



HP Pavilion zt1100/xz100 Omnibook xt1000

Service Manual

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Introduction

This manual provides reference information for servicing HP Pavilion zt1100/xz100 and Omnibook xt1000 notebook PCs. It is for use by HP-authorized service personnel while installing, servicing, and repairing these products.

The manual is designed as a self-paced guide that will train you to install, configure, and repair these notebooks. The manual is self-contained, so you can follow it without having equipment available.

The following table lists other sources of information about the notebook and related products.

Source	Address or Number	Comments
HP Notebook web site	http://www.hp.com/notebooks (European mirror: http://www.europe.hp.com/notebooks)	
HP Business Support web Site	www.hp.com/go/bizsupport	
HP Partnership web site	http://partner.americas.hp.com	Restricted to Authorized Resellers only.
HP Asia Pacific Channel Support Centre for DPSP Partners	http://www.hp.com.au	Restricted to DPSP Partners only.
HP/MCD web site	http://www.mcd.hp.com	HP's internal web site for division information.
America Online	Keyword: HP	Call (800) 827-6364 for membership within the US.
CompuServe	GO HP	Call (800) 524-3388 for membership within the US.
HP Support Assist CD	(800) 457-1762	US and Canada.
	(801) 431-1587	Outside US and Canada.
Microsoft Windows manual		Information about Windows operating system.
Microsoft web site	http://www.microsoft.com	Information and updates for Windows operating systems.

Product Information

The HP Pavilion zt1100/xz100 and Omnibook xt1000 series are reliable notebook computers for the budget-minded user—whether at school, at home, or as part of a growing business—who wants a thin, light notebook that will meet basic mobile computing needs.

Table 1-1. Pavilion zt1100/xz100 and Omnibook xt1000 Series Models

Product	CPU ¹	Display	Hard Drive	Standard SDRAM	CD/DVD drive ²	Full-featured ³	Modem/LAN	Wireless
Pavilion zt1100/xz100								
F3377H / zt1120	Cel 1.06 GHz	14.1-in TFT XGA	20 GB	256 MB	DVD	No	56K/LAN	
F3378H / zt1130	Cel 1.13 GHz	14.1-in TFT XGA	20 GB	256 MB	Combo	No	56K/LAN	
F3379H / zt1150	Cel 1.2 GHz	15.0-in TFT XGA	20 GB	256 MB	Combo	Yes	56K/LAN	
F3380H / zt1170	PIII 1.13 GHz	15.0-in TFT XGA	30 GB	512 MB	Combo	Yes	56K/LAN	
F3387H / zt1180	PIII 1.2 GHz	15.0-in TFT SXGA+	40 GB	512 MB	Combo	Yes	56K/LAN	
F3381H / zt1190	PIII 1.2 GHz	15.0-in TFT SXGA+	40 GB	512 MB	Combo	Yes	56K/LAN	802.11b
F3386H / xz185	PIII 1.13 GHz	15.0-in TFT XGA	40 GB	512 MB	Combo	Yes	56K/LAN	
F3382H / zt1121s	Cel 1.06 GHz	14.1-in TFT XGA	20 GB	128 MB	DVD	No	56K/LAN	
F3388H / zt1131s	Cel 1.06 GHz	14.1-in TFT XGA	20 GB	256 MB	DVD	No	56K/LAN	
F3390H / zt1141s	Cel 1.2 GHz	14.1-in TFT XGA	20 GB	256 MB	Combo	No	56K/LAN	
F3383H / zt1141	Cel 1.06 GHz	14.1-in TFT XGA	20 GB	256 MB	Combo	Yes	56K/LAN	
F3389H / zt1151	Cel 1.06 GHz	15.0-in TFT XGA	20 GB	256 MB	Combo	Yes	56K/LAN	
F3391H / zt1161	Cel 1.2 GHz	15.0-in TFT XGA	20 GB	512 MB	Combo	Yes	56K/LAN	
F3384H / zt1171	PIII 1.06 GHz	15.0-in TFT XGA	20 GB	256 MB	Combo	Yes	56K/LAN	
Omnibook xt1000								
F3428H / xt1000s	Cel 1.13 GHz	14.1-in TFT XGA	20 GB	256 MB	DVD	No	56K/LAN	
F3429H / xt1000	PIII 1.13 GHz	14.1-in TFT XGA	20 GB	256 MB	DVD	Yes	56K/LAN	
F3430H / xt1000	PIII 1.13 GHz	14.1-in TFT XGA	20 GB	256 MB	Combo	Yes	56K/LAN	
F3431H / xt1000	PIII 1.13 GHz	15.0-in TFT XGA	30 GB	256 MB	Combo	Yes	56K/LAN	
F3432H / xt1000	PIII 1.20 GHz	15.0-in TFT XGA	30 GB	256 MB	Combo	Yes	56K/LAN	
F3433H / xt1000	PIII 1.20 GHz	15.0-in TFT SXGA+	30 GB	512 MB	Combo	Yes	56K/LAN	
<p>This table lists only base product configurations—custom configurations are not included.</p> <p>The exact configuration of a unit is captured in a Traceability database. Support agents can access this database to verify a product's configuration at this URL: http://www.pc-tracking.hp.com/</p> <p>¹ Intel Mobile Pentium III (PIII-M) or Celeron-T (Cel) processor.</p> <p>² Combo optical drive = DVD + CD-RW.</p> <p>³ Full-featured SKUs include multimedia buttons, LCD status display, and IEEE1394.</p>								

Technology Codes

HP does not change the name of a product every time the product's technology changes. While this helps ensure continuing market momentum for HP products, it complicates technology deployment and support processes.

To help solve this problem, HP has added a technology code to the serial number of each of its products. Since the BIOS must be matched to the notebook's hardware, the same code is used for the BIOS and the hardware. This manual refers to technology code deferences where applicable.

The table below shows the technology codes and the changes they signify for the products. Before downloading software or drivers or performing repairs, note the technology code for the HP notebook model.

Note that the first two characters of the BIOS ID (for example, **IB**.M1.02) indicate the hardware technology. You can also determine the BIOS ID using the BIOS configuration utility, or by pressing Esc during the boot process when the HP logo appears.

This manual contains service information for products with the following technology code.

Technology code	Product name	Details
IB	Pavilion zt1100/xz100 series Omnibook xt1000 series	Intel Pentium III-M and Celeron-T based platform supported with Via chipset and S3 integrated graphics.

Features

The following illustrations show the notebook's main external features. For an exploded view of the notebook, see page 4-2.

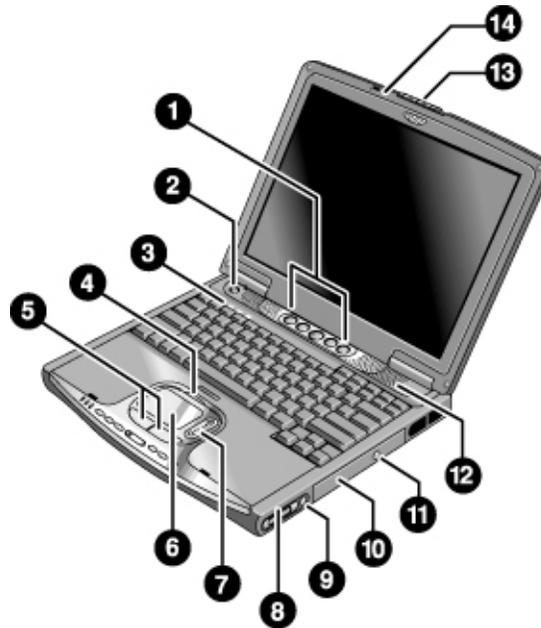


Figure 1-1. Front View

- | | |
|--|---|
| 1. One-Touch buttons. | 8. Volume controls (selected models). |
| 2. Power button. | 9. Mute button and indicator light (selected models). |
| 3. Keyboard status lights: Caps Lock, Num Lock, CD drive activity. | 10. Removable CD, DVD, CD-RW, or DVD/CD-RW drive. |
| 4. Touch pad/scroll pad on-off button (with on-off indicators on either side). | 11. CD/DVD eject button. |
| 5. Left and right click buttons. | 12. Speaker (one on each side). |
| 6. Touch pad. | 13. Latch. |
| 7. Scroll pad | 14. Built-in microphone. |

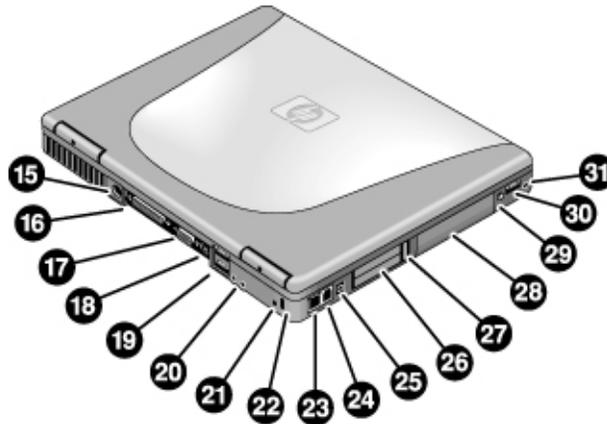


Figure 1-2. Back View

- | | |
|---|---|
| <ul style="list-style-type: none"> 15. AC adapter jack. 16. Parallel port (LPT1) (colored burgundy). 17. External monitor (VGA) port (colored blue). 18. S-video (TV out) port (colored yellow) (selected models). 19. Universal serial bus (USB) ports (2). 20. Audio line-out jack (colored lime green) and external microphone jack (colored pink). 21. Reset switch. 22. Kensington lock slot (security connector). | <ul style="list-style-type: none"> 23. LAN port and indicators. 24. Modem port (selected models). 25. IEEE 1394 connector (selected models). 26. PC Card slot (Type II or Type III, lower slot only). 27. PC Card eject button. 28. Hard disk drive. 29. Wireless on-off button and indicator light (selected models). 30. Universal serial bus (USB) port. 31. Headphone jack (colored lime green). |
|---|---|

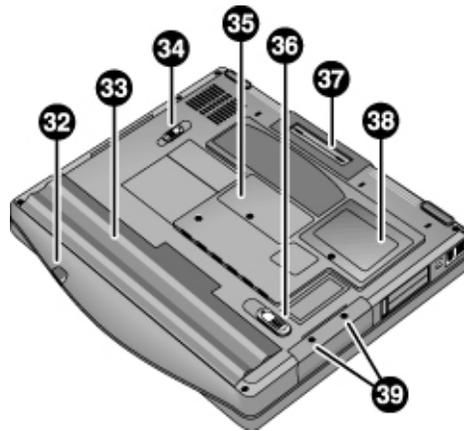


Figure 1-3. Bottom View

32. Infrared port (selected models).

33. Battery.

34. CD/DVD drive latch.

35. Expansion SDRAM cover.

36. Battery latch.

37. Docking port.

38. Mini-PCI cover.

39. Hard disk drive retaining screws.

Operation

This section gives an overview of the notebook's operation.

Turning the Notebook On and Off

You can start and stop the notebook using its power button. However, at times you may want to use other methods to start or stop the notebook—depending on power considerations, types of active connections, and start-up time.

Note

This manual describes the notebook in its original factory configuration, with all settings at their default values.

Table 1-2. Activating Power Modes

Power mode	To enter this mode	To turn on again
On Power mode status light is green.	Press the power button.	
Standby Maintains current session in RAM. Turns off the display and other components. Saves significant power. Restarts quickly. Restores network connections. Power mode status light is amber.	Click Start, Turn Off Computer, Stand By –or– press the power button –or– allow timeout.	Press the power button to quickly resume your session.
Hibernation Saves current session to disk, then turns off. Saves maximum power. Restores network connections. Power mode status light is off.	Click Start, Turn Off Computer, then press and hold Shift and click Hibernate –or– allow timeout.	Press the power button to resume your session.
Turn off Turns off without saving current session. Saves maximum power. At startup, resets everything, and starts a new session. Power mode status light is off.	Click Start, Turn Off Computer, Turn Off –or– press and hold the power button for four seconds (only if the Start menu procedure doesn't work).	Press the power button to start with a new session.

Checking the Notebook's Status

The notebook's status lights report power and battery status, keyboard status, and drive activity.

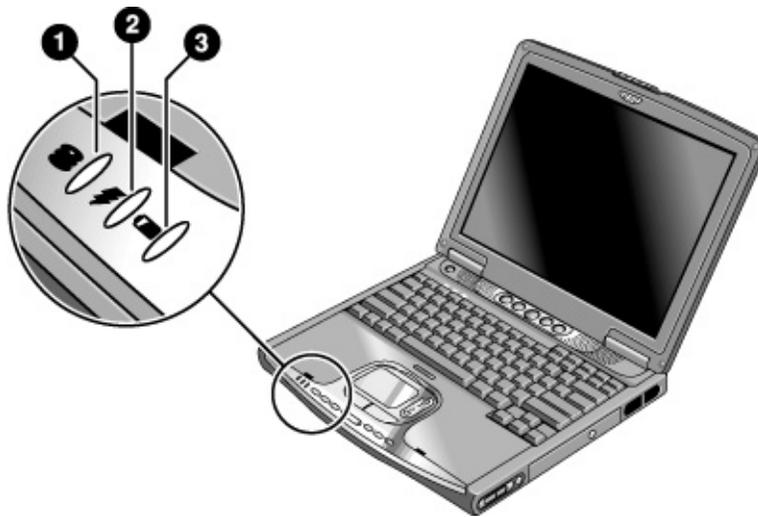


Figure 1-4. Main Status Lights

1. Hard disk drive activity.

- On: the notebook is accessing the hard disk drive.

2. Power mode.

- Green: the notebook is on (even if the display is off).
- Amber: the notebook is on standby.
- Off: the notebook is off or in hibernation.

3. Battery charge status.

- Green: the AC adapter is connected and the battery is fully charged.
- Amber: the AC adapter is connected and the battery is charging.
- Red: the AC adapter is connected and the battery has a fault.
- Off: the AC adapter is not connected or the battery is missing.

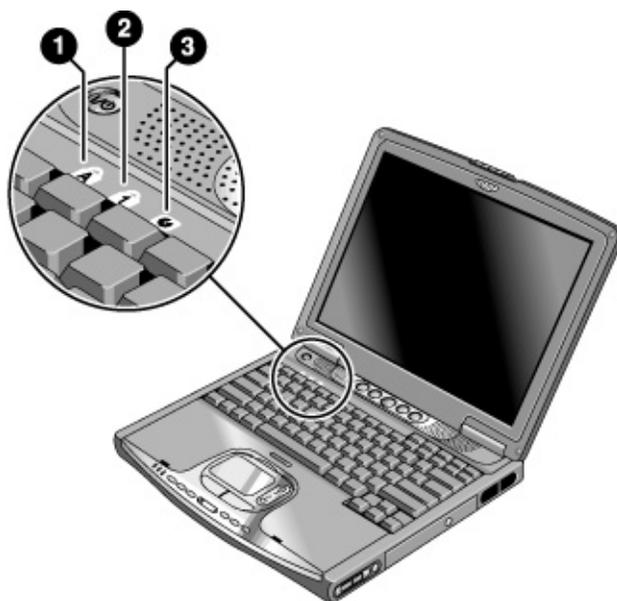


Figure 1-5. Keyboard Status Lights

1. **Caps Lock.** Caps Lock is active.
2. **Num Lock.** Num Lock is active. (The Keypad Lock must also be on to use the embedded keypad.)
3. **CD drive activity.** The CD drive is active.

Using Fn Hot Keys

The combination of the Fn key plus another key creates a *hot key*—a shortcut key sequence—for various system controls. To use a hot key, press *and hold* Fn, press the appropriate second key, then release both keys.

Table 1-3. Fn Hot Keys

Hot Key	Effect
Fn+F1	Decreases the display brightness.
Fn+F2	Increases the display brightness.
Fn+F5	Toggles among the built-in display, an external display, and simultaneous display on both.
Fn+F8	Toggles the built-in numeric keypad on and off. Does not affect an external keyboard. If Num Lock is on, the numeric functions are active; otherwise, cursor control is active.
Fn+Num Lock	Toggles Scroll Lock on and off.
Fn+Page Up	Increases the volume (and turns audio on if muted).
Fn+Page Down	Decreases the volume.
Fn+Backspace	Toggles the mute function on and off.
Fn+any One-Touch button	Toggles the One-Touch button LEDs on and off (selected models).

Resetting the Notebook

Occasionally, Windows or the notebook may stop responding, so that you cannot turn the notebook off. If this happens, try the following in the order listed:

- If possible, shut down Windows: click Start, Turn Off Computer, Turn Off.
- Press Ctrl+Alt+Del, then click Shut Down.
- Press and hold the power button for about four seconds, until the display turns off.
- Use a pen or straightened paper clip to press the reset switch on the back of the notebook.

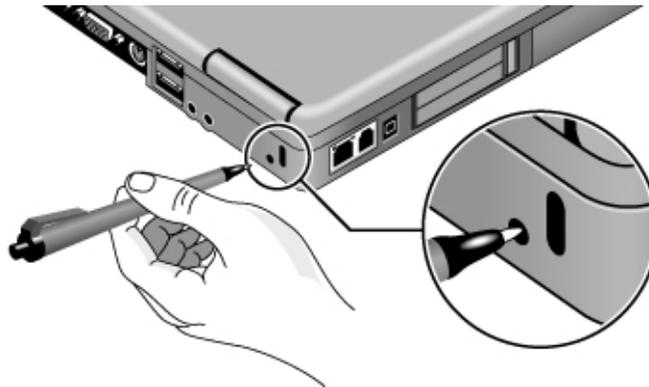


Figure 1-6. Resetting the Notebook

Press the power button to turn the notebook on again.

Note

To boot from a CD or DVD, insert a bootable CD (such as the *Recovery CDs*) into the drive, then restart. Press Esc when the HP logo appears, then select the CD-ROM/DVD drive as the temporary boot device.

Using the CD or DVD Player (selected models)

The multimedia buttons on the front of the notebook control the CD/DVD player, and work in much the same way as do the controls of a standalone CD or DVD player. The player operates whether the notebook is on, off, on standby, or in hibernation. (When the notebook is on, the volume control buttons also govern the volume for most audio applications.)

If the notebook is off, on standby, or in hibernation, slide the multimedia power switch to the left to activate the player. For details about using the CD/DVD player, see the notebook's *Reference Guide*.

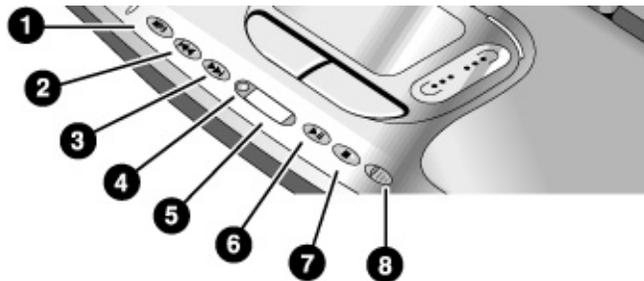


Figure 1-7. Multimedia Buttons and Status Panel

- | | |
|------------------------------|---|
| 1. MP3 player launch button. | 5. Status panel. |
| 2. Previous track button. | 6. Play/Pause button. |
| 3. Next track button. | 7. Stop button. |
| 4. Status panel button. | 8. Multimedia power switch and indicator light. |

Specifications

The following tables list the specifications for the notebook and its accessories. These are subject to change: for the latest versions, see the HP Notebook web site, www.hp.com/notebooks (in Europe: www.europe.hp.com/notebooks).

Hardware Specifications

Table 1-4. Pavilion zt1100/xz100 and Omnibook xt1000 Series Hardware Specifications

Physical Attributes	Dimensions: 13.3/14.1-in models: 318 × 273 × 35.8 mm (12.5 × 10.75 × 1.4 in). 15-in models: 330 × 278 × 37.5 mm (12.99 × 10.94 × 1.47 in). Thickness varies across unit. Weight: 2.3 kg (5.0 lbs) minimum, depending on model.
Processor and Bus Architecture	Intel Mobile Pentium III-M processor (starting at 933 MHz) with SpeedStep technology. –or– Intel Celeron processor (starting at 866 MHz). 1.6-V core, 2.5-V external, low-power processor. 32-bit PCI bus.
Graphics	13.3/14.1/15-in XGA (1024x768) or 15-in SXGA+ (1400x1050) TFT LCD display. Supports 16 million colors, 3D and OpenGL graphics. Supports hardware acceleration for MPEG. Display driver supports MPEG2 overlay. Supports simultaneous LCD+CRT operation (same image on both displays). Integrated VGA. Up to 32-MB video memory (shared with system memory). Supports NTSC and PAL TV. Dual display for LCD and external monitor or TV.
Power	Rechargeable lithium-ion or NiMH battery. Battery life depends on notebook type and usage, and battery type and calibration. Low-battery warning. Standby/hibernate and resume capability. Universal AC adapter: 100–240 Vac (50/60 Hz) input, 19 Vdc output, 60 W.
Mass Storage	10- to 40-GB removable IDE hard disk drive. Supports optional 1.44-MB floppy disk drive module.
CD/DVD drive	24X CD-ROM, 8X DVD, 8X8X24 CD-RW, or 8X8X24X8 DVD/CD-RW (or higher) removable drive.
SDRAM	Two slots for SDRAM expansion (SODIMM, PC133) up to 1024 MB (2x512MB). 133-MHz RAM bus.
Audio System	Built-in microphone. Stereo sound through two built-in speakers. 1.5 W per channel. Polk Audio certified on 15-in models. Dedicated mute and volume controls (selected models). CD player (can play while notebook is on standby, in hibernation, or off). 3D-enhanced PCI bus audio.

Keyboard and Pointing Devices	87/88/91-key touch-type QWERTY keyboard with 101/102 key emulation. Embedded numeric keypad. 12 function (Fn) keys. 5 user-programmable One-Touch buttons. Touch pad with lock button and on-off indicator. Left and right click buttons, vertical scroll pad.
Input/Output	3 universal serial bus (USB) ports. 15-pin VGA video-out (blue) with DDC support. (Resolution up to 1600×1200×64K or 16M colors. Refresh rate of 60 to 100 Hz, depending on resolution and color depth.) RJ-45 LAN jack. 25-pin bi-directional high-speed ECP/EPP parallel (burgundy). S-video TV out (yellow) (selected models). 4-Mbps IrDA-compliant infrared port (selected models). IEEE 1394 port (selected models). Docking port: supports optional simple port replicator.
Expandability	One Type II or Type III 16/32-bit PC Card slot (3.3- and 5-V support). CardBus enabled. Optional simple port replicator (selected models).
Security Features	User and administrator passwords. DMI-accessible electronic serial number. Kensington MicroSaver lock slot.
Environmental Limits	Operating temperature: 0 to 40 °C (32 to 104 °F). Operating humidity: 10 to 90 percent RH (0 to 45 °C). Operating altitude: up to 10,000 ft (3000 m) at 25 °C (77 °F). Storage (non-operating) temperature: –20 to 65 °C (–4 to 149 °F).
Major ICs	CPU: Intel Mobile Pentium III or Celeron processor. North Bridge: VIA Pro Savage Pn 133T. South Bridge: VIA VT8231. Display controller: S3 Savage 4 in North Bridge. Audio controller: VIA/Realtek ALC201 AC97 Codec. CD player controller: O2 OZ-163. LAN: Realtek RTL8100L. CardBus controller: ENE 1410. Keyboard/embedded controller: National NS87591. Super I/O: in South Bridge.

Table 1-5. Pavilion zt1100/xz100 and Omnibook xt1000 Series Accessories

Accessory	Description
New Accessories	
F3172A	Standard Lilon Battery
F3491A	CD-RW Upgrade Module
F3492A	DVD Upgrade Module
F3493A	CD-RW/DVD Combo Drive
F3494A	Simple Port Replicator
Tested Cross-Platform Accessories	
D9510B	USB Floppy Disk Drive Module
F1455A	Auto Air Adapter (75 W)
F1606A	Omnibook Ballistic Nylon Case
F1607A	Omnibook Leather Case
F1608A	Omnibook Executive Case
F1626B	3COM 10/100 Enet PC Card
F1645A	Kensington Lock
F1747A	Defcon Alarm
F1771A	Universal Carrying Case
F1778A	Promotional Carrying Case (NAM & AP)
F1778B	Standard Carrying Case (Europe Only)
F1781A	Ultra Slim Line Adapter (60 W)
F1782A	3COM Type II Combo Card
F2020A	Executive Leather Case (Europe only)
F2135B	Wireless Comm Access Point
F2135C	Wireless Comm Access Point
F2136B	Wireless PC Card (128 bits)
F2196A	3Com Bluetooth PC Card
F2297A	Car Adapter, 24 V (EU only)
F2298A	512 MB PC133 SDRAM
F3495A	128 MB PC133 SDRAM
F3496A	256 MB PC133 SDRAM
P1980A	USB Wireless LAN 802.11b
P1981A	USB Wireless LAN Access Point

Internal Design

The motherboard PCA is the central component of the notebook's design, and plays a role in virtually all system functions. The CPU module and most other subsystems connect to the motherboard.

The following figure shows the electrical connections among the notebook's replaceable electronic modules. In addition, the table on page 1-15 lists the roles that the replaceable modules play in each of the notebook's functional subsystems.

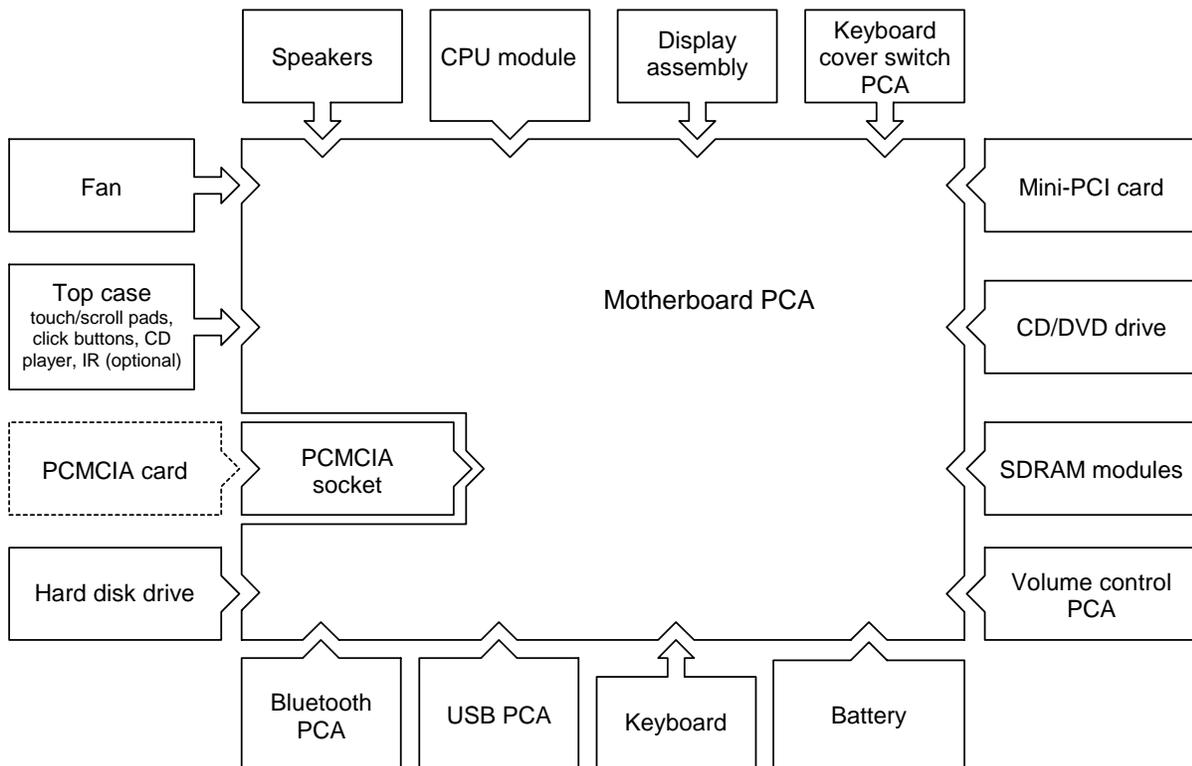


Figure 1-8. Replaceable Module Diagram

Table 1-6. Functional Structure

Function	Components Used	Component Roles
Startup	CPU module Motherboard Hard disk drive CD/DVD drive module	Main processor. Primary system circuitry. First source of disk-based startup code. Second source of disk-based startup code.
Processor	CPU module Motherboard	Main processor, numeric data processor, L1 and L2 cache. Primary system circuitry.
Memory	SDRAM module	Video RAM (shared). Changeable RAM (2 slots).
Power	Battery Motherboard Keyboard cover switch PCA AC adapter	Power storage. Power control circuitry, AC adapter socket, lid switch, reset switch, power supply. Power button. AC-to-DC converter.
Display	Motherboard Display assembly	Video controller, display drivers, LVDS processing, display/graphics controller. Display output, backlight, power converter for backlight.
Hard disk	Motherboard Hard disk drive	Hard disk controller. Hard disk mechanism.
Keyboard	Motherboard Keyboard Keyboard cover CD player PCA	Keyboard controller, keyboard BIOS. Key switches. One-Touch buttons. CD player buttons.
Touch pad	Motherboard Top case	Keyboard BIOS. Touch/scroll pad sensors, click buttons.
Audio	Motherboard Display assembly USB PCA Volume control PCA Speakers	Audio controller, audio decoder, speaker amplifier, external microphone jack. Microphone. Headphone jack. Volume control. Sound output.
Status	Motherboard Top case Keyboard cover switch PCA CD player PCA	LED circuitry, keyboard controller. Status LEDs. Status LEDs. CD/DVD status display.
Parallel	Motherboard	I/O controller, parallel connector.
USB	Motherboard USB PCA	Bus controller, USB connectors. USB connectors.
PCMCIA	Motherboard PCMCIA sockets	PCMCIA controller. PCMCIA connectors.
Infrared	Motherboard CD player PCA	I/O controller. Infrared transmitter/receiver.
Wireless	Display assembly Motherboard Mini-PCI PCA Bluetooth PCA USB PCA	Antennas, on-off button, indicator light. I/O controller. Radio PCA circuitry. Radio PCA circuitry. On-off button, indicator light.
Docking	Motherboard	Docking logic, docking connector.
PC card	Motherboard	PC card controller, PC card connector.

Removal and Replacement

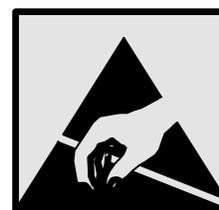
This chapter shows how to remove and replace the notebook's components, listed in the following table. The items marked by • are user-replaceable.

Table 2-1. Removal Cross-Reference

<ul style="list-style-type: none"> Antenna, Bluetooth (page 2-20). Antenna, wireless (page 2-20). • Battery (page 2-4). Bezel, display (page 2-20). Card, mini-PCI (page 2-16). Case, bottom (page 2-32). Case, top (page 2-27). • Cover, expansion SDRAM (page 2-15). • Cover, keyboard (page 2-9). • Cover, mini-PCI (page 2-15). • Covers, screw (page 2-15). Display assembly (page 2-18). Doors, docking (page 2-35). Doors, PCMCIA (page 2-35). • Drive, hard disk (page 2-6). Fan (page 2-22). • Feet, rubber (page 2-15). 	<ul style="list-style-type: none"> Guide, hard disk drive (page 2-38). Heatsink (page 2-22). • Keyboard (page 2-11). Module, CPU (page 2-25). • Module, plug-in (page 2-5). • Module, expansion SDRAM (page 2-13). • Module, system SDRAM (page 2-14). PCA, CD player (page 2-38). PCA, inverter (page 2-20). PCA, motherboard (page 2-32). PCA, USB (page 2-38). PCA, volume control (page 2-39). Saddles, hinge (page 2-30). Socket, PCMCIA (page 2-39). Speaker, left (page 2-39). Speaker, right (page 2-39). • Tray, hard disk drive (page 2-7).
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Caution

Always provide proper grounding when performing repairs. Without proper grounding, an electrostatic discharge can damage the notebook and its components.



Notes

To reassemble a component, perform the removal procedure in reverse order. Any special notes required for reassembly are included at the end of each section.

 Symbols like this are used throughout this chapter to show approximate full-size screw outlines. Use these to verify the sizes of screws before you install them. Installing a wrong-size screw can damage the notebook. (The symbol shown represents an M2.5x5mm T-head screw.)

Disassembly Flowchart

The following diagram shows the general “paths” you will use in disassembling the notebook to access any particular component.

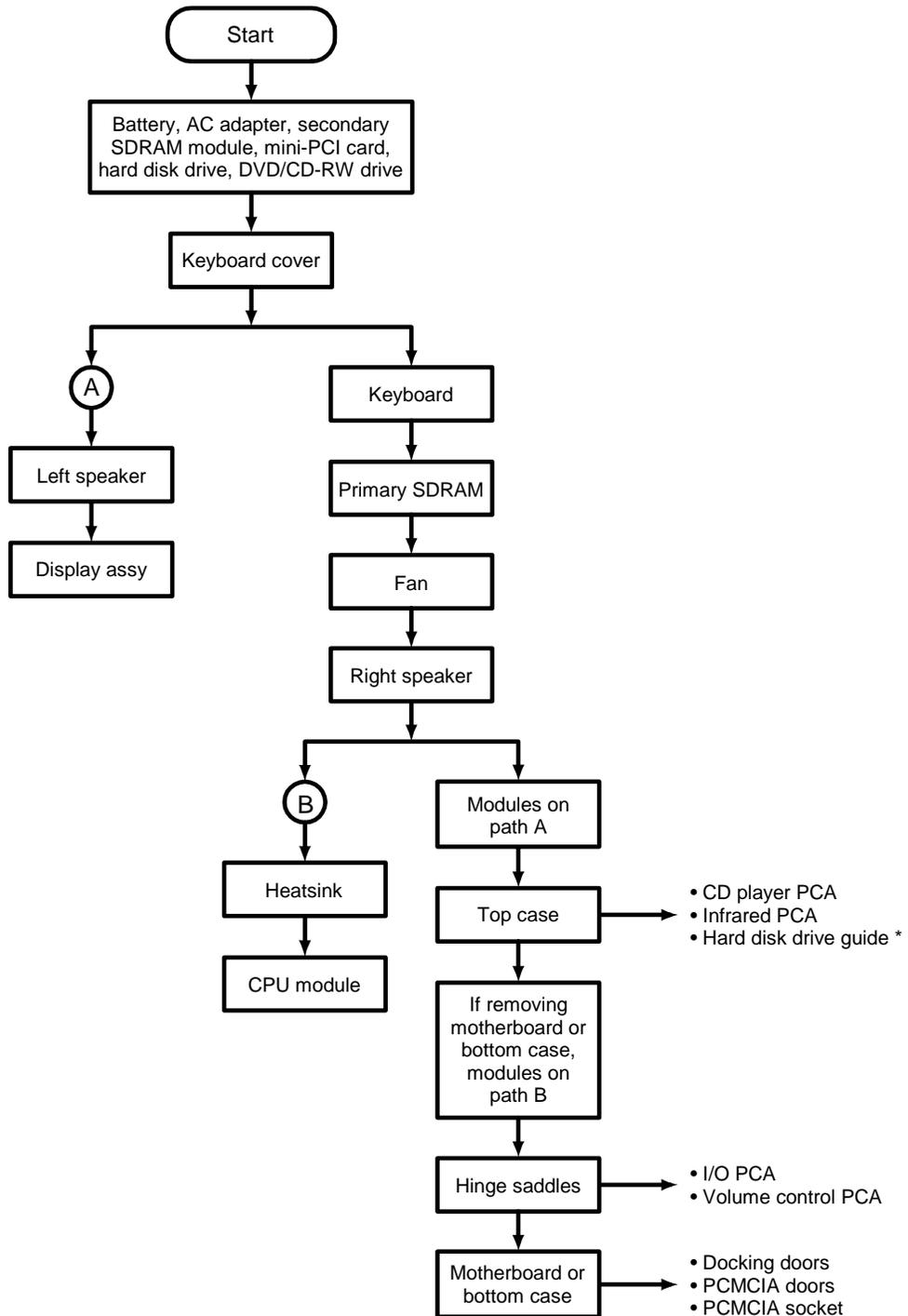


Figure 2-1. Disassembly Flow

Table 2-2. Required Equipment

- #0 Phillips screwdriver, preferably magnetized.
- Small flat-blade screwdriver.

Table 2-3. Recommended Screw Torques

Screw Thread Size	Torque (cm-kgf)	Torque (in-lbf)
M2.5 (2–11 mm long)	3.0 – 3.5	2.6 – 3.0
M3	3.0 – 3.5	2.6 – 3.0

NOTES

Removing the Battery (User-Replaceable)

Required Equipment

- None.

Removal Procedure

- Slide the battery's release latch in the direction of the arrow on the latch, then lift the battery out of its compartment.

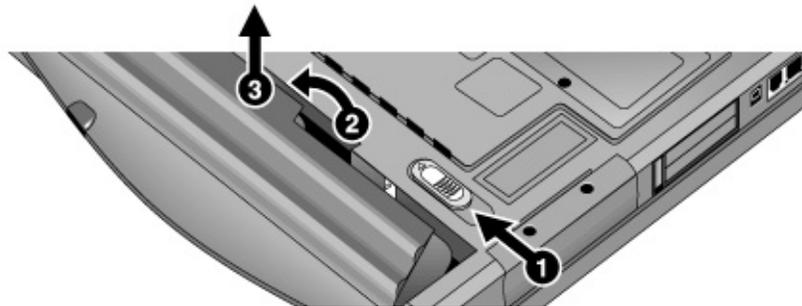


Figure 2-2. Removing the Battery

Reassembly Notes

- Insert the front end of the battery into the battery compartment, then press the back end in until the battery clicks into place.

Removing a Plug-In Module (User-Replaceable)

Required Equipment

- None.

Removal Procedure

- Slide the module release latch in the direction shown by the arrow on the latch, and remove the module.

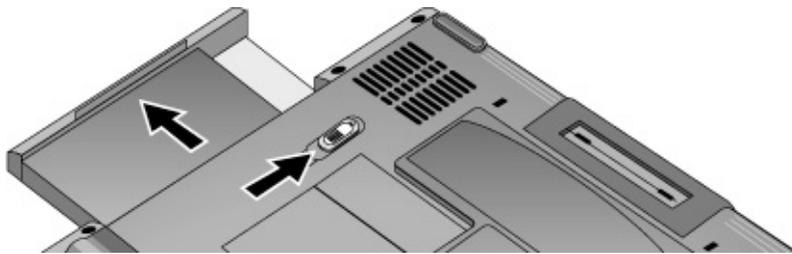


Figure 2-3. Releasing the Plug-in Module

Removing the Hard Disk Drive

(User-Replaceable)

Required Equipment

- #0 Phillips screwdriver.

Removal Procedure

1. Unplug the AC adapter, if present, and remove the battery.
2. On the bottom of the unit, remove both hard drive retaining screws.

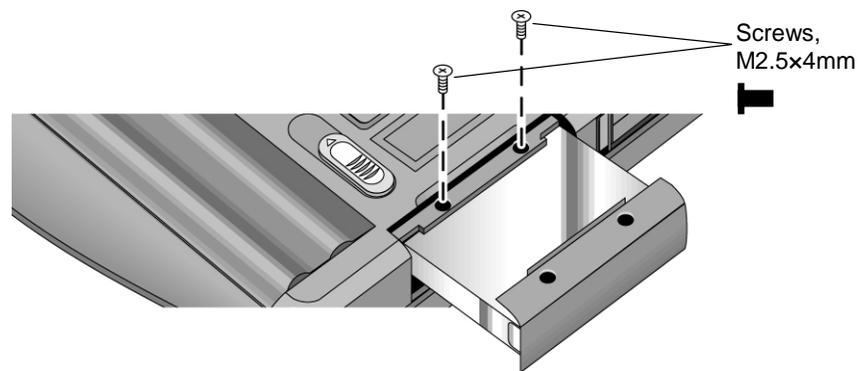


Figure 2-4. Removing the Hard Disk Drive

3. Carefully pull the hard drive out of the notebook.
4. Remove all four screws from the hard drive tray and drive case, then lift the drive out of the tray.

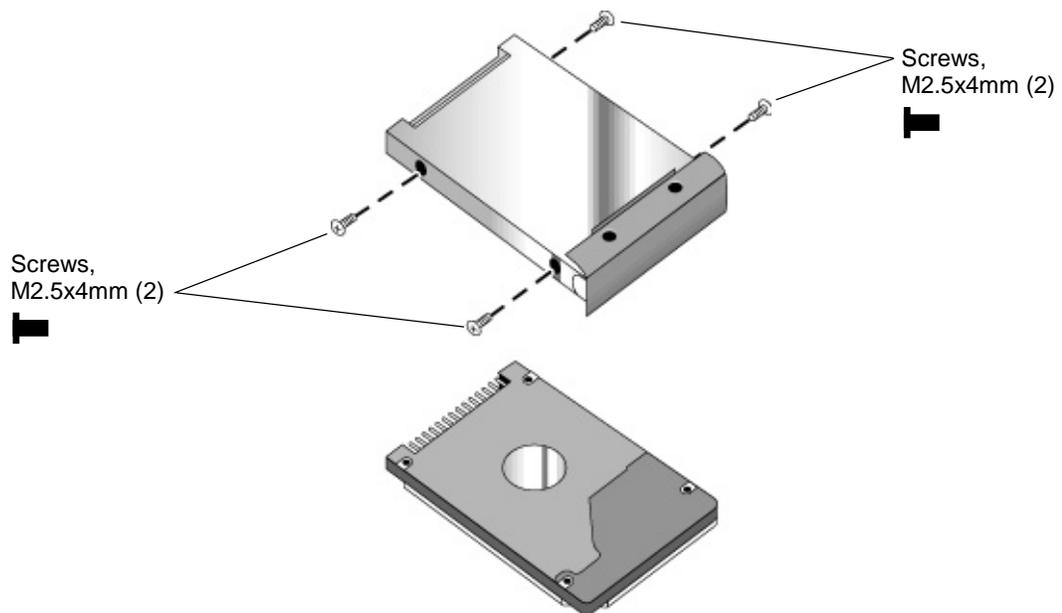


Figure 2-5. Removing the Hard Disk Tray

Reassembly Notes

- Insert the connector end of the drive through the opening in the tray, then lower the drive into place.
- Carefully slide the hard drive assembly into its compartment. Press firmly to make sure the connector seats properly.

Important

If you are installing a new hard disk drive, install the factory software and operating system on the drive before loading any additional software—see “Recovering and Reinstalling Software,” below.

Recovering and Reinstalling Software

Use the *Recovery CDs* to reinstall the original factory software and operating system. The *Recovery CDs* also provide all HP notebook-specific Windows drivers, which are available in the following locations:

- On the hard drive, under c:\hp\drivers.
- On the *Recovery CDs*, under \hp\drivers.
- On the HP Business Support web site (www.hp.com/go/bizsupport). This web site contains the latest updates of software drivers for various operating systems.

To recover the factory software installation

The following procedure describes how to recover the notebook's original software and operating system. This process can take up to 15 minutes to complete. (For more information about recovering the factory software installation, see the file readme.txt in the root directory of the *Recovery CDs*.)

Caution

Be sure to back up the hard disk before proceeding. This procedure formats the hard disk, which erases all data on the disk. After formatting, you must reinstall any applications.

Do not interrupt the following process or unplug the AC adapter until the process is complete.

1. Back up all data from the hard disk.
2. Connect the AC adapter to the notebook. **This is necessary to provide an uninterrupted power source: the notebook's battery alone is not adequate.**
3. Insert *Recovery CD* disk 1 into the notebook's CD/DVD drive. If the notebook is turned off, use a pin or straightened paper clip to press the release switch on the drive door to open it.
4. Turn on or restart the notebook.
5. When the HP logo appears, press Esc to display the Boot menu.
6. Use the arrow keys to select the CD/DVD drive as the first boot device, then press Enter.
7. When the *Recovery CD* dialog box appears, follow the displayed instructions. If prompted, accept the recommended partition size.

To create the Utility partition without installing the factory software, click Advanced and select not to install the operating system.

If the hard disk is partitioned into several drives, you can install the factory software on drive C without affecting other drives. Click Advanced and select to restore only the C partition.

8. When prompted to reboot the notebook, press Ctrl+Alt+Del and follow any instructions that appear.

Note

Windows XP supports the NTFS file system.