

Contents

Replacing Components in Your Gateway 600	1
About this guide	1
Identifying components	2
Preparing your work space	3
Preventing static electricity discharge	4
Preparing your notebook	5
Adding or replacing memory modules	6
Replacing the 802.11 Mini PCI card	11
Replacing the hard drive kit	16
Replacing the hard drive in the hard drive kit	19
Replacing the keyboard cover	22
Replacing the keyboard	24
Replacing the hinge covers	29
Replacing the LCD panel assembly	31
Replacing the palm rest assembly	37
Replacing the cooling assembly	42
Replacing the LED indicator panel	46
Replacing the speakers	49
Replacing the audio board	53
Replacing the system board	57

Replacing Components in Your Gateway 600

About this guide

Use this service guide to help plan your maintenance tasks for the Gateway 600 notebook. All tasks covered in this guide can be performed by a field technician without jeopardizing your notebook's warranty.

For information on your notebook's general maintenance, technical support, safety notices, and regulatory notices, see your Gateway user's guide.

If you have suggestions regarding the content of this guide, send an e-mail with the subject "Service Guide Comments" to channel.services@gateway.com.

© 2002 Gateway, Inc. All rights reserved. Gateway, Gateway Country, the Gateway stylized logo, and the black-and-white spot design are trademarks or registered trademarks of Gateway, Inc. in the United States and other countries. All other brands and product names are trademarks or registered trademarks of their respective companies.



Thank you for purchasing this Factory Service Manual CD/DVD from servicemanuals4u.com.

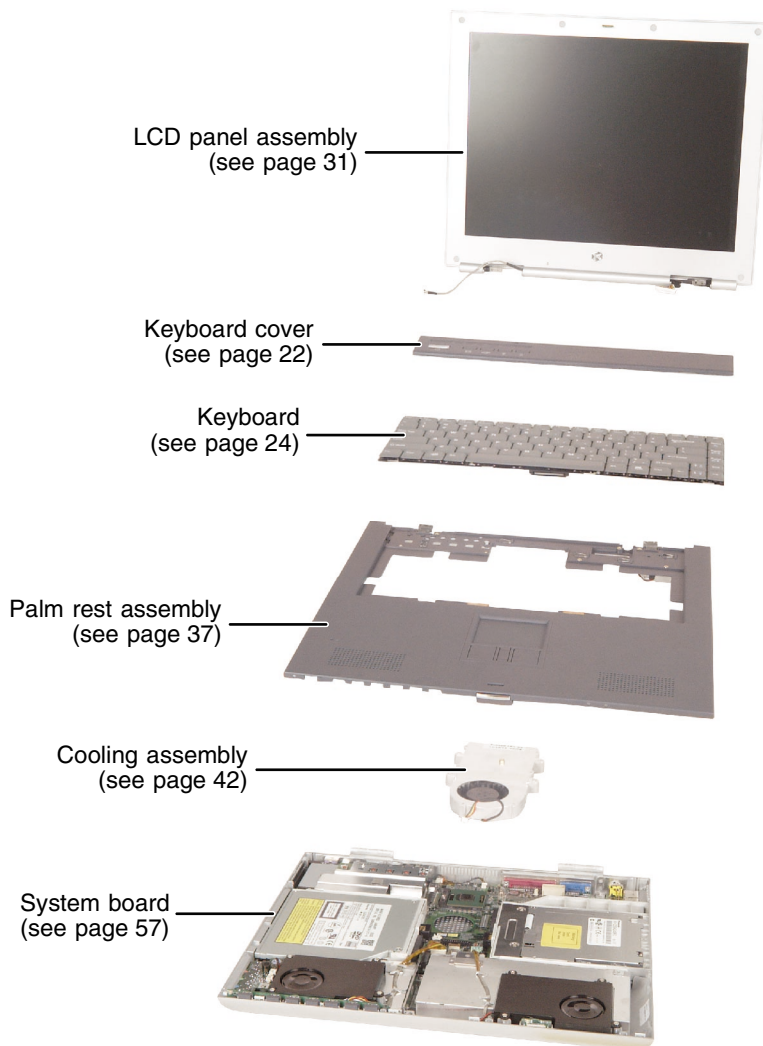
Please check out our eBay auctions for more great deals on Factory Service Manuals:

[servicemanuals4u](http://servicemanuals4u.com)

Identifying components

Where screw measurements are shown, the first number indicates screw head width, and the second number indicates screw length.

Use this chart to identify the main components of your notebook. For a complete list of replaceable parts, see the Contents.



Preparing your work space

Before performing maintenance on your notebook, make sure that your work space and your notebook are correctly prepared.

- Wear a grounding (ESD) wrist strap, and use a grounded or dissipative work mat.
- Use a stable and strong table, and make sure that the table top will be large enough to hold each component as you remove it.
- Use bright lighting to make part identification easier.
- Keep your work surface free from clutter and dust that may damage components.
- Use a magnetized screwdriver for removing screws.
- When removing components that are attached to the notebook by a cable, unplug the cable before removing the screws, when possible, to avoid damaging the cable.
- As you remove components and screws, lay them toward the rear of your work surface (behind your notebook) or far enough to the side that your arms do not accidentally brush them onto the floor.
- To help keep track of screws, try the following:
 - Place each component's screws in their own section of a parts sorter.
 - Place each component's screws next to the component on your work surface.
 - Print the first page of each task, then place the page toward the rear of your work surface. As you remove screws, place the screws in their respective boxes on the page. Where screw measurements are shown, the first number indicates screw head width, and the second number indicates screw length.
 - After loosening screws that are deeply recessed in a hole (for example, on the bottom of the base assembly), you can leave the screws in the holes if you place small pieces of masking tape over the hole openings. When reassembling the component, just remove the tape and tighten the screws.
 - When you place flat-headed screws on your work surface, stand them on their heads to prevent the screws from rolling off the table.

Preventing static electricity discharge

The components inside your notebook are extremely sensitive to static electricity, also known as *electrostatic discharge* (ESD).

Caution



ESD can permanently damage electrostatic discharge sensitive components in your notebook. Prevent ESD damage by following ESD guidelines every time you open your notebook case.

Warning



To avoid exposure to dangerous electrical voltages and moving parts, turn off your notebook, remove the battery, and unplug the power cord and modem cable before opening the case.

Before replacing components, follow these guidelines:

- Turn off your notebook power.
- Remove the battery and unplug the power cord.
- Disconnect all peripheral devices and remove any PC Cards.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your workbench or other grounded connection.
- Touch a bare metal surface on your workbench or other grounded object.
- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold memory modules and cards by their edges, but avoid touching the edge connectors and components on the cards.
- Never slide any component over any surface.

Warning



To prevent risk of electric shock, do not insert any object into the vent holes of your notebook.

Preparing your notebook

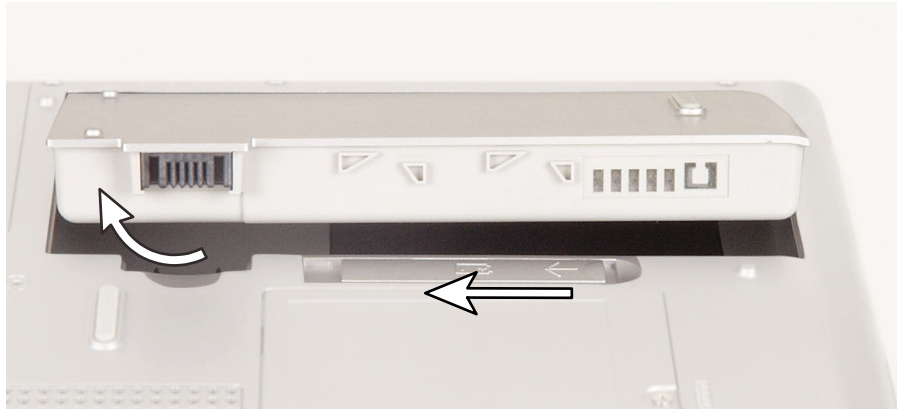
Warning



To avoid exposure to dangerous electrical voltages and moving parts, turn off your notebook, remove the battery, and unplug the power cord and modem cable before opening the case. Replace the cover before you restore power or reconnect the modem cable.

To prepare your notebook for maintenance:

- Make sure that the CD or DVD drive and the diskette drive are empty.
- Disconnect all peripheral devices and remove any PC Cards.
- Turn off your notebook and unplug the power cable (if attached).
- Turn over your notebook and remove the battery.



Adding or replacing memory modules

Tools you need to complete this task:



Phillips #0 screwdriver

Important



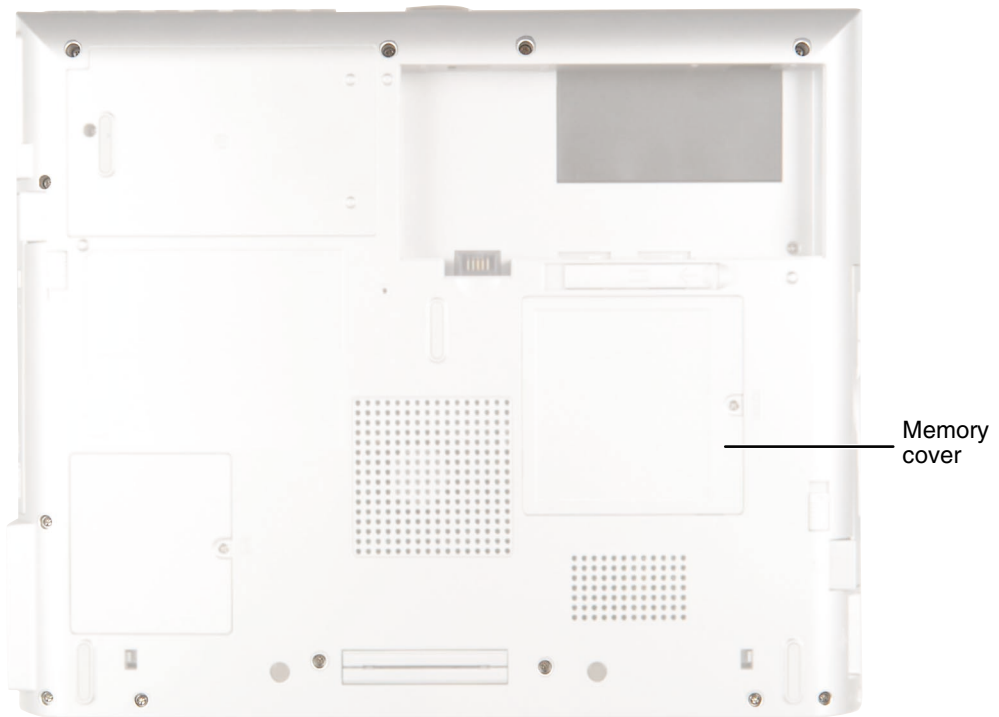
Use only PC200 266 MHz DDR SO-DIMM memory modules.



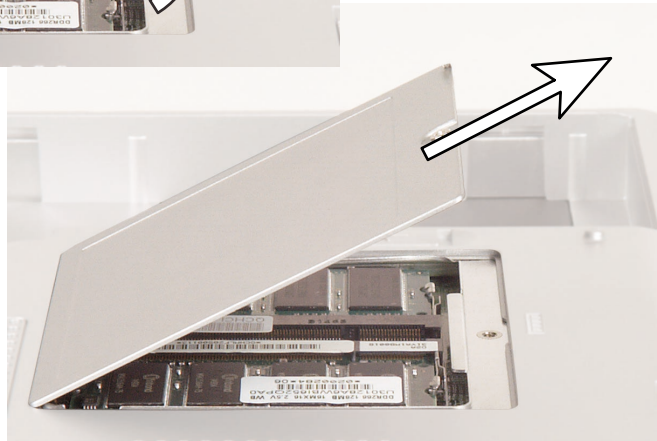
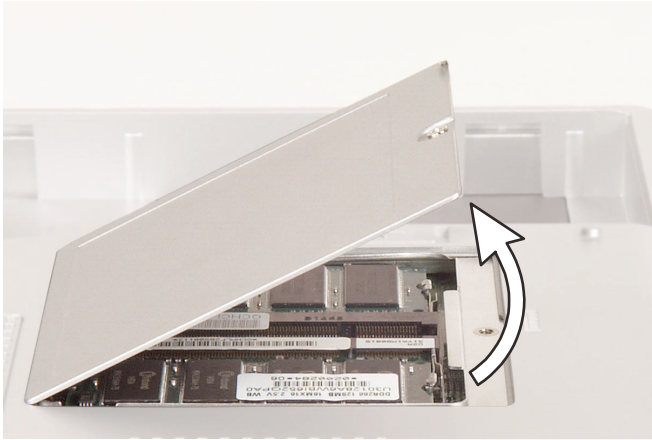
To add or replace memory modules:

- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** Turn your notebook over so that the bottom is facing up.

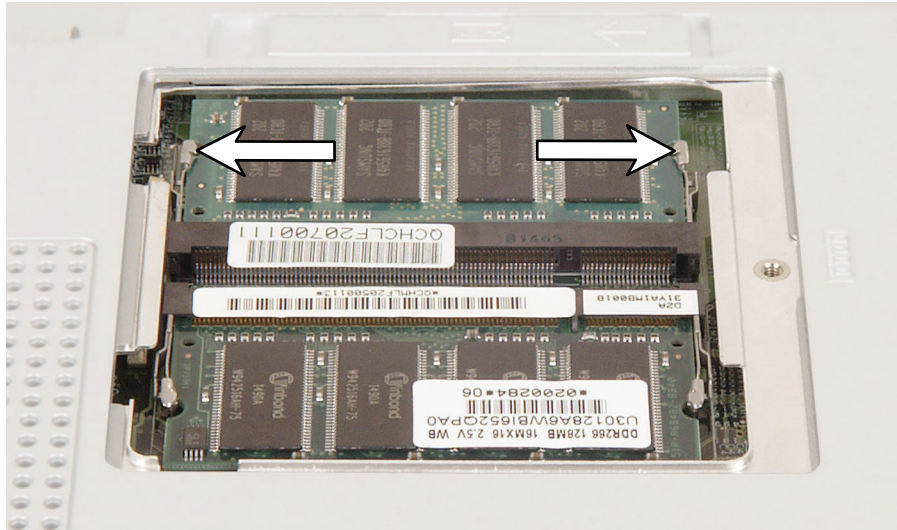
- 3** Loosen the captive screw that secures the memory cover. (The screw cannot be removed.)



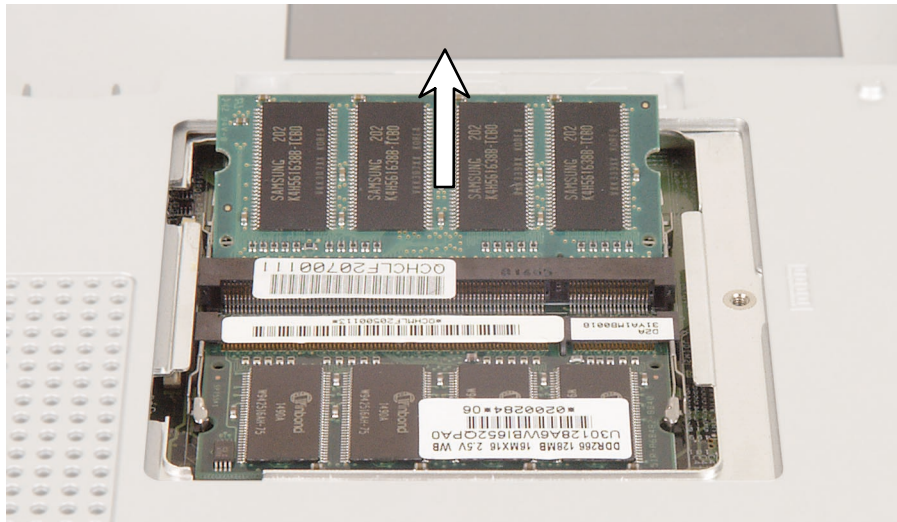
- 4 Tilt the screw side of the cover upward, then slide the cover out.



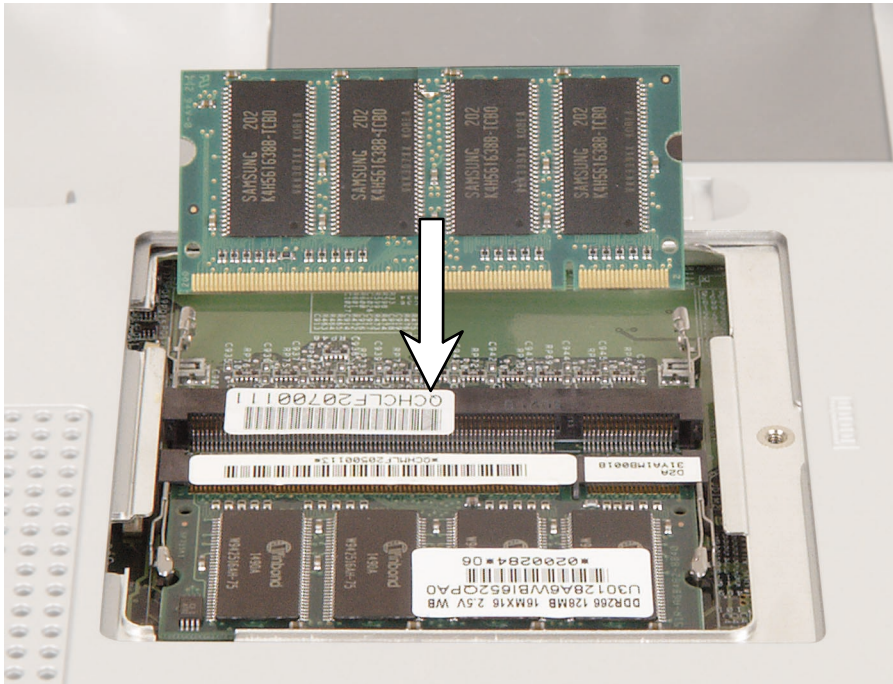
- 5 To remove a module, press outward on the clips at both ends of the memory module until the module tilts upward.



- 6 Pull the memory module out of the slot.



- 7 Hold the new or replacement module at a 30-degree angle and press it into the empty memory slot. This module is keyed so that it can only be inserted in one direction. If the module does not fit, make sure that the notch in the module lines up with the tab in the memory slot.



- 8 Press the module down until it clicks into place.
- 9 Replace the memory cover, then tighten the captive screw.



Replacing the 802.11 Mini PCI card

Tools you need to complete this task:

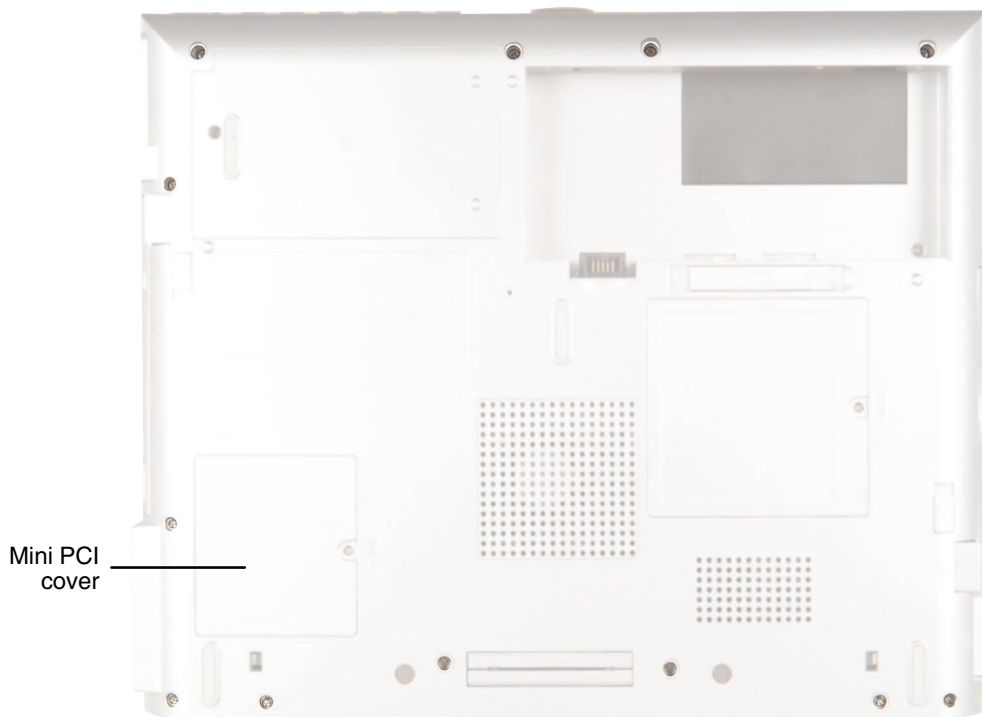


Phillips #0 screwdriver

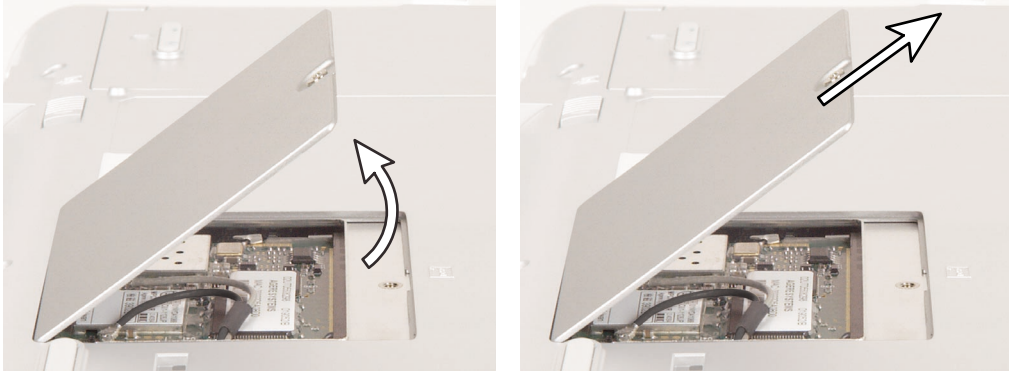


To replace the 802.11 Mini PCI card:

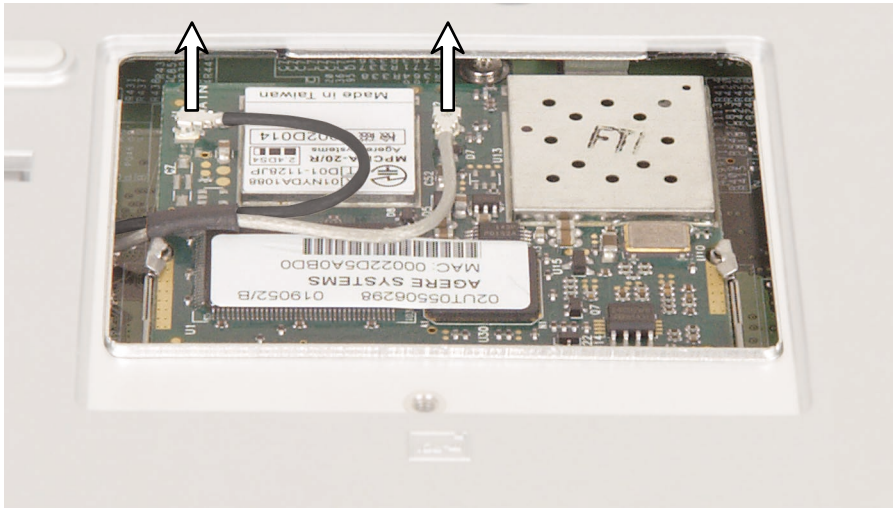
- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** Turn your notebook over so that the bottom is facing up.
- 3** Loosen the captive screw that secures the Mini PCI cover. (The screw cannot be removed.)



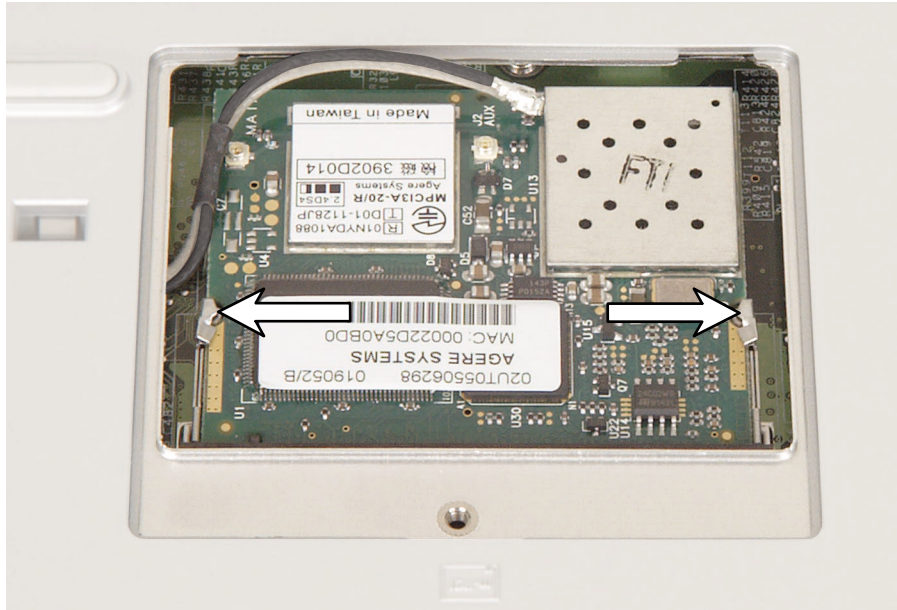
- 4 Tilt the screw side of the cover upward, then slide the cover out.



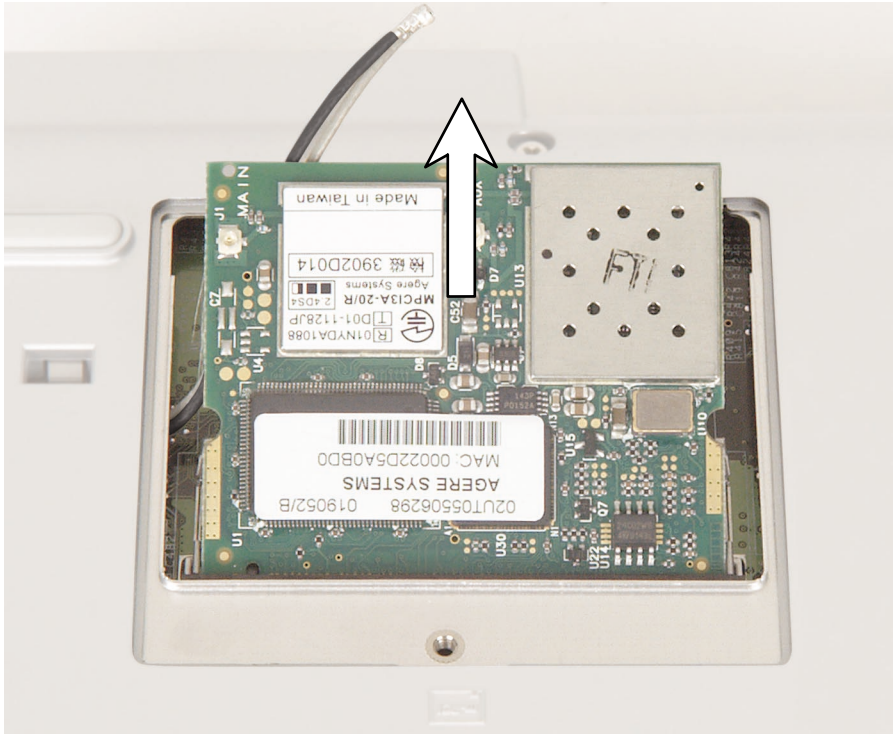
- 5 Unplug the two antenna cables.



- 6 Move the antenna wires out of the way, then press outward on the clips at both sides of the module until the module tilts upward.

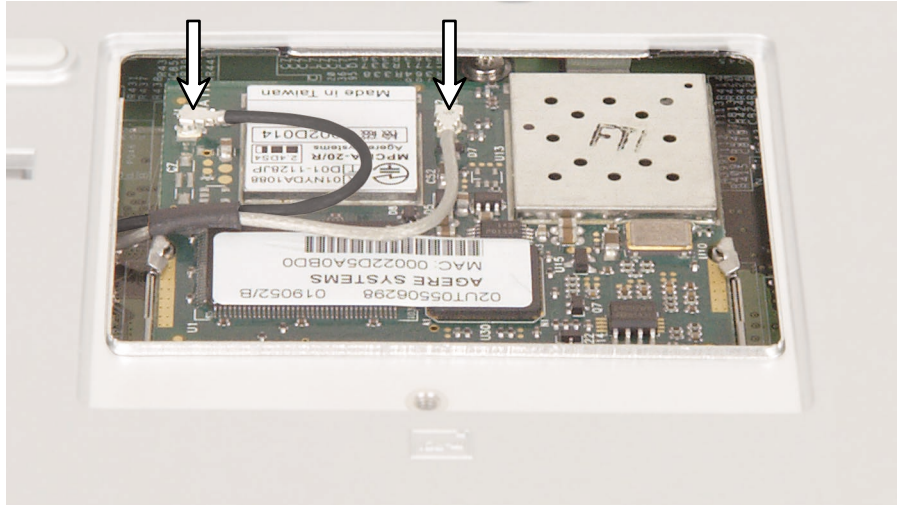


- 7 Pull the module out of the slot.



- 8 Hold the new module at a 30-degree angle and press it into the empty slot. This module is keyed so that it can only be inserted in one direction. If the module does not fit, make sure that the notch in the module lines up with the tab in the module slot.
- 9 Move the antenna wires out of the way, then press the module down until it clicks into place.

- 10 Reattach the black antenna cable to the connector that is closest to the module's edge, then reattach the light gray antenna cable to the connector that is closest to the module's metal shielding.



- 11 Replace the Mini PCI cover, then tighten the captive screw.



Replacing the hard drive kit

Tools you need to complete this task:



Phillips #0 screwdriver



To replace the hard drive kit:

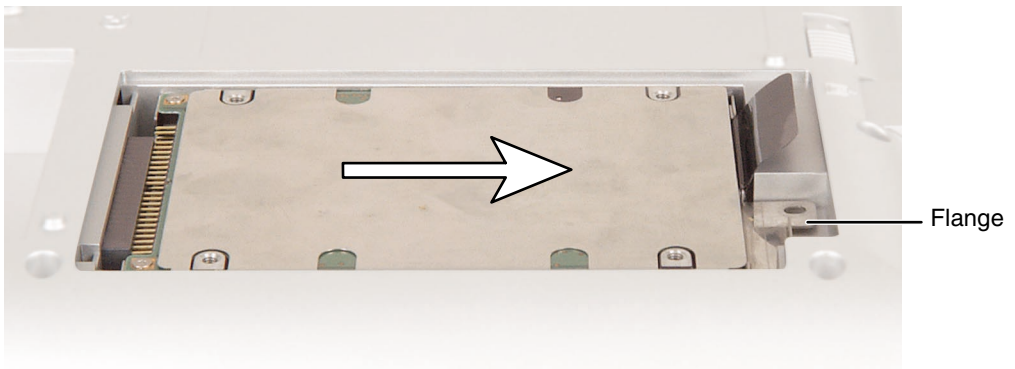
- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** Turn your notebook over so that the bottom is facing up.
- 3** Loosen the captive screw that secures the hard drive cover. (The screw cannot be removed.)



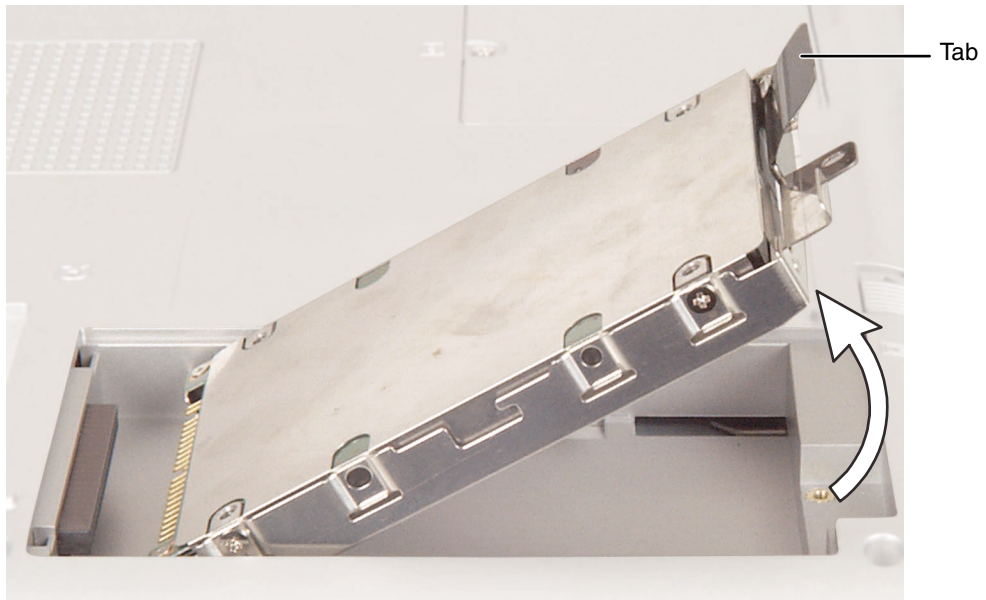
- 4** Tilt the screw side of the cover upward, then slide the cover out.



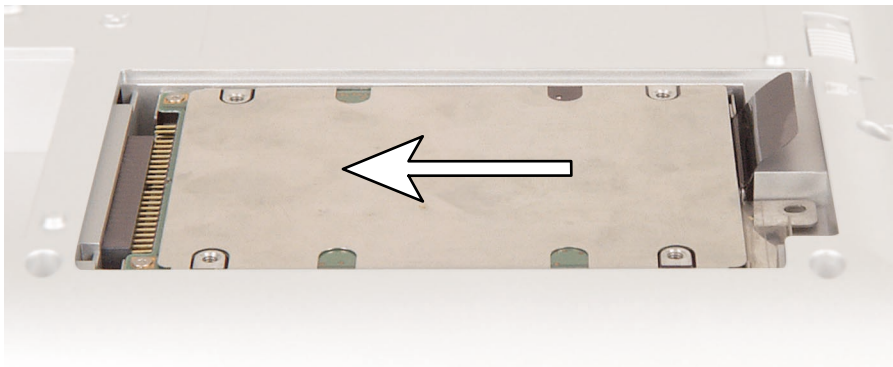
- 5** Pull on the metal flange to disconnect the hard drive kit from the connector.



- 6 Lift the plastic tab on the hard drive kit to lift the kit out of your notebook.



- 7 Place the new hard drive kit into the drive bay, then slide the drive onto the connector.

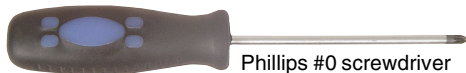


- 8 Replace the cover and tighten the screw.



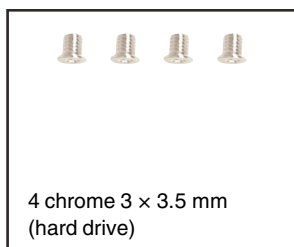
Replacing the hard drive in the hard drive kit

Tools you need to complete this task:



Phillips #0 screwdriver

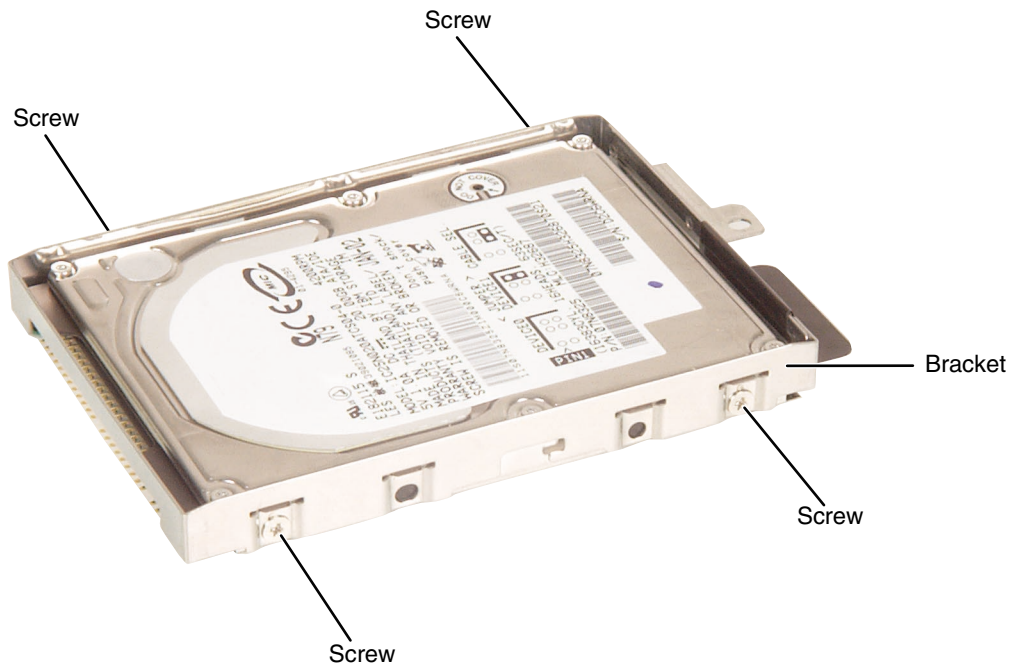
Screws removed during this task:



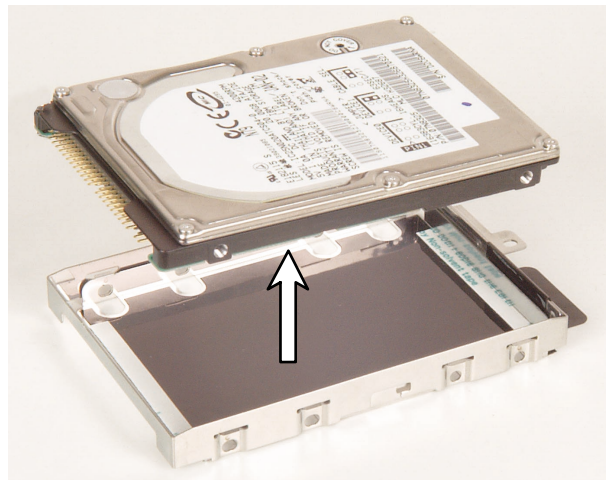
To install a new hard drive into the kit:

- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** Remove the hard drive kit by following the instructions in “Replacing the hard drive kit” on page 16.

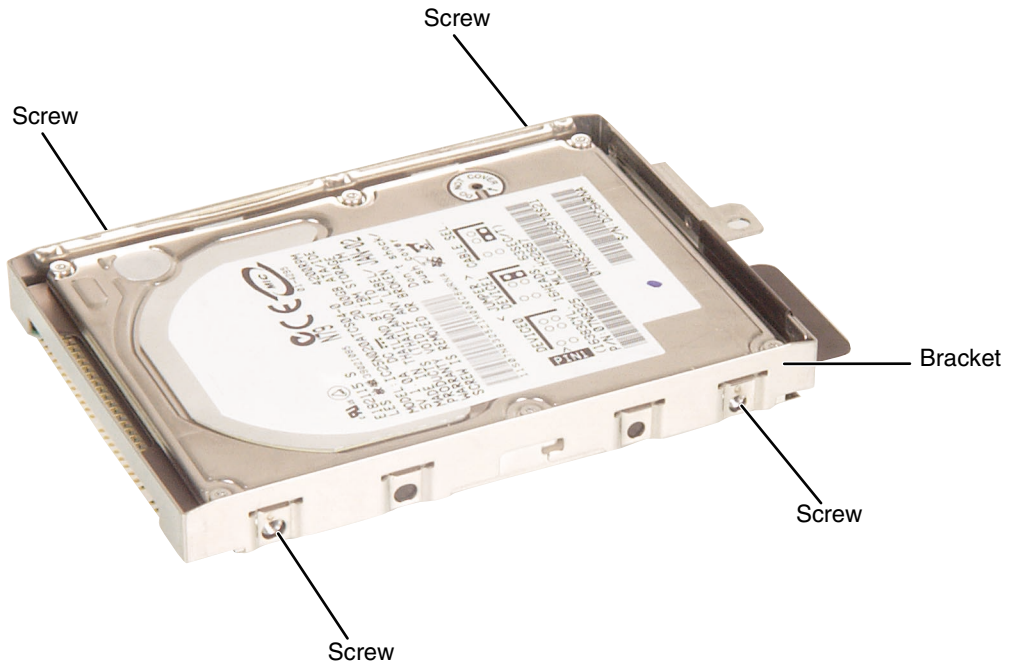
- 3 Remove the four screws that secure the hard drive to the hard drive kit bracket.



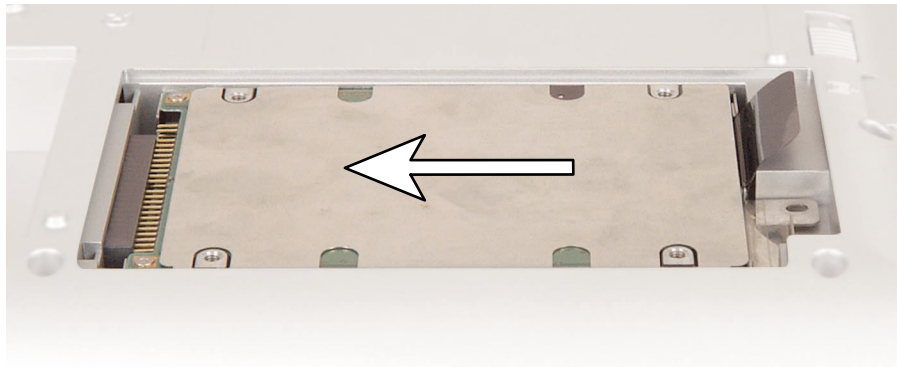
- 4 Remove the old drive from the bracket.



- 5 Insert the new drive into the bracket so that the screw holes line up, then replace the four screws that secure the bracket to the drive.



- 6 Place the new hard drive kit into the drive bay, then slide the drive onto the connector.



- 7 Replace the cover and tighten the screw.



Replacing the keyboard cover

Tools you need to complete this task:



To replace the keyboard cover:

- 1 Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2 Open your notebook.
- 3 Insert a flat-blade screwdriver or non-marring tool into the wide notch in the bottom of the keyboard cover just above the **SysRq** key, then pry the cover off.

Warning



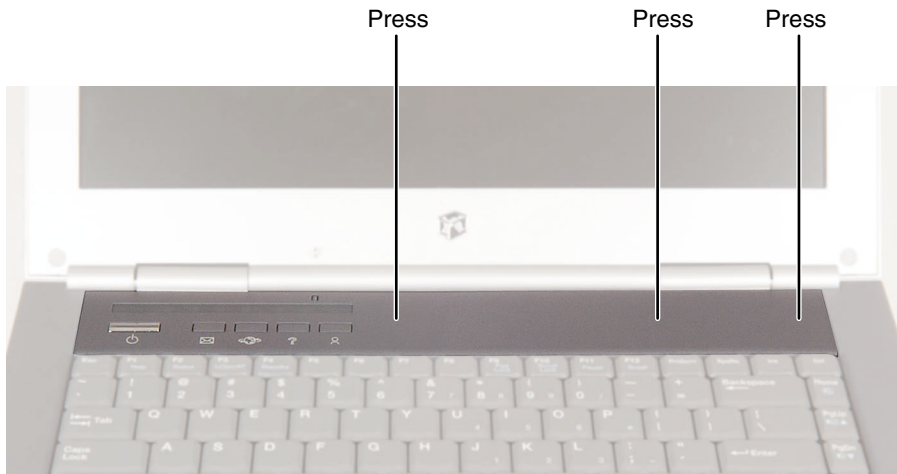
To prevent damage to your notebook while using a screwdriver, insert a piece of cloth between the screwdriver, the keyboard, and your notebook case.



- 4 Slide the left edge of the new cover into the left side of your notebook above the keyboard, then lower the cover until it lies flat on the notebook.



- 5 Press down at the locations shown until the cover clicks into place.



Replacing the keyboard

Tools you need to complete this task:

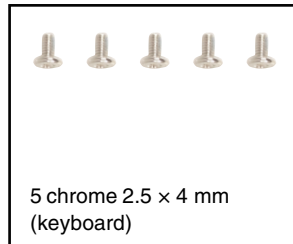


Phillips #0 screwdriver



Flat-blade screwdriver

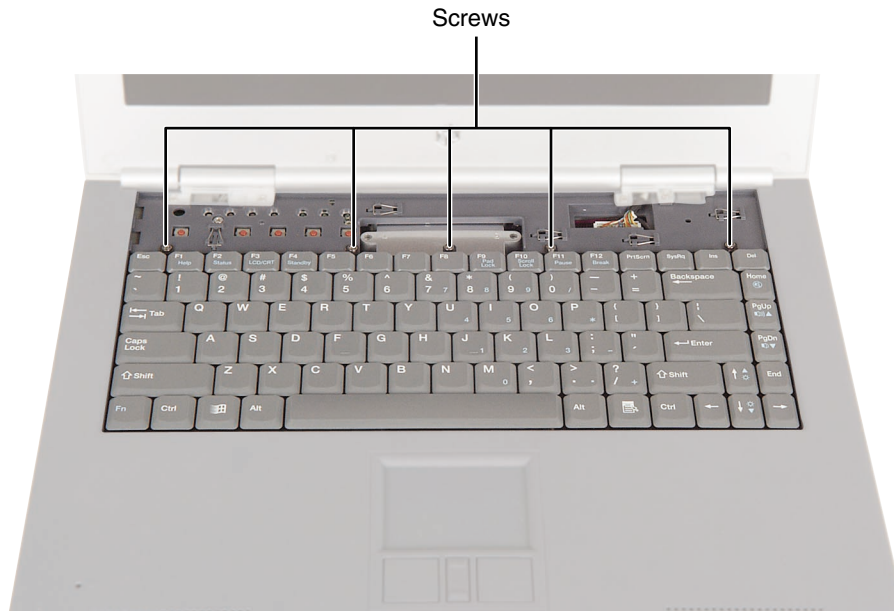
Screws removed during this task:



To remove the keyboard:

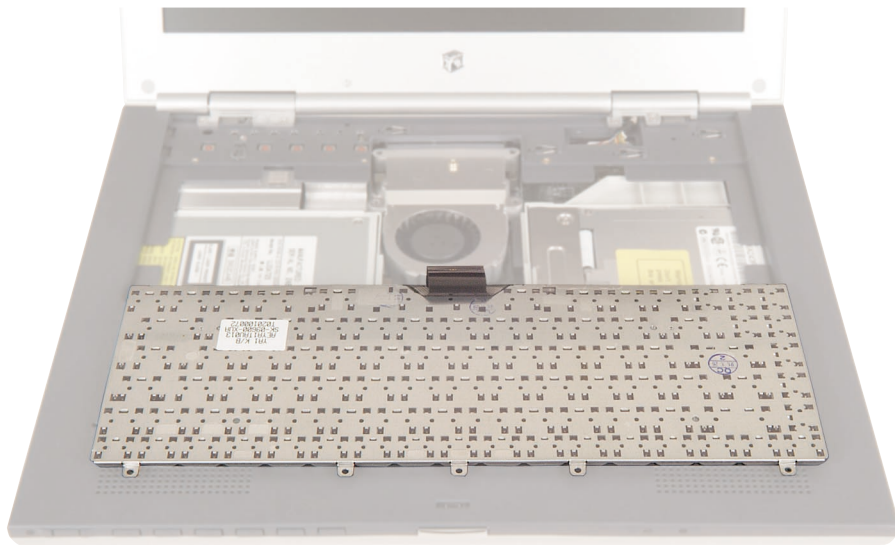
- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.

- 3 Remove the five screws that secure the keyboard to your notebook.

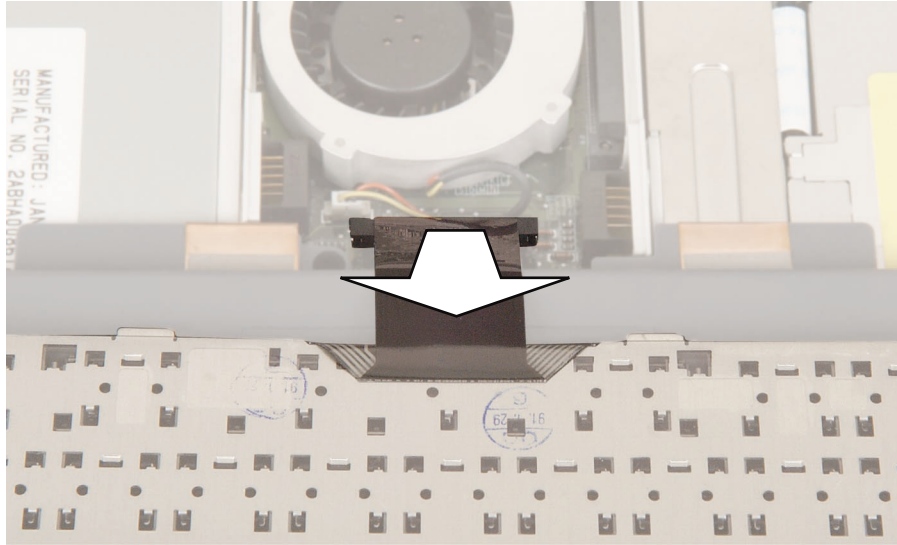


- 4 Raise the back edge of the keyboard slightly, then carefully slide the keyboard back until the four tabs on the front edge of the keyboard are free from their slots. Be careful not to damage the LCD panel.

- 5 Slowly rotate the keyboard toward you so that it lies **keys-down** on top of your notebook. Be careful not to damage the LCD panel.



- 6 Unplug the keyboard connector. Make sure that you unplug the connector by grasping the connector, not the cable.



- 7 Place the new keyboard **keys-down** on your notebook with the space bar away from you.
- 8 Plug the keyboard connector into the notebook.

- 9 Rotate the keyboard away from you, then insert the four tabs located on the front edge of the keyboard into the corresponding slots under the palm rest. Be careful not to damage the LCD panel.



- 10 Carefully press the keyboard down until it is flat all the way across. The keyboard should fall into place easily.
- 11 Replace the five keyboard screws.
- 12 Reassemble your notebook.

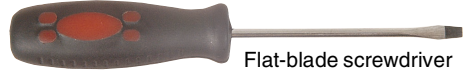


Replacing the hinge covers

Tools you need to complete this task:

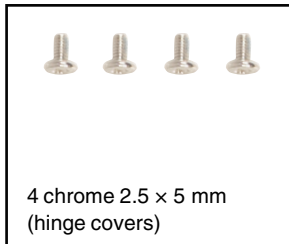


Phillips #0 screwdriver



Flat-blade screwdriver

Screws removed during this task:



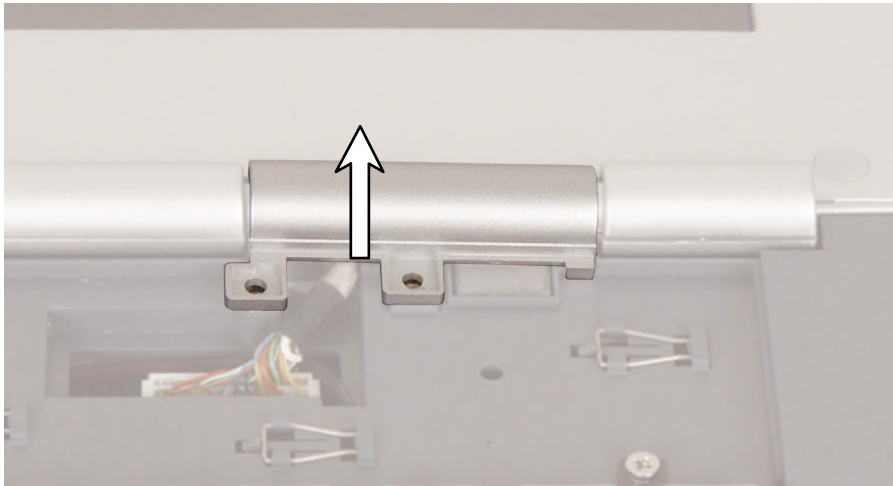
To replace the hinge covers:

- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 3** Open the LCD panel all the way, so that it lies flat on the table.

- 4 Remove the four screws that secure the hinge covers to your notebook.



- 5 Lift the hinge covers off the hinges.



- 6 Snap the new covers into place over the hinges, then replace the four screws.
- 7 Reassemble your notebook.

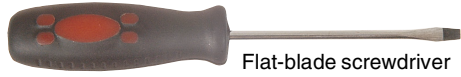


Replacing the LCD panel assembly

Tools you need to complete this task:

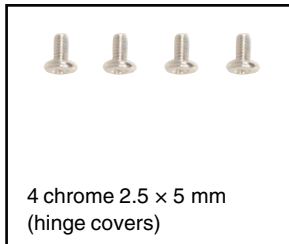


Phillips #0 screwdriver



Flat-blade screwdriver

Screws removed during this task:



4 chrome 2.5 × 5 mm
(hinge covers)



4 or 6 chrome 2.5 × 7 mm
(LCD panel hinges)



To replace the LCD panel assembly:

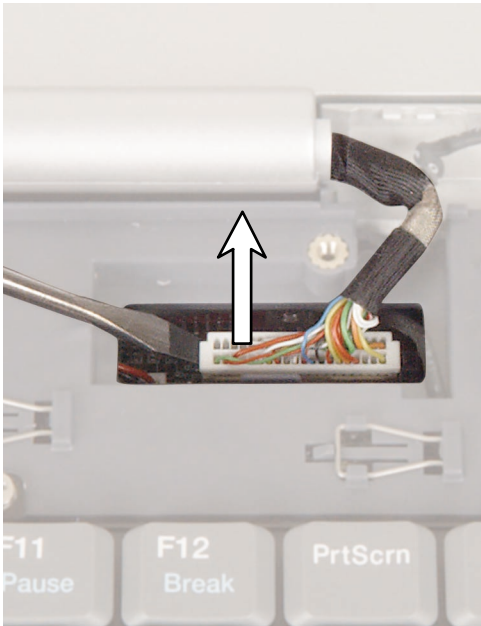
- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** If your notebook has 802.11 wireless networking built in, remove the 802.11 Mini PCI module by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.
- 3** Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 4** Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 29.

- 5 Use a flat-blade screwdriver or chip puller to carefully unplug the LCD cable from your notebook. Make sure that you unplug the connector by grasping the connector, not the cable.

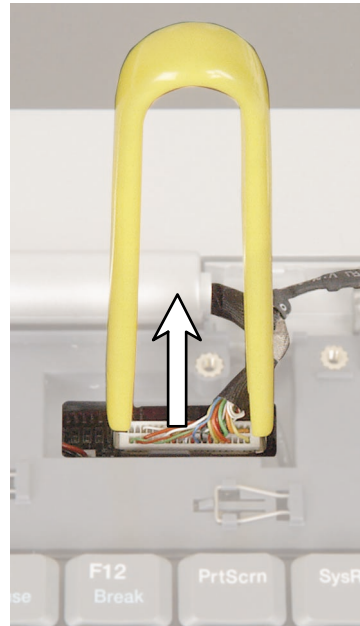
Caution



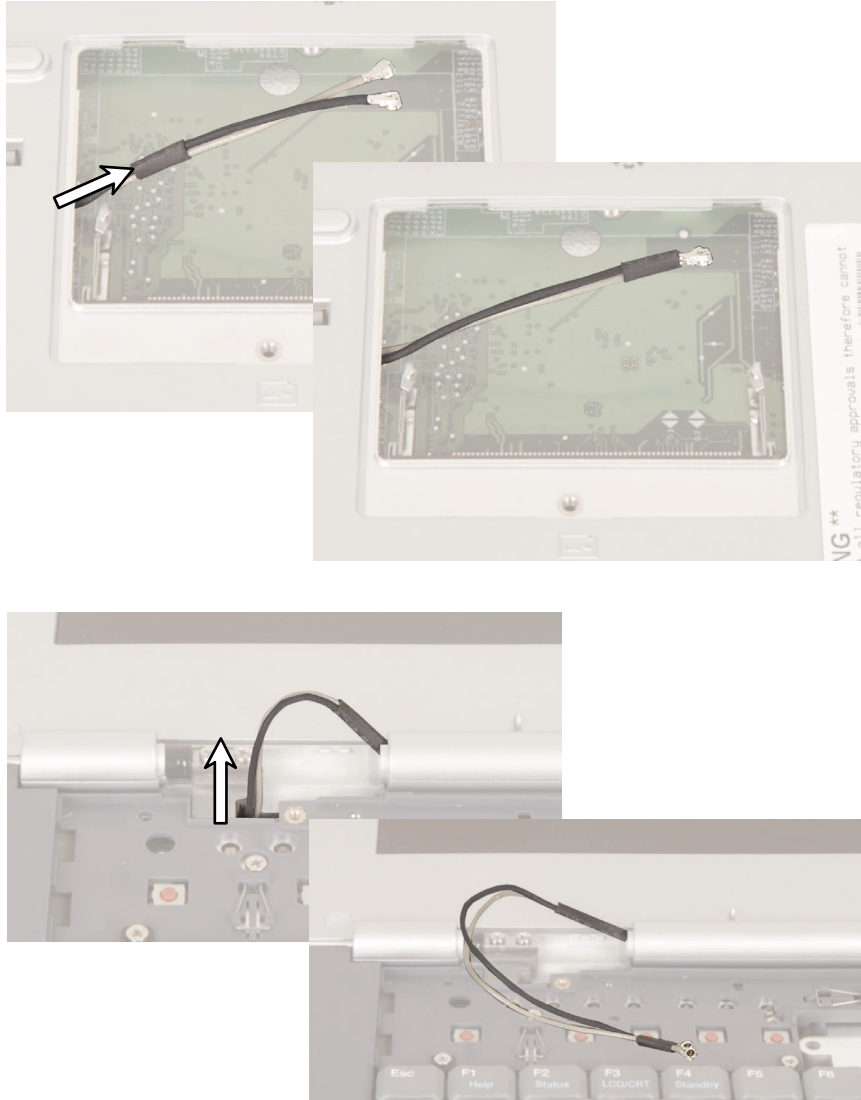
The connector is fragile. When using a flat-blade screwdriver to remove the connector, pry each side up a small amount until the connector comes completely loose.



- OR -



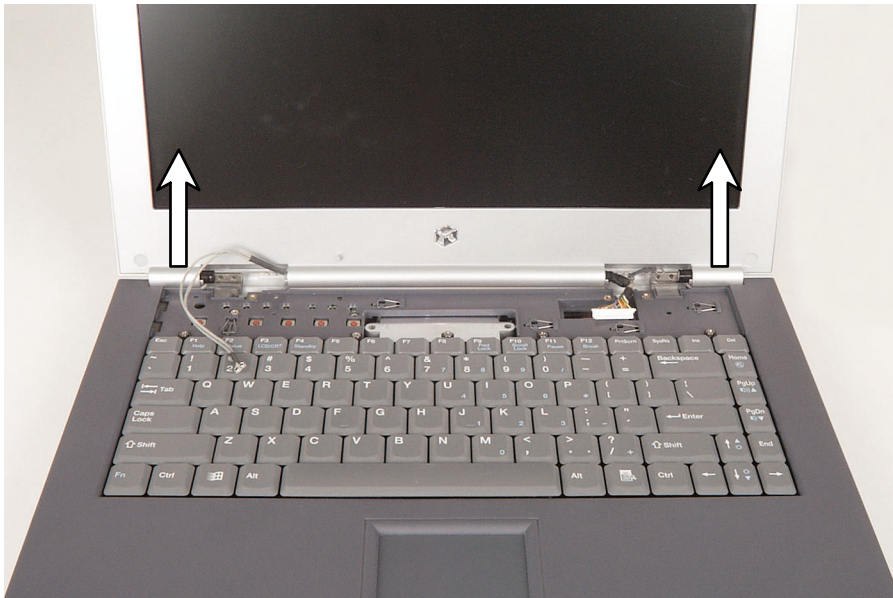
- 6 If your notebook has 802.11 wireless networking built in, carefully pull the 802.11 antenna cables through the opening near the left hinge. To prevent the antenna cables from snagging on other components during this process, keep the antenna connectors close together by moving the cable wrap close to the connectors.



- 7 Remove the four hinge screws. If your notebook has six hinge screws, remove all six.

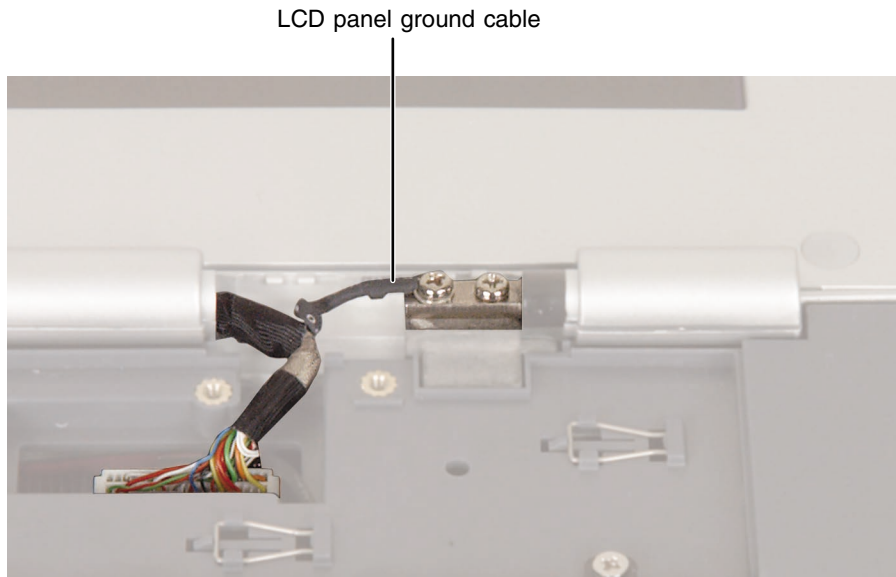


- 8 Move the LCD panel upright, then lift it from the notebook. The LCD panel assembly is now completely detached from your notebook.



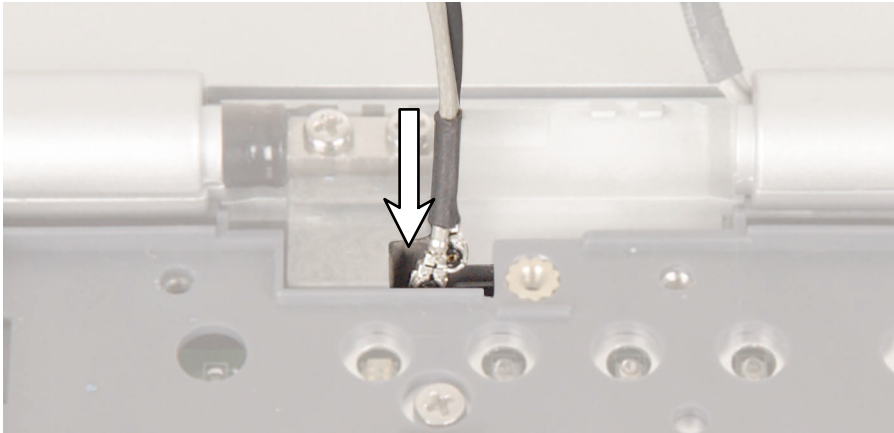
- 9 Hold the new LCD panel assembly upright, then place it onto your notebook.

- 10** Open the LCD panel all the way, so that it lies flat on the table.
- 11** Replace the four (or six) hinge screws. Make sure that you connect the LCD panel's ground cable to the left screw of the right hinge.

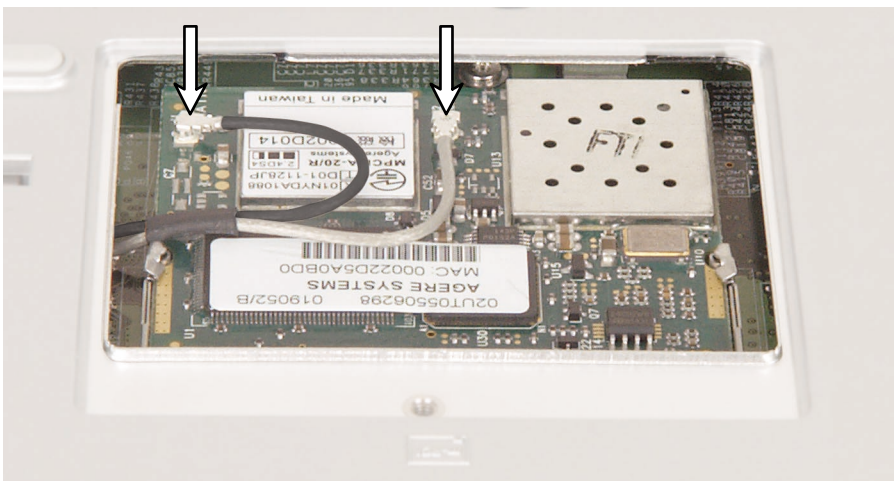


- 12** Plug the LCD video cable into your notebook.

- 13** If your notebook has 802.11 built in, carefully thread the antenna cables through the opening near the left hinge until they protrude into the Mini PCI bay. To prevent the antenna cables from snagging on other components during this process, keep the antenna connectors close together by moving the cable wrap close to the connectors.

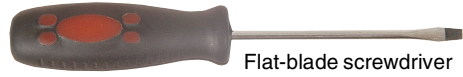


- 14** Reassemble your notebook.
- 15** If your notebook has 802.11 built in, slide the cable wrap down about two inches from the connectors to allow the connectors to widely separate, then plug the antenna cables back into the 802.11 module.

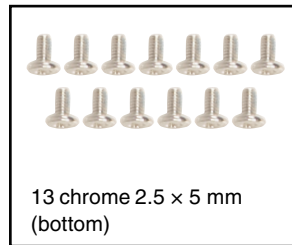
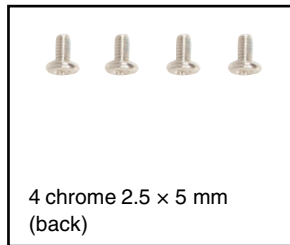
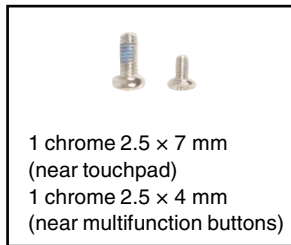
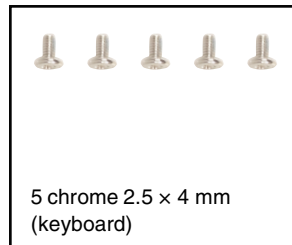
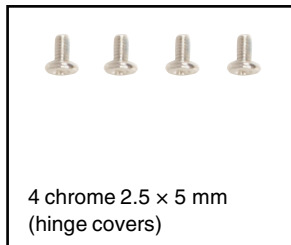


Replacing the palm rest assembly

Tools you need to complete this task:



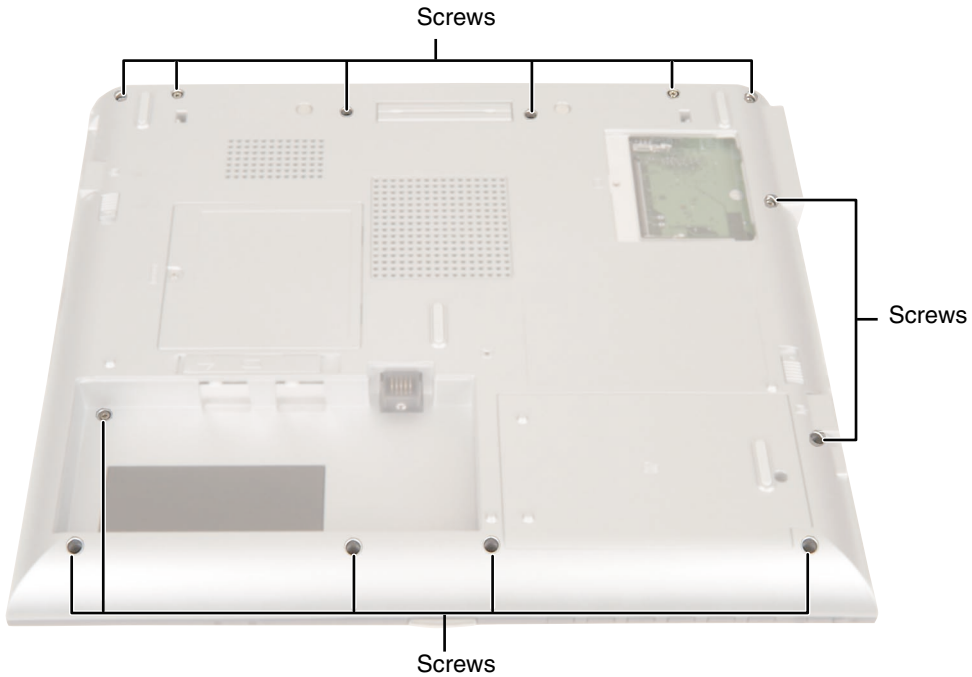
Screws removed during this task:



To replace the palm rest assembly:

- 1 Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2 If your notebook has 802.11 wireless networking built in, remove the Mini PCI module by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.
- 3 Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 4 Remove the keyboard by following the instructions in “Replacing the keyboard” on page 24.

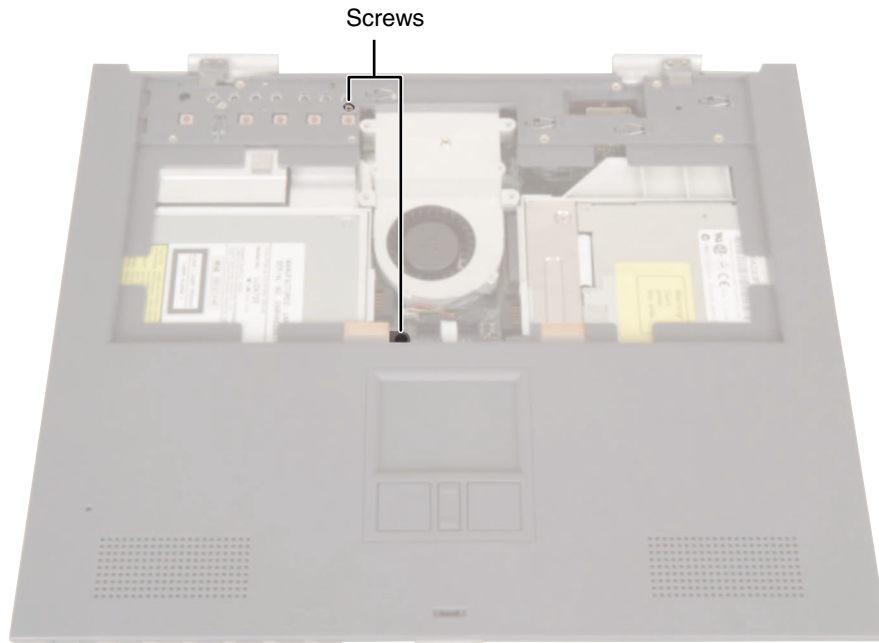
- 5 Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 29.
- 6 Remove the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 31.
- 7 Remove the thirteen screws on the bottom of your notebook. Make sure that you remove the screw inside the battery bay.



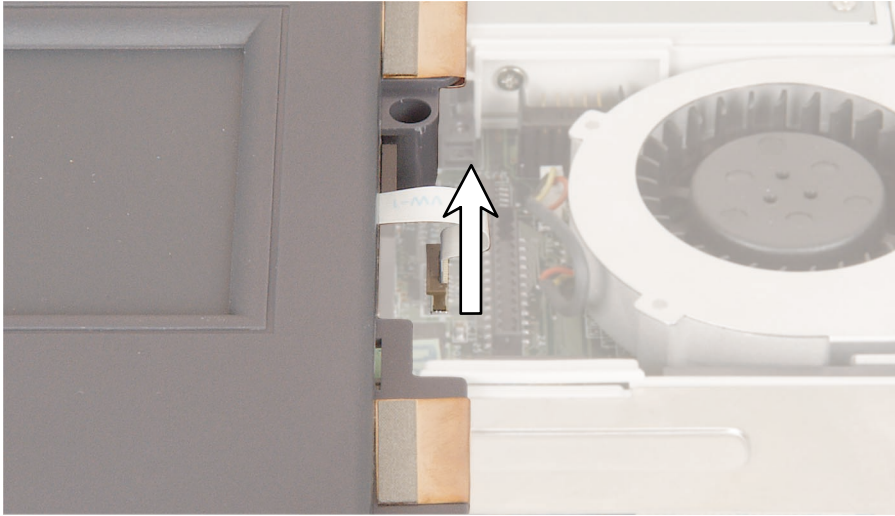
- 8 Remove the four screws on the back of your notebook.



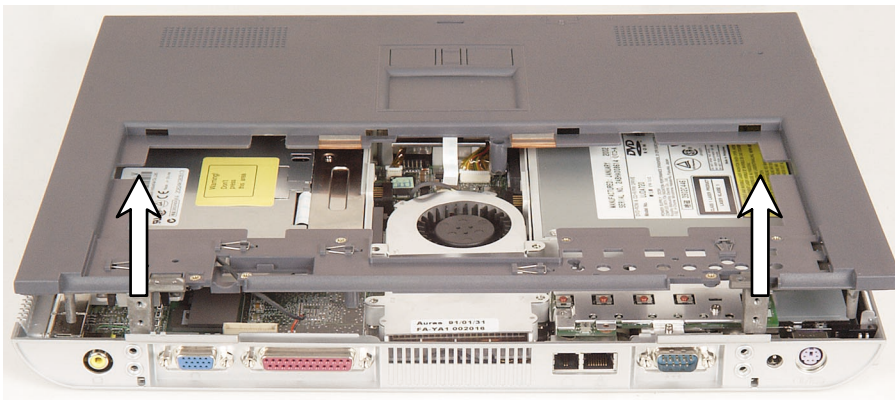
- 9 Remove the screw above the touchpad and the screw next to the multifunction button contacts.



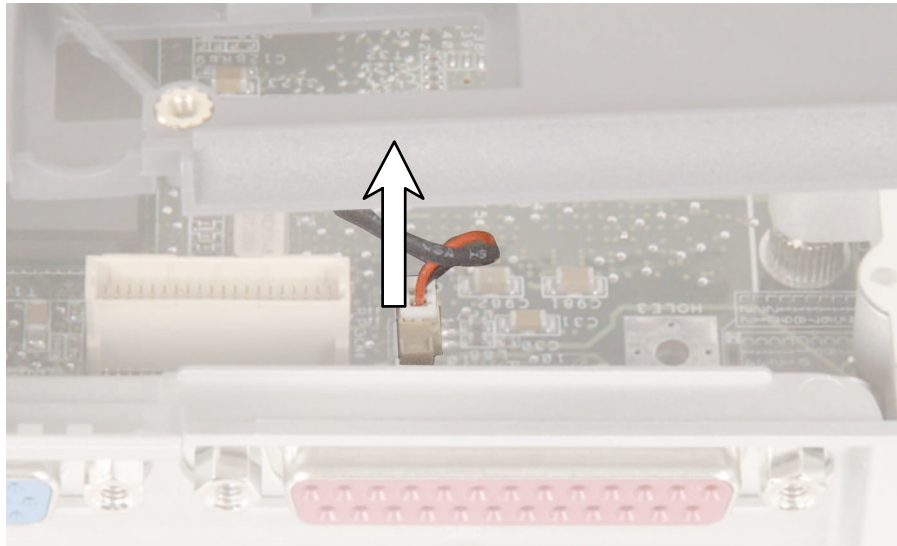
- 10 Use two fingers to carefully pull up on the touchpad connector tabs. After the connector is in the raised position, carefully pull the cable out of the connector.



- 11 Turn your notebook around so you are facing the back of the notebook, then pry the palm rest assembly about two inches from your notebook.



- 12 While holding the palm rest assembly above your notebook, unplug the fan cable. Make sure that you unplug the connector by grasping the connector, not the cable.



- 13 Lift the palm rest assembly completely from your notebook.
- 14 Plug the new palm rest assembly's fan cable into the notebook, then place the new palm rest onto your notebook.
- 15 Replace all of the screws for the palm rest, the back, and the bottom. The shortest screw should be used near the multifunction button contacts, and the longest screw should be used near the touchpad.
- 16 Pull up on the touchpad connector tabs to verify that the connector is in the raised position.
- 17 Slide the end of the touchpad cable into the touchpad connector.
- 18 Use two fingers to press down on the touchpad connector tabs. This locks the touchpad cable into the touchpad connector.
- 19 Reassemble your notebook.

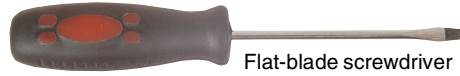


Replacing the cooling assembly

Tools you need to complete this task:

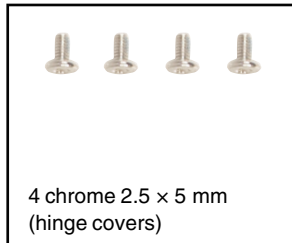


Phillips #0 screwdriver



Flat-blade screwdriver

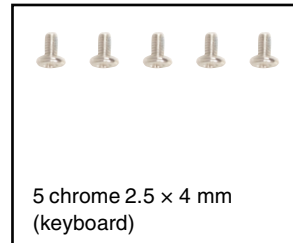
Screws removed during this task:



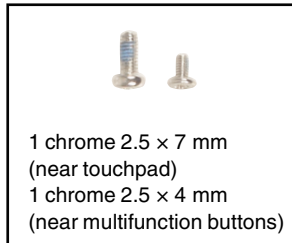
4 chrome 2.5 x 5 mm
(hinge covers)



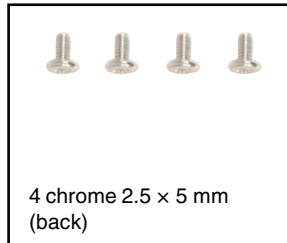
4 or 6 chrome 2.5 x 7 mm
(LCD panel hinges)



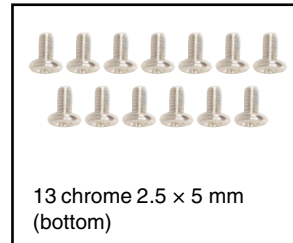
5 chrome 2.5 x 4 mm
(keyboard)



1 chrome 2.5 x 7 mm
(near touchpad)
1 chrome 2.5 x 4 mm
(near multifunction buttons)



4 chrome 2.5 x 5 mm
(back)



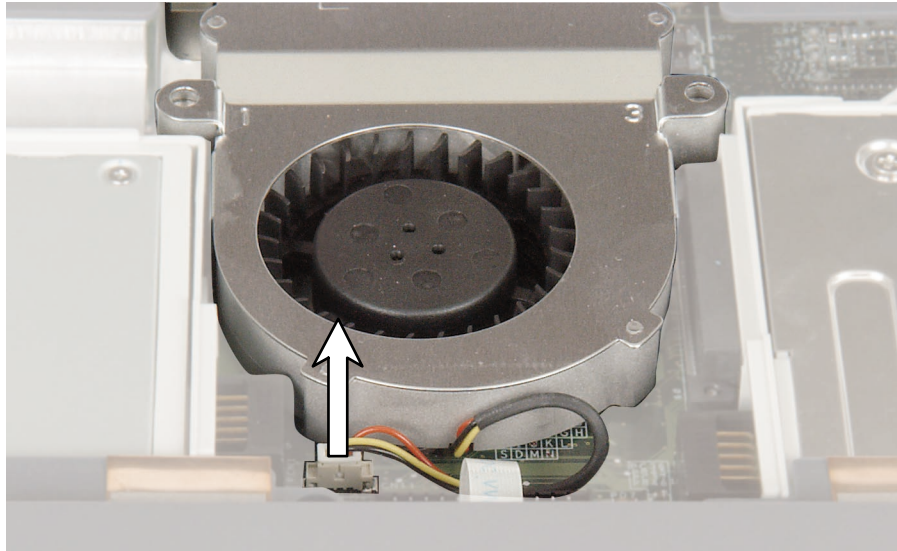
13 chrome 2.5 x 5 mm
(bottom)



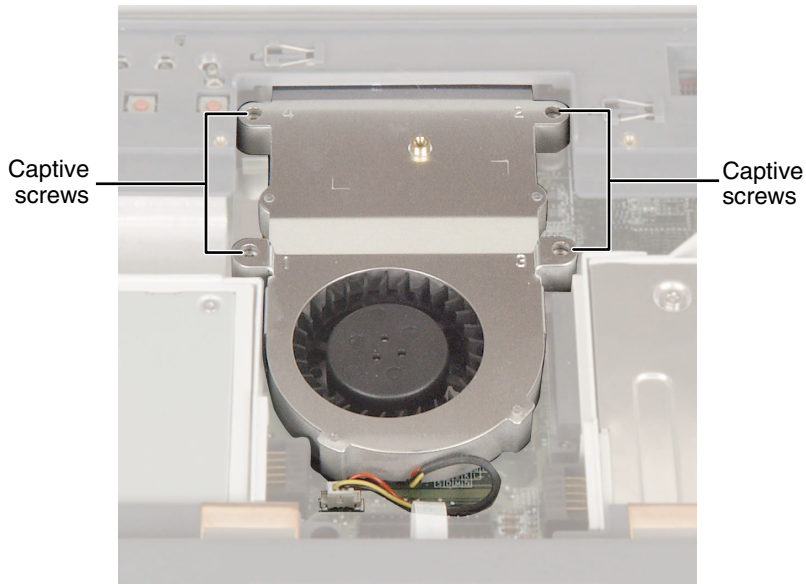
To replace the cooling assembly:

- 1 Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2 If your notebook has 802.11 wireless networking built in, remove the Mini PCI module by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.
- 3 Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 4 Remove the keyboard by following the instructions in “Replacing the keyboard” on page 24.

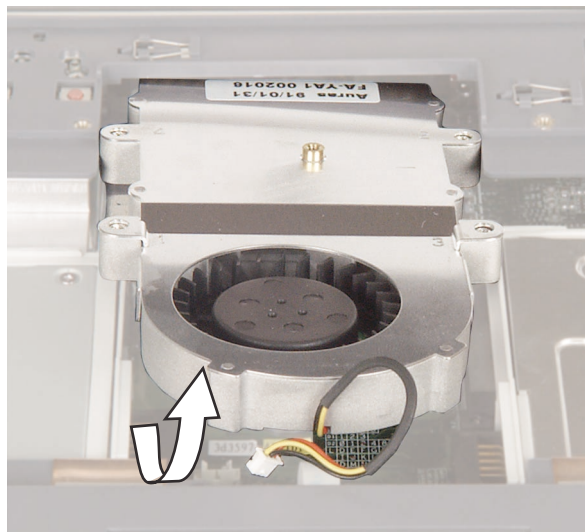
- 5 Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 29.
- 6 Remove the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 31.
- 7 Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 37.
- 8 Unplug the cooling fan.



- 9 Loosen the four captive screws that secure the cooling assembly to your notebook. (These screws cannot be removed.)



- 10 Lift the cooling assembly from your notebook.



- 11 Insert the new cooling assembly into your notebook, then tighten the four captive screws. Make sure that you tighten the screws in numerical order. Each screw hole has a numeral next to it.

Warning



When tightening the cooling assembly's chrome screws into the numbered holes, tighten them **in numerical order**.

- 12 Plug in the cooling fan.
- 13 Reassemble your notebook.

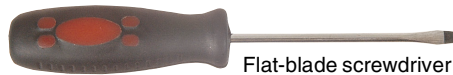


Replacing the LED indicator panel

Tools you need to complete this task:

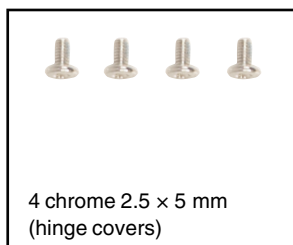


Phillips #0 screwdriver

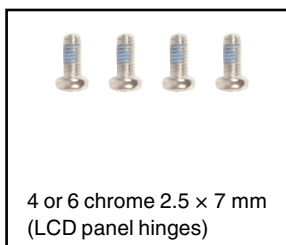


Flat-blade screwdriver

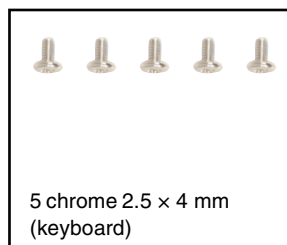
Screws removed during this task:



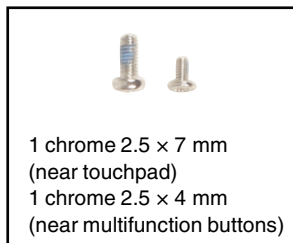
4 chrome 2.5 x 5 mm
(hinge covers)



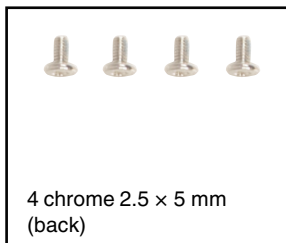
4 or 6 chrome 2.5 x 7 mm
(LCD panel hinges)



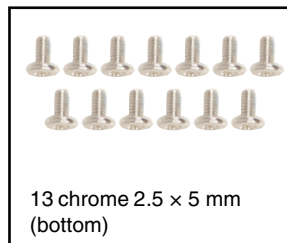
5 chrome 2.5 x 4 mm
(keyboard)



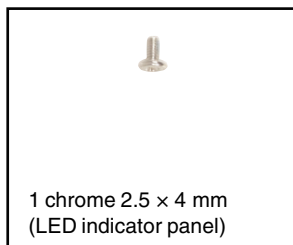
1 chrome 2.5 x 7 mm
(near touchpad)
1 chrome 2.5 x 4 mm
(near multifunction buttons)



4 chrome 2.5 x 5 mm
(back)



13 chrome 2.5 x 5 mm
(bottom)

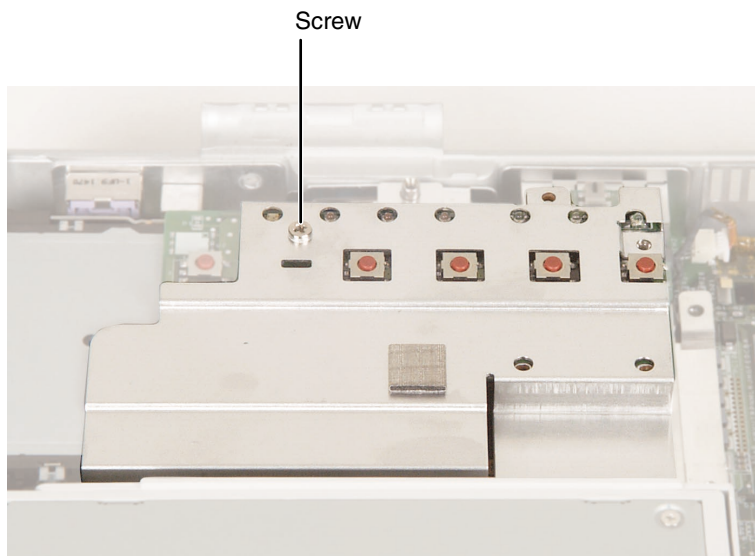


1 chrome 2.5 x 4 mm
(LED indicator panel)

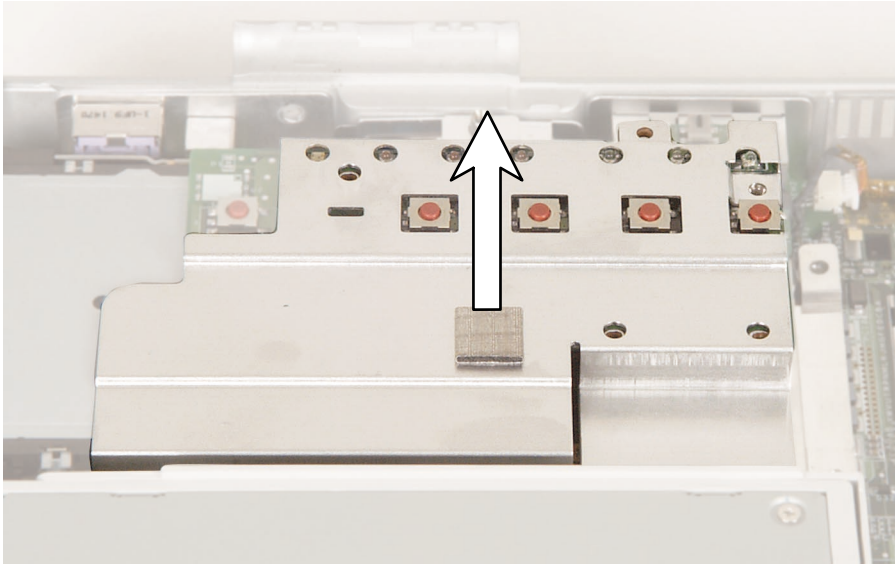


To replace the LED indicator panel:

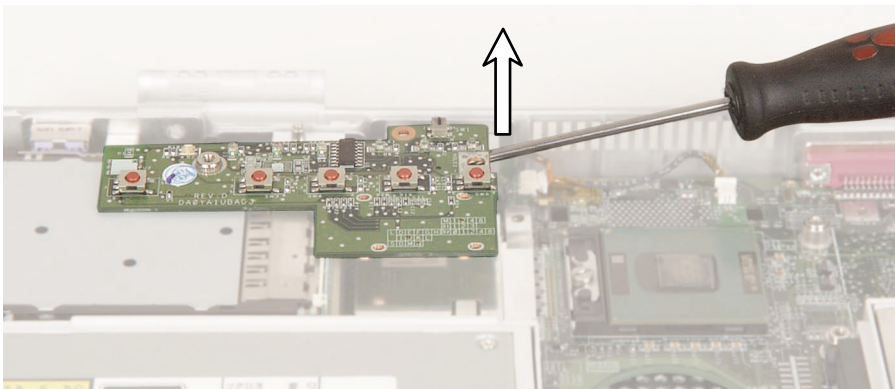
- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** If your notebook has 802.11 wireless networking built in, remove the Mini PCI module by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.
- 3** Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 4** Remove the keyboard by following the instructions in “Replacing the keyboard” on page 24.
- 5** Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 29.
- 6** Remove the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 31.
- 7** Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 37.
- 8** Remove the single screw that secures the LED indicator panel to your notebook.



- 9 Lift the shielding away from the LED panel.



- 10 Pry off the LED panel using a flat-blade screwdriver.



- 11 Align the new indicator panel's screw hole with the hole on your notebook, then press the panel into place.
- 12 Replace the indicator panel's shielding, then replace the screw.
- 13 Reassemble your notebook.

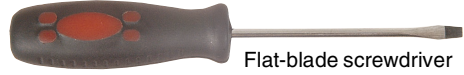


Replacing the speakers

Tools you need to complete this task:

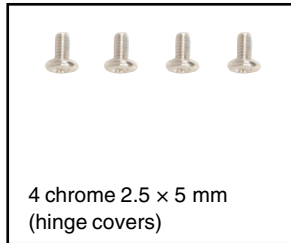


Phillips #0 screwdriver



Flat-blade screwdriver

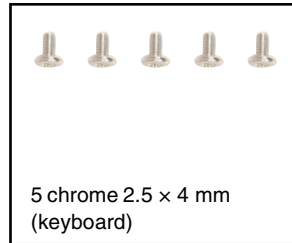
Screws removed during this task:



4 chrome 2.5 × 5 mm
(hinge covers)



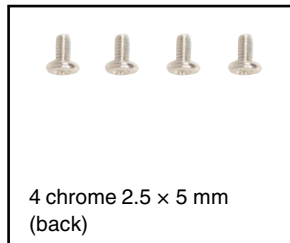
4 or 6 chrome 2.5 × 7 mm
(LCD panel hinges)



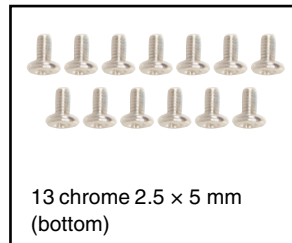
5 chrome 2.5 × 4 mm
(keyboard)



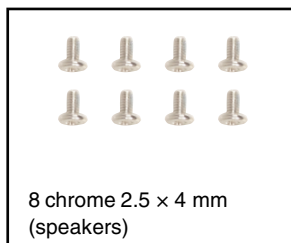
1 chrome 2.5 × 7 mm
(near touchpad)
1 chrome 2.5 × 4 mm
(near multifunction buttons)



4 chrome 2.5 × 5 mm
(back)



13 chrome 2.5 × 5 mm
(bottom)

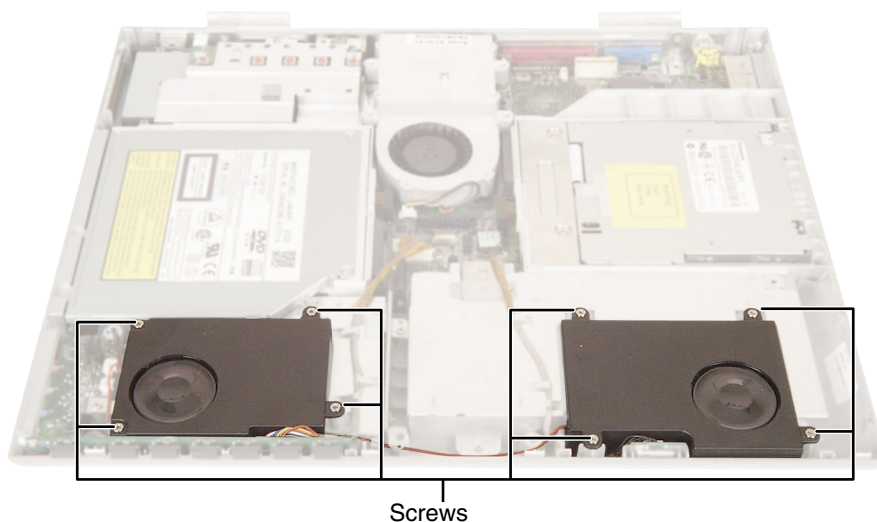


8 chrome 2.5 × 4 mm
(speakers)

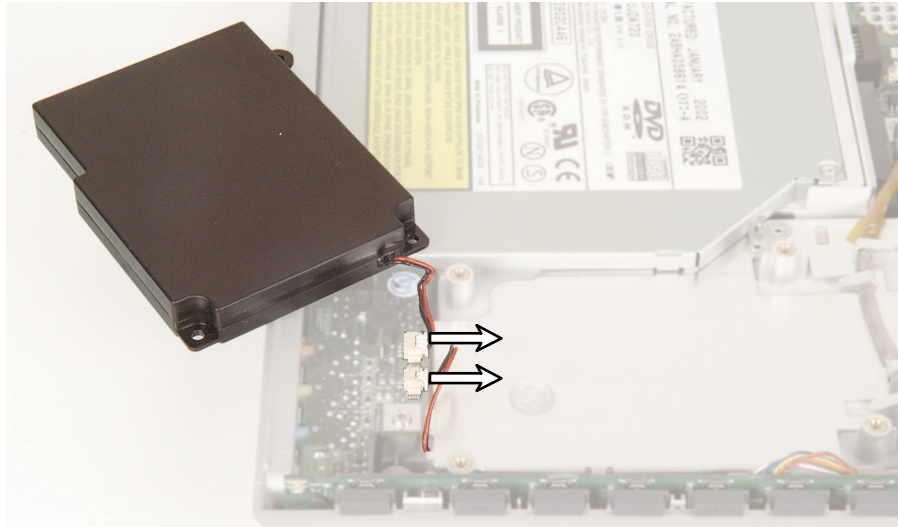


To replace the speakers:

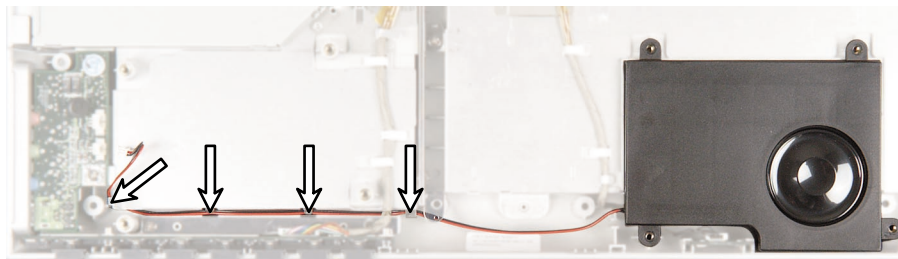
- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** If your notebook has 802.11 wireless networking built in, remove the Mini PCI module by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.
- 3** Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 4** Remove the keyboard by following the instructions in “Replacing the keyboard” on page 24.
- 5** Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 29.
- 6** Remove the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 31.
- 7** Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 37.
- 8** Remove the eight screws that secure the speakers to your notebook.



- 9 Move the left speaker out of the way, then unplug the connector for each speaker.



- 10 Use a flat-blade screwdriver to carefully pry open the metal tabs that hold down the wires for the right speaker, then completely remove both speakers.



- 11 Lay the left speaker near the audio board and align the right speaker over its screw holes on your notebook. The left speaker is the speaker with the shortest wires.
- 12 Plug in the connector for each speaker. The left speaker should be attached to the connector furthest from you.
- 13 Carefully thread the wires for the right speaker under the metal tabs, then press the tabs back down to secure the wires.

- 14 Replace the eight screws that secure the speakers to your notebook.
- 15 Reassemble your notebook.

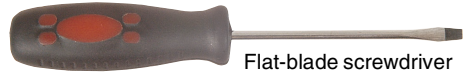


Replacing the audio board

Tools you need to complete this task:

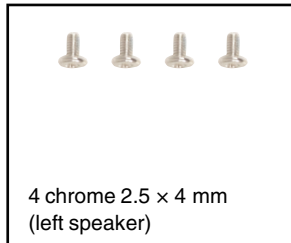
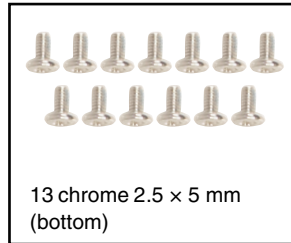
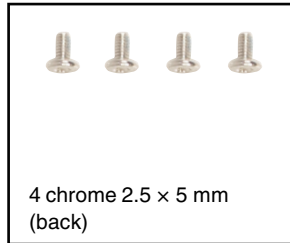
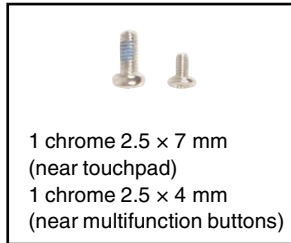
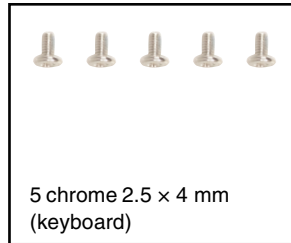
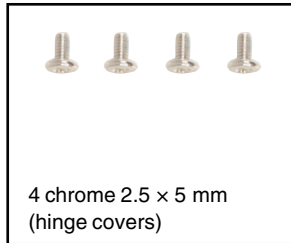


Phillips #0 screwdriver



Flat-blade screwdriver

Screws removed during this task:

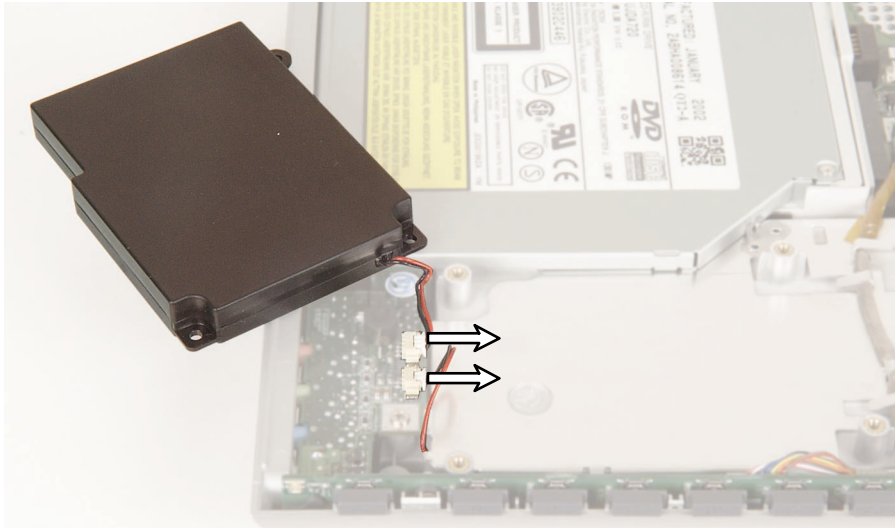




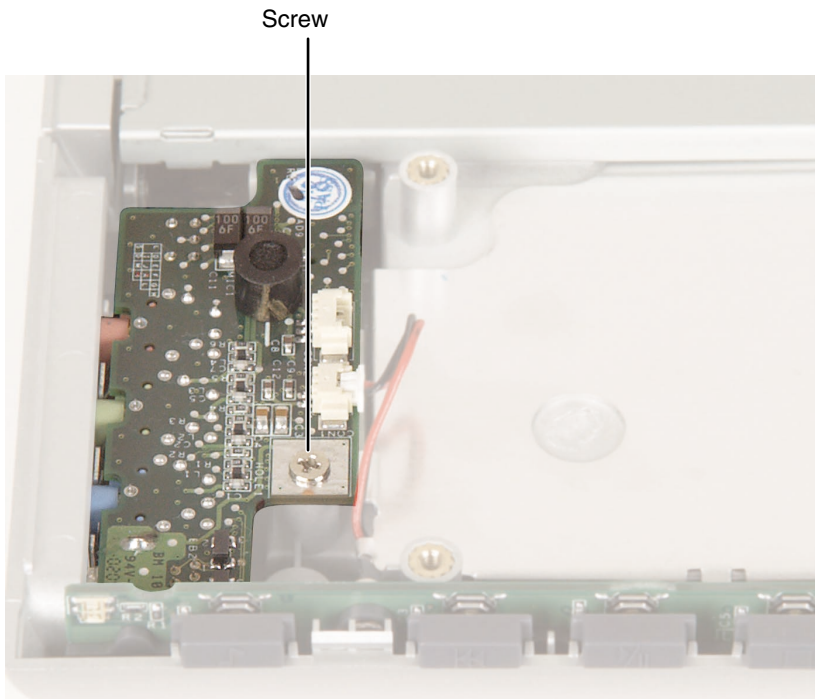
To replace the audio board:

- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** If your notebook has 802.11 wireless networking built in, remove the Mini PCI module by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.
- 3** Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 4** Remove the keyboard by following the instructions in “Replacing the keyboard” on page 24.
- 5** Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 29.
- 6** Remove the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 31.
- 7** Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 37.
- 8** Remove the left speaker by following the instructions in “Replacing the speakers” on page 49.

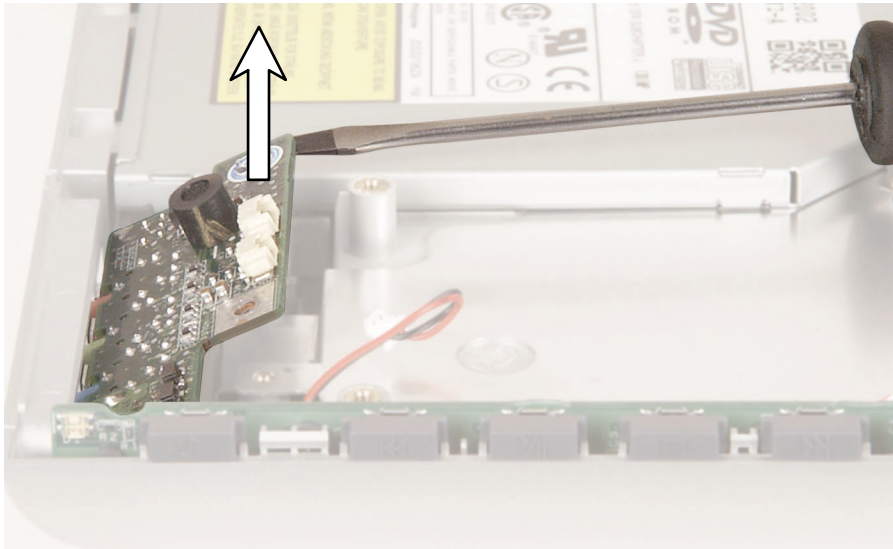
- 9 Unplug the speaker connectors for the left and right speakers.



- 10 Remove the single screw that secures the audio board to the notebook.



- 11 Use a flat-blade screwdriver to carefully pry the audio board up, then lift the audio board completely out of your notebook.



- 12 Align the new audio board's screw hole with the hole on your notebook, then press the board into place.
- 13 Replace the screw.
- 14 Plug the connectors for each speaker into the audio board. The left speaker should be attached to the connector furthest from you.
- 15 Replace the four screws that secure the left speaker to your notebook.
- 16 Reassemble your notebook.



Replacing the system board

Tools you need to complete this task:



Phillips #0 screwdriver

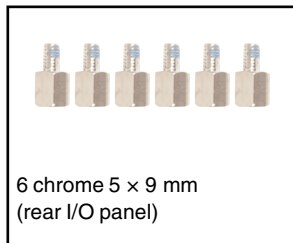
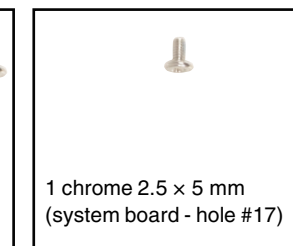
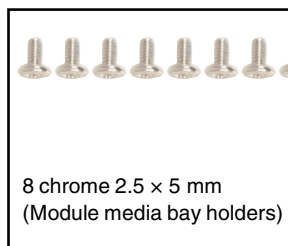
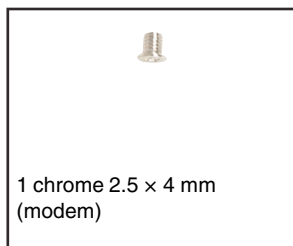
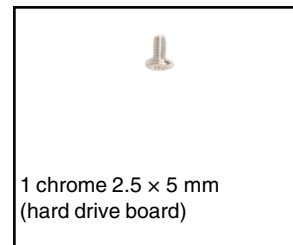
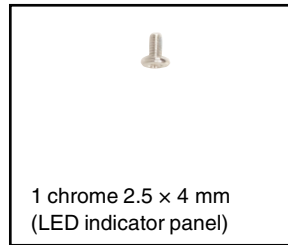
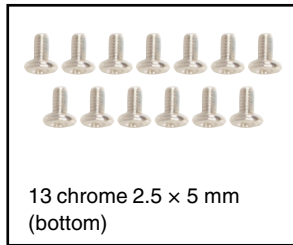
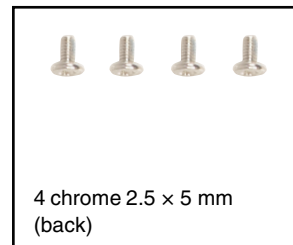
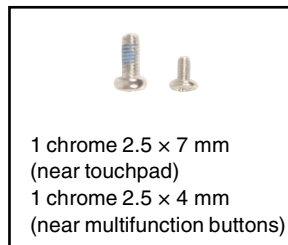
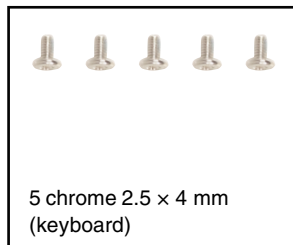
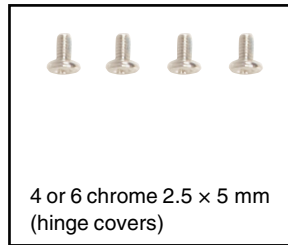
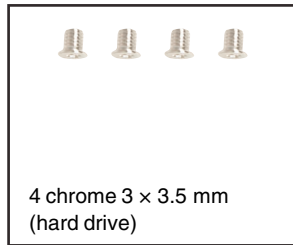


5.0 mm hex nutdriver



Flat-blade screwdriver

Screws removed during this task:

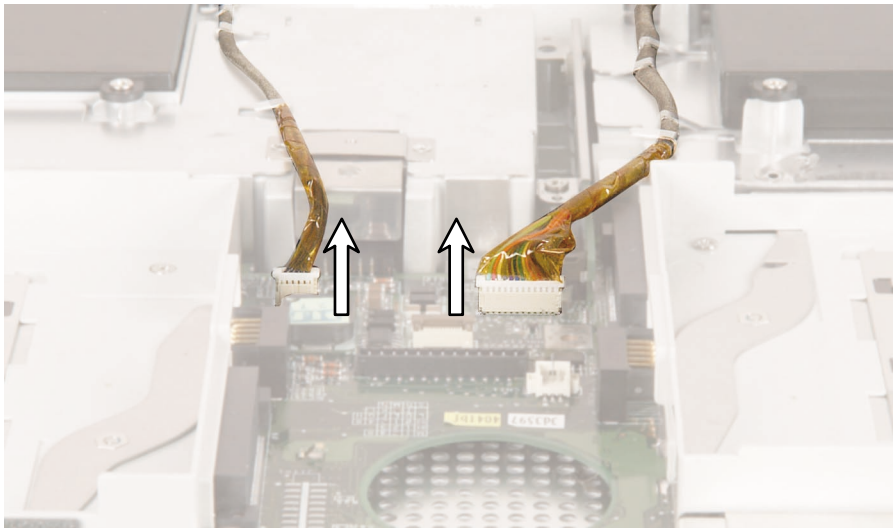




To replace the system board:

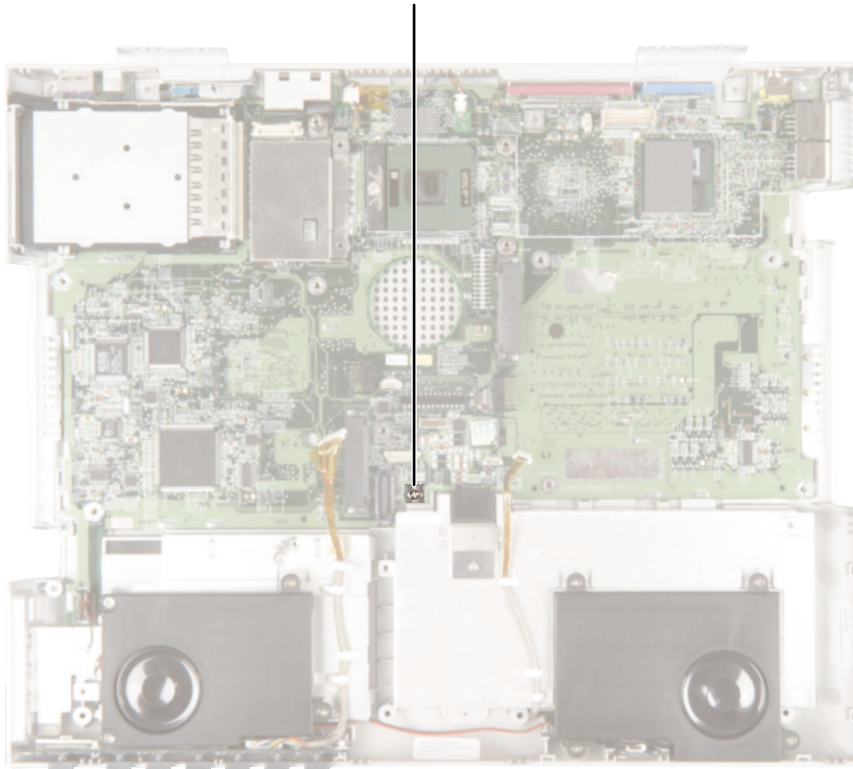
- 1** Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your work space” on page 3.
- 2** Remove the modular drives.
- 3** Remove the memory modules by following the instructions in “Adding or replacing memory modules” on page 6.
- 4** If your notebook has 802.11 wireless networking built in, remove the Mini PCI module by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.
- 5** Remove the hard drive kit by following the instructions in “Replacing the hard drive kit” on page 16.
- 6** Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
- 7** Remove the keyboard by following the instructions in “Replacing the keyboard” on page 24.
- 8** Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 29.
- 9** Remove the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 31.
- 10** Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 37.
- 11** Remove the cooling assembly by following the instructions in “Replacing the cooling assembly” on page 42.
- 12** Remove the LED indicator panel by following the instructions in “Replacing the LED indicator panel” on page 46.

- 13 Unplug the speakers (one connector) and the front panel from the system board.

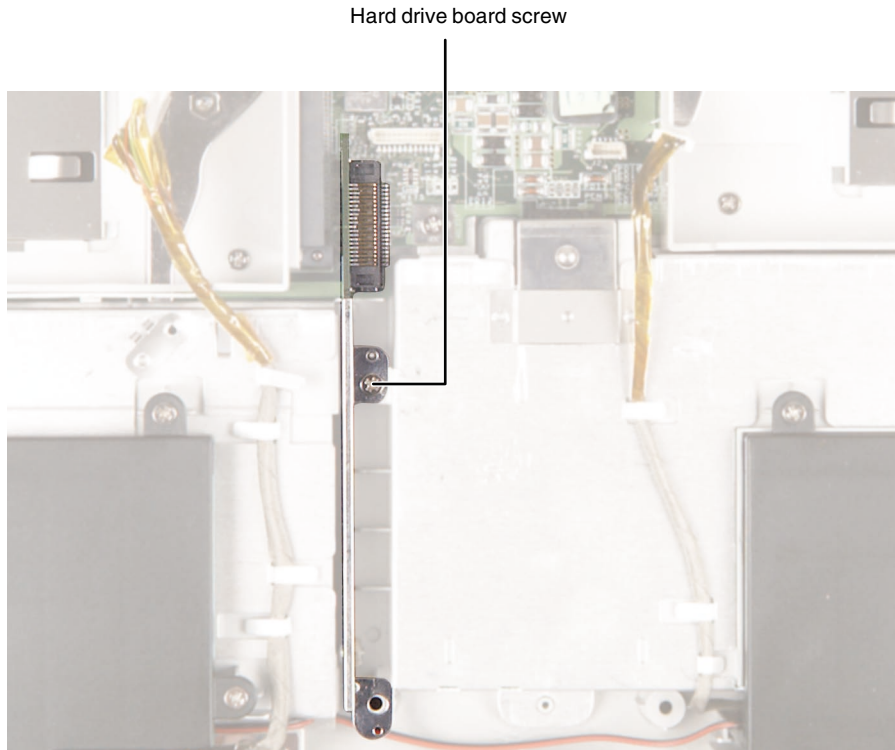


- 14 Remove one system board screw from system board hole #17.

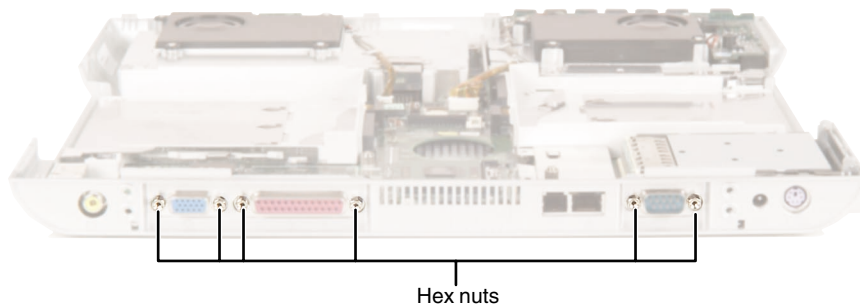
System board screw



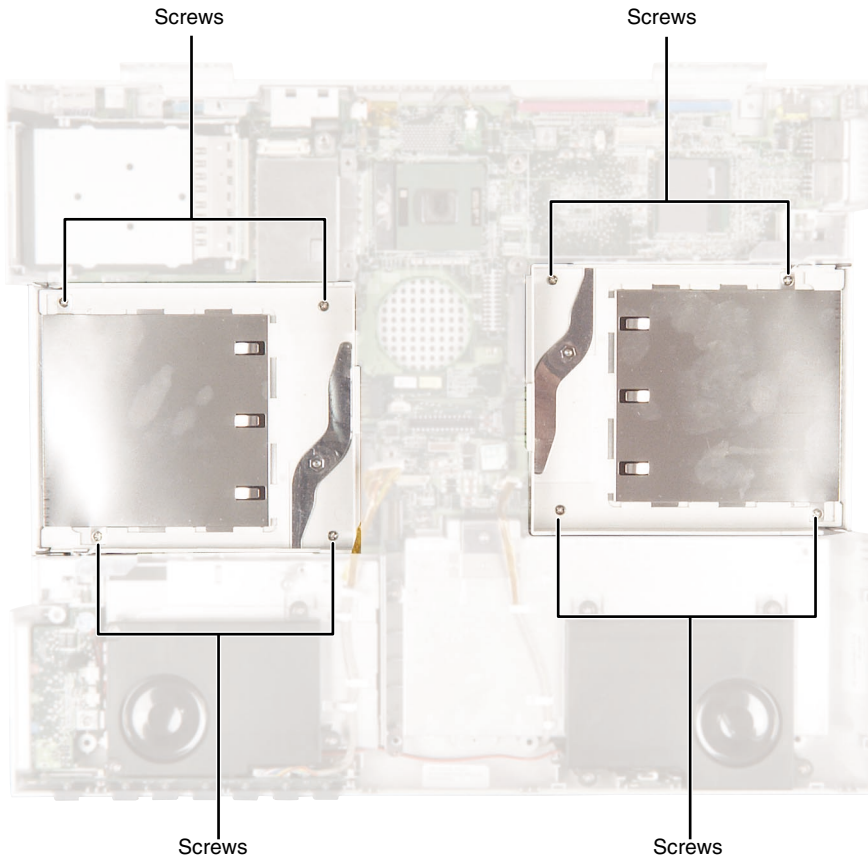
- 15 Remove one hard drive board screw, then remove the hard drive board.



- 16 Remove the six hex nuts on the rear I/O panel.

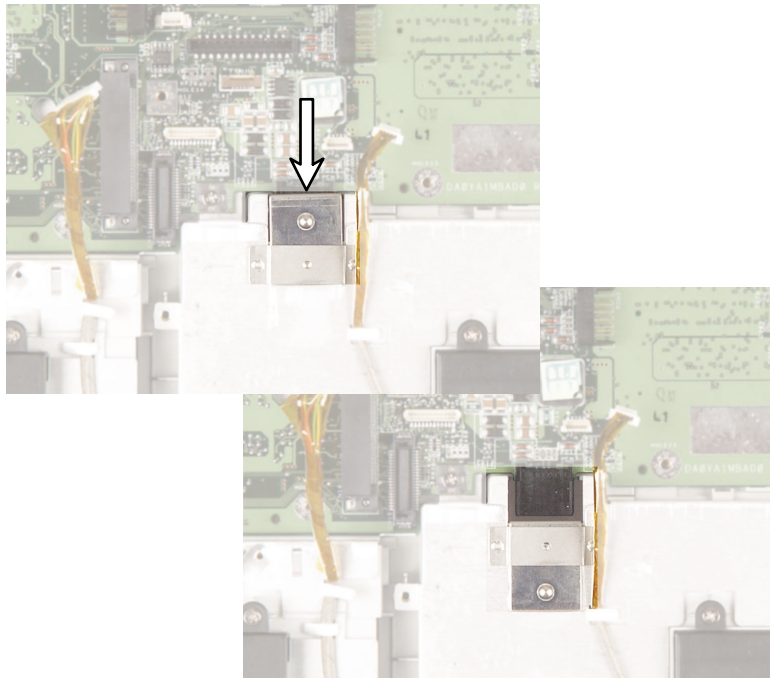


- 17 Remove the eight module media bay holder screws, then remove the two module media bay holders.



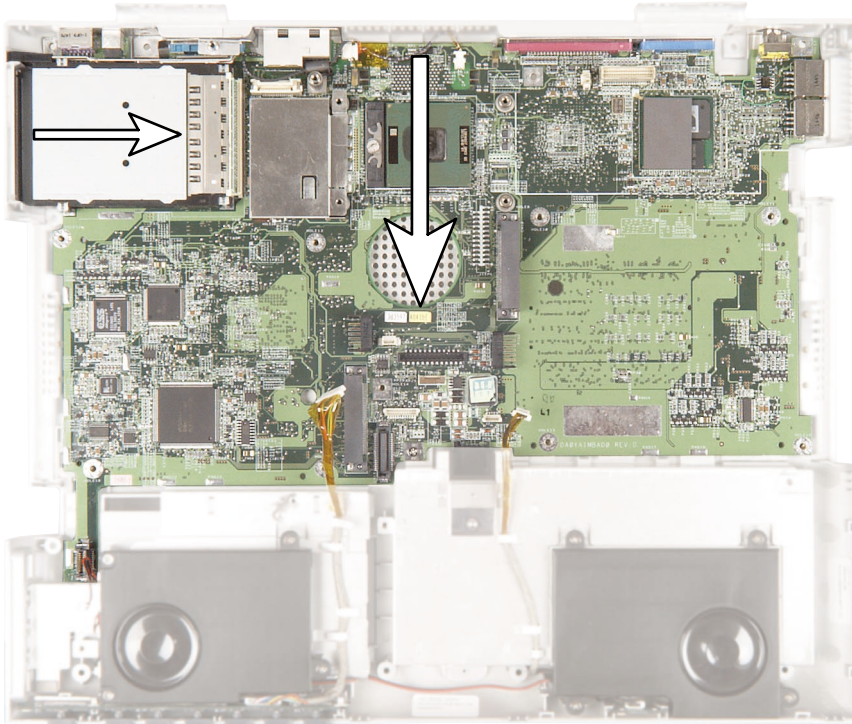
- 18 Remove the audio board by following the instructions in "Replacing the audio board" on page 53.

- 19 Slide the battery cover door open.

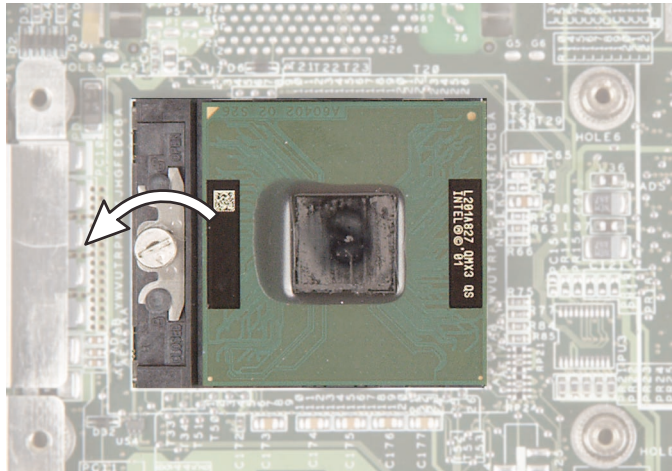


20 While pushing in on the PC Card eject button, remove the system board.

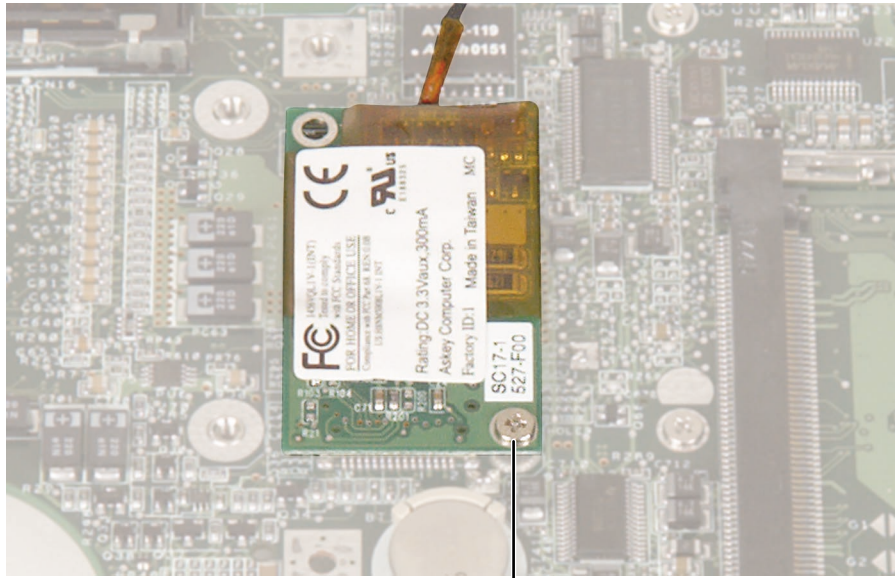
Make sure that the rear I/O panel clears the bottom of the chassis (shown by the top arrow) and the PC Card eject button clears the bottom of the chassis (shown by the left arrow).



- 21 Use a flat-blade screwdriver to turn the processor lock screw $\frac{1}{4}$ -turn counter-clockwise, then remove the processor from the old system board.

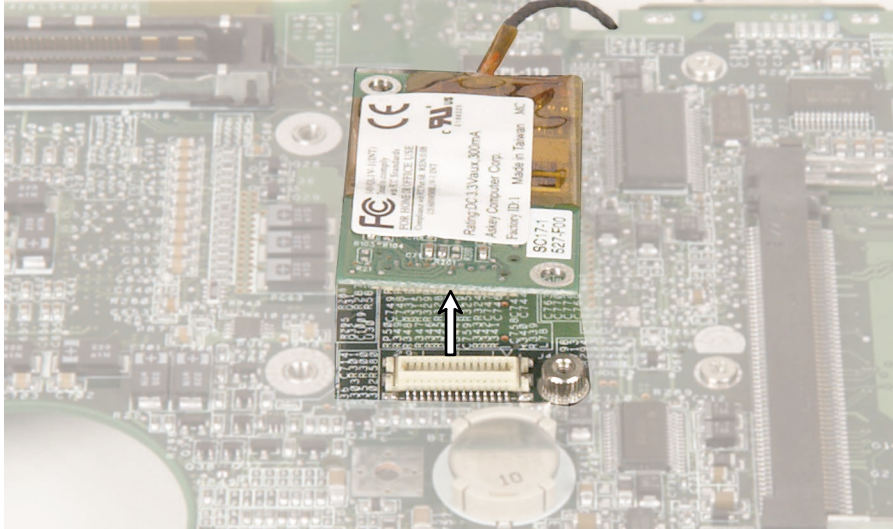


- 22 Turn the system board over and remove the screw that secures the modem to the system board.

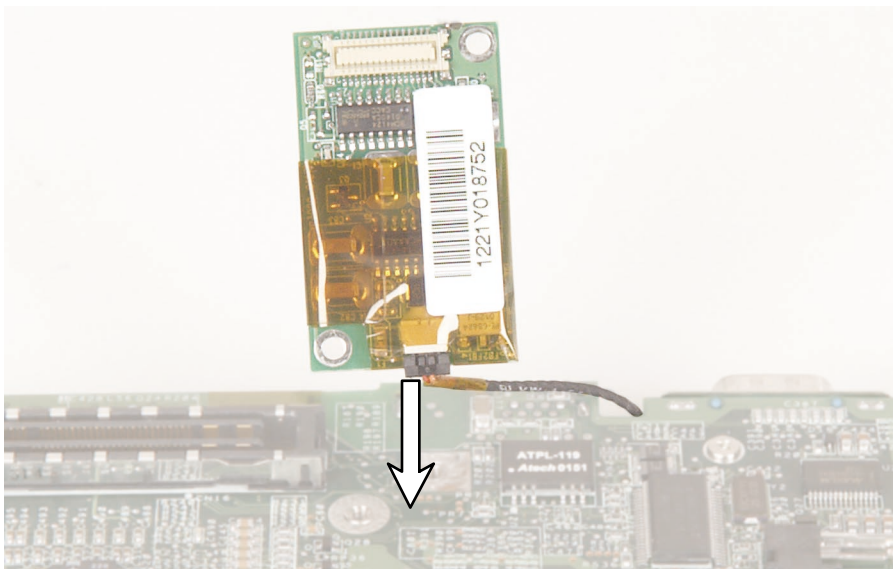


Screw

23 Unplug the modem from the system board.

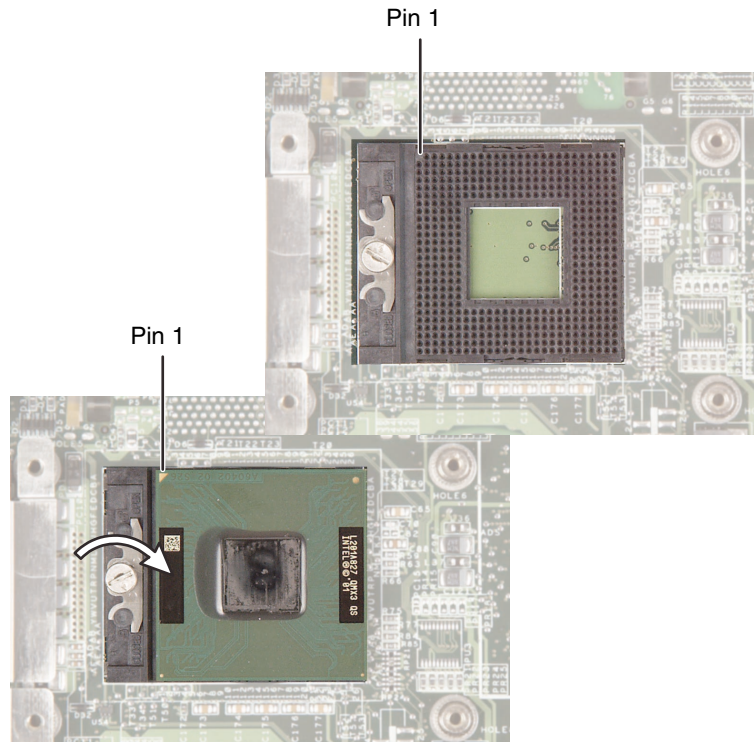


24 Unplug the modem cable from the modem.



25 Install the modem into the new system board and turn the board over.

- 26** Install the processor into the new system board making sure that Pin 1 on the processor (indicated by the silk-screened arrow on the corner of the processor) aligns with Pin 1 on the processor socket (indicated by the absence of a pin hole in the processor socket), then lock the processor in place by using a flat-blade screwdriver to turn the processor lock screw $\frac{1}{4}$ -turn clockwise.



- 27** Place the new system board onto your notebook.
- 28** Slide the battery cover door closed.
- 29** Reinstall the audio board by following the instructions in “Replacing the audio board” on page 53.
- 30** Reinstall the two module media bay holders (they are interchangeable).
- 31** Replace the six hex nuts on the rear I/O panel.
- 32** Reinstall the hard drive board and the hard drive board screw.

- 33** Replace the system board screw into system board hole #17.
- 34** Connect the speaker and the front panel.
- 35** Reassemble your notebook.

