



Maintenance and Service Guide

HP Pavilion dv1000 Notebook PC

HP Compaq nx4800 Business Notebook

Compaq Presario V2000 Notebook PC

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This guide is a troubleshooting reference used for maintaining and servicing the notebook. It provides comprehensive information on identifying notebook features, components, and spare parts; troubleshooting notebook problems; and performing notebook disassembly procedures.

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Maintenance and Service Guide
HP Pavilion dv1000 Notebook PC
HP Compaq nx4800 Business Notebook
Compaq Presario V2000 Notebook PC
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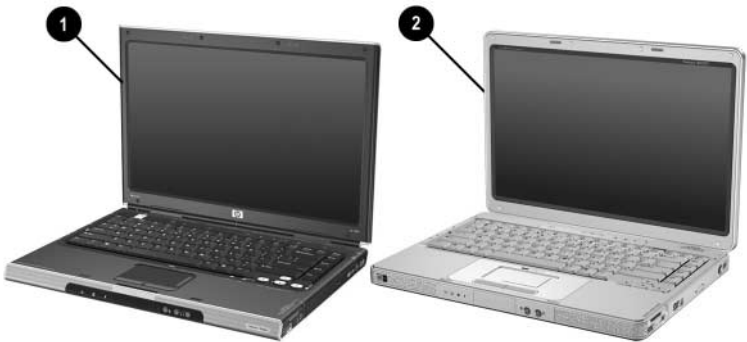
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Product Description

The HP Pavilion dv1000 Notebook PC ❶ and the HP Compaq nx4800 Business Notebook and Compaq Presario V2000 Notebook PC (both represented by ❷) offer advanced modularity, Intel® Mobile Pentium® M and Celeron® M processors, and extensive multimedia support.



*HP Pavilion dv1000, HP Compaq nx4800, and
Compaq Presario V2000*

1.1 Features

- The following processors are available, varying by notebook model:
 - ❑ Intel Pentium M 745 (1.8-GHz) with 400-MHz front side bus (FSB)
 - ❑ Intel Pentium M 735 (1.7-GHz) with 400-MHz FSB
 - ❑ Intel Pentium M 725 (1.6-GHz) with 400-MHz FSB
 - ❑ Intel Pentium M 710 TJ85 (1.4-GHz) with 400-MHz FSB; operates at a lower temperature than other processors
 - ❑ Intel Celeron M 340 (1.5-GHz) with 400-MHz FSB
 - ❑ Intel Celeron M 330 (1.4-GHz) with 400-MHz FSB
- 14.0-inch WXGA (1280 × 768) TFT display with over 16.7 million colors, varying by notebook model
- 80-, 60-, or 40-GB high-capacity hard drive, varying by notebook model
- 256-MB DDR synchronous DRAM (SDRAM) at 266 MHz, expandable to 2.0 GB on notebook models with Intel Mobile Pentium M processors and 1.0 GB on notebook models with Intel Celeron M processors
- Microsoft® Windows® XP Home Edition or Windows XP Professional, or Free DOS, varying by notebook model
- Full-size Windows keyboard with embedded numeric keypad
- TouchPad pointing device with on button and dedicated two-way scroll region
- Integrated 10/100 BASE-T Ethernet local area network (LAN) network interface card (NIC) with RJ-45 jack
- Integrated high-speed 56K modem with RJ-11 jack
- Integrated wireless support for Mini PCI IEEE 802.11b and 802.11b/g WLAN device

- Support for one Type II PC Card slots, with support for both 32-bit (CardBus) and 16-bit PC Cards
- External 65-watt AC adapter with 3-wire power cord
- 6-cell or 12-cell Li-Ion battery pack
- Stereo speakers with volume up and down buttons
- Support for the following optical drives:
 - ❑ 8X Max DVD+RW/R and CD-RW Combo Drive
 - ❑ 4X Max DVD+RW/R and CD-RW Combo Drive
 - ❑ 8X Max DVD-ROM Drive
 - ❑ 24X Max DVD/CD-RW Combo Drive
- Connectors:
 - ❑ External monitor
 - ❑ Universal Serial Bus (USB) v. 2.0
 - ❑ RJ-11 (modem)
 - ❑ RJ-45 (network)
 - ❑ Audio-out (headphone)
 - ❑ Audio-in (microphone)
 - ❑ Power
 - ❑ IEEE 1394 digital (select models only)
 - ❑ S-Video-out (select models only)
 - ❑ Infrared (HP Pavilion notebook models only)
 - ❑ Parallel
 - ❑ Serial
 - ❑ Docking (select models only)
 - ❑ Digital memory card reader (select models only)

1.2 Resetting the Notebook

If the notebook you are servicing has an unknown password, follow these steps to clear the password. These steps also clear CMOS:

1. Prepare the notebook for disassembly (refer to [Section 5.3, “Preparing the Notebook for Disassembly,”](#) for more information).
2. Remove the real time clock (RTC) battery (refer to [Section 5.14, “RTC Battery,”](#) for more information).
3. Wait approximately 5 minutes.
4. Replace the RTC battery and reassemble the notebook.
5. Connect AC power to the notebook. Do not reinsert any battery packs at this time.
6. Turn on the notebook.

All passwords and all CMOS settings have been cleared.

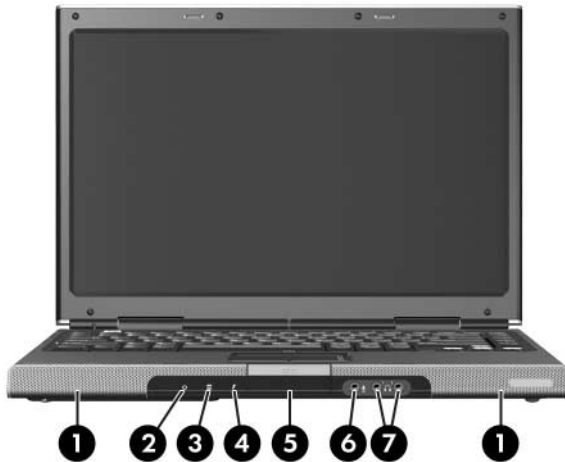
1.3 Power Management

The notebook comes with power management features that extend battery operating time and conserve power. The notebook supports the following power management features:

- Standby
- Hibernation
- Setting customization by the user
- Hotkeys for setting the level of performance
- Battery calibration
- Lid switch standby/resume
- Power/standby button
- Advanced Configuration and Power Management (ACPM) compliance

1.4 External Components

The external components on the front of the HP Pavilion dv1000 notebook are shown below and described in Table 1-4.



Front Components, HP Pavilion dv1000

Table 1-4
Front Components
HP Pavilion dv1000

Item	Component	Function
1	Speakers (2)	Produces stereo sound.
2	Power/standby light	<ul style="list-style-type: none"> ■ On: Notebook is turned on. ■ Blinking: Notebook is in standby. ■ Off: Notebook is off.
3	IDE (Integrated Drive Electronics) drive light	On or blinking: The internal hard drive or an optical drive is being accessed.
4	Battery light	<ul style="list-style-type: none"> ■ Amber: The battery pack is charging. ■ Green: The battery pack is fully charged. ■ Off: The battery pack is discharging or not inserted.
5	Display release latch	Opens the notebook.
6	Audio-in (microphone) jack	Connects an optional monaural (single sound channel) microphone.
7	Audio-out (headphone) jack (2)	Connect optional headphones or powered stereo speakers. Also connect the audio function of an audio/video device such as a television or VCR.

The external components on the front of the HP Compaq nx4800 and Compaq Presario V2000 notebooks are shown below and described in Table 1-5.



Front Components, HP Compaq nx4800 and Compaq Presario V2000

Table 1-5
Front Components
HP Compaq nx4800 and Compaq Presario V2000

Item	Component	Function
1	Speakers (2)	Produces stereo sound.
2	Wireless button light (select models only)	On: An integrated wireless device is hardware enabled.
3	Power/standby light	<ul style="list-style-type: none"> ■ On: Notebook is turned on. ■ Blinking: Notebook is in standby. ■ Off: Notebook is off.
4	IDE (Integrated Drive Electronics) drive light	<ul style="list-style-type: none"> ■ On or blinking: The internal hard drive or an optical drive is being accessed.
5	Battery light	<ul style="list-style-type: none"> ■ Amber: The battery pack is charging. ■ Green: The battery pack is fully charged. ■ Off: The battery pack is discharging or not inserted.
6	Display release latch	Opens the notebook.
7	Audio-in (microphone) jack	Connects an optional monaural (single sound channel) microphone.
8	Audio-out (headphone) jack (2 on HP Pavilion dv1000 notebook models)	Connect optional headphones or powered stereo speakers. Also connect the audio function of an audio/video device such as a television or VCR.

The external components on the right side of the HP Pavilion dv1000 notebook are shown below and described in Table 1-6.



Right-Side Components, HP Pavilion dv1000

Table 1-6
Right-Side Components
HP Pavilion dv1000

Item	Component	Function
1	USB connectors (2)	Connect an optional USB device.
2	6-in-1 Digital Media Reader (select models only)	In Windows, supports digital memory cards.
3	1394 port (select models only)	Connects an optional 1394a device such as a scanner, digital camera, or digital camcorder.
4	6-in-1 Digital Media Reader light (select models only)	On: A digital memory card is being accessed.
5	Optical drive	Supports an optical disc.
6	S-Video-out jack (select models only)	Connects an optional S-Video device, such as a television, VCR, camcorder, projector, or video capture card.

The external components on the right side of the HP Compaq nx4800 and Compaq Presario V2000 notebooks are shown below and described in Table 1-7.

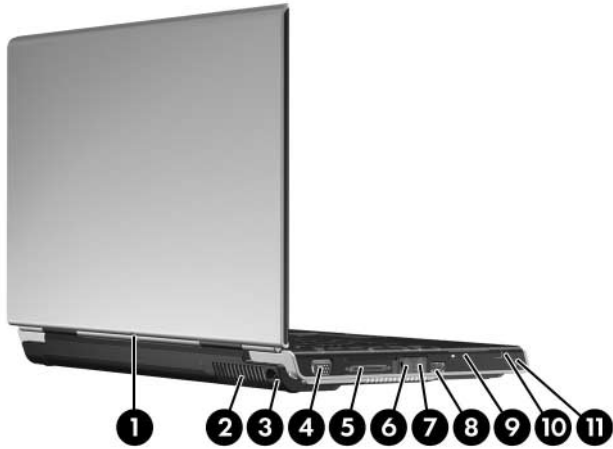


Right-Side Components, HP Compaq nx4800 and Compaq Presario V2000

Table 1-7
Right-Side Components
HP Compaq nx4800 and Compaq Presario V2000


Item	Component	Function
1	USB connectors (2)	Connect an optional USB device.
2	6-in-1 digital memory card reader (select models only)	In Windows, supports digital memory cards.
3	1394 port (select models only)	Connects an optional 1394 device such as a scanner, digital camera, or digital camcorder.
4	6-in-1 digital memory card reader light (select models only)	On: A digital memory card is being accessed.
5	Optical drive	Supports an optical disc.
6	S-Video-out jack (select models only)	Connects an optional S-Video device, such as a television, VCR, camcorder, projector, or video capture card.

The external components on the rear and left side of the HP Pavilion dv1000 notebook are shown below and described in Table 1-8.



Rear and Left-Side Components, HP Pavilion dv1000

Table 1-8
Rear and Left-Side Components
HP Pavilion dv1000


Item	Component	Function
1	Wireless light (select models only)	On: An integrated wireless device is hardware enabled.
2	Exhaust vent	Provides airflow to cool internal components.  To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as a printer, or a soft surface, such as pillows, thick rugs or clothing, to block airflow.
3	Power connector	Connects an AC adapter cable.
4	External monitor port	Connects an optional VGA external monitor or projector.
5	Expansion port	Connects the notebook to an optional expansion base.
6	RJ-45 (network) jack	Connects an optional network cable.
7	RJ-11 (modem) jack	Connects the modem cable.
8	USB connector	Connects an optional USB device.
9	PC Card slot	Supports an optional Type I or Type II 32-bit (CardBus) or 16-bit PC Card. Also serves as a storage location for the optional HP Mobile Remote Control.
10	PC Card eject button	Ejects an optional PC Card from the PC Card slot.
11	Security cable slot	Attaches an optional security cable to the notebook.

The external components on the rear and left side of the HP Compaq nx4800 and Compaq Presario V2000 notebooks are shown below and described in Table 1-9.

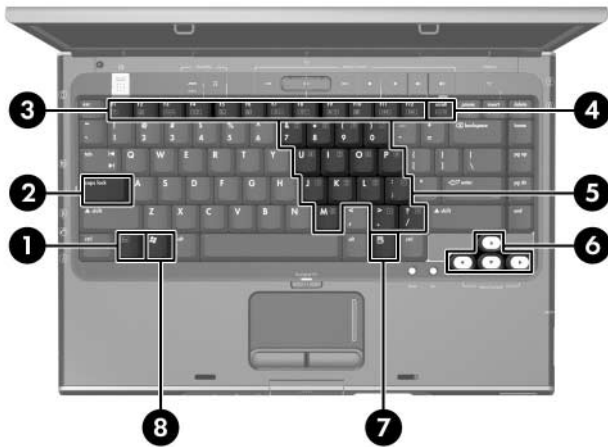


Rear and Left-Side Components, HP Compaq nx4800 and Compaq Presario V2000

Table 1-9
Rear and Left-Side Components
HP Compaq nx4800 and Compaq Presario V2000

Item	Component	Function
1	Exhaust vent	Provide airflow to cool internal components.  To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as a printer, or a soft surface, such as pillows, thick rugs or clothing, to block airflow.
2	Power connector	Connects an AC adapter cable.
3	External monitor port	Connects an optional VGA external monitor or projector.
4	Expansion port	Connects the notebook to an optional expansion base.
5	RJ-45 (network) jack	Connects an optional network cable.
6	RJ-11 (modem) jack	Connects the modem cable.
7	USB connector	Connects an optional USB device.
8	PC Card slot	Supports an optional Type I or Type II 32-bit (CardBus) or 16-bit PC Card.
9	PC Card eject button	Ejects an optional PC Card from the PC Card slot.
10	Security cable slot	Attaches an optional security cable to the notebook.

The notebook keyboard components on the HP Pavilion dv1000 notebook are shown below and described in Table 1-10.

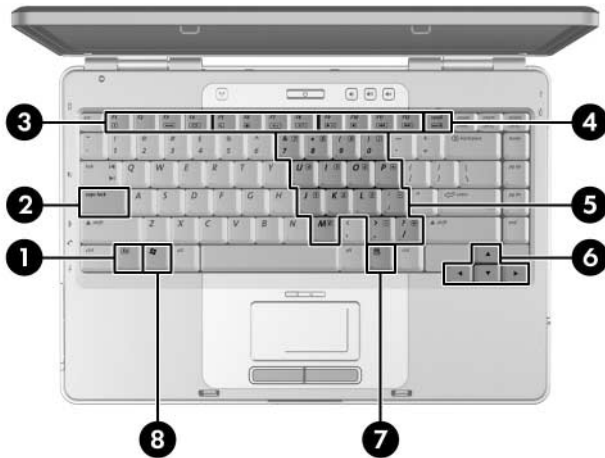


Keyboard Components, HP Pavilion dv1000

Table 1-10
Keyboard Components
HP Pavilion dv1000

Item	Component	Function
1	fn key	Combines with other keys to perform system tasks. For example, pressing fn+f7 decreases screen brightness.
2	caps lock key	Enables caps lock and turns on the caps lock light.
3	f1 to f12 keys (12)	Perform system and application tasks. When combined with the fn key, several keys and buttons perform additional tasks as hotkeys.
4	num lock key	Enables numeric lock, turns on the embedded numeric keypad, and turns on the num lock light.
5	Keypad keys (15)	In Windows, can be used like the keys on an external numeric keypad.
6	Arrow keys	Move the cursor around the screen.
7	Windows applications key	In Windows, displays a shortcut menu for items beneath the pointer.
8	Windows logo key	In Windows, displays the Windows Start menu.

The notebook keyboard components on the HP Compaq nx4800 and Compaq Presario V2000 notebooks are shown below and described in Table 1-11.



Keyboard Components, HP Compaq nx4800 and Compaq Presario V2000

Table 1-11
Keyboard Components
HP Compaq nx4800 and Compaq Presario V2000

Item	Component	Function
1	fn key	Combines with other keys to perform system tasks. For example, pressing fn+f7 decreases screen brightness.
2	caps lock key	Enables caps lock and turns on the caps lock light.
3	f1 to f12 keys (12)	Perform system and application tasks. When combined with the fn key, several keys and buttons perform additional tasks as hotkeys.
4	num lock key	Enables numeric lock, turns on the embedded numeric keypad, and turns on the num lock light.
5	Keypad keys (15)	In Windows, can be used like the keys on an external numeric keypad.
6	Arrows keys	Move the cursor around the screen.
7	Windows applications key	In Windows, displays a shortcut menu for items beneath the pointer.
8	Windows logo key	In Windows, displays the Windows Start menu.

The notebook top components on the HP Pavilion dv1000 notebook are shown below and described in Table 1-12.



Top Components, Part 1, HP Pavilion dv1000

Table 1-12
Top Components, Part 1
HP Pavilion dv1000

Item	Component	Function
1	Display switch	If the notebook is closed while on, turns off the display.
2	Power button	When the notebook is <ul style="list-style-type: none">■ Off, press to turn on the notebook.■ On, briefly press to initiate Hibernation.■ In Standby, briefly press to resume from Standby.■ In Hibernation, briefly press to restore from Hibernation.

Table 1-12
Top Components, Part 1
HP Pavilion dv1000 (Continued)

Item	Component	Function
3	DVD button	When the notebook is <ul style="list-style-type: none"> ■ Off, opens QuickPlay DVD mode. ■ On in Windows, opens the default Windows DVD application. ■ On in QuickPlay music mode, opens QuickPlay DVD mode. ■ On in QuickPlay DVD mode, displays the DVD setup menu. ■ In Standby, resumes from Standby into Windows. ■ In Hibernation, opens QuickPlay DVD mode.
4	Music button	When the notebook is <ul style="list-style-type: none"> ■ Off, opens QuickPlay music mode. ■ On in Windows, opens the default Windows music application. ■ On in QuickPlay DVD mode, opens QuickPlay music mode. ■ In Standby, resumes from Standby into Windows. ■ In Hibernation, opens QuickPlay music mode.
5	Previous/Rewind Button	When a disc is in the optical drive: <ul style="list-style-type: none"> ■ Press to play the previous track or chapter. ■ Press fn+this button to rewind.
6	Play/Pause button	When a disc is in the optical drive and is: <ul style="list-style-type: none"> ■ Not playing, press to play the disc. ■ Playing, press to pause the disc.

The notebook top components on the HP Pavilion dv1000 notebook are shown below and described in Table 1-13.



Top Components, Part 2, HP Pavilion dv1000

Table 1-13
Top Components, Part 2
HP Pavilion dv1000

Item	Component	Function
1	Next/Fast Forward button	When a disc is in the optical drive: ■ Press once to play the next track or chapter. ■ Press fn+ this button to fast forward.
2	Stop button	When a disc is in the optical drive, press to stop the current disc activity.
3	Volume down button	Decreases system volume.
4	Volume mute button Mute light	Mutes or restores volume. On: Volume is muted.
5	Volume up button	Increases system volume.
6	Wireless button	Enables/disables an internal wireless device.

The notebook top components on the HP Pavilion dv1000 notebook are shown below and described in Table 1-14.



Top Components, Part 3, HP Pavilion dv1000

Table 1-14
Top Components, Part 3
HP Pavilion dv1000

Item	Component	Function
1	TouchPad	Moves the pointer.
2	TouchPad light	On: TouchPad is enabled.
3	Caps lock light	On: Caps lock is on.
4	Power/ button light	<ul style="list-style-type: none"> ■ On: Notebook is turned on. ■ Blinking: Notebook is in standby. ■ Off: Notebook is off.
5	Wireless light	On: an integrated wireless device is hardware enabled.
6	Num lock light	On: Num lock or the internal keypad is on.
7	Back button	<ul style="list-style-type: none"> ■ In Windows, emulates the “back” function of the alt+left arrow command in the active application. ■ In QuickPlay, moves up one directory level in an on-screen menu.
8	OK button	Selects an item you have chosen on the screen.
9	TouchPad on/off button	Enables/disables the TouchPad.
10	TouchPad vertical scroll region	Scrolls upward or downward.
11	Left and right TouchPad buttons	Function like the left and right buttons on an external mouse.

The notebook top components on the HP Compaq nx4800 and Compaq Presario V2000 notebooks are shown below and described in Table 1-15.



Top Components, Part 1, HP Compaq nx4800 and Compaq Presario V2000

Table 1-15

Top Components, Part 1

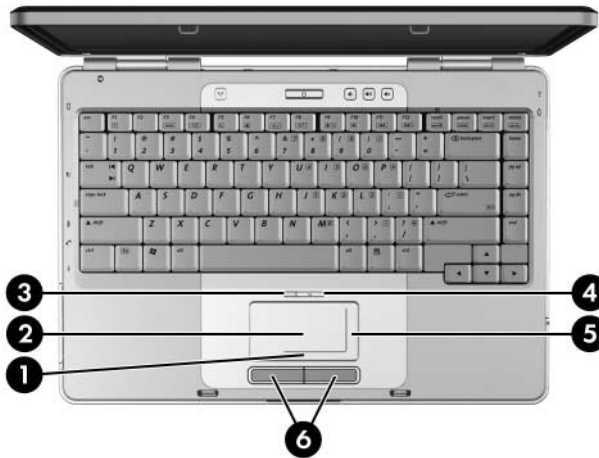
HP Compaq nx4800 and Compaq Presario V2000

Item	Component	Function
1	Caps lock light	On: Caps lock is on.
2	Display switch	If the notebook is closed while on, turns off the display.

Table 1-15**Top Components, Part 1****HP Compaq nx4800 and Compaq Presario V2000 (Continued)**

Item	Component	Function
3	Wireless button	Enables/disables an internal wireless device.
	Wireless light	On: an integrated wireless device is hardware enabled.
4	Power button	When the notebook is <ul style="list-style-type: none"> ■ Off, press to turn on the notebook. ■ On, briefly press to initiate Hibernation. ■ In Standby, briefly press to resume from Standby. ■ In Hibernation, briefly press to restore from Hibernation.
	Power/standby light	<ul style="list-style-type: none"> ■ On: Notebook is turned on. ■ Blinking: Notebook is in standby. ■ Off: Notebook is off.
5	Volume down button	Decreases system volume.
6	Volume mute button	Mutes or restores volume.
	Mute light	On: Volume is muted.
7	Volume up button	Increases system volume.
8	Num lock light	On: Num lock or the internal keypad is on.

The notebook top components on the HP Compaq nx4800 and Compaq Presario V2000 notebooks are shown below and described in Table 1-16.

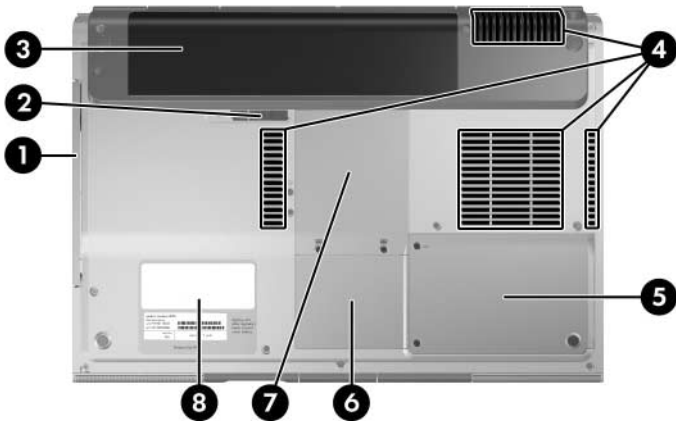


Top Components, Part 2, HP Compaq nx4800 and Compaq Presario V2000

Table 1-16
Top Components, Part 2
HP Compaq nx4800 and Compaq Presario V2000

Item	Component	Function
1	TouchPad horizontal scrolling region	Scrolls toward left side or right side.
2	TouchPad	Moves the pointer.
3	TouchPad light	On: TouchPad is enabled.
4	TouchPad on/off button	Enables/disables the TouchPad.
5	TouchPad vertical scroll region	Scrolls upward or downward.
6	Left and right TouchPad buttons	Function like the left and right buttons on an external mouse.

The external components on the bottom of the HP Pavilion dv1000 notebook are shown below and described in Table 1-17.





Bottom Components, HP Pavilion dv1000

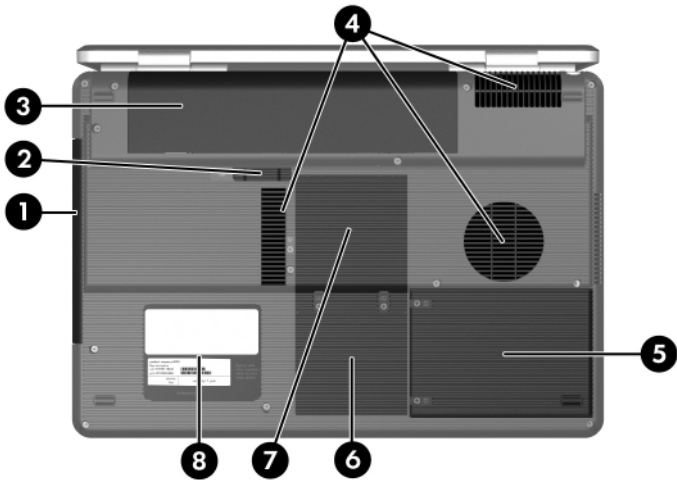
Table 1-17
Bottom Components
HP Pavilion dv1000

Item	Component	Function
1	Optical drive	Supports an optical disc.
2	Battery pack release latch	Releases a battery pack from the battery bay.
3	Battery pack	Holds a battery pack.

Table 1-17
Bottom Components
HP Pavilion dv1000 (Continued)

Item	Component	Function
4	Exhaust vents (4)	<p>Provide airflow to cool internal components.</p> <p> To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as a printer, or a soft surface, such as pillows, thick rugs or clothing, to block airflow.</p>
5	Hard drive bay	Holds the internal hard drive.
6	Mini PCI compartment	<p>Holds an optional wireless LAN device.</p> <p> To prevent an unresponsive system and the display of a warning message, install only a Mini PCI device authorized for use in your notebook by the governmental agency that regulates wireless devices in your country. If you install a device and then receive a warning message, remove the device to restore notebook functionality. Then contact Customer Care.</p>
7	Memory module compartment	Contains two memory slots that support replaceable memory modules. The number of preinstalled memory modules varies by notebook model.
8	Label areas (2)	Contain the notebook serial number and other applicable regulatory labels.

The external components on the bottom of the HP Compaq nx4800 and Compaq Presario V2000 notebooks are shown below and described in Table 1-18.



Bottom Components, HP Compaq nx4800 and Compaq Presario V2000

Table 1-18

Bottom Components



HP Compaq nx4800 and Compaq Presario V2000

Item	Component	Function
1	Optical drive	Supports an optical disc.
2	Battery pack release latch	Releases a battery pack from the battery bay.
3	Battery pack	Holds a battery pack.

Table 1-18

Bottom Components

HP Compaq nx4800 and Compaq Presario V2000 (Continued)

Item	Component	Function
4	Exhaust vents (4)	<p>Provide airflow to cool internal components.</p> <p> To prevent overheating, do not obstruct vents. Do not allow a hard surface, such as a printer, or a soft surface, such as pillows, thick rugs or clothing, to block airflow.</p>
5	Hard drive bay	Holds the internal hard drive.
6	Mini PCI compartment	<p>Holds an optional wireless LAN device.</p> <p> To prevent an unresponsive system and the display of a warning message, install only a Mini PCI device authorized for use in your notebook by the governmental agency that regulates wireless devices in your country. If you install a device and then receive a warning message, remove the device to restore notebook functionality. Then contact Customer Care.</p>
7	Memory module compartment	Contains 2 memory slots that support replaceable memory modules. The number of preinstalled memory modules varies by notebook model.
8	Label areas (2)	Contain the notebook serial number and other applicable regulatory labels.

1.5 Design Overview

This section presents a design overview of key parts and features of the notebook. Refer to [Chapter 3, “Illustrated Parts Catalog,”](#) to identify replacement parts, and [Chapter 5, “Removal and Replacement Procedures,”](#) for disassembly steps.

The system board provides the following device connections:

- Memory module
- Mini PCI communications devices
- Hard drive
- Display
- Keyboard and TouchPad
- Audio
- Intel Pentium M and Celeron M processors
- Fan
- PC Card



CAUTION: To properly ventilate the notebook, allow at least a 7.6-cm (3-inch) clearance on the left and right sides of the notebook.

The notebook uses an electric fan for ventilation. The fan is controlled by a temperature sensor and is designed to be turned on automatically when high temperature conditions exist. These conditions are affected by high external temperatures, system power consumption, power management/battery conservation configurations, battery fast charging, and software applications. Exhaust air is displaced through the ventilation grill located on the left side of the notebook.

Troubleshooting



WARNING: Only authorized technicians trained by HP should repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly-/module-level repair. Because of the complexity of the individual boards and subassemblies, do not attempt to make repairs at the component level or modifications to any printed wiring board. Improper repairs can create a safety hazard. Any indication of component replacement or printed wiring board modification may void any warranty or exchange allowances.

2.1 Computer Setup

Computer Setup is a system information and customization utility that can be used even when your operating system is not working or will not load. This utility includes settings that are not available in Windows.

Using Computer Setup

Information and settings in Computer Setup are accessed from the Main, Security, Advanced, or Tools menus:

1. Turn on or restart the notebook. Press **f10** while the F10 = ROM-Based Setup message is displayed in the lower-left corner of the screen.
 - ❑ To change the language, use the cursor control keys to navigate to the **Advanced** menu.
 - ❑ To view navigation information, press **f1**.
 - ❑ To return to the Computer Setup menu, press **esc**.

2. Select the **Main, Security, Advanced,** or **Tools** menu.
3. To close Computer Setup and restart the notebook:
 - ❑ Select **Exit > Exit Saving Changes**, and then press **enter**.
 - or -
 - ❑ Select **Exit > Exit Discarding Changes**, and then press **enter**.
 - or -
 - ❑ Select **Exit > Load Setup Defaults**, and then press **enter**.
4. When you are prompted to confirm your action, press **f10**.




Selecting from the Main Menu

Table 2-1
Main Menu

Select	To Do This
System Information	<ul style="list-style-type: none">■ Change the system time and system date.■ View identification information about the notebook.■ View specification information about the processor, memory and cache size, and system ROM.

Selecting from the Security Menu

Table 2-2
Security Menu

Select	To Do This
Administrator Password	Enter, change, or delete a Administrator password.
Power-on Password	Enter, change, or delete a power-on password.
DriveLock Passwords	<p>Enable/disable DriveLock; change a DriveLock user or master password.</p> <p> DriveLock Settings are accessible only when you enter Computer Setup by turning on (not restarting) the notebook.</p>
Password Options (Password options can be selected only when a power-on password has been set.)	<p>Enable/disable:</p> <ul style="list-style-type: none"> ■ QuickLock ■ QuickLock on Standby ■ QuickBlank <p> To enable QuickLock on Standby or QuickBlank, you must first enable QuickLock.</p>
Device Security	<p>Enable/disable:</p> <ul style="list-style-type: none"> ■ Diskette drive startup* ■ CD-ROM or diskette startup <p> Settings for a DVD-ROM can be entered in the CD-ROM field.</p>

*Not applicable to SuperDisk LS-120 drives.

Selecting from the Advanced Menu

Table 2-3
Advanced Menu

Select	To Do This
Language	Change the Computer Setup language.
Boot Order	Enable/disable MultiBoot, which sets a startup sequence that can include most bootable devices and media in the system.
Accessibility Options	Allows electronic and information technology to be accessible to people with varying ranges of abilities.
Video Memory	Displays the amount of video memory available on the notebook.

Selecting from the Tools Menu

Table 2-4
Tools Menu

Select	To Do This
Hard Drive Self Test	Run a quick comprehensive self test on hard drives in the system that support the test features.

2.2 Troubleshooting Flowcharts

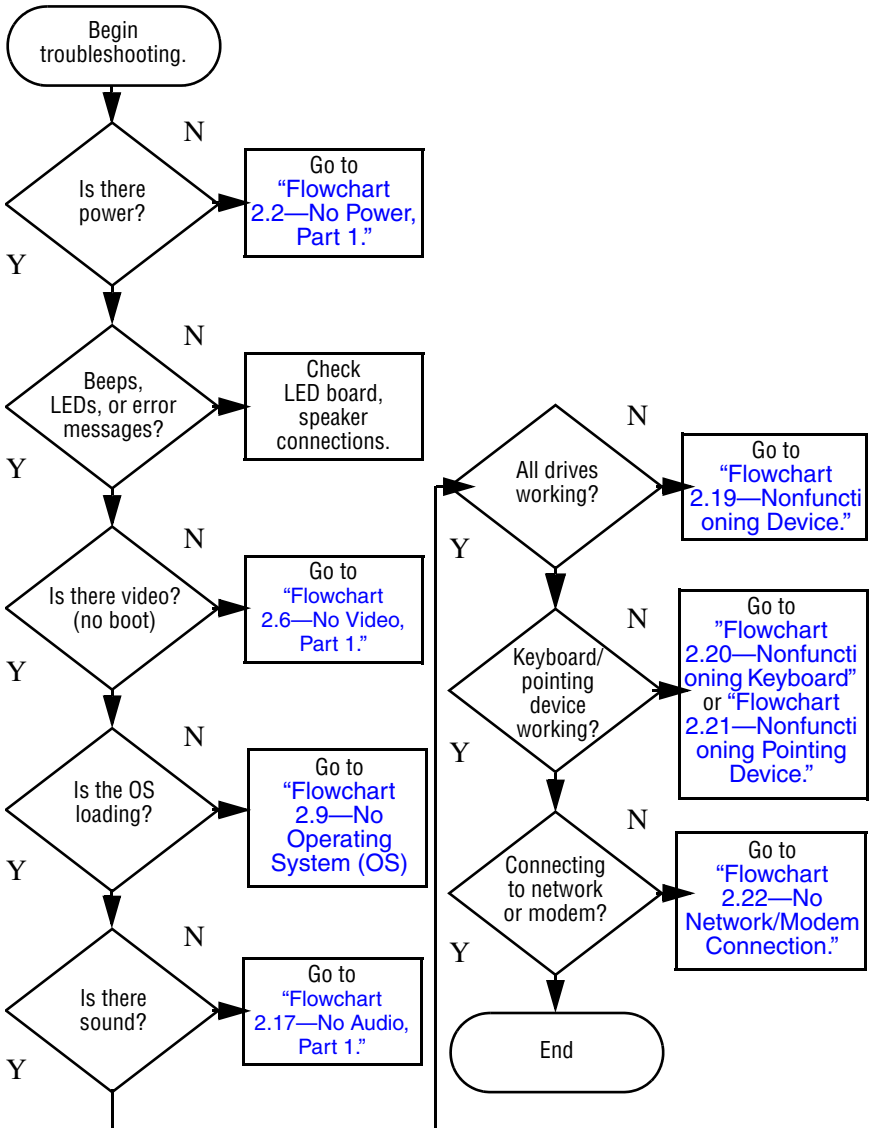
Table 2-5
Troubleshooting Flowcharts Overview

Flowchart	Description
2.1	"Flowchart 2.1—Initial Troubleshooting"
2.2	"Flowchart 2.2—No Power, Part 1"
2.3	"Flowchart 2.3—No Power, Part 2"
2.4	"Flowchart 2.4—No Power, Part 3"
2.5	"Flowchart 2.5—No Power, Part 4"
2.6	"Flowchart 2.6—No Video, Part 1"
2.7	"Flowchart 2.7—No Video, Part 2"
2.8	"Flowchart 2.8—Nonfunctioning Expansion Base (if applicable)"
2.9	"Flowchart 2.9—No Operating System (OS) Loading"
2.10	"Flowchart 2.10—No OS Loading, Hard Drive, Part 1"
2.11	"Flowchart 2.11—No OS Loading, Hard Drive, Part 2"
2.12	"Flowchart 2.12—No OS Loading, Hard Drive, Part 3"
2.13	"Flowchart 2.13—No OS Loading, Diskette Drive"

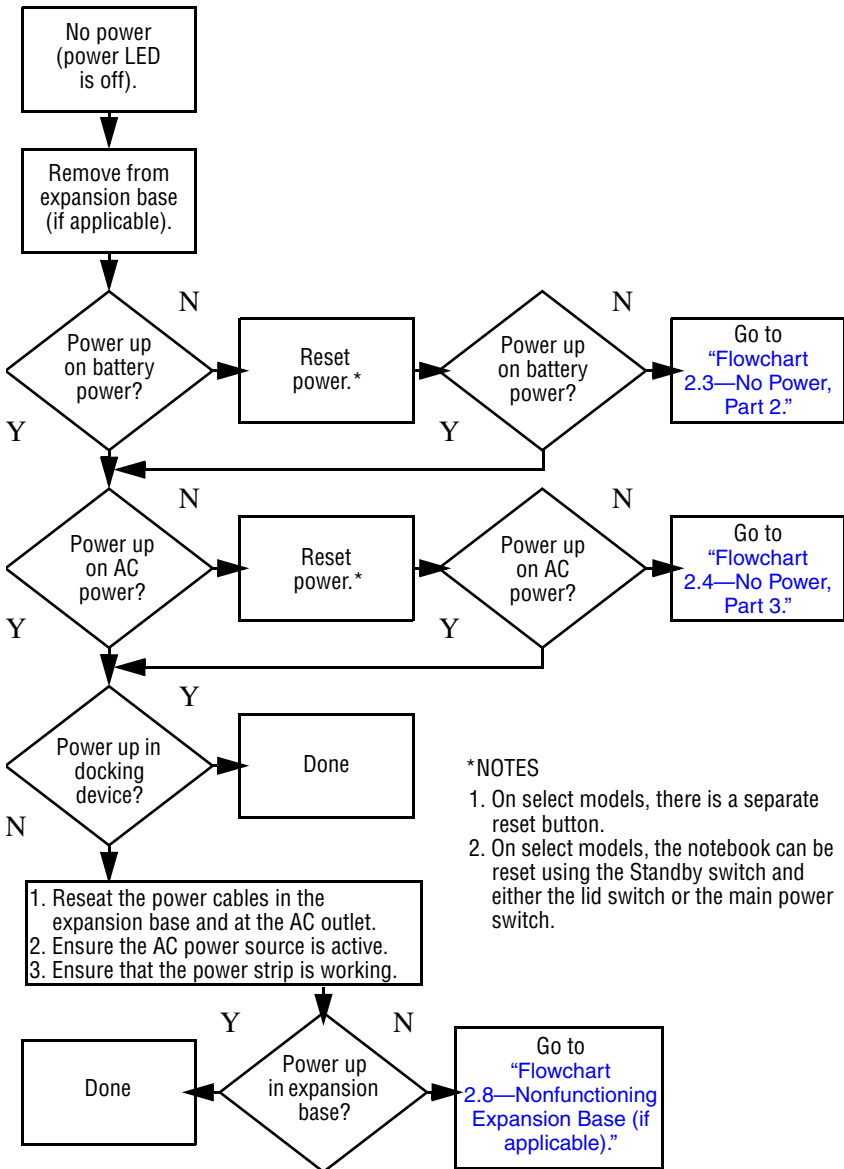
Table 2-5
Troubleshooting Flowcharts Overview (*Continued*)

Flowchart	Description
2.14	"Flowchart 2.14—No OS Loading, CD-ROM or DVD-ROM Drive"
2.15	"Flowchart 2.15—No OS Loading for QuickPlay Application, Part 1"
2.16	"Flowchart 2.16—No OS Loading for QuickPlay Application, Part 2"
2.17	"Flowchart 2.17—No Audio, Part 1"
2.18	"Flowchart 2.18—No Audio, Part 2"
2.19	"Flowchart 2.19—Nonfunctioning Device"
2.20	"Flowchart 2.20—Nonfunctioning Keyboard"
2.21	"Flowchart 2.21—Nonfunctioning Pointing Device"
2.22	"Flowchart 2.22—No Network/Modem Connection"

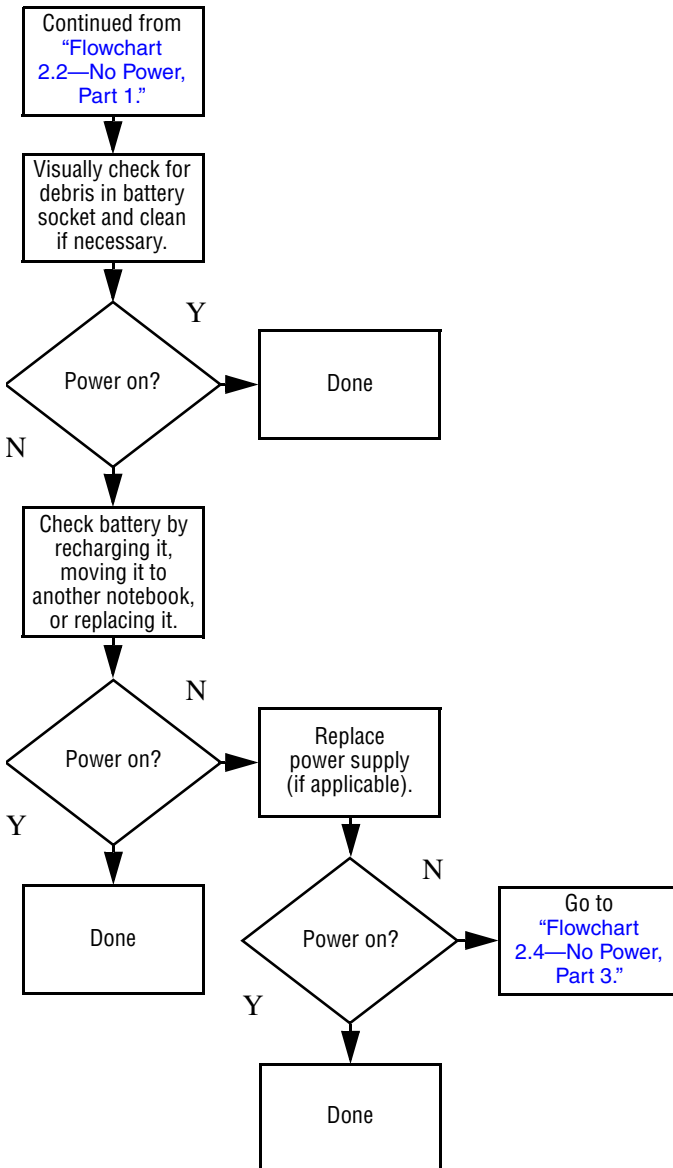
Flowchart 2.1 – Initial Troubleshooting



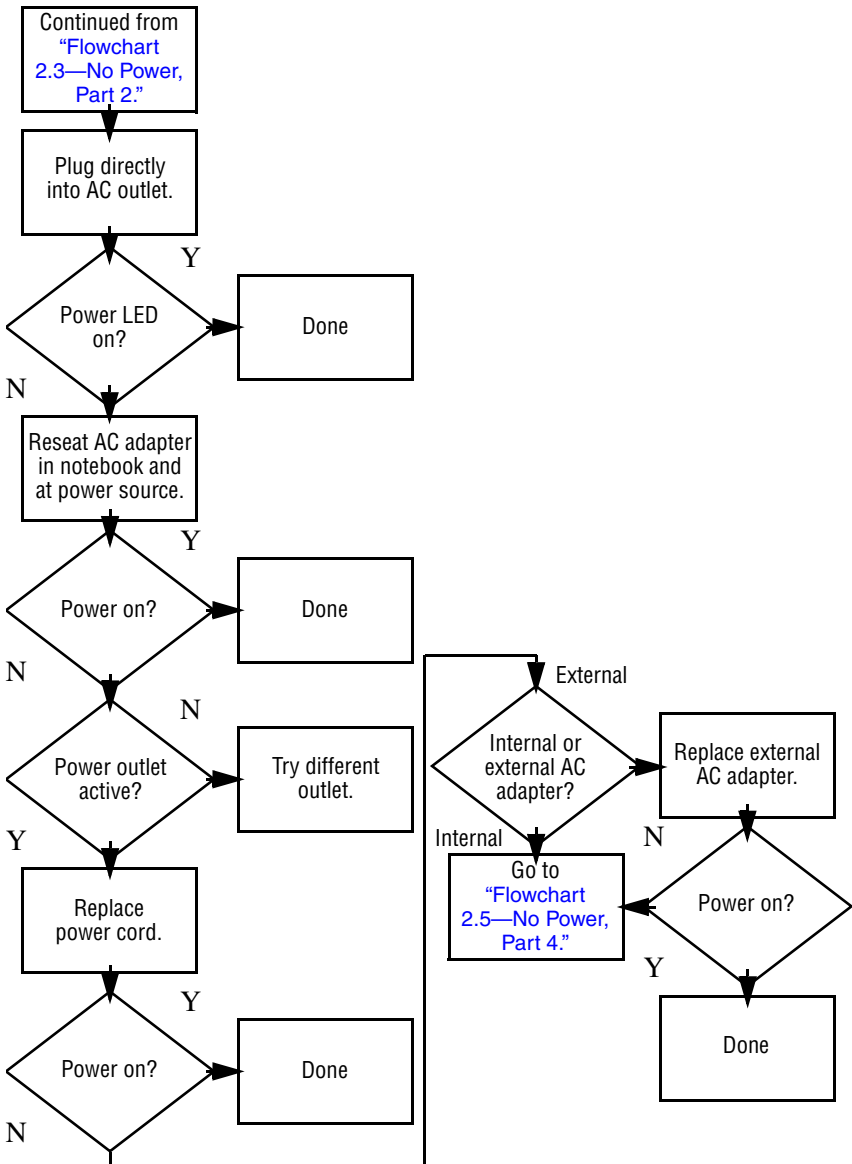
Flowchart 2.2—No Power, Part 1



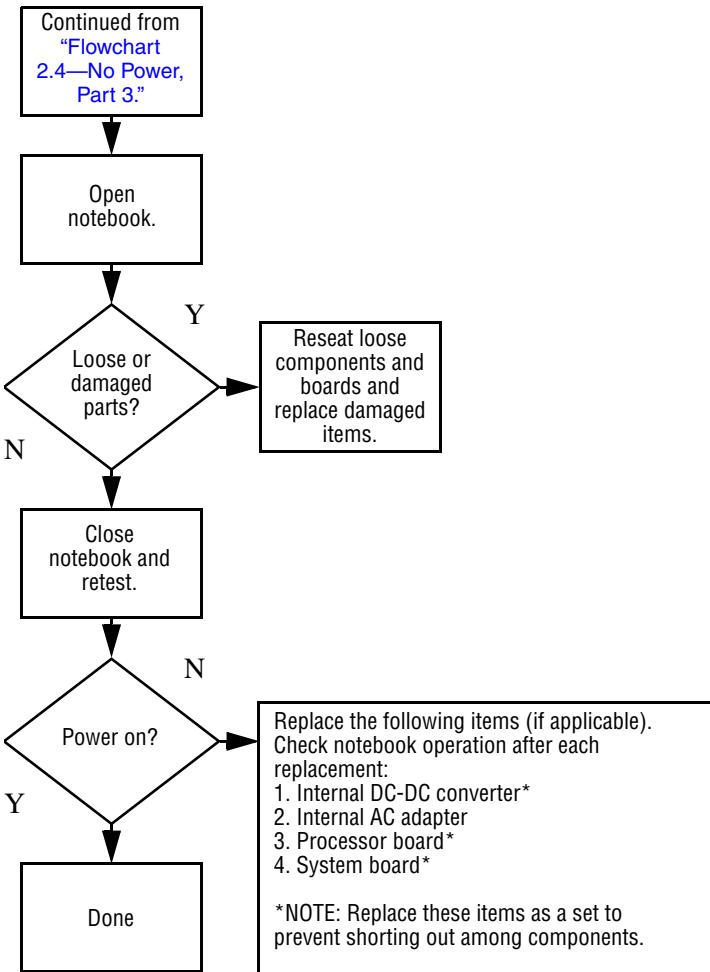
Flowchart 2.3—No Power, Part 2



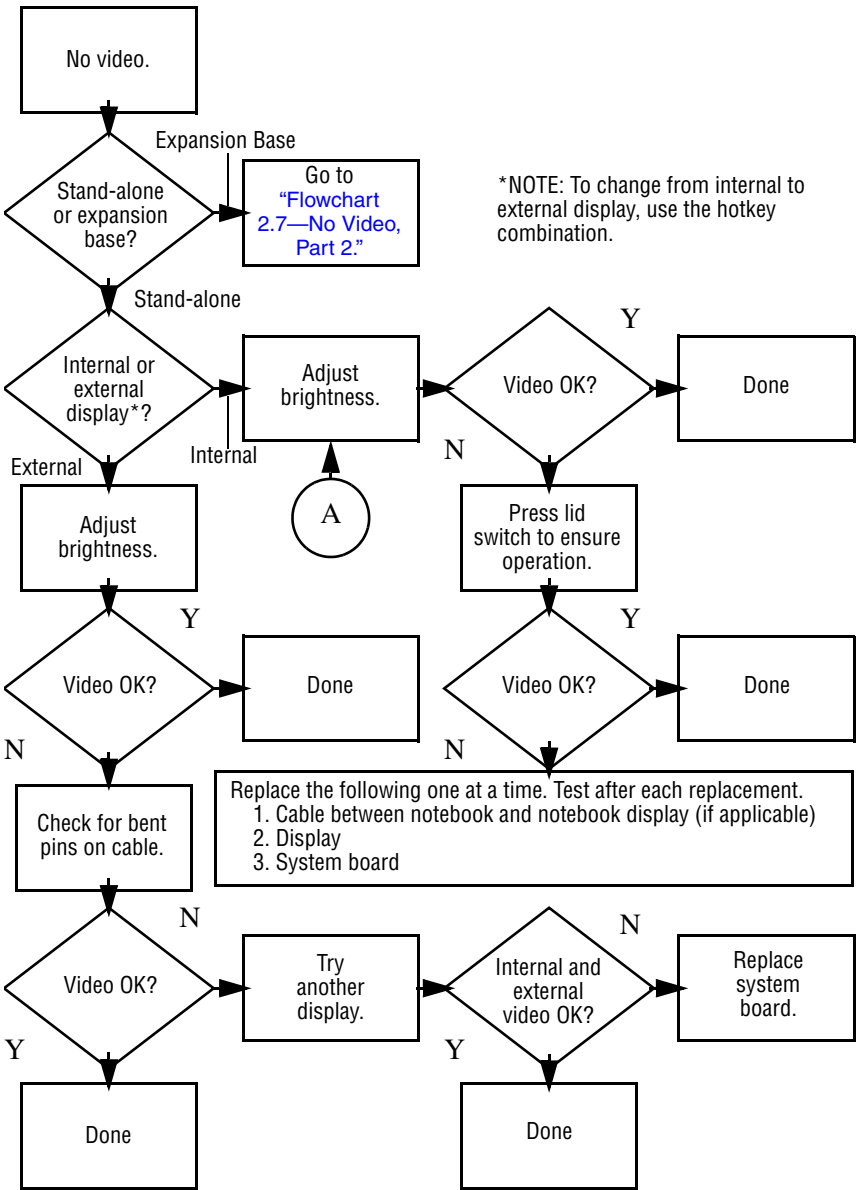
Flowchart 2.4—No Power, Part 3



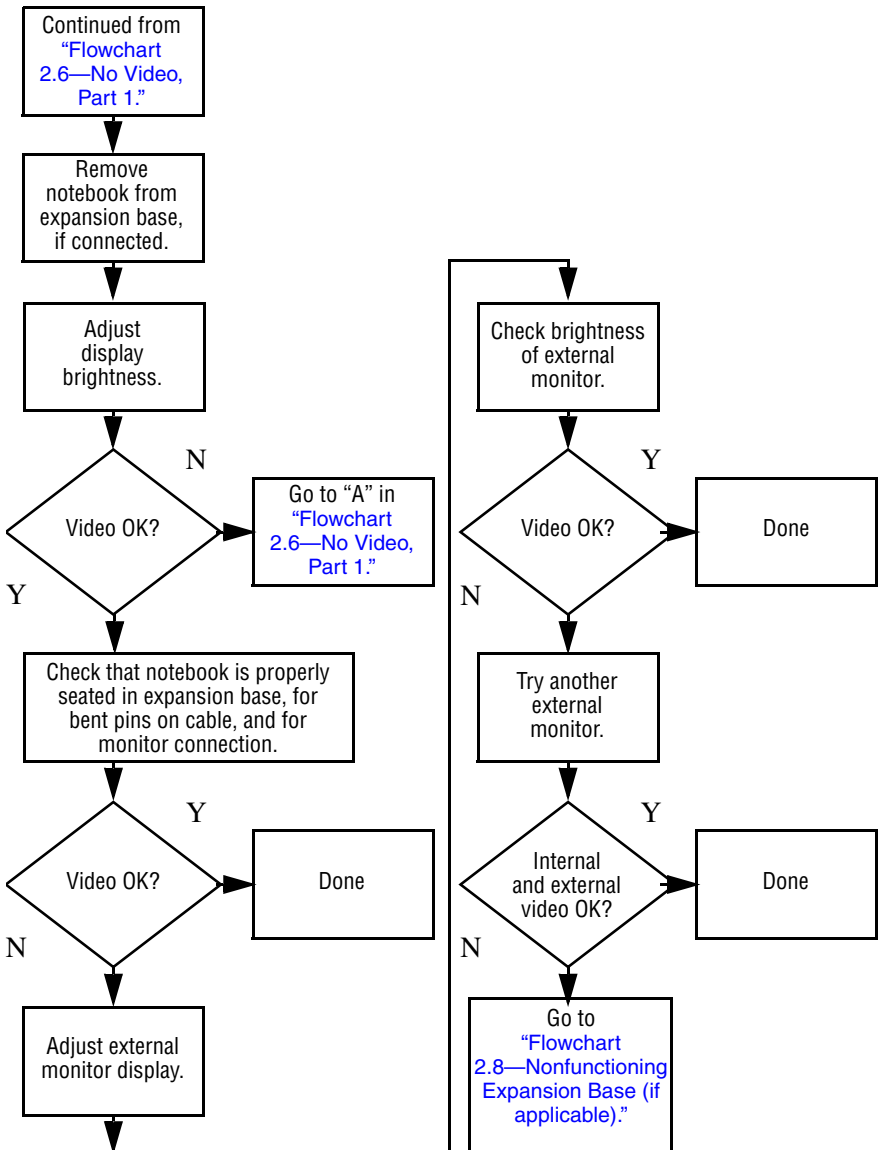
Flowchart 2.5—No Power, Part 4



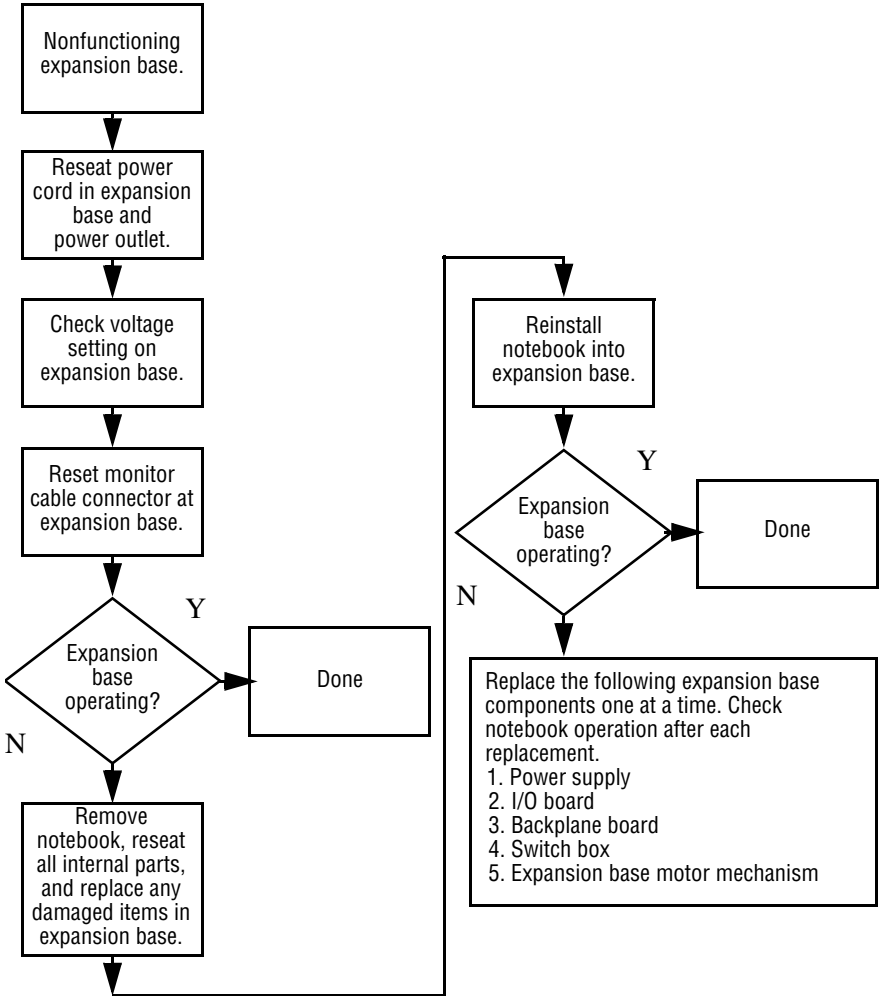
Flowchart 2.6—No Video, Part 1



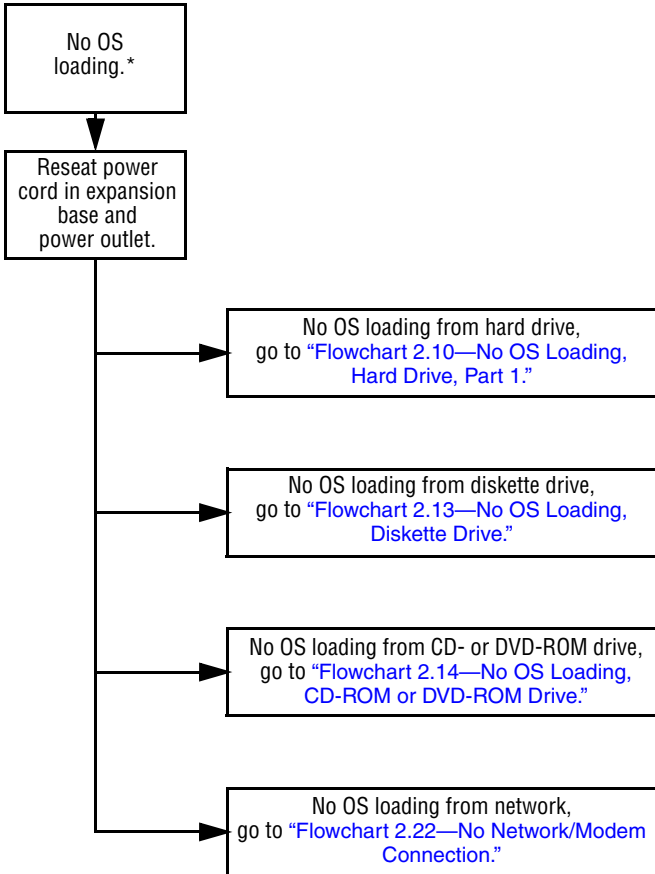
Flowchart 2.7—No Video, Part 2



Flowchart 2.8—Nonfunctioning Expansion Base (if applicable)

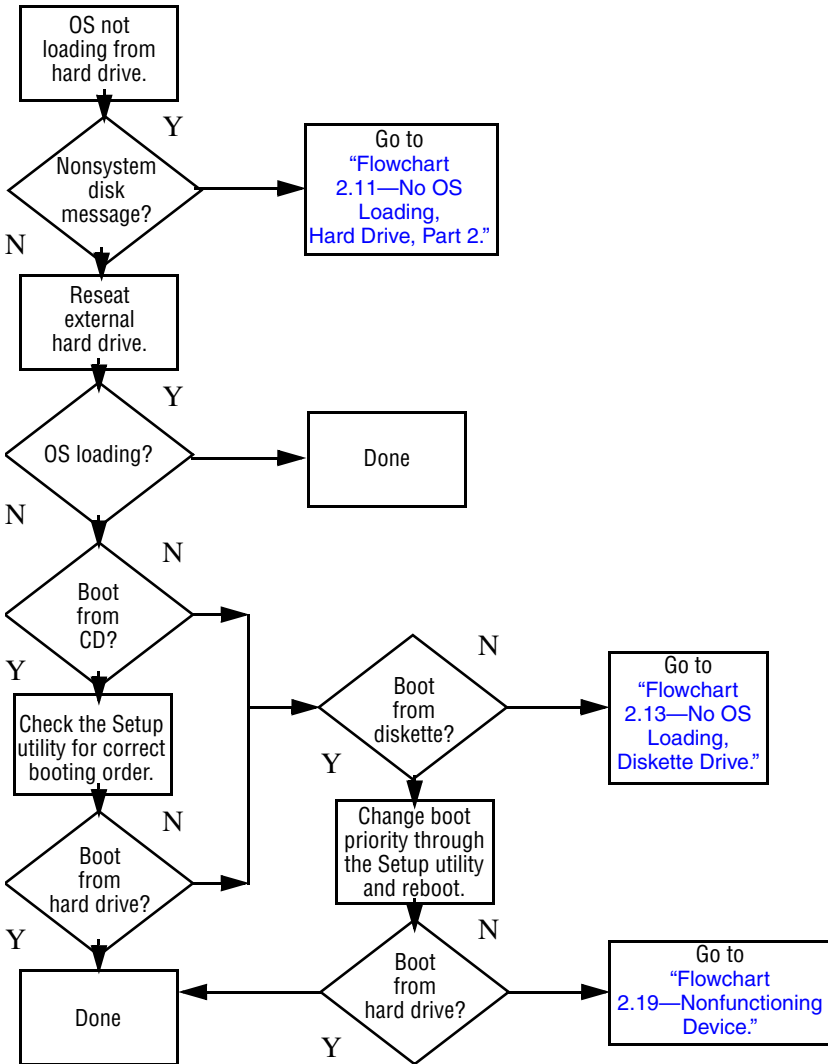


Flowchart 2.9—No Operating System (OS) Loading

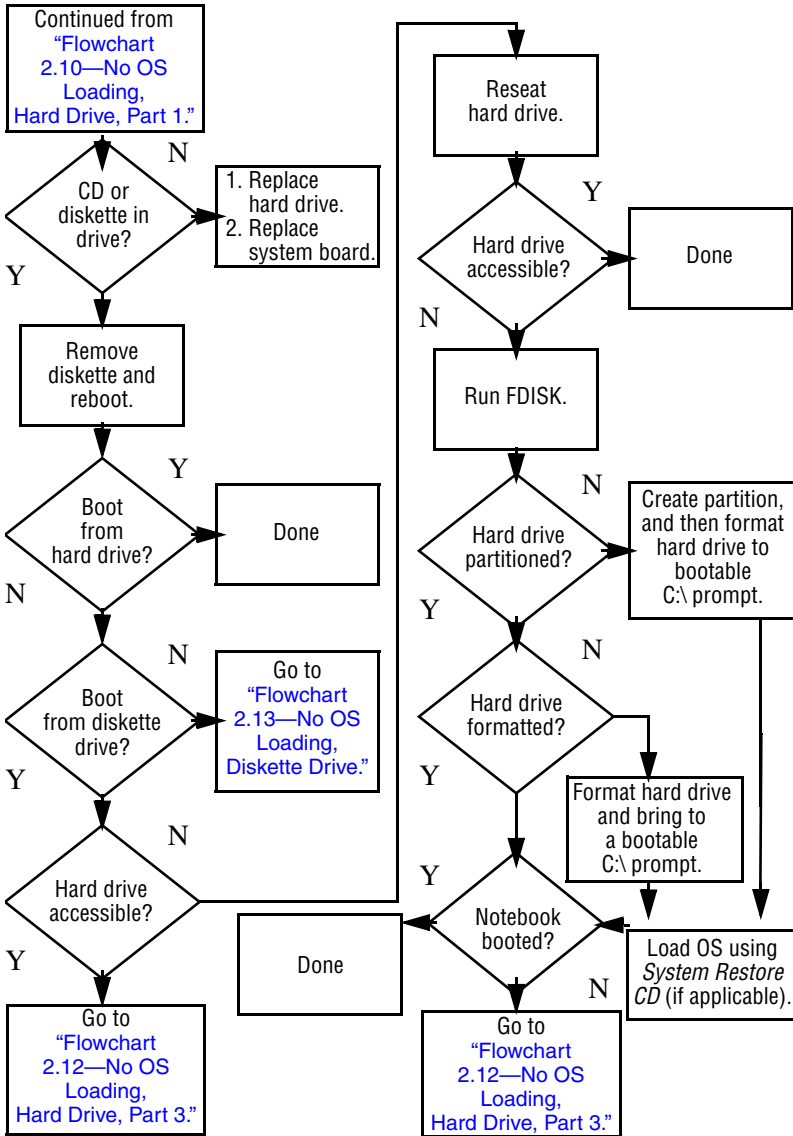


*NOTE: Before beginning troubleshooting, always check cable connections, cable ends, and drives for bent or damaged pins.

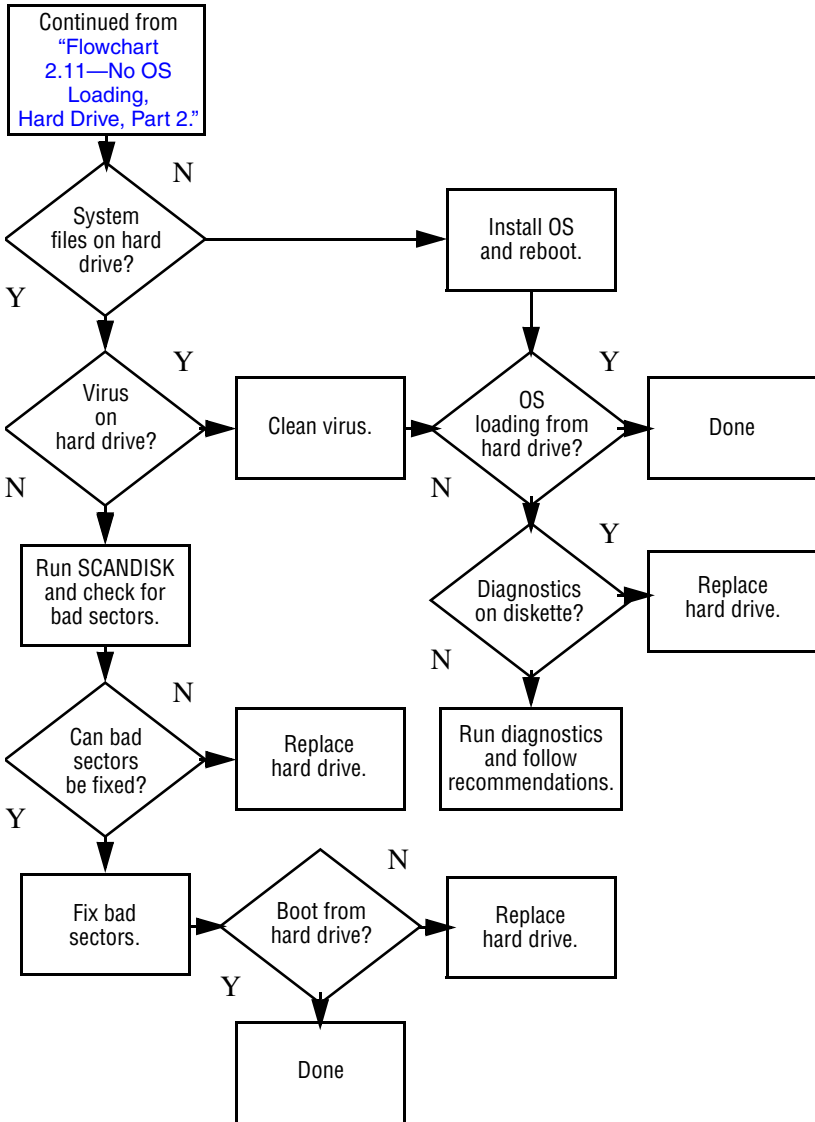
Flowchart 2.10—No OS Loading, Hard Drive, Part 1



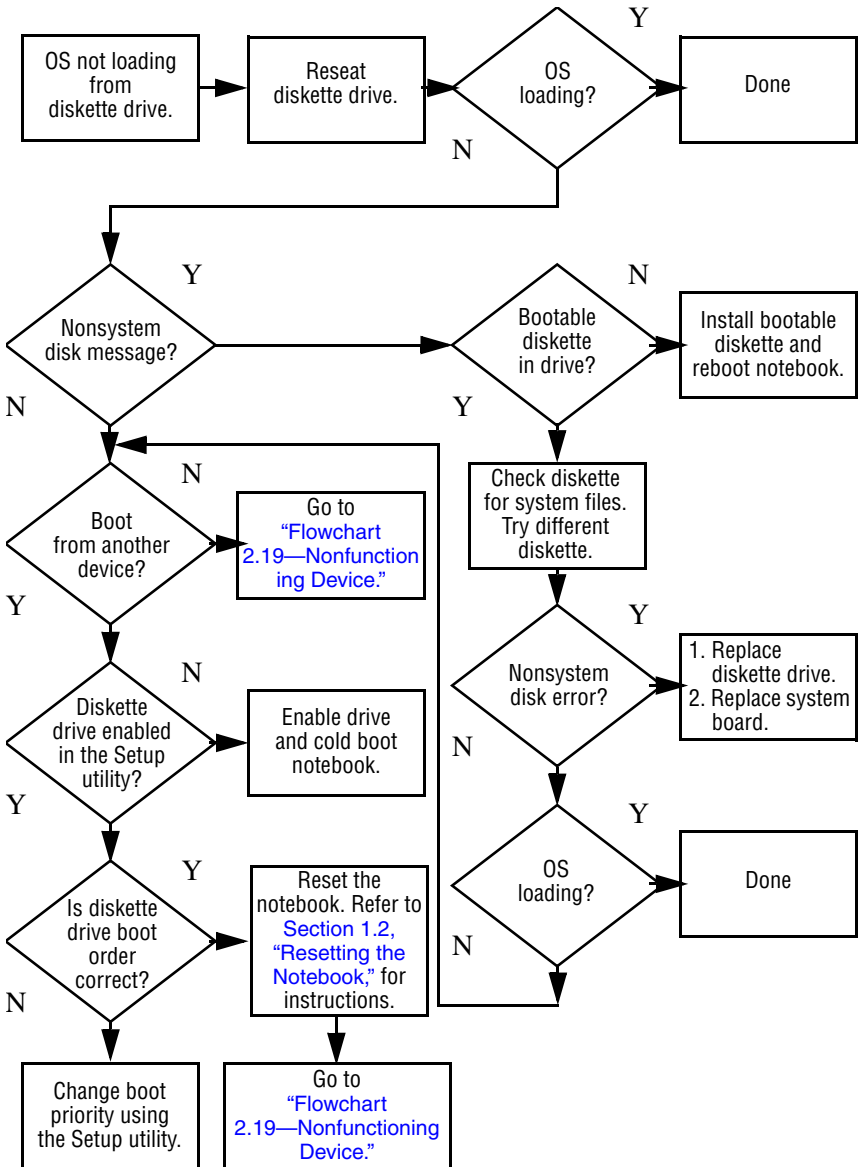
Flowchart 2.11 – No OS Loading, Hard Drive, Part 2



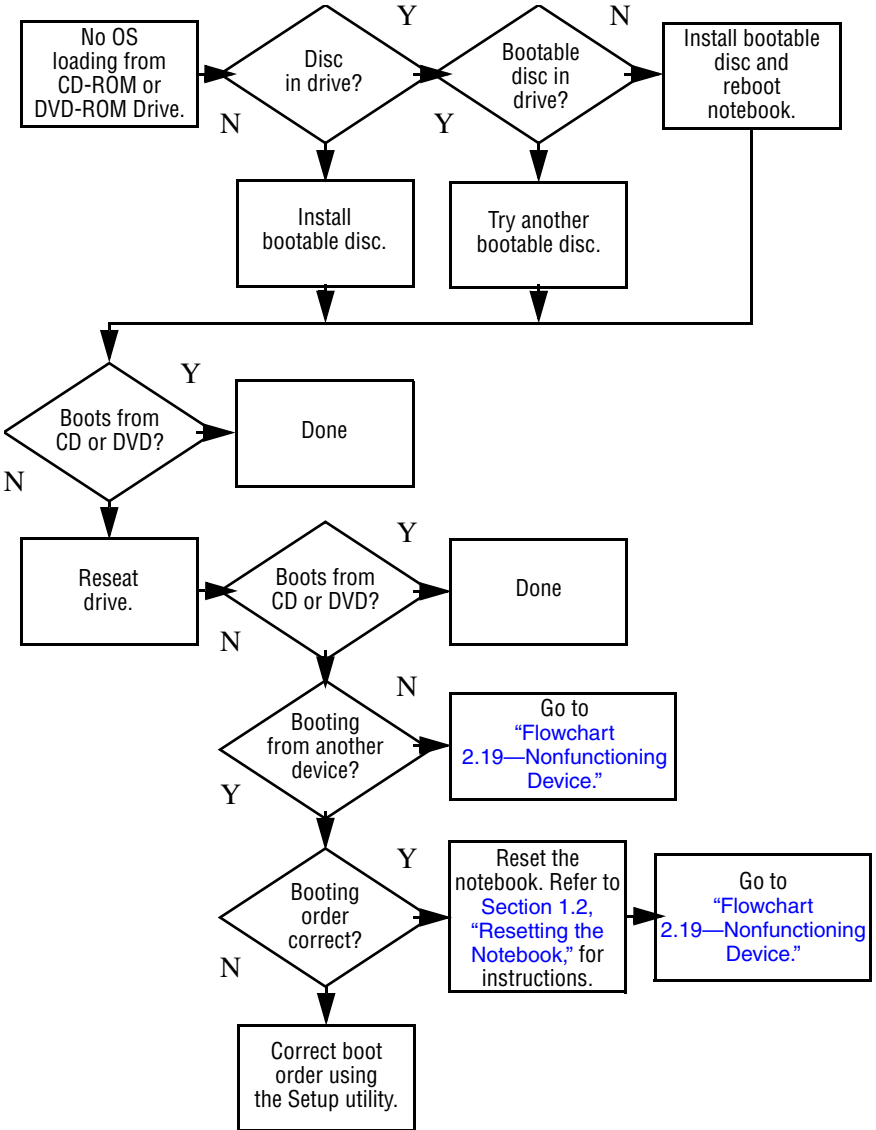
Flowchart 2.12—No OS Loading, Hard Drive, Part 3



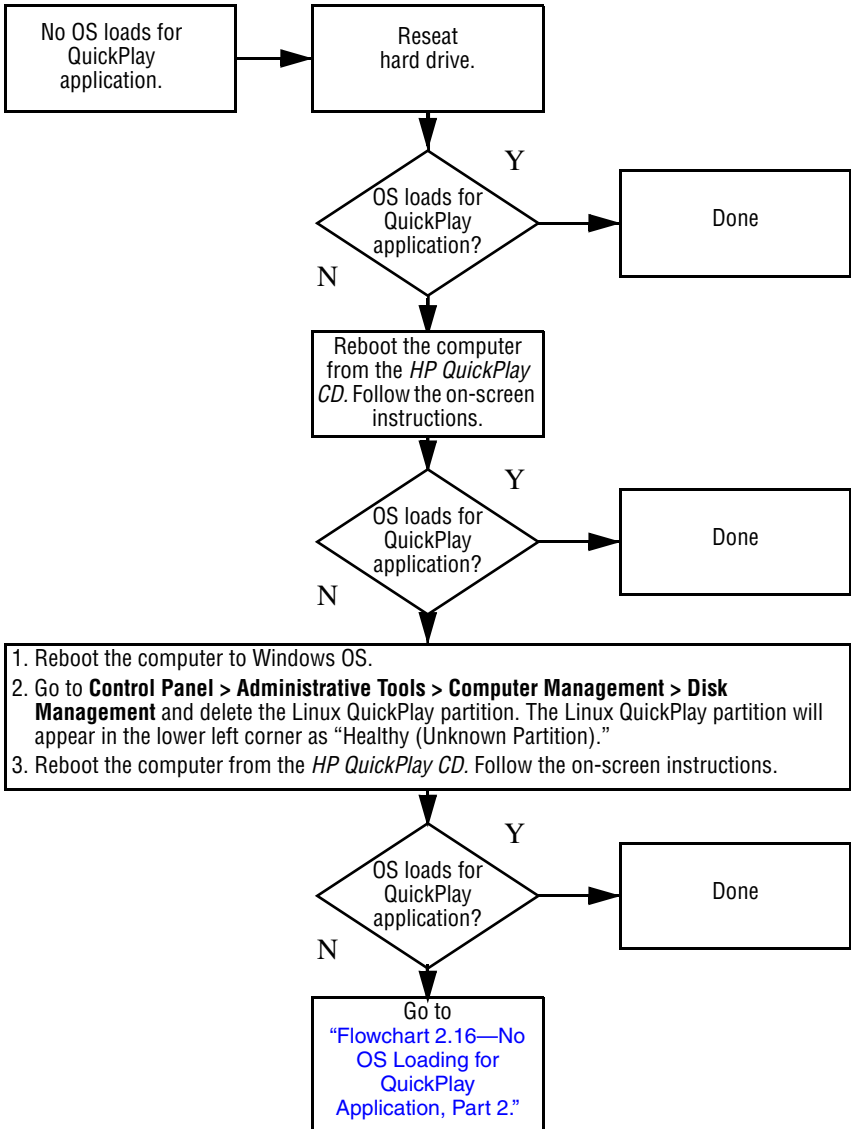
Flowchart 2.13—No OS Loading, Diskette Drive



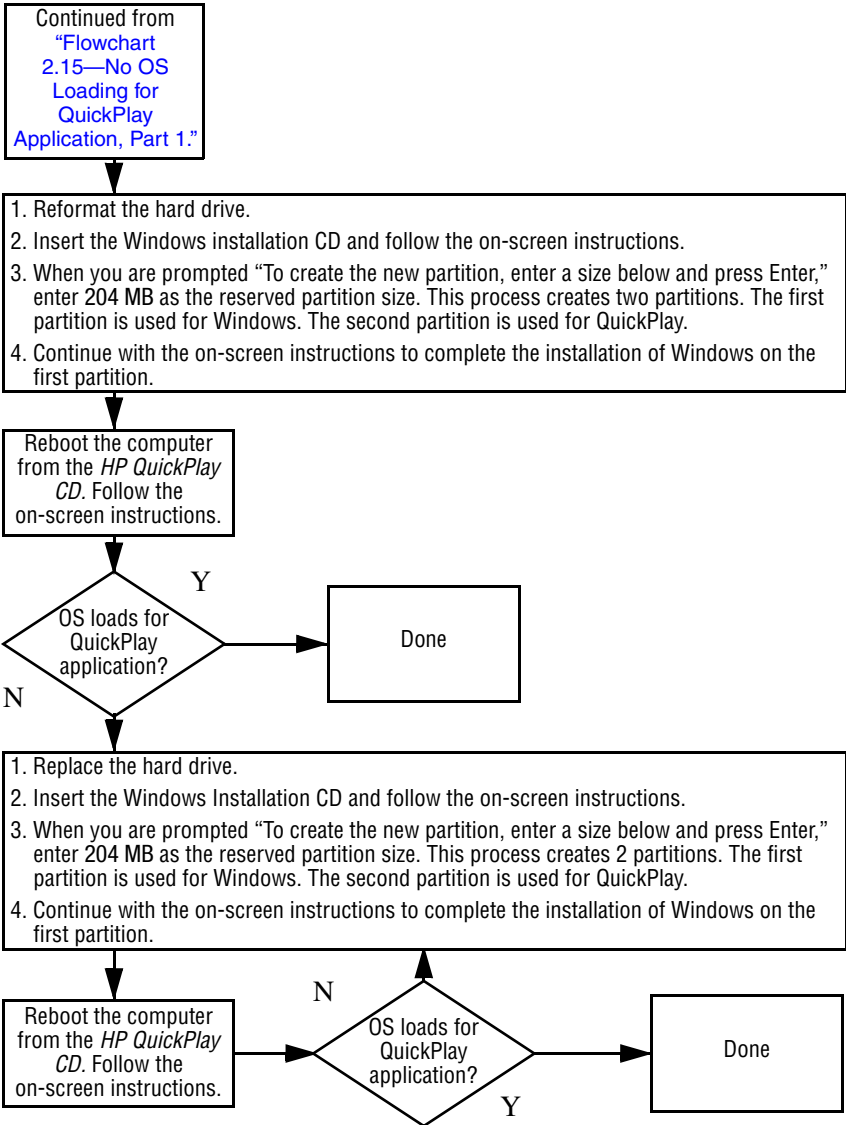
Flowchart 2.14—No OS Loading, CD-ROM or DVD-ROM Drive



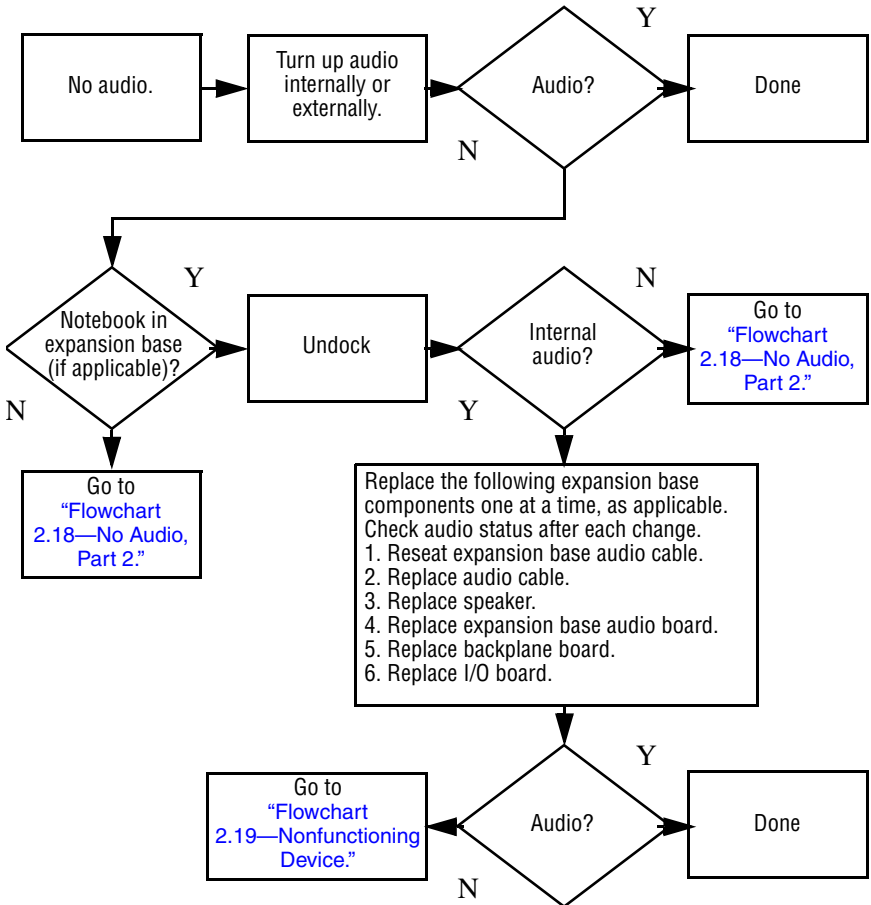
Flowchart 2.15—No OS Loading for QuickPlay Application, Part 1



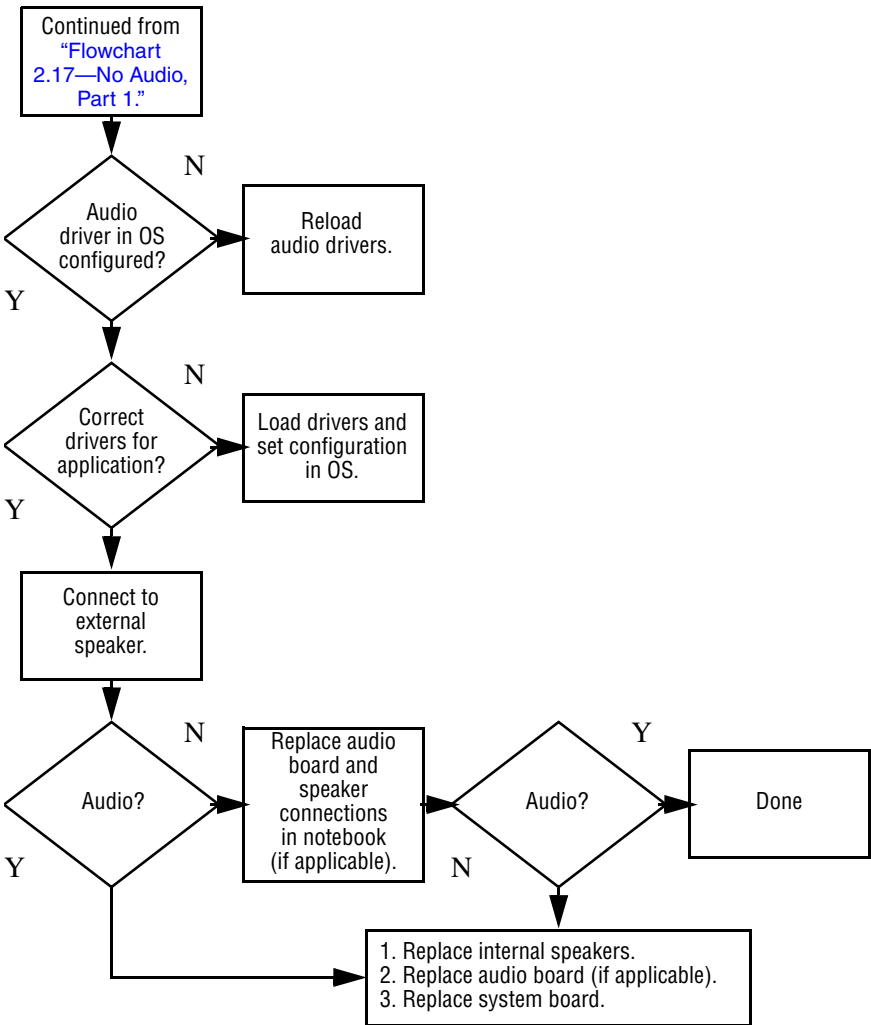
Flowchart 2.16—No OS Loading for QuickPlay Application, Part 2



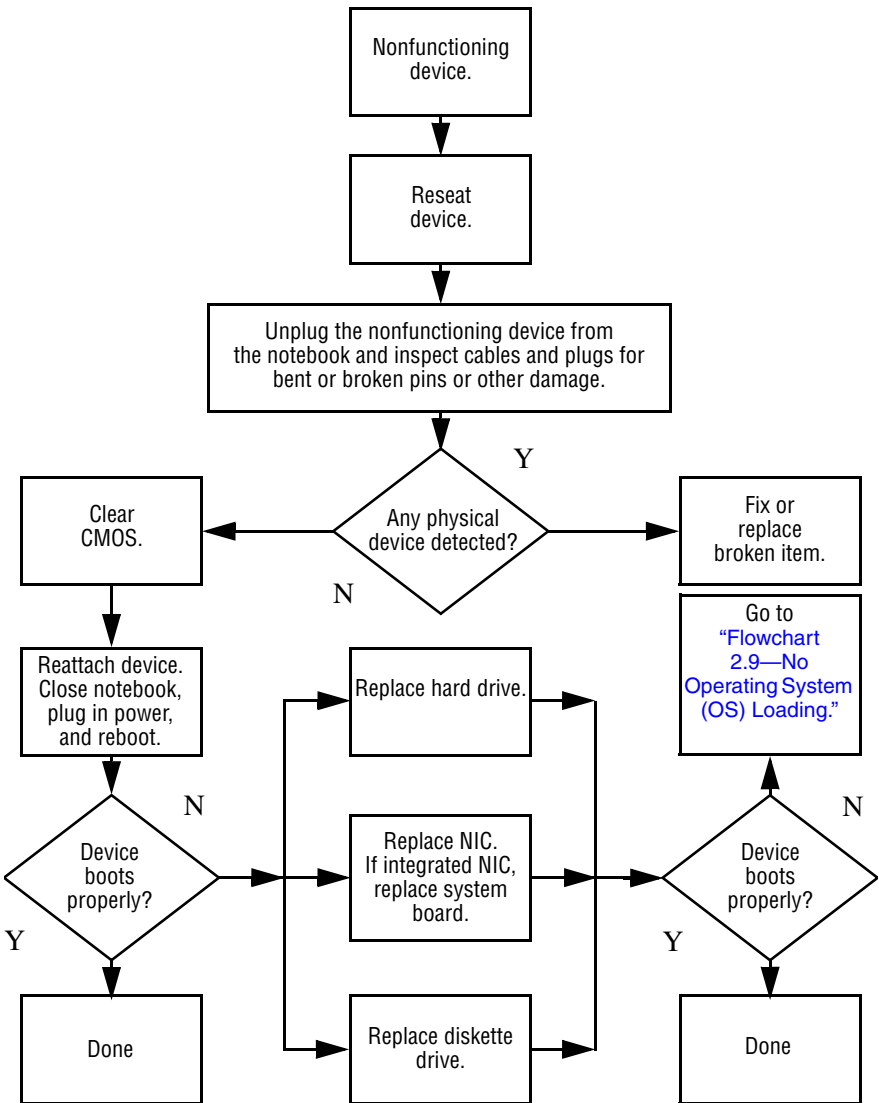
Flowchart 2.17—No Audio, Part 1



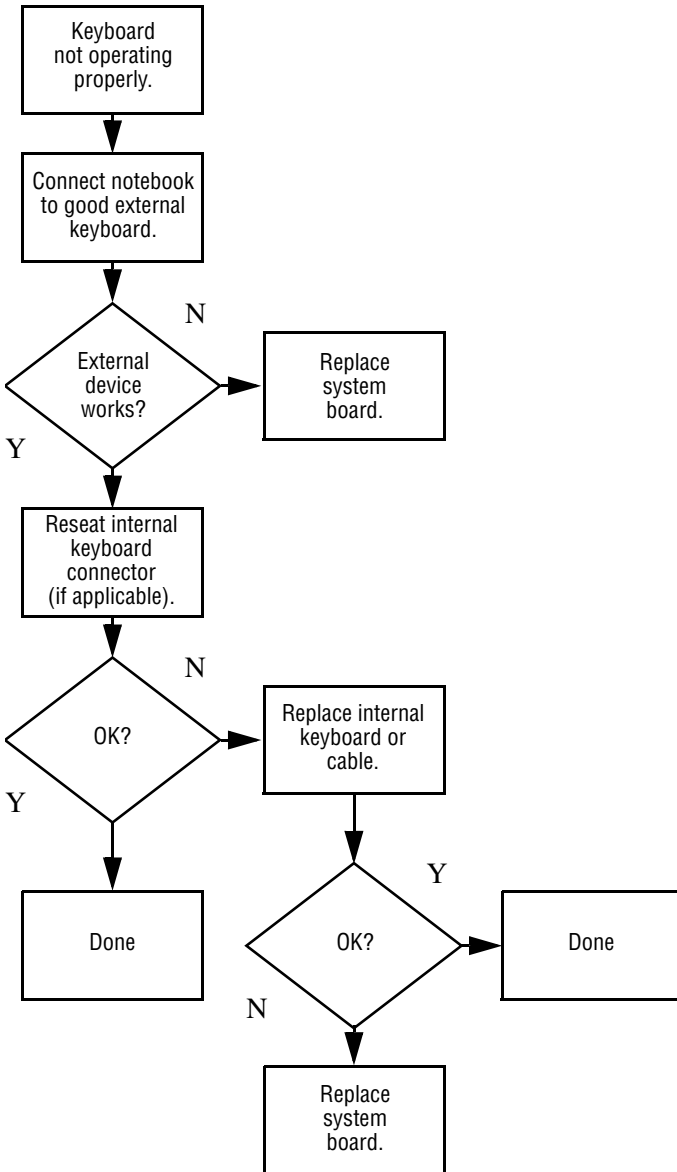
Flowchart 2.18—No Audio, Part 2



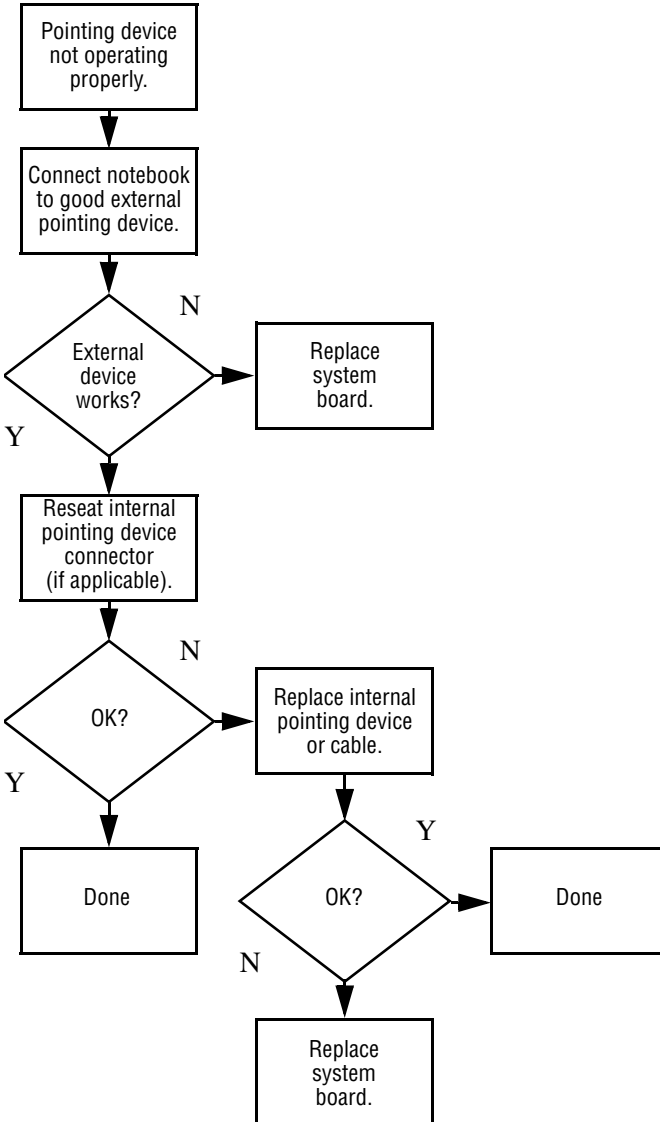
Flowchart 2.19—Nonfunctioning Device



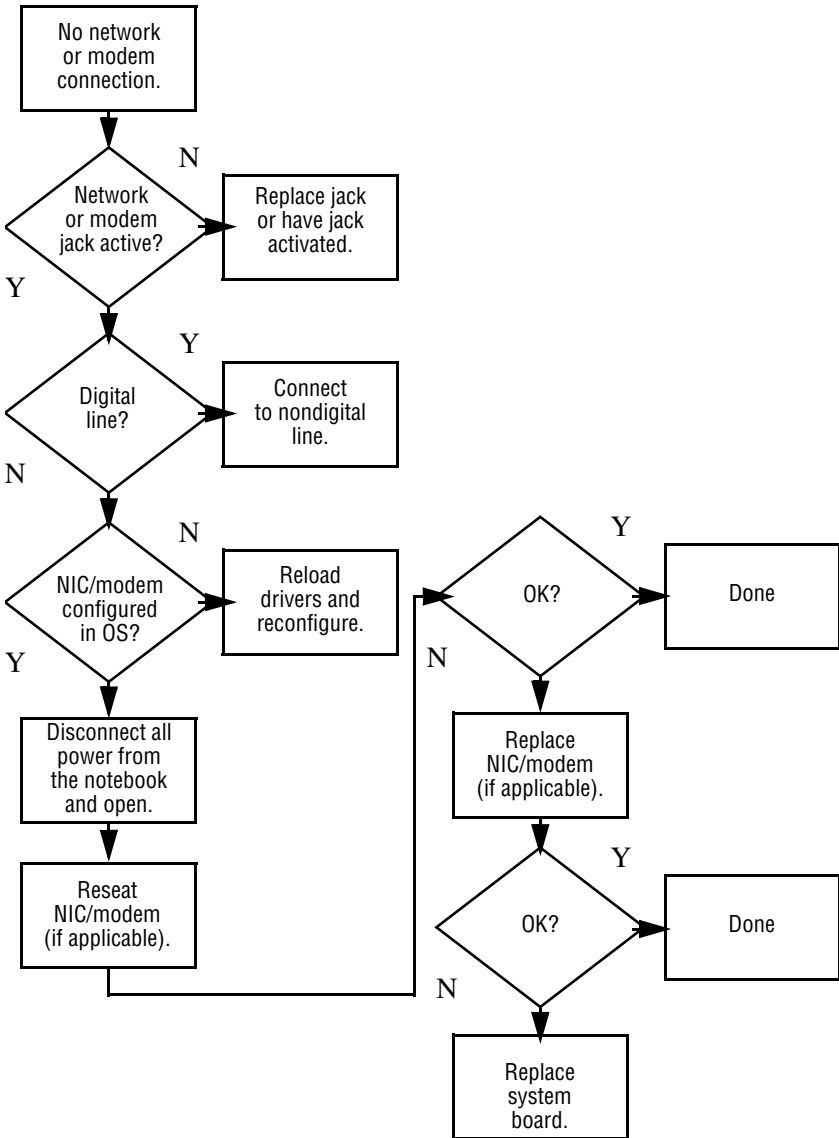
Flowchart 2.20—Nonfunctioning Keyboard



Flowchart 2.21 – Nonfunctioning Pointing Device



Flowchart 2.22—No Network/Modem Connection

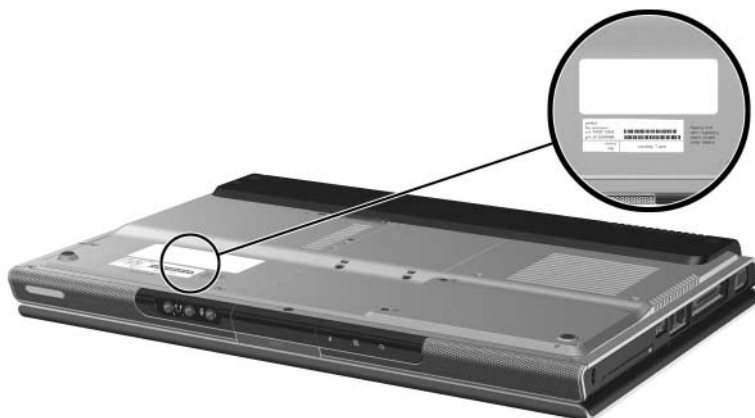


Illustrated Parts Catalog

This chapter provides an illustrated parts breakdown and a reference for spare part numbers and option part numbers.

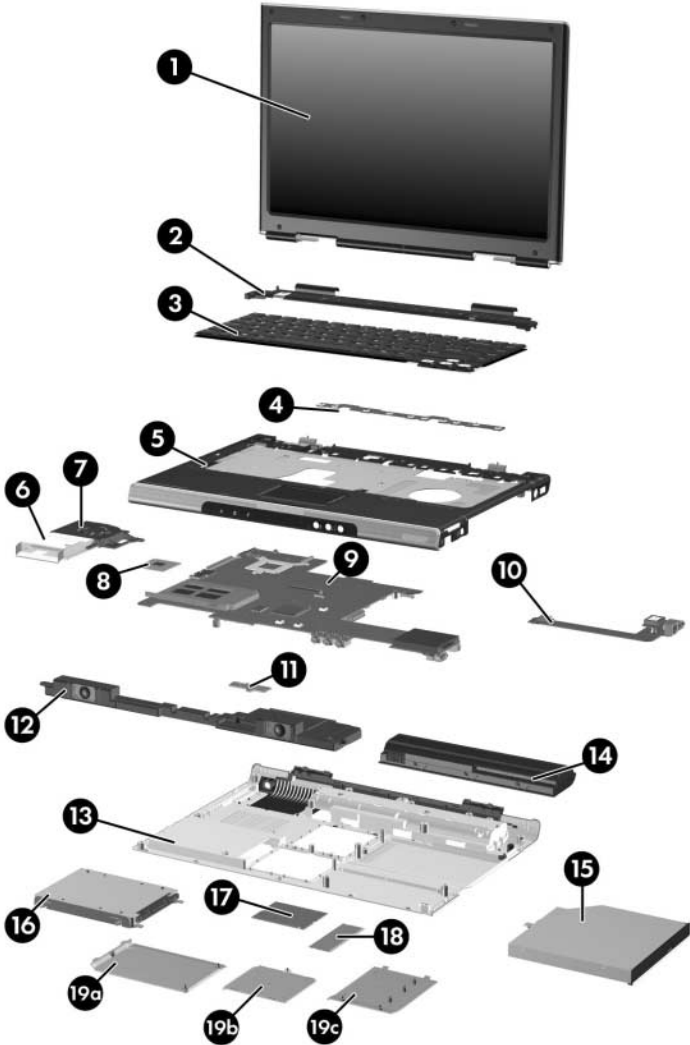
3.1 Serial Number Location

When ordering parts or requesting information, provide the notebook serial number and model number located on the bottom of the notebook.



Serial Number Location

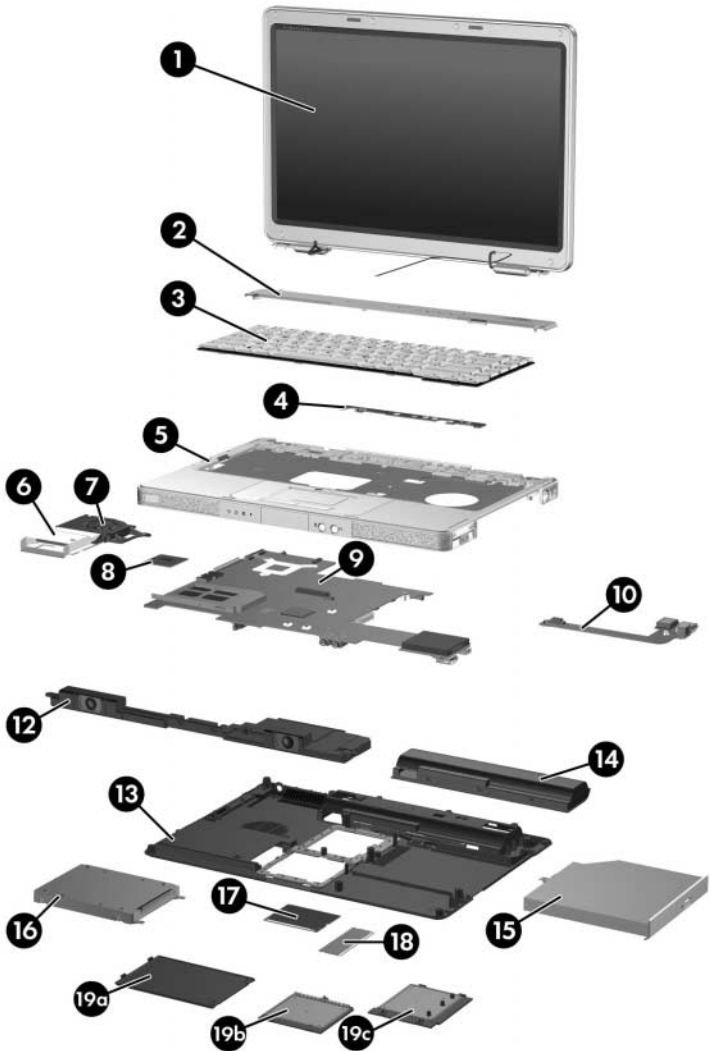
3.2 Notebook Major Components



Notebook Major Components, HP Pavilion dv1000

Table 3-1
Spare Parts: Notebook Major Components

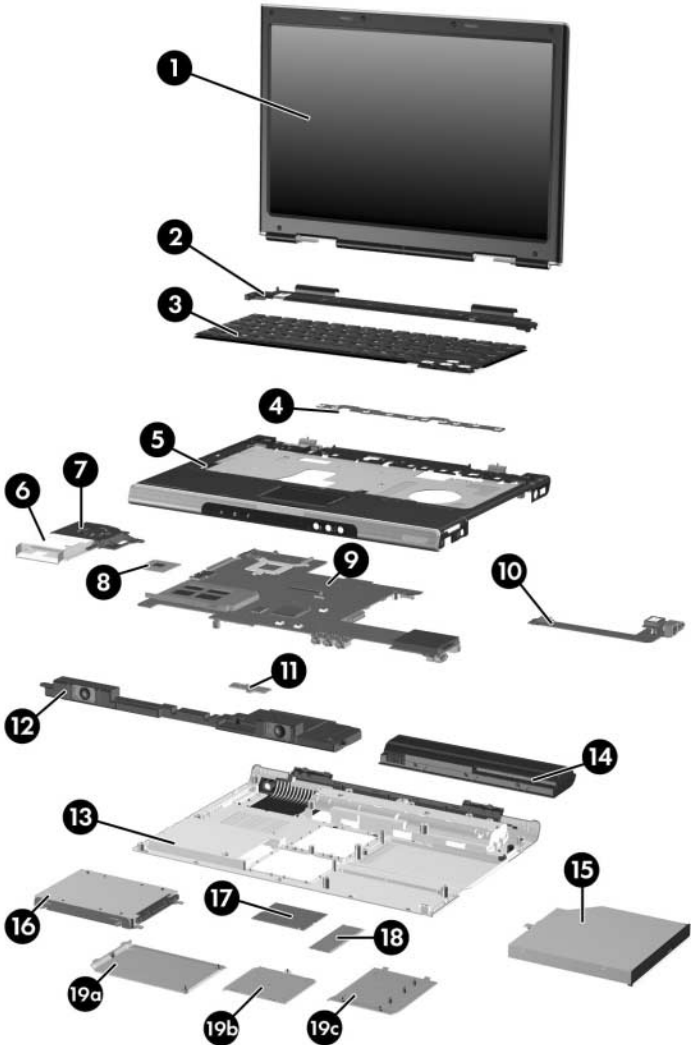
Item	Description	Spare Part Number
1	Display assemblies (include wireless antenna boards and cables)	
	For use on HP Pavilion dv1000 notebook models	
	14.0-inch, WXGA, SVA with Brightview	373054-001
	14.0-inch, WXGA	367783-001
	For use on HP Compaq nx4800 notebook models	
	14.0-inch, WXGA, SVA with Brightview	373060-001
	14.0-inch, WXGA	373528-001
	For use on Compaq Presario V2000 notebook models	
	14.0-inch, WXGA, SVA with Brightview	373055-001
	14.0-inch, WXGA	367784-001
	Left and right display hinge covers and brackets	
	For use on HP Pavilion dv1000 notebook models	382077-001
	For use on HP Compaq nx4800 and Compaq Presario notebook models	382078-001
	Wireless antenna cables (not illustrated)	376082-001



Notebook Major Components, HP Compaq nx4800 and
Compaq Presario V2000

Table 3-1**Spare Parts: Notebook Major Components (Continued)**

Item	Description	Spare Part Number
2	Switch covers (include wireless button and light)	
	For use on HP Pavilion dv1000 notebook models with wireless capability	367781-001
	For use on HP Pavilion dv1000 notebook models without wireless capability	367780-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, Memory Reader, and wireless capability	367782-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and Memory Reader without wireless capability	367779-001
	For use on Compaq Presario V2000 notebook models without a 1394 port, S-Video-out jack, expansion port, and Memory Reader	373532-001

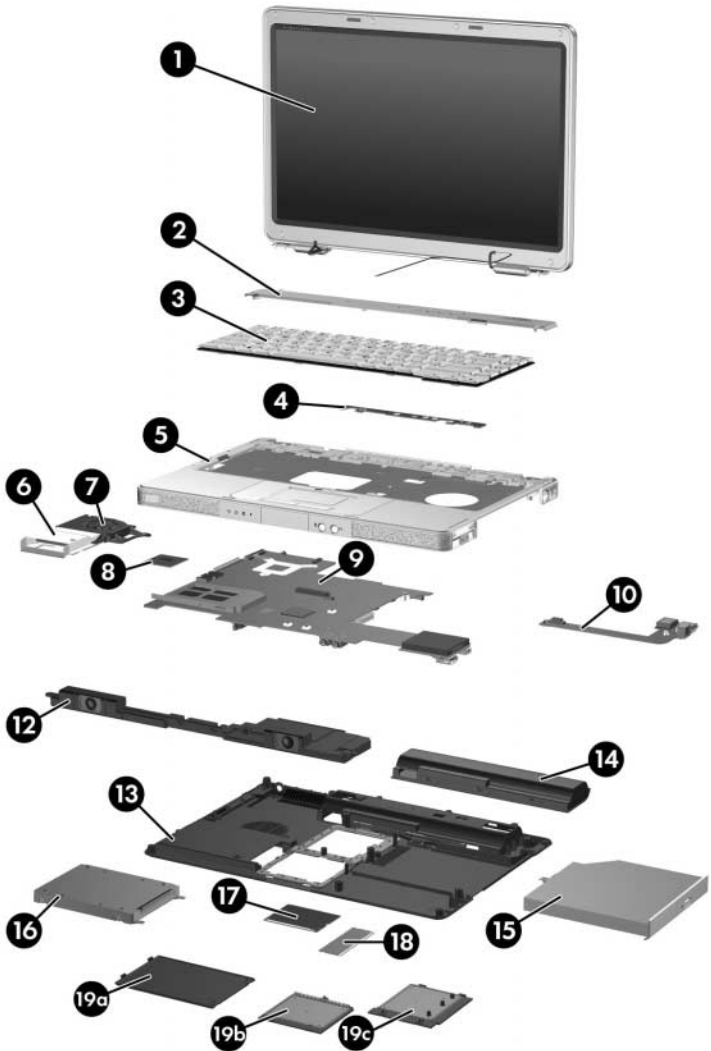


Notebook Major Components, HP Pavilion dv1000

Table 3-1

Spare Parts: Notebook Major Components (Continued)

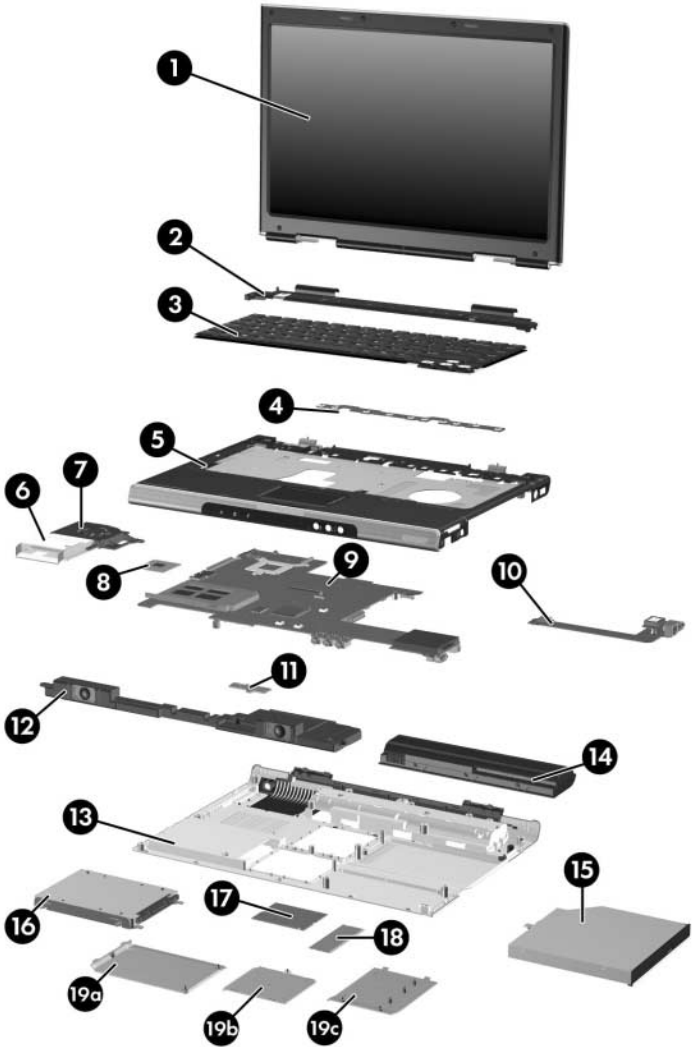
Item	Description	Spare Part Number
3	Keyboards	
	For use on HP Pavilion dv1000 notebook models	
	Belgium 367778-A41	Saudi Arabia 367778-171
	Denmark 367778-081	Spain 367778-071
	France 367778-051	Sweden/Finland 367778-B71
	French Canada 367778-121	Switzerland 367778-111
	Germany 367778-041	Taiwan 367778-AB1
	367778-DJ1	Thailand 367778-281
	Greece 367778-BB1	United Kingdom 367778-031
	Israel 367778-061	Asia Pacific, 367778-001
	Italy 367778-AD1	Australia,
	Korea 367778-161	Canada,
	Latin America 367778-331	Hong Kong,
	Europe and the 367778-091	People's Republic
	Netherlands 367778-131	of China, and the
	Norway	United States
	Portugal	
	For use on HP Compaq nx4800 notebook models	
	Japan 367777-291	
	For use on Compaq Presario V2000 notebook models	
	Korea 367777-AD1	Asia Pacific, 367777-001
	Latin America 367777-161	Australia,
	Taiwan 367777-AB1	Hong Kong,
	Thailand 367777-281	People's Republic of
		China, and the
		United States



Notebook Major Components, HP Compaq nx4800 and Compaq Presario V2000

Table 3-1**Spare Parts: Notebook Major Components (Continued)**

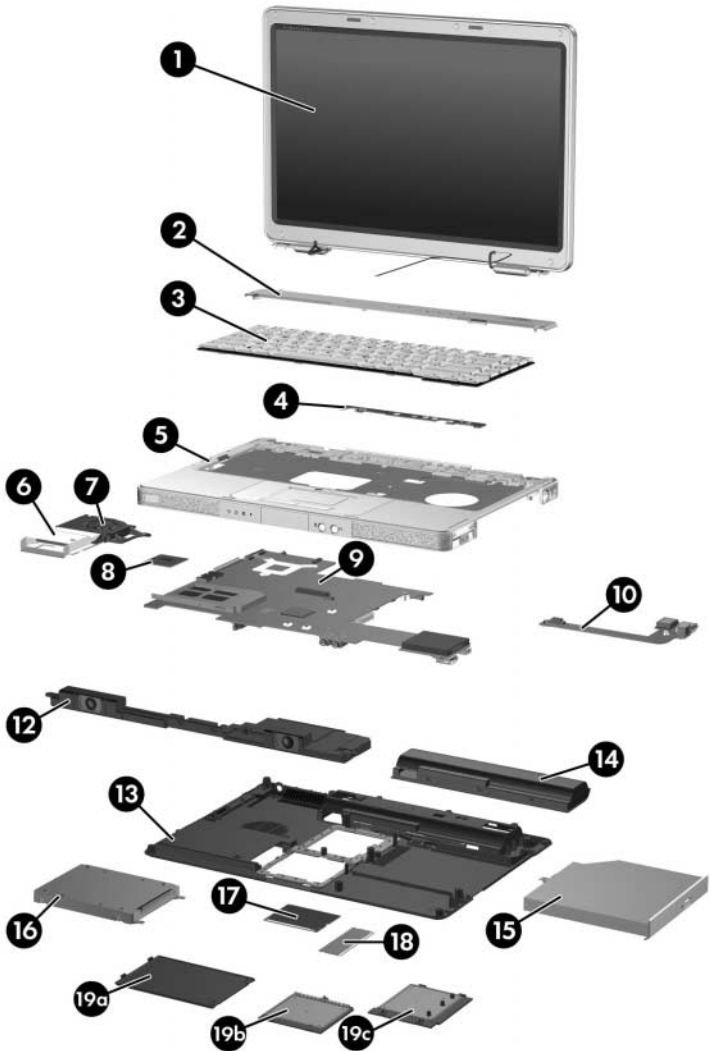
Item	Description	Spare Part Number
4	LED boards (include cable, not illustrated)	
	For use on HP Pavilion dv1000 notebook models	367797-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	367798-001
5	Top covers (include TouchPad)	
	For use on HP Pavilion dv1000 notebook models	367761-001
	For use on HP Compaq nx4800 notebook models	373529-001
	For use on Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and Memory Reader	367762-001
	For use on Compaq Presario V2000 notebook models without a 1394 port, S-Video-out jack, expansion port, and Memory Reader	373531-001
6	Heat sink (includes thermal pad)	367796-001
7	Fan (includes thermal pad)	367795-001
8	Processors (include thermal pad)	
	Intel Pentium M 745 (1.8-GHz) with 400-MHz FSB	373053-001
	Intel Pentium M 735 (1.7-GHz) with 400-MHz FSB	373052-001
	Intel Pentium M 725 (1.6-GHz) with 400-MHz FSB	367771-001
	Intel Pentium M 715A (1.5-GHz) with 400-MHz FSB	380690-001
	Intel Pentium M 705 (1.5-GHz) with 400-MHz FSB	375979-001
	Intel Pentium M 710 (1.4-GHz) with 400-MHz FSB	376588-001
	Intel Celeron M 340 (1.5-GHz) with 400-MHz FSB	367768-001
	Intel Celeron M 360 (1.4-GHz) with 400-MHz FSB	380033-001
	Intel Celeron M 330 (1.4-GHz) with 400-MHz FSB	367767-001
	Intel Celeron M 350 (1.3-GHz) with 400-MHz FSB	380032-001
	Intel Celeron M 320 (1.3-GHz) with 400-MHz FSB	374874-001



Notebook Major Components, HP Pavilion dv1000

Table 3-1**Spare Parts: Notebook Major Components (Continued)**

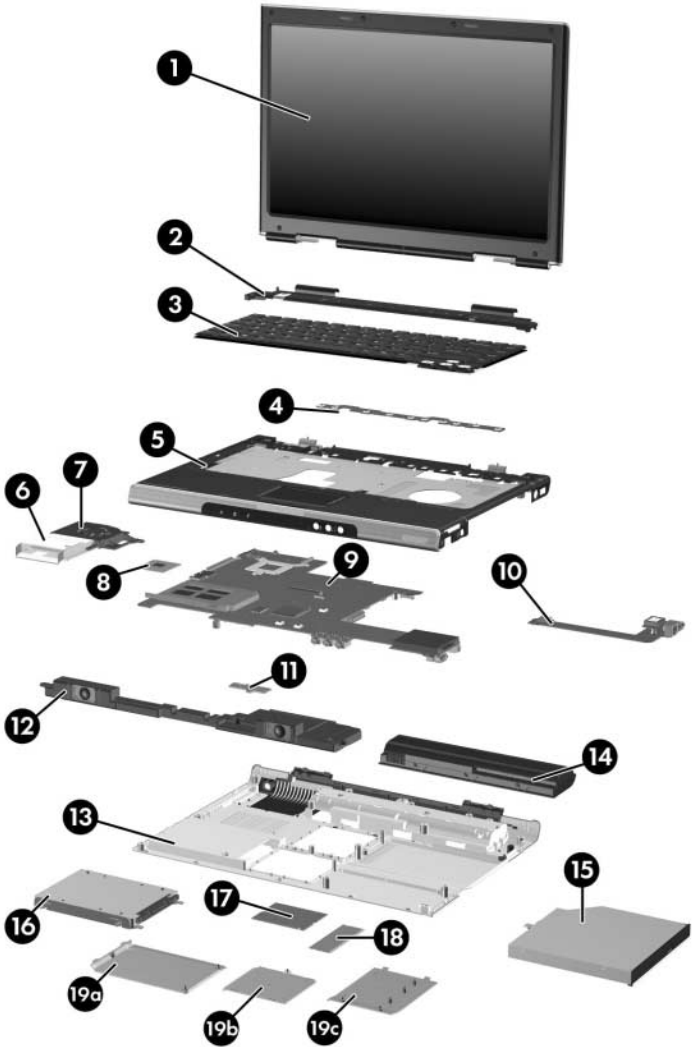
Item	Description	Spare Part Number
9	System boards (include disk cell RTC battery)	
	For use on HP Pavilion dv1000 notebook models with Intel Pentium M processors	367799-001
	For use on HP Pavilion dv1000 notebook models with Intel Celeron M processors	367800-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with Intel Pentium M processors	373522-001
	For use on Compaq Presario V2000 notebook models with Intel Celeron M processors	373523-001
10	USB/S-Video controller boards	
	For use on HP Pavilion dv1000 notebook models and HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and digital memory card reader	367794-001
	For use only on Compaq Presario V2000 notebook models without a 1394 port, S-Video-out jack, expansion port, and Memory Reader	373533-001
11	Menu control button board (includes bracket and cable, for use only on HP Pavilion dv1000 notebook models)	373535-001
12	Speaker assemblies	
	For use on HP Pavilion dv1000 notebook models	367793-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	374625-001



Notebook Major Components, HP Compaq nx4800 and
Compaq Presario V2000

Table 3-1**Spare Parts: Notebook Major Components (Continued)**

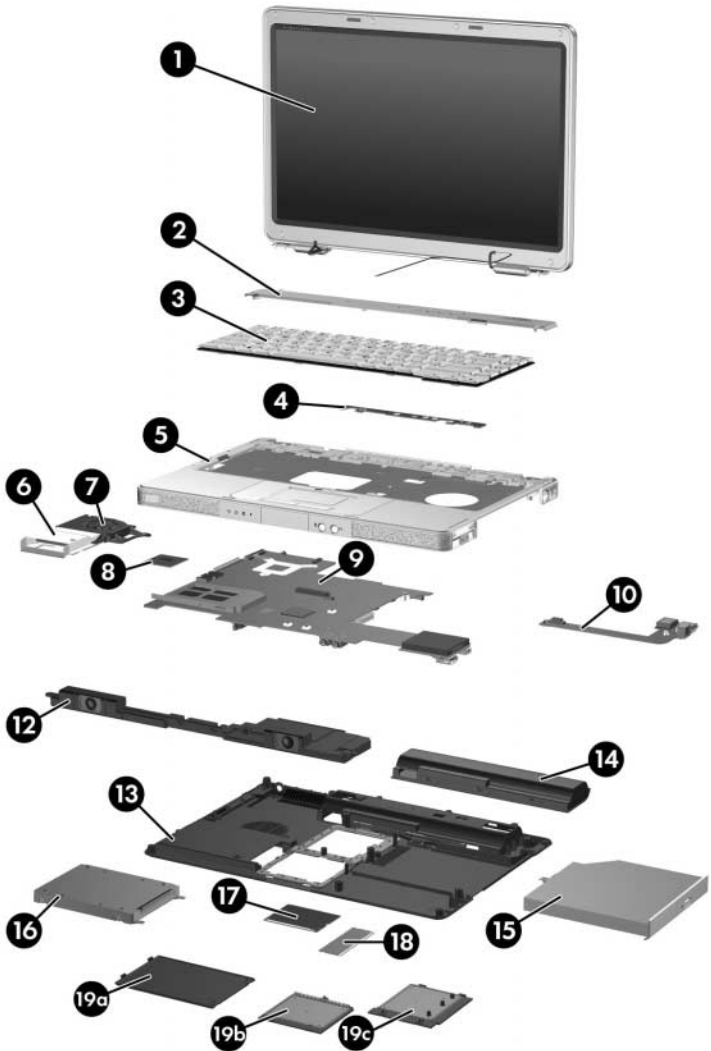
Item	Description	Spare Part Number
13	Base enclosures	
	For use on HP Pavilion dv1000 notebook models	367763-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	367764-001
14	Battery packs	
	12-cell, 8.8-AHr	367760-001
	6-cell, 4.4-AHr	367759-001
15	Optical drives (include bezel)	
	For use on HP Pavilion dv1000 notebook models	
	8X DVD-ROM Drive	367789-001
	24X DVD/CD-RW Combo Drive	367790-001
	4X DVD+RW/R and CD-RW Combo Drive	373625-001
	4X DVD±RW/R and CD-RW Combo Drive	375981-001
	8X DVD±RW/R and CD-RW Combo Drive	375983-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	
	8X DVD-ROM Drive	373524-001
	24X DVD/CD-RW Combo Drive	373525-001
	4X DVD+RW/R and CD-RW Combo Drive	373626-001
	4X DVD±RW/R and CD-RW Combo Drive	375982-001
	8X DVD±RW/R and CD-RW Combo Drive	375984-001



Notebook Major Components, HP Pavilion dv1000

Table 3-1**Spare Parts: Notebook Major Components (Continued)**

Item	Description	Spare Part Number
16	Hard drives (include frame and connector)	
	5400-rpm	
	80-GB	377651-001
	60-GB	375980-001
	4200-rpm	
	100-GB	381721-001
	80-GB	367788-001
	60-GB	367787-001
	40-GB	367786-001
17	Mini PCI communications cards	
	802.11b/g Broadcomm (MOW)	373047-001
	802.11b/g Broadcomm (ROW)	373048-001
	802.11b/g Broadcomm (Japan, for use only on HP Compaq nx4800 notebook models)	373061-291
	802.11b Intel (MOW)	373023-001
	802.11b Intel (ROW)	373024-001
	802.11b/g Intel (MOW)	373026-001
	802.11b/g Intel (ROW)	373025-001
	Bluetooth® Wireless LAN	376651-001
18	Memory modules (266 MHz)	
	1024-MB	367775-001
	512-MB	367774-001
	256-MB	367773-001
	128-MB	373056-001

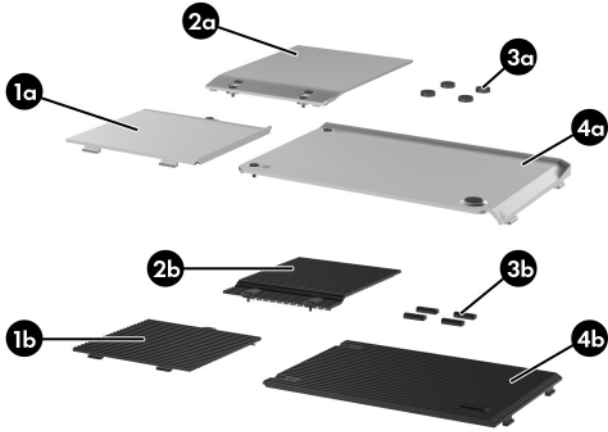


Notebook Major Components, HP Compaq nx4800 and
Compaq Presario V2000

Table 3-1**Spare Parts: Notebook Major Components (Continued)**

Item	Description	Spare Part Number
	Miscellaneous Plastics Kit	
	For use on HP Pavilion dv1000 notebook models	367765-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	367766-001
	Includes:	
19a	Hard drive cover (includes two captive screws)	
19b	Memory module compartment cover (includes 2 captive screws)	
19c	Mini PCI compartment cover (includes 2 captive screws)	
	Notebook feet (not illustrated)	

3.3 Miscellaneous Plastics Kit

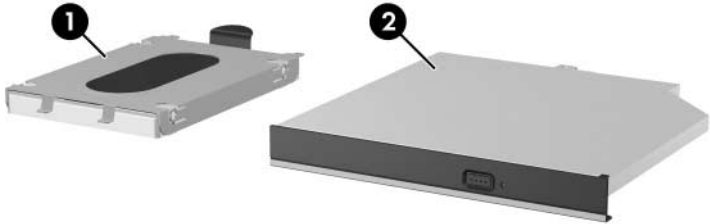


Miscellaneous Plastics Kit

Table 3-2
Miscellaneous Plastics Kit
Spare Part Number Information

Item	Description	Spare Part Number
	Miscellaneous Plastics Kit	
	For use on HP Pavilion dv1000 notebook models	367765-001
	Includes:	
1a	Mini PCI compartment cover	
2a	Memory module compartment cover	
3a	Notebook feet	
4a	Hard drive cover	
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	367766-001
	Includes:	
1b	Mini PCI compartment cover	
2b	Memory module compartment cover	
3b	Notebook feet	
4b	Hard drive cover	

3.4 Mass Storage Devices



Mass Storage Devices

Table 3-3
Mass Storage Devices
Spare Part Number Information

Item	Description	Spare Part Number
1	Hard drives (include frame and connector)	
	5400-rpm	
	80-GB	377651-001
	60-GB	375980-001

Table 3-3
Mass Storage Devices
Spare Part Number Information (*Continued*)

Item	Description	Spare Part Number
Hard drives (<i>Continued</i>)		
4200-rpm		
	100-GB	381721-001
	80-GB	367788-001
	60-GB	367787-001
	40-GB	367786-001
2	Optical drives	
	For use on HP Pavilion dv1000 notebook models	
	8X DVD-ROM Drive	367789-001
	24X DVD/CD-RW Combo Drive	367790-001
	4X DVD+RW/R and CD-RW Combo Drive	373625-001
	4X DVD±RW/R and CD-RW Combo Drive	375981-001
	8X DVD±RW/R and CD-RW Combo Drive	375983-001
	For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	
	8X DVD-ROM Drive	373524-001
	24X DVD/CD-RW Combo Drive	373525-001
	4X DVD+RW/R and CD-RW Combo Drive	373626-001
	4X DVD±RW/R and CD-RW Combo Drive	375982-001
	8X DVD±RW/R and CD-RW Combo Drive	375984-001
	USB diskette drive (not illustrated)	359118-001
	USB digital drive (not illustrated)	364727-001
	HP USB pocket drive (not illustrated)	338796-001

3.5 Miscellaneous

Table 3-4
Spare Parts: Miscellaneous (not illustrated)

Description	Spare Part Number
Logo Kits	
For use on HP Pavilion dv1000 notebook models	373058-001
For use on HP Compaq nx4800 notebook models	373530-001
For use on Compaq Presario V2000 notebook models	373059-001
Wired headset with volume control	371693-001
Personal Video Recorder	352950-001
HP remote control (for use only on HP dv1000 notebook models)	371694-001
USB travel mouse	309674-001
Notebook entertainment cable and Y-cable	375759-001
65-watt AC adapter	371790-001
Screw Kit (includes the following screws; refer to Appendix C, "Screw Listing," for more information on screw specifications and usage)	
For use on HP Pavilion dv1000 notebook models	367776-001
For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	373534-001
■ Phillips PM2.5×4.0 screw	■ Phillips PM2.0×4.0 screw
■ Phillips PM2.0×7.0 round head screw	■ Phillips PM2.0×3.0 screw
■ Phillips PM2.0×7.0 screw	■ Phillips PM1.5×2.0 screw
■ Phillips PM2.0×5.0 screw	

Table 3-4**Spare Parts: Miscellaneous (not illustrated) (Continued)**

Description	Spare Part Number
Power cords	
For use in:	
Australia and New Zealand	373979-011
Belgium, Europe, Finland, France, Germany, Greece, the Netherlands, Norway, Portugal, Spain, and Sweden	373979-021
Canada, French Canada, Latin America, Taiwan, Thailand, and the United States	373979-001
Denmark	373979-081
Hong Kong and the United Kingdom	373979-031
Israel	373979-BB1
Italy	373979-061
Japan	373979-291
Korea	373979-AD1
People's Republic of China	373979-AA1
Switzerland	373979-111

3.6 Sequential Part Number Listing

Table 3-5
Spare Parts: Sequential Part Number Listing

Spare Part Number	Description
309674-001	USB travel mouse
352950-001	Personal Video Recorder
359118-001	USB diskette drive
364727-001	USB digital drive
367759-001	Battery pack, 6-cell, 4.4-AHr
367760-001	Battery pack, 12-cell, 8.8-AHr
367761-001	Top cover for use on HP Pavilion dv1000 notebook models (includes TouchPad)
367762-001	Top cover for use on Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and Memory Reader (includes TouchPad)
367763-001	Base enclosure for use on HP Pavilion dv1000 notebook models
367764-001	Base enclosure for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models
367765-001	Miscellaneous Plastics Kit for use on HP Pavilion dv1000 notebook models
367766-001	Miscellaneous Plastics Kit for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models
367767-001	Processor, Intel Celeron M 330 (1.4-GHz) with 400-MHz FSB (includes thermal pad)
367768-001	Processor, Intel Celeron M 340 (1.5-GHz) with 400-MHz FSB (includes thermal pad)

Table 3-5**Spare Parts: Sequential Part Number Listing (Continued)**

Spare Part Number	Description
367771-001	Processor, Intel Pentium M 725 (1.6-GHz) with 400-MHz FSB (includes thermal pad)
367773-001	Memory module, 256-MB (266 MHz)
367774-001	Memory module, 512-MB (266 MHz)
367775-001	Memory module, 1024-MB (266 MHz)
367776-001	Screw Kit for use on HP Pavilion dv1000 notebook models
367777-001	Keyboard for use on Compaq Presario V2000 notebook models in Asia Pacific, Australia, Hong Kong, People's Republic of China, and the United States
367777-161	Keyboard for use on Compaq Presario V2000 notebook models in Latin America
367777-281	Keyboard for use on Compaq Presario V2000 notebook models in Thailand
367777-291	Keyboard for use on HP Compaq nx4800 notebook model in Japan
367777-AD1	Keyboard for use on Compaq Presario V2000 notebook models in Korea
367778-001	Keyboard for use on HP Pavilion dv1000 notebook models in Asia Pacific, Australia, Canada, Hong Kong, People's Republic of China, and the United States
367778-031	Keyboard for use on HP Pavilion dv1000 notebook models in the United Kingdom
367778-041	Keyboard for use on HP Pavilion dv1000 notebook models in Germany
367778-051	Keyboard for use on HP Pavilion dv1000 notebook models in France

Table 3-5

Spare Parts: Sequential Part Number Listing (*Continued*)

Spare Part Number	Description
367778-061	Keyboard for use on HP Pavilion dv1000 notebook models in Italy
367778-071	Keyboard for use on HP Pavilion dv1000 notebook models in Spain
367778-081	Keyboard for use on HP Pavilion dv1000 notebook models in Denmark
367778-091	Keyboard for use on HP Pavilion dv1000 notebook models in Norway
367778-111	Keyboard for use on HP Pavilion dv1000 notebook models in Switzerland
367778-121	Keyboard for use on HP Pavilion dv1000 notebook models in French Canada
367778-131	Keyboard for use on HP Pavilion dv1000 notebook models in Portugal
367778-161	Keyboard for use on HP Pavilion dv1000 notebook models in Latin America
367778-171	Keyboard for use on HP Pavilion dv1000 notebook models in Saudi Arabia
367778-281	Keyboard for use on HP Pavilion dv1000 notebook models in Thailand
367778-331	Keyboard for use on HP Pavilion dv1000 notebook models in Europe and the Netherlands
367778-A41	Keyboard for use on HP Pavilion dv1000 notebook models in Belgium
367778-AB1	Keyboard for use on HP Pavilion dv1000 notebook models in Taiwan
367778-AD1	Keyboard for use on HP Pavilion dv1000 notebook models in Korea

Table 3-5**Spare Parts: Sequential Part Number Listing (Continued)**

Spare Part Number	Description
367778-B71	Keyboard for use on HP Pavilion dv1000 notebook models Finland and Sweden
367778-BB1	Keyboard for use on HP Pavilion dv1000 notebook models in Israel
367778-DJ1	Keyboard for use on HP Pavilion dv1000 notebook models in Greece
367779-001	Switch cover for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and Memory Reader without wireless capability
367780-001	Switch cover for use on HP Pavilion dv1000 notebook models without wireless capability
367781-001	Switch cover for use on HP Pavilion dv1000 notebook models with wireless capability
367782-001	Switch cover for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and Memory Reader with wireless capability
367783-001	Display assembly, 14.0-inch, WXGA for use on for use on HP Pavilion dv1000 notebook models
367784-001	Display assembly, 14.0-inch, WXGA for use on Compaq Presario V2000 notebook models
367786-001	Hard drive, 60-GB, 4200-rpm (includes frame and connector)
367787-001	Hard drive, 40-GB, 4200-rpm (includes frame and connector)
367788-001	Hard drive, 80-GB, 4200-rpm (includes frame and connector)
367789-001	8X DVD-ROM Drive for use on HP Pavilion dv1000 notebook models

Table 3-5

Spare Parts: Sequential Part Number Listing (*Continued*)

Spare Part Number	Description
367790-001	24X DVD/CD-RW Combo Drive for use on HP Pavilion dv1000 notebook models
367793-001	Speaker assembly for use on HP Pavilion dv1000 notebook models
367794-001	USB/S-Video controller board for use on HP Pavilion dv1000 notebook models and HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and digital memory card reader
367795-001	Fan (includes thermal pad)
367796-001	Heat sink (includes thermal pad)
367797-001	LED board for use on HP Pavilion dv1000 notebook models (includes cable)
367798-001	LED board for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models (includes cable)
367799-001	System board for use on HP Pavilion dv1000 notebook models with Intel Pentium M processors
367800-001	System board for use on HP Pavilion dv1000 notebook models with Intel Celeron M processors
371693-001	Wired headset with volume control
371694-001	HP remote control (for use only on HP dv1000 notebook models)
371790-001	65-watt AC adapter
373023-001	Mini PCI communications card, 802.11b Intel (MOW)
373024-001	Mini PCI communications card, 802.11b Intel (ROW)
373025-001	Mini PCI communications card, 802.11b/g Intel (ROW)
373026-001	Mini PCI communications card, 802.11b/g Intel (MOW)

Table 3-5**Spare Parts: Sequential Part Number Listing (Continued)**

Spare Part Number	Description
373047-001	Mini PCI communications card, 802.11b/g Broadcomm (MOW)
373048-001	Mini PCI communications card, 802.11b/g Broadcomm (ROW)
373052-001	Processor, Intel Pentium M 735 (1.7-GHz) with 400-MHz FSB (includes thermal pad)
373053-001	Processor, Intel Pentium M 745 (1.8-GHz) with 400-MHz FSB (includes thermal pad)
373054-001	Display assembly, 14.0-inch, WXGA, SVA with Brightview for use on HP Pavilion dv1000 notebook models
373055-001	Display assembly, 14.0-inch, WXGA, SVA with Brightview for use on Compaq Presario V2000 notebook models
373056-001	Memory module, 128-MB (266 MHz)
373058-001	Logo Kit for use on HP Pavilion dv1000 notebook models
373059-001	Logo Kit for use on Compaq Presario V2000 notebook models
373060-001	Display assembly, 14.0-inch, WXGA, SVA with Brightview for use on HP Compaq nx4800 notebook models
373061-001	Mini PCI communications card, 802.11b/g Broadcomm (Japan)
373522-001	System board for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with Intel Pentium M processors
373523-001	System board for use on Compaq Presario V2000 notebook models with Intel Celeron M processors
373524-001	8X DVD-ROM Drive for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models
Spare Part Number	Description

Table 3-5

Spare Parts: Sequential Part Number Listing (*Continued*)

Spare Part Number	Description
373525-001	24X DVD/CD-RW Combo Drive for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models
373528-001	Display assembly, 14.0-inch, WXGA, SVA for use on HP Compaq nx4800 notebook models
373529-001	Top cover for use on HP Compaq nx4800 notebook models (includes TouchPad)
373530-001	Logo Kit for use on HP Compaq nx4800 notebook models
373531-001	Top cover for use on Compaq Presario V2000 notebook models without a 1394 port, S-Video-out jack, expansion port, and Memory Reader (includes TouchPad)
373532-001	Switch cover for use on Compaq Presario V2000 notebook models without wireless (includes wireless button and light)
373533-001	USB/S-Video controller board for use only on Compaq Presario V2000 notebook models without a 1394 port, S-Video-out jack, expansion port, and Memory Reader
373534-001	Screw Kit for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models
373535-001	Menu control button board (includes bracket and cable, for use only on HP Pavilion dv1000 notebook models)
373625-001	4X DVD+RW/R and CD-RW Combo Drive for use on HP Pavilion dv1000 notebook models
373626-001	4X DVD+RW/R and CD-RW Combo Drive for use on Compaq Presario V2000 notebook models
373979-001	Power cord for use in Canada, French Canada, Latin America, Taiwan, Thailand, and the United States
373979-011	Power cord for use in Australia and New Zealand

Table 3-5**Spare Parts: Sequential Part Number Listing (Continued)**

Spare Part Number	Description
373979-021	Power cord for use in Belgium, Europe, Finland, France, Germany, Greece, the Netherlands, Norway, Portugal, Spain, and Sweden
373979-031	Power cord for use in Australia, Hong Kong, New Zealand, and the United Kingdom
373979-061	Power cord for use in Italy
373979-081	Power cord for use in Denmark
373979-111	Power cord for use in Switzerland
373979-291	Power cord for use in Japan
373979-AA1	Power cord for use in People's Republic of China
373979-AD1	Power cord for use in Korea
373979-BB1	Power cord for use in Israel
374625-001	Speaker assembly for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models
374874-001	Processor, Intel Celeron M 320 (1.3-GHz) with 400-MHz FSB (includes thermal pad)
375759-001	Notebook entertainment cable and Y-cable
375978-001	Mini-PCI communications card, 802.11b Intel (ROW)
375979-001	Processor, Intel Pentium M 710 (1.4-GHz) with 400-MHz FSB (includes thermal pad)
375980-001	Hard drive, 60-GB, 5400-rpm (includes frame and connector)
375981-001	4X DVD±RW/R and CD-RW Combo Drive for use on HP Pavilion dv1000 notebook models
375982-001	4X DVD±RW/R and CD-RW Combo Drive for use on Compaq Presario V2000 notebook models

Table 3-5

Spare Parts: Sequential Part Number Listing (*Continued*)

Spare Part Number	Description
375983-001	8X DVD±RW/R and CD-RW Combo Drive for use on HP Pavilion dv1000 notebook models
375984-001	8X DVD±RW/R and CD-RW Combo Drive for use on Compaq Presario V2000 notebook models
376082-001	Wireless antenna cables
376588-001	Processor, Intel Pentium 705 (1.5-GHz) with 400-MHz FSB (includes thermal pad)
376651-001	Mini PCI communications card, Bluetooth Wireless LAN
377651-001	Hard drive, 80-GB, 5400-rpm (includes frame and connector)
380032-001	Processor, Intel Celeron M 350 (1.3-GHz) with 400-MHz FSB (includes thermal pad)
380033-001	Processor, Intel Celeron M 360 (1.4-GHz) with 400-MHz FSB (includes thermal pad)
380690-001	Processor, Intel Pentium M 715A (1.5-GHz) with 400-MHz FSB (includes thermal pad)
381721-001	Hard drive, 100-GB, 4200-rpm (includes frame and connector)
382077-001	Left and right display hinge covers and brackets for use on HP Pavilion dv1000 notebook models
382078-001	Left and right display hinge covers and brackets for use on HP Compaq nx4800 and Compaq Presario notebook models

Removal and Replacement Preliminaries

This chapter provides essential information for proper and safe removal and replacement service.

4.1 Tools Required

You will need the following tools to complete the removal and replacement procedures:

- Magnetic screwdriver
- Phillips P0 screwdriver
- 5.0-mm socket for system board screwlocks
- Flat-bladed screwdriver
- Tool kit—includes connector removal tool, loopback plugs, and case utility tool

4.2 Service Considerations

The following sections include some of the considerations that you should keep in mind during disassembly and assembly procedures.



As you remove each subassembly from the notebook, place the subassembly (and all accompanying screws) away from the work area to prevent damage.

Plastic Parts

Using excessive force during disassembly and reassembly can damage plastic parts. Use care when handling the plastic parts. Apply pressure only at the points designated in the maintenance instructions.

Cables and Connectors



CAUTION: When servicing the notebook, ensure that cables are placed in their proper locations during the reassembly process. Improper cable placement can damage the notebook.

Cables must be handled with extreme care to avoid damage. Apply only the tension required to unseat or seat the cables during removal and insertion. Handle cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing cables. Ensure that cables are routed in such a way that they cannot be caught or snagged by parts being removed or replaced. Handle flex cables with extreme care; these cables tear easily.

4.3 Preventing Damage to Removable Drives

Removable drives are fragile components that must be handled with care. To prevent damage to the notebook, damage to a removable drive, or loss of information, observe the following precautions:

- Before removing or inserting a hard drive, shut down the notebook. If you are unsure whether the notebook is off or in Hibernation, turn the notebook on, and then shut it down through the operating system.
- Before removing a diskette drive or optical drive, ensure that a diskette or disc is not in the drive and ensure that the optical drive tray is closed.

- Before handling a drive, ensure that you are discharged of static electricity. While handling a drive, avoid touching the connector.
- Handle drives on surfaces covered with at least one inch of shock-proof foam.
- Avoid dropping drives from any height onto any surface.
- After removing a hard drive, CD-ROM drive, or a diskette drive, place it in a static-proof bag.
- Avoid exposing a hard drive to products that have magnetic fields, such as monitors or speakers.
- Avoid exposing a drive to temperature extremes or liquids.
- If a drive must be mailed, place the drive in a bubble pack mailer or other suitable form of protective packaging and label the package, "Fragile: Handle With Care."

4.4 Preventing Electrostatic Damage

Many electronic components are sensitive to electrostatic discharge (ESD). Circuitry design and structure determine the degree of sensitivity. Networks built into many integrated circuits provide some protection, but in many cases, the discharge contains enough power to alter device parameters or melt silicon junctions.

A sudden discharge of static electricity from a finger or other conductor can destroy static-sensitive devices or microcircuitry. Often the spark is neither felt nor heard, but damage occurs.

An electronic device exposed to electrostatic discharge might not be affected at all and can work perfectly throughout a normal cycle. Or the device might function normally for a while, then degrade in the internal layers, reducing its life expectancy.

4.5 Packaging and Transporting Precautions

Use the following grounding precautions when packaging and transporting equipment:

- To avoid hand contact, transport products in static-safe containers, such as tubes, bags, or boxes.
- Protect all electrostatic-sensitive parts and assemblies with conductive or approved containers or packaging.
- Keep electrostatic-sensitive parts in their containers until the parts arrive at static-free workstations.
- Place items on a grounded surface before removing items from their containers.
- Always be properly grounded when touching a sensitive component or assembly.
- Store reusable electrostatic-sensitive parts from assemblies in protective packaging or nonconductive foam.
- Use transporters and conveyors made of antistatic belts and roller bushings. Ensure that mechanized equipment used for moving materials is wired to ground and that proper materials are selected to avoid static charging. When grounding is not possible, use an ionizer to dissipate electric charges.

4.6 Workstation Precautions

Use the following grounding precautions at workstations:

- Cover the workstation with approved static-shielding material (refer to [Table 4-2, “Static-Shielding Materials”](#)).
- Use a wrist strap connected to a properly grounded work surface and use properly grounded tools and equipment.
- Use conductive field service tools, such as cutters, screwdrivers, and vacuums.
- When using fixtures that must directly contact dissipative surfaces, only use fixtures made of static-safe materials.
- Keep the work area free of nonconductive materials, such as ordinary plastic assembly aids and Styrofoam.
- Handle electrostatic-sensitive components, parts, and assemblies by the case or PCM laminate. Handle these items only at static-free workstations.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting or removing connectors or test equipment.

4.7 Grounding Equipment and Methods

Grounding equipment must include either a wrist strap or a foot strap at a grounded workstation.

- When seated, wear a wrist strap connected to a grounded system. Wrist straps are flexible straps with a minimum of one megohm $\pm 10\%$ resistance in the ground cords. To provide proper ground, wear a strap snugly against the skin at all times. On grounded mats with banana-plug connectors, use alligator clips to connect a wrist strap.
- When standing, use foot straps and a grounded floor mat. Foot straps (heel, toe, or boot straps) can be used at standing workstations and are compatible with most types of shoes or boots. On conductive floors or dissipative floor mats, use foot straps on both feet with a minimum of one megohm resistance between the operator and ground. To be effective, the conductive strips must be worn in contact with the skin.

Other grounding equipment recommended for use in preventing electrostatic damage includes:

- Antistatic tape
- Antistatic smocks, aprons, and sleeve protectors
- Conductive bins and other assembly or soldering aids
- Nonconductive foam
- Conductive tabletop workstations with ground cords of one megohm resistance
- Static-dissipative tables or floor mats with hard ties to the ground
- Field service kits
- Static awareness labels
- Material-handling packages
- Nonconductive plastic bags, tubes, or boxes
- Metal tote boxes
- Electrostatic voltage levels and protective materials

Table 4-1 shows how humidity affects the electrostatic voltage levels generated by different activities.

Table 4-1
Typical Electrostatic Voltage Levels

Event	Relative Humidity		
	10%	40%	55%
Walking across carpet	35,000 V	15,000 V	7,500 V
Walking across vinyl floor	12,000 V	5,000 V	3,000 V
Motions of bench worker	6,000 V	800 V	400 V
Removing DIPS from plastic tube	2,000 V	700 V	400 V
Removing DIPS from vinyl tray	11,500 V	4,000 V	2,000 V
Removing DIPS from Styrofoam	14,500 V	5,000 V	3,500 V
Removing bubble pack from PCB	26,500 V	20,000 V	7,000 V
Packing PCBs in foam-lined box	21,000 V	11,000 V	5,000 V



A product can be degraded by as little as 700 V.

Table 4-2 lists the shielding protection provided by antistatic bags and floor mats.

Table 4-2
Static-Shielding Materials

Material	Use	Voltage Protection Level
Antistatic plastic	Bags	1,500 V
Carbon-loaded plastic	Floor mats	7,500 V
Metallized laminate	Floor mats	5,000 V

5

Removal and Replacement Procedures

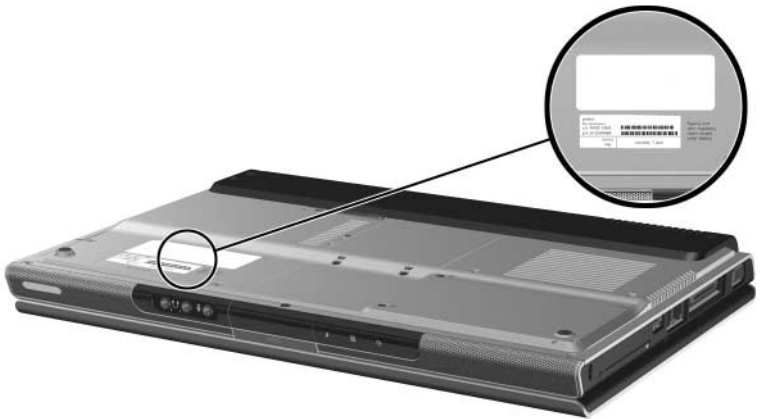
This chapter provides removal and replacement procedures.

There are 58 screws, in 7 different sizes, that must be removed, replaced, or loosened when servicing the notebook. Make special note of each screw size and location during removal and replacement.

Refer to [Appendix C, “Screw Listing,”](#) for detailed information on screw sizes, locations, and usage.

5.1 Serial Number


Report the notebook serial number to HP when requesting information or ordering spare parts. The serial number is located on the bottom of the notebook.



Serial Number Location

5.2 Disassembly Sequence Chart

Use the chart below to determine the section number to be referenced when removing notebook components.

Disassembly Sequence Chart		
Section	Description	# of Screws Removed
5.3	Preparing the notebook for disassembly	
	Battery pack	0
	Hard drive	2 to remove hard drive 4 to disassemble hard drive
5.4	Notebook feet	0
5.5	Memory module	2 loosened
5.6	Mini PCI communications card	1 loosened
	 To prevent an unresponsive system and the display of a warning message, install only a Mini PCI device authorized for use in your notebook by the governmental agency that regulates wireless devices in your country. If you install a device and then receive a warning message, remove the device to restore notebook functionality. Then contact Customer Care.	
5.7	Optical drive	1
5.8	Switch cover	HP Pavilion dv1000 = 3 HP Compaq nx4800 and Compaq Presario V2000 = 2
5.9	Keyboard	HP Pavilion dv1000 = 2 HP Compaq nx4800 and Compaq Presario V2000 = 4

Disassembly Sequence Chart (*Continued*)

Section	Description	# of Screws Removed
5.10	Display assembly	4
5.11	Base enclosure	HP Pavilion dv1000 = 19 HP Compaq nx4800 and Compaq Presario V2000 = 18
5.12	USB/S-Video controller board	2
5.13	Speaker assembly	0
5.14	RTC battery	0
5.15	Menu control button board	4
5.16	Heat sink	3
5.17	Fan	2
5.18	Processor	0
5.19	System board	4
5.20	LED board	HP Pavilion dv1000 = 3 HP Compaq nx4800 and Compaq Presario V2000 = 2

5.3 Preparing the Notebook for Disassembly

Before you begin any removal or installation procedures:

1. Shut down the notebook. If you are unsure whether the notebook is off or in Hibernation, turn the computer on, and then shut it down through the operating system.
2. Disconnect all external devices connected to the notebook.
3. Disconnect the power cord.

Spare Part Number Information

Battery packs

12-cell, 8.8-AHr	367760-001
6-cell, 4.4-AHr	367759-001

4. Remove the battery pack by following these steps:
 - a. Turn the notebook upside down with the front panel toward you.
 - b. Slide and hold the battery release latch ❶ to the left. (The front edge of the battery pack disengages from the notebook.)
 - c. Lift the front edge of the battery pack up and swing it back ❷.
 - d. Remove the battery pack.



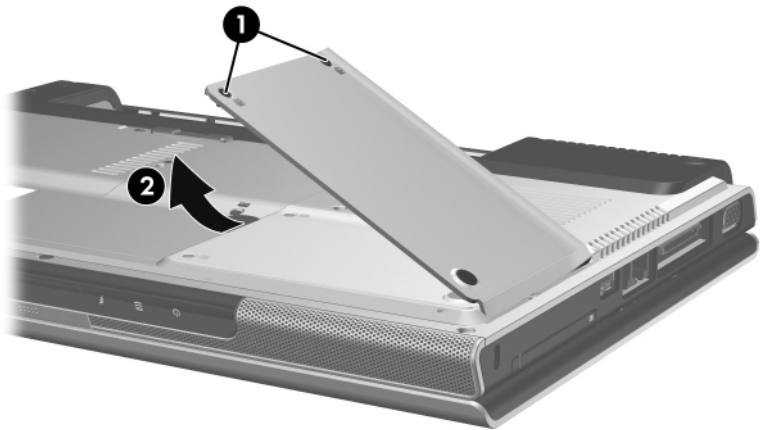
Removing the Battery Pack

Reverse the above procedure to install the battery pack.

5. Remove the hard drive by following these steps:
 - a. Loosen the 2 PM2.0x5.0 screws **1** that secure the hard drive cover to the notebook.
 - b. Lift the left side of the cover and swing it to the right **2**.
 - c. Remove the hard drive cover.



The hard drive cover is included in the Miscellaneous Plastics Kits, spare part numbers 367765-001 (for use on HP Pavilion dv1000 notebook models) and 367766-001 (for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models).



Removing the Hard Drive Cover

Spare Part Number Information

Hard drives (include frame and connector)

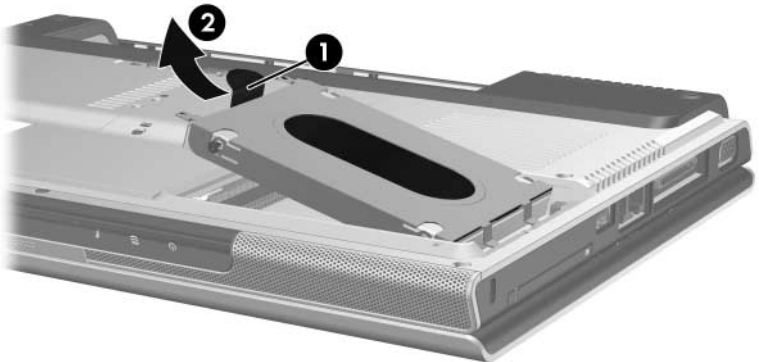
5400-rpm

80-GB	377651-001
60-GB	375980-001

4200-rpm

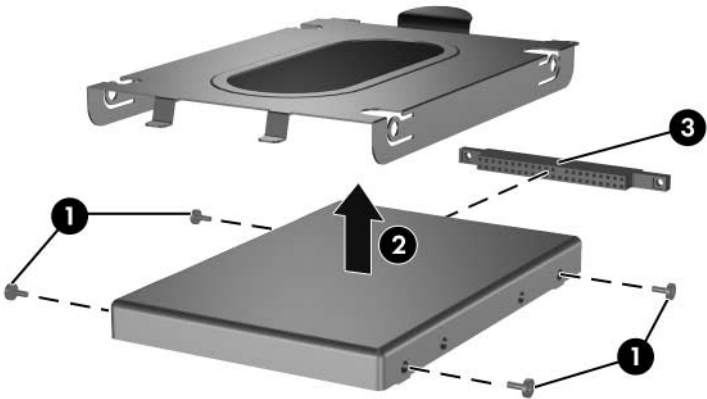
100-GB	381721-001
80-GB	367788-001
60-GB	367787-001
40-GB	367786-001

- d. Use the mylar tab **1** on the right side of the hard drive to lift the right side of the hard drive up **2** until it disconnects from the notebook.
- e. Slide the hard drive to the right and remove it from the hard drive bay.



Removing the Hard Drive

- f. Remove the 4 PM2.5×4.0 screws **1** that secure the hard drive frame to the hard drive.
- g. Lift the frame straight up **2** to remove it from the hard drive.
- h. Slide the hard drive connector **3** off the hard drive.

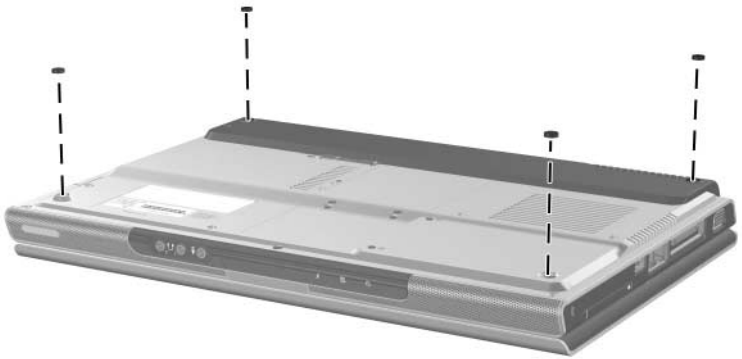


Removing the Hard Drive Frame and Connector

Reverse the above procedure to install and reassemble the hard drive.

5.4 Notebook Feet

The notebook feet are adhesive-backed rubber pads. The feet are included in the Miscellaneous Plastics Kits, spare part numbers 367765-001 (for use on HP Pavilion dv1000 notebook models) and 367766-001 (for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models). The feet attach to the base enclosure as illustrated below.



Replacing the Notebook Feet

5.5 Memory Module

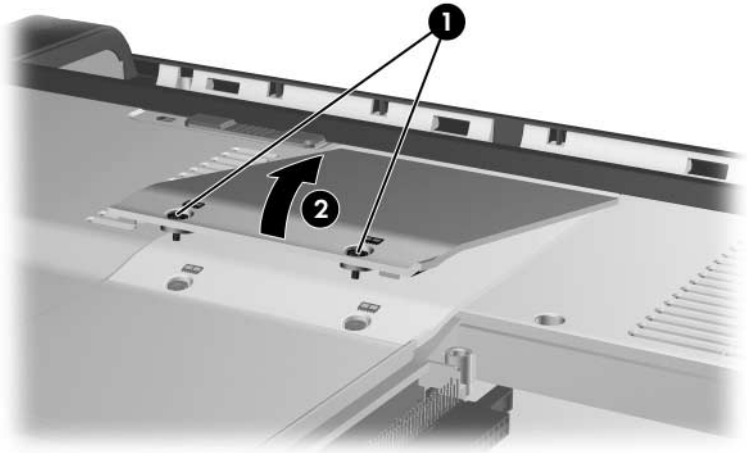
Spare Part Number Information

1024-MB	367775-001
512-MB	367774-001
256-MB	367773-001
128-MB	373056-001

1. Prepare the notebook for disassembly (refer to [Section 5.3](#)).
2. Loosen the 2 PM2.0×5.0 screws ❶ that secure the memory module compartment cover to the notebook.
3. Lift the front edge of the memory module compartment cover up and swing it back ❷.
4. Remove the memory module compartment cover.



The memory module compartment cover is included in the Miscellaneous Plastics Kits, spare part numbers 367765-001 (for use on HP Pavilion dv1000 notebook models) and 367766-001 (for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models).

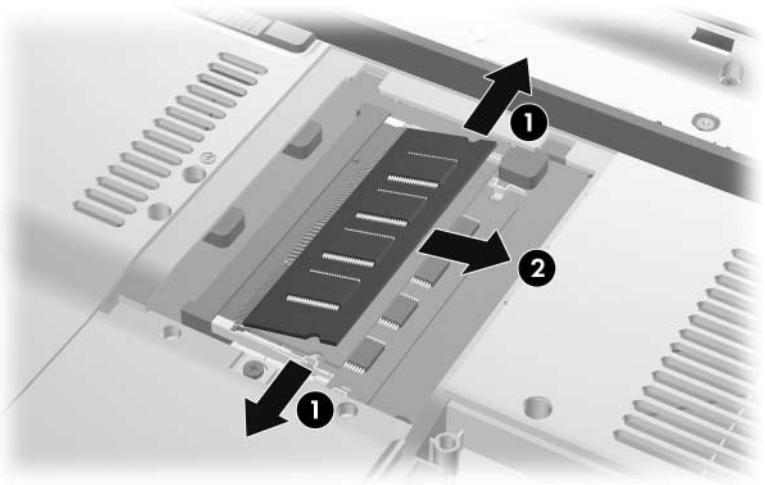


Removing the Memory Module Compartment Cover

5. Spread the retaining tabs **1** on each side of the memory module socket to release the memory module. (The right side of the module rises away from the notebook.)
6. Slide the module away from the socket at an angle **2**.



Note that memory modules are slotted to prevent incorrect installation into the memory module socket.



Removing the Memory Module

Reverse the above procedure to install a memory module.

5.6 Mini PCI Communications Card

Spare Part Number Information

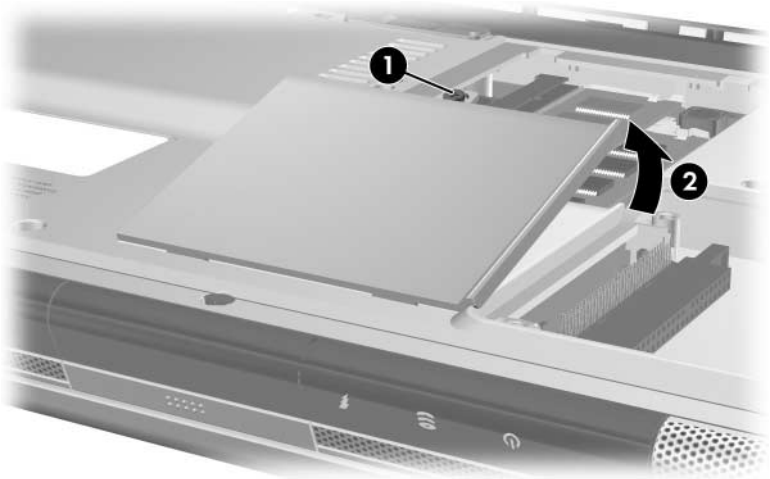
802.11b/g Broadcom (MOW)	373047-001
802.11b/g Broadcom (ROW)	373048-001
802.11b/g Broadcom (Japan, for use only on HP Compaq nx4800 notebook models)	373061-291
802.11b Intel (MOW)	373023-001
802.11b Intel (ROW)	373024-001
802.11b/g Intel (MOW)	373026-001
802.11b/g Intel (ROW)	373025-001
Bluetooth® Wireless LAN	376651-001

1. Prepare the notebook for disassembly ([Section 5.3](#)).

2. Loosen the PM2.0×5.0 screw ❶ that secures the Mini PCI compartment cover to the notebook.
3. Lift the rear edge of the Mini PCI compartment cover up, and then swing it forward ❷.
4. Remove the Mini PCI compartment cover.



The Mini PCI compartment cover is included in the Miscellaneous Plastics Kits, spare part numbers 367765-001 (for use on HP Pavilion dv1000 notebook models) and 367766-001 (for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models).

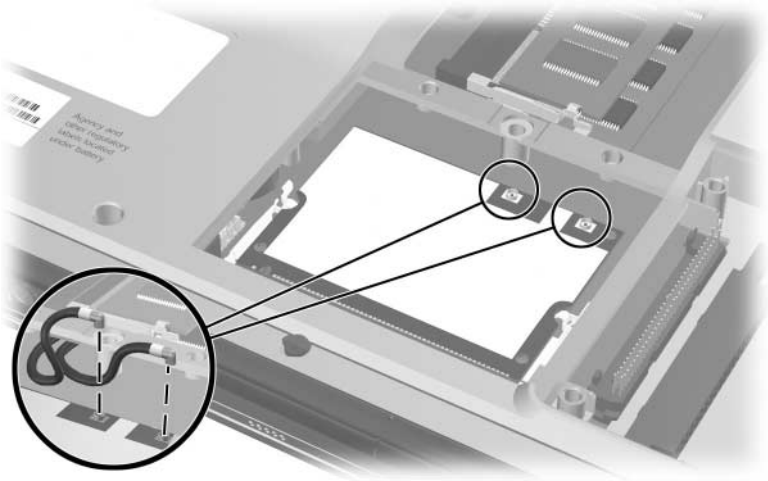


Removing the Mini PCI Compartment Cover



Make note of which wireless antenna cable is attached to which antenna clip on the Mini PCI communications card before disconnecting the cables.

5. Disconnect the wireless antenna cables ❶ from the Mini PCI communications card.
6. Spread the 2 retaining tabs ❷ that secure the Mini PCI communications card to the communications compartment socket. (The board rises up).
7. Remove the wireless communications card by pulling the board away from the socket at a 45-degree angle ❸.



Removing a Mini PCI Communications Card

Reverse the above procedure to install a Mini PCI communications card.

5.7 Optical Drive

Spare Part Number Information

For use on HP Pavilion dv1000 notebook models

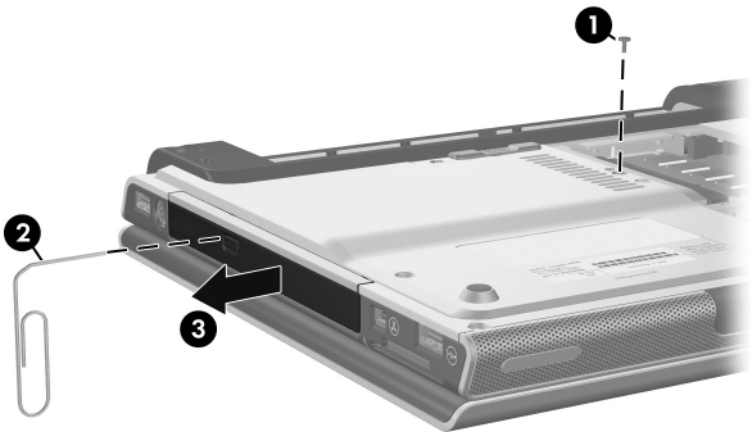
8X DVD-ROM Drive	367789-001
24X DVD/CD-RW Combo Drive	367790-001
4X DVD+RW/R and CD-RW Combo Drive	373625-001
4X DVD±RW/R and CD-RW Combo Drive	375981-001
8X DVD±RW/R and CD-RW Combo Drive	375983-001

For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models

8X DVD-ROM Drive	373524-001
24X DVD/CD-RW Combo Drive	373525-001
4X DVD+RW/R and CD-RW Combo Drive	373626-001
4X DVD±RW/R and CD-RW Combo Drive	375982-001
8X DVD±RW/R and CD-RW Combo Drive	375984-001

1. Prepare the notebook for disassembly ([Section 5.3](#)).

2. Remove the PM2.0x7.0 screw ❶ that secures the optical drive to the notebook.
3. Insert a thin tool, such as a paper clip, into the media tray release hole ❷. (The optical drive media tray releases from the optical drive.)
4. Use the media tray frame to slide the optical drive to the left ❸.
5. Remove the optical drive.



Removing the Optical Drive

Reverse the above procedure to install an optical drive.

5.8 Switch Cover

Spare Part Number Information

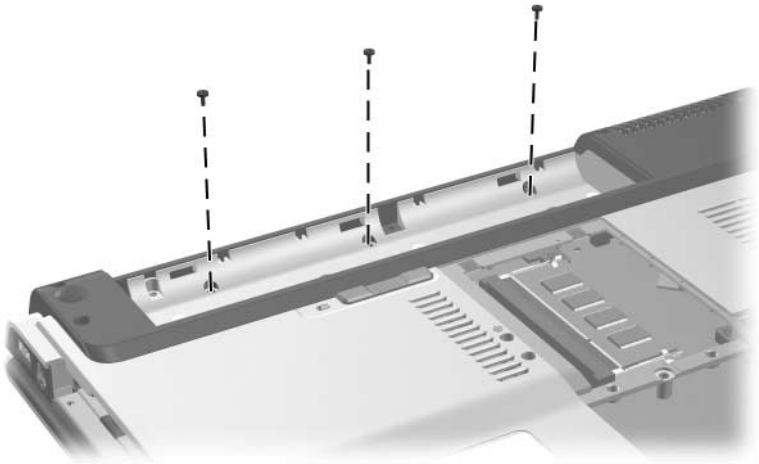
For use on HP Pavilion dv1000 notebook models with wireless capability	367781-001
For use on HP Pavilion dv1000 notebook models without wireless capability	367780-001
For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and Memory Reader with wireless capability	367782-001
For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and Memory Reader without wireless capability	367779-001
For use on Compaq Presario V2000 notebook models without a 1394 port, S-Video-out jack, expansion port, and Memory Reader	373532-001

1. Prepare the notebook for disassembly ([Section 5.3](#)).
2. Position the notebook with the rear panel toward you.



Steps 3 through 9 apply only to HP Pavilion dv1000 notebook models. See steps 10 through 14 in this section for information on removing the switch cover on HP Compaq nx4800 and Compaq Presario V2000 notebook models.

3. Remove the 3 PM2.0x4.0 screws that secure the switch cover to the notebook.



Removing the Switch Cover Screws, HP Pavilion dv1000 Notebook Models Only

4. Turn the notebook display-side up with the front panel toward you.
5. Open the notebook as far as possible.
6. Insert a flat-blade screwdriver under the outside edges of the display hinge covers.
7. Lift up on the outside edges of the hinge covers **1** until the switch cover disengages **2** from the notebook.



Releasing the Switch Cover, HP Pavilion dv1000 Notebook Models Only

8. Swing the rear edge of the switch cover forward.



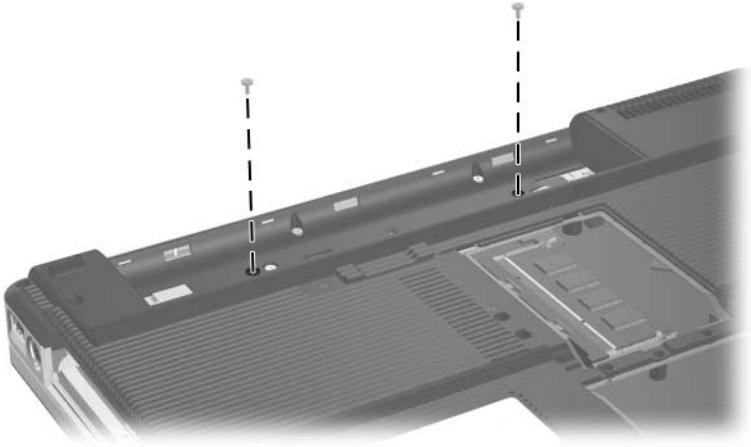
Removing the Switch Cover, HP Pavilion dv1000 Notebook Models Only

9. Remove the switch cover.



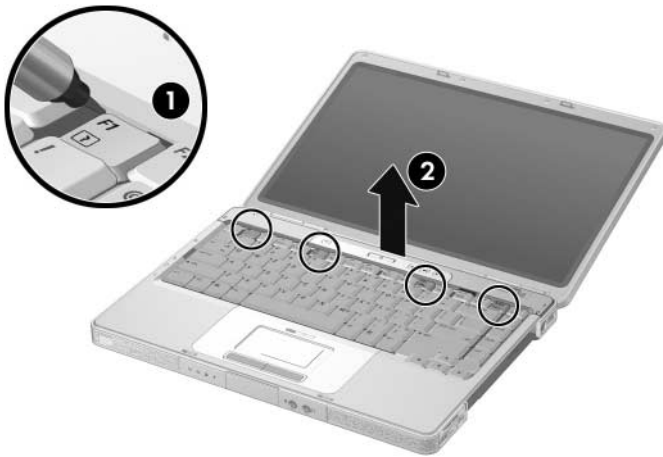
Steps 10 through 14 apply only to HP Compaq nx4800 and Compaq Presario V2000 notebook models.

10. Remove the 2 PM2.0x4.0 screws that secure the switch cover to the notebook.



Removing the Switch Cover Screws, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

11. Turn the notebook display-side up with the front panel toward you.
12. Open the notebook as far as possible.
13. Insert a flat-blade screwdriver into the slots located behind the **F1**, **F5**, **F11**, and **insert** keys ❶ and lift up on the front edge of the switch cover ❷ until it disengages from the notebook.
14. Remove the switch cover.



Removing the Switch Cover, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

Reverse the above procedure to install the switch cover.

5.9 Keyboard

Spare Part Number Information

For use on HP Pavilion dv1000 notebook models

Belgium	367778-A41	Norway	367778-091
Denmark	367778-081	Portugal	367778-131
France	367778-051	Saudi Arabia	367778-171
French Canada	367778-121	Spain	367778-071
Germany	367778-041	Sweden/Finland	367778-B71
Greece	367778-DJ1	Switzerland	367778-111
Israel	367778-BB1	Taiwan	367778-AB1
Italy	367778-061	Thailand	367778-281
Korea	367778-AD1	United Kingdom	367778-031
Latin America	367778-161	Asia Pacific, Australia, Hong Kong, People's Republic of China, and the United States	367778-001
Europe and the Netherlands	367778-331		

For use on HP Compaq nx4800 notebook models

Japan	367777-291
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For use on Compaq Presario V2000 notebook models

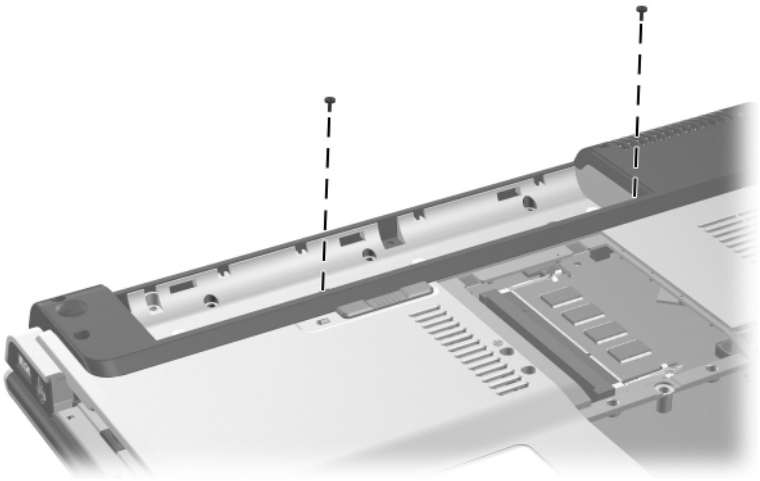
Korea	367777-AD1	Asia Pacific, Australia, Hong Kong, People's Republic of China, and the United States	367777-001
Latin America	367777-161		
Taiwan	367777-AB1		
Thailand	367777-281		

1. Prepare the notebook for disassembly ([Section 5.3](#)).
2. Remove the optical drive ([Section 5.7](#)).
3. Remove the switch cover ([Section 5.8](#)).
4. Close the notebook.
5. Turn the notebook upside down with the rear panel toward you.



Steps 6 through 11 apply only to HP Pavilion dv1000 notebook models. See steps 12 through 15 in this section for information on removing the keyboard on HP Compaq nx4800 and Compaq Presario V2000 notebook models.

6. Remove the 2 PM2.0×4.0 screws that secure the keyboard to the notebook.



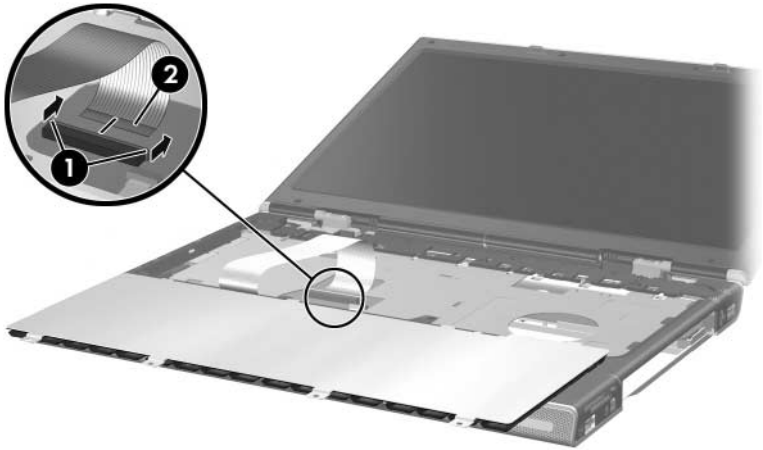
Removing the Keyboard Screws, HP Pavilion dv1000 Notebook Models Only

7. Turn the notebook display-side up with the front panel toward you.
8. Open the notebook as far as possible.
9. Lift the rear edge of the keyboard and swing it forward until it rests on the palm rest.



Releasing the Keyboard, HP Pavilion dv1000 Notebook Models Only

10. Release the zero insertion force (ZIF) connector **1** to which the keyboard cable is connected and disconnect the keyboard cable **2** from the system board.



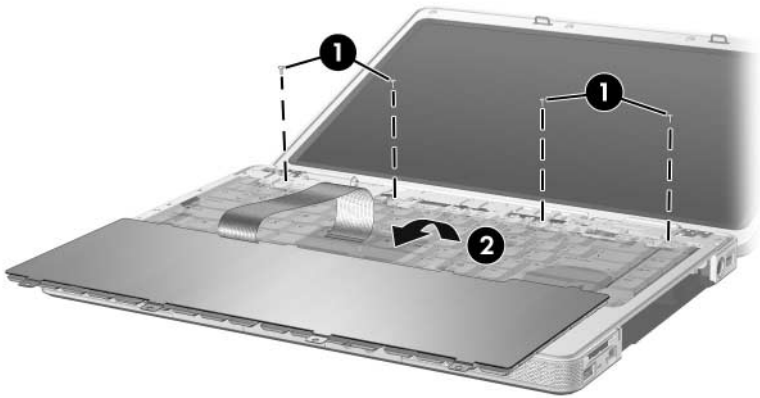
Disconnecting the Keyboard Cable, HP Pavilion dv1000 Notebook Models Only

11. Remove the keyboard.



Steps 12 through 15 apply only to HP Compaq nx4800 and Compaq Presario V2000 notebook models.

12. Remove the 4 PM2.0x3.0 screws **1** that secure the keyboard to the notebook.
13. Swing the rear edge of the keyboard up and forward **2** until it rests on the palm rest.



Releasing the Keyboard, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

14. Release the ZIF connector **1** to which the keyboard cable is connected and disconnect the keyboard cable **2** from the system board.



Disconnecting the Keyboard Cable, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

15. Remove the keyboard.

Reverse the above procedure to install the keyboard.

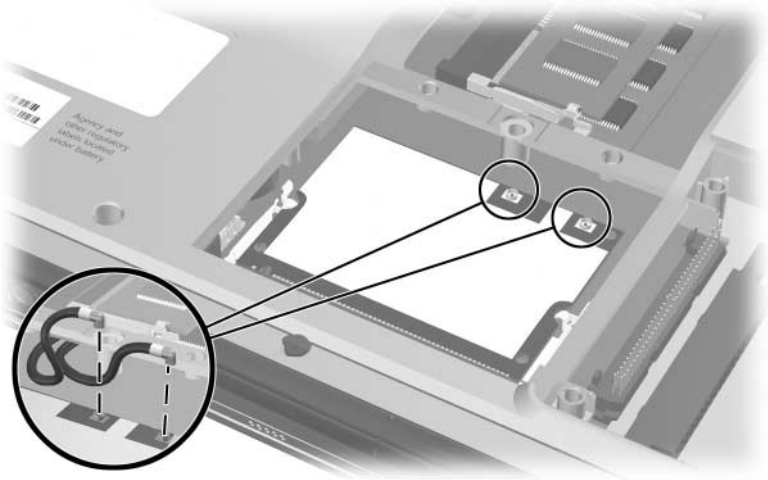
5.10 Display Assembly

Spare Part Number Information

For use on HP Pavilion dv1000 notebook models	
14.0-inch, WXGA, SVA with Brightview	373054-001
14.0-inch, WXGA	367783-001
For use on HP Compaq nx4800 notebook models	
14.0-inch, WXGA, SVA with Brightview	373060-001
14.0-inch, WXGA	373528-001
For use on Compaq Presario V2000 notebook models	
14.0-inch, WXGA, SVA with Brightview	373055-001
14.0-inch, WXGA	367784-001
Left and right display hinge covers and brackets	
For use on HP Pavilion dv1000 notebook models	382077-001
for use on HP Compaq nx4800 and Compaq Presario notebook models	382078-001
Wireless antenna cables (not illustrated)	376082-001

1. Prepare the notebook for disassembly ([Section 5.3](#)).
2. Remove the memory module compartment ([Section 5.5](#)) and Mini PCI compartment covers ([Section 5.6](#)).

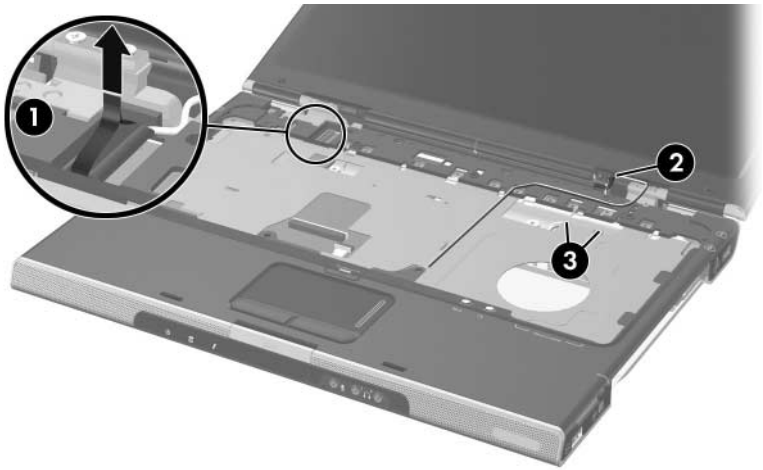
3. Disconnect the wireless antenna cables from the Mini PCI communications card.



Disconnecting the Wireless Antenna Cables

4. Remove the wireless antenna cables from the Mini PCI and memory module compartments.
5. Remove the switch cover ([Section 5.8](#)).
6. Remove the keyboard ([Section 5.9](#)).
7. Turn the notebook display-side up with the front panel toward you.
8. Open the display as far as possible.

9. Disconnect the display cable from the system board ❶.
10. Remove the tape ❷ that secures the wireless antenna cables to the top cover.
11. Remove the cables from the clips ❸ in the top cover.



Disconnecting the Display Cable and Removing the Wireless Antenna Cables

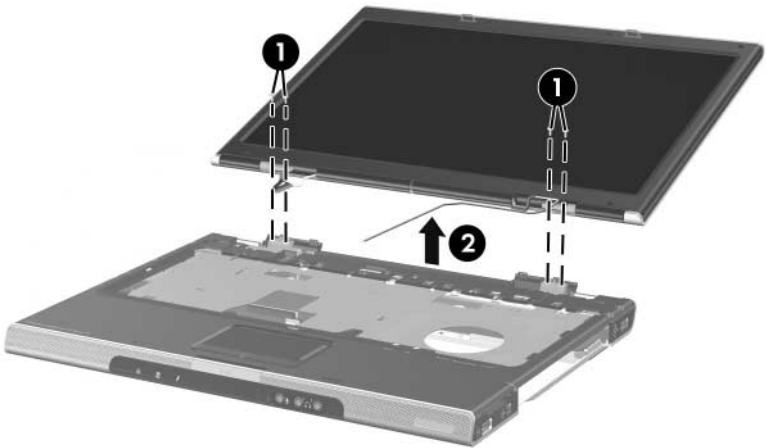


Steps 12 and 13 apply only to HP Pavilion dv1000 notebook models. See steps 14 and 15 in this section for information on removing the display assembly on HP Compaq nx4800 and Compaq Presario V2000 notebook models.



CAUTION: Support the display assembly when removing the following screws. Failure to support the display assembly can result in damage to the display assembly and other notebook components.

12. Remove the 4 PM2.0x7.0 round head screws ❶ that secure the display assembly to the notebook.
13. Remove the display assembly ❷.



Removing the Display Assembly, HP Pavilion dv1000 Notebook Models Only

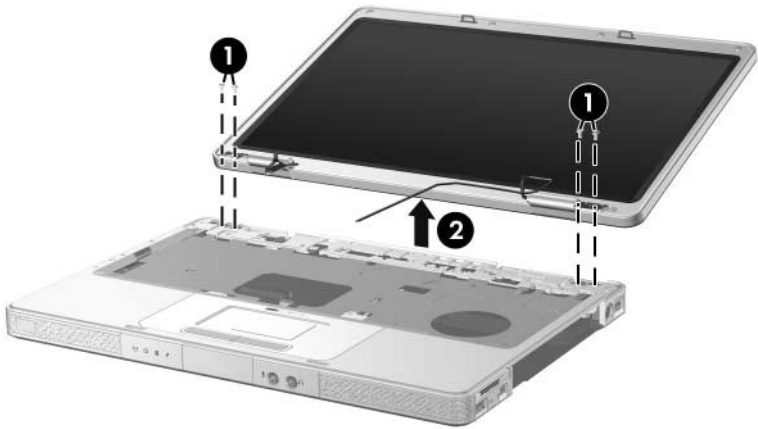


Steps 14 and 15 apply only to HP Compaq nx4800 and Compaq Presario V2000 notebook models.



CAUTION: Support the display assembly when removing the following screws. Failure to support the display assembly can result in damage to the display assembly and other notebook components.

14. Remove the 4 PM2.0x5.0 screws ❶ that secure the display assembly to the notebook.
15. Remove the display assembly ❷.



Removing the Display Assembly, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

Reverse the above procedure to install the display assembly

5.11 Base Enclosure

Spare Part Number Information

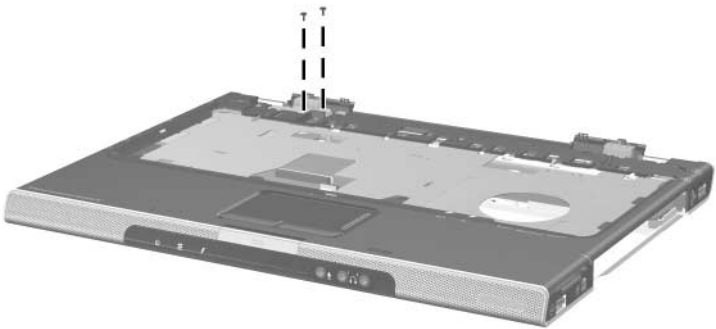
For use on HP Pavilion dv1000 notebook models	367763-001
For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	367764-001

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))



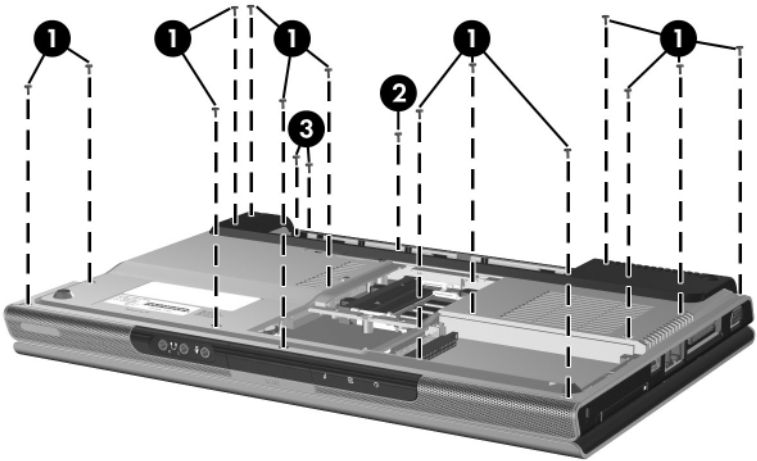
Steps 2 through 7 apply only to HP Pavilion dv1000 notebook models. See steps 8 and 9 in this section for information on removing the base enclosure on HP Compaq nx4800 and Compaq Presario V2000 notebook models.

2. Remove the 2 PM2.0x7.0 screws that secure the base enclosure to the notebook



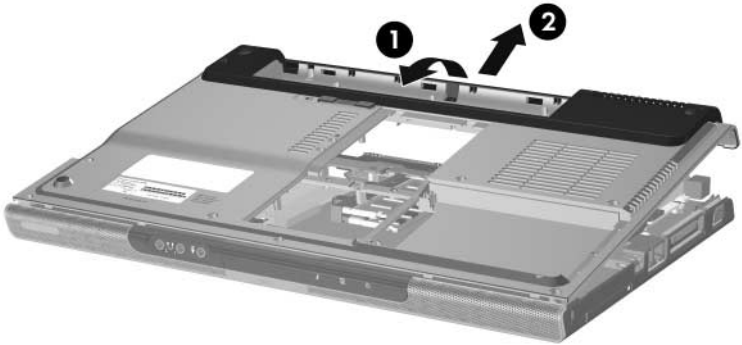
Removing the Base Enclosure Screws, Part 1, HP Pavilion dv1000 Notebook Models Only

3. Turn the notebook upside down with the front panel toward you.
4. Remove the following:
 - ❑ 14 PM2.0×7.0 screws ❶
 - ❑ 1 PM2.0×5.0 screw ❷
 - ❑ 2 PM2.0×4.0 screws ❸



Removing the Base Enclosure Screws, Part 2, HP Pavilion dv1000 Notebook Models Only

5. Swing the rear edge of the base enclosure straight up and forward ① until it rests at an angle.
6. Slide the base enclosure back at an angle ②.
7. Remove the base enclosure.



Removing the Base Enclosure, HP Pavilion dv1000 Notebook Models Only

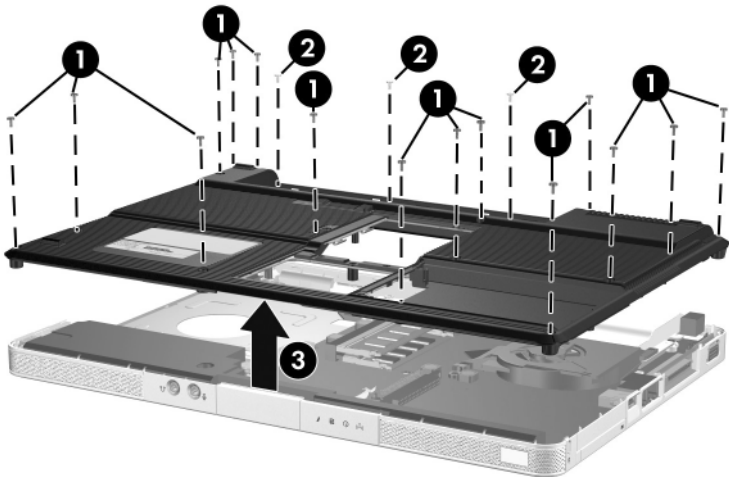


Steps 8 and 9 apply only to HP Compaq nx4800 and Compaq Presario V2000 notebook models.

8. Remove the following:

- ❑ 15 PM2.0×7.0 screws ❶
- ❑ 3 PM2.0×4.0 screws ❷

9. Lift the base enclosure straight up and remove it ❸.



Removing the Base Enclosure, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

Reverse the above procedure to install the base enclosure.

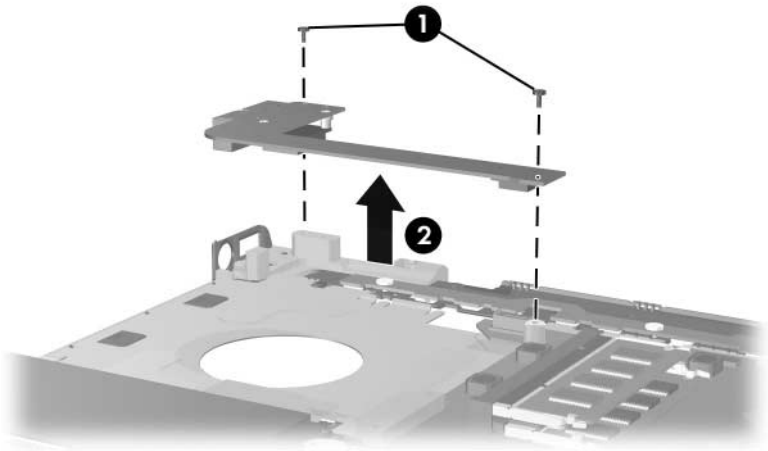
5.12 USB/S-Video Controller Board

Spare Part Number Information

For use on HP Pavilion dv1000 notebook models and HP Compaq nx4800 and Compaq Presario V2000 notebook models with a 1394 port, S-Video-out jack, expansion port, and digital memory card reader	367794-001
For use only on Compaq Presario V2000 notebook models without a 1394 port, S-Video-out jack, expansion port, and Memory Reader	373533-001

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))
 - ❑ Base enclosure ([Section 5.11](#))

2. Remove the 2 PM2.0×4.0 screws ❶ that secure the USB/S-Video controller board to the top cover.
3. Lift up on the right side of the board ❷ to disconnect it from the system board.
4. Remove the USB/S-Video controller board.



Removing the USB/S-Video Controller Board

Reverse the above procedure to install the USB/S-Video controller board.

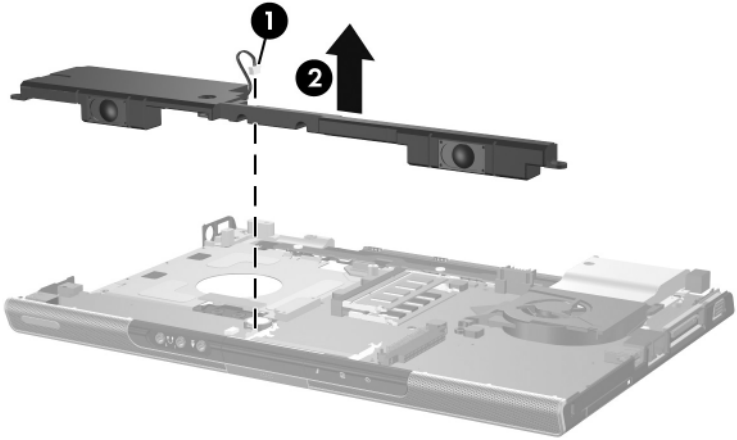
5.13 Speaker Assembly

Spare Part Number Information

For use on HP Pavilion dv1000 notebook models	367793-001
For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	374625-001

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))
 - ❑ Base enclosure ([Section 5.11](#))

2. Disconnect the speaker cable ❶ from the system board.
3. Lift the speaker straight up to remove it from the top cover ❷.



Removing the Speaker Assembly

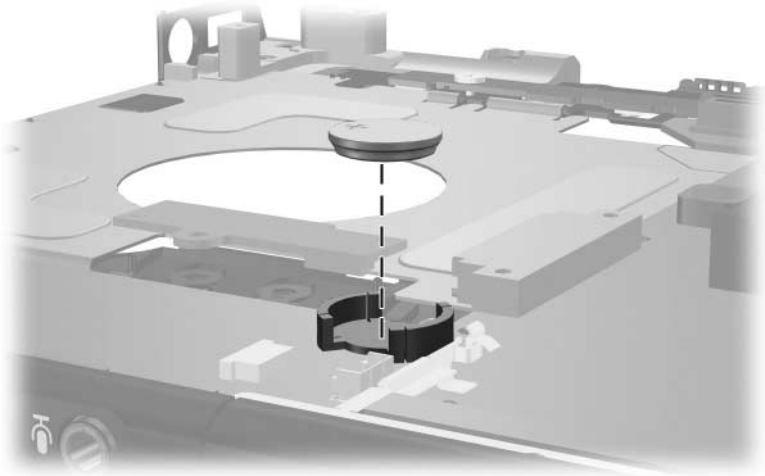
Reverse the above procedure to install the speaker assembly.

5.14 RTC Battery



The RTC battery is included with the system board. Refer to [Section 5.19, “System Board,”](#) for more information.

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))
 - ❑ Base enclosure ([Section 5.11](#))
2. Remove the RTC battery from the socket on the system board.



Removing the RTC Battery

Reverse the above procedure to install the RTC battery.

5.15 Menu Control Button Board



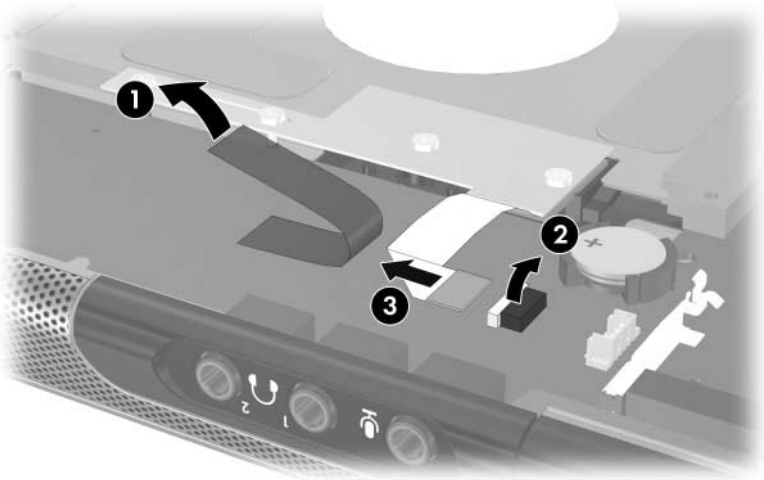
This section applies only to HP Pavilion dv1000 notebook models.

Spare Part Number Information

Menu control button board (includes bracket and cable, for use only on HP Pavilion dv1000 notebook models) 373535-001

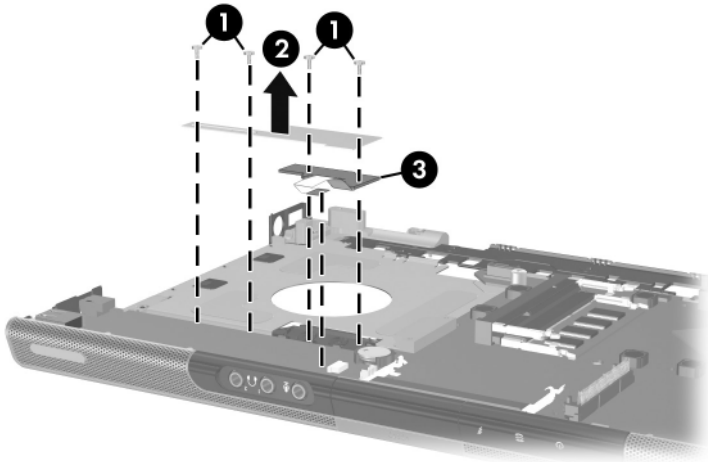
1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - Optical drive ([Section 5.7](#))
 - Switch cover ([Section 5.8](#))
 - Keyboard ([Section 5.9](#))
 - Display assembly ([Section 5.10](#))
 - Base enclosure ([Section 5.11](#))
2. Position the top cover with the front panel toward you.

3. Remove the tape that secures the menu control button board cable to the system board ❶.
4. Release the ZIF connector ❷ to which the menu control button board cable is connected and disconnect the cable ❸.



Disconnecting the Menu Control Button Board Cable

5. Remove the 4 PM2.0×3.0 screws ❶ that secure the menu control button board and shield to the top cover.
6. Remove the menu control button board shield ❷ and board ❸.



Removing the Menu Control Button Board and Shield

Reverse the above procedure to install the menu control button board and shield.

5.16 Heat Sink

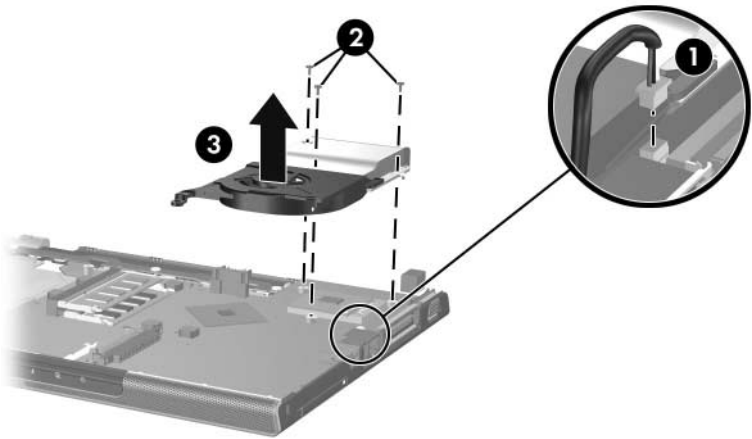
Spare Part Number Information

Heat sink (includes thermal pad)

367796-001

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))
 - ❑ Base enclosure ([Section 5.11](#))
2. Turn the notebook upside down with the front panel toward you.

3. Disconnect the fan cable from the system board ❶.
4. Remove the 3 PM2.0×4.0 screws ❷ that secure the heat sink to the top cover.
5. Remove the heat sink ❸.



Removing the Heat Sink

Reverse the above procedure to install the heat sink.

5.17 Fan

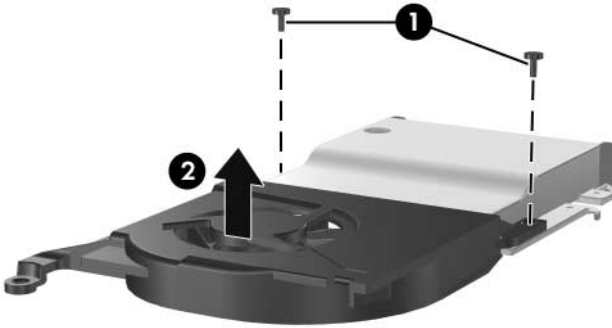
Spare Part Number Information

Fan (includes thermal pad)

367795-001

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))
 - ❑ Base enclosure ([Section 5.11](#))
 - ❑ Heat sink ([Section 5.16](#))
2. Turn the heat sink upside down with the front panel toward you.

3. Remove the 2 PM2.0x4.0 screws ❶ that secure the fan to the heat sink.
4. Remove the fan ❷.



Removing the Fan

Reverse the above procedure to install the fan.

5.18 Processor

Spare Part Number Information

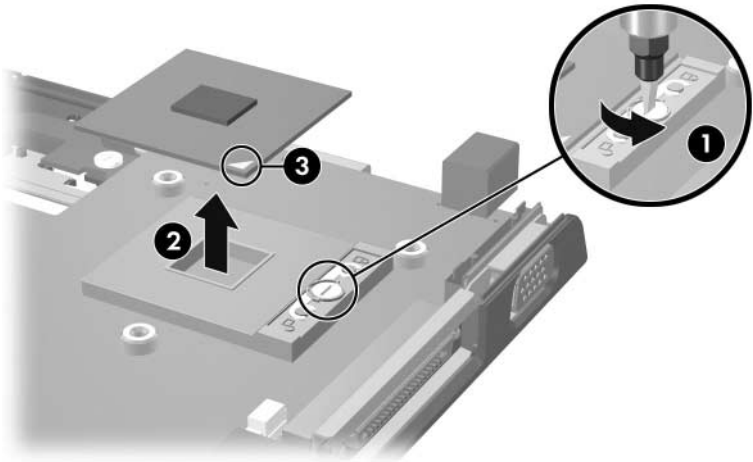
Intel Pentium M 745 (1.8-GHz) with 400-MHz FSB	373053-001
Intel Pentium M 735 (1.7-GHz) with 400-MHz FSB	373052-001
Intel Pentium M 725 (1.6-GHz) with 400-MHz FSB	367771-001
Intel Pentium M 715A (1.5-GHz) with 400-MHz FSB	380690-001
Intel Pentium M 705 (1.5-GHz) with 400-MHz FSB	375979-001
Intel Pentium M 710 (1.4-GHz) with 400-MHz FSB	376588-001
Intel Celeron M 340 (1.5-GHz) with 400-MHz FSB	367768-001
Intel Celeron M 360 (1.4-GHz) with 400-MHz FSB	380033-001
Intel Celeron M 330 (1.4-GHz) with 400-MHz FSB	367767-001
Intel Celeron M 350 (1.3-GHz) with 400-MHz FSB	380032-001
Intel Celeron M 320 (1.3-GHz) with 400-MHz FSB	374874-001

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))
 - ❑ Base enclosure ([Section 5.11](#))
 - ❑ Heat sink ([Section 5.16](#))

2. Turn the processor locking screw **1** 1/4-turn counterclockwise until you feel a click.
3. Lift the processor **2** straight up and remove it.



Note that the gold triangle **3** on the processor should be aligned in the front right corner when you install the processor.



Removing the Processor

Reverse the above procedure to install a processor.

5.19 System Board

Spare Part Number Information

For use on HP Pavilion dv1000 notebook models with Intel Pentium M processors	367799-001
For use on HP Pavilion dv1000 notebook models with Intel Celeron M processors	367800-001
For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models with Intel Pentium M processors	373522-001
For use on Compaq Presario V2000 notebook models with Intel Celeron M processors	373523-001



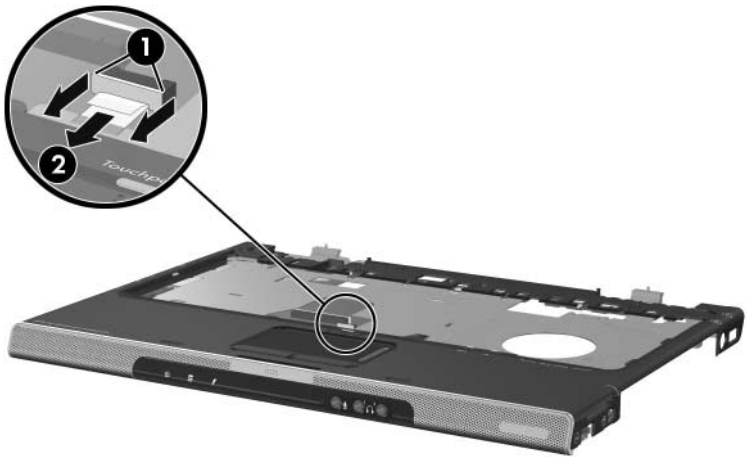
All system board spares kits include a disk cell RTC battery.



When replacing the system board, ensure that the following components are removed from the defective system board and installed on the replacement system board:

- Memory modules ([Section 5.5](#))
 - Mini PCI communications card ([Section 5.6](#))
 - RTC battery ([Section 5.14](#))
 - Menu control button board ([Section 5.15](#))
 - Heat sink ([Section 5.16](#))
 - Processor ([Section 5.18](#))
-

1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - ❑ Optical drive ([Section 5.7](#))
 - ❑ Switch cover ([Section 5.8](#))
 - ❑ Keyboard ([Section 5.9](#))
 - ❑ Display assembly ([Section 5.10](#))
 - ❑ Base enclosure ([Section 5.11](#))
 - ❑ USB/S-Video controller board ([Section 5.12](#))
 - ❑ Speaker assembly ([Section 5.13](#))
2. Turn the top cover right side up with the front panel toward you.
3. Release the ZIF connector **1** to which the TouchPad cable is connected and disconnect the cable **2** from the system board.



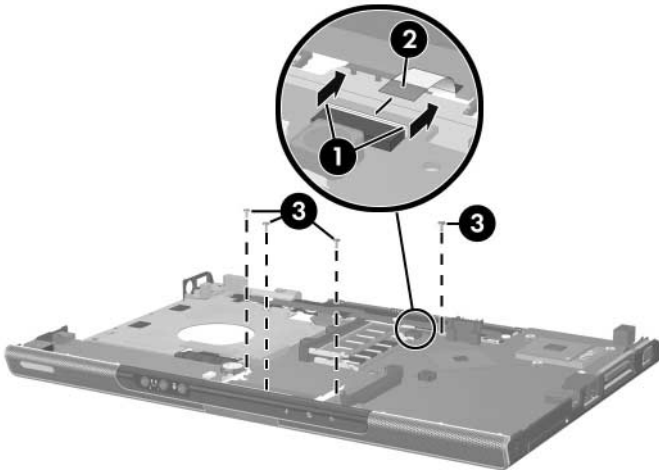
Disconnecting the TouchPad Cable

4. Turn the top cover upside down with the front panel toward you.



Steps 5 and 6 apply only to HP Pavilion dv1000 notebook models. See steps 7 and 8 in this section for information on removing the system board on HP Compaq nx4800 and Compaq Presario V2000 notebook models.

5. Release the ZIF connector **1** to which the LED board cable is connected and disconnect the cable **2** from the system board.
6. Remove the 4 PM2.0x4.0 screws **3** that secure the system board to the top cover.

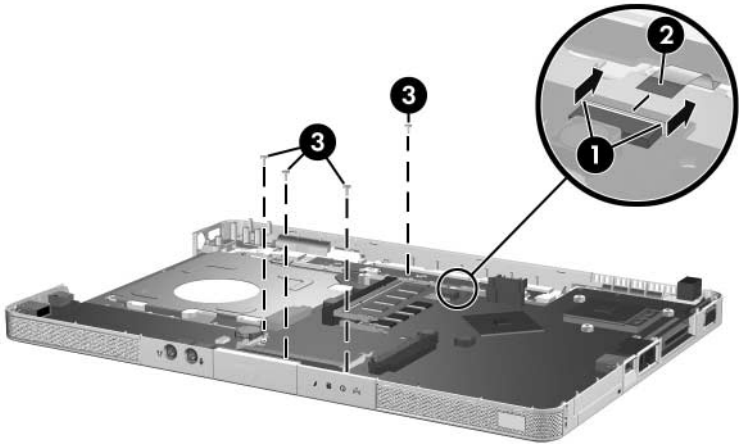


Disconnecting the LED Board Cable and Removing the System Board Screws, HP Pavilion dv1000 Notebook Models Only



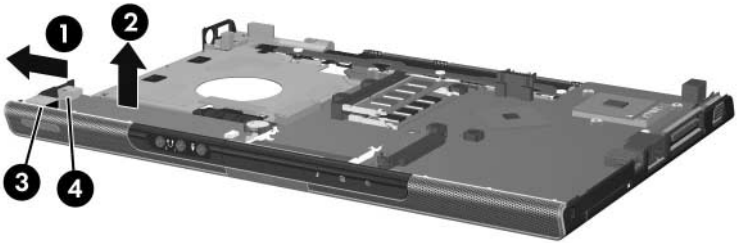
Steps 7 and 8 apply only to HP Compaq nx4800 and Compaq Presario V2000 notebook models.

7. Release the ZIF connector **1** to which the LED board cable is connected and disconnect the cable **2** from the system board.
8. Remove the 4 PM2.0x4.0 screws **3** that secure the system board to the top cover.



Disconnecting the LED Board Cable and Removing the System Board Screws, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

9. Flex and hold the left edge of the top cover to the left **1**.
10. Lift the left side of the system board **2** until the USB **3** and 1394 connectors **4** are clear.



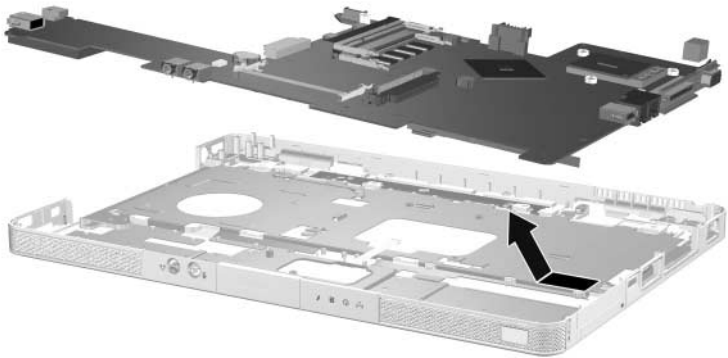
Releasing the System Board, Part 1

11. Flex and hold the front edge of the top cover forward **1**.
12. Lift the front of the system board **2** until the audio connectors **3** are clear.



Releasing the System Board, Part 2

13. Slide the system board to the left at an angle and remove it from the top cover.



Removing the System Board

Reverse the above procedure to install the system board.

5.20 LED Board

Spare Part Number Information

For use on HP Pavilion dv1000 notebook models	367797-001
For use on HP Compaq nx4800 and Compaq Presario V2000 notebook models	367798-001

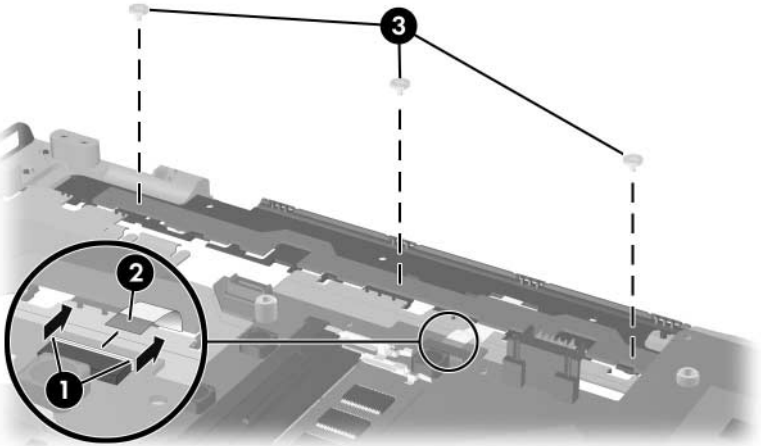


1. Prepare the notebook for disassembly ([Section 5.3](#)) and remove the following components:
 - Optical drive ([Section 5.7](#))
 - Switch cover ([Section 5.8](#))
 - Keyboard ([Section 5.9](#))
 - Display assembly ([Section 5.10](#))
 - Base enclosure ([Section 5.11](#))
 - USB/S-Video controller board ([Section 5.12](#))
 - Speaker assembly ([Section 5.13](#))
 - System board ([Section 5.19](#))
2. Turn the notebook upside down with the front panel toward you.



Steps 3 and 4 apply only to HP Pavilion dv1000 notebook models. See steps 5 and 6 in this section for information on removing the LED board on HP Compaq nx4800 and Compaq Presario V2000 notebook models.

3. Release the ZIF connector **1** to which the LED board cable is connected and disconnect the cable **2** from the system board.
4. Remove the 3 PM1.5×2.0 screws **3** that secure the LED board to the top cover.

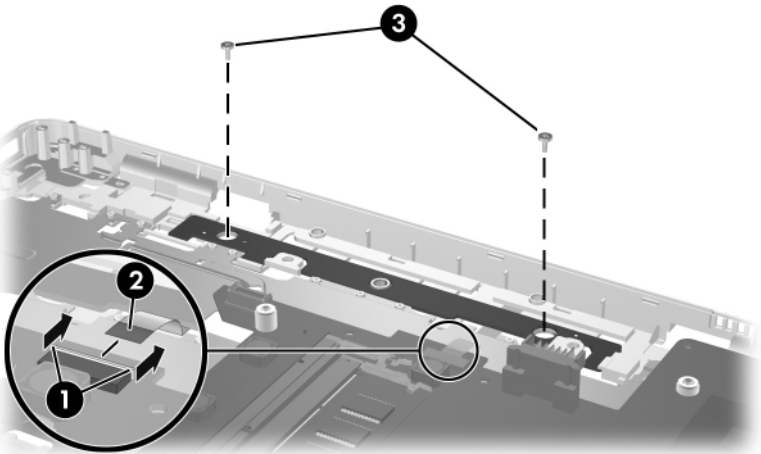


Removing the LED Board Screws, HP Pavilion dv1000 Notebook Models Only



Steps 5 and 6 apply only to HP Compaq nx4800 and Compaq Presario V2000 notebook models.

5. Release the ZIF connector **1** to which the LED board cable is connected and disconnect the cable **2** from the system board.
6. Remove the 2 PM2.0x3.0 screws **3** that secure the LED board to the top cover.



Removing the LED Board Screws, HP Compaq nx4800 and Compaq Presario V2000 Notebook Models Only

7. Remove the LED board.

Reverse the above procedure to install the LED board.

Specifications

This chapter provides physical and performance specifications.

Table 6-1
Notebook

Dimensions

HP Pavilion dv1000

Height (varies from front to back)	3.01 cm to 3.86 cm	1.19 in to 1.52 in
Width	23.46 cm	9.24 in
Depth	33.40 cm	13.15 in

HP Compaq nx4800 and Compaq Presario V2000

Height (varies from front to back)	3.29 cm to 3.89 cm	1.30 in to 1.53 in
Width	23.06 cm	9.08 in
Depth	33.40 cm	13.15 in

Weight (varies by configuration)

HP Pavilion dv1000	2.44 kg	5.38 lb
HP Compaq nx4800 and Compaq Presario V2000	2.39 kg	5.26 lb

Stand-alone power requirements

Nominal operating voltage	14.8 V dc
Peak operating power	60.0 W

Table 6-1
Notebook (Continued)


Temperature		
Operating*	10°C to 35°C	50°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F
Relative humidity (noncondensing)		
Operating	10% to 90%	
Nonoperating	5% to 95%, 38.7°C (101.6°F) maximum wet bulb temperature	
Maximum altitude (unpressurized)		
Operating (14.7 to 10.1 psia)	-15 m to 3,048 m	-50 ft to 10,000 ft
Nonoperating (14.7 to 4.4 psia)	-15 m to 12,192 m	-50 ft to 40,000 ft
Shock		
Operating	125 g, 2 ms, half-sine	
Nonoperating	200 g, 2 ms, half-sine	
Random Vibration		
Operating	0.75 g zero-to-peak, 10 Hz to 500 Hz, 0.25 oct/min sweep rate	
Nonoperating	1.50 g zero-to-peak, 10 Hz to 500 Hz, 0.5 oct/min sweep rate	
	Applicable product safety standards specify thermal limits for plastic surfaces. The notebook operates well within this range of temperatures.	
* For HP Compaq nx4800 only:		
Operating (not writing to optical disc)	0°C to 35°C	32°F to 95°F
Operating (writing to optical disc)	5°C to 35°C	41°F to 95°F
Nonoperating	-20°C to 60°C	-4°F to 140°F

Table 6-2
14.0-inch, WXGA, SVA Display

Dimensions		
Height	27.94 cm	11.0 in
Width	20.83 cm	8.2 in
Diagonal	35.56 cm	14.0 in
Number of colors	Up to 16.8 million	
Contrast ratio	250:1	
Brightness	180 nits typical	
Pixel resolution		
Pitch	0.279 × 0.279 mm	
Format	1280 × 768	
Configuration	RGB vertical stripe	
Backlight	Edge lit	
Character display	80 × 25	
Total power consumption	4 W	
Viewing angle	+/-40° horizontal, +20/-40° vertical typical	

Table 6-3
Hard Drives


	80-GB	60-GB	60-GB	40-GB
Dimensions				
Height	9.5 mm	9.5 mm	9.5 mm	9.5 mm
Width	70 mm	70 mm	70 mm	70 mm
Weight	99 g	102 g	99 g	99 g
Interface type	ATA-5	ATA-5	ATA-5	ATA-5
Transfer rate				
Synchronous (maximum)	100 MB/sec	100 MB/sec	100 MB/sec	100 MB/sec
Security	ATA security	ATA security	ATA security	ATA security
Seek times (typical read, including setting)				
Single track	3 ms	3 ms	3 ms	3 ms
Average	13 ms	13 ms	13 ms	13 ms
Maximum	24 ms	24 ms	24 ms	24 ms
Logical blocks [†]	156,301,488	117,210,240	117,210,240	78,140,160
Disk rotational speed	5400 rpm	5400 rpm	4200 rpm	4200 rpm
Operating temperature	5°C to 55°C (41°F to 131°F)			
 Certain restrictions and exclusions apply. Consult Customer Care for details.				
*1 GB = 1 billion bytes when referring to hard drive storage capacity. Accessible capacity is less.				
[†] Actual drive specifications may differ slightly.				

Table 6-4
Primary 6-cell, Li-Ion Battery Pack

Dimensions

Height	2.00 cm	0.79 in
Width	9.40 cm	3.70 in
Depth	13.40 cm	5.28 in
Weight	0.34 kg	0.75 lb

Energy

Voltage	11.1 V
Amp-hour capacity	4.4 Ah
Watt-hour capacity	48 Wh

Temperature

Operating	5°C to 45°C	41°F to 113°F
Nonoperating	0°C to 60°C	32°F to 140°F

Table 6-5
24X DVD/CD-RW Combo Drive

Applicable disk	Read:	Write:
	DVD-R, DVD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), CD-ROM (Mode 1 and 2) CD Digital Audio CD-XA ready (Mode 2, Form 1 and 2) CD-I ready (Mode 2, Form 1 and 2) CD-R, CD-RW Photo CD (single and multisession) CD-Bridge	CD-R and CD-RW
Center hole diameter	1.5 cm (0.59 in)	
Disk diameter		
Standard disc	12 cm (4.72 in)	
Mini disc	8 cm (3.15 in)	

Table 6-5
24X DVD/CD-RW Combo Drive (Continued)

Disk thickness	1.2 mm (0.047 in)	
Track pitch	0.74 μ m	
Access time	CD media	DVD media
Random	< 110 ms	< 130 ms
Full stroke	< 210 ms	< 225 ms
Audio output level	Line-out, 0.7 V rms	
Cache buffer	2 MB	
Data transfer rate		
CD-R (24X)	3600 KB/s (150 KB/s at 1X CD rate)	
CD-RW (10X)	1500 KB/s (150 KB/s at 1X CD rate)	
CD-ROM (24X)	3600 KB/s (150 KB/s at 1X CD rate)	
DVD (8X)	10,800 KB/s (1352 KB/s at 1X DVD rate)	
Multiword DMA mode 2	16.6 MB/s	
Startup time	< 15 seconds	
Stop time	< 6 seconds	

Table 6-6
4X DVD+RW/R and CD-RW Combo Drive

Applicable disk	Read:	Write:
	DVD-R, DVD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), CD-ROM (Mode 1 and 2) CD Digital Audio CD-XA ready (Mode 2, Form 1 and 2) CD-I ready (Mode 2, Form 1 and 2) CD-R, CD-RW Photo CD (single and multisession) CD-Bridge	CD-R and CD-RW DVD-R and DVD-RW
Center hole diameter	1.5 cm (0.59 in)	
Disk diameter		
Standard disc	12 cm (4.72 in)	
Mini disc	8 cm (3.15 in)	

Table 6-6
4X DVD+RW/R and CD-RW Combo Drive (Continued)

Disk thickness	1.2 mm (0.047 in)	
Track pitch	0.74 μ m	
Access time	CD media	DVD media
Random	< 175 ms	< 230 ms
Full stroke	< 285 ms	< 335 ms
Audio output level	Audio-out, 0.7 Vrms	
Cache buffer	2 MB	
Data transfer rate		
CD-R (16X)	2,400 KB/s (150 KB/s at 1X CD rate)	
CD-RW (8X)	1,200 KB/s (150 KB/s at 1X CD rate)	
CD-ROM (24X)	3,600 KB/s (150 KB/s at 1X CD rate)	
DVD (8X)	10,800 KB/s (1,352 KB/s at 1X DVD rate)	
DVD-R (4X)	5,400 KB/s (1,352 KB/s at 1X DVD rate)	
DVD-RW (2X)	2,700 KB/s (1,352 KB/s at 1X DVD rate)	
Multiword DMA mode 2	16.6 MB/s	
Startup time	< 15 seconds	
Stop time	< 6 seconds	

Table 6-7
4X DVD±RW/R and CD-RW Combo Drive

Applicable disk	Read:	Write:
	DVD-R, DVD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), CD-ROM (Mode 1 and 2) CD Digital Audio CD-XA ready (Mode 2, Form 1 and 2) CD-I ready (Mode 2, Form 1 and 2) CD-R, CD-RW Photo CD (single and multisession) CD-Bridge	CD-R and CD-RW DVD-R and DVD-RW
Center hole diameter	1.5 cm (0.59 in)	
Disk diameter		
Standard disc	12 cm (4.72 in)	
Mini disc	8 cm (3.15 in)	

Table 6-7
4X DVD±RW/R and CD-RW Combo Drive (Continued)

Disk thickness	1.2 mm (0.047 in)	
Track pitch	0.74 μ m	
Access time	CD	DVD
Random	< 175 ms	< 230 ms
Full stroke	< 285 ms	< 335 ms
Audio output level	Audio-out, 0.7 Vrms	
Cache buffer	2 MB	
Data transfer rate		
CD-R (16X)	2,400 KB/s (150 KB/s at 1X CD rate)	
CD-RW (8X)	1,200 KB/s (150 KB/s at 1X CD rate)	
CD-ROM (24X)	3,600 KB/s (150 KB/s at 1X CD rate)	
DVD (8X)	10,800 KB/s (1,352 KB/s at 1X DVD rate)	
DVD-R (4X)	5,400 KB/s (1,352 KB/s at 1X DVD rate)	
DVD-RW (2X)	2,700 KB/s (1,352 KB/s at 1X DVD rate)	
Multiword DMA mode 2	16.6 MB/s	
Startup time	< 15 seconds	
Stop time	< 6 seconds	

Table 6-8
8X DVD±RW/R and CD-RW Combo Drive

Applicable disk	Read:	Write:
	DVD-R, DVD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), CD-ROM (Mode 1 and 2) CD Digital Audio CD-XA ready (Mode 2, Form 1 and 2) CD-I ready (Mode 2, Form 1 and 2) CD-R, CD-RW Photo CD (single and multisession) CD-Bridge	CD-R and CD-RW DVD-R and DVD-RW
Center hole diameter	1.5 cm (0.59 in)	
Disk diameter		
Standard disc	12 cm (4.72 in)	
Mini disc	8 cm (3.15 in)	

Table 6-8
8X DVD±RW/R and CD-RW Combo Drive (Continued)

Disk thickness	1.2 mm (0.047 in)	
Track pitch	0.74 μm	
Access time	CD	DVD
Random	< 175 ms	< 230 ms
Full stroke	< 285 ms	< 335 ms
Audio output level	Audio-out, 0.7 Vrms	
Cache buffer	2 MB	
Data transfer rate		
CD-R (16X)	2,400 KB/s (150 KB/s at 1X CD rate)	
CD-RW (8X)	1,200 KB/s (150 KB/s at 1X CD rate)	
CD-ROM (24X)	3,600 KB/s (150 KB/s at 1X CD rate)	
DVD (8X)	10,800 KB/s (1,352 KB/s at 1X DVD rate)	
DVD-R (4X)	5,400 KB/s (1,352 KB/s at 1X DVD rate)	
DVD-RW (2X)	2,700 KB/s (1,352 KB/s at 1X DVD rate)	
Multiword DMA mode 2	16.6 MB/s	
Startup time	< 15 seconds	
Stop time	< 6 seconds	

Table 6-9
8X Max DVD-ROM Drive

Applicable disk	DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18) CD-ROM (Mode 1 and 2) CD Digital Audio CD-XA ready (Mode 2, Form 1 and 2) CD-I ready (Mode 2, Form 1 and 2) CD-R CD-RW Photo CD (single and multisession) CD-Bridge
Center hole diameter	1.5 cm (0.59 in)
Disk diameter	
Standard disc	12 cm (4.72 in)
Mini disc	8 cm (3.15 in)
Disk thickness	1.2 mm (0.047 in)

Table 6-9
8X Max DVD-ROM Drive (Continued)

Track pitch	0.74 μm	
Access time	CD media	DVD media
Random	< 100 ms	< 125 ms
Full stroke	< 175 ms	< 225 ms
Audio output level	Line-out, 0.7 V rms	
Cache buffer	512 KB	
Data transfer rate		
CD-R (24X)	3600 KB/s (150 KB/s at 1X CD rate)	
CD-RW (10X)	1500 KB/s (150 KB/s at 1X CD rate)	
CD-ROM (24X)	3600 KB/s (150 KB/s at 1X CD rate)	
DVD (8X)	10,800 KB/s (1352 KB/s at 1X DVD rate)	
Multiword DMA mode 2	16.6 MB/s	
Startup time	< 10 seconds	
Stop time	< 3 seconds	

Table 6-10
System DMA

Hardware DMA	System Function
DMA0	n/a
DMA1*	n/a
DMA2*	n/a
DMA3	n/a
DMA4	Direct memory access controller
DMA5*	Available for PC Card
DMA6	Not assigned
DMA7	Not assigned

*PC Card controller can use DMA 1, 2, or 5.

Table 6-11
System Interrupts

Hardware IRQ	System Function
IRQ0	System timer
IRQ1	Standard 101-/102-Key or Microsoft Natural Keyboard
IRQ2	Cascaded
IRQ3	Intel 82801DB/DBM USB2 Enhanced Host Controller—24CD
IRQ4	COM1
IRQ5*	Conexant AC—Link Audio Intel 82801DB/DBM SMBus Controller—24C3 Data Fax Modem with SmartCP
IRQ6	Diskette drive
IRQ7*	Parallel port
IRQ8	System CMOS/real time clock
IRQ9*	Microsoft ACPI-compliant system
IRQ10*	Intel USB UHCI controller—24C2 Intel 82852/82855 GM/GME Graphic Controller Realtek RTL8139 Family PCI fast Ethernet Controller

*Default configuration; audio possible configurations are IRQ5, IRQ7, IRQ9, IRQ10, or none.

Table 6-11
System Interrupts (Continued)


Hardware IRQ	System Function
IRQ11	Intel USB EHCI controller—24CD Intel USB UHCI controller—24C4 Intel USB UHCI controller—24C7 Intel Pro/Wireless 2200BG TI OHCI 1394 host controller TI PCI1410 cardbus controller
IRQ12	Synaptics PS/2 touch pad
IRQ13	Numeric data processor
IRQ14	Primary IDE channel
IRQ15	Secondary IDE channel
 PC Cards may assert IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10, IRQ11, or IRQ15. Either the infrared or the serial port may assert IRQ3 or IRQ4.	

Table 6-12
System I/O Addresses

I/O Address (hex)	System Function (shipping configuration)
000 - 00F	DMA controller no. 1
010 - 01F	Unused
020 - 021	Interrupt controller no. 1
022 - 024	Opti chipset configuration registers
025 - 03F	Unused
02E - 02F	87334 "Super I/O" configuration for CPU
040 - 05F	Counter/timer registers
044 - 05F	Unused
060	Keyboard controller
061	Port B
062 - 063	Unused
064	Keyboard controller
065 - 06F	Unused
070 - 071	NMI enable/RTC
072 - 07F	Unused
080 - 08F	DMA page registers
090 - 091	Unused
092	Port A
093 - 09F	Unused
0A0 - 0A1	Interrupt controller no. 2

Table 6-12
System I/O Addresses (Continued)

I/O Address (hex)	System Function (shipping configuration)
0A2 - 0BF	Unused
0C0 - 0DF	DMA controller no. 2
0E0 - 0EF	Unused
0F0 - 0F1	Coprocessor busy clear/reset
0F2 - 0FF	Unused
100 - 16F	Unused
170 - 177	Secondary fixed disk controller
178 - 1EF	Unused
1F0 - 1F7	Primary fixed disk controller
1F8 - 200	Unused
201	Joystick (decoded in ESS1688)
202 - 21F	Unused
220 - 22F	Entertainment audio
230 - 26D	Unused
26E - 26	Unused
278 - 27F	Unused
280 - 2AB	Unused
2A0 - 2A7	Unused
2A8 - 2E7	Unused
2E8 - 2EF	Reserved serial port

Table 6-12
System I/O Addresses (Continued)

I/O Address (hex)	System Function (shipping configuration)
2F0 - 2F7	Unused
2F8 - 2FF	Infrared port
300 - 31F	Unused
320 - 36F	Unused
370 - 377	Secondary diskette drive controller
378 - 37F	Parallel port (LPT1/default)
380 - 387	Unused
388 - 38B	FM synthesizer—OPL3
38C - 3AF	Unused
3B0 - 3BB	VGA
3BC - 3BF	Reserved (parallel port/no EPP support)
3C0 - 3DF	VGA
3E0 - 3E1	PC Card controller in CPU
3E2 - 3E3	Unused
3E8 - 3EF	Internal modem
3F0 - 3F7	“A” diskette controller
3F8 - 3FF	Serial port (COM1/default)
CF8 - CFB	PCI configuration index register (PCIDIVO-1)
CFC - CFF	PCI configuration data register (PCIDIVO-1)

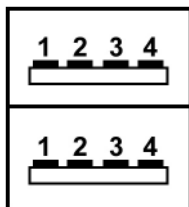
Table 6-13
System Memory Map

Size	Memory Address	System Function
640 KB	00000000-0009FFFF	Base memory
128 KB	000A0000-000BFFFF	Video memory
48 KB	000C0000-000CBFFF	Video BIOS
160 KB	000C8000-000E7FFF	Unused
64 KB	000E8000-000FFFFF	System BIOS
15 MB	00100000-00FFFFFF	Extended memory
58 MB	01000000-047FFFFF	Super extended memory
58 MB	04800000-07FFFFFF	Unused
2 MB	08000000-080FFFFF	Video memory (direct access)
4 GB	08200000-FFFEFFFF	Unused
64 KB	FFFF0000-FFFFFFFF	System BIOS

A

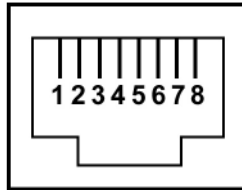
Connector Pin Assignments

Table A-1
Universal Serial Bus



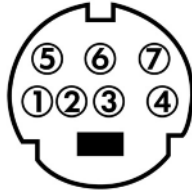
Pin	Signal	Pin	Signal
1	+5 VDC	3	Data +
2	Data -	4	Ground

Table A-2
RJ-45 (Network)



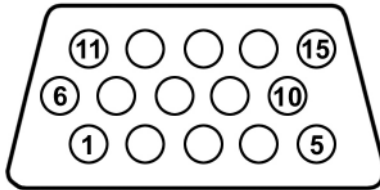
Pin	Signal	Pin	Signal
1	Transmit +	5	Unused
2	Transmit –	6	Receive –
3	Receive +	7	Unused
4	Unused	8	Unused

Table A-3
S-Video-Out



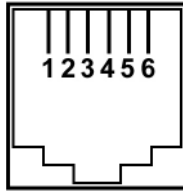
Pin	Signal	Pin	Signal
1	TV-Ground	5	TV-CD
2	TV-CVBS	6	TV-Ground
3	TV-Ground	7	TV-YD
4	TV-Ground		

Table A-4
External Monitor



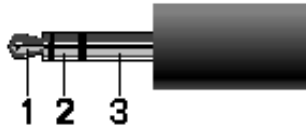
Pin	Signal	Pin	Signal
1	Red analog	9	+5 VDC
2	Green analog	10	Ground
3	Blue analog	11	Monitor detect
4	Not connected	12	DDC 2B data
5	Ground	13	Horizontal sync
6	Ground analog	14	Vertical sync
7	Ground analog	15	DDC 2B clock
8	Ground analog		

Table A-5
RJ-11 (Modem)



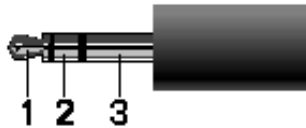
Pin	Signal	Pin	Signal
1	Unused	4	Unused
2	Tip	5	Unused
3	Ring	6	Unused

Table A-6
Audio-In (Microphone)



Pin	Signal	Pin	Signal
1	Audio signal in	3	Ground
2	Audio signal in		

Table A-7
Audio-Out (Headphone)



Pin	Signal	Pin	Signal
1	Audio out, left channel	3	Ground
2	Audio out, right channel		

Power Cord Set Requirements

3-Conductor Power Cord Set

The wide range input feature of the notebook permits it to operate from any line voltage from 100 to 120 or 220 to 240 volts AC.

The power cord set included with the notebook meets the requirements for use in the country where the equipment is purchased.

Power cord sets for use in other countries must meet the requirements of the country where the notebook is used.

General Requirements

The requirements listed below are applicable to all countries.

- The length of the power cord set must be at least 1.5 m (5.0 ft) and a maximum of 2.0 m (6.5 ft).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.
- The power cord sets must have a minimum current capacity of 10 amps and a nominal voltage rating of 125 or 250 V AC, as required by each country's power system.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector for mating with the appliance inlet on the back of the notebook.

Country-Specific Requirements

3-Conductor Power Cord Set Requirements

Country	Accredited Agency	Applicable Note Number
Australia	EANSW	1
Austria	OVE	1
Belgium	CEBC	1
Canada	CSA	2
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1
Italy	IMQ	1
Japan	METI	3
The Netherlands	KEMA	1
Norway	NEMKO	1
Sweden	SEMKO	1
Switzerland	SEV	1

3-Conductor Power Cord Set Requirements (*Continued*)

Country	Accredited Agency	Applicable Note Number
United Kingdom	BSI	1
United States	UL	2

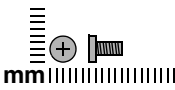


1. The flexible cord must be <HAR> Type HO5VV-F, 3-conductor, 1.0 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country where it will be used.
 2. The flexible cord must be Type SPT-3 or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration.
 3. The appliance coupler, flexible cord, and wall plug must bear a “T” mark and registration number in accordance with the Japanese Dentori Law. The flexible cord must be Type VCT or VCTF, 3-conductor, 1.00 mm² conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V) configuration.
-

Screw Listing

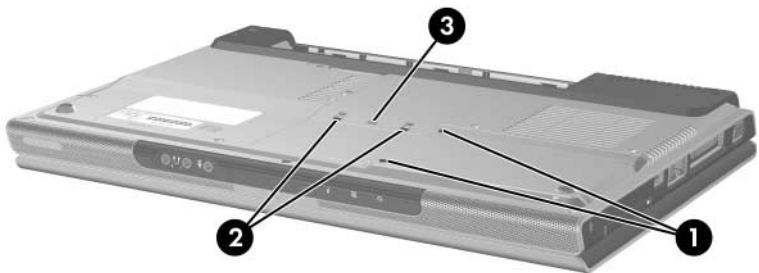
This appendix provides specification and reference information for the screws used in the notebook. All screws listed in this appendix are available in the Miscellaneous Screw Kits, spare part numbers 367776-001 (for use on HP Pavilion dv1000 notebook models) and 373534-001 (for use on HP Compaq nx4800 and Compaq Presario V2000 notebook models).

Table C-1
Phillips PM2.0x5.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Black	10	5.0 mm	2.0 mm	4.0 mm

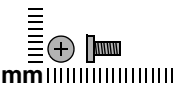
Where used:

- ❶ Two screws that secure the hard drive cover to the notebook (screws are captured on the cover by C clips; documented in [Section 5.3](#))
- ❷ Two screws that secure the memory module compartment cover to the notebook (screws are captured on the cover by C clips; documented in [Section 5.5](#))
- ❸ One screw that secures the Mini PCI compartment cover to the notebook (screw is captured on the cover by C clips; documented in [Section 5.6](#))



Phillips M2.0x5.0 Screw Locations

Table C-1
Phillips PM2.0x5.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	10	5.0 mm	2.0 mm	4.0 mm

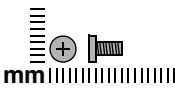
Where used:

4 screws that secure the display assembly on the HP Compaq nx4800 and Compaq Presario V2000 notebook (documented in [Section 5.10](#))



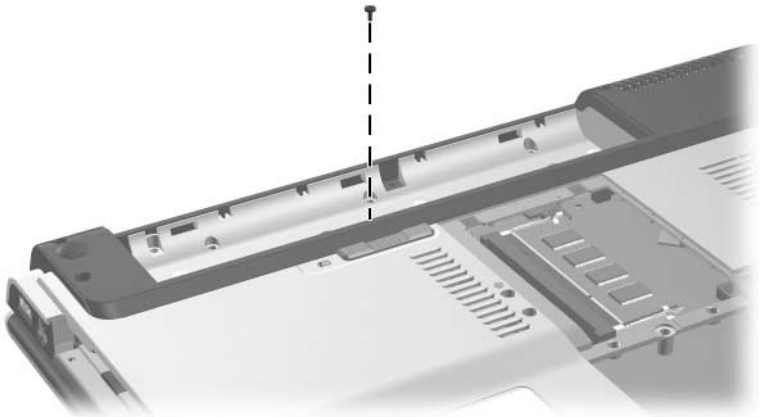
Phillips M2.0x5.0 Screw Locations

Table C-1
Phillips PM2.0x5.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	10	5.0 mm	2.0 mm	4.0 mm

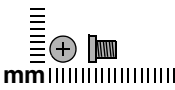
Where used:

1 screw that secures the base enclosure on the HP Pavilion dv1000 notebook (documented in [Section 5.11](#))



Phillips M2.0x5.0 Screw Locations

Table C-2
Phillips PM2.5×4.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Silver	4	4.0 mm	2.5 mm	4.0 mm

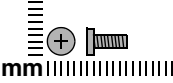
Where used:

4 screws that secure the hard drive frame to the hard drive
 (documented in [Section 5.3](#))



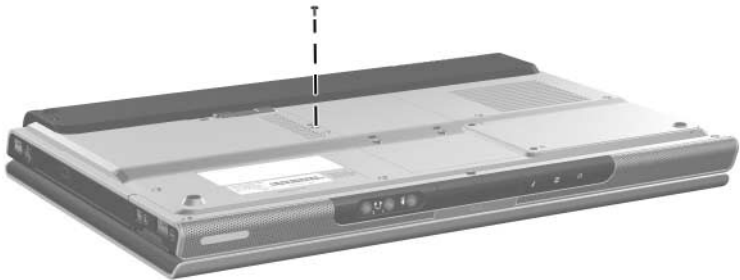
Phillips M2.5×4.0 Screw Locations

Table C-3
Phillips PM2.0×7.0 Screw

	Color	Qty.	Length	Thread	Head Width
	Black	18	7.0 mm	2.0 mm	4.0 mm

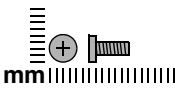
Where used:

1 screw that secures the optical drive to the notebook
(documented in [Section 5.7](#))



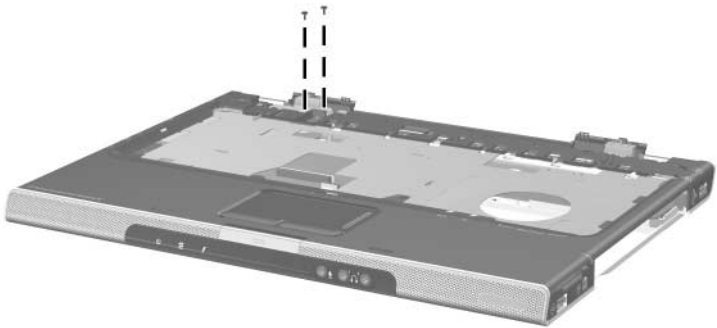
Phillips M2.0×7.0 Screw Locations

Table C-3
Phillips PM2.0x7.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	18	7.0 mm	2.0 mm	4.0 mm

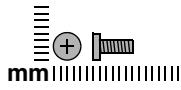
Where used:

2 screws that secure the base enclosure on the HP Pavilion dv1000 notebook (documented in [Section 5.11](#))



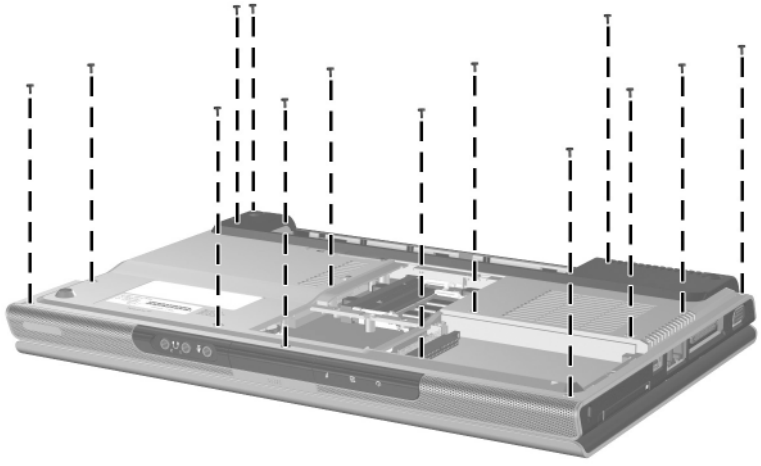
Phillips M2.0x6.0 Screw Locations

Table C-3
Phillips PM2.0x6.0 Screw (Continued)

 mm	Color	Qty.	Length	Thread	Head Width
	Black	18	7.0 mm	2.0 mm	4.0 mm

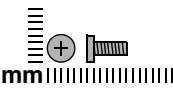
Where used:

14 screws that secure the base enclosure on the HP Pavilion dv1000 notebook (documented in [Section 5.11](#))



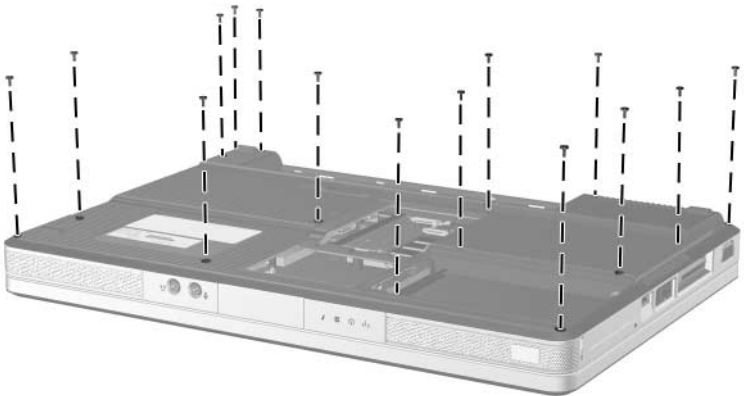
Phillips M2.0x6.0 Screw Locations

Table C-3
Phillips PM2.0×6.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	18	7.0 mm	2.0 mm	4.0 mm

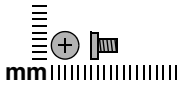
Where used:

15 screws that secure the base enclosure on the HP Compaq nx4800 and Compaq Presario V2000 notebook (documented in [Section 5.11](#))



Phillips M2.0×6.0 Screw Locations

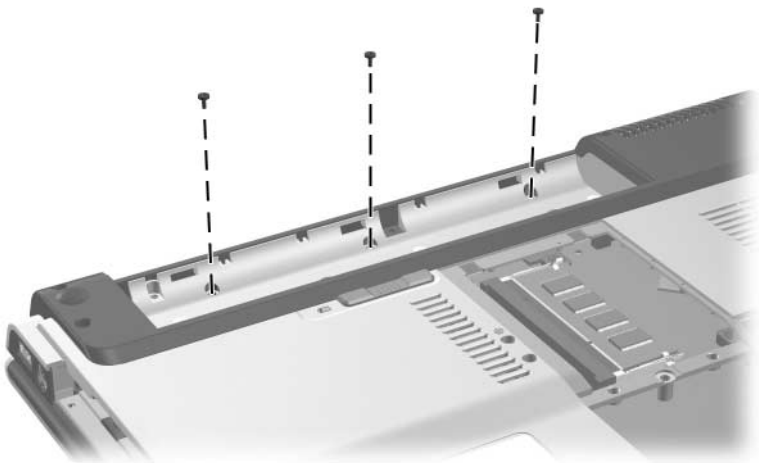
Table C-4
Phillips PM2.0x4.0 Screw



Color	Qty.	Length	Thread	Head Width
Black	19	4.0 mm	2.0 mm	4.0 mm

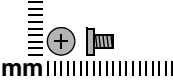
Where used:

3 screws that secure the switch cover on the HP Pavilion dv1000 notebook (documented in [Section 5.8](#))



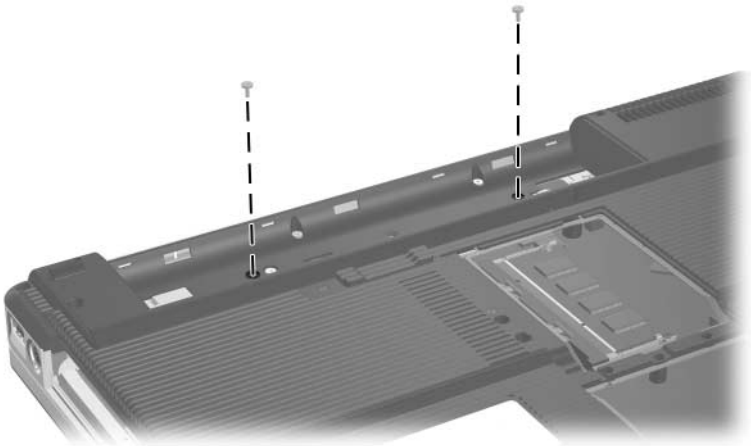
Phillips M2.0x4.0 Screw Locations

Table C-4
Phillips PM2.0×4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	19	4.0 mm	2.0 mm	4.0 mm

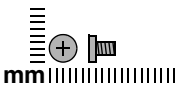
Where used:

2 screws that secure the switch cover on the HP Compaq nx4800 and Compaq Presario V2000 notebook (documented in [Section 5.8](#))



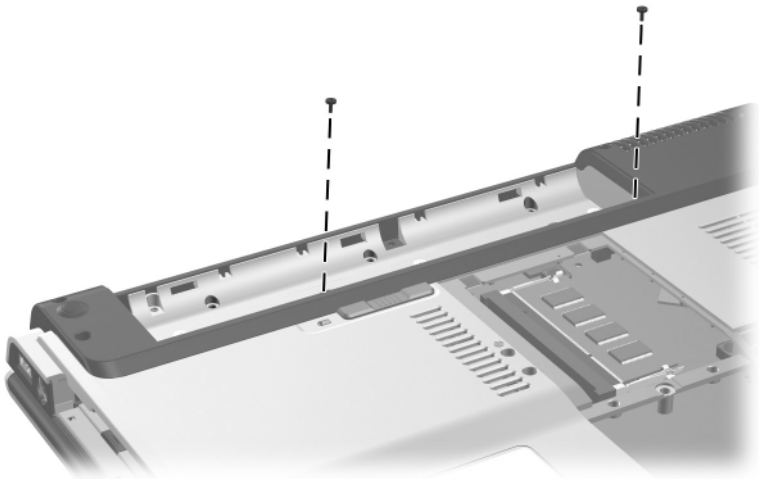
Phillips M2.0×4.0 Screw Locations

Table C-4
Phillips PM2.0x4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	19	4.0 mm	2.0 mm	4.0 mm

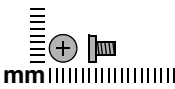
Where used:

2 screws that secure the keyboard on the HP Pavilion dv1000 notebook (documented in [Section 5.9](#))



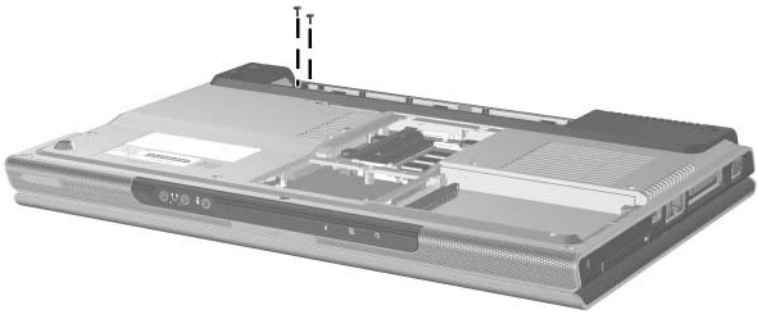
Phillips M2.0x4.0 Screw Locations

Table C-4
Phillips PM2.0×4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	19	4.0 mm	2.0 mm	4.0 mm

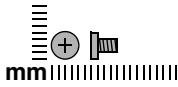
Where used:

2 screws that secure the base enclosure on the HP Pavilion dv1000 notebook (documented in [Section 5.11](#))



Phillips M2.0×4.0 Screw Locations

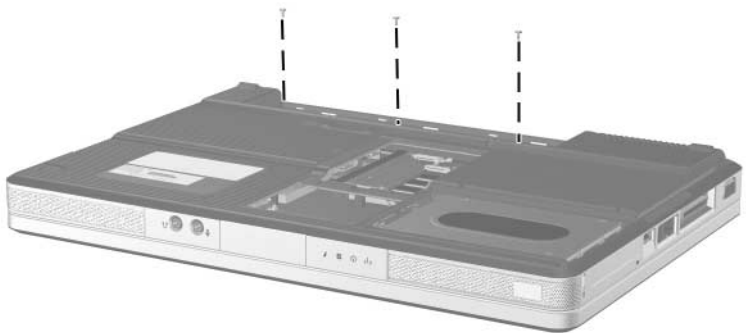
Table C-4
Phillips PM2.0x4.0 Screw (Continued)



Color	Qty.	Length	Thread	Head Width
Black	19	4.0 mm	2.0 mm	4.0 mm

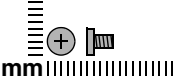
Where used:

3 screws that secure the base enclosure on the HP Compaq nx4800 and Compaq Presario V2000 notebook (documented in [Section 5.11](#))



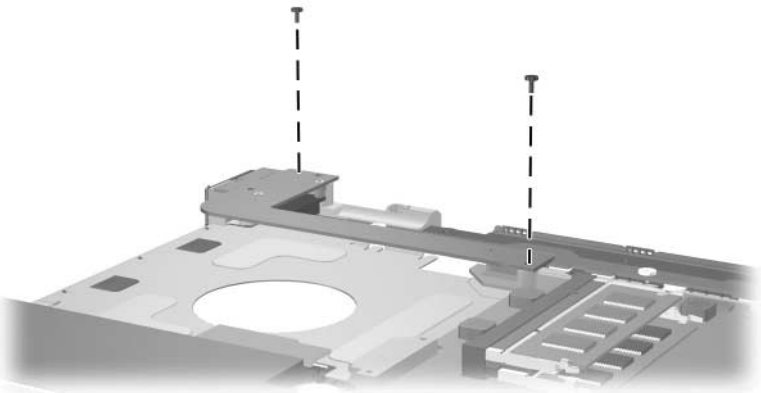
Phillips M2.0x4.0 Screw Locations

Table C-4
Phillips PM2.0×4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	19	4.0 mm	2.0 mm	4.0 mm

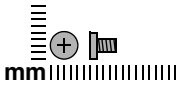
Where used:

2 screws that secure the USB/S-Video controller board to the notebook
 (documented in [Section 5.12](#))



Phillips M2.0×4.0 Screw Locations

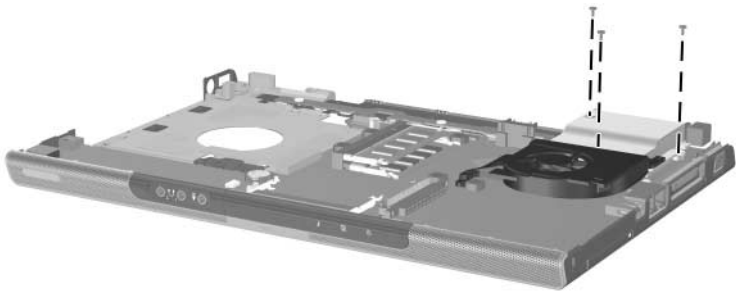
Table C-4
Phillips PM2.0x4.0 Screw (Continued)



Color	Qty.	Length	Thread	Head Width
Black	19	4.0 mm	2.0 mm	4.0 mm

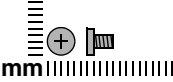
Where used:

3 screws that secure the heat sink to the notebook
 (documented in [Section 5.16](#))



Phillips M2.0x4.0 Screw Locations

Table C-4
Phillips PM2.0x4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	19	4.0 mm	2.0 mm	4.0 mm

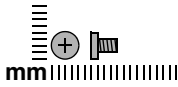
Where used:

2 screws that secure the fan to the heat sink (documented in [Section 5.17](#))



Phillips M2.0x4.0 Screw Locations

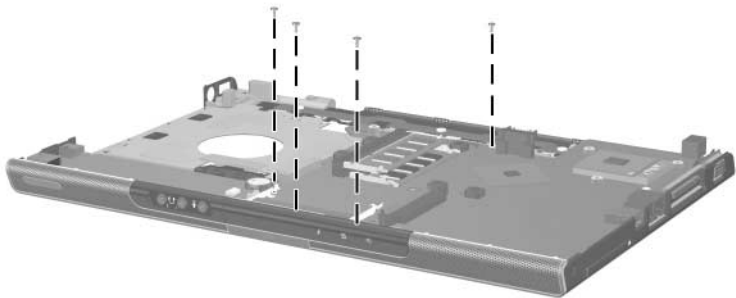
Table C-4
Phillips PM2.0x4.0 Screw (Continued)



Color	Qty.	Length	Thread	Head Width
Black	19	4.0 mm	2.0 mm	4.0 mm

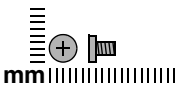
Where used:

4 screws that secure the system board on the HP Pavilion dv1000 notebook (documented in [Section 5.19](#))



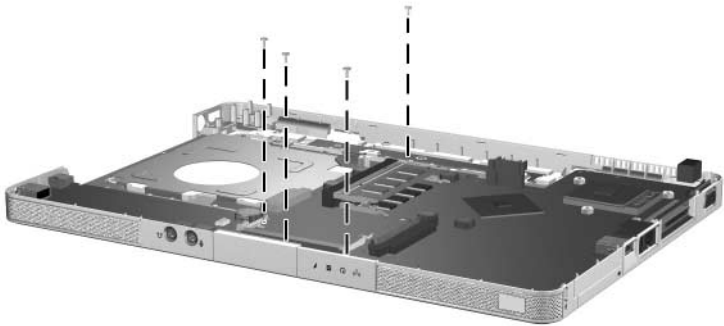
Phillips M2.0x4.0 Screw Locations

Table C-4
Phillips PM2.0×4.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	19	4.0 mm	2.0 mm	4.0 mm

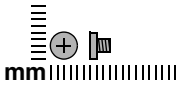
Where used:

4 screws that secure the system board on the HP Compaq nx4800 and Compaq Presario V2000 notebook (documented in [Section 5.19](#))



Phillips M2.0×4.0 Screw Locations

Table C-5
Phillips PM2.0x3.0 Screw



Color	Qty.	Length	Thread	Head Width
Black	10	3.0 mm	2.0 mm	4.0 mm

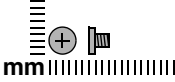
Where used:

4 screws that secure the keyboard on the HP Compaq nx4800 and Compaq Presario V2000 notebook (documented in [Section 5.9](#))



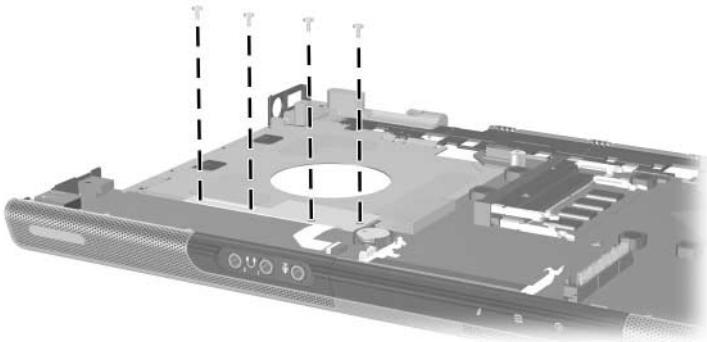
Phillips M2.0x3.0 Screw Locations

Table C-5
Phillips PM2.0×3.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	10	3.0 mm	2.0 mm	4.0 mm

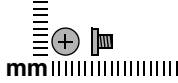
Where used:

4 screws that secure the menu control button board on the HP Pavilion dv1000 notebook (documented in [Section 5.15](#))



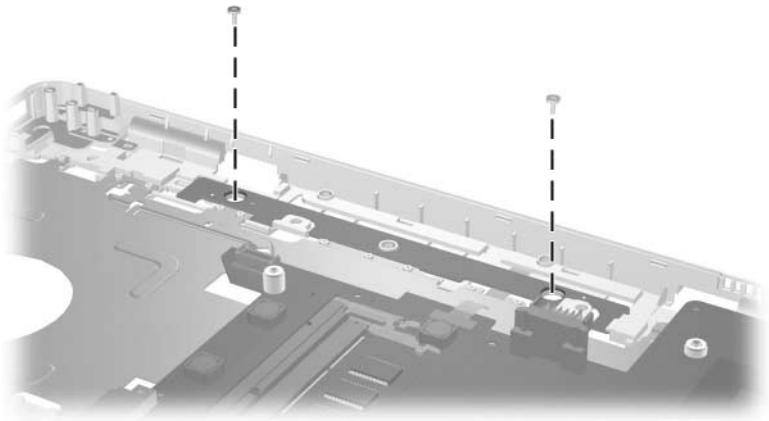
Phillips M2.0×3.0 Screw Locations

Table C-5
Phillips PM2.0x3.0 Screw (Continued)

	Color	Qty.	Length	Thread	Head Width
	Black	10	3.0 mm	2.0 mm	4.0 mm

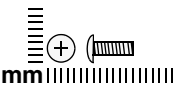
Where used:

2 screws that secure the LED board on the HP Compaq nx4800 and Compaq Presario V2000 notebook (documented in [Section 5.20](#))



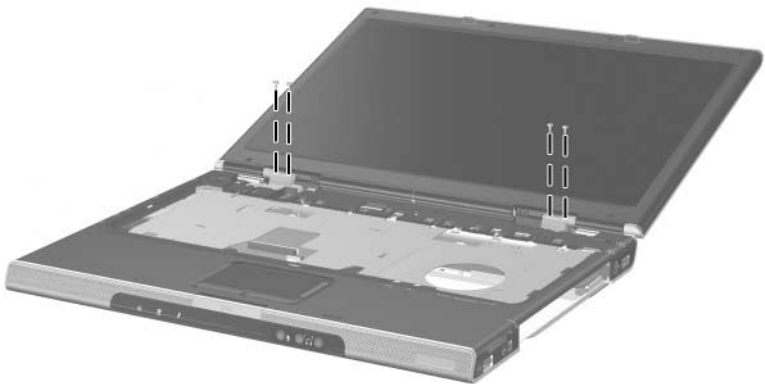
Phillips M2.0x3.0 Screw Locations

Table C-6
Phillips PM2.0×7.0 Round Head Screw

	Color	Qty.	Length	Thread	Head Width
Silver	4	7.0 mm	2.0 mm	4.0 mm	

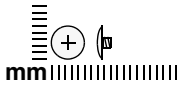
Where used:

4 screws that secure the display assembly on the HP Pavilion dv1000 notebook (documented in [Section 5.10](#))



Phillips M2.0×5.0 Round Head Screw Locations

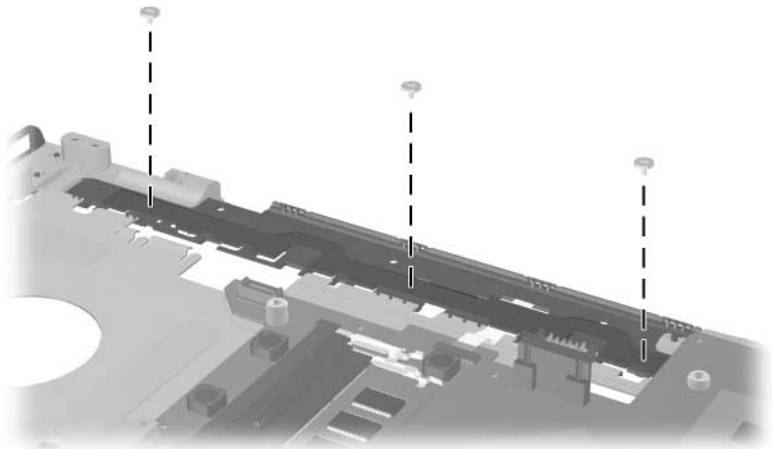
Table C-7
Phillips PM1.5x2.0 Screw



Color	Qty.	Length	Thread	Head Width
Black	3	2.0 mm	1.5 mm	6.0 mm

Where used:

3 screws that secure the LED board on the HP Pavilion dv1000 notebook (documented in [Section 5.20](#))



Phillips M1.5x2.0 Screw Locations

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