

Getting Started

This chapter introduces this multimedia notebook and gives first-time operating instructions.

1.1 Overview

This system supports the Intel Pentium™ processor, packing the processing power of a multimedia desktop PC into a compact, slim and lightweight notebook suitable for use on the road, at the office or in your home. Combining performance, versatility, and a host of advanced power-management features plus multimedia capabilities, this notebook helps you work with unmatched productivity and reliability.

The system features a modular design. It supports multiple configurations with its unique storage, accessory and power bays. The storage bay holds a user-upgradeable 2.5-inch, high-capacity hard disk drive. The accessory bay houses a 3.5-inch, 1.44-MB removable diskette drive, a 5.25-inch, removable IDE CD-ROM drive, or a secondary battery for more power on-the-go. The power bay accommodates a battery pack or the AC adapter.

The easy-to-open modular housing design, with innovative use of latches, grooves, and sliding compartments, makes upgrades easy. The hard disk, diskette drive, CD-ROM drive, keyboard, touchpad, battery pack and AC adapter are easy to install and remove, thanks to the unique housing.

This system supports PCMCIA technology, allowing flexible use of up to two type II or one type III PC cards. Hailed in leading industry journals as the technology that will revolutionize portable computing, the PCMCIA interface allows you to use credit-card-sized fax/data modem cards, SRAM cards, 1.8-inch removable hard disks, SCSI interface cards and other devices. Thus, you enjoy benefits similar to those of add-on cards in desktop PCs.

An innovative feature of the notebook is the palm rest. Located below the keyboard, it provides ample palm space for your typing comfort in any work environment. The touchpad, centrally located in the palm rest, responds to precise finger movements, making it easy to control cursor movement under graphical user environments like Windows or OS/2.

Another important feature is the high-performance graphics display. This notebook supports a large DualScan STN color or TFT color LCD, offering excellent display quality and brilliant colors. This notebook can also accommodate an external ultra-VGA monitor. This feature allows you to perform simultaneous operation of your LCD and the external VGA monitor, an advantage for giving presentations. Simultaneous display allows you to control the presentation from the LCD and at the same time face your audience. You can even connect an LCD projection panel for large-audience presentations. PCI-bus video with graphics accelerator and 1MB video RAM provide faster video performance.

Advanced power management features such as automatic LCD and hard disk power-down, system standby and suspend modes enable this notebook to conserve battery power. The notebook houses up to two battery packs for longer battery operation. Battery packs supported are nickel metal-hydride (NiMH) and state-of-the-art lithium-ion (Li-Ion) batteries. The system has both visible and audible battery-low warning features that remind you to recharge your battery.

Special features include a serial infrared (SIR) port which allows wireless communication with other SIR-"aware" systems. Onboard 16-bit stereo audio capability plus the optional CD-ROM module gives you true "multimedia-on-the-go". You can also plug in a PCMCIA SCSI card connected to an external CD-ROM drive, or "park" the system to the optional docking station with a CD-ROM drive and multimedia comes alive on your notebook.

The system also supports a local-bus architecture. A local bus is the interface around the CPU. The major purpose of local bus is to enhance CPU data transfer throughput, as well as to provide a solution for I/O bottlenecks caused by running on old 16-bit ISA bus architecture.

Most importantly, this notebook incorporates advanced technology that makes performance upgrades easy and economical.

1.2 Item Checklist

Remove all items from the carton and save the packing materials for future use. If any of the following items are missing or damaged, contact your dealer immediately.

- The notebook computer
- AC adapter¹ (includes power cord and DC-in cable)
- Battery pack
- Manuals (includes quick guide and user's manual)

Check for optional accessories², if any:

- 4-/8-/16-MB RAM modules
- External numeric keypad
- MS-DOS and application software documentation
- System utilities diskette³
- PCMCIA fax/data modem card
- Port replicator
- External battery charger
- Additional battery pack (Li-Ion batteries - available 4th quarter 1995)
- Additional AC adapter
- File transfer (interlink) cable
- Carrying bag for system and accessories

¹ The AC adapter is inserted into the power bay of the notebook during packing.

² Optional accessories may differ from area to area.

³ Refer to the README files of the system utilities in their respective subdirectories for information.

1.3 LCD Display

The system supports four different LCD display configurations as shown in Table 1-1.

Table 1-1 LCD Display Configurations

Type	Size	Resolution
DualScan STN color	10.4-inch	640 x 480, 64K colors
DualScan STN color	10.4-inch	800 x 600, 256 colors
TFT color (active matrix)	10.4-inch	640 x 480, 64K colors
TFT color (active matrix)	10.4-inch	800 x 600, 256 colors

Open the display by sliding the two cover latches toward you as shown in Figure 1-1. Lift the display and tilt it to a comfortable viewing position.

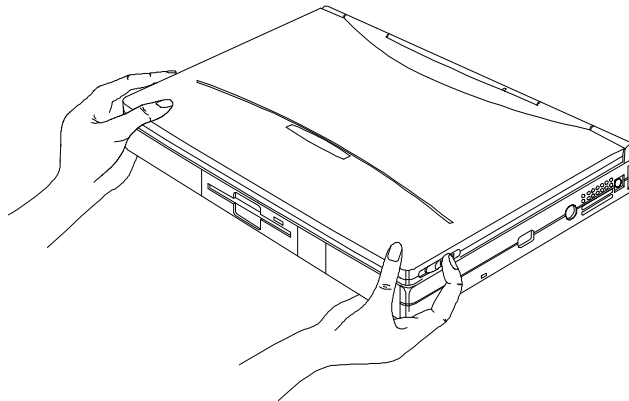


Figure 1-1 Opening the Display

A microswitch, located near the LCD cover hinge, detects the opening and closing of the LCD display. The LCD backlight goes off when you close the display without turning off the system power. Reopening the display turns on the backlight again.



If you connect an external monitor to the system, you can still view the display through the LCD.

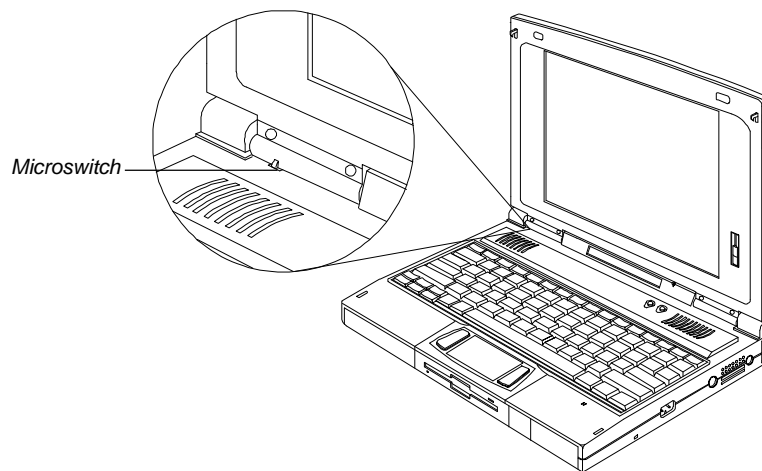


Figure 1-2 *The LCD Display*



The LCD power-saving feature turns off the LCD after a preset period of inactivity to reduce power consumption. Please refer to section 4.6.3 for details.

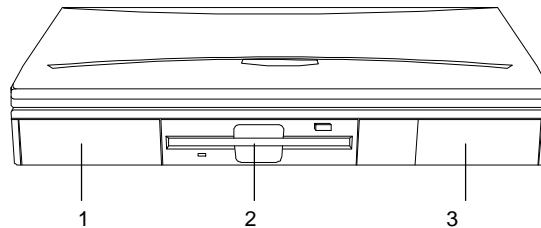
To close the display, fold it down gently until the latches click into place.



To avoid damaging the display, do not slam it when closing. Do not place any object on top of the notebook when the display is closed.

1.4 Front Panel

The front panel has three bays that house removable components. These include the storage bay, the accessory bay and the power bay. Figure 1-3 shows the front panel.



- 1 Storage Bay
- 2 Accessory Bay
- 3 Power Bay

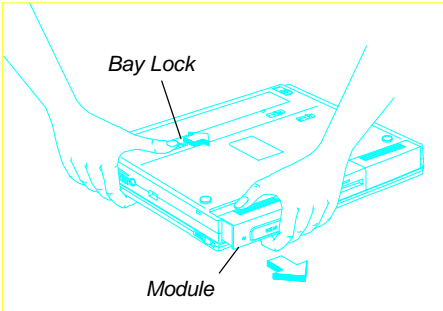
Figure 1-3 Front Panel

Front Panel Features

- ❶ *Storage bay* This bay houses a 2.5-inch hard disk drive.
- ❷ *Accessory bay* This bay houses either a 3.5-inch, 1.44MB diskette drive, an optional 5.25-inch CD-ROM drive, or an optional secondary battery pack.
- ❸ *Power bay* This bay houses either the primary battery pack or the AC adapter.

Module Installation and Swapping

To remove a module:



Release the bay lock of the bay you want to remove the module from. Pull the module out of the bay.

The AC adapter and CD-ROM drive have built-in locks on the units themselves.



Turn the power off before installing or removing a module. The system **MUST NOT** be in standby or suspend mode.

Remember to enter the Setup utility to make the proper settings.

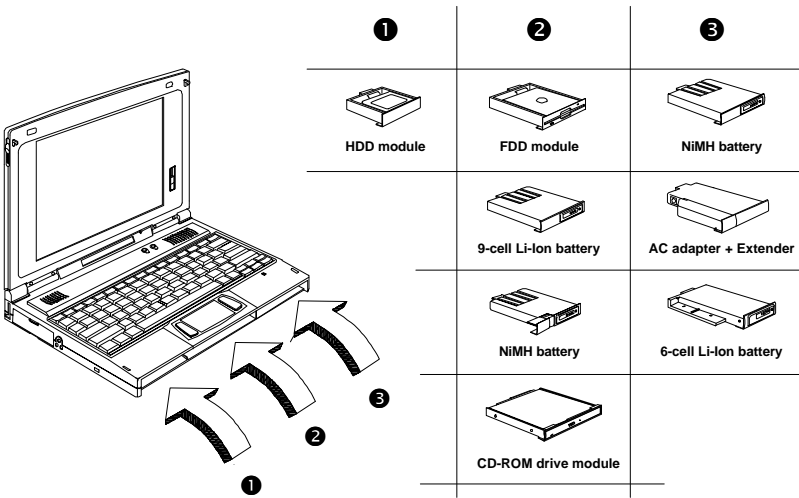


Figure 1-4 Bay Modules

Table 1-2 lists all possible module combinations.

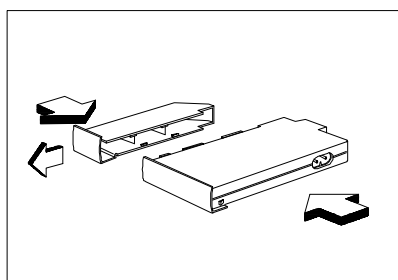
Table 1-2 Module-Bay Combinations

❶ Storage Bay	❷ Accessory Bay	❸ Power Bay
HDD module	FDD module	NiMH battery
HDD module	FDD module	Adapter (with extender)
HDD module	CD-ROM module	6-cell Li-Ion battery
HDD module	CD-ROM module	Adapter
HDD module	9-cell Li-Ion battery	NiMH battery
HDD module	9-cell Li-Ion battery	Adapter (with extender)
HDD module	Extended NiMH battery	NiMH battery
HDD module	Extended NiMH battery	Adapter (with extender)



You can only use the 6-cell Li-Ion battery pack with the CD-ROM drive. Refer to section 3.3 for installation instructions.

You can add an extender module to the AC adapter if you want to use it with the diskette drive or secondary battery.



Attach the extender to the AC adapter by connecting the two modules together and sliding the extender into place.

1.5 Rear Panel

The rear panel consists of peripheral connectors. Open the port cover to access the CRT, serial, parallel and expansion ports. The rear panel also includes other ports and connectors. Figure 1-5 shows the rear panel.

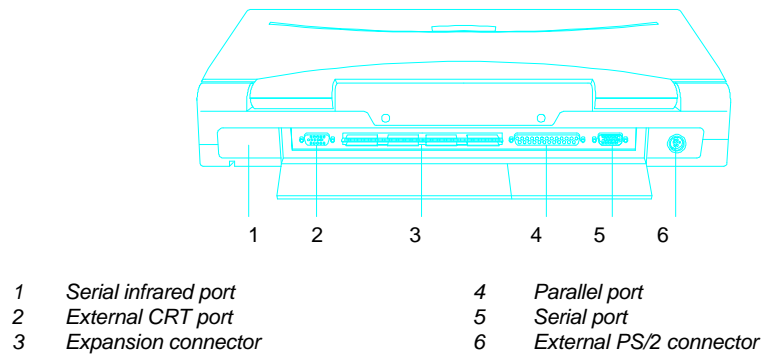


Figure 1-5 Rear Panel

Rear Panel Features

SIR *Serial Infrared (SIR) port* This lets you accomplish wireless communication with SIR-"aware" systems.



External CRT port This connects a VGA or SVGA monitor.



Expansion connector This connects a port replicator or a docking station.



Parallel port This connects a printer, pocket LAN, or other parallel device.



Serial port This connects a mouse, modem, scanner, or other serial device.



External PS/2 connector This connects an external PS/2-type keyboard, keypad, mouse or trackball.

When connecting a port replicator or connecting the notebook to a docking station, open the expansion port cover (instead of the entire port cover) and then make the connection. Refer to section 3.7 for details.

Serial Infrared (SIR)

The onboard serial infrared (SIR) port is IrDA-compliant and allows you to perform wireless file transfers and “connect” with other serial infrared devices such as a serial infrared printer.

To transfer files using SIR, line up the SIR ports of the notebook and the other SIR-capable system not more than a meter apart, at an angle of ± 15 degrees for optimal performance.

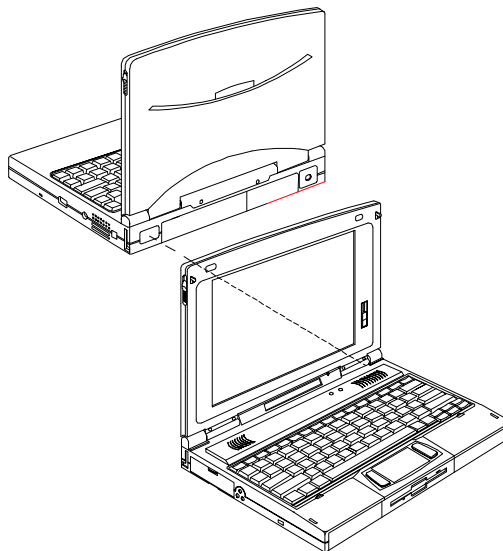


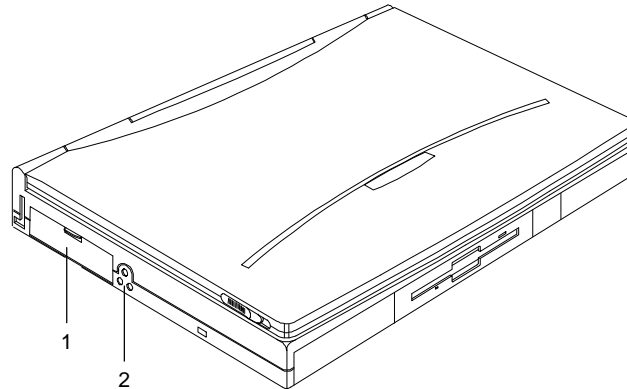
Figure 1-6 Serial Infrared Communication

Run the file-transfer utility¹ on both systems and begin wireless file transfers. See Appendix D for details.

¹ If the file-transfer utility is not preloaded on your hard disk, you have to install it. See Appendix D.

1.6 Left Panel




The left panel of the system includes PCMCIA slots and audio jacks for a microphone and line-in and line-out devices. Figure 1-7 shows the left panel of the system.



- 1 PCMCIA Slots
- 2 Microphone-in port (top), Line-out port (left), Line-in port (right)

Figure 1-7 Left Panel

Left Panel Features

- PCMCIA** *PCMCIA slots* These slots accept PC cards
-  *Microphone in port* This connects a microphone
-  *Line-out port* This connects an audio line-out device like headphones or amplified speakers
-  *Line-in port* This connects an audio line-in device like a CD player or synthesizer

Flexible PCMCIA implementation and support enable you to use credit-card-sized PC cards similar to add-on cards for desktop computers, thus enhancing the usability and expandability of this notebook. In this slot, you can insert one type III or two type I/II cards.

PCMCIA I/O cards the system accepts include fax/data modem, LAN, SCSI cards and ATA drives. Memory cards include flash memory and SRAM. Before using the slot, you need to specify the corresponding PCMCIA driver in the CONFIG.SYS file. The driver initializes and prepares the PCMCIA slots for use. Refer to the PCMCIA driver utility information in Appendix D for more details.

To complement the 16-bit stereo audio capability of the notebook, there are microphone, line-in and line-out audio jacks. There is also a built-in speaker and microphone.

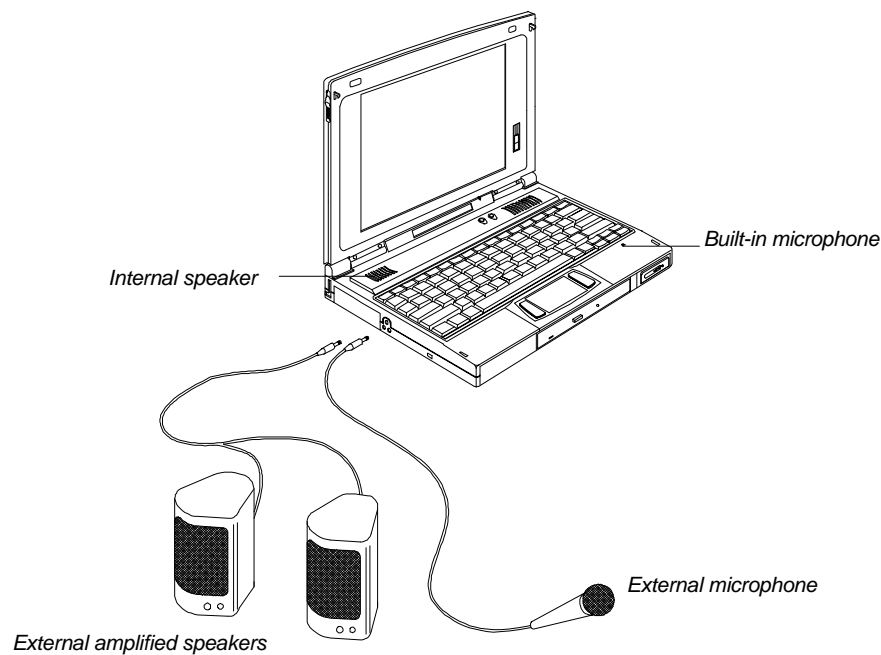
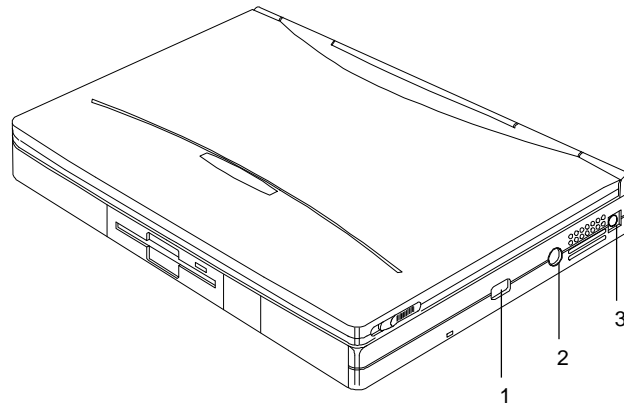


Figure 1-8 Speakers and Microphones

1.7 Right Panel




The right panel features the connectors and buttons associated with system power. Figure 1-9 shows the right panel of the system.



- 1 AC adapter connector hole
- 2 Power switch
- 3 DC-in port

Figure 1-9 Right Panel

Right Panel Features

-  **AC adapter connector hole** This connects the power cord to the AC adapter when the adapter is inside the power bay
-  **Power switch** This turns the notebook on and off
-  **DC-in port** This connects the AC adapter when the AC adapter is connected externally to the system

1.8 AC Adapter

The AC adapter accepts input voltage ranging from 100V to 240V at a frequency range of 47Hz to 63Hz. Figure 1-10 shows the AC adapter.

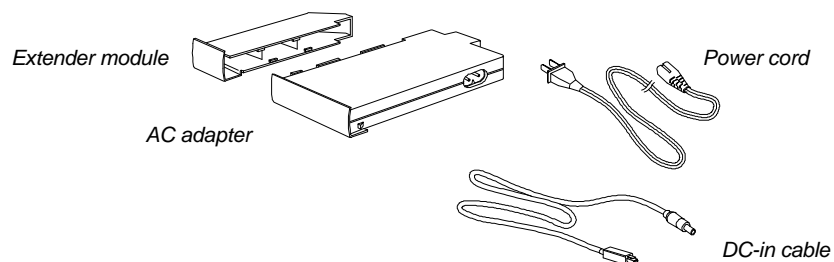


Figure 1-10 AC Adapter

The status LCD displays the DC-in icon (🔌) when the notebook is running on the AC adapter. Refer to section 1.10.

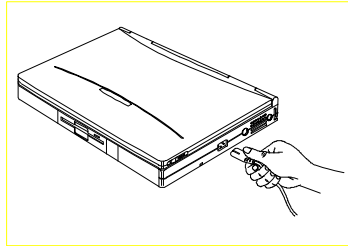


1. Do not use the AC adapter or the battery pack with other notebooks or any other devices.
2. Do not use other AC adapters and battery packs not specifically designed for this system.
3. Unplug the AC adapter by pulling on the connector, not the cord. Pulling on the cord may damage the connections inside the connector.

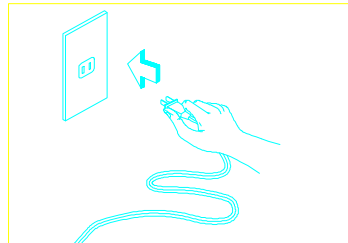
Connecting the AC Adapter

The AC adapter connects to the system in two ways, either internally or externally. Follow these steps to connect the AC adapter.¹

Connecting the Adapter Internally



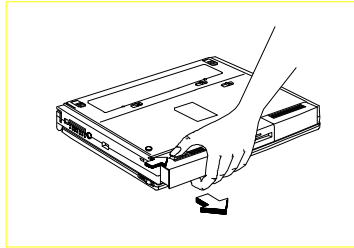
1. During packing, the AC adapter is inserted into the power bay. Just plug the other end of the power cord into the AC adapter through a connector hole found on the right panel.



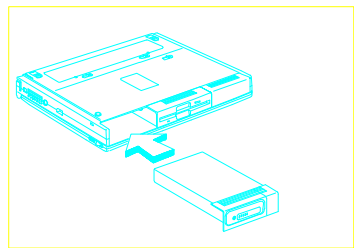
2. Connect the power cord to a power outlet.

¹ The steps described assume that the AC adapter is inside the power bay (i.e., during packing).

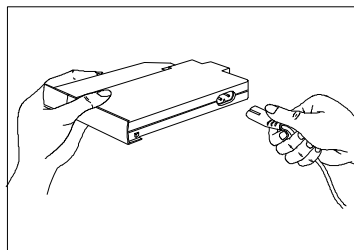
Connecting the Adapter Externally



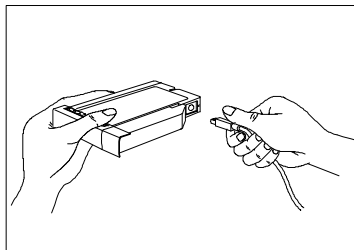
1. Release the AC adapter lock and slide the AC adapter out of the power bay.



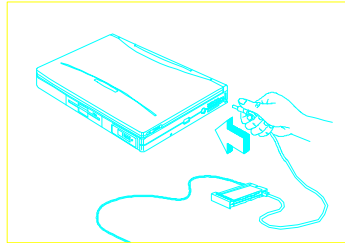
2. You may now insert the battery pack into the power bay. Slide it into the bay until it clicks into place.



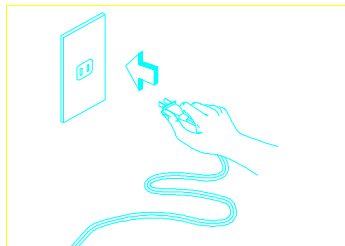
3. Connect the power cord to the AC adapter.



4. Connect one end of the DC-in cable (square head) to the AC adapter.






5. Connect the other end of the DC-in cable to the DC-in port of the notebook.



6. Connect the power cord to a power outlet.

1.9 Starting the System

Figure 1-11 shows the location of the power on/off switch. Press this toggle switch to turn the system on and off. The power icon () on the status LCD appears when you turn on the system. The battery icon () or the DC-in icon () also appears depending on the power source.

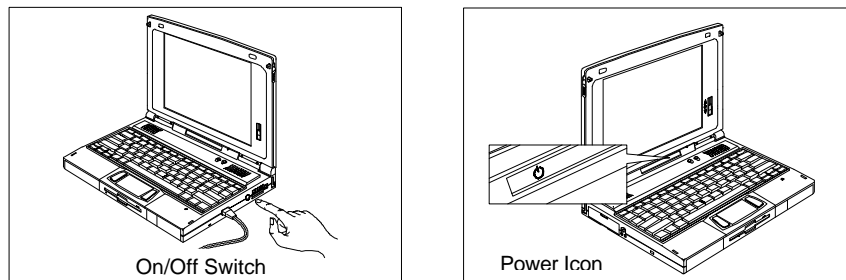


Figure 1-11 On/Off Switch and Power Icon

The system runs a series of power-on self-tests (POST) and displays POST messages. Next, copyright and other messages appear on the screen followed by the DOS prompt C>. If you get an error message or the DOS prompt does not appear, see Chapter 6 for assistance.



Use a backup utility to create diskette copies of all pre-installed software that come with the system. Always store the originals and use the backup copies. See the MS-DOS user's manual for information on how to create backup copies.



Avoid turning the system on and off in intervals of less than five seconds between power on and off, as this may damage your hard disk drive.

1.10 Interior Features

Figure 1-12 shows the location of the control buttons and status LCD.

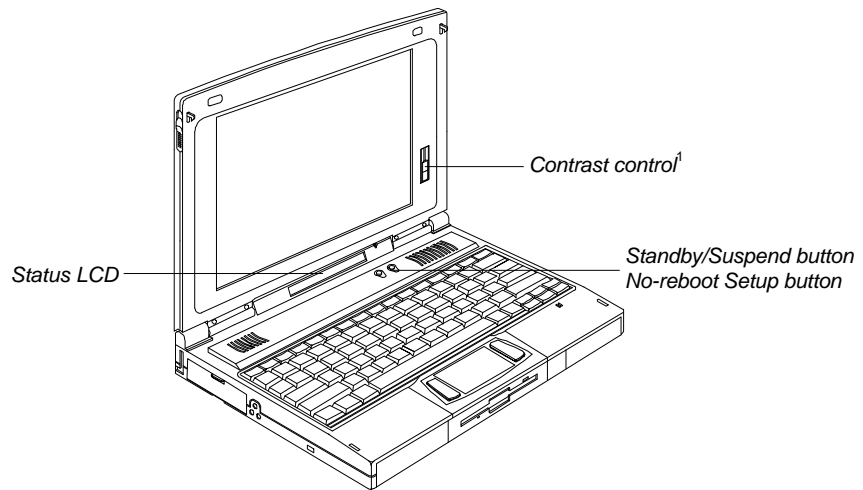





Figure 1-12 Control Buttons and Status LCD

Control Buttons

 **No-reboot Setup button** This button enables you to access Power Management and LCD Panel Control pages of the Setup utility. The system gives you the option of not rebooting when you exit Setup.

 **System Standby/Suspend button** This button enables the system to enter system standby or suspend mode. See Section 2.5 for details on suspend mode.

 **Contrast control** This controls the display clarity of the LCD screen (STN color models only)

¹ The contrast control is found on the lower right side of the LCD bezel on DualScan STN models. The TFT model has no contrast control.

Status LCD Indicators



Docking icon This icon appears when the system is connected to a docking station.



Power icon This icon appears when power is applied to the system.



Standby mode icon This icon appears when the system is in system standby mode.



Hard disk drive activity icon This icon appears when the system accesses the hard disk drive.



Diskette drive activity icon This icon appears when the system accesses the diskette drive.



Num Lock icon This icon appears when the Num Lock function is activated.



Caps Lock icon This icon appears when the Caps Lock function is activated.



Scroll Lock icon This icon appears when the Scroll Lock function is activated.



Battery-low icon This icon appears when the battery pack is low on power. See section 2.7 for information on battery-low condition.



DC-in icon This icon appears when the system is using power from the AC adapter.



Battery icon This icon appears when the system runs on battery power.

1.11 Keyboard

The keyboard has full-sized keys, including an embedded keypad, separate cursor keys and twelve function keys.

Figure 1-13 Keyboard — U.S. Keyboard

Figure 1-14 Keyboard — U.K. Version






Lock Keys

The system has three lock keys which you can toggle on and off. When you activate a lock key, the corresponding indicator displays on the status LCD.

@	When the Caps Lock indicator is on, all alphabetic characters typed are in uppercase.
[When the Scroll Lock indicator is on, the screen moves one line up or down when you press w or y respectively. Scroll lock does not work with some applications.
]	When the Num Lock indicator is on, the embedded keypad is in numeric mode. The keys function as a calculator (complete with arithmetic operators +, -, *, and /).

Hot Keys

The keyboard also has a number of hot keys or key combinations which allow you to perform special functions.

b-a-c	<i>Warm-Boot hot key</i> This allows you to execute a warm boot.
b-a-	<i>Setup hot key</i> This allows you to access the Setup utility.
 -o	<i>Battery Gauge hot key</i> This allows you to access the battery gauge screen.
 -p /  -q	<i>The Volume Control hot keys</i> These allow you to increase ( -p) or decrease ( -q) the volume from the onboard speaker or headphones/external speakers connected to the audio line-out port.

Embedded Keypad

The embedded keypad, which has functions similar to a desktop numeric keypad, is indicated by small characters located in the upper right corner of the keycaps. To simplify the keyboard legend, the cursor-control key symbols are not printed on the keys.

Figure 1-15 Embedded Keypad

Table 1-3 tells how to use the embedded keypad.

Table 1-3 Using the Embedded Keypad

Desired Access	Num Lock On	Num Lock Off
Number keys on embedded keypad	Type numbers in a normal manner.	
Cursor-control keys on embedded keypad	Hold j while using cursor-control keys.	Hold Fn while using cursor-control keys.
Main keyboard keys	Hold Fn while typing letters on embedded keypad.	Type the letters in a normal manner.

Palm Rest and Foot Supports

The palm rest, located below the keyboard, gives you a place to rest your hands while you type.

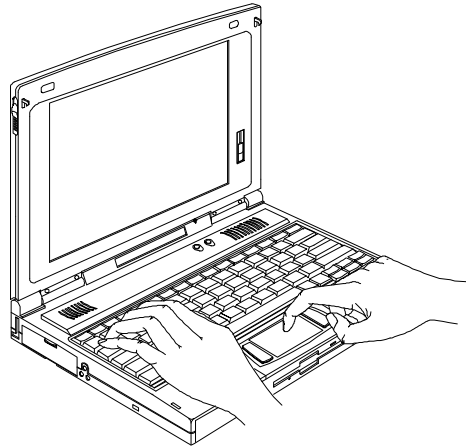


Figure 1-16 Palm Rest

In addition, two foot supports on the underside allows you to tilt the notebook to a more comfortable typing position.

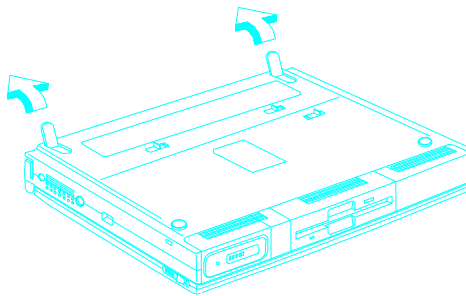


Figure 1-17 Foot Supports

1.12 Touchpad

The touchpad is an IBM PS/2-type mouse-compatible pointing device that senses movement on its surface. This means the cursor responds as you move your finger on the surface of the touchpad. A central location on the palmrest provides ample comfort and support.

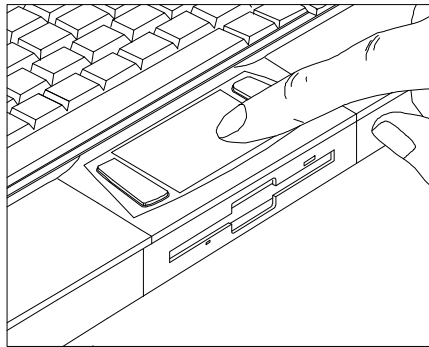


Figure 1-18 Touchpad



The touchpad works with most mouse drivers.

If your notebook did not come with pre-loaded software, remember to install the touchpad driver included in the system utilities diskette(s). The touchpad driver also supports special functions that work uniquely with the touchpad. See Appendix D for details.

Touchpad Basics

The following tips will help you use the touchpad:

1. Move your finger across the touchpad to move the cursor.
2. Press the left and right buttons located on the sides of the touchpad to do selection and execution functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the touchpad produces similar results. Refer to Table 1-4.

Table 1-4 Touchpad Functions

Function	Button	Tap
Execution	click twice	tap twice (at the same speed as double-clicking the mouse button)
Selection	click once	tap once
Drag	click and hold to drag the cursor	tap twice and hold finger to the touchpad on the second tap to drag the cursor



Keep your fingers clear of the touchpad when typing.

The touchpad is sensitive to finger movements. Hence, the lighter the touch, the better the response. Tapping too hard will not increase the touchpad's responsiveness.

1.13 Using the Notebook for the First Time

Follow these steps when you use the notebook for the first time, to ensure top performance right from the start.

1. Condition the battery pack.

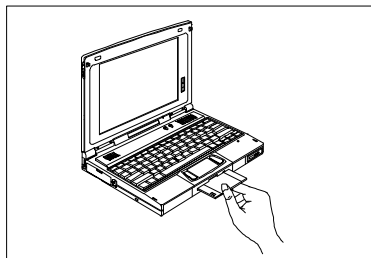
Conditioning battery packs optimizes battery life and improves recharge efficiency. Following are six quick steps on battery conditioning:

- a. Install the battery pack into the notebook.
- b. Connect a powered AC adapter to the notebook.
- c. Power on the notebook.
- d. Press the no-reboot Setup button (🔍) to access Setup.
- e. Press r to access the battery discharge utility.
- f. Press e to run the battery discharge utility.

The battery begins discharging. After discharging, the notebook powers off and battery charging begins. The battery LEDs light up from one to five, then turn completely off when the notebook finishes charging. Repeat steps c to f once or twice. See section 2.4.2 for more details.

2. Power on the system.

If your notebook has pre-installed software (including zero-volt suspend), turn on the system and go directly to item 4;



otherwise¹, insert MS-DOS diskette #1 into the diskette drive and boot up the system. Follow the screen instructions to install MS-DOS.

You may also want to install Windows if your package includes it. Insert Windows diskette #1 into the diskette drive and type `A:\SETUP`. Follow the screen instructions to install Windows.

3. Install the zero-volt suspend function.

Zero-Volt (Hibernation) Suspend-to-Disk

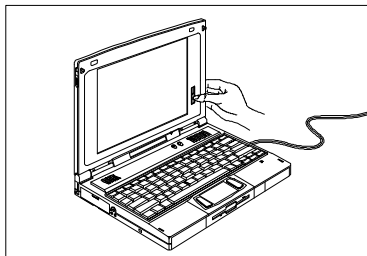
The Zero-Volt (Hibernation) Suspend-to-Disk function is a power-saving feature that saves all current status information and images on your hard disk when your notebook enters suspend mode.

The PHDISK utility lets you create a file or partition to support the suspend-to-disk function. Remove the MS-DOS diskette and insert the system utility diskette into the diskette drive. Run the PHDISK utility in the PHDISK subdirectory to reserve a partition². See Appendix D.

4. Adjust the display.

¹ PHDISK, the suspend-to-disk utility reserves disk space in the form of a partition or file. If you wish to reserve a partition, install PHDISK first before formatting your hard disk and installing MS-DOS and other software. (See step 3).

² For details, refer to the file README.DOC in the PHDISK subdirectory of the system utilities diskette. Refer also to the 0V suspend utility information in Appendix D.



Adjust the LCD contrast to obtain the best display (STN models only). Refer to section 1.10.

5. If the system displays an error message, see section 6.2.
6. You can operate the notebook on AC or DC power. To conserve battery power, you can use different power-saving modes. See sections 2.5 and 4.6.
7. Read through this manual so that you can get the most out of this powerful notebook PC!