Gateway 400SD4 Service Guide

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Replacing Components in Your Gateway 400

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About this guide

Use this service guide to help plan your maintenance tasks for the Gateway 400 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.

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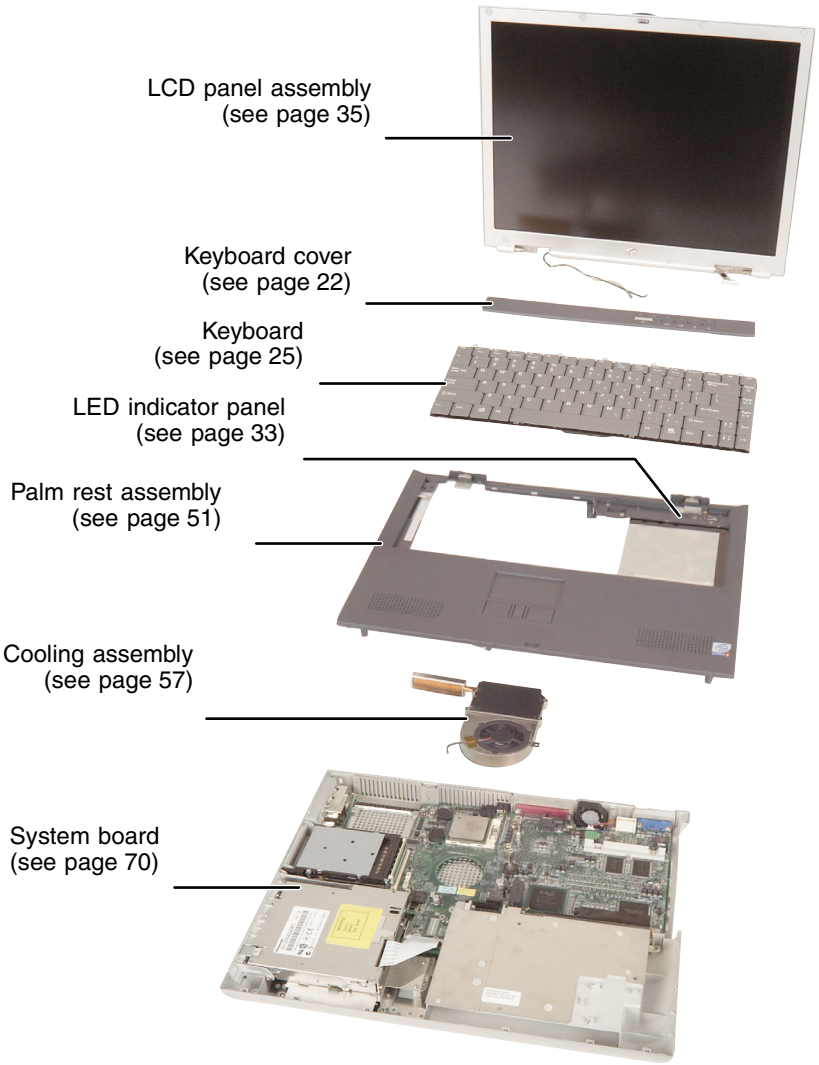
Identifying components

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 prepared correctly.

- Wear a grounding (ESD) wrist strap.
- Use a grounded or dissipative work mat.
- Use a stable and strong table.
- Make sure that the table top is 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.
- 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 components 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 or on the cooling assembly), you can leave the screws in the holes if you place small pieces of 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 modems 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.

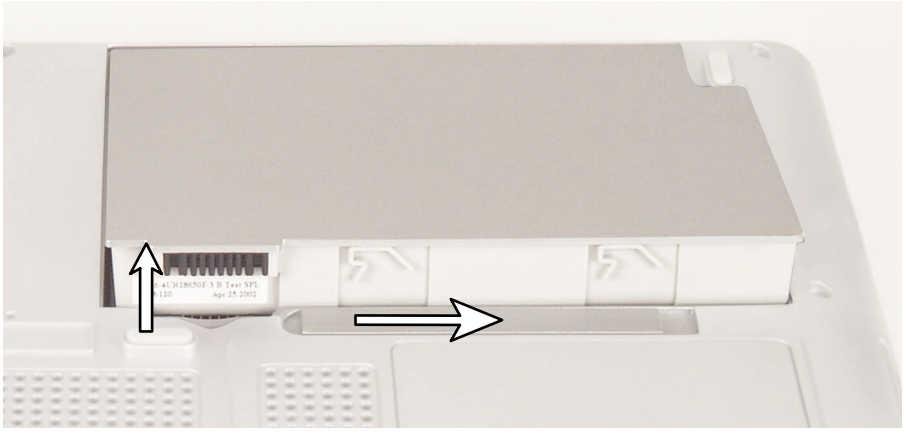
Preparing your notebook

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 any covers that you removed before you restore power or reconnect the modem cable.

To prepare your notebook for maintenance:

- 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 driver

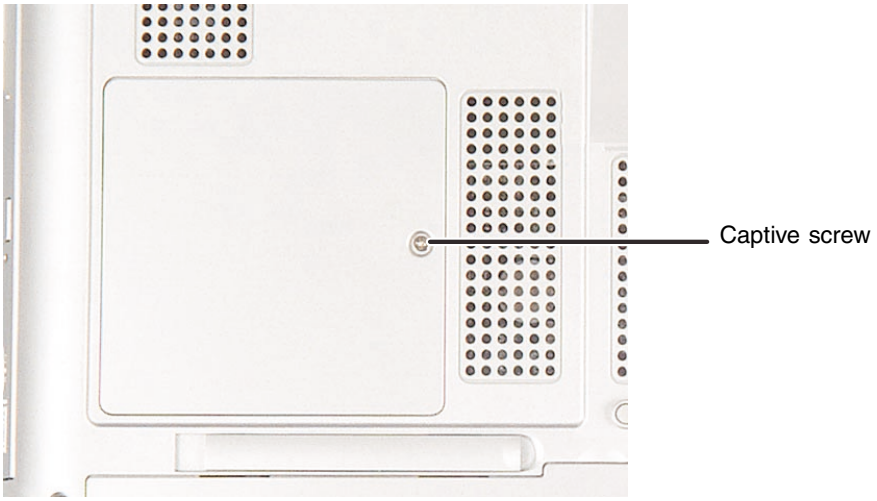
Important

Use only PC200 SO-DIMM memory modules.

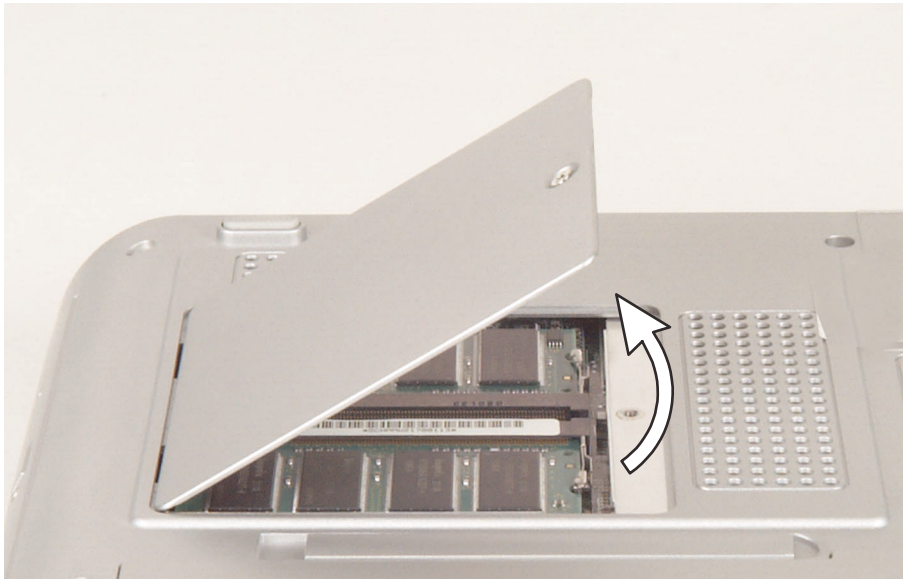
To add or replace memory modules:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Turn your notebook over so that the bottom is facing up.

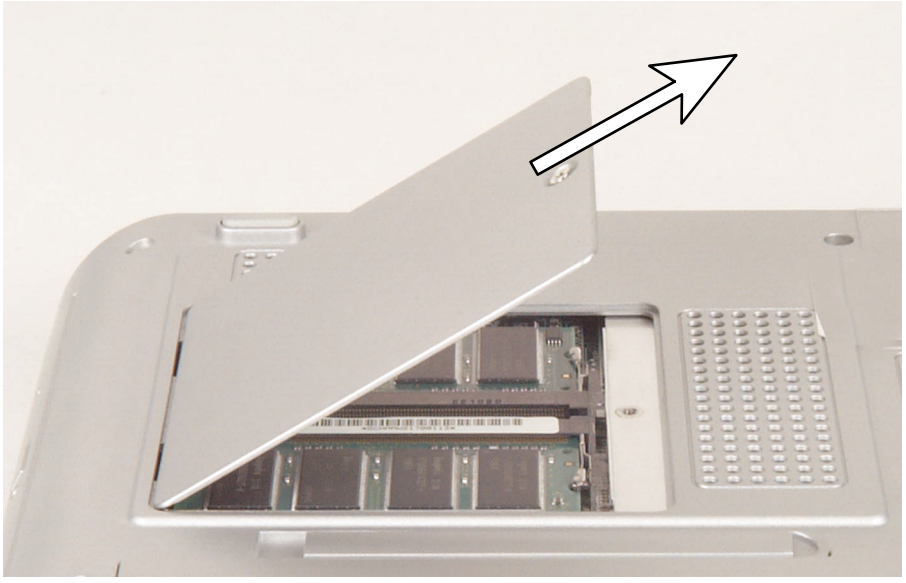
3 Loosen the captive screw that secures the memory cover. (The screw cannot be removed.)



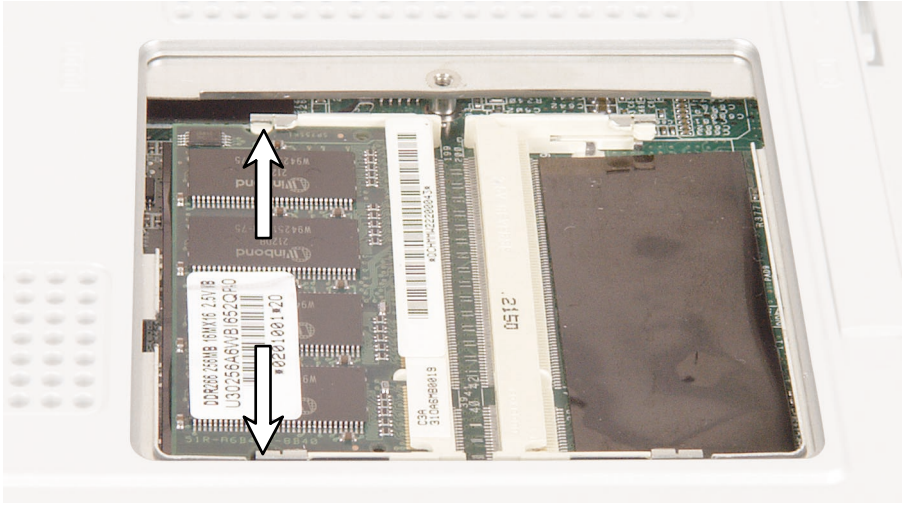
4 Lift the screw side of the cover upward.



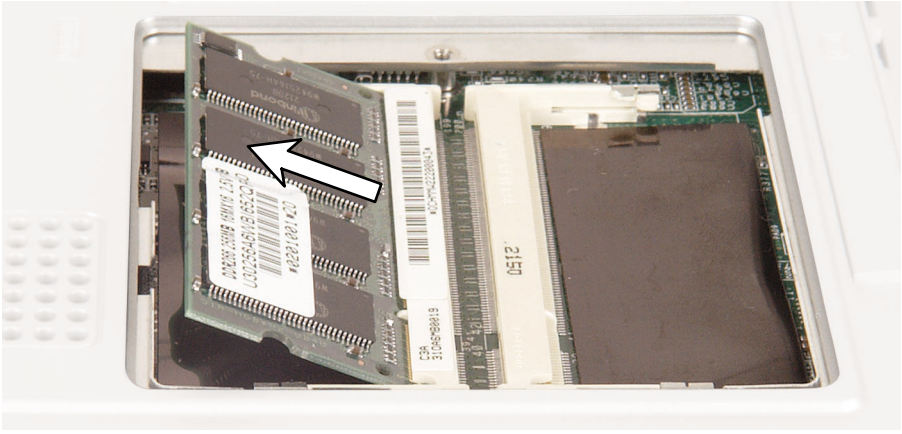
5 Slide the cover out.



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

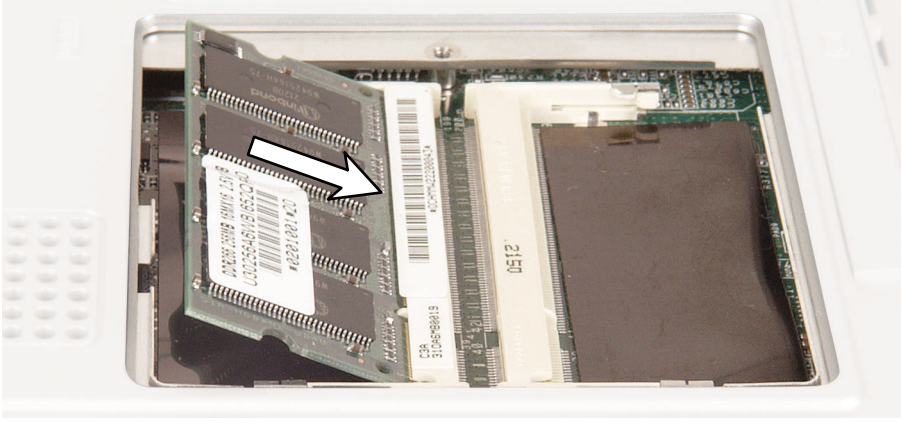


7 Grasp the module in the middle and pull the module straight out of the slot. Make sure that you do not bend or twist the module as you remove it.

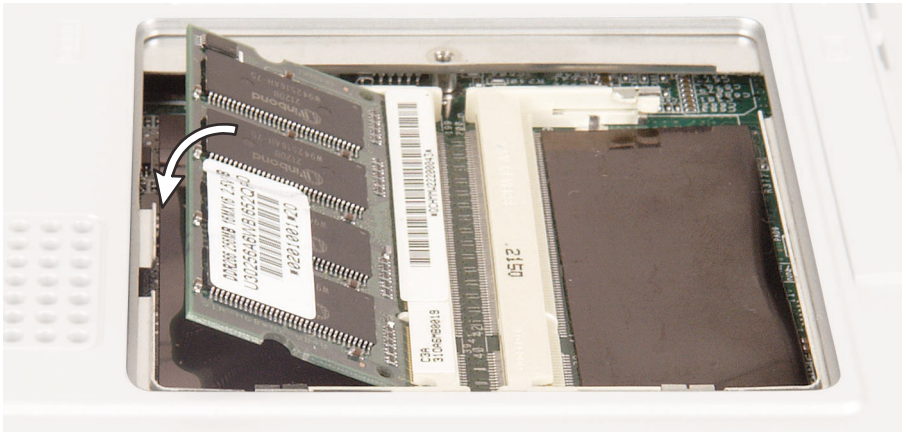


8 Hold the new or replacement module at a 25-degree angle, then press it into the empty memory slot so that the connectors on the module are firmly seated in the slot. Make sure that you do not bend or twist the module.

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.



9 Press the module down until it clicks into place.



10 Replace the memory cover, then tighten the captive screw.

Replacing the 802.11 Mini PCI card

Tools you need to complete this task:

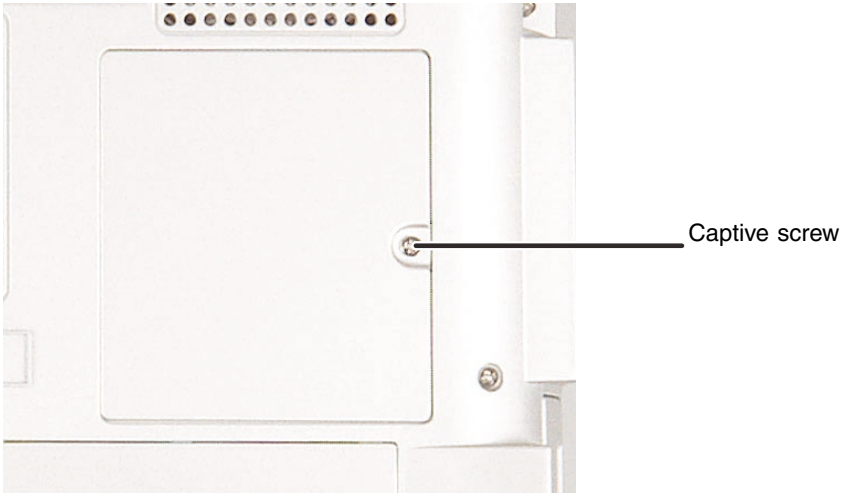
Phillips #0 driver

Important

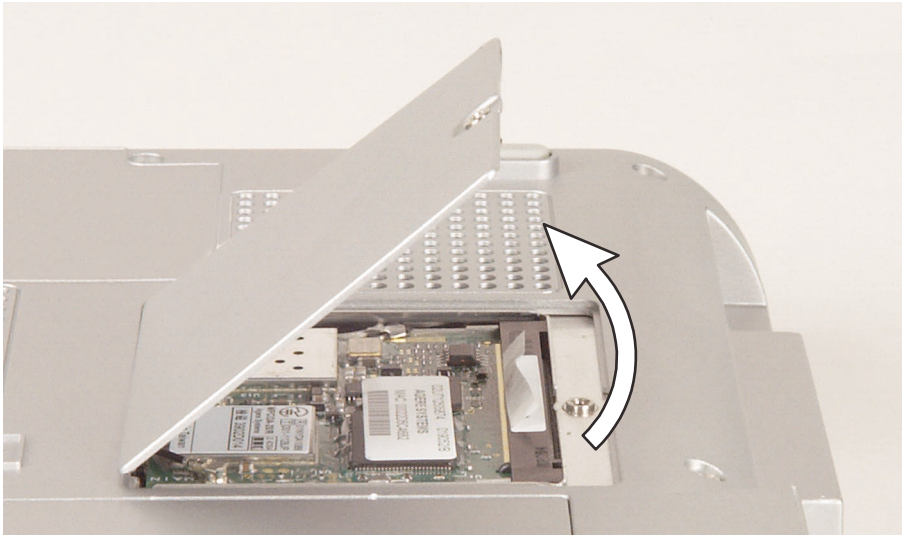
Use only 802.11B Mini PCI cards specifically qualified for this notebook.

To replace the 802.11 Mini PCI card:

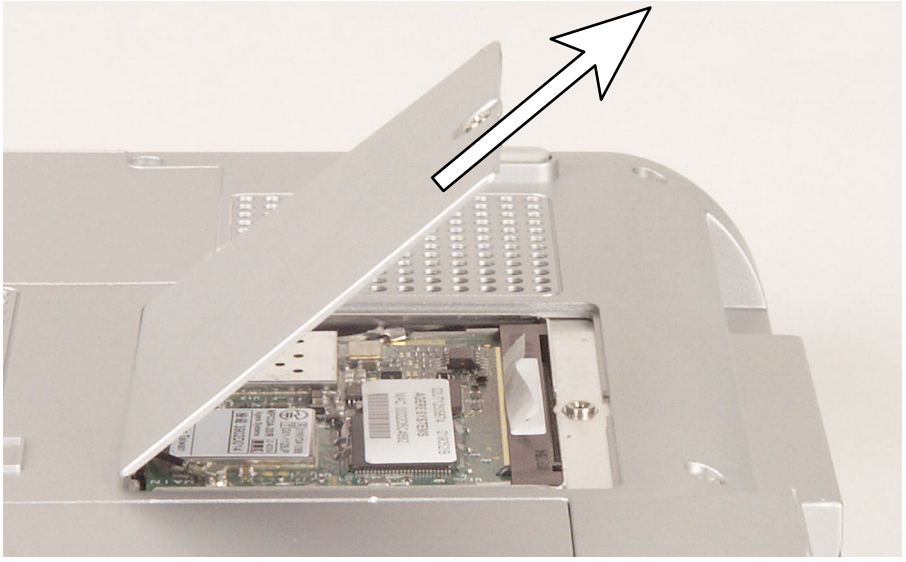
1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Turn your notebook over so that the bottom is facing up.
3. Loosen the captive screw that secures the Mini PCI cover. (The screw cannot be removed.)



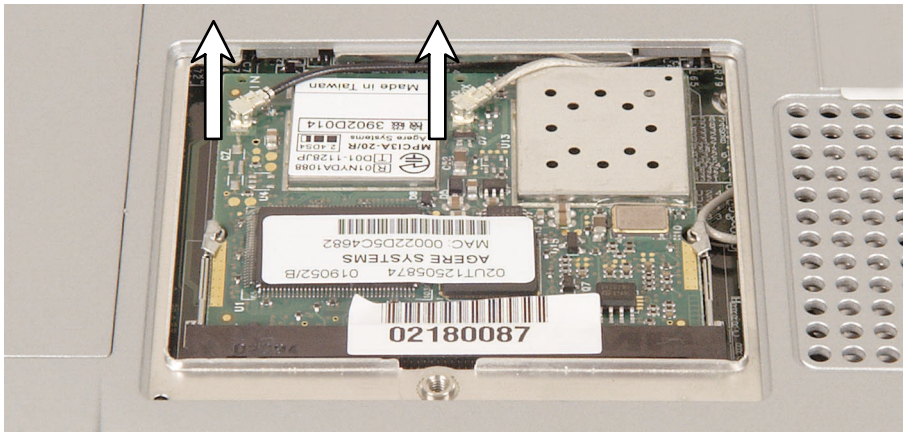
4 Lift the screw side of the cover upward.



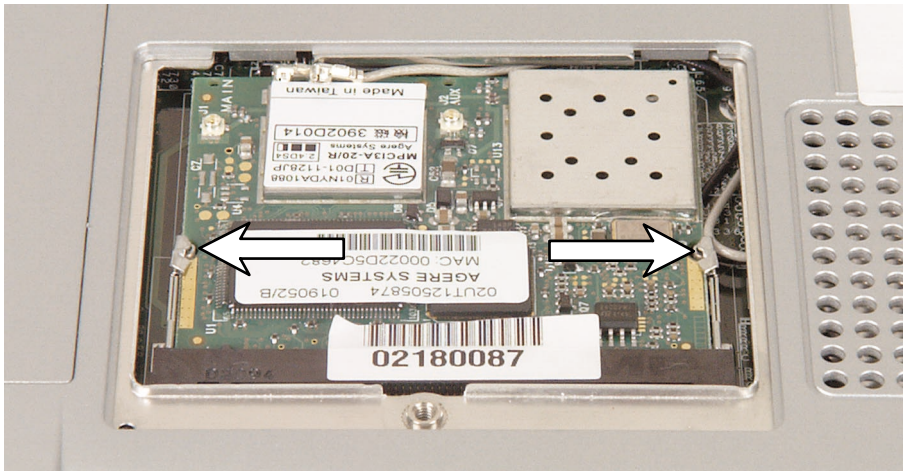
5 Slide the cover out.



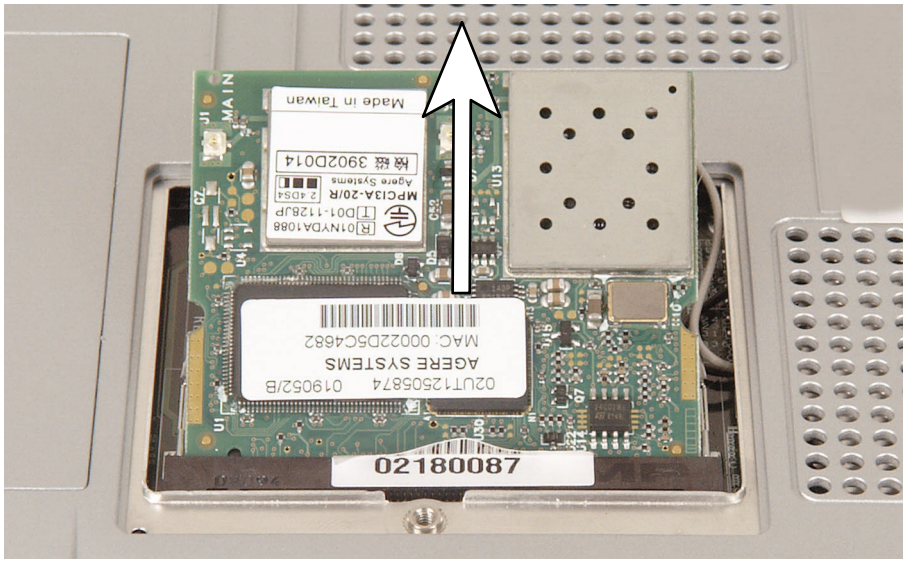
6 Unplug the main and auxiliary antenna cables.



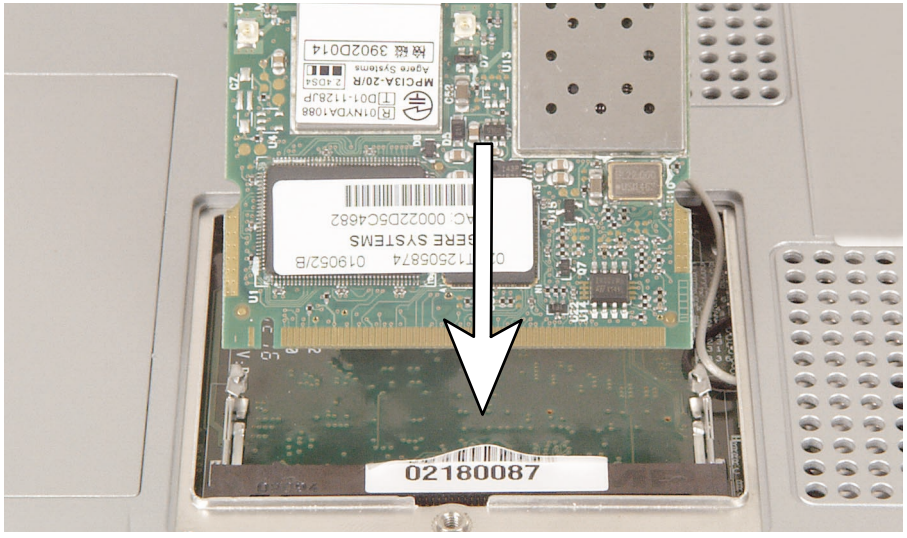
7 Press outward on the clips at both sides of the card until the card tilts upward.



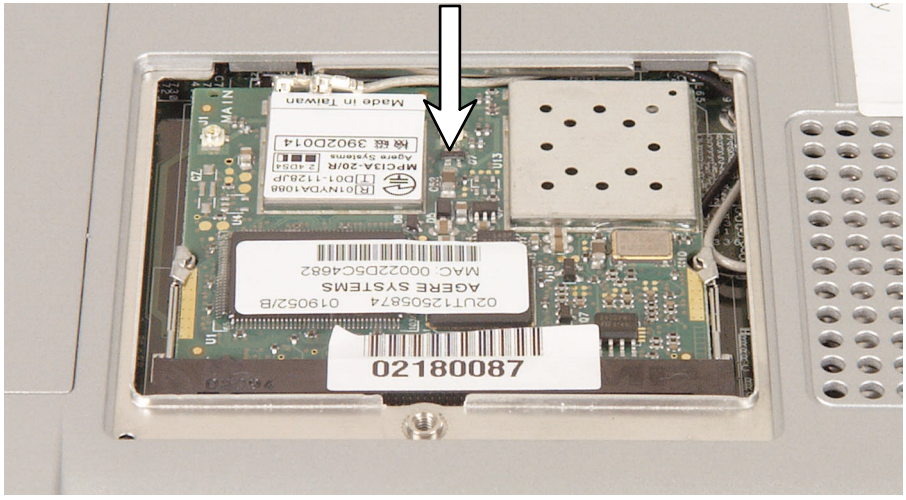
8 Pull the card out of the slot.



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



10 Press the card down until it clicks into place.



11 Reattach the black antenna cable to the connector that is closest to the module's edge, then reattach the white antenna cable to the connector that is closest to the module's metal shielding.

12 Replace the Mini PCI cover, then tighten the captive screw.

Replacing the hard drive kit

Tools you need to complete this task:

Phillips #0 driver

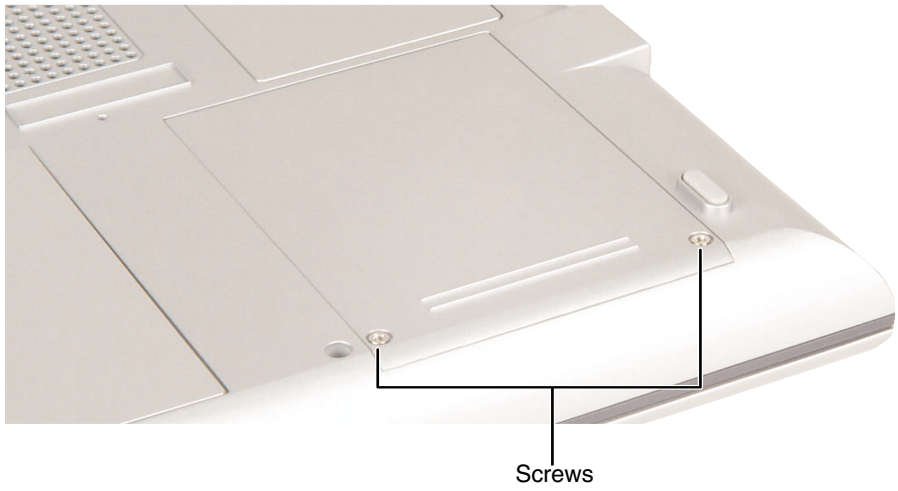
Screws removed during this task:

2 chrome 2.5 × 4 mm
(hard drive kit)

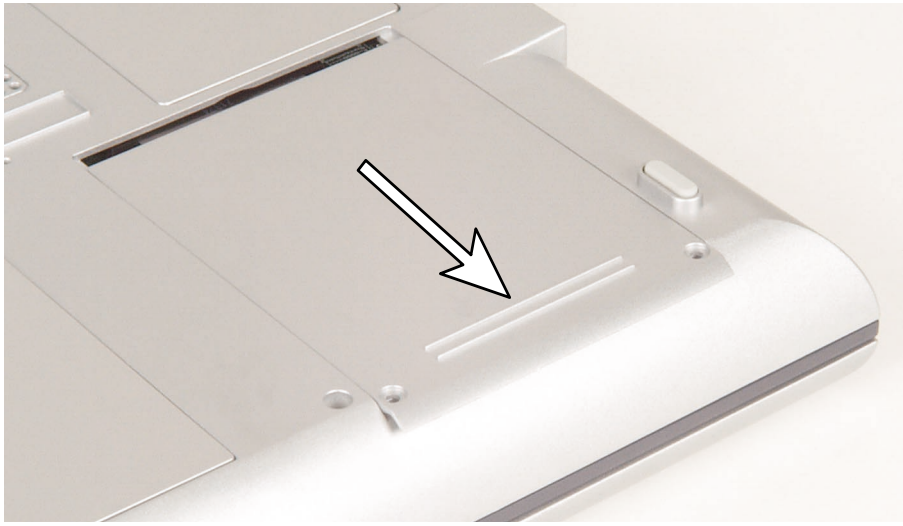
To replace the hard drive kit:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Turn your notebook over so that the bottom is facing up.

3 Remove the two screws that secure the hard drive kit to your notebook.



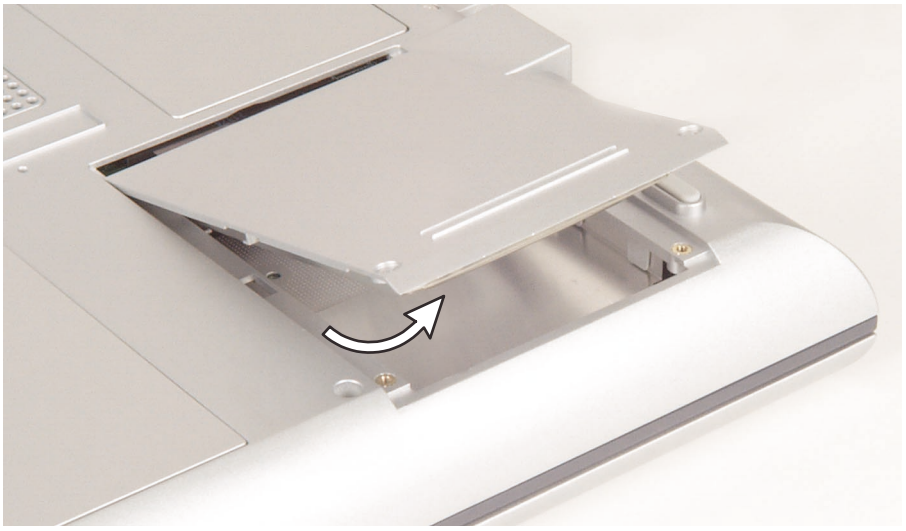
4 Slide the screw side of the cover outward to unplug the hard drive kit.



Caution

Be careful when handling the hard drive. The hard drive is very sensitive to shock. Handle the drive by its edges, do not press on the cover, do not touch the connector with your fingertips, and avoid dropping the drive. Damage to the hard drive can result in permanent loss of data.

5 Lift the screw side of the cover upward, then lift the hard drive kit out of your notebook. The hard drive is attached to the back side of the cover.



6 Insert the new hard drive kit into the hard drive slot. Install the screw in the round hole, then install the screw in the elongated hole. Do not overtighten the screws.

Replacing the hard drive in the hard drive kit

Tools you need to complete this task:

Phillips #0 driver

Screws removed during this task:

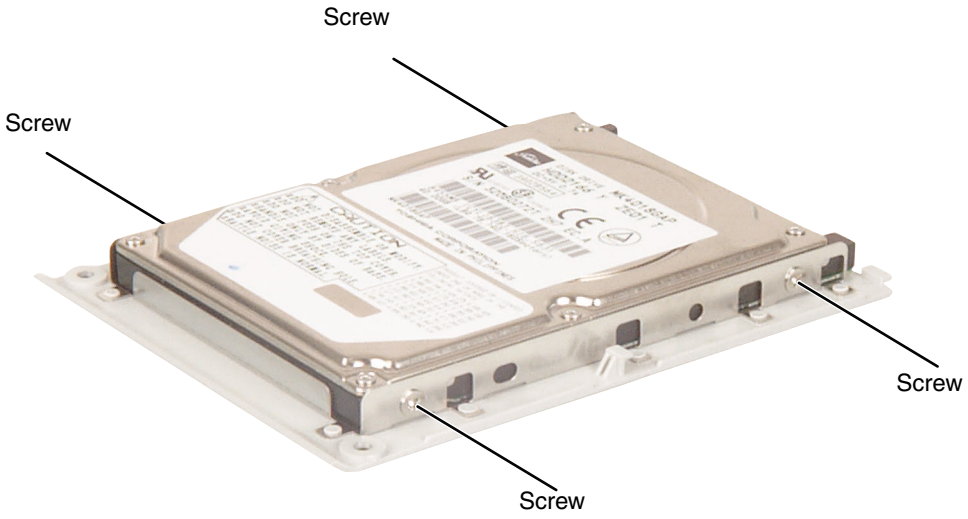
2 chrome 2.5 × 4 mm
(hard drive kit)

4 chrome 2.5 × 4 mm
(hard drive kit bracket)

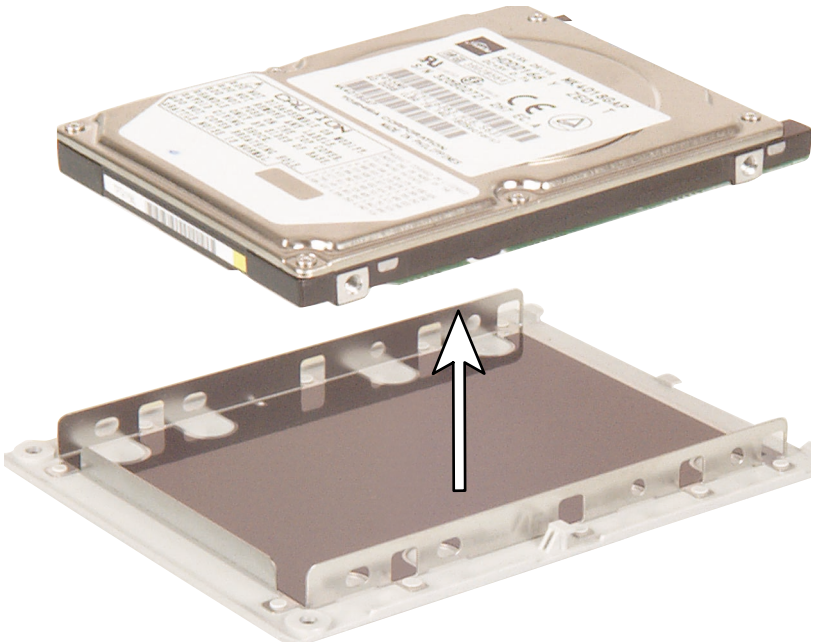
To install a new hard drive into the kit:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Remove the hard drive kit by following the instructions in “Replacing the hard drive kit” on page 16.

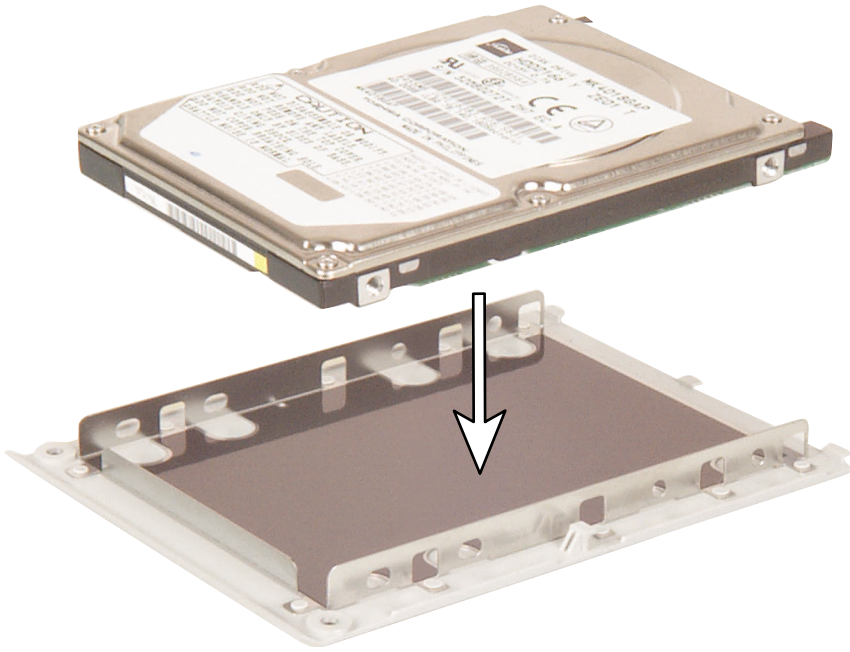
3 Remove the four screws that secure the hard drive to the hard drive kit bracket.



4 Remove the old drive from the bracket.



5 Insert the new drive into the bracket so that the screw holes line up.



6 Replace the four screws that secure the bracket to the drive.

7 Insert the hard drive kit into your notebook, then replace the two screws that secures the kit to your notebook.

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 notebook” on page 5.
2. Open your notebook.
3. Insert a flat-blade screwdriver or non-marring tool into the small notch in the bottom of the keyboard cover just above the **Ins** key, then carefully pry the cover up.

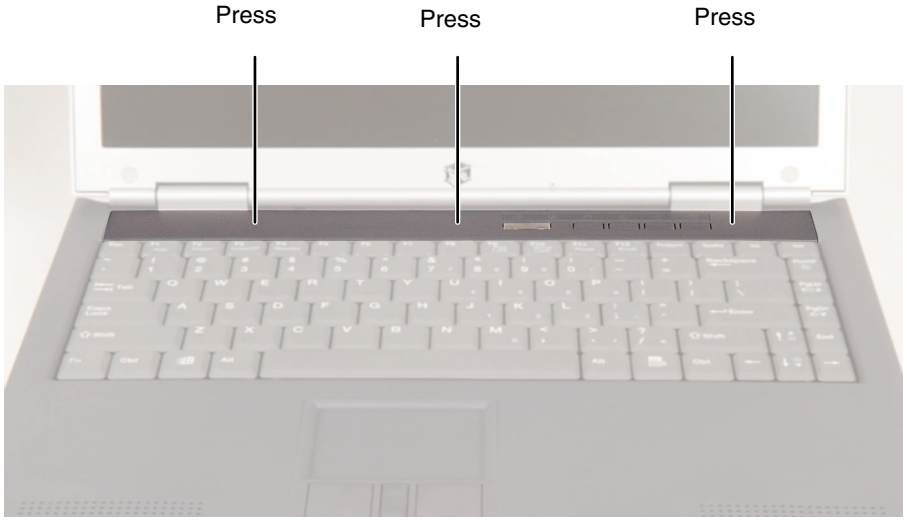
Warning

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 Lift the right end of the cover, then slide the cover off to your right.

5 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.

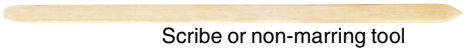
6 Press down at the locations shown until the cover clicks into place.



Replacing the keyboard

Tools you need to complete this task:

Phillips #0 driver


Scribe or non-marring tool

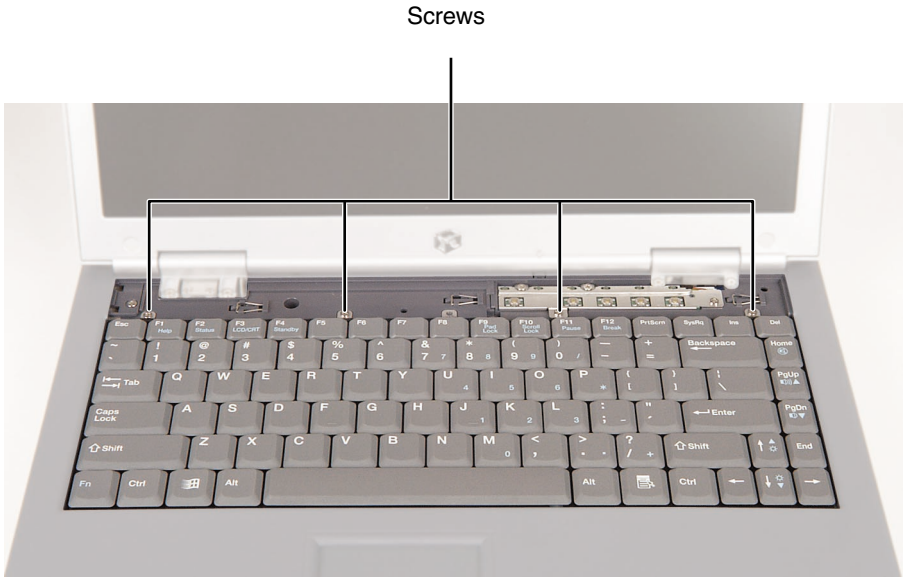
Screws removed during this task:

4 chrome 2.5 × 2.5 mm (keyboard)

To remove the keyboard:

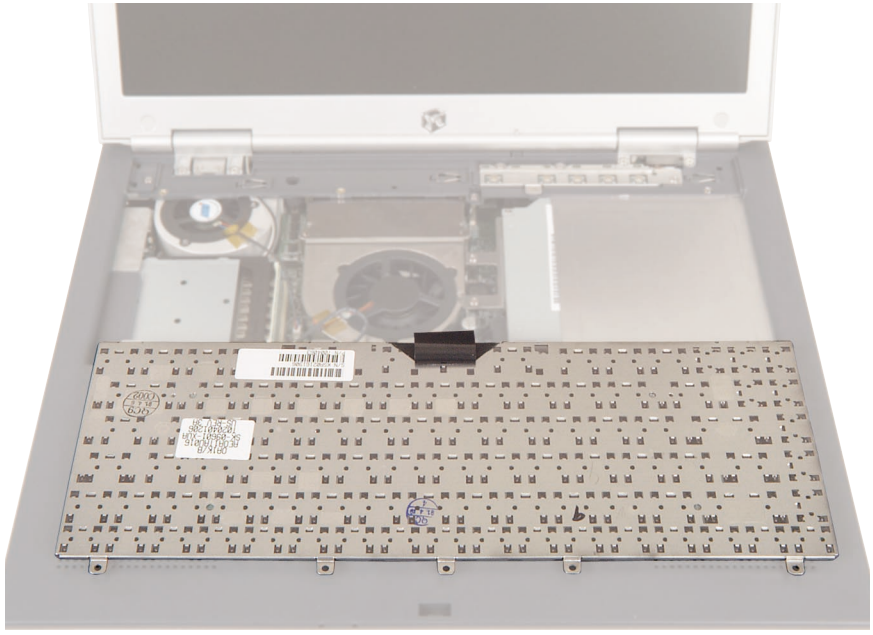
1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.

3 Remove the four screws that secure the keyboard to your notebook.

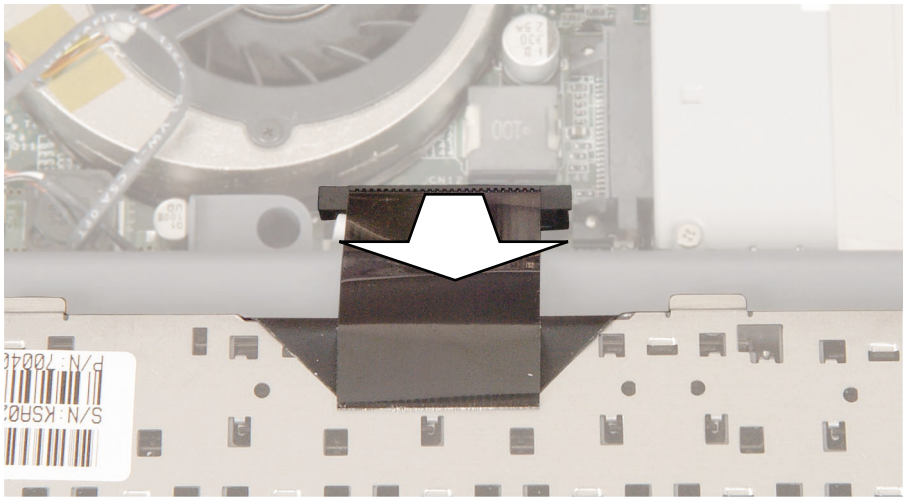


4 Raise the back edge of the keyboard slightly, then carefully slide the keyboard back until the four tabs on the front edge of the keyboard are free from their slots. Be careful not to damage the LCD panel.

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

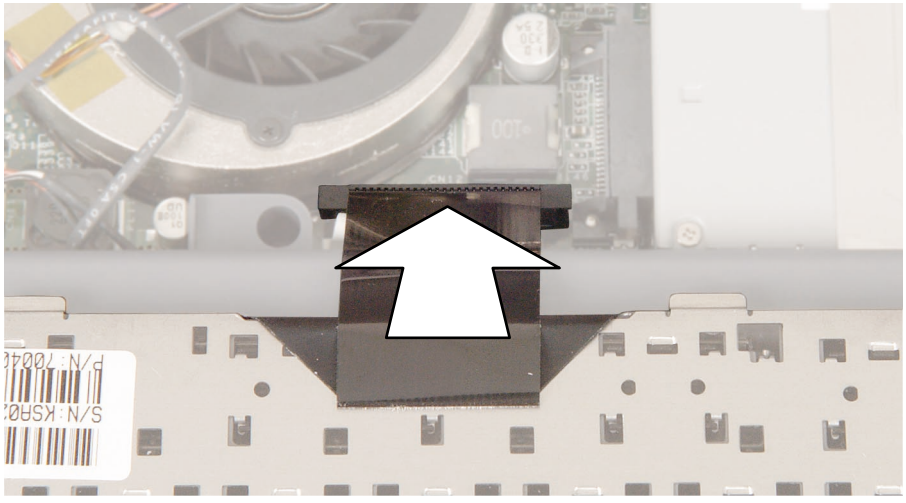


6 Unplug the keyboard connector, then remove the keyboard.



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 face up, then insert the four tabs located on the front edge of the keyboard into the corresponding slots under the palm rest. Be careful to not damage the LCD panel.

10 Carefully press the keyboard down until it is flat all the way across. The keyboard should easily fall into place.

11 Replace the four keyboard screws.

12 Reassemble your notebook.

Replacing the optical drive

Tools you need to complete this task:

Phillips #0 driver

Screws removed during this task:

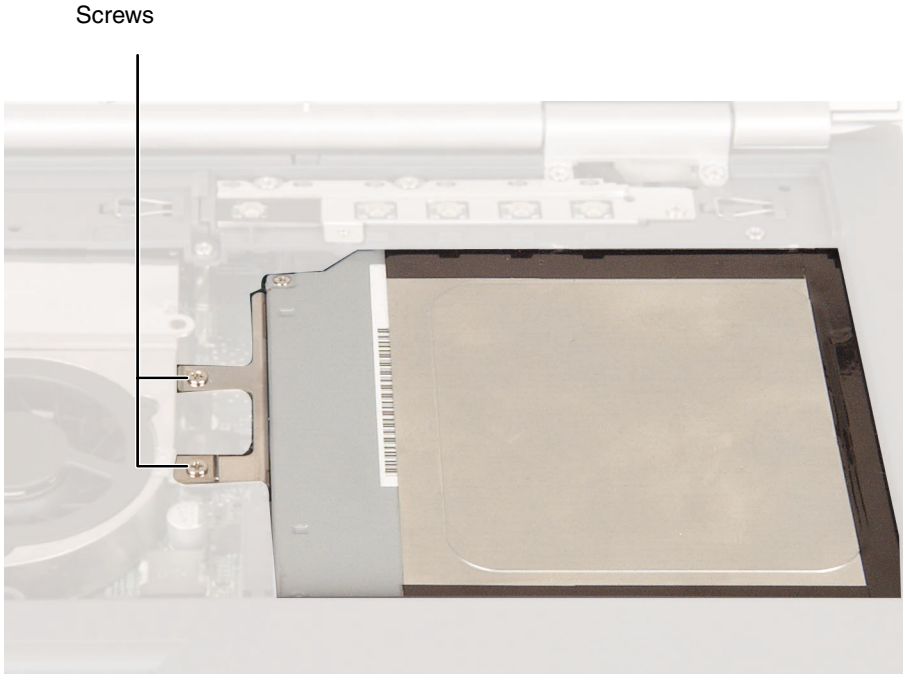
4 chrome 2.5 × 2.5 mm
(keyboard)

2 chrome 2.5 × 4 mm
(optical drive)

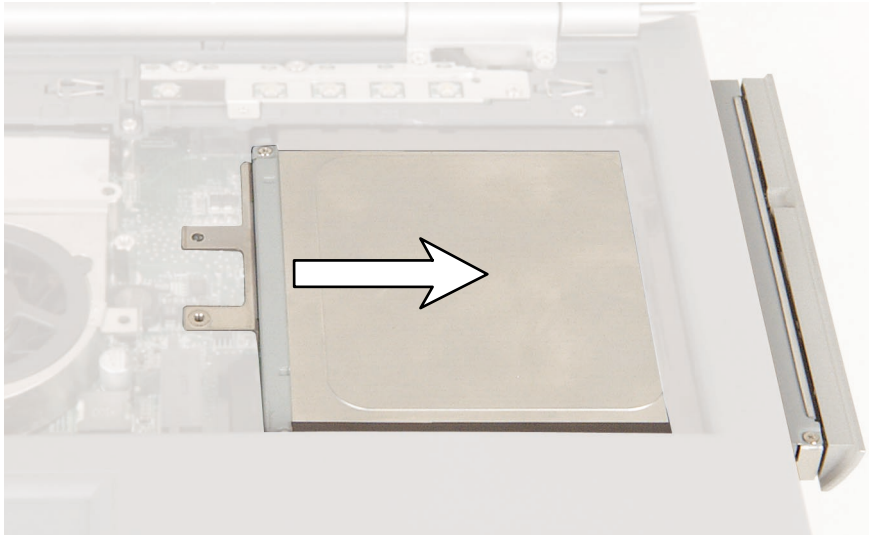
To replace the optical drive:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
3. Remove the keyboard by following the instructions in “Replacing the keyboard” on page 25.

4 Remove the two screws that secure the optical drive to the cooling assembly.



5 Slide the optical drive out of your notebook.



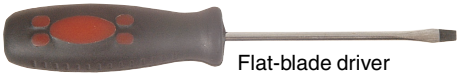
6 Insert the new optical drive into your notebook, then replace the two screws.

7 Reassemble your notebook.

Replacing the hinge covers

Tools you need to complete this task:

Phillips #0 driver


Flat-blade driver

Screws removed during this task:

4 chrome 2.5 × 4 mm
(hinge covers)

To replace the hinge covers:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
3. Carefully tilt the LCD panel back as far as it will go. The LCD panel will not lie flat.

Caution

The LCD panel will not lie flat on the table. Do not apply excess pressure or force the LCD beyond the point where you begin to feel resistance. Forcing the LCD panel beyond this point will cause damage to your notebook.

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

5 Lift the hinge covers off of the hinges.

6 Align the new covers over the hinges, then replace the four screws. When you replace the left hinge cover, make sure that the hinge cover's tabs are positioned under the keyboard retaining panel before you press the cover into place.

7 Reassemble your notebook.

Replacing the keyboard retaining panel

Tools you need to complete this task:

Phillips #0 driver

Flat-blade driver

Screws removed during this task:

4 chrome 2.5 × 2.5 mm (keyboard)

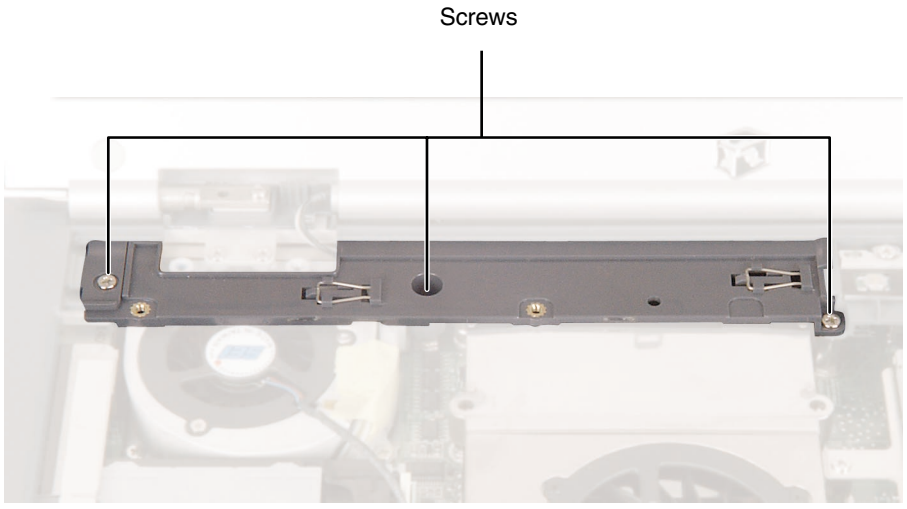
4 chrome 2.5 × 4 mm (hinge covers)

3 chrome 2.5 × 2.5 mm (keyboard retaining panel)

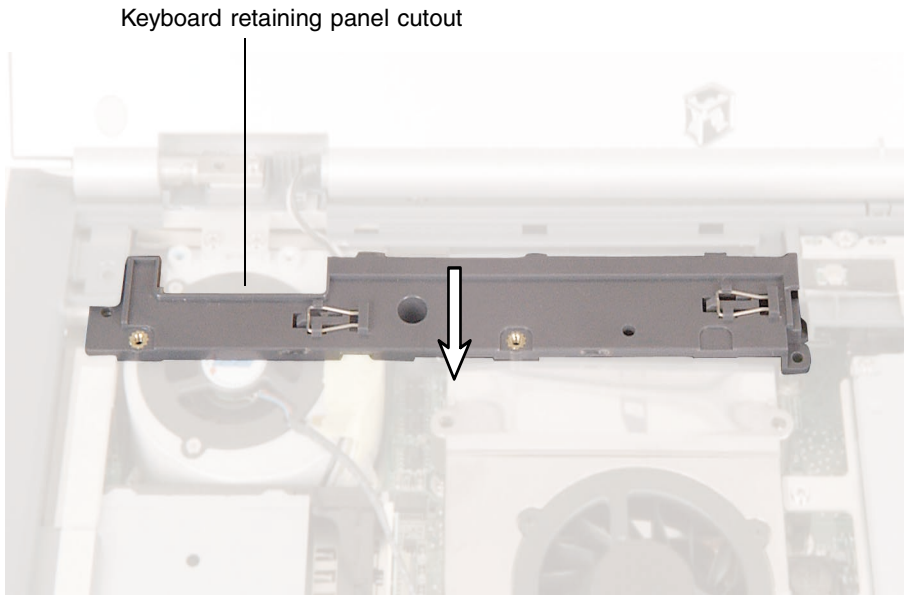
To replace the keyboard retaining panel:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
3. Remove the keyboard by following the instructions in “Replacing the keyboard” on page 25.

4 Remove one screw from each end of the keyboard retaining panel and one recessed screw in the middle of the panel.



5 Slide the panel forward and away from the palm rest assembly, then lift it up.



6 Make sure that the antenna cables from the Mini PCI 802.11 card are positioned inside the keyboard retaining panel cutout.

7 Align the tabs on the ends of the keyboard retaining panel with the notches in the palm rest assembly, then slide the panel back until the screw holes on the panel align with the screw holes on the notebook.

8 Press the panel into place, then replace the three screws.

9 Reassemble your notebook.

Replacing the fan assembly

Tools you need to complete this task:

Phillips #0 driver

Scribe or non-marring tool

Screws removed during this task:

4 chrome 2.5 × 2.5 mm
(keyboard)

3 chrome 2.5 × 2.5 mm
(keyboard retaining panel)

6 chrome 2.5 × 4 mm
(fan assembly)

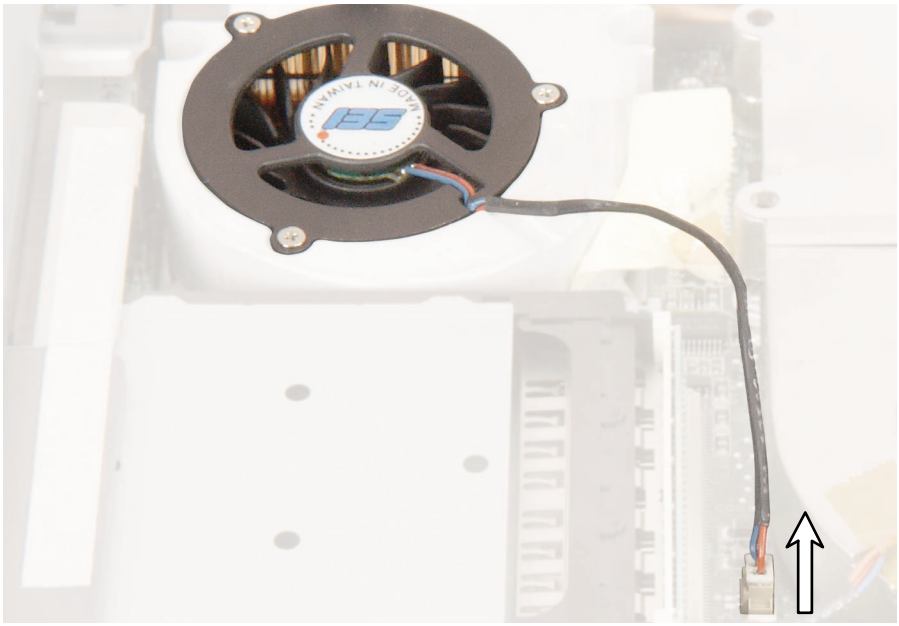
3 chrome 2.5 × 2.5 mm
(fan)

To replace the fan assembly:

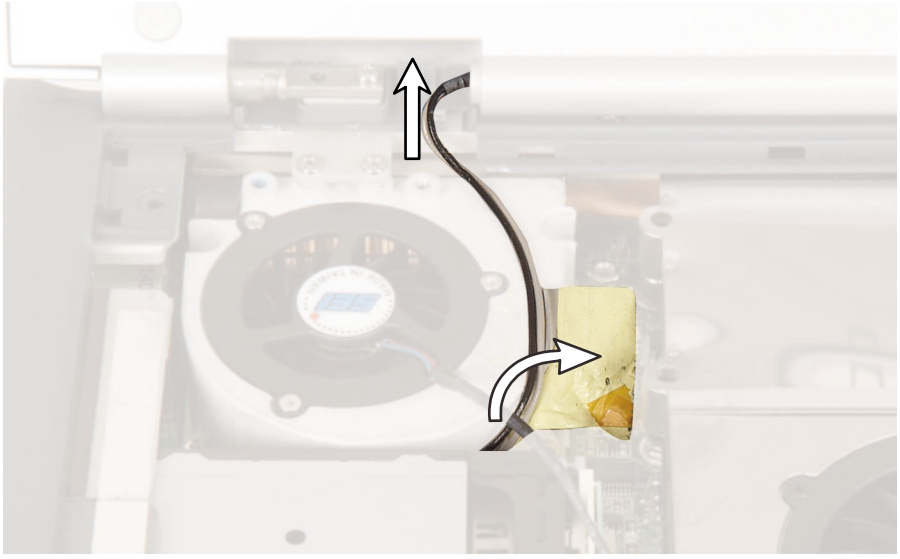
1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
3. Remove the keyboard by following the instructions in “Replacing the keyboard” on page 25.
4. Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.

5 If your notebook has the 802.11 Mini PCI card installed, remove the main and auxiliary antenna cables by following the instructions in “Replacing the 802.11 Mini PCI card” on page 11.

6 Unplug the fan.



7 Remove any tape that holds the fan cables to the fan assembly.



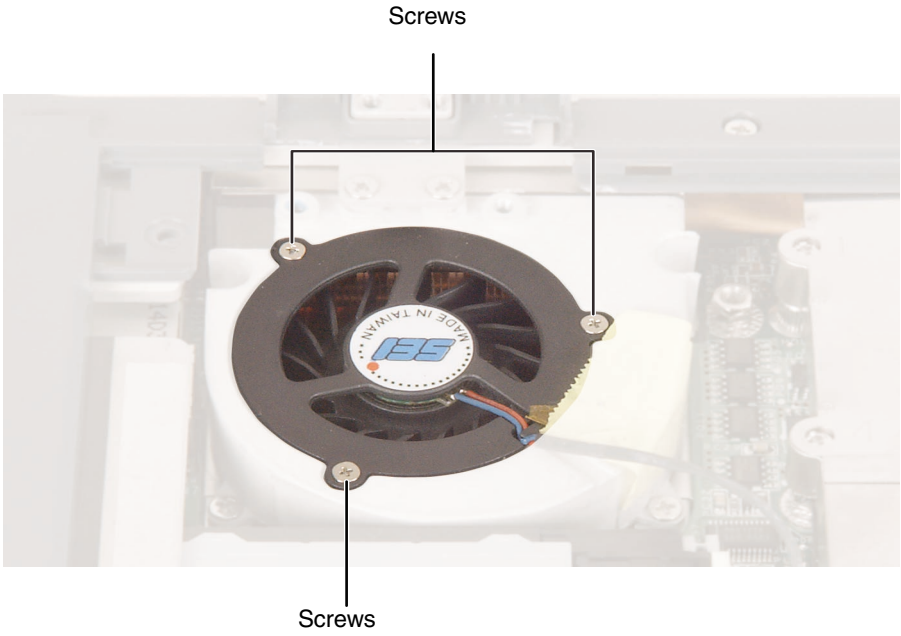
8 If your notebook has the 802.11 Mini PCI card installed, pull the detached antenna cables through the hole in the system board near the small fan.

9 If you want to replace the fan only, go to step 10.

- OR -

If you want to replace the entire fan assembly, go to step 15.

10 Remove the three screws that secure the fan to the fan assembly, then remove the fan.



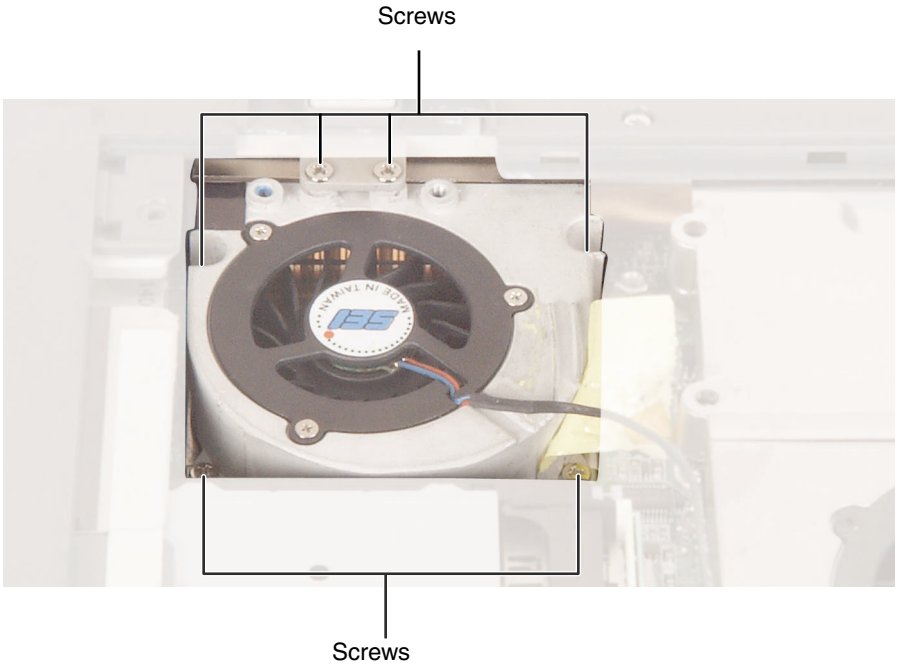
11 Insert the new fan in the fan assembly, then replace the three screws. Do not to press on the center of the fan itself.

12 Plug in the fan cable, then reassemble your notebook.

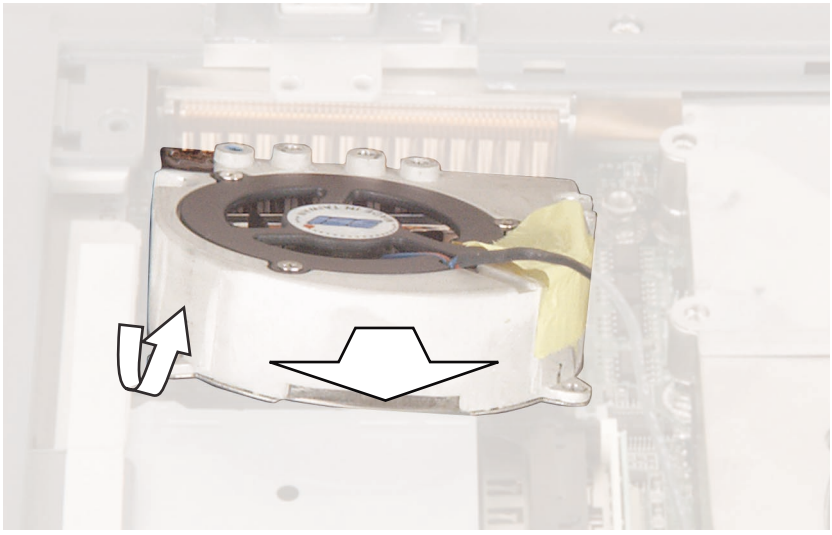
13 Reattach the black antenna cable to the connector that is closest to the module's edge, then reattach the white antenna cable to the connector that is closest to the module's metal shielding.

14 Reassemble your notebook.

15 Remove the four screws on the fan assembly and the two screws on the bracket.



16 Lift the front of the fan assembly, then pull forward until the assembly pulls completely free.



17 Insert the new fan assembly, then replace the four fan assembly screws.

18 Plug in the fan assembly.

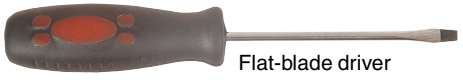
19 Reattach the black antenna cable to the connector that is closest to the module's edge, then reattach the white antenna cable to the connector that is closest to the module's metal shielding.

20 Reassemble your notebook.

Replacing the LED indicator panel

Tools you need to complete this task:

Phillips #0 driver


Flat-blade driver

Screws removed during this task:

4 chrome 2.5 × 2.5 mm
(keyboard)

4 chrome 2.5 × 4 mm
(hinge covers)

3 chrome 2.5 × 2.5 mm
(keyboard retaining panel)

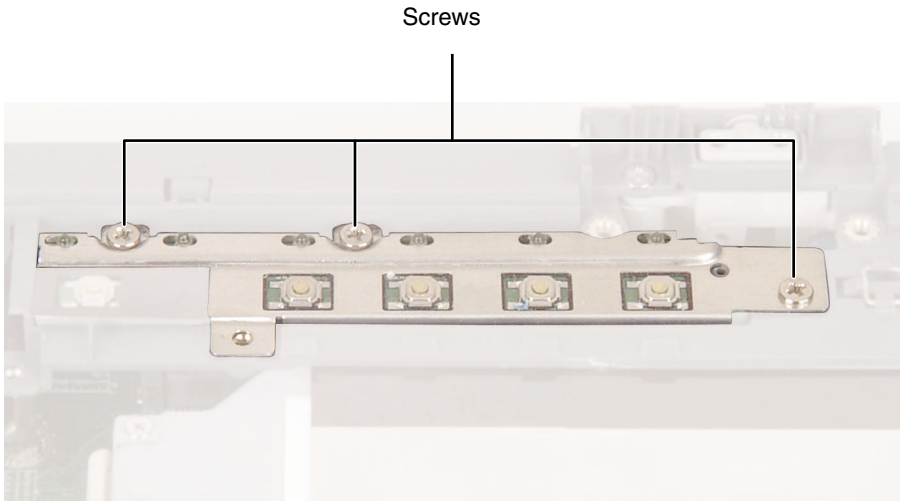
2 chrome 2.5 × 4 mm
1 chrome 2.5 × 2.5 mm
(LED indicator panel)

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 notebook” on page 5.
2. Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 22.
3. Remove the keyboard by following the instructions in “Replacing the keyboard” on page 25.
4. Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 33.

5 Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.

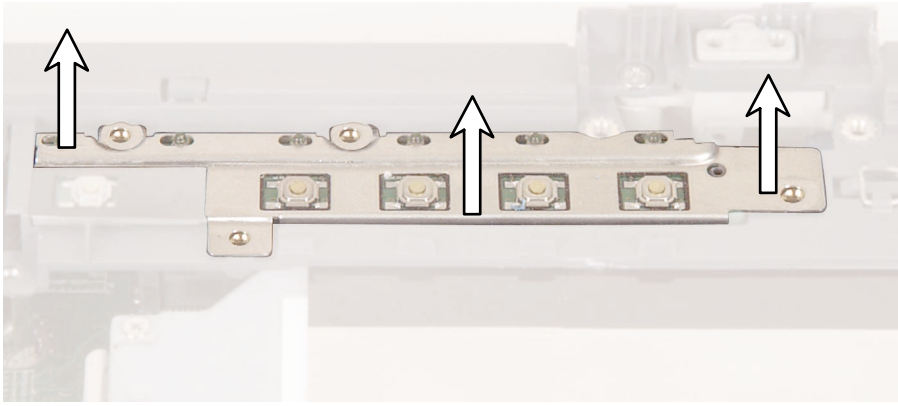
6 Remove the two long screws from the left and center of the LED indicator panel, then remove the short screw from the right side of the panel.



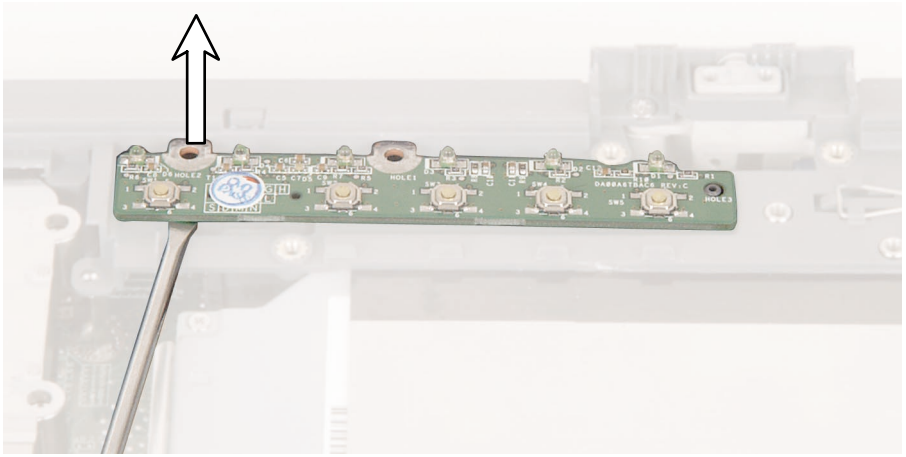
7 Carefully lift the middle of the shielding slightly, then lift the ends slightly, then repeat until the shielding pulls completely free.

Warning

The LED panel’s metal shielding is very thin and bends easily. When removing the shielding, carefully lift the middle slightly, then lift the ends slightly, then repeat until the shielding pulls completely free.



8 Use a scribe or small flat-blade screwdriver to lift the left side of the indicator panel about ¼ inch, then lift the panel away from the notebook.



9 Align the new indicator panel's screw holes with the holes on your notebook, then press the panel into place.

10 Carefully replace the indicator panel's shielding.

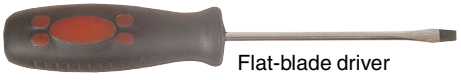
11 Replace the three screws that secure the LED indicator panel to your notebook.

12 Reassemble your notebook.

Replacing the LCD panel assembly

Tools you need to complete this task:

Phillips #0 driver


Flat-blade driver

Screws removed during this task:

4 chrome 2.5 × 2.5 mm
(keyboard)

4 chrome 2.5 × 4 mm
(hinge covers)

3 chrome 2.5 × 2.5 mm
(keyboard retaining panel)

2 chrome 2.5 × 4 mm
1 chrome 2.5 × 2.5 mm
(LED indicator panel)

4 chrome 2.5 × 5.5 mm
(LCD panel assembly)

To replace the palm rest assembly:

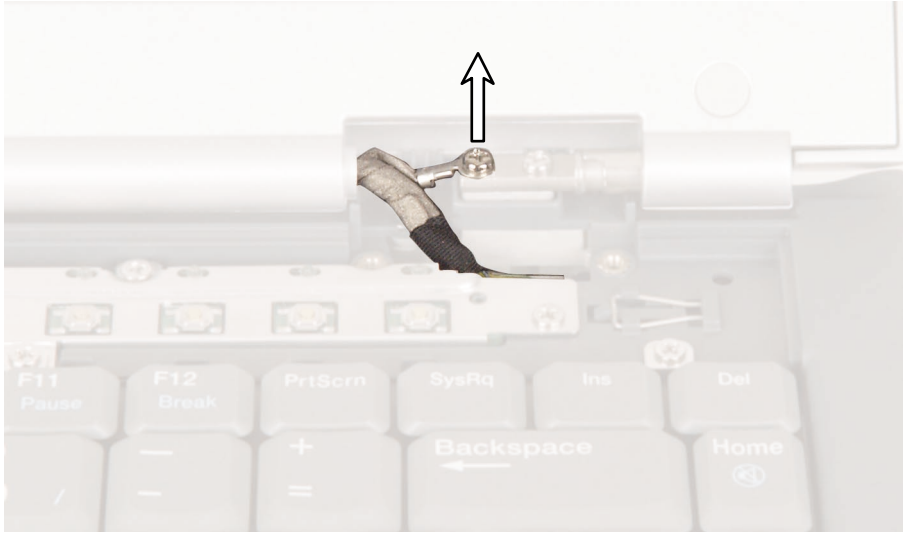
1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in "Preparing your notebook" on page 5.
2. If your notebook has the 802.11 Mini PCI card installed, remove the 802.11 Mini PCI card by following the instructions in "Replacing the 802.11 Mini PCI 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 25.

5 Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 33.

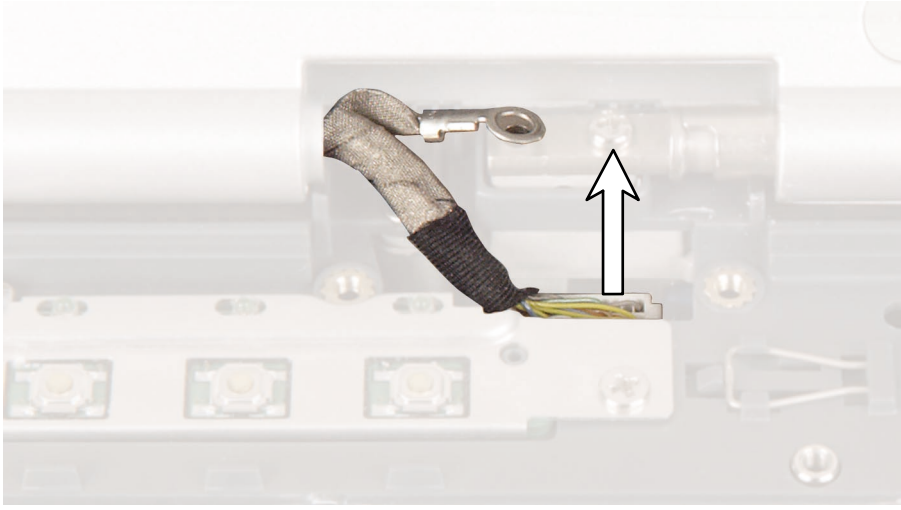
6 Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.

7 Remove the LED indicator panel by following the instructions in “Replacing the LED indicator panel” on page 44.

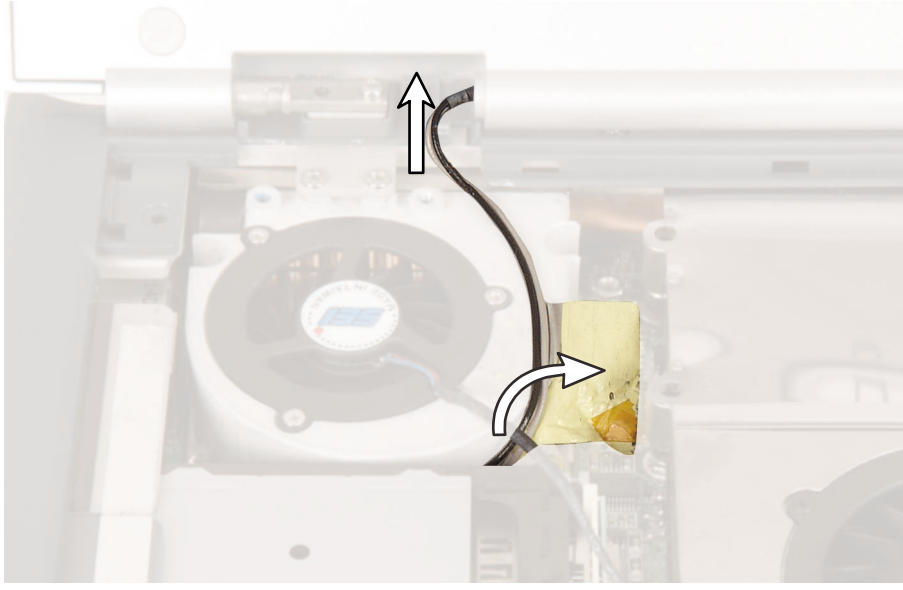
8 Remove the four hinge screws that secure the LCD panel to your notebook. The grounding wire is positioned under the inside right screw.



9 Use your fingers to unplug the LCD panel connector from your notebook. Grasp the large cluster of cables, then pull the connector straight up.



10 If your notebook has the 802.11 Mini PCI card installed, remove any tape that holds the antenna cables to the fan assembly, then pull the detached antenna cables through the hole in the system board near the small fan.



11 Lift the LCD panel away from the notebook.

12 Place the new LCD panel assembly onto your notebook, then replace the four hinge screws. Make sure that you position the grounding cable under the inside right screw.

13 Thread the antenna cables through the guides on the small fan assembly, then through the hole in the system board.

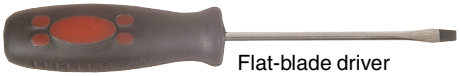
14 Plug the LCD panel connector into your notebook.

15 Reassemble your notebook.

Replacing the palm rest assembly

Tools you need to complete this task:

Phillips #0 driver


Flat-blade driver

Screws removed during this task:

4 chrome 2.5 × 2.5 mm (keyboard)

4 chrome 2.5 × 4 mm (hinge covers)

3 chrome 2.5 × 2.5 mm (keyboard retaining panel)

2 chrome 2.5 × 4 mm
1 chrome 2.5 × 2.5 mm
(LED indicator panel)

4 chrome 2.5 × 5.5 mm (LCD panel assembly)

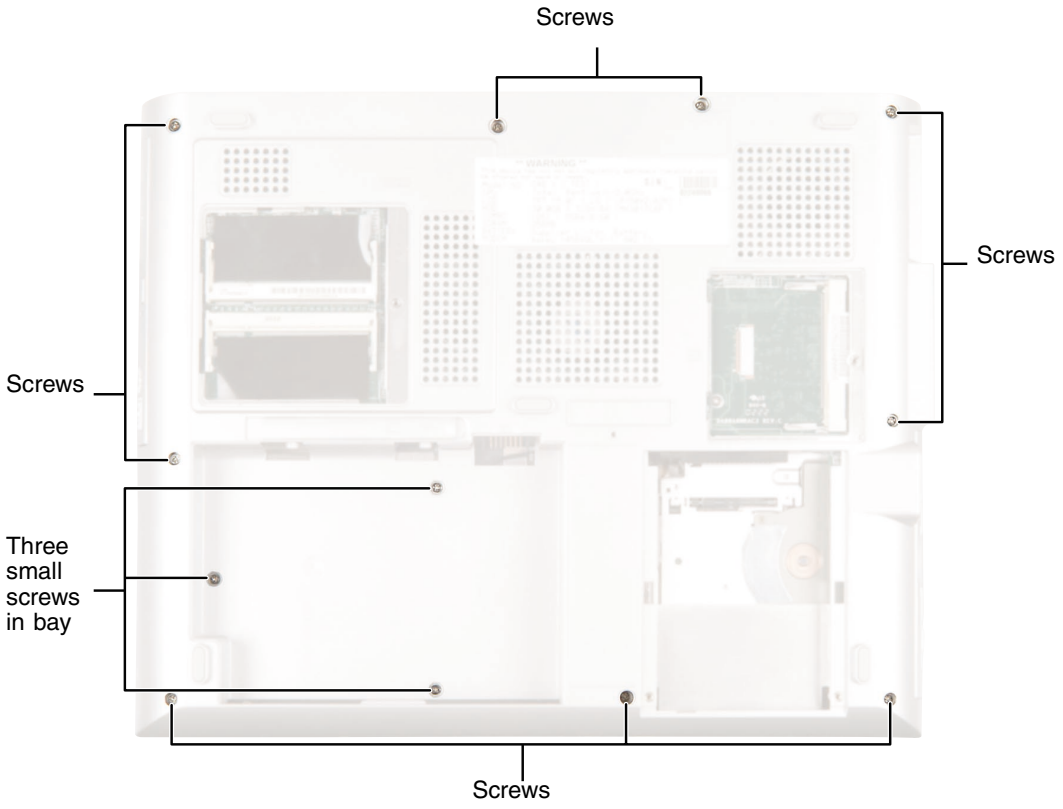
11 chrome 2.5 × 4 mm
3 chrome 2.5 × 2.5 mm
(bottom, back, palm rest)

3 chrome 2.5 × 2.5 mm (top palm rest)

To replace the palm rest assembly:

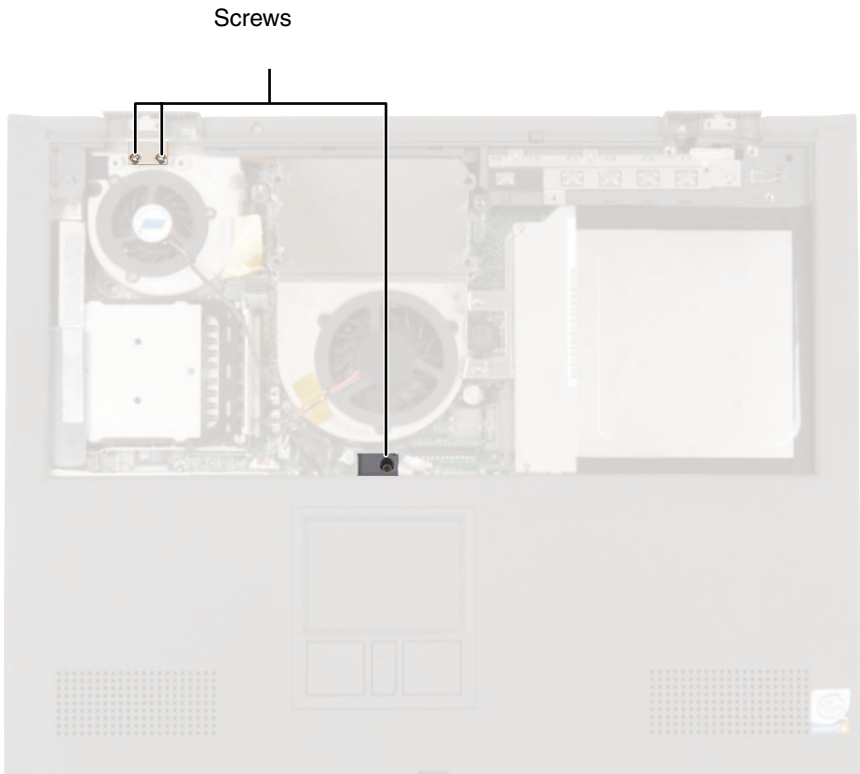
1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. If your notebook has the 802.11 Mini PCI card installed, remove the 802.11 Mini PCI card by following the instructions in “Replacing the 802.11 Mini PCI 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 25.
5. Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 33.
6. Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.
7. Remove the LED indicator panel by following the instructions in “Replacing the LED indicator panel” on page 44.
8. Remove the LCD panel assembly by following the instructions in “Replacing the LCD panel assembly” on page 47.

9 Remove the three small screws inside the battery bay and the nine screws on the bottom of your notebook.

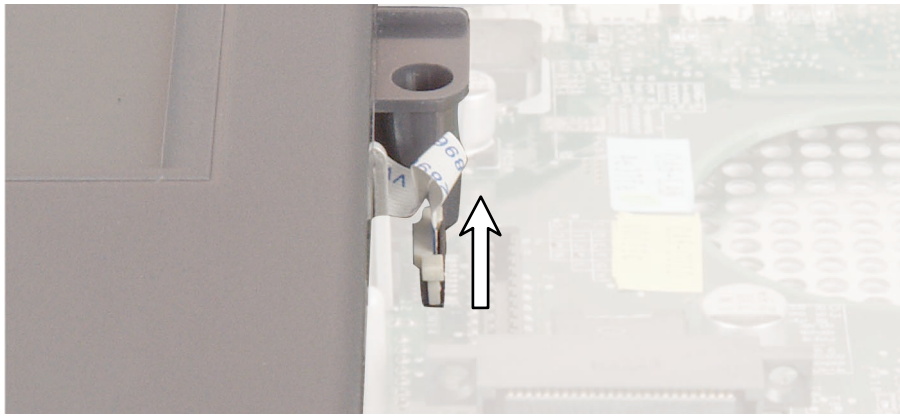


10 Remove the two screws on the back of your notebook between the serial and parallel ports.

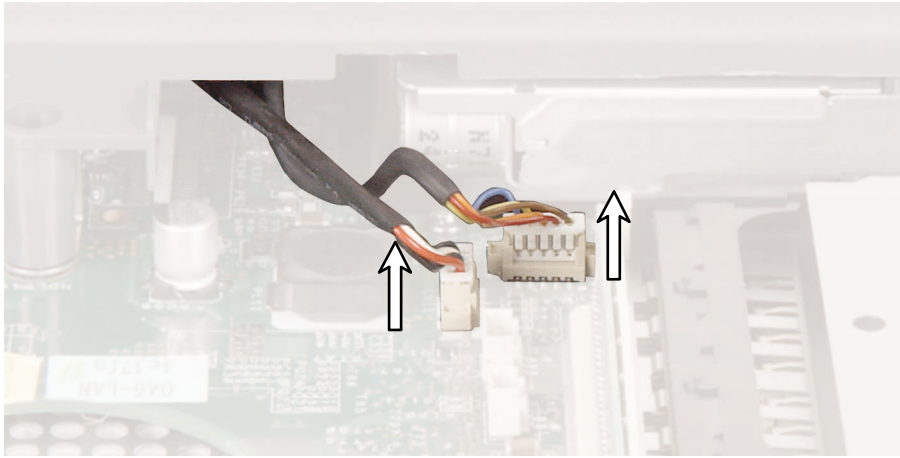
11 Remove the single screw above the touchpad and the two screws above the fan assembly.



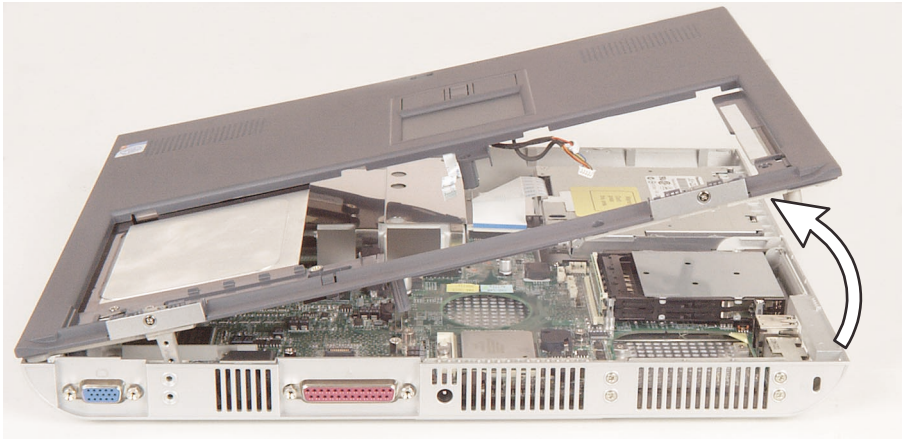
12 Use two fingers to pull up on the touchpad connector tabs. Make sure that you pull on the connector, not on the cable. After the connector is in the raised position, carefully pull the cable out of the connector.



13 Unplug the speaker cables.



14 Lift the side of the palm rest assembly, then remove the palm rest assembly.



15 Place the new palm rest assembly onto your notebook, and snap the assembly into place.

16 Replace all of the palm rest screws. Use the two shortest screws to secure the top rear corners of the palm rest, which are near the LCD panel hinges.

17 Pull up on the touchpad connector tabs to make sure that the connector is in the raised position.

18 Slide the end of the touchpad cable into the touchpad connector.

Important

The touchpad cable should slide easily into the touchpad connector. The cable is correctly oriented if it is not twisted.

19 Use two fingers to press down on the touchpad connector tabs. This locks the touchpad cable into the touchpad connector.

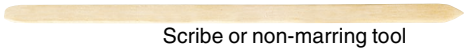
20 Plug in the speaker cables.

21 Reassemble your notebook.

Replacing the cooling assembly

Tools you need to complete this task:

Phillips #0 driver



Scribe or non-marring tool

Screws removed during this task:

4 chrome 2.5 × 2.5 mm
(keyboard)

2 chrome 2.5 × 4 mm
(optical drive)

4 chrome 2.5 × 4 mm
(hinge covers)

3 chrome 2.5 × 2.5 mm
(keyboard retaining panel)

6 chrome 2.5 × 4 mm
(fan assembly)

2 chrome 2.5 × 4 mm
1 chrome 2.5 × 2.5 mm
(LED indicator panel)

4 chrome 2.5 × 5.5 mm
(LCD panel assembly)

11 chrome 2.5 × 4 mm
3 chrome 2.5 × 2.5 mm
(bottom, back, palm rest)

3 chrome 2.5 × 2.5 mm (top
palm rest)

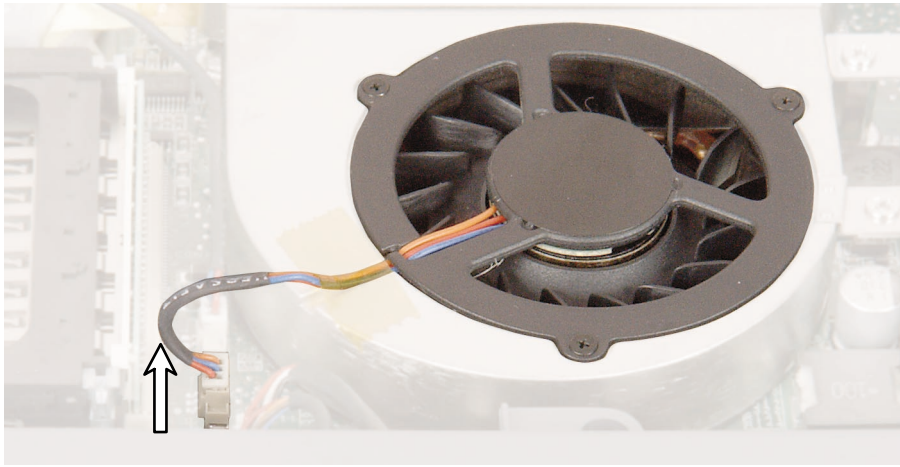
4 chrome 2.5 × 4 mm
(cooling assembly)

3 chrome 2.5 × 2.5 mm
(fan)

To replace the cooling assembly:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. If your notebook has the 802.11 Mini PCI card installed, remove the 802.11 Mini PCI card 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 25.
5. Remove the optical drive by following the instructions in “Replacing the optical drive” on page 30.
6. Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 33.
7. Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.
8. Remove the small fan assembly by following the instructions in “Replacing the fan assembly” on page 38.
9. Remove the LED indicator panel by following the instructions in “Replacing the LED indicator panel” on page 44.
10. Remove the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 47.
11. Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 51.

12 Remove any tape that holds the fan cables to the cooling assembly, then unplug the large cooling fan.

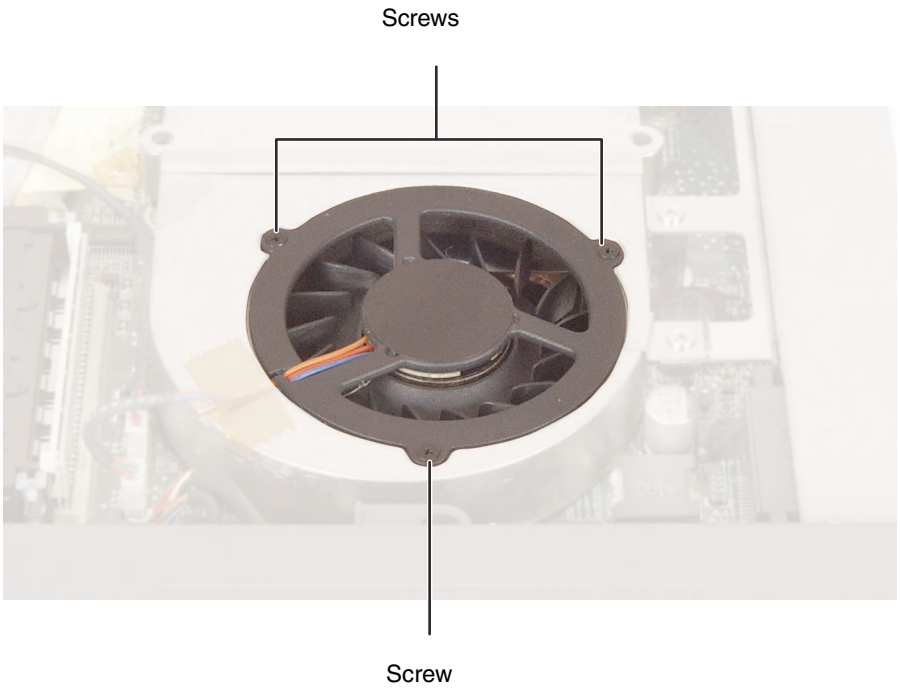


13 If you want to replace the fan only, go to step 14.

- OR -

If you want to replace the entire cooling assembly, go to step 19.

14 Remove the three screws that secure the fan to the fan assembly.



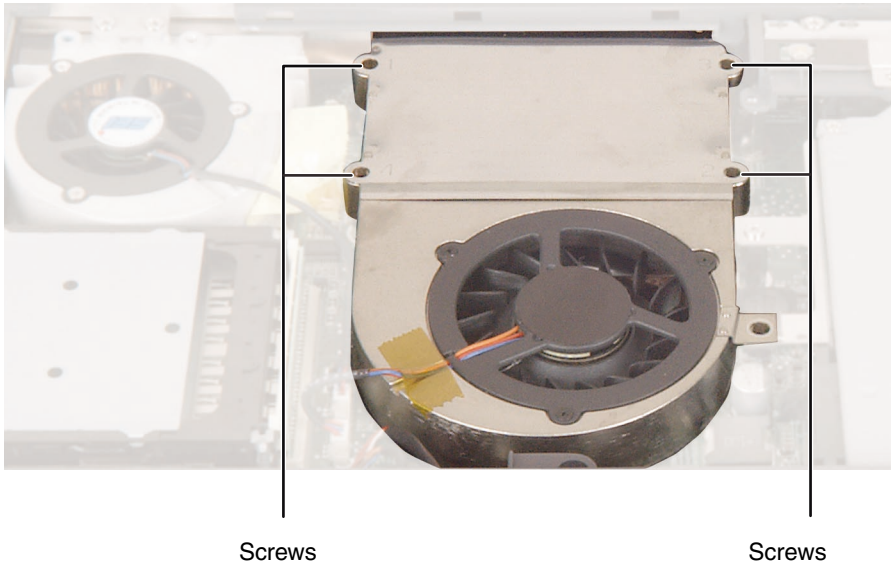
15 Remove the fan.

16 Replace the three screws. Do not press on the center of the fan itself.

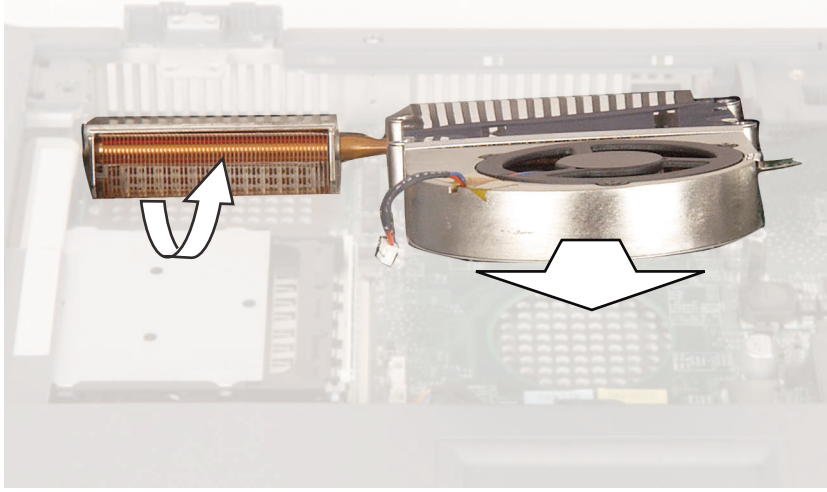
17 Plug in the fan cable.

18 Reassemble your notebook.

19 Remove the four screws on the rear of the cooling assembly.



20 Lift the front of the cooling assembly, then lift the right side until the assembly pulls completely free.



21 Insert the new cooling assembly into your notebook, then plug in the cooling fan.

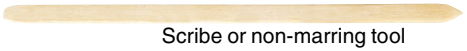
22 Replace the cooling assembly screws.

23 Reassemble your notebook.

Replacing the diskette drive

Tools you need to complete this task:

Phillips #0 driver



Scribe or non-marring tool

Screws removed during this task:

4 chrome 2.5 × 2.5 mm
(keyboard)

4 chrome 2.5 × 4 mm
(hinge covers)

3 chrome 2.5 × 2.5 mm
(keyboard retaining panel)

2 chrome 2.5 × 4 mm
1 chrome 2.5 × 2.5 mm
(LED indicator panel)

4 chrome 2.5 × 5.5 mm
(LCD panel assembly)

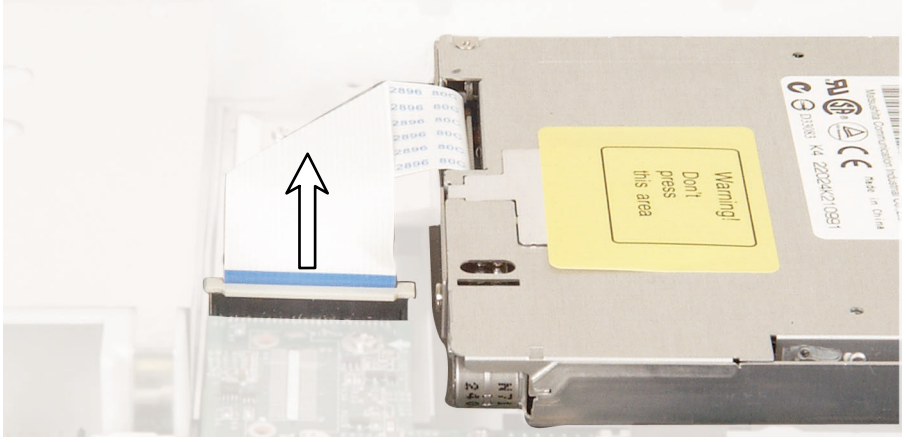
11 chrome 2.5 × 4 mm
3 chrome 2.5 × 2.5 mm
(bottom, back, palm rest)

3 chrome 2.5 × 2.5 mm (top
palm rest)

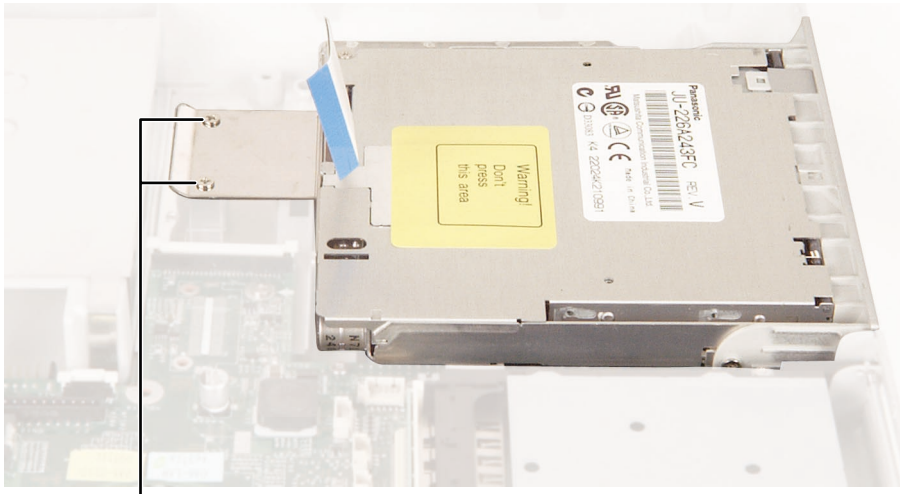
2 chrome 2.5 × 4 mm
(diskette drive)

To replace the diskette drive:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. If your notebook has the 802.11 Mini PCI card installed, remove the 802.11 Mini PCI card 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 25.
5. Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 33.
6. Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.
7. Remove the LED indicator panel by following the instructions in “Replacing the LED indicator panel” on page 44.
8. Remove the LCD panel assembly by following the instructions in “Replacing the LCD panel assembly” on page 47.
9. Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 51.
10. Disconnect the diskette drive’s ribbon cable.



11 Remove the two screws that secure the drive to the notebook, then remove the drive.



12 Insert the new diskette drive into your notebook, then secure it with the two screws.

13 Plug in the ribbon cable.

14 Reassemble your notebook.

Replacing the modem

Tools you need to complete this task:

Phillips #0 driver

Scribe or non-marring tool

Screws removed during this task:

4 chrome 2.5 × 2.5 mm
(keyboard)

4 chrome 2.5 × 4 mm
(hinge covers)

3 chrome 2.5 × 2.5 mm
(keyboard retaining panel)

2 chrome 2.5 × 4 mm
1 chrome 2.5 × 2.5 mm
(LED indicator panel)

4 chrome 2.5 × 5.5 mm
(LCD panel assembly)

11 chrome 2.5 × 4 mm
3 chrome 2.5 × 2.5 mm
(bottom, back, palm rest)

3 chrome 2.5 × 2.5 mm (top
palm rest)

2 chrome 2.5 × 4 mm
(diskette drive)

2 chrome 2.5 × 2.5 mm
(modem)

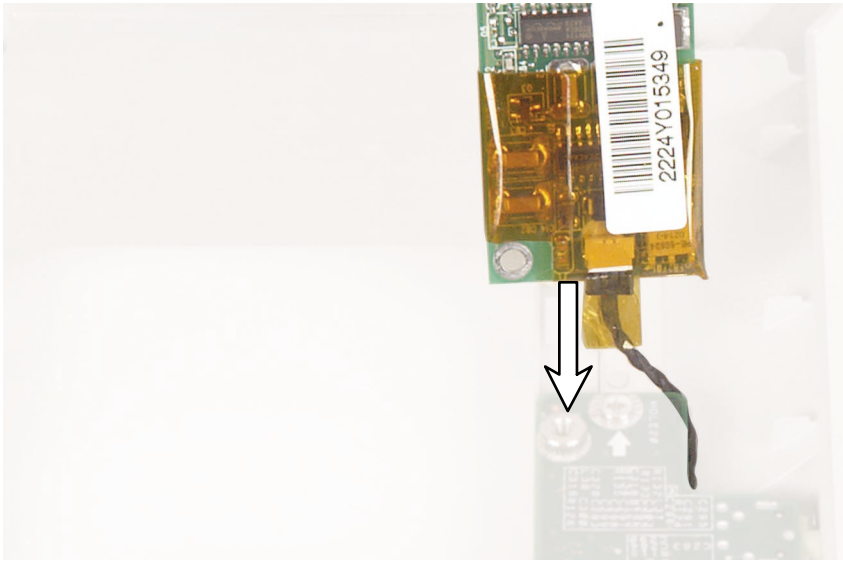
To replace the modem:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. If your notebook has the 802.11 Mini PCI card installed, remove the 802.11 Mini PCI card 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 25.
5. Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 33.
6. Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.
7. Remove the LED indicator panel by following the instructions in “Replacing the LED indicator panel” on page 44.
8. Remove the LCD panel assembly by following the instructions in “Replacing the LCD panel assembly” on page 47.
9. Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 51.
10. Remove the diskette drive by following the instructions in “Replacing the diskette drive” on page 63.

11 Remove the two screws that secure the modem to your notebook.

12 Use a flat-blade screwdriver or scribe to lift the left side of the modem about ¼ inch.

13 Unplug the modem cable from the modem, then remove the modem.



14 Connect the modem cable to the new modem.

15 Align the modem's screw holes with the holes on your notebook, then press the modem into place.

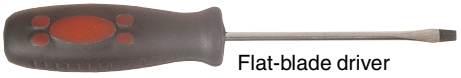
16 Replace the two screws that secure the modem to your notebook.

17 Reassemble your notebook.

Replacing the system board

Tools you need to complete this task:

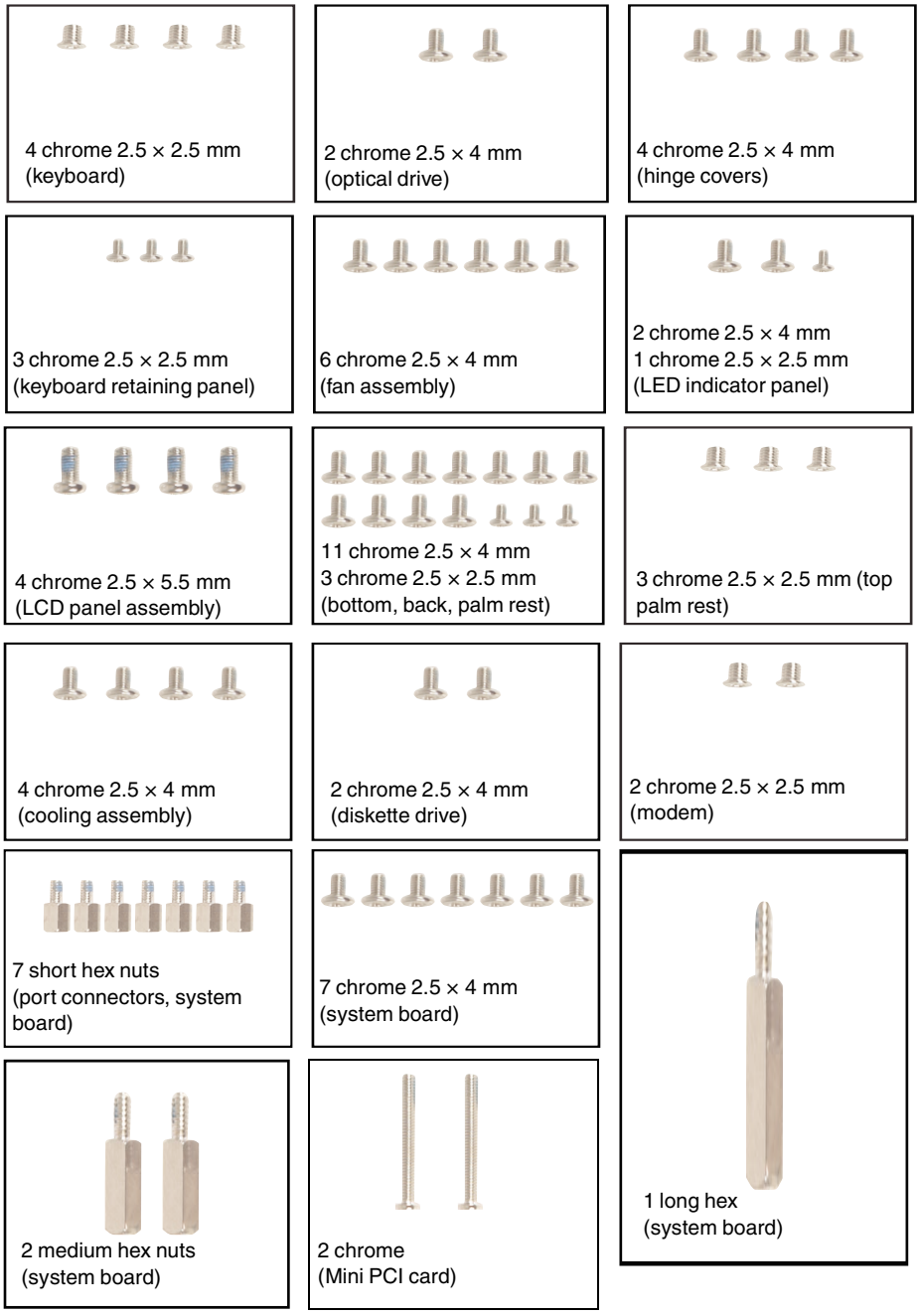
Phillips #0 driver



Flat-blade driver

#5 Hex nut driver

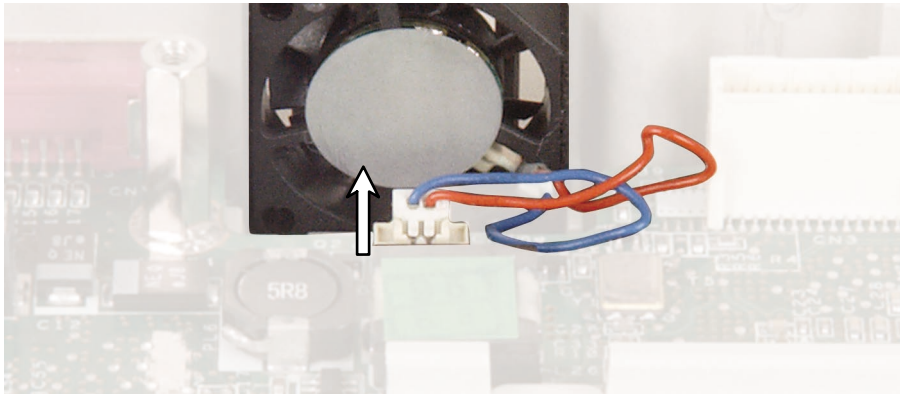
Screws removed during this task:



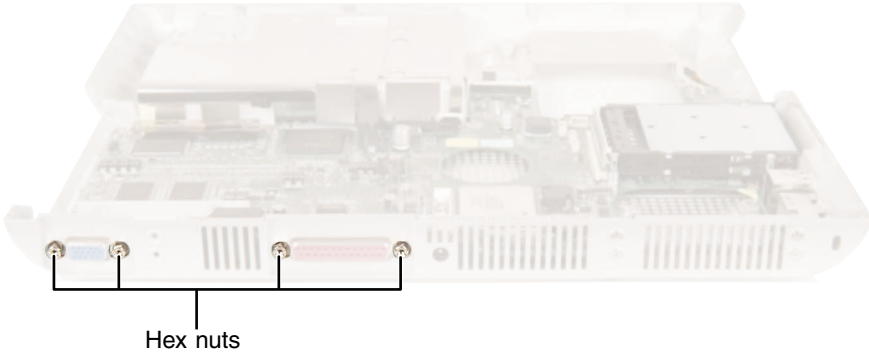
To replace the system board:

1. Disconnect the power cord, remove the battery, and prepare your notebook by following the instructions in “Preparing your notebook” on page 5.
2. If your notebook has the 802.11 Mini PCI card installed, remove the 802.11 Mini PCI card 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 25.
5. Remove the optical drive by following the instructions in “Replacing the optical drive” on page 30.
6. Remove the hinge covers by following the instructions in “Replacing the hinge covers” on page 33.
7. Remove the keyboard retaining panel by following the instructions in “Replacing the keyboard retaining panel” on page 35.
8. Remove the small fan assembly by following the instructions in “Replacing the fan assembly” on page 38.
9. Remove the LED indicator panel by following the instructions in “Replacing the LED indicator panel” on page 44.
10. Remove the LCD panel assembly by following the instructions in “Replacing the LCD panel assembly” on page 47.
11. Remove the palm rest assembly by following the instructions in “Replacing the palm rest assembly” on page 51.
12. Remove the cooling assembly by following the instructions in “Replacing the cooling assembly” on page 57.
13. Remove the diskette drive by following the instructions in “Replacing the diskette drive” on page 63.
14. Remove the modem by following the instructions in “Replacing the modem” on page 66.

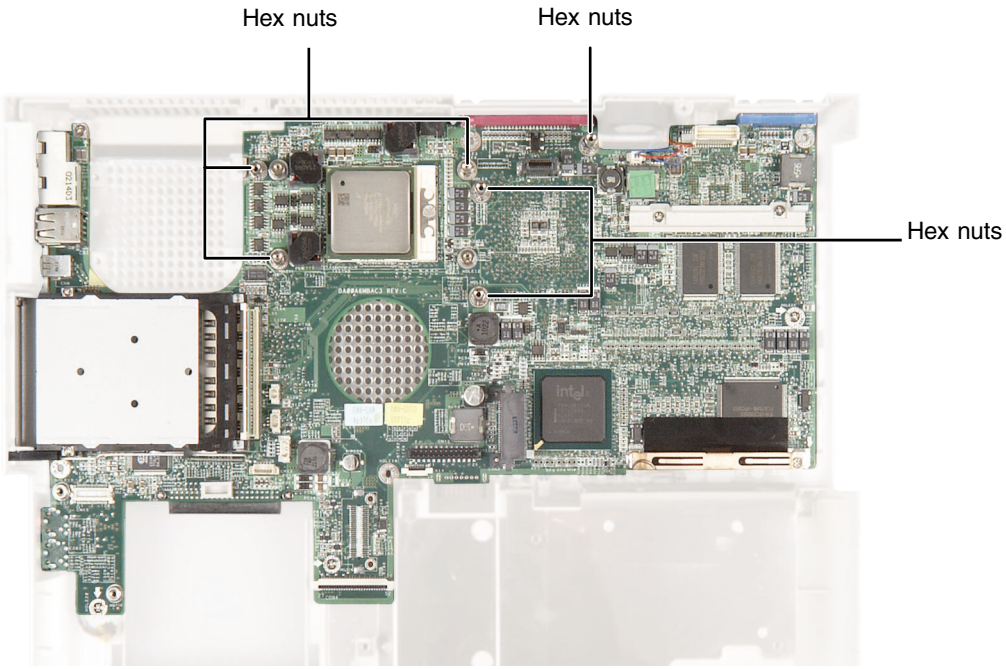
15 Unplug the small intake fan at the back of the notebook, then remove the fan.



16 Remove the four short hex nuts that secure the serial and parallel connectors to the back of the notebook, then remove the connectors.



17 Remove the six hex nuts from system board.



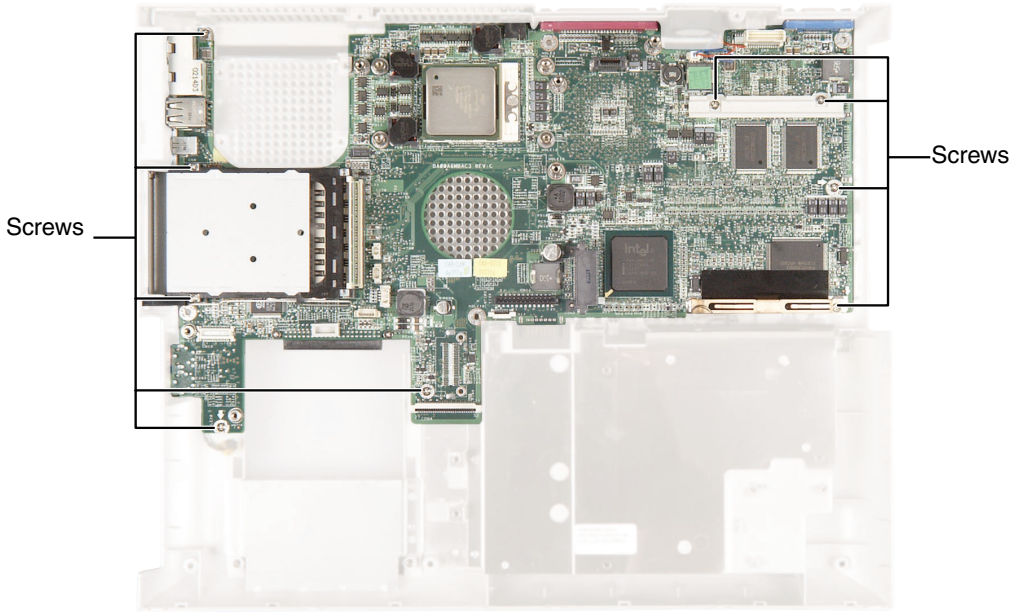
18 Remove one long hex nut from hole 4 on system board.

19 Remove the short hex nuts from holes 6, 7, and 11 on the system board.

20 Remove the medium hex nuts from holes 8 and 13 on the system board.

21 Remove the screws from holes 1, 18, 20, 21, and 23 on the system board.

22 Remove two screws securing the frame for the optical drive, then remove frame.



23 Remove the two long screws securing the 802.11 Mini PCI card frame.

24 Remove the system board from base and install new system board. Align the system board screw holes with the screw holes in the base, then replace the screws and hex nuts in the specified holes.

25 Replace the frame for optical drive, then replace the two screws.

26 Replace two long screws securing the 802.11 Mini PCI card.

27 Reassemble your notebook.

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