.
Internal Device Configurations	Opens the Internal Device Configuration submenu, which allows enabling or disabling the IDE, Bluetooth, and LAN Controllers.
CPU Features	Opens the CPU Features submenu to allow you to enable or disable AMD Virtualization™.
USB Features	Opens the USB Features submenu to allow you to enable or disable legacy USB devices and SCSI Sub-Class support.

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

Menu Field	Description
Miscellaneous Configurations	Opens the Miscellaneous Configurations submenu to allow you to enable or disable the power button, Wake Up On LAN, control volume settings, and adjust UMA video memory size.
Event Logging	Opens the event logging submenu.

## 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.

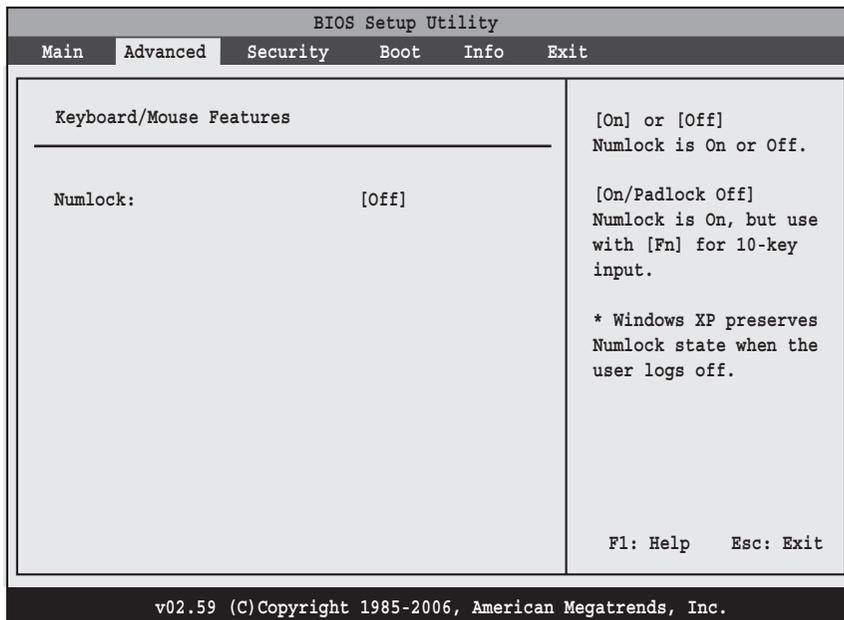


Figure 5. Keyboard/Mouse Features Submenu

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

Menu Field	Options	Default	Description
Numlock:	<ul style="list-style-type: none"> <li>▪ On</li> <li>▪ Off</li> <li>▪ On/Padlock Off</li> </ul>	[Off]	Sets the NumLock function state when the computer completes booting. When [On] or [Off], Numlock is on or off. When [On/Padlock Off] is selected, Numlock is on, but [Fn] key must be pressed used for 10-key input. Windows XP preserves Numlock state when the user logs off.

## Video Features Submenu of the Advanced Menu

The Video Features submenu is for setting the display parameters.

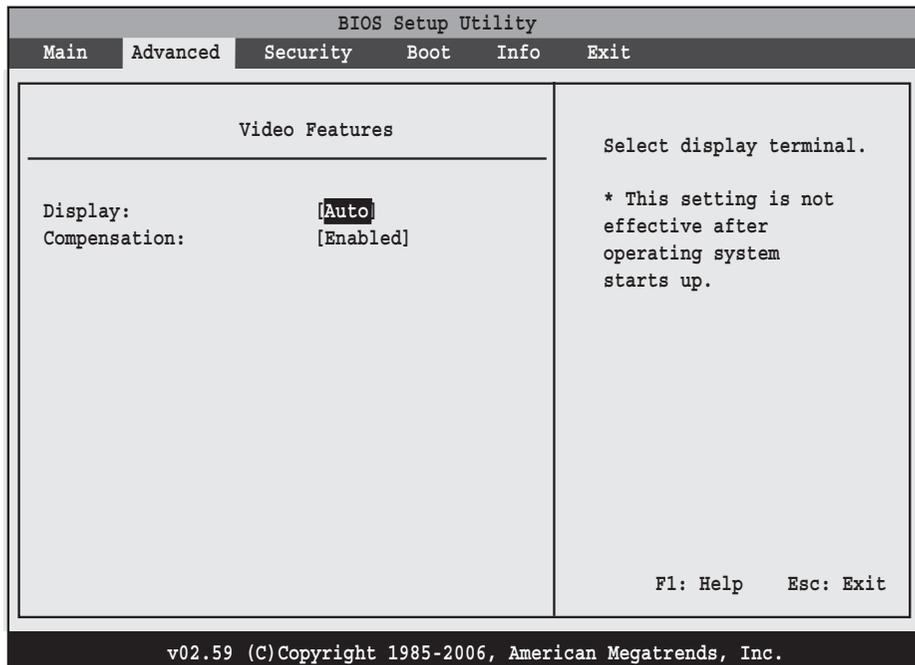


Figure 6. Video Features Submenu

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

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

## Internal Device Configurations Submenu of the Advanced Menu

The Internal Device Configuration submenu allows the user to enable or disable IDE, Bluetooth, and LAN Controllers.

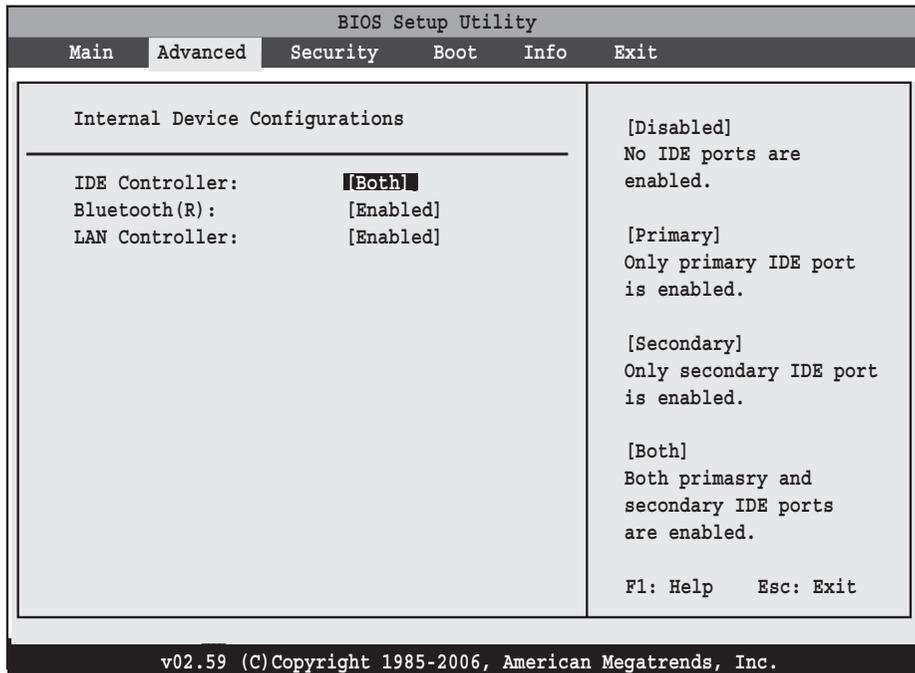


Figure 7. Internal Device Configuration Submenu

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

Menu Field	Options	Default	Description
IDE Controller	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Primary</li> <li>▪ Secondary</li> <li>▪ Both</li> </ul>	[Both]	When Disabled, none of the IDE ports are enabled. When Primary is selected, only the primary IDE port is enabled. When Secondary is selected, only the secondary IDE port is enabled. When Both is selected, both the primary and secondary IDE ports are enabled.
Bluetooth(R)	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the Bluetooth device.
LAN Controller:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Enables or disables the LAN controller.

## CPU Features Submenu of the Advanced Menu

The CPU Features submenu provides options for configuring the AMD Virtualization™ features of the CPU.

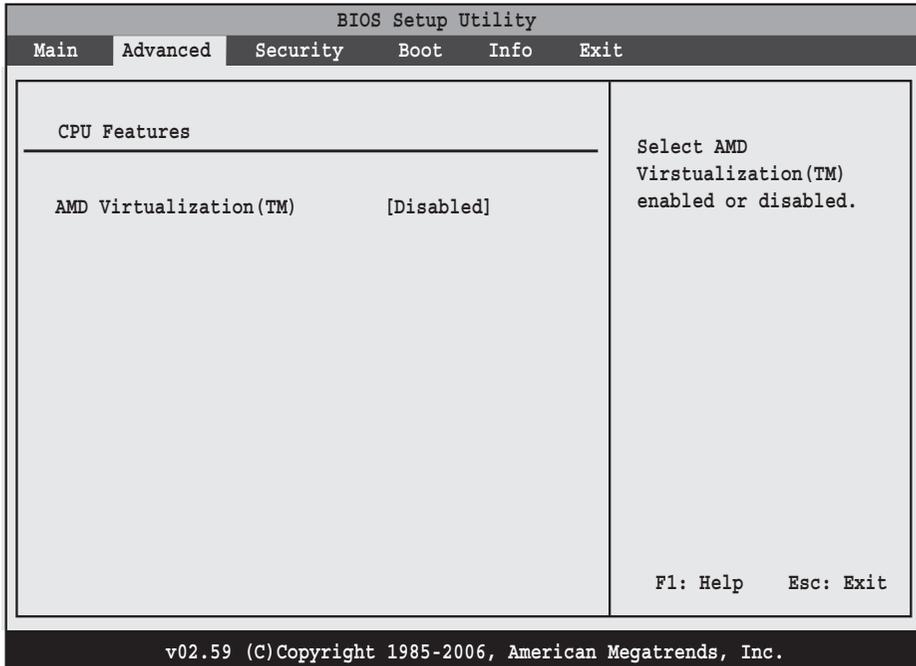


Figure 8. CPU Features Submenu

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

Menu Field	Options	Default	Description
AMD Virtualization(TM)	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Enables or disables the AMD Virtualization(TM) feature. AMD Virtualization(TM) allows multiple operating systems and applications to be run simultaneously. The result is smoother multi-tasking and a more efficient use of system resources.

## USB Features Submenu of the Advanced Menu

The USB Features submenu provides options for enabling or disabling the USB Floppy Disk Drive.

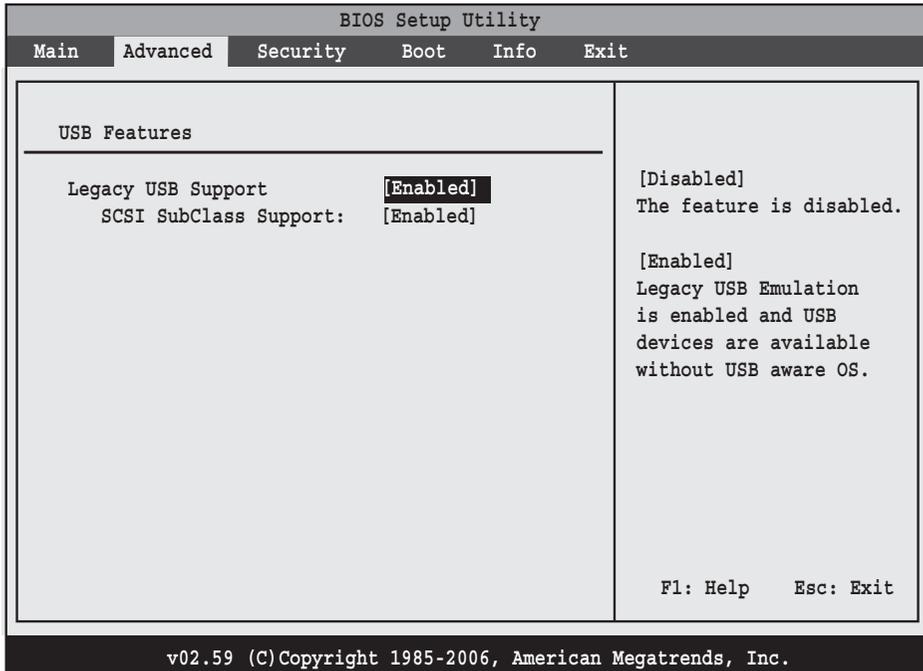


Figure 9. USB Features Submenu

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

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

## Miscellaneous Configurations Submenu of the Advanced Menu

The Miscellaneous Configurations submenu provides options for enabling or disabling the power button and the Wake Up On LAN feature, and setting the volume and video memory size.

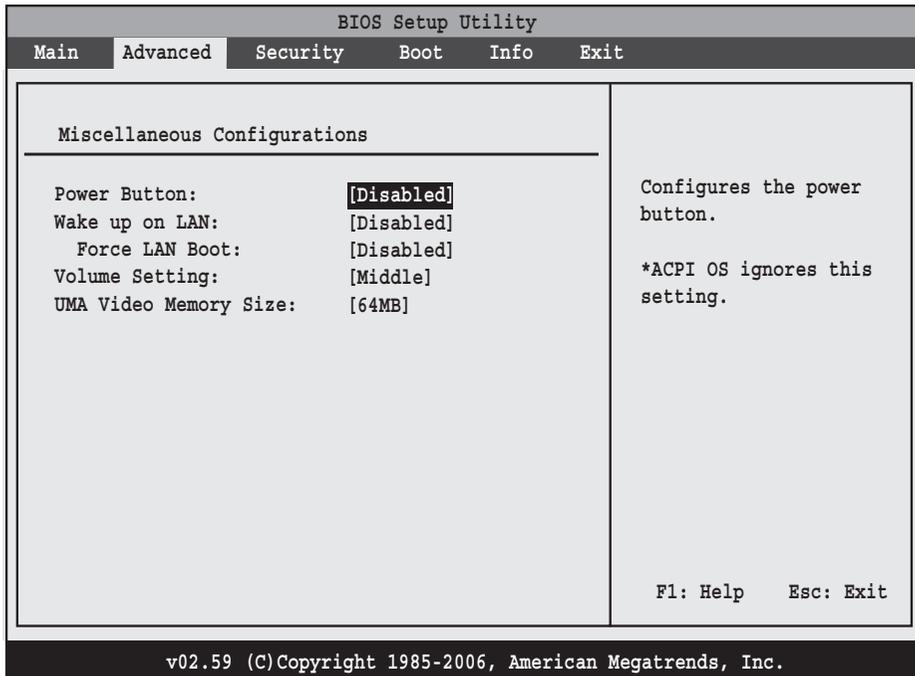


Figure 10. Miscellaneous Configurations Submenu

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

Menu Field	Options	Default	Description
Power Button:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Power Off</li> </ul>	[Disabled]	Selecting Disabled disables the power button. Selecting Power Off allows you to turn off system power with the power button.
Wake up on LAN:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Selecting Enabled allows the system to wake up when the internal LAN device receives a specific signal while in power-off state. Selecting Disabled disables this feature.
Force LAN Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	This feature is active only when "Wake up on LAN" is enabled. When enabled, in the event of a system wake-up on LAN, the system will try to first boot from the LAN before attempting to boot from any other device, regardless of the BIOS boot priority settings or disabling of the Preboot Execution Environment.

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

Menu Field	Options	Default	Description
Volume Setting:	<ul style="list-style-type: none"><li>▪ Off</li><li>▪ Minimum</li><li>▪ Middle</li><li>▪ Maximum</li></ul>	[Middle]	Selects the initial volume setting for the system.
UMA Video Memory Size:	<ul style="list-style-type: none"><li>▪ 32MB</li><li>▪ 64MB</li><li>▪ 128MB</li><li>▪ 224MB</li></ul>	[64MB]	Allows you to select the maximum shared video memory size. Video memory is dynamically allocated as needed for running applications by Dynamic Video Memory Technology (DVMT).

## Event Logging Submenu of the Advanced Menu

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

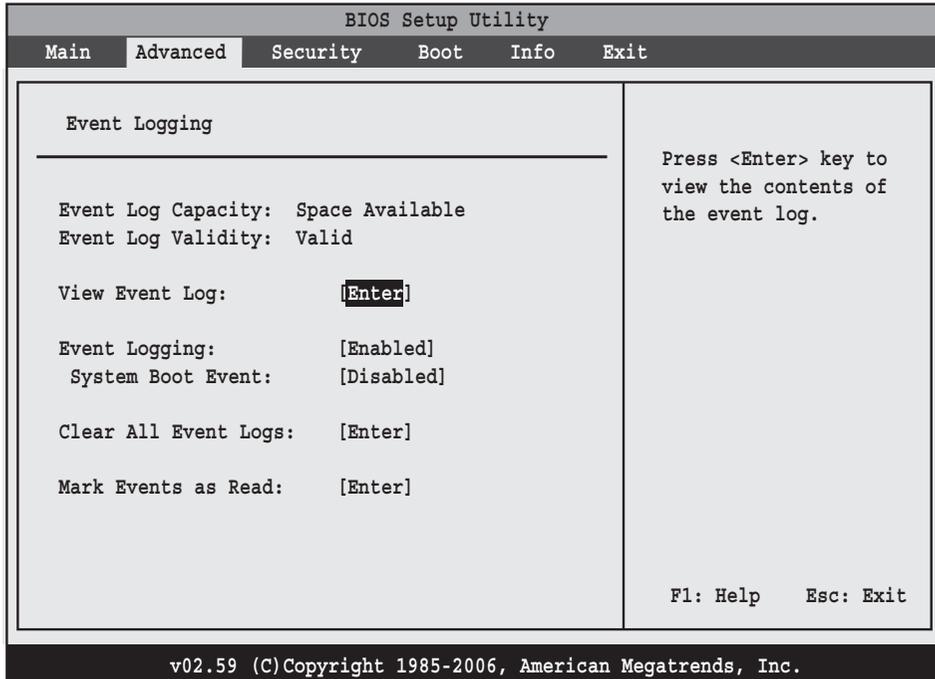


Figure 11. Event Logging Submenu

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

Menu Field	Options	Default	Description
Event Log Capacity:		Space Available	Display only
Event Log Validity:		Valid	Display only
View Event Log:	▪ Enter	[Enter]	Allows you to view content of event log
Event Logging:	▪ Disabled ▪ Enabled	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	▪ Disabled ▪ Enabled	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	▪ Enter	[Enter]	Allows you to clear the Event Log.
Mark Events as Read:	▪ Enter	[Enter]	Lets you mark all events currently in the event log as having been read.

## SECURITY MENU – SETTING THE SECURITY FEATURES

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

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



**Remember your passwords!** If you set and forget your User and Master hard disk passwords, Fujitsu Computer Systems Corporation will not be able to reset it. You may lose data and have to replace your system board or hard disk drive. For more information, call Fujitsu Service and Support at 1-800-8FUJITSU.



- Entering a password incorrectly 3 times in a row causes 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 you make an error when re-entering the password a **Warning** will display on the screen. To try again press [Enter], then retype the password. Press [Esc] to abort the password setting process.
- Boot sector protection must be set to [Normal] to install or upgrade an operating system.

BIOS Setup Utility					
Main	Advanced	Security	Boot	Info	Exit
Supervisor Password Is: Clear		Press <Enter> key to set Supervisor Password to enable any password features.			
User Password Is : Clear		Then password entry is required to enter BIOS Setup.			
Set Supervisor Password		[Enter]			
Set User Password		[Enter]			
Minimum User Password Length:		[0]			
Password on Boot:		[Disabled]			
On Automatic Wake up:		[Disabled]			
KB Lock on Resume:		[Disabled]			
Boot from Removable Media:		[All]			
Flash Write:		[Enabled]			
▶ Hard Disk Security					
▶ Owner Information					
		F1: Help Esc: Exit			
v02.59 (C) Copyright 1985-2006, American Megatrends, Inc.					

Figure 12. Security Menu

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

Menu Field	Options	Default	Description
Supervisor Password is:	—	Clear	A display-only field. Set is displayed when the system supervisor password is set and Clear when it is not.
User Password is:	—	Clear	A display-only field. Set is displayed when the general user password is set, and Clear when it is not.
Set Supervisor Password	—	[Enter]	Sets, changes or cancels the Supervisor Password. The 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 the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Supervisor Password is set it must be used to access the BIOS setup utility.
Set User Password	—	[Enter]	This field can only be accessed if the Supervisor Password is set. Sets, changes or cancels the User Password. 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 [Enter] key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a User Password is set it must be used to access the BIOS setup utility.
Minimum User Password Length:	—	[0]	Supervisor can set password length (0 to 8) for user password. User cannot set a password shorter than the minimum length.
Password on Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ First Boot</li> <li>▪ Every Boot</li> </ul>	[Disabled]	When set to First Boot, a password (User or Supervisor) is required just once after the Power On Self Test (POST) before the operating system will be read from a disk. When set to Every Boot, a password (User or Supervisor) is required every time after the Power On Self Test (POST) before the operating system will be read from a disk. When set to Disabled no password is required.
On Automatic Wake up:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	When disabled, password entry is not required when the system wakes up automatically. When enabled, password entry is required upon wake up.
KB Lock on Resume:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	When set to Enabled, the PS/2 mouse and keyboard inputs are locked out upon Resume from Standby and Hibernated mode until you enter the password. When set to Disabled no password is required. If no Supervisor Password is set, this feature is not available and no password is required.
Boot from Removable Media:	<ul style="list-style-type: none"> <li>▪ All</li> <li>▪ Supervisor only</li> </ul>	[All]	Supervisor only allows access to boot the computer to removable media after the Supervisor Password is entered.

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

Menu Field	Options	Default	Description
Flash Write:	<ul style="list-style-type: none"><li>▪ Disabled</li><li>▪ Enabled</li></ul>	[Enabled]	When disabled, the BIOS Flash memory will be write protected.
Hard Disk Security:	—	—	Configures hard disk security features
Owner Information:	—	—	Sets Owner information.

### Exiting from the Security Menu

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

## Hard Disk Security Submenu of the Security Menu

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

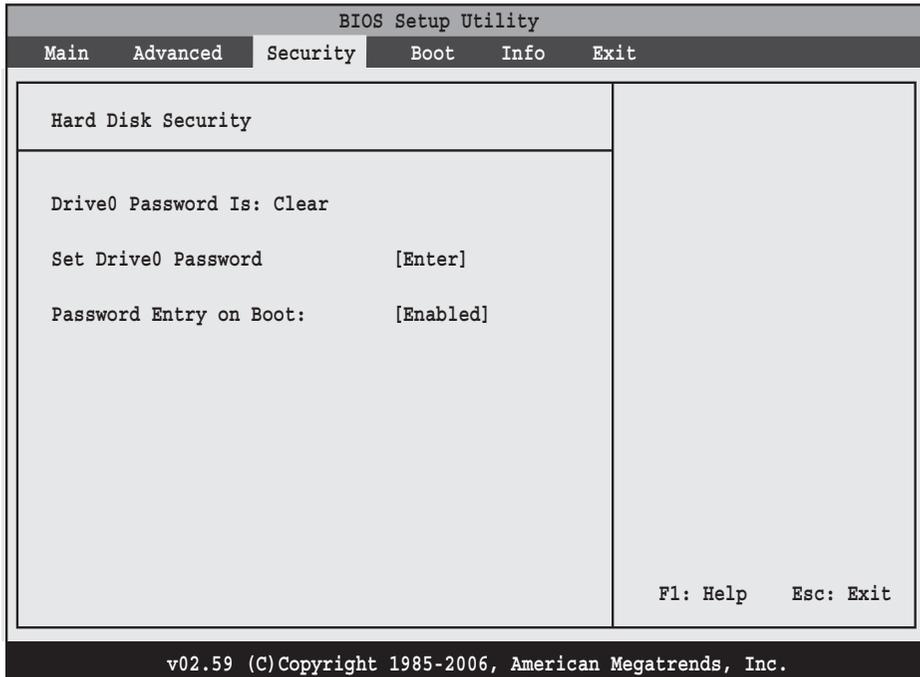


Figure 13. Hard Disk Security Submenu

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

Menu Field	Options	Default	Description
Drive0 Password Is:	—	Clear	Display-only. Default is Clear. When the Drive0 Password has been set, the field changes to Set. When this password is set, the primary hard disk drive cannot be used in another system unless the password is entered.
Set Drive0 Password	—	[Enter]	Sets, changes or cancels the Drive0 Master Password. The Drive0 Master Password may be up to seven characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. When a Drive0 Master Password is set, it must be used to access the hard drive if it is used in another system. Note that the password will not take effect until the system has been rebooted.
Password Entry on Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When set to disabled, entry of a Hard Disk Password is not required before OS boot. (The hard disk is still password-protected without password entry.)

## Owner Information Submenu of the Security Menu

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

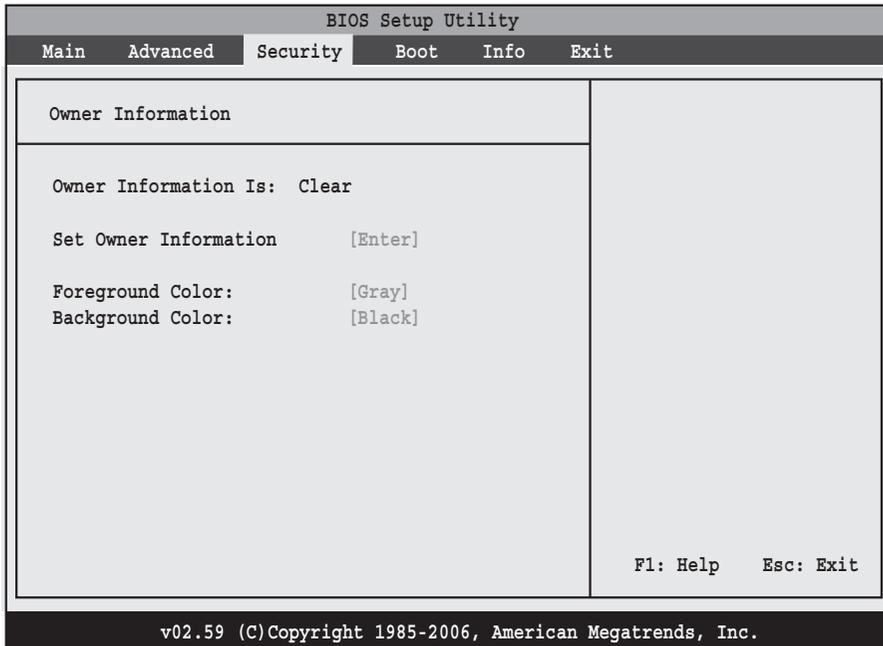


Figure 14. Owner Information Submenu

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

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

## BOOT MENU – SELECTING THE OPERATING SYSTEM SOURCE

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

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



Figure 15. Boot Menu

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

Menu Field	Options	Default	Description
Quick Boot:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	Turns on and off booting with a truncated set of Power On Self Test. (Fewer tests mean faster startup.)
Boot-time Diagnostic Screen:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Turns on and off display of test results instead of Fujitsu logo screen during Power On Self Test.
Boot Menu:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Enabled]	When Disabled, the Boot Menu is disabled and the [F12] key is ignored. When Enabled, the Boot Menu is enabled. This option is active only when a supervisor password is set.
Preboot Execution Environment:	<ul style="list-style-type: none"> <li>▪ Disabled</li> <li>▪ Enabled</li> </ul>	[Disabled]	Turns on and off the preboot execution environment feature.

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

Menu Field	Options	Default	Description
Boot Device Priority	—	—	This menu allows setting up the source for the operating system. See "The Boot Device Priority Submenu" in the following section.
Hard Disk Drives Priority	—	—	This menu allows selecting the priority with which the hard disk drives will be selected for Boot. See "The Boot Device Priority Submenu" below.
CD/DVD Drives Priority	—	—	This menu allows selecting the priority with which the CD/DVD drives will be selected for Boot. See "The Boot Device Priority Submenu" below.

## 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.



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

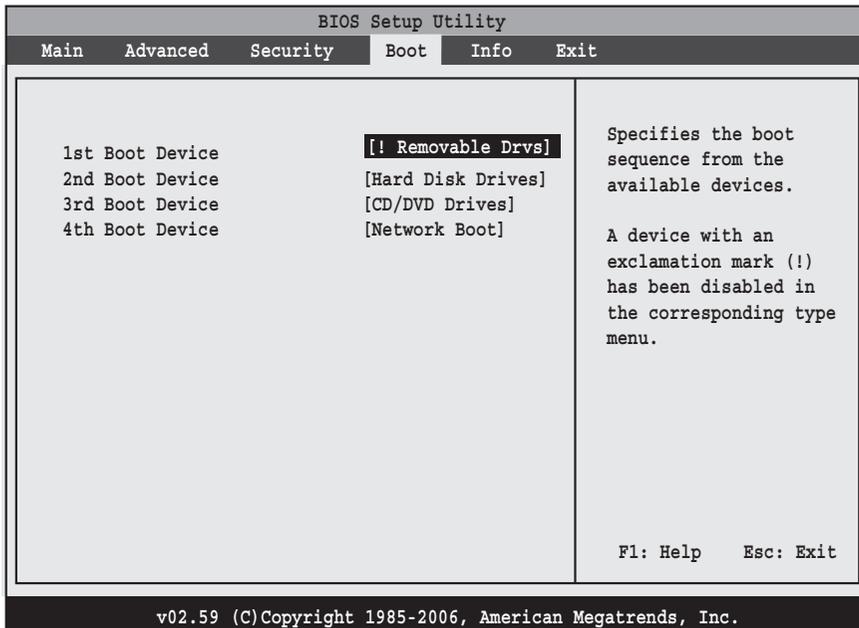


Figure 16. Boot Device Priority Submenu

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

Menu Field	Options	Default	Description
Boot Device Priority: 1st Boot Device 2nd Boot Device 3rd Boot Device 4th Boot Device	Boot selections determine the order 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. Be sure to save your changed order when you exit the BIOS setup utility. NOTE: Be aware that if you use the CD-ROM drive as the first boot device, certain files may be overwritten, depending upon your operating environment.		
Hard Disk Drives Priority	<ul style="list-style-type: none"> <li>▪ (Installed HDD)</li> <li>▪ Disabled</li> </ul>	[Installed HDD]	Select the boot sequence or disable the hard disk drive(s) from the boot sequence.

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

Menu Field	Options	Default	Description
CD/DVD Drives Priority	<ul style="list-style-type: none"><li>▪ (Installed CD/DVD Drive)</li><li>▪ Disabled</li></ul>	[Installed CD/DVD Drive]	Select the boot sequence or disable the CD/DVD drive(s) from the boot sequence.

**Exiting from Boot Menu**

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

## INFO MENU - DISPLAYS BASIC SYSTEM INFORMATION

The Info Menu is a display only screen that provides the configuration information for your notebook.

The following table shows the names of the menu fields for the Info menu and the information displayed in

those fields. These fields are for information purposes only, and cannot be modified by the user.



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

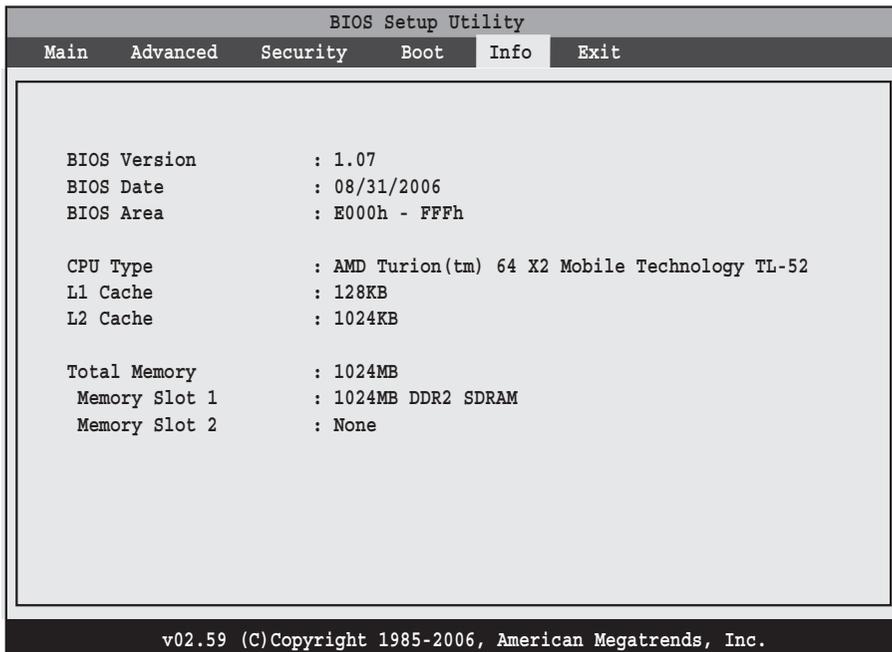


Figure 17. Info Menu

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

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

Menu Field	Default	Menu Field	Default
BIOS Version:	1.07	L2 Cache:	1024KB
BIOS Date:	08/31/2006	Total Memory:	1024MB
BIOS Area:	E000h – FFFFh	Memory Slot 1:	1024MB DDR2 SDRAM
CPU Type:	AMD Turion™ 64 X2 Mobile Technology TL-52	Memory Slot 2:	None
L1 Cache:	128KB		

## EXIT MENU – LEAVING THE SETUP UTILITY

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

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

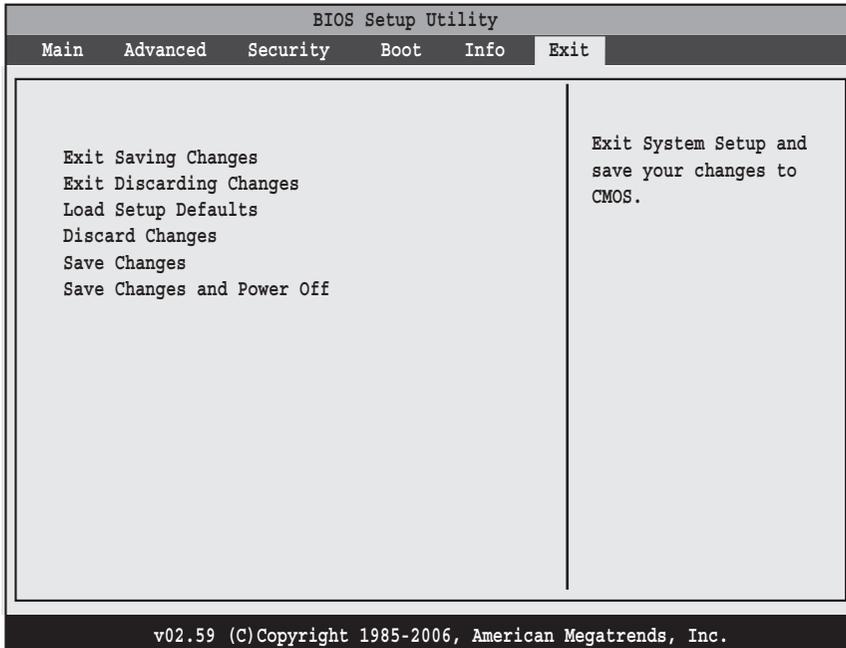


Figure 18. Exit Menu

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

Menu Field	Description
Exit Saving Changes	Exit Saving Changes and Exit will store all the entries on every menu of the setup utility to the BIOS memory, then exit the utility. A confirmation message <code>Save Configuration changes and exit now? [Yes][No]</code> is 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 <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 18: Fields, Options and Defaults for the Exit Menu**

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