

Chapter 2

System Tour

This notebook combines high-performance, versatility, multimedia capabilities and a truly advanced power management system in a unique human-centric and stylish design case. Work with unmatched productivity and reliability with your new power computing partner.

This chapter gives an in-depth “tour” of the notebook’s many features.

2.1 Features

The notebook looks as good inside as it is outside, definitely designed with the user in mind. Here are just a few of the notebook's many features:

Performance

- High-end mobile Pentium microprocessor
- 64-bit main memory and 256KB external (L2) cache memory
- Large display in DualScan STN or active-matrix TFT
- PCI local bus video with 128-bit graphics accelerator
- Flexible module bay (3.5-inch floppy drive or CD-ROM drive)
- High-capacity, Enhanced-IDE hard disk
- Heuristic power management with suspend-to-memory and zero-volt suspend-to-disk power-saving modes
- Lithium-Ion smart battery pack
- High speed connectivity
- 16-bit stereo audio with built-in FM synthesizer
- Built-in microphone and dual angled stereo speakers
- 30fps (frames per second) full-screen, true-color MPEG video playback
- Infrared wireless communication
- Internal 28.8Kbps modem¹ with DSVD (digital simultaneous voice over data) support; with speakerphone and telephone answering device features

¹ This feature is available only in the U.S.

Human-Centric Design and Ergonomics

- Intuitive FlashStart automatic power-on
- Sleek, smooth and stylish design
- Automatic tilt-up, full-sized, full-function keyboard
- Wide and comfortable palm rest
- Ergonomically-centered touchpad pointing device

Expansion

- PC Card (formerly PCMCIA) slots (two type II/I or one type III)
- Mini dock option with built-in Ethernet
- User-upgradeable memory

2.2 Display

The large graphics display offers excellent viewing, display quality and desktop performance graphics. The notebook supports two different displays — DualScan STN or active-matrix TFT LCD.

Video Performance

PCI local bus video with 128-bit graphics acceleration boost your video to desktop-performance level, and allows you to run 30fps full-screen, true-color video playback via software MPEG.

Simultaneous Display

The notebook's large display and multimedia capabilities are great for giving presentations. If you prefer, you can connect an external monitor when giving presentations as the notebook supports simultaneous display on the LCD and external CRT. Simultaneous display allows you to control the presentation from your notebook and at the same time face your audience. For large-audience presentations, you can connect an LCD projection panel.

Power Management

The heuristic or “self-learning” power management system automatically decides the best settings for your display while providing maximum performance and power conservation. See section 3.2 for more information on power management.

Opening and Closing the Display

To open the display, slide the display lid latch to the right and lift up the display. Then tilt it to a comfortable viewing position. To close the display, fold it down gently until the display lid latch clicks into place.



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

display is closed.

FlashStart Automatic Power-On

A noticeably unique feature about this notebook is that it has no on/off switch. Instead it employs a lid switch, located near the center of the display hinge, that tells the notebook when it should wake up or go to sleep.

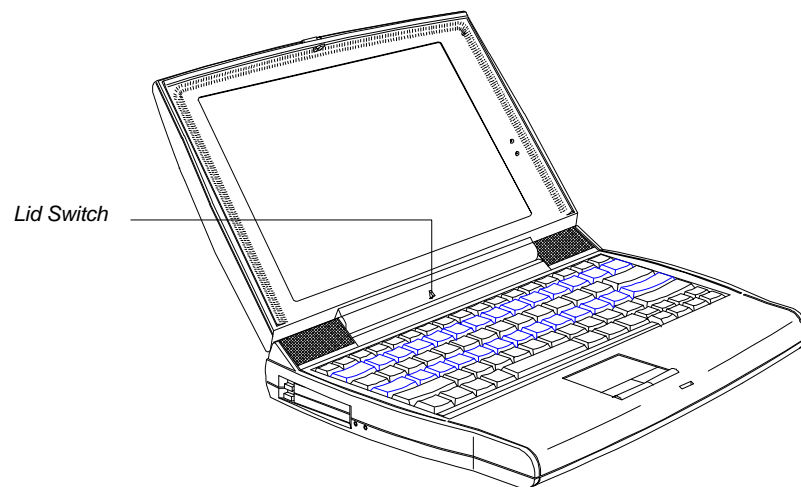


Figure 2-1 Display

When you close the display lid, the notebook enters suspend-to-memory or suspend-to-disk mode before turning off the power, depending on the When Lid is Closed parameter setting in Setup (see section 6.5.1). When you open the lid, the notebook resumes from where you left off before closing the lid.

Suspend-to-memory, suspend-to-disk and other power management issues are discussed in detail in section 3.2.

The “Lid Closed” State

When the lid is closed (i.e., the “lid closed” state), the notebook suspends its normally busy tasks to make itself electronically and mechanically more stable. When the lid is opened, the notebook briefly checks its environment and always re-initializes devices newly added in or removed from the notebook.

Though the notebook allows for various hot insertion of peripherals, the “lid closed” state provides the most stable and practical means to attach and detach peripheral components.



As a simple rule of thumb, close the lid when adding or removing peripheral components.

2.3 Indicator Lights

Two indicator lights are found on the display panel.

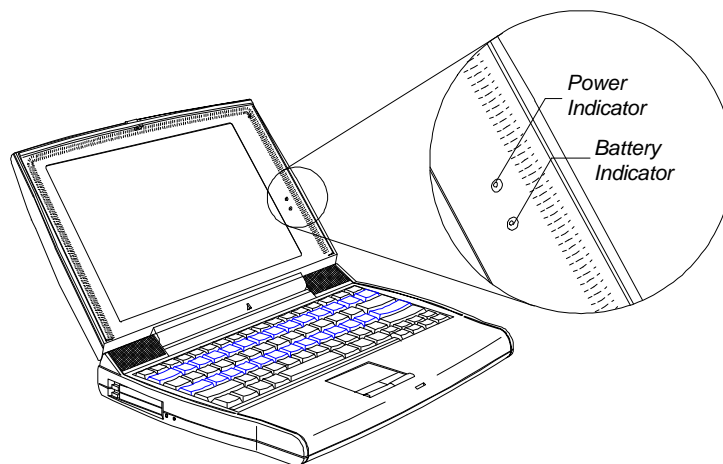




Figure 2-2 Indicator Lights

These indicators and their descriptions are shown in Table 2-1.

Table 2-1 Indicator Status Descriptions

Icon	Indicator Light	Description
	Power Indicator	<ul style="list-style-type: none">• Lights when power is on• Flashes when the notebook is in suspend-to-memory mode
	Battery Indicator	<ul style="list-style-type: none">• Lights when battery pack is charging• Flashes when battery power is low

To know more about batteries and power management, see Chapter 3.

2.4 Keyboard

The full-sized keyboard includes an embedded keypad, separate cursor keys, two Windows 95 keys and twelve function keys. Special keys are highlighted in different colors.

2.4.1 Keyboard Layout

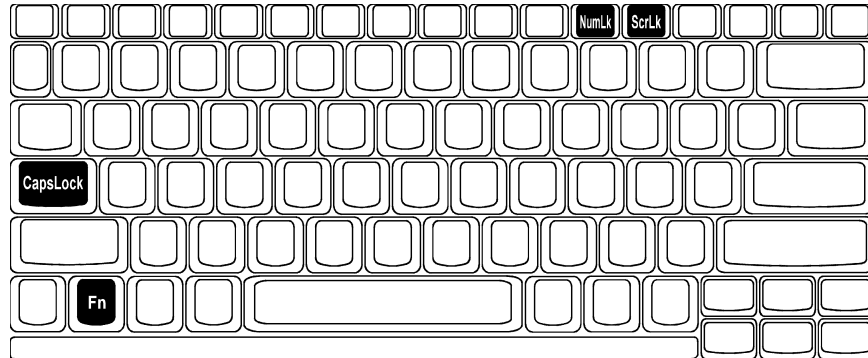
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Figure 2-3 Keyboard Layout



2.4.2 Special Keys

Lock Keys

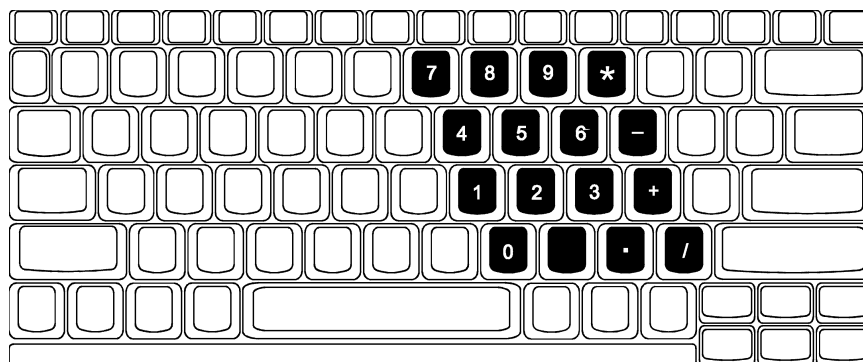


The notebook has the three basic lock keys which you can toggle on and off. Some keys may require using **Fn** as part of a key combination.

Table 2-2 Lock Key Descriptions






Key	Description
@	When Caps Lock is on, all alphabetical characters typed appear in uppercase.
Fn - 	<p>When Num Lock is on, the embedded keypad is in numeric mode. The keys function as a numeric keypad like the one found on standard PC keyboards (complete with arithmetic operators +, -, *, and /).</p> <p>Use this mode when you need to do a lot of numeric data entry. A better solution would be an external keypad. See section 4.3.</p>
Fn - 	When Scroll Lock 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.

Embedded Keypad

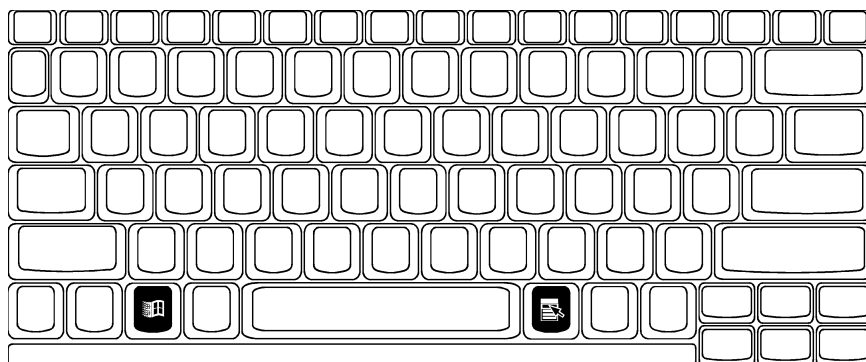


The embedded keypad functions like a desktop numeric keypad. It is indicated by small characters located on the upper right corner of the keycaps. To simplify the keyboard legend, the cursor-control key symbols are not printed. Table 2-3 tells how to use the embedded keypad.

Table 2-3 Using the Embedded Keypad

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

Windows 95 Keys

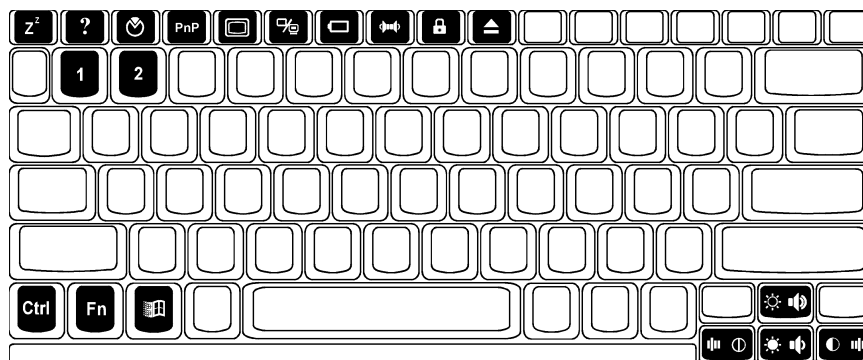


The keyboard has two keys that perform Windows 95-specific functions.

Table 2-4 Windows 95 Key Descriptions

Key	Description
Windows logo key	Start button. Combinations with this key performs special functions. Below are a few examples: <ul style="list-style-type: none">• <i>Windows + Tab</i> Activate next Taskbar button• <i>Windows + E</i> Explore My Computer• <i>Windows + F</i> Find Document• <i>Windows + M</i> Minimize All• <i>Shift + Windows + M</i> Undo Minimize All• <i>Windows + R</i> Display Run dialog box
Application Key	Opens the application's context menu (same as right-click).

Hot Keys



The notebook uses hot keys (key combinations) to access most of the notebook's controls like screen contrast and brightness, volume output and the BIOS setup utility. Some hot keys will pop-up a corresponding icon onscreen for better visuals.




When activating hot keys, press and hold the first key  before pressing the other keys in the combination.

Table 2-5 Hot Key List








Hot Key	Icon	Function	Description
 -	Z^Z	Suspend-to-memory	Enters suspend-to-memory mode
 -	?	Help	Displays the hotkey list
 -m		Setup	Enters the BIOS setup utility
 -n	PnP	Plug and Play Configuration	Allows the system to re-configure itself and do self-diagnostics
 -o		Screen Blackout	Blanks the screen to save power. To wake up the screen, press any key.

Table 2-5 Hot Key List (continued)








































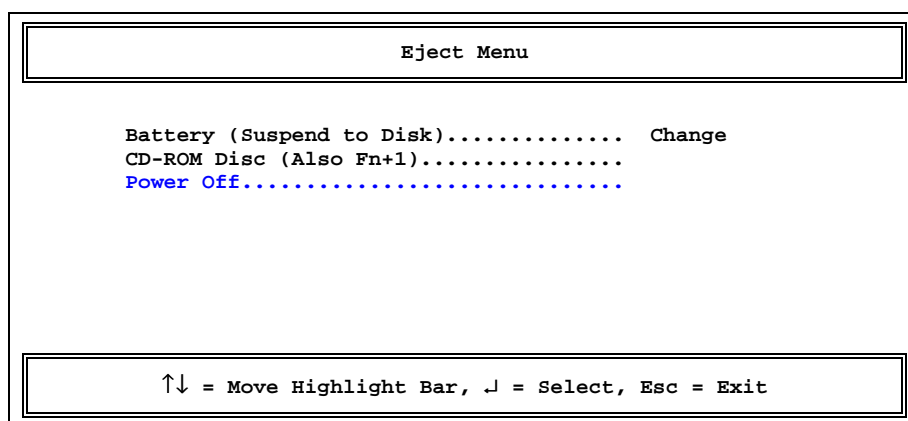
Hot Key	Icon	Function	Description
 -p		Display Toggle	Switches display from LCD to CRT to both LCD and CRT
 -q		Fuel Gauge On/Off	Toggles battery gauge display on/off. Also shows the following: <ul style="list-style-type: none"> “plug” icon if a powered AC adapter is connected to the notebook. “speaker” icon if speaker output is on (toggled by  -r). “T” icon if turbo mode is on (toggled by  -2).
 -r		Speaker On/Off	Toggles speaker output on and off
 -s		Lock System Resources	Provides notebook security by locking system from access. Requires password input to unlock system. See section 6.6.1.
 -t		Eject	Accesses the Eject menu. See the following subsection.
 -b-w		Volume Up	Increases audio volume
 -b-y		Volume Down	Decreases audio volume
 -b-z		Balance Left	Shifts speaker balance to the left
 -b-x		Balance Right	Shifts speaker balance to the right
 -  -w		Brightness Up	Increases screen brightness
 -  -y		Brightness Down	Decreases screen brightness to save power

Table 2-5 Hot Key List (continued)

Hot Key	Icon	Function	Description
 -  -X		Contrast Up	Increases screen contrast (DSTN only)
 -  -Z		Contrast Down	Decreases screen contrast (DSTN only)
 -W		Fuel Gauge Up	With the fuel gauge onscreen, moves the fuel gauge up
 -Y		Fuel Gauge Down	With the fuel gauge onscreen, moves the fuel gauge down
 -Z		Fuel Gauge Left	With the fuel gauge onscreen, moves the fuel gauge left
 -X		Fuel Gauge Right	With the fuel gauge onscreen, moves the fuel gauge right
 -1		CD Eject	Ejects the CD-ROM drive
 -2		Turbo Mode On/Off	Toggles turbo mode on and off.

Using the Eject Menu

Pressing  -t brings up the Eject Menu.



The eject menu commands allow you to perform various eject-related functions for the notebook. See the following table for details

Table 2-6 Eject Menu Descriptions

Select...	To...
Battery	<p>Change the battery.</p> <p>This option forces the notebook to enter suspend-to-disk mode, so that you can replace the battery with a charged one, and then return to where you left off.</p> <p>To resume, close the display lid and open the display lid again.</p>
CD-ROM Disc	<p>Open the CD-ROM drive.</p> <p>There are many ways to open the CD-ROM disc tray:</p> <ul style="list-style-type: none">• selecting this option• pressing Fn-1• pressing the CD-ROM eject button• using software controls <p>It is best to wait for the CD-ROM light (found on the CD-ROM eject button) to go off before ejecting the CD-ROM drive.</p>
Power Off	<p>Turn the system off (without entering suspend mode).</p> <p>When you choose this option, a “cold boot” occurs after re-starting the system (closing and opening the display). You can choose this option when you want to swap modules, or when you want to turn off the notebook without entering any of the suspend modes. Note however that the proper way to power off the system in Windows 95 is to use the Shutdown command.</p> <p>To turn the notebook back on, close the display lid and open the display lid again.</p>

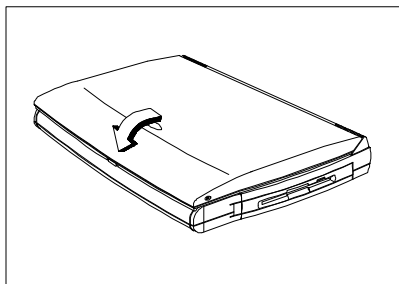
2.4.3 Automatic Tilt Feature

The keyboard has the option of automatically tilting to a six-degree angle whenever you open the lid. This automatic tilt feature brings to the notebook the comfortable typing angle provided in standard PC desktop keyboards.

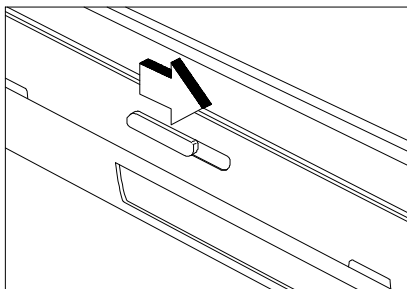
Together with the palm rest (discussed in the following section), these two ergonomic features help prevent repetitive strain injury to your wrists and fingers.


Enabling and Disabling the Automatic Tilt Feature


A tilt switch, found right above the port cover on the rear of the notebook, allows you to enable or disable this feature. Follow these steps:

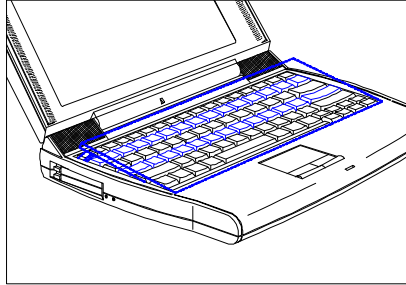


1. Close the lid.



2. To **enable** the automatic tilt feature, slide the tilt switch to the right () .

To **disable** the automatic tilt feature, slide the tilt switch to the left () .



3. Open the lid.

2.4.4 Palm Rest

Located below the keyboard, the wide and curved palm rest gives you a comfortable place to rest your hands while you type.

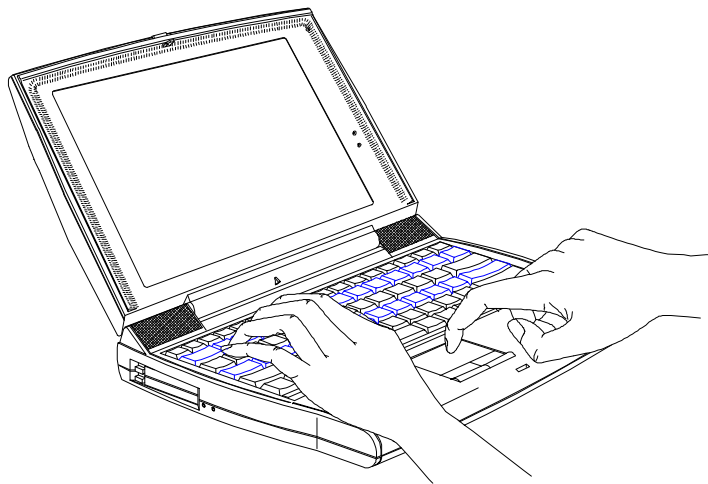


Figure 2-4 Palm Rest

2.5 Touchpad

The ergonomically-centered touchpad is a pointing device that senses movement on its surface. This means the cursor responds as you move your finger on the surface of the touchpad.

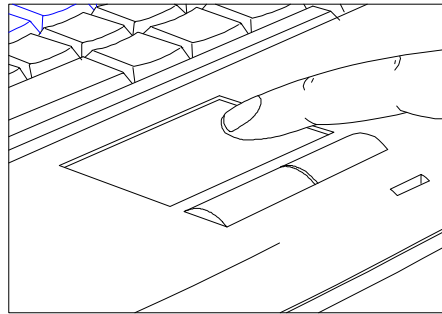


Figure 2-5 Touchpad



The touchpad works with most mouse drivers. However, the touchpad driver supports special functions that work uniquely with the touchpad. We recommend you use the touchpad driver instead of any other mouse driver.

Touchpad Basics

The following two items teach you how to use the touchpad:

- Move your finger across the touchpad to move the cursor.
- Press the left and right buttons located on the lower edge 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. See Table 2-7.

Table 2-7 Touchpad Functions

Function	Left Button	Right Button	Tapping on the Touchpad
Execution	Click twice quickly		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 (at the same speed as double-clicking the mouse button) and hold finger to the touchpad on the second tap to drag the cursor
Access Context Menu		Click once	When Corner Taps is enabled, tap on the upper right corner of the touchpad. See section 5.3 on how to configure the touchpad.



Keep your fingers dry and clean when using the touchpad. Also keep the touchpad dry and clean.

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.

2.6 Storage

2.6.1 Hard Disk

High-capacity storage comes in the form of a 2.5-inch Enhanced-IDE hard disk. The hard disk can be upgraded when you need more storage space. See section 4.9.2 for related information.

2.6.2 Module Bay

The notebook's flexible module bay accommodates either a high-speed CD-ROM drive module or a 3.5-inch, 1.44MB floppy drive.

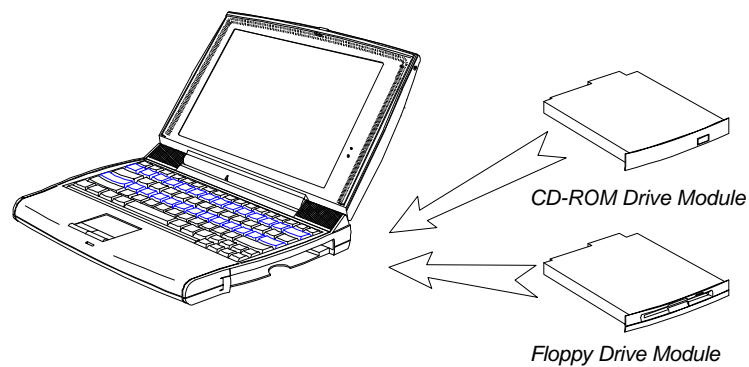


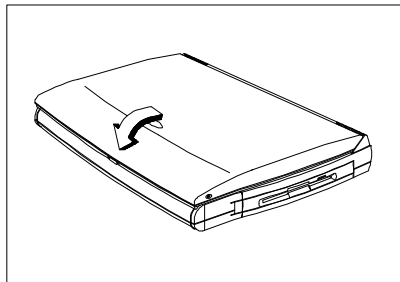
Figure 2-6 Module Bay

The modules are designed to give you flexibility in the fast-moving portable platform. The CD-ROM drive module gives you portable multimedia access. The floppy drive module serves both as an internal and external unit.

Swapping Modules

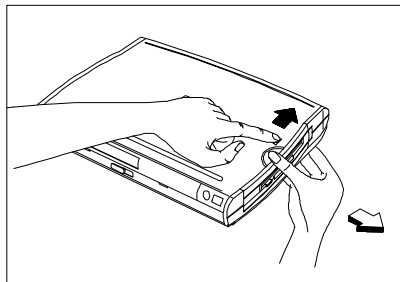
The proper way to cleanly swap or interchange modules is to power off the notebook without the help of any suspend modes. The notebook needs to perform a “cold boot” (Windows 95 shutdown or via the Eject menu) or “warm boot” (Ctrl-Alt-Del) to correctly detect and identify the module currently installed in the module bay. Simply closing the display lid will only put the notebook in either suspend-to-disk or suspend-to-memory.

Follow these steps to swap modules:

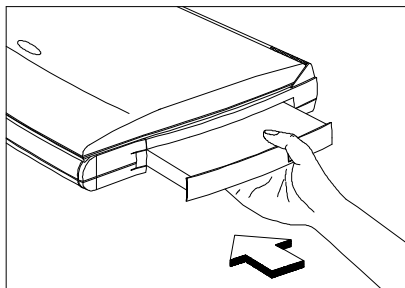


1. Do a Windows 95 shutdown.

If you are not using the notebook under Windows 95, you can use the Power-Off option by accessing the Eject Menu (Fn-F9).

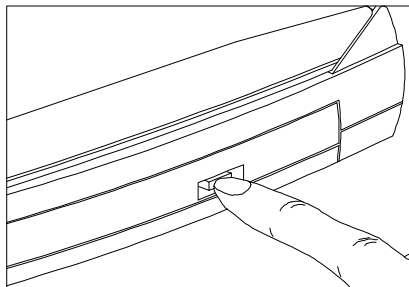


2. Close the display lid.
3. Slide the module release lock and press the module release latch and pull out the module.



4. Insert the new module securely into the module bay.
5. Open the display lid. After opening the display, the notebook automatically senses the new module.

Ejecting a CD



To eject a CD, press the eject button on the CD-ROM drive, press **Fn** -1, or use your software to eject the CD-ROM drive.

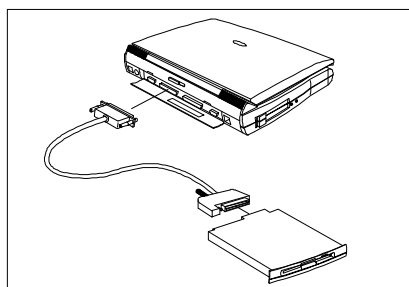
In Windows 95, you can right-click on the CD-ROM drive icon and select the Eject command.

Using the Floppy Drive Module Externally

You can use the floppy drive module externally when a CD-ROM drive module is installed in the module bay.



You cannot use the CD-ROM drive module externally.
Only the floppy drive module can be used externally.



If the floppy drive module is installed in the module bay, remove it by following the steps described in the previous section.

Open the port cover and connect the 25-pin connector end of the floppy drive cable to the parallel port. Connect the other end of the cable to the floppy drive module.

2.7 Ports

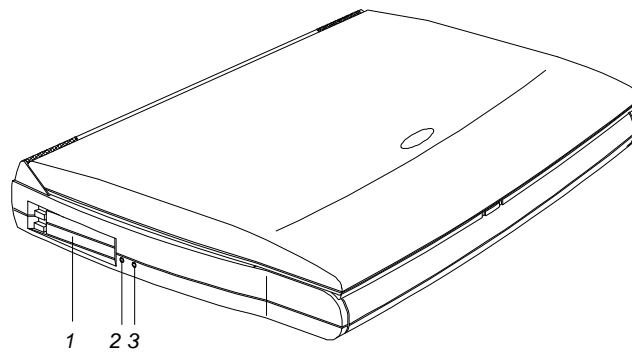
Ports allow you to connect peripheral devices to your notebook computer as you would with a desktop PC. The ports are found on the left and rear panel. The following sections discuss these ports and their functions.



See Chapter 4 on how to connect external devices to the notebook.

2.7.1 Left Panel Ports

Multimedia ports and the PC card slots are found on the left panel. See Figure 2-7.





- 1 PC Card Slots
- 2 Microphone-in/Line-in Port
- 3 Speaker-out/Line-out Port

Figure 2-7 Left Panel Ports

Table 2-8 describes these ports.

Table 2-8 Left Panel Port Descriptions

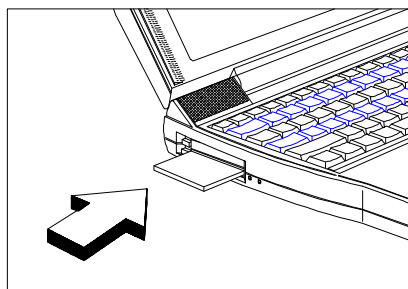
#	Icon	Port	Connects to...
1		PC Card slots	One Type III or two Type I/II PC cards
2		Microphone-in/Line-in	External microphone or line input device
3		Speaker-out/Line-out	Amplified speakers or headphones

PC Card Slots

There are two type II/I or one type III PC Card slots found on the left panel of the notebook. These slots accept credit-card-sized cards that enhance the usability and expandability of the notebook.

PC Cards (formerly PCMCIA) are add-on cards for portable computers, giving you expansion possibilities long afforded by desktop PCs. Common type II cards include flash memory, SRAM, fax/data modem, LAN and SCSI cards. Type III cards most often used are 1.8-inch ATA drives and cellular modems.

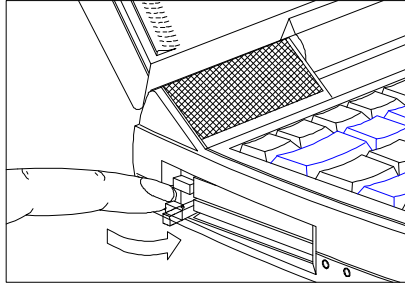
Inserting a Card



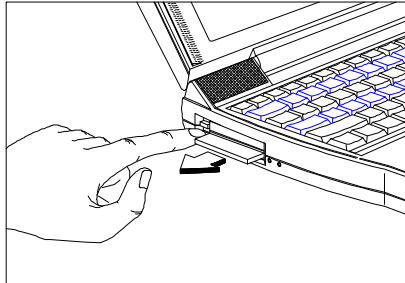
Insert the card into the desired slot and make the proper connections (e.g., network cable), if necessary. See your card manual for details.

For type III cards, insert the card into the lower (bottom) slot.

Ejecting a Card



1. Exit the application using the card.
2. Flip out the slot eject button of the slot where the card is inserted.



3. Press the slot eject button to eject the card.

If you want to install a card, refer to your card's user's manual for details on how to install and use the card.

Multimedia Ports

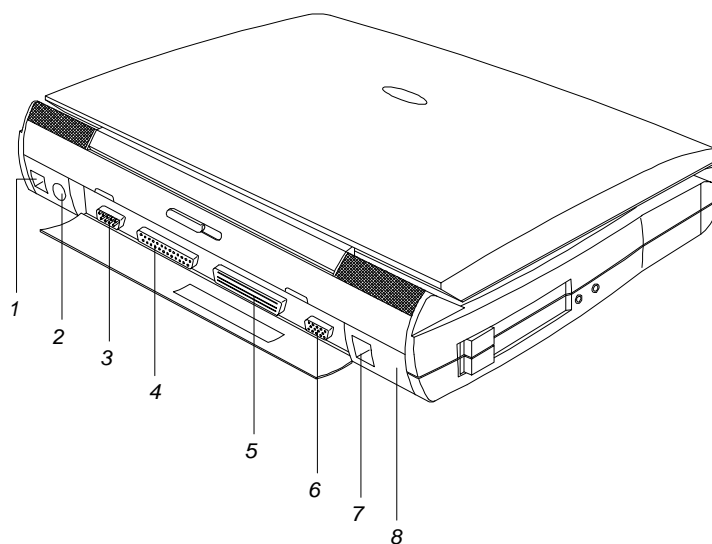
Connecting external audio devices to these ports automatically shuts off the corresponding internal audio device. For example, if you connect external speakers, the internal speakers automatically shut off.



To use Mic-in or Line in, insert the plug of the desired device and make sure to turn off the appropriate input from the mixer. See the multimedia section of your Windows 95 manual.

2.7.2 Rear Panel Ports

The rear panel includes the notebook's main ports and connectors. See Figure 2-8.










- 1 DC-in Port
- 2 PS/2 Port
- 3 Serial Port
- 4 Parallel Port

- 5 Mini Dock Connector
- 6 External CRT Port
- 7 RJ-11 Phone Jack
- 8 Infrared Port

Figure 2-8 Rear Panel Ports

Table 2-9 describes these ports.

Table 2-9 Rear Panel Port Descriptions

#	Icon	Port	Connects to...
1		DC-in port	AC adapter and power outlet
2		PS/2 port	PS/2-compatible device (e.g., PS/2 keyboard, keypad, mouse)
3		Serial port (UART16650-compatible)	Serial device (e.g., serial mouse)
4		Parallel port (EPP/ECP-compliant)	Parallel device (e.g., parallel printer, external floppy drive)
5		Mini dock connector	Mini dock
6		External CRT port	External monitor (up to 1024x768, 256 colors)
7		Modem jack (RJ-11)	Phone line
8		Infrared port	Infrared-aware device (e.g., notebook with IR port, desktop with IR adapter, IR-capable printer)

2.8 Audio

Standard notebook configuration includes 16-bit stereo audio with built-in FM synthesizer. Combined with the dual, angled speaker system and built-in sensitive microphone, this notebook redefines portable audio.

2.8.1 Built-in Speakers and Microphone

The dual, angled speakers found on both sides of the display hinge directs sound towards you, and its unique audio chamber design allows for better acoustics and sound reverberation resulting in excellent sound quality.

The built-in sensitive microphone provides good quality audio recording with its echo-cancellation design via the front-and-side mic pocket.

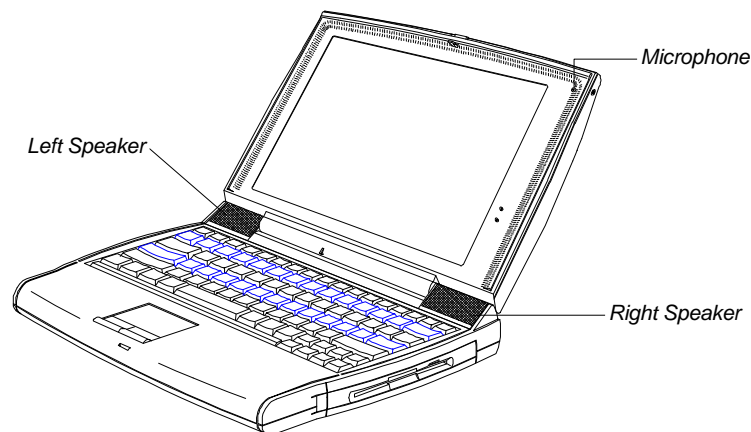












Figure 2-9 Built-in Speakers and Microphone

Besides the built-in speakers and microphone, there are two audio ports on the left panel of the notebook. See section 4.6 for details on how to connect external audio devices.

2.8.2 Controlling the Audio

There are hot keys that allow you to control various aspects of the audio output. The following table lists the audio-specific hot keys:

Table 2-10 Audio Control Hot Keys

Hot Key	Icon	Function	Description
 -f		Speaker On/Off	Toggles speaker output on and off
 -b-w		Volume Up	Increases audio volume
 -b-y		Volume Down	Decreases audio volume
 -b-z		Balance Left	Shifts speaker balance to the left
 -b-x		Balance Right	Shifts speaker balance to the right



These settings are only in effect for a single session (e.g., up to a power off). To let it stay in the same settings for the next power on, you need to adjust the audio volume control in Windows 95 or other operating systems.

2.9 Communications

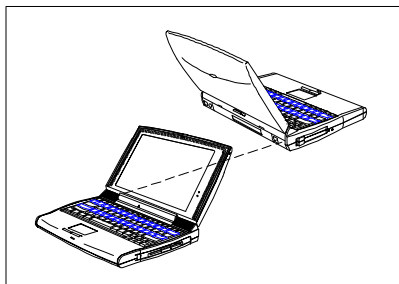
2.9.1 Serial Infrared

This notebook has an SIR (serial infrared) port located on the rear panel.

Wireless communication support allows you to transfer data to SIR-"aware" machines without the aid of cables. Not only can you transfer data between two SIR-capable computers, you can also send data to SIR-"aware" peripherals like infrared printers without the need to connect cables.

The infrared port is IrDA-compliant, allowing it to transfer data with speeds of up to 115.2 kilobits per second (kbps) at a distance of up to one meter.

Using the Infrared Port



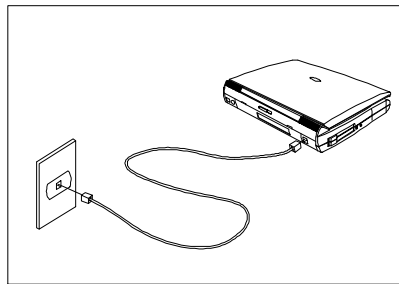
Line up the SIR ports of the two SIR-"aware" devices no more than one meter apart and no greater than ± 15 degrees.

Begin the file transfer program on both machines and you're ready to go. See your file transfer software manual for details.

2.9.2 Fax/Data Modem¹

The notebook has an optional state-of-the-art, 28.8Kbps V.34 fax/data modem that supports V.42bis hardware compression (115.2 kilobits per second). The modem also supports DSVD (simultaneous voice over data) technology which allows you to send data and talk at the same time.

Using the Modem



Connect the phone line cable from the RJ11 modem port on the notebook's rear panel to the telephone line jack.

Begin your communications software program. See your software manual for instructions. The software also supports speakerphone and telephone answering device features.

The advantage of a built-in modem is that it frees up your PC card slots for other functions.

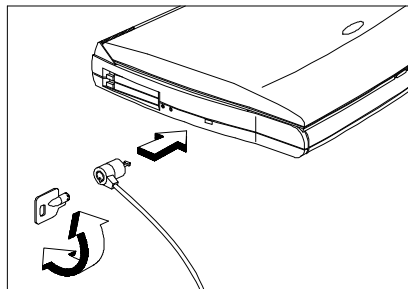
¹ This feature is available only in the U.S.

2.10 Securing your Notebook

Security features include hardware and software locks — a security notch and a two-level password scheme.

2.10.1 Security Notch

A security notch located on the left panel of the notebook lets you connect a standard key-based computer security lock.



Circle or wrap a computer security lock cable around an immovable object such as a table or locked drawer handle. Then insert the lock into the notch and turn the key to secure the lock.

2.10.2 System Resource Lock

A two-level password scheme protects your notebook from unauthorized access. When set, just press **Fn** -s to lock all system resources. In this situation, no one can access the notebook without entering the correct password.

For information on how to set passwords, see section 6.6.1.