

Chapter 6

Setup

The notebook has a BIOS setup utility that allows you to configure the notebook and its hardware settings. This chapter tells how to use the Setup utility and describes each parameter item in the setup screens.

6.1 When to Use Setup

The notebook is already correctly configured for you and you do not need to run Setup. If you make any changes to the notebook or you receive an Equipment Configuration Error message after you turn on the notebook, you need to run Setup. Run Setup also if you want to do any of the following:

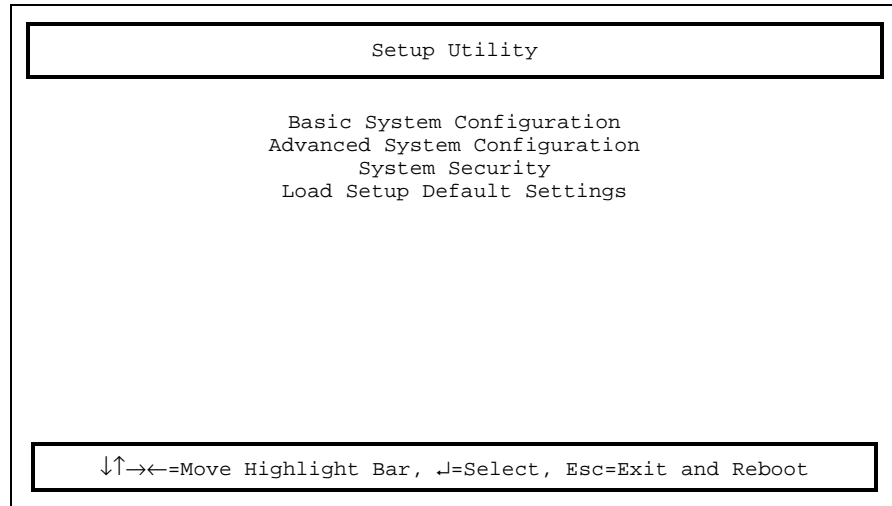
- Change the system date, time or speed
- Add or remove serial and parallel devices
- Change the system boot drive or display device
- Set the video display features
- Set the power-saving modes
- Set, change, or remove a system password



The system configuration values reside in the battery-powered CMOS RAM.

6.2 Entering Setup

Press **m** during POST to enter Setup. The BIOS Utility main screen displays.



There are four main menu items:

- Basic System Configuration
- Advanced System Configuration
- System Security
- Load Setup Default Settings

Read through the Setup Screen Notes before navigating the Setup screens.

Setup Screen Notes

- From the main menu, press w, y, z or x to move from one menu item to another and press e to enter the selected menu.
- When accessing multi-page sections, press } and { to go through the pages.
- Parameters displayed in low brightness (grayed-out) are not user-configurable. The system detects and sets the values for these parameters.
- Press w or y to move from one parameter to another. Press z or x to change parameter settings. You have to change some settings when you add a component to the notebook.
- Most of the Setup parameters are self-explanatory. Press l for help on individual parameters.
- When you press | to exit a Setup screen, the following prompt appears:

Do you want to save CMOS data?

[Yes] [No]

Select [Yes] to save the changes you made to the configuration values or [No] to abandon the changes and retain the current values.

6.3 Basic System Configuration

Basic System Configuration has a one-page screen display illustrated below.

Basic System Configuration		Page 1/1	
Date -----	[MM/DD/YY]		
Time -----	[HH:MM:SS]		
Floppy Disk A -----	[1.44 MB 3.5-inch]		
Floppy Disk B -----	[None]		
Hard Disk 0 (516 MB) -----	[Auto]	Cylinder	Head Sector
		1050	16 63
Num Lock After Boot -----	[Disabled]		
Memory Test -----	[Enabled]		
↓↑=Move Highlight Bar, →←=Change Setting, F1=Help, Esc=Exit			

6.3.1 Date and Time

The notebook displays the current date in MM/DD/YY format and the current time in HH:MM:SS format. It uses a 24-hour clock; for example, 6:25 PM displays as 18:25:00.

6.3.2 Floppy Disk Drives

The default setting for Floppy Disk A is [1.44 MB 3.5-inch] and this setting applies to both an internal and an external floppy drive configuration. Floppy Disk B, by default, is set to [None]. Enable this parameter if two floppy drives are connected to the notebook.

6.3.3 Hard Disk Drive

The default setting for Hard Disk 0 is [Auto]. With this setting, the BIOS automatically detects your drive parameters. You can also opt to key in your drive parameters by setting this parameter to [User]. To determine your drive parameters, look at the data on the label pasted on your hard disk drive (or supplied in vendor documentation) and type in the parameters. Be sure to set the correct drive parameters; otherwise an error message appears when you boot up the notebook. We suggest you set this parameter to [Auto].

6.3.4 Num Lock After Boot

When the Num Lock After Boot parameter is set to [Enabled], the embedded keypad acts as a numeric keypad upon initial power-on or reboot. The default setting is [Disabled].

6.3.5 Memory Test

The notebook always tests main memory for errors each time you turn it on. Select [Disabled] to bypass the memory test and speed up the self-test procedure. The default setting is [Enabled].

6.4 Advanced System Configuration

The Advanced System Configuration section has a two-page screen display. Besides accessing this screen from POST using m, you can also press **Fn**-q to access this section of Setup.

Advanced System Configuration	Page 1/2
Power Management Mode ----- [Enabled] Display Standby Timer ----- [1] Minute(s) Fixed Disk Standby Timer ----- [1] Minute(s) System Standby/Suspend Timer --- [3] Minute(s)	
Display Device ----- [Auto]	
Battery-low Warning Beep ----- [Enabled] Suspend Upon Battery-low ----- [Enabled]	
Modem Ring Wake Up From Standby --- [Enabled]	
Password Check during Resume ----- [Disabled]	
↓↑=Move Highlight Bar, →←=Change Setting PgDn/PgUp=Move Screen, F1=Help, Esc=Exit	

6.4.1 Power Management Mode

With enabled, all the timers in Setup take effect unless specifically disabled by the user. Select [Disabled] to turn off all the timers. The default setting is [Enabled].



You cannot disable this parameter in Setup if APM is installed under DOS, Windows or Windows 95. To disable APM, type Power Off under DOS, or disable the Power icon in the Windows Control Panel.

Power Management Timers

- Display Standby Timer

The notebook shuts off the LCD backlight and turns off the CRT video as well, if there is no activity from the keyboard or external PS/2 mouse within the period specified by this timer. To turn the display back on, press a key or move the mouse.

The valid values for this timer range from 1 to 15 minutes. Select [Off] to disable the timer.

- Fixed Disk Standby Timer

The hard disk drive enters standby mode if there are no disk read/write operations within the period specified by this timer. The hard disk returns to normal mode once the notebook accesses it.

The valid values for this timer range from 1 to 15 minutes. Select [Off] to disable the timer.

- System Standby/Suspend Timer

This parameter enables you to set a timeout period for the notebook to enter either system standby or suspend mode. If the reserved disk space for saving the screen data is larger than the combined system and video memory size, the notebook enters suspend mode. Otherwise, it enters system standby mode.

The valid values for this timer range from 1 to 15 minutes. Select [Off] to disable the timer.

6.4.2 Display Device

If you install an external VGA display, you can switch display between the LCD and external display (CRT). This parameter determines which display device the notebook uses. Table 6-1 describes the different settings.

Table 6-1 *Display Device Settings*

Setting	Description
Auto (default)	If an external display is present, the notebook uses the external display; otherwise, the LCD is the display device.
Both	The notebook uses the external display and LCD simultaneously.

6.4.3 **Battery-low Warning Beep**

This parameter allows you to enable or disable the warning beep generated by the system when a battery-low condition occurs. The default setting is [Enabled].

6.4.4 **Suspend Upon Battery-low**

This parameter enables the system to enter standby or suspend mode when a battery-low condition takes place. The default setting is [Enabled].

6.4.5 **Modem Ring Wake Up From Standby**

When enabled, the notebook wakes up from standby mode and returns to normal mode when a PCMCIA modem detects a ringing tone. The default setting is [Enabled].

6.4.6 **Password Check During Resume**

This parameter allows you to prevent unauthorized resumption from the suspend mode to normal mode. After setting a power-on password, the notebook automatically sets this parameter to [Enabled]. When you exit suspend mode and return to normal mode, the notebook requires you to enter the password.

The following is page 2 of the Advanced System Configuration screens. This page lists a summary of the system settings currently configured.

Advanced System Configuration		Page 2/2
CPU/CLK : Pentium/100 Base Memory : 640KB Extended Memory : 7168KB Shadow RAM : 256KB SMRAM : 128KB Hard Disk 0 : 810MB Security : Normal Floppy Drive A : None Security : Normal Boot Device : Drive A Then C Serial Port : 3F8h, IRQ4 Parallel Port : 378h, IRQ7 Operation Mode : Standard Parallel Port(SPP)	Internal Cache : 16KB, Enabled External Cache : None Pointing Device : Detected Internal KB : 84/85 Key	
<div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> ↓↑=Move Highlight Bar, →←=Change Setting PgDn/PgUp=Move Screen, F1=Help, Esc=Exit </div>		

Page two of the advanced system configuration display the current status of the system and its peripherals. The items in this screen are not user-configurable. See table below.

Table 6-2 System Status Descriptions

Item	Description
CPU/CLK	Shows the processor type and speed
Base memory	Shows the total base memory
Extended memory	Shows the total extended memory
Shadow RAM	Shows the shadow RAM size
SMRAM	Shows the SMRAM size

Table 6-2 System Status Descriptions (continued)

Item	Description
Hard Disk 0	Shows the IDE drive type and size and its security setting
Security	Shows hard disk drive security setting
Floppy Drive A	Shows the floppy drive A type and security setting
Security	Shows floppy drive security setting
Boot Device	Shows the boot sequence setting
Serial Port	Shows the serial port base address and IRQ
Parallel Port	Shows the parallel port base address and IRQ
Operation Mode	Shows the parallel port operation mode
Internal Cache	Shows the internal cache size and setting
External Cache	Shows the external cache size
Pointing Device	Shows the presence of a pointing device
Internal KB	Shows the internal keyboard type

6.5 System Security

System Security is a single page display.

System Security		Page 1/1
Disk Drive Control		
Floppy Disk Drive -----	[Normal]	
Hard Disk Drive -----	[Normal]	
System Boot Drive -----	[Drive A Then C]	
Boot from CD-ROM -----	[Enabled]	
On Board Communication Ports		
Serial Port Base Address -----	[3F8h(IRQ 4)]	
Parallel Port Base Address ----	[378h(IRQ 7)]	
Parallel Port Operation Mode --	[Standard]	
Setup Password -----	[None]	
Power On Password -----	[None]	
<div>↓↑=Move Highlight Bar, →←=Change Setting PgDn/PgUp=Move Screen, F1=Help, Esc=Exit</div>		

6.5.1 Floppy Disk Drive Control

This parameter allows you to enable or disable the read/write functions of the floppy drive. The following table summarizes the available options.

Table 6-3 Floppy Disk Drive Control Settings

Setting	Description
Normal (default)	Floppy drive functions normally
Write Protect All Sectors	Disables any floppy drive write function. This option is for operating systems that access the floppy drive 100 percent via BIOS only.
Write Protect Boot Sector	Disables the floppy drive write function on a diskette's boot sector. This option is for operating systems that access the floppy drive 100 percent via BIOS only.
Disabled	Disables the floppy drive

6.5.2 Hard Disk Drive Control

This parameter allows you to enable or disable the read/write functions of the hard disk drive. The following table summarizes the available options.

Table 6-4 Hard Disk Drive Control Settings

Setting	Description
Normal (default)	Hard disk drive functions normally
Write Protect All Sectors	Disables any hard disk write function. This option is for operating systems that access the hard disk 100 percent via BIOS only.
Write Protect Boot Sector	Disables the hard disk drive write function on the hard disk's boot sector. This option is for operating systems that access the hard disk 100 percent via BIOS only.
Disabled	Disables the hard disk drive

6.5.3 System Boot Drive Control¹

This parameter determines which drive the notebook boots from when you turn it on. The following table lists the three possible settings.

Table 6-5 System Boot Drive Control Settings

Setting	Description
Drive A Then C (default)	Notebook boots from floppy drive A. If there is no system disk in drive A, the notebook boots from hard disk C. If the hard disk is a non-system disk, an error message appears.
Drive C Then A	Notebook boots from hard disk C. If hard disk C is not a system disk, the notebook boots from floppy drive A. If no diskette is present or if the diskette in floppy drive A is a non-system disk, an error message appears.
Drive C	Notebook boots from hard disk C. If hard disk C is not a system disk, an error message appears.
Drive A	Notebook boots from floppy drive A. If no diskette is present or if the diskette in floppy drive A is a non-system disk, an error message appears.

¹ An installed PCMCIA bootable card overrides this setting. The notebook supports SRAM card boot.

6.5.4 Boot From CD-ROM

When enabled the notebook checks the CD-ROM drive first and boots from there, if possible, before checking the System Boot Drive Control settings.

There are two image types/formats for CD-ROMs - floppy drive and hard disk. See Table 6-6 for a description.

Table 6-6 CD-ROM Image Descriptions

Image Type	Upon Boot-up...
Floppy Drive	CD-ROM drive becomes drive A and the floppy drive becomes drive B. The hard disk drive remains drive C.
Hard Disk	CD-ROM drive becomes drive C and the hard disk drive becomes drive D. The floppy drive remains drive A.

6.5.5 Serial Port Base Address

The serial port can accommodate a modem, serial mouse, serial printer, or other serial devices. The default setting for the serial port base address is [3F8h (IRQ 4)]¹.

Other options include:

- 2F8h (IRQ 3)
- Disabled

Make sure the serial port base address does not conflict with the address used by a PCMCIA card, if one is installed.

¹ The parameter value is the base address expressed in hexadecimal.

6.5.6 Parallel Port Base Address

The parallel port can accommodate a parallel printer or other parallel devices. The default setting for the parallel port base address is [378h(IRQ 7)]¹. The other options for this parameter are:

- 278h(IRQ 5)
- 3BCh (IRQ 7)
- Disabled

6.5.7 Parallel Port Operation Mode

The parallel port supports four operation modes:

- Standard
- Bi-Directional
- EPP
- ECP

EPP or Enhanced Parallel Port is a parallel port interface that greatly improves performance for bi-directional block-mode data transfers. EPP provides greater throughput by supporting faster transfer times and a mechanism that allows the host to address peripheral device registers directly. ECP or Extended Capabilities Port supports a 16-byte FIFO (first in, first out) which can be accessed by host DMA cycles and PIO cycles. ECP boosts I/O bandwidth to meet the demands of high-performance peripherals.

The default setting is [Standard].

¹ The parameter value is the base address expressed in hexadecimal.



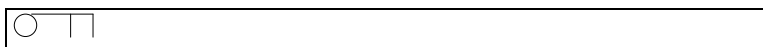
If you set EPP as the parallel port operation mode, do not use 3BCh as the parallel port base address; otherwise, I/O conflicts may occur.

6.5.8 Passwords

Two passwords are implemented in this notebook. The Setup Password prevents unauthorized access to the Setup utility, while the Power On Password prevents unauthorized access to the notebook during boot-up or resume from suspend.

Setting a Password

To set a password, select the desired password (Setup and Power On) to set or edit, and press z or x. The password prompt (a key) appears:



A message below the menu prompts you to enter a password. The password may consist of up to seven characters which do not appear on the screen when you type them. After typing your password, press Enter. Another prompt appears asking you to retype your password to verify your first entry.

After setting a password, the notebook sets this parameter to [Present]. The next time you boot the notebook, resume from suspend mode or run the Setup utility, the password prompt appears. Key in the appropriate password (Power On or Setup). If the password you entered is incorrect, an "X" appears. You have three chances to type in the correct password. After three tries, the following message appears:

Incorrect password specified. System disabled.

The notebook freezes up and disables all devices. You must turn off the notebook and turn it on again to retry. If you forget your password, you must reset the configuration values stored in CMOS to defaults. Resetting CMOS requires opening up the system unit, so contact your dealer for assistance.

Removing a Password

To remove a password, select the desired password (Setup and Power On) to remove and press z or x to set it to [None].

6.6 Load Setup Default Settings

Selecting this option allows you to load all the default settings. The default settings are the values initially stored in CMOS RAM intended to provide high performance. If in the future, you change these settings, you can load the default settings again by selecting this option.

When you select this option, the following prompt appears:

Load Setup Default Settings
Are you sure?

[Yes] [No]

Select [Yes] to load the default settings or [No] to abort the operation.