

7 The BIOS Setup Program

7.1 Introduction

The BIOS (Basic Input and Output System) Setup program is a menu driven utility that enables you to make changes to the system configuration and tailor the operation of your Notebook to your individual work needs. A ROM-based configuration utility displays the system's configuration status and provides you with a tool to set system parameters. These parameters are stored in nonvolatile battery backed-up CMOS RAM, which saves this information even when the power is turned off. When the computer is turned back on, the system is configured with the values found in CMOS. Using easy-to-use menus, you can configure such items as:

- Hard drives, diskette drives and peripherals
- Video display options
- Password protection from unauthorized use
- Boot devices

The settings made in the Setup program intimately affect how the Notebook performs. It is important, therefore, first to try to understand all the available options, and second, to make settings appropriate for the way you use the Notebook. This chapter will guide you through the Setup program by providing clear explanations for all Setup options.

A standard configuration has already been set in the Setup program by the factory technicians, so you will very likely have little to worry about for now. However, eventually you may want to customize your system to suit your own performance needs. It is recommended that you read this chapter and become familiar with the adjustments that can be made in the BIOS.

The next section explains how to move around in the Setup program, as well as how to specify and save your new settings. A brief discussion of the optional settings among the different submenus follows.

7.2 Navigating through the BIOS Setup Program

The Setup program has been designed to make it as easy to use as possible. It is a menu driven program, which means you can scroll through the various directories and make your selections among the various predetermined choices. If you accidentally make a setting and do not know which one to switch back to, use the BIOS hot keys to return to the previous value. The hot keys are discussed in more detail later in this chapter.

When turning on the Notebook for the first time you may get a message prompting you to run the BIOS Setup program. A warning message may appear on the screen if the hardware configuration is changed or the POST fails. This message will inform you of any errors or invalid settings and prompt you to run the Setup program to correct the problem.

Even if you are not prompted by a message instructing you to use the Setup program, at some time in the future you may want to change the configuration of your computer. For example, you may want to make changes to the display option settings or enable the Notebook's password function for security purposes. It will then be necessary to reconfigure your system using the Setup program so that the computer can recognize these changes.

The list below gives a few examples of reasons why you may want or need to run the BIOS Setup program.

- You have set up the computer for the first time and you got a message stating that you should run the BIOS Setup program.
- You want to redefine the communication ports to prevent any conflicts.
- You want to change the password or make other changes to the

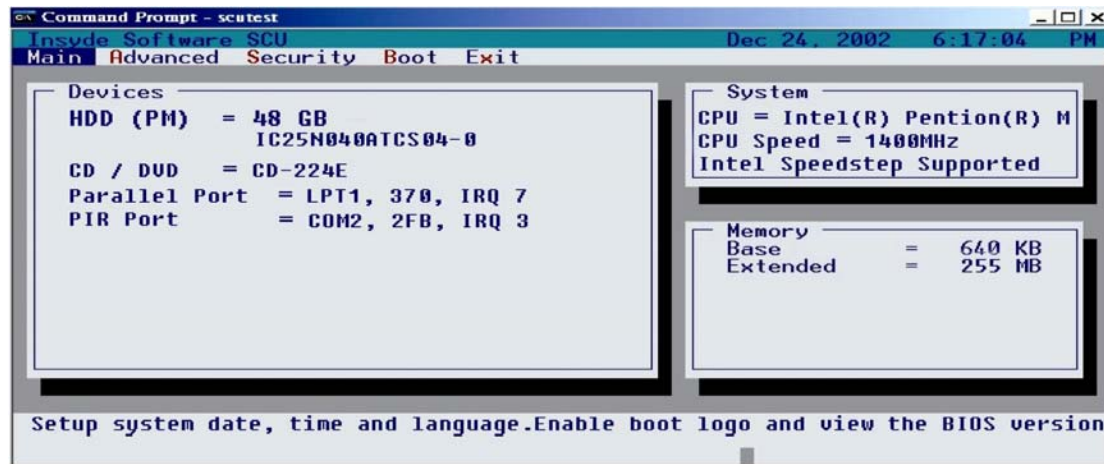
security setup.



The few examples listed above are by no means a complete list.

7.2.1 Accessing the BIOS Setup program

To access the BIOS Setup program, press the F2 key as soon as the computer starts up and you see the INSYDE BIOS screen.



The Menu Bar

The top of the Setup screen has a menu bar with the following selections:

Main	Use this menu to make changes to the basic system configuration.
Advanced	Use this menu to enable and make changes to the advanced features available on your system.
Security	Use this menu to set User and Supervisor passwords.
Boot	Use this menu to specify the order in which the Notebook is to check for a device to boot the system.
Exit	Use this menu to specify how to exit the Setup program.

To move between menu bar items, use the [◀] and [▶] arrow keys until the desired item is highlighted. For example, if you want to move from the Main menu to the Advanced menu, press the right arrow key [▶] once.

Item Specific Help

At the bottom of the Setup screen, you will notice an item specific help bar. For each item that you select on the menu, the bar informs of its specific function as well as the hot keys related specifically to that item and/or submenu.

7.2.2 Launching submenus

A submenu contains additional options for a field parameter. To call up a submenu, simply move the highlight to the desired field and press the [Enter] key. The submenu opens.

If you are a first time user or are not familiar with BIOS Setup programs, it is highly recommended that you take a few minutes to familiarize yourself with each of the submenus and their corresponding functions. If you accidentally make unwanted changes to the current configuration, go to the Exit menu and select Discard Changes.

7.2.3 Saving Changes and Exiting the Setup Program

Refer to the Exit Menu section of this chapter for detailed information on saving changes and exiting the Setup program.

7.3 The Main Menu

When the Setup program is accessed, the Information screen appears. Use the down key to select the Main Menu.

Enter the Main Menu of the BIOS setup program to make changes to the Notebook's basic system configuration. Each of the fields displayed in this menu is covered below in detail.

Date and Time

Sets your system to the time that you specify (usually the current time). The format is hour, minute, and second, using the 24-hour clock. Insert the appropriate information. Use the mouse to move between the hour, minute, and second fields.



Splash Boot Logo

Selecting this option displays the INSYDE BIOS splash logo when you start your computer. If you do not select it, the startup system check sequence is displayed.

Use the [SPACE] bar to select the Splash Boot Logo option or not.

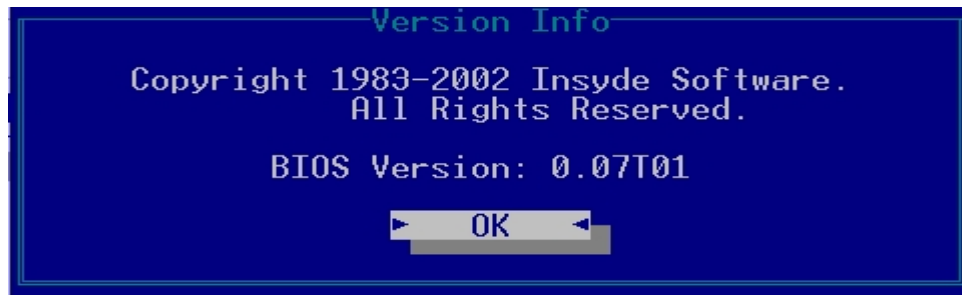
Language

Sets the BIOS Setup program's language. Choose either English or Japanese.



Version Info

Displays the BIOS Setup program's version information.



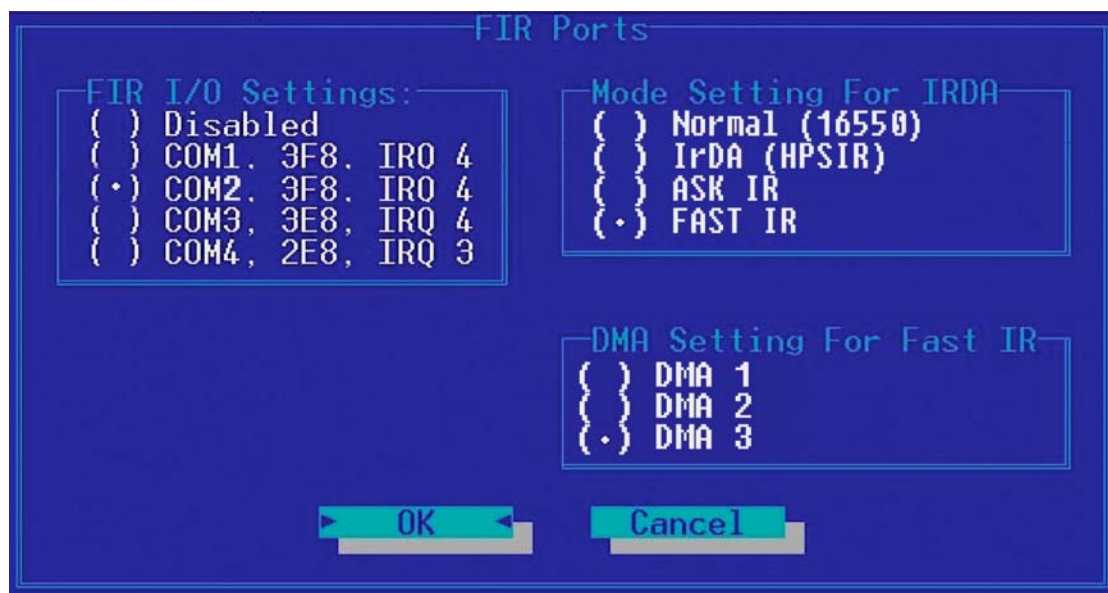
7.4 The System Devices Menu

Selecting *System Devices* from the menu bar displays the System Devices Menu.

This menu allows you to configure the Notebook's ports options. Each field on this menu is covered below.

FIR Ports

This field allows you to configure the Notebook's FIR Port. The following options are available:



FIR I/O address – Lets you Disable the FIR Port or assign an I/O port to the device. The following I/O options are available:

- Disabled
- Com1, 3F8, IRQ 4
- Com2, 3F8, IRQ 4
- Com3, 3E8, IRQ 4
- Com4, 2E8, IRQ 3

Mode Settings for IRDA – Allows you to configure the Notebook's FIR Port transmission mode. The following options

are available:

- Normal (16650)
- IrDA (HPSIR)
- ASK IR
- FAST IR

The default value for this field is Fast IR.

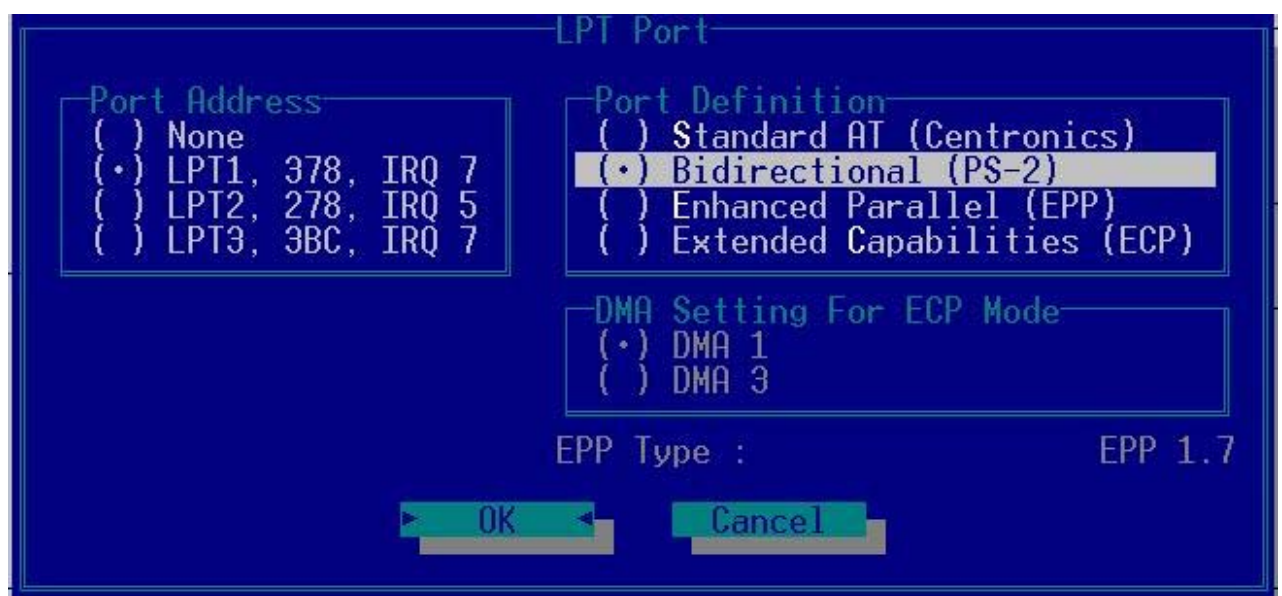
DMA Setting for Fast IR – This field is only available when the FIR Port Mode Setting for IRDA is set to FAST IR. The following options are available:

- DMA 1
- DMA 2
- DMA 3

The default value for this field is: DMA 3

LPT Port

This field allows you to configure the Notebook's LPT Port. The following options are available:



- None
- LPT1, 378, IRQ 7

- LPT2, 278, IRQ 5
- LPT3, 3BC, IRQ 7

The default value for this field is: LPT1, 378, IRQ 7



Changing the default address and IRQ settings for the Serial and LPT Port can cause conflicts with other installed peripherals

Port Definition – This field allows you to configure the Notebook's LPT Port transmission mode.

The following options are available:

- Standard
- Bidirectional
- Enhanced Parallel Port (EPP)
- Extended Capabilities (ECP)

EPP and ECP are bidirectional modes, allowing both data input and output. The EPP and ECP modes are only supported with EPP- and ECP-aware peripherals.

DMA Setting for ECP Mode – This field is only available when the Port Definition is set to ECP.

The following options are available:

- DMA 1
- DMA 3

The default value for this field is: DMA 1

Legacy USB

Enables or disables legacy USB device support.

Use the [SPACE] bar to select the Legacy USB option or not.

7.5 The Security Menu

The Notebook's advanced system of security allows you to set a password to prevent unauthorized access to system resources, data, and the BIOS Setup program. This section covers each parameter of the Security Menu. Selecting *Security* from the menu bar displays the following menu:

Each field of the Security Menu is covered in detail below.

A Note about Passwords

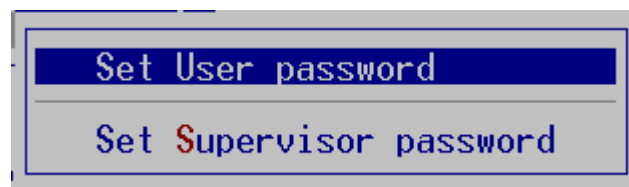
The BIOS Setup program allows you to specify passwords in the Security menu. The passwords control access to the BIOS and certain Security menu options during system startup.

The passwords are not case sensitive. In other words, a password can be entered using either upper or lower case letters; it makes no difference.

Passwords should be composed of characters A-Z, 0-9 and ten characters in length.

The administrator password must be set before the user password can be set.

Set User Password... / Set Supervisor Password...

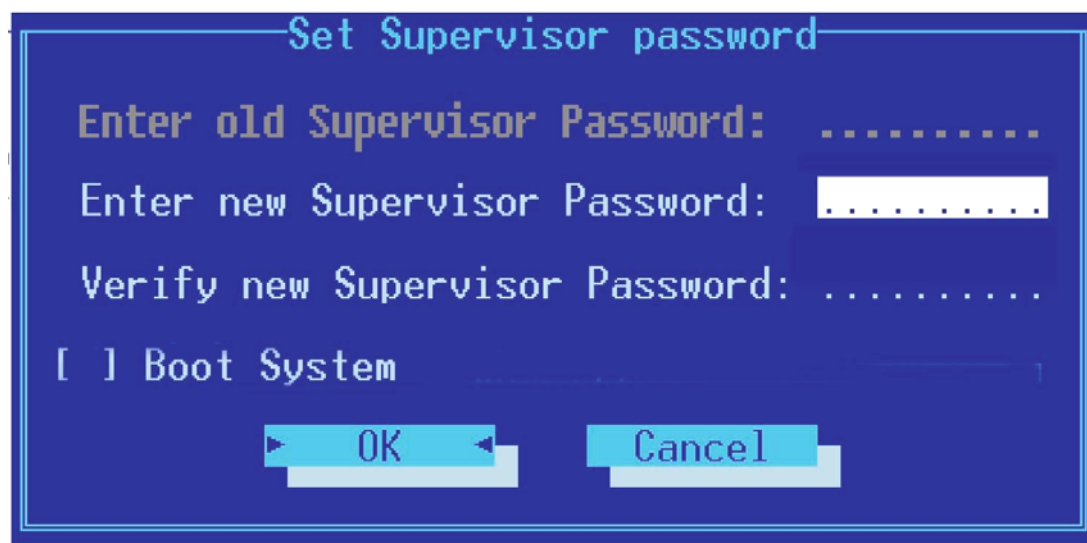


These fields allow you to set the System Password. The System Password allows full access to the BIOS Setup menus. To set the Supervisor password, highlight this field and press [Enter].

Type the password and press the [Enter] key. You can type up to ten alphanumeric characters. Symbols are ignored.

To confirm the password, type the password again and press the [Enter] key. The supervisor or user password is now set, and now you can choose when to verify the password – either when you boot the system, or when a person enters Setup.

To change or clear a password, enter the submenu again. You will need to enter the Supervisor password, after which you can create a new one or set the password verification options.



The image shows a BIOS setup screen titled "Set Supervisor password". It contains three input fields for passwords, each followed by a series of dots. Below the input fields is a checkbox labeled "[] Boot System". At the bottom, there are two buttons: "OK" and "Cancel".

Set Supervisor password

Enter old Supervisor Password:

Enter new Supervisor Password:

Verify new Supervisor Password:

[] Boot System

OK Cancel

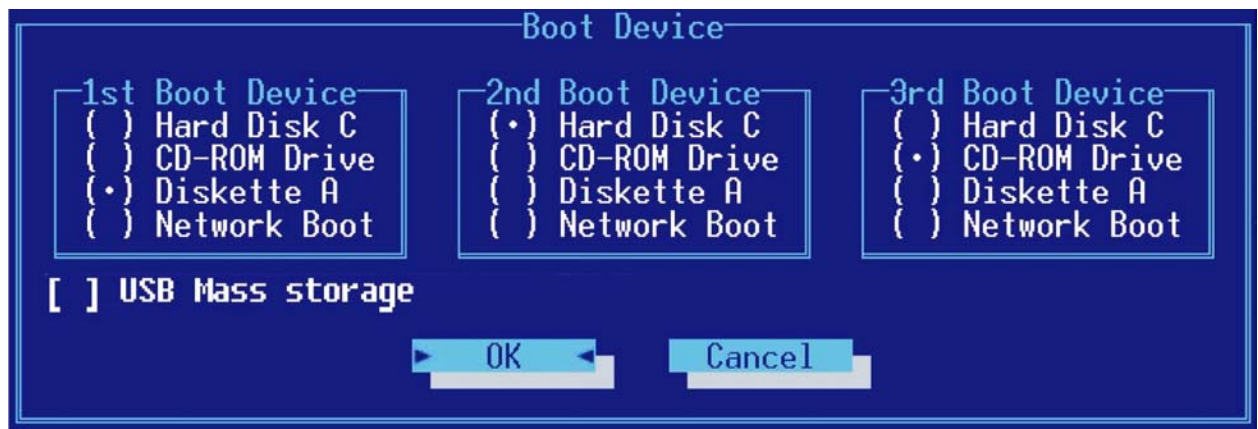
7.6 The Boot Menu

The Boot Menu allows the user to specify the order in which the Notebook is to check for a device to boot the system. To make changes, select Boot from the menu bar. The following screen appears:

Boot Device

The Boot Menu allows you to alter the priority the system uses to search for the boot device on system power up according to numerical order.

Use your mouse to select the First, Second, and Third boot devices from this submenu.



7.7 The Exit Menu

Once you have made all of your selections from the various menus in the Setup program, you should save your changes and exit Setup. Select Exit from the menu bar to display the following menu:

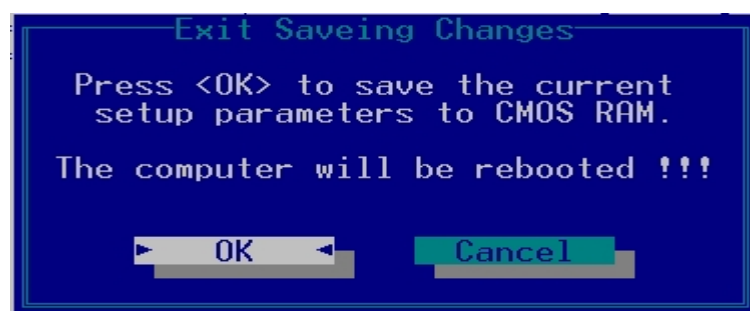


Pressing the [Esc] key can be used to close an open menu or submenu. Pressing it again saves the current parameters and reboots the computer.

Each of the options on this menu is described below.

Exit Saving Changes

Once you are finished making your selections, choose this option from the Exit Menu to ensure the values you selected are saved to Non-Volatile RAM. Changes you made to the Setup program must be changed to Non-Volatile RAM in order to make them operative. Non-Volatile RAM differs from standard RAM memory in that it is sustained by an on-board battery and stays on even when the Notebook is turned off.



Once your selections have been saved, the Setup program asks you to confirm your choice, and then reboot the computer.

System will reboot if OK is selected and will stay in Setup if Cancel is selected.

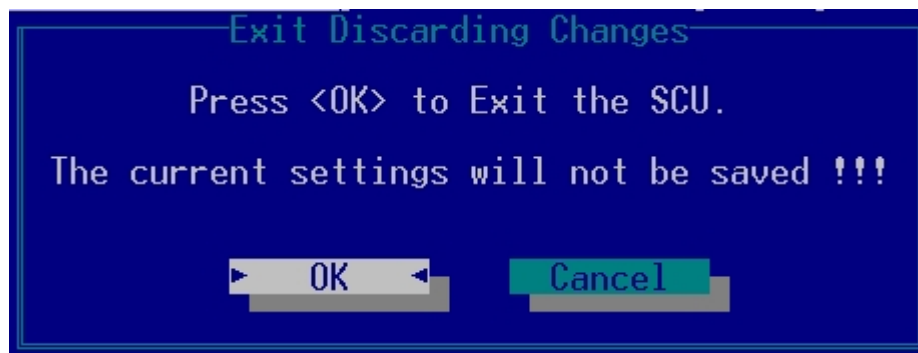
The next time you boot up the Notebook, the BIOS will attempt to load the values you saved in Non-Volatile memory. If these values cause the system boot to fail, reboot and press [F2] to enter the Setup program. Once in Setup, you can try to change the values that caused the system boot to fail. If the problem persists, load the default values (see *Get Default Values* below).



If you attempt to exit the Setup program without saving your changes, the program will prompt you with a message asking if you want to save your changes before exiting.

Exit Discarding Changes

This option can be used if you do not want to save the changes you have made to the Setup program. The default is set to No. If you have made changes to the fields other than system date, system time and password, the system will ask for confirmation when choosing *Exit Discarding Changes*.

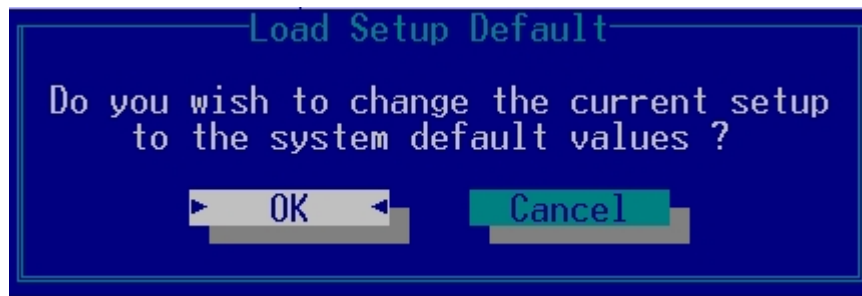


The system reboots using the original Setup values.

Load Setup Default

This option allows you to load the default values for each of the parameters on the Setup Menus. When this option is selected, a confirmation message appears.

The system will remain in Setup after either selection.



You can now select *Exit Saving Changes* or make other changes before saving the values to Non-Volatile RAM.

Discard Changes

Restores the Setup program's values to the ones it had when you entered the program during the boot sequence.

