Gateway®

Service Guide

Gateway M275

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Replacing Gateway M275 Components

Important

This service guide is not intended to be provided to individual users or consumers. It cannot be provided to anyone other than an authorized service provider.

Use this service guide to help plan maintenance tasks for the Gateway M275 convertible tablet PC. All tasks covered in this guide can be performed by an **authorized field technician** without jeopardizing the tablet PC's warranty.

Important

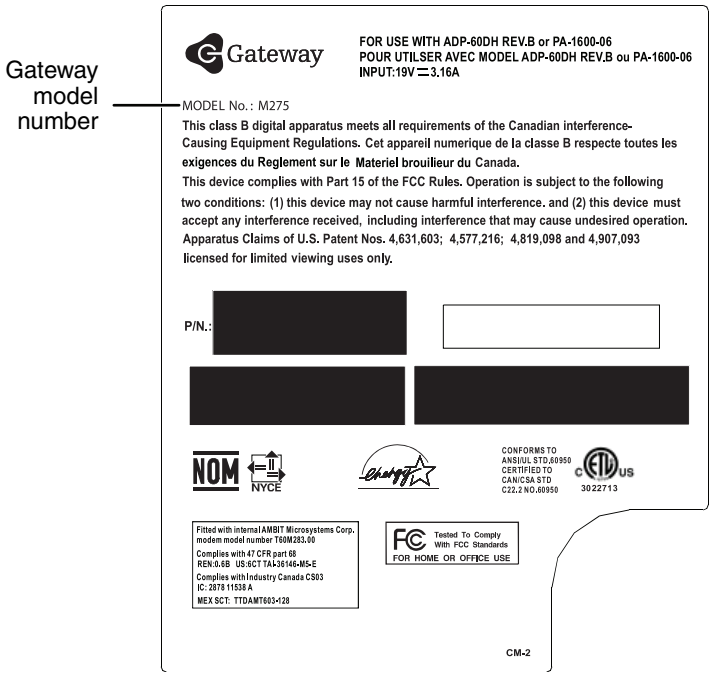
For information on the convertible tablet PC's general maintenance, technical support, safety notices, and regulatory notices, see the Gateway user guide.

Tips & Tricks

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.

Identifying the convertible tablet PC model

The label on the bottom of the convertible tablet PC contains information that identifies the convertible tablet PC model and its features.



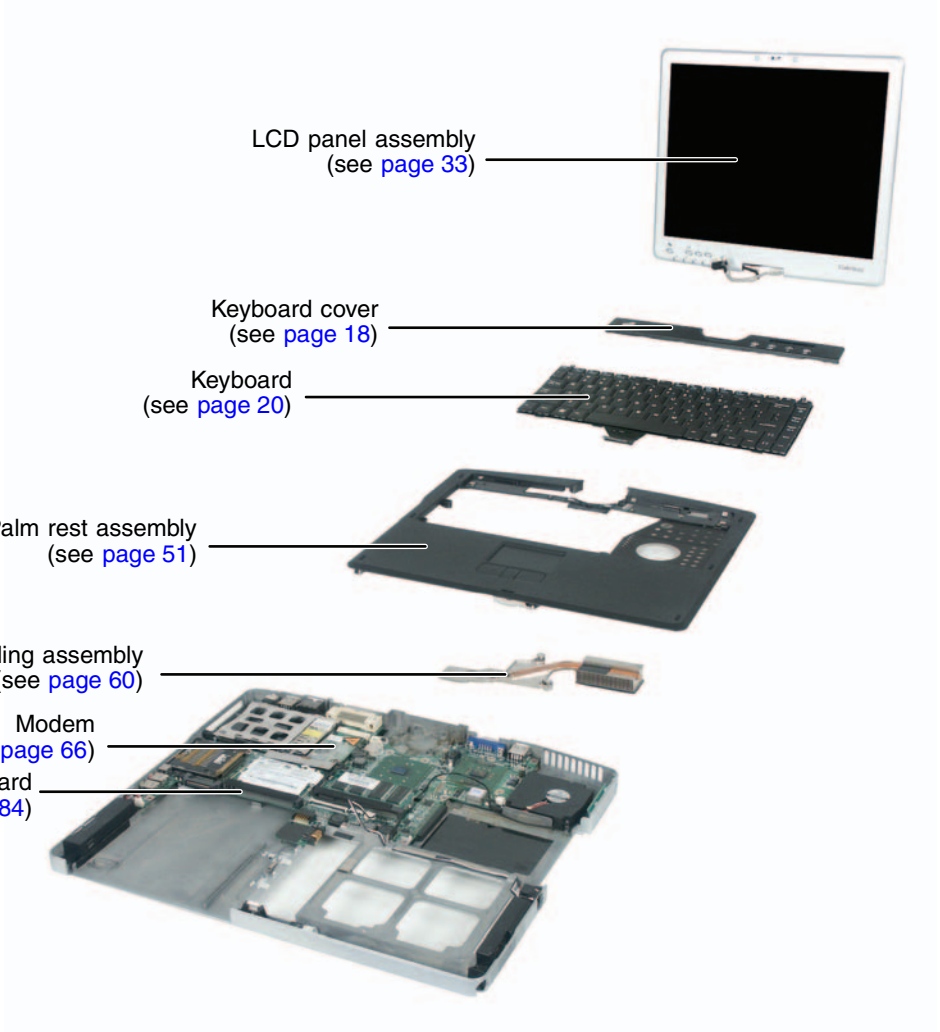
Caution

It is important that you use the correct service guide for the convertible tablet PC. Failure to follow the approved tasks for the convertible tablet PC model may result in damage to the convertible tablet PC.

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 the convertible tablet PC. For a complete list of replaceable parts, see "Contents" on page i.



Preparing your work space

Before performing maintenance on the convertible tablet PC, make sure that your work space and the convertible tablet PC 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 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.
- When removing components that are attached to the convertible tablet PC 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 the convertible tablet PC) 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

Important

Before performing maintenance on the convertible tablet PC, you should read and understand the information in this section.

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

Warning

To avoid exposure to dangerous electrical voltages and moving parts, turn off your convertible tablet PC and unplug the power cord, modem cable, and network cable before opening the case.

Warning

To prevent risk of electric shock, do not insert any object into the vent holes of the convertible tablet PC.

Before performing maintenance on the convertible tablet PC, follow these guidelines:

- 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 components by their edges. Avoid touching the edge connectors. Never slide components over any surface.
- 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.

Preparing the convertible tablet PC

Warning

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

To prepare the convertible tablet PC for maintenance:

1. Make sure that the CD or DVD drive is empty.
2. Disconnect all peripheral devices and remove any PC Cards.
3. Turn off the convertible tablet PC and unplug the power cord, modem cable, and network cable.
4. Disconnect from the optional port replicator. For more information, see "Disconnecting from the port replicator" on page 6.
5. Remove the battery. For more information, see "Removing the battery" on page 7.

Disconnecting from the port replicator

To separate your convertible tablet PC from the port replicator:

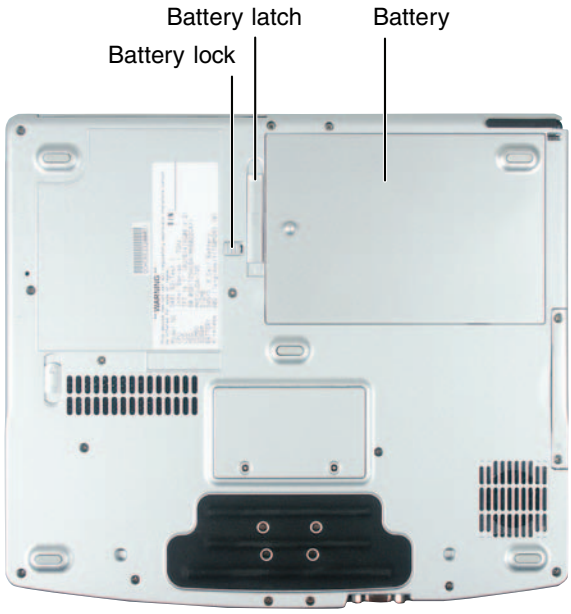
1. Pull up on the docking release latch. Your convertible tablet PC will move out and away from the port replicator.

2. Lift your convertible tablet PC off of the port replicator.

Removing the battery

To remove the battery:

1. Turn the convertible tablet PC over so the bottom is facing up.
2. Slide the battery lock to the unlocked position.



3. Slide the battery release latch and lift the battery out of the bay.

Replacing the pen point

Normal use wears down the pen's point, so the pen ships with extra points and a replacement tool.

To replace the pen point:

1 Use the replacement tool to grab the old point and pull it out of the pen.

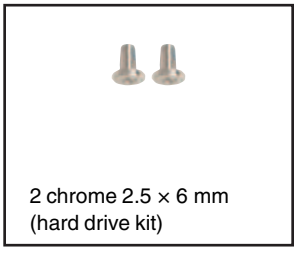
2 Insert a new point and apply slight pressure to set it in place.

Replacing the hard drive kit

Tools you need to complete this task:

Phillips #0 screwdriver

Screws removed during this task:

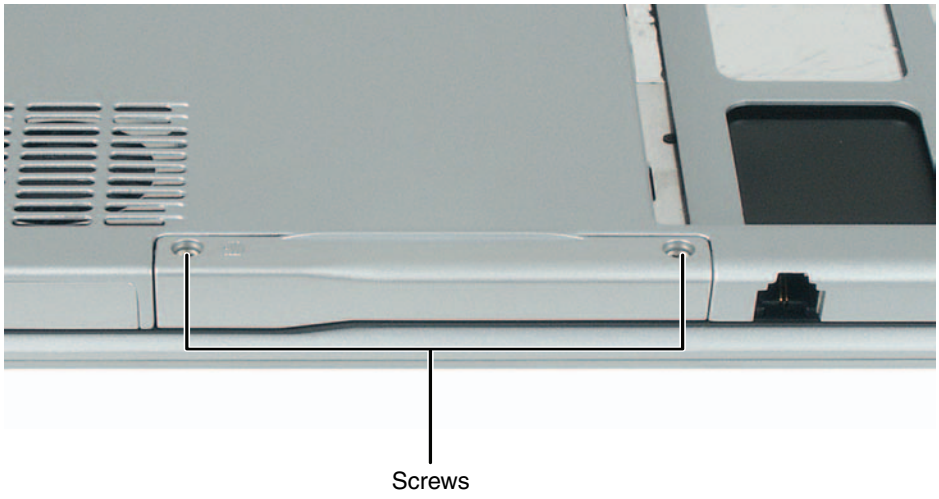


2 chrome 2.5 × 6 mm
(hard drive kit)

To replace the hard drive kit:

1 Complete the steps in "Preparing the convertible tablet PC" on page 6.

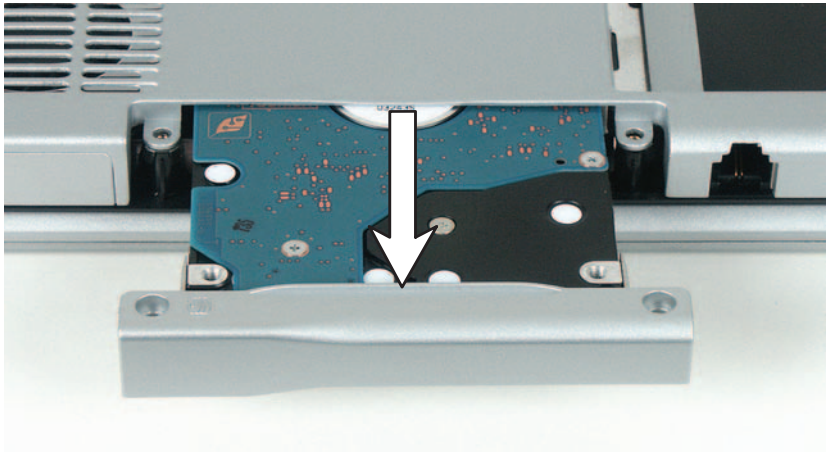
2 Remove the two screws securing the hard drive kit to the convertible tablet PC.



Tips & Tricks

Use a magnetic screwdriver or turn the convertible table PC over to remove the screws.

3 Slide the hard drive kit out of the convertible tablet PC.



Important

If your new hard drive does not include the hard drive kit bracket, complete the steps in "Replacing the hard drive in the hard drive kit" on page 12 before proceeding.

4 Slide the new hard drive kit into the convertible tablet PC.

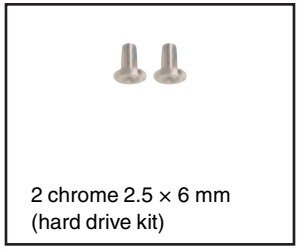
5 Replace the screws that secure the hard drive kit to the convertible tablet PC.

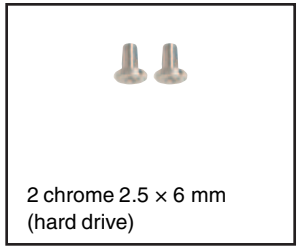
Replacing the hard drive in the hard drive kit

Tools you need to complete this task:

Phillips #0 screwdriver

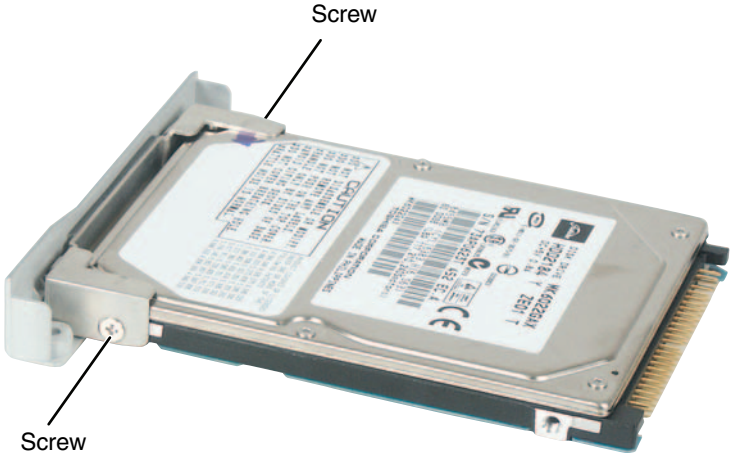
Screws removed during this task:


2 chrome 2.5 × 6 mm
(hard drive kit)


2 chrome 2.5 × 6 mm
(hard drive)

To replace the hard drive in the hard drive kit:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the hard drive kit by following the instructions in "Replacing the hard drive kit" on page 9.
3. Remove the two screws that secure the hard drive to the hard drive kit bracket.



4 Remove the bracket from the old drive.

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

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

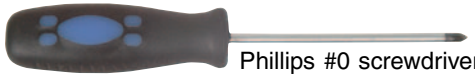
7 Slide the hard drive kit into the convertible tablet PC.

8 Replace the screws that secure the hard drive kit to the convertible tablet PC.

Replacing the optical drive

Important Install only a Gateway M275 optical drive in the optical drive bay.

Tools you need to complete this task:


Phillips #0 screwdriver

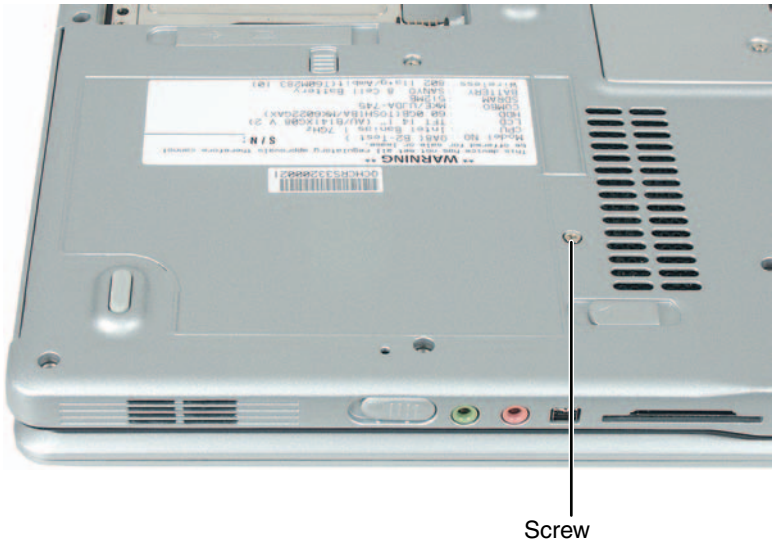
Screws removed during this task:

1 chrome 2.5 × 6 mm
(optical drive)

To replace the optical drive:

1 Complete the steps in "Preparing the convertible tablet PC" on page 6.

2 Remove the optical drive latch screw, then slide the optical drive release latch next to the optical drive screw.



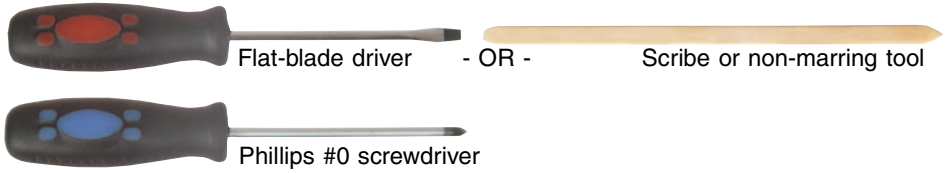
3 Slide the old drive out of the convertible tablet PC.

4 Slide the new drive into the convertible tablet PC. Installing the optical drive repositions the optical drive release latch.

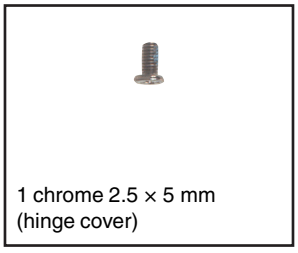
5 Replace the optical drive latch screw.

Replacing the hinge cover

Tools you need to complete this task:

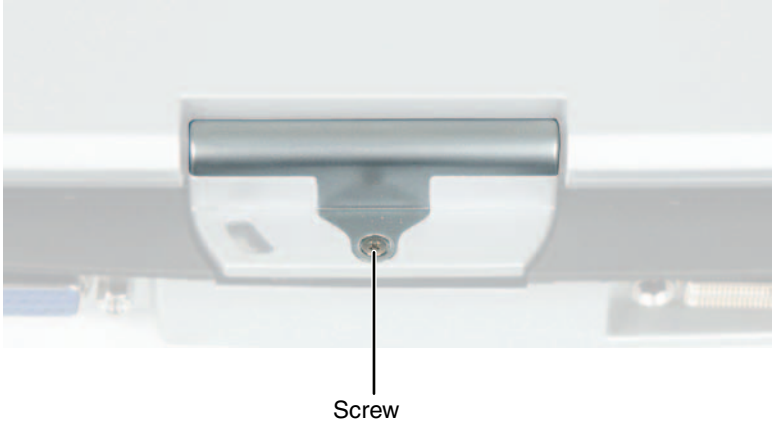


Screws removed during this task:

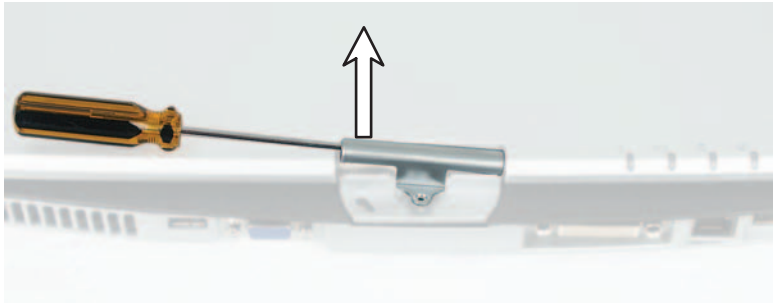


To replace the hinge cover:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Turn the convertible tablet PC over so the top is facing up.
3. Remove the hinge cover screw from the back of the hinge.



4 Insert the small flat-blade screwdriver or non-marring tool under the bottom of the hinge cover, then carefully pry it up.



5 Snap the new cover into place over the hinge.

6 Replace the hinge cover screw.

Replacing the keyboard cover

Tools you need to complete this task:

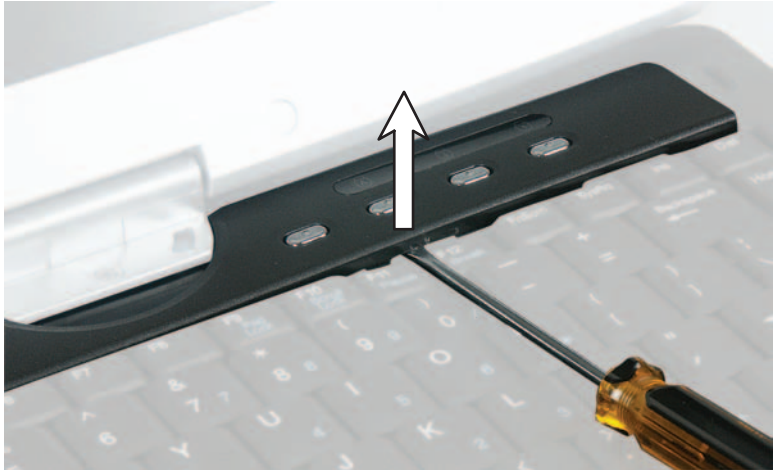
Flat-blade driver - OR - Scribe or non-marring tool

To replace the keyboard cover:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Turn the convertible tablet PC over so the top is facing up.
3. Open the LCD panel to the normal viewing position.
4. Insert the small flat-blade screwdriver under the bottom of the keyboard cover between the **F11** and **F12** keys and gently pry it up.

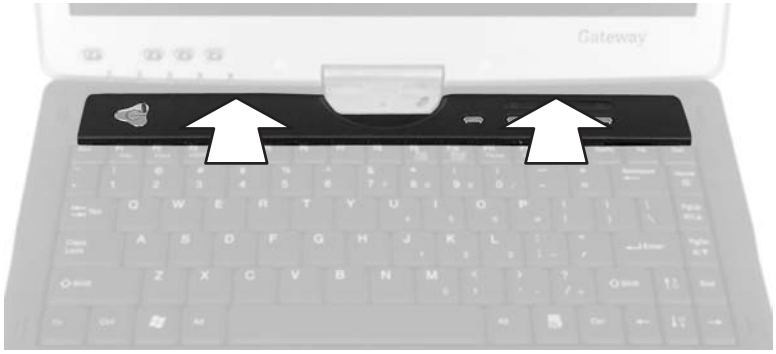
Tips & Tricks

Inserting a piece of cloth between the screwdriver and keyboard will help prevent damage to the convertible tablet PC.



5 Remove the keyboard cover from the convertible tablet PC by pulling the cover toward you and at the same time lifting its front to clear the keyboard. You will hear small snapping sounds as the cover comes away from the convertible tablet PC. Be careful not to break off the tabs located on the bottom of the cover.

6 Slide the tabs on the bottom side of the new cover under the convertible tablet PC frame.



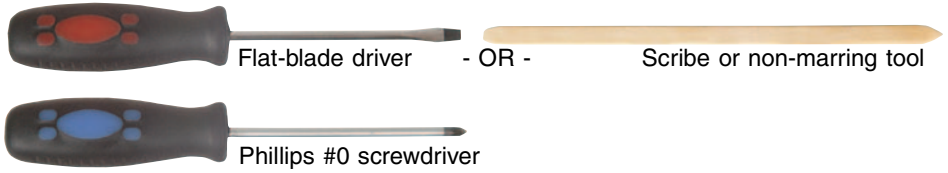
7 Press down on the cover in several places to make sure that it is correctly mounted. The cover is correctly mounted when you can run your finger along the cover and find no loose spots. The cover should be flat all the way across.

Caution

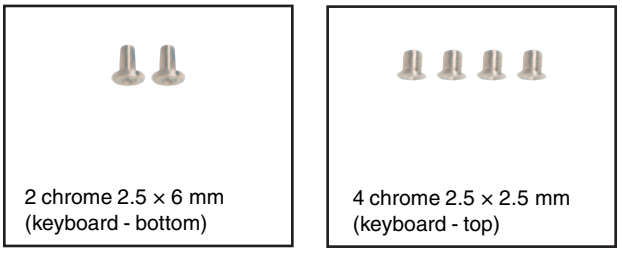
If the cover is not correctly replaced, the convertible tablet PC could be damaged when you try to close the LCD panel.

Replacing the keyboard

Tools you need to complete this task:



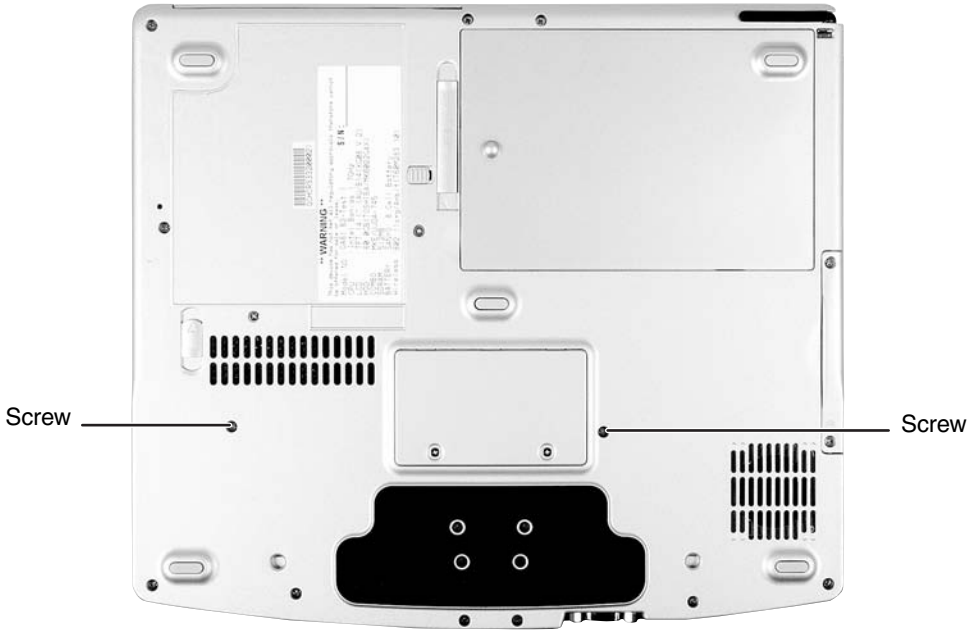
Screws removed during this task:



To replace the keyboard:

1 Complete the steps in "Preparing the convertible tablet PC" on page 6.

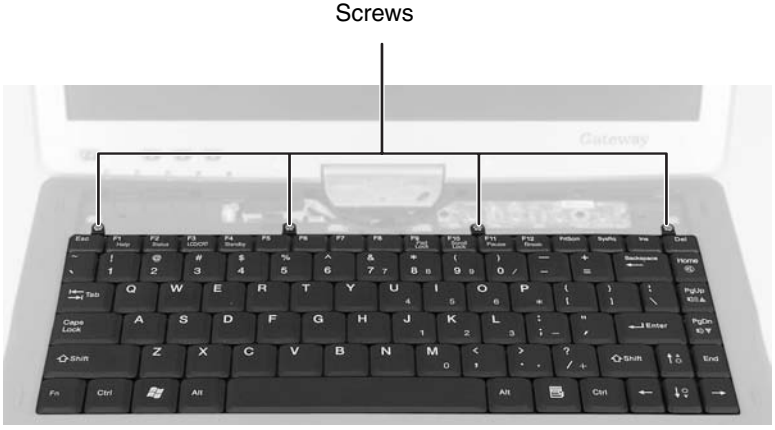
2 Remove the two keyboard screws marked with a K.



3 Turn the convertible tablet PC over so the top is facing up.

4 Remove the keyboard cover by following the instructions in “Replacing the keyboard cover” on page 18.

5 Remove the four keyboard screws that secure the keyboard to the convertible tablet PC.



6 Lift 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.

7 Slowly rotate the keyboard toward you so it lies **keys-down** on top of the convertible tablet PC. Be careful not to damage the LCD panel.

8 Carefully insert the small flat-blade screwdriver between the keyboard cable and the black plastic hinge where the cable connects to the system board. Gently lift the hinge off the cable. The cable is now free and you can remove the keyboard.

9 Place the new keyboard **keys-down** on the convertible tablet PC with the space bar away from you.

10 Make sure that the black plastic hinge on the system board keyboard connector is in the raised position.

11 Insert the end of the keyboard cable between the black plastic hinge and the white connector.

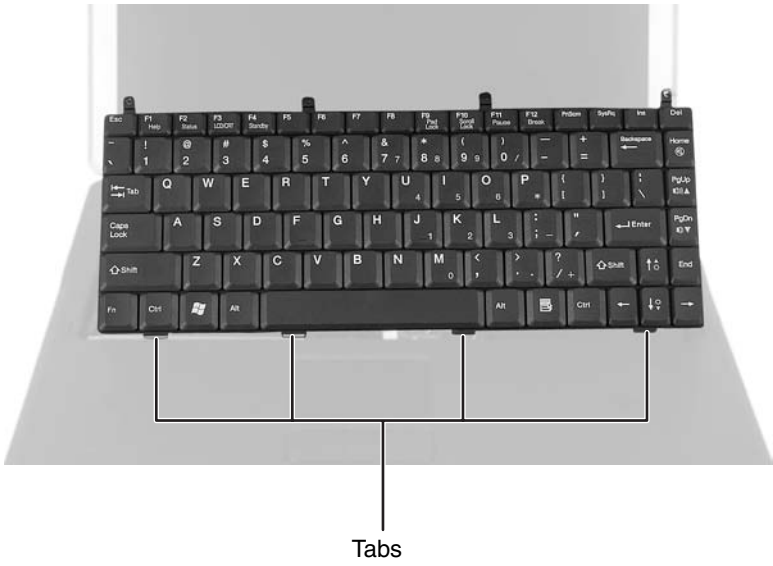
Important

The plug is correctly oriented if the cable is not twisted.

12 Press the black plastic hinge onto the keyboard cable.

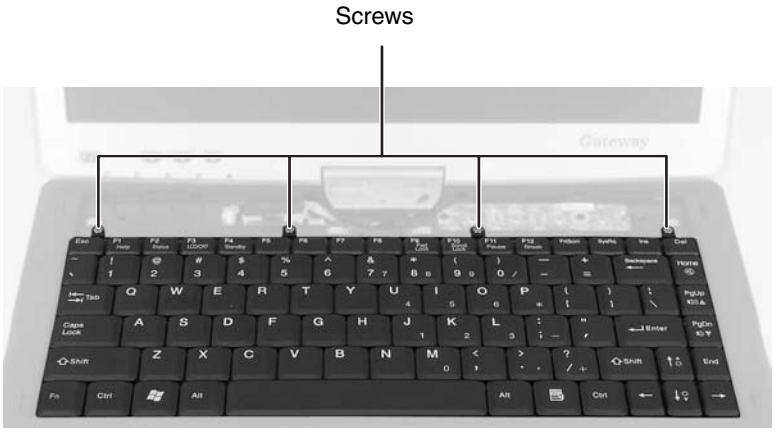
13 Rotate the keyboard toward the LCD panel until the keyboard is almost face-up.

14 Insert the four tabs on the front edge of the keyboard into the corresponding slots under the palm rest.



15 Gently press the keyboard down until it is flat all the way across. The keyboard should easily fall into place. Be careful not to damage the LCD panel.

16 Replace the four keyboard screws.



17 Turn the convertible tablet PC over so the top is facing down, then replace the two keyboard screws.

18 Reassemble the convertible tablet PC.

Adding or replacing memory modules

The convertible tablet PC uses memory modules called SO-DIMMs (Small Outline Dual Inline Memory Modules). The modules are available in various capacities and any module can be placed in the memory bay. Use only memory modules designed for the Gateway M275 for upgrading the memory.

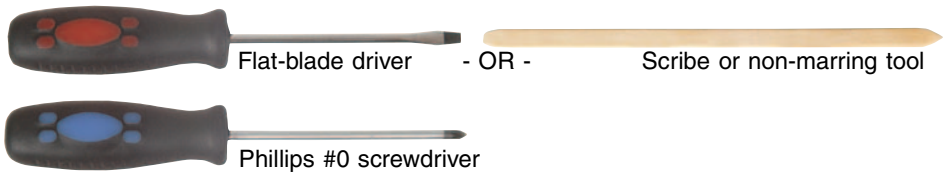
SO-DIMMs are located in two places inside the convertible tablet PC. Both SO-DIMMs can be upgraded. For instructions on upgrading the SO-DIMM located on the bottom of the convertible tablet PC, see "Adding or replacing memory in the memory bay" on page 25. For instructions on upgrading the SO-DIMM located under the keyboard of the convertible tablet PC, see "Replacing memory under the keyboard" on page 28.

Important

Use only memory modules designed for the Gateway M275.

Adding or replacing memory in the memory bay

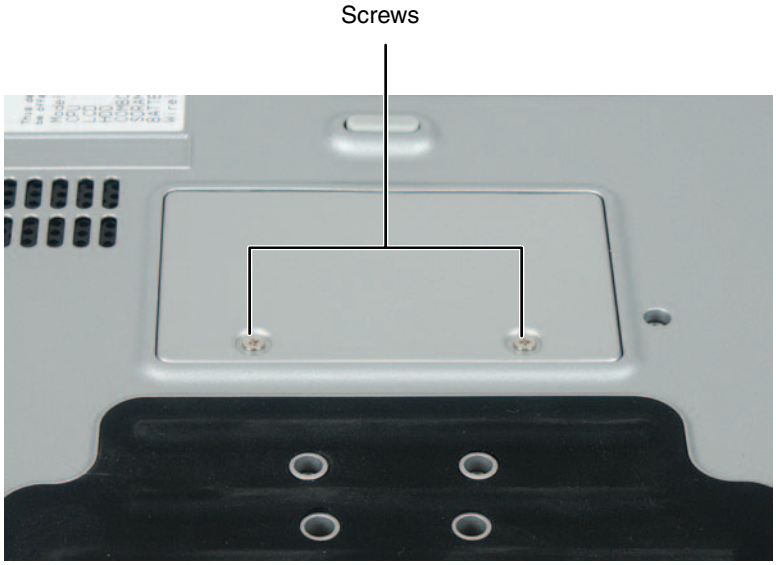
Tools you need to complete this task:



To add or replace memory modules:

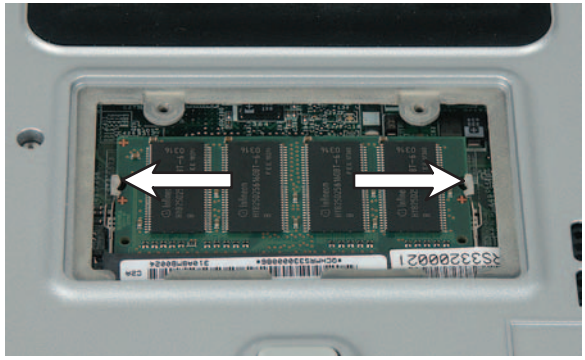
1 Complete the steps in "Preparing the convertible tablet PC" on page 6.

2 Loosen the two captive screws that secure the memory cover. (These screws cannot be removed.)

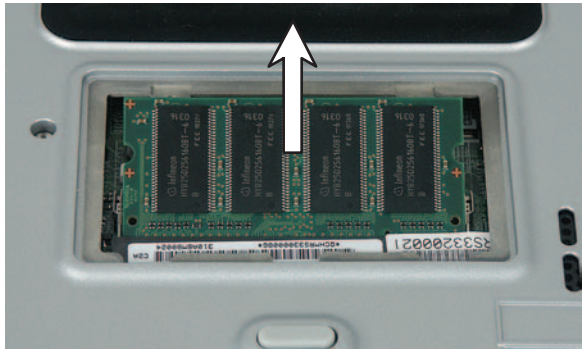


3 Lift the screw side of the cover upward, then slide the cover out.

4 If you are removing a module, gently press outward on the clip at each end of the memory module until the module tilts upward.



5 Pull the memory module out of the slot.



6 Hold the new or replacement module at a 30-degree angle and press it into the empty memory slot. This module is keyed so 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 bay.

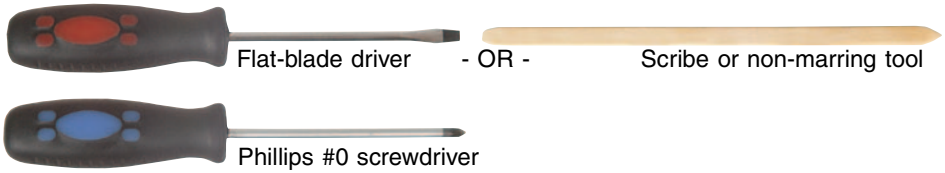
Important Use only memory modules designed for the Gateway M275.

7 Gently push the module down until it clicks in place.

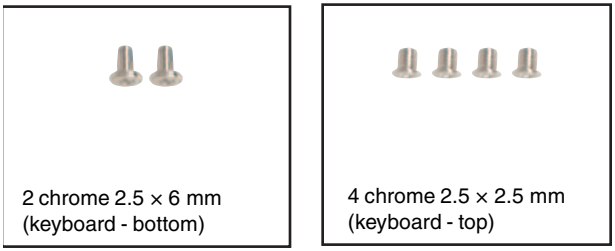
8 Replace the memory bay cover and tighten the cover screws.

Replacing memory under the keyboard

Tools you need to complete this task:



Screws removed during this task:



Important

Use only memory modules designed for the Gateway M275.

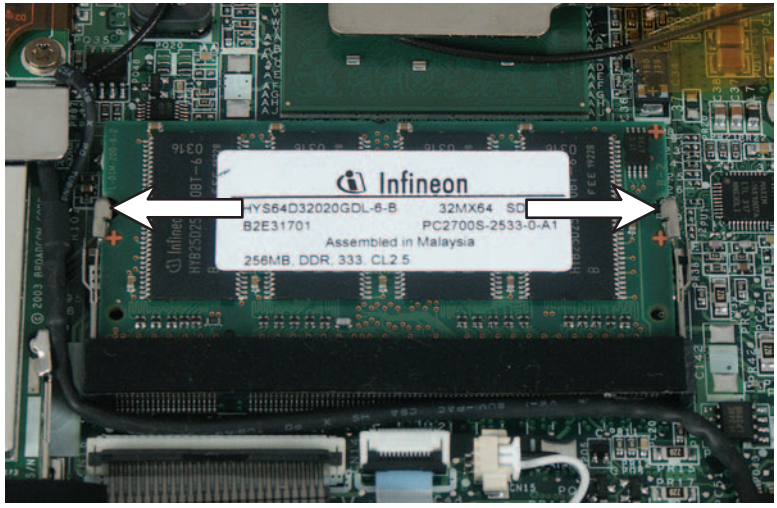
To replace memory modules:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
3. Turn the convertible tablet PC over so the top is facing up.
4. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
5. Open the keyboard compartment by following the instructions in "Replacing the keyboard" on page 20.

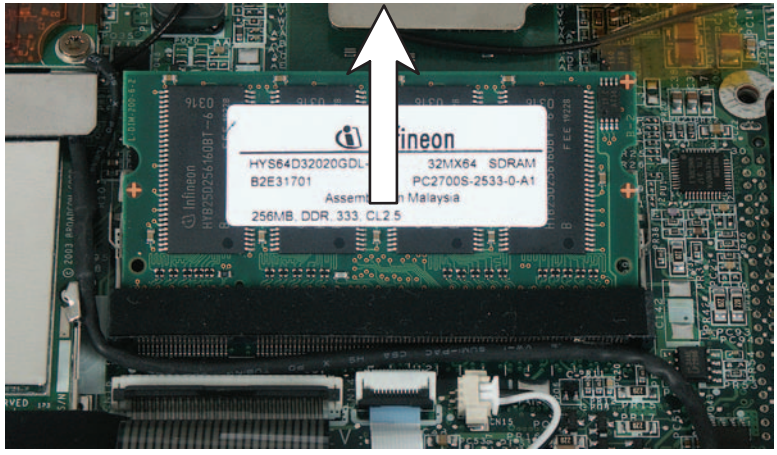
Tips & Tricks

You do not need to disconnect the keyboard from the system board.

6 Gently press outward on the clip at each end of the memory module until the module tilts upward.



7 Pull the memory module out of the slot.



8 Hold the new or replacement module at a 30-degree angle and press it into the empty memory slot. This module is keyed so 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 bay.

Important

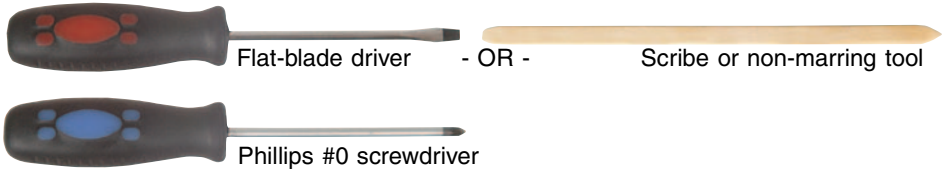
Use only memory modules designed for the Gateway M275.

9 Gently push the module down until it clicks in place.

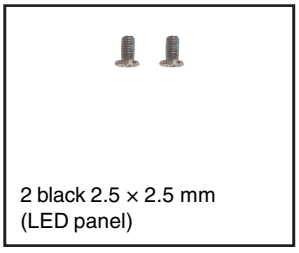
10 Reassemble the convertible tablet PC.

Replacing the LED indicator panel

Tools you need to complete this task:



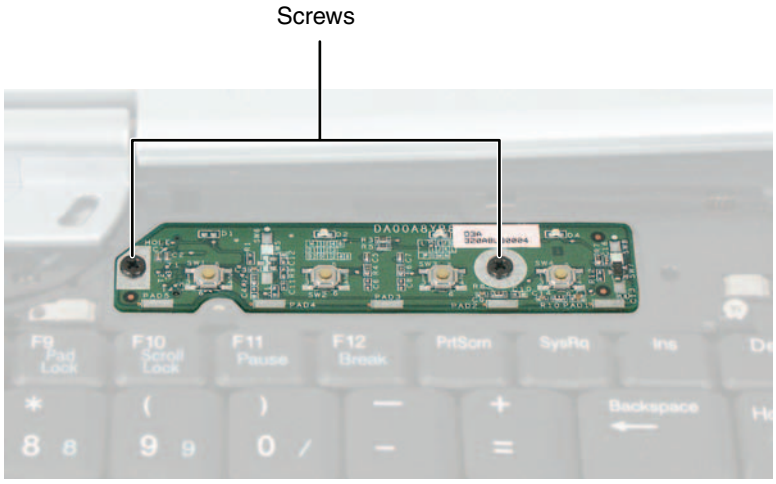
Screws removed during this task:



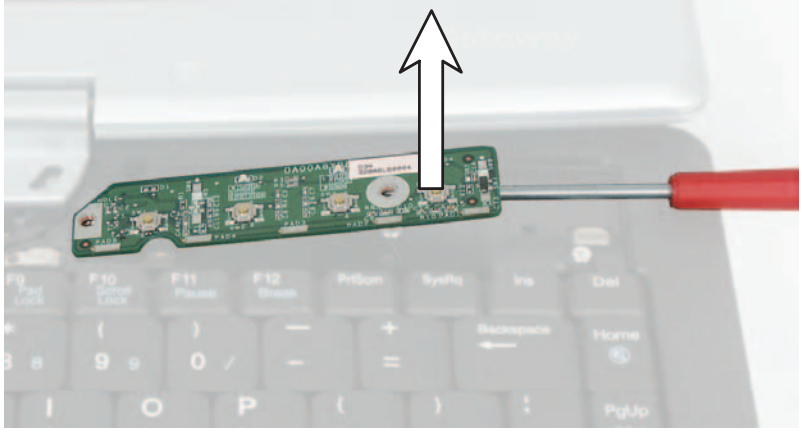
To replace the LED indicator panel:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Turn the convertible tablet PC over so the top is facing up.
3. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.

4 Remove the two screws securing the LED indicator panel to the convertible tablet PC.



5 Insert the small flat-blade screwdriver or non-marring tool under the right side of the indicator panel and gently pry it up about ¼ inch, then lift the entire panel from the convertible tablet PC.



6 Align the new indicator panel's screw holes with the holes on the convertible tablet PC, then press the panel into place.

7 Replace the two screws that secure the LED indicator panel to the convertible tablet PC.

8 Reassemble the convertible tablet PC.

Replacing the LCD panel assembly

Tools you need to complete this task:

Flat-blade driver - OR - Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

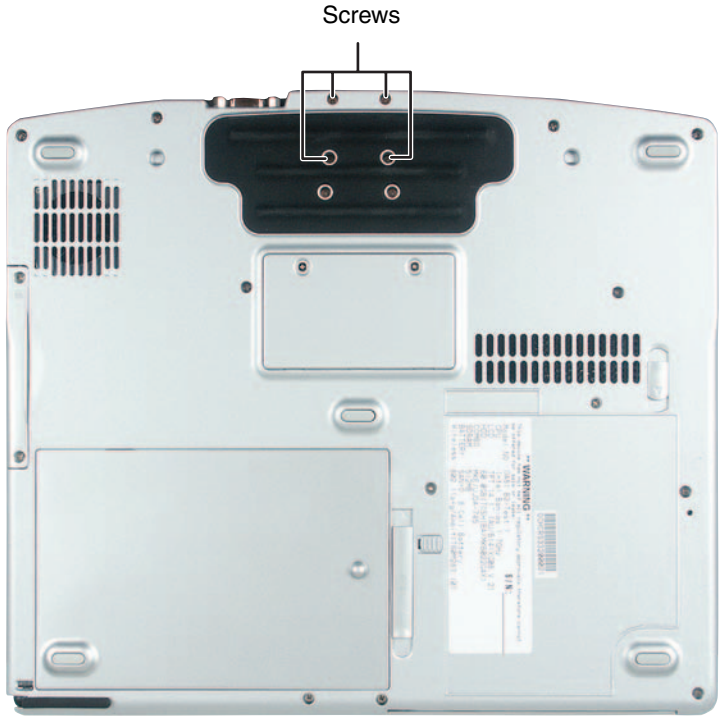
1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (LCD panel)

To replace the LCD panel assembly:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis.

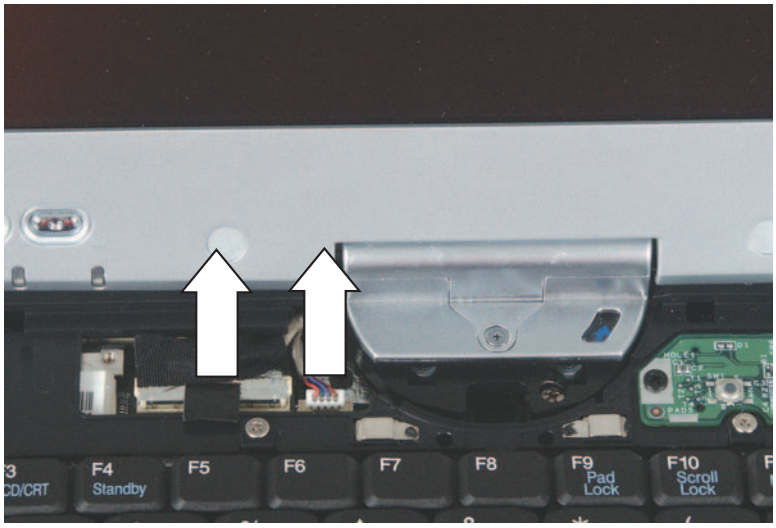


3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Turn the convertible tablet PC over so the top is facing up.
5. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
6. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
7. Open the keyboard compartment by following the instructions in "Replacing the keyboard" on page 20.

Tips & Tricks

You do not need to disconnect the keyboard from the system board.

8 Detach the microphone cable from the system board.



9 Grasp the plastic tab carefully and pull to unplug the LCD video cable from the convertible tablet PC. Make sure you grasp the tab, not the cable.

Caution

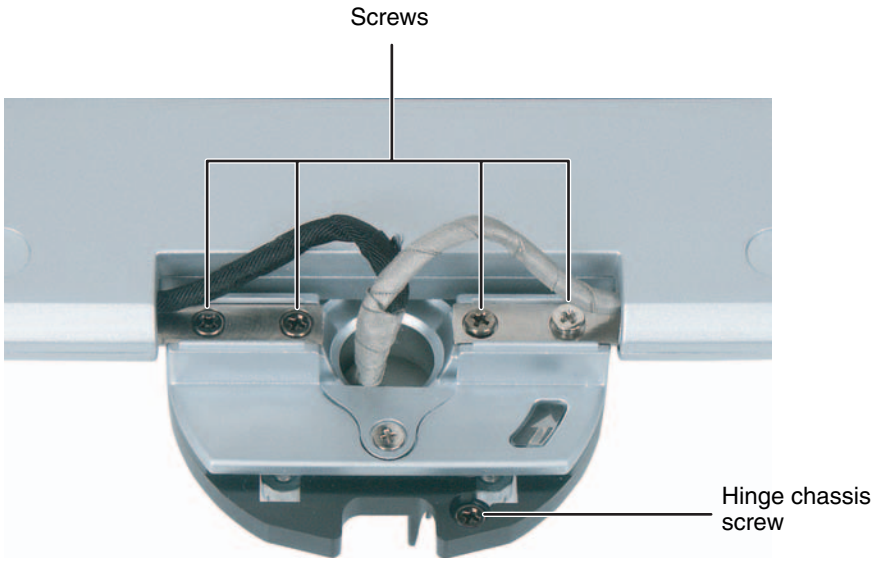
The connector is fragile.

10 Open the LCD panel to the fully open position.

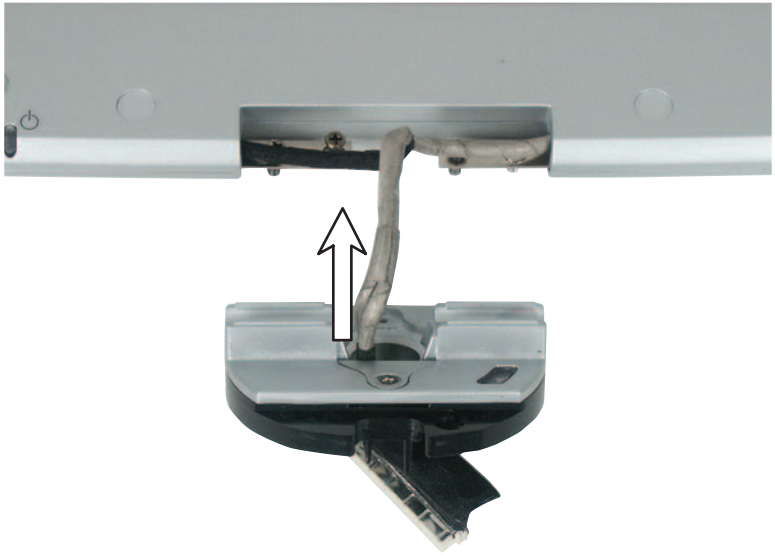
Caution

Be careful not to use too much force when opening the LCD panel.

11 Remove the single hinge chassis screw that secures the hinge to the convertible tablet PC.



12 Remove the four hinge screws that secure the LCD panel to the hinge. Note the location of the grounding cable.



13 Lift the LCD panel assembly up and away from the convertible tablet PC. The LCD panel assembly is now completely detached from the convertible tablet PC.

14 Place the new LCD panel assembly onto the hinge of the convertible tablet PC, then replace the four hinge screws. Make sure to reattach the grounding cables to the appropriate screws.

15 Replace the single hinge chassis screw that secures the hinge to the chassis.

16 Plug the LCD video cable into the convertible tablet PC.

17 Reattach the microphone cable to the appropriate connector on the system board.

18 Reassemble the convertible tablet PC.

19 Replace the four screws on the bottom that secure the hinge to the chassis.

Replacing the LCD panel

Tools you need to complete this task:

Flat-blade driver

- OR -

Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 6 mm and 4 chrome 2.5 × 4 mm (LCD panel assembly)

4 chrome2.5 × 4 mm
(LCD panel)

3 chrome 2 × 5 mm
(digital panel)

To replace the LCD panel:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.

3 Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.

4 Turn the convertible tablet PC over so the top is facing up.

5 Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.

6 Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.

7 Open the keyboard compartment by following the instructions in "Replacing the keyboard" on page 20.

Tips & Tricks

You do not need to disconnect the keyboard from the system board.

8 Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.

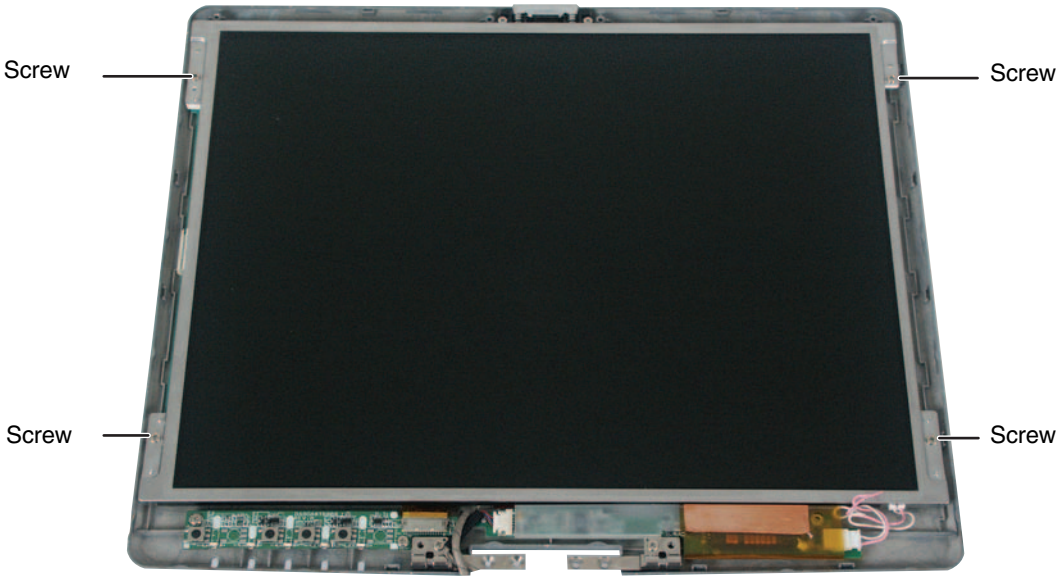
9 Remove the two rubber inserts and four plastic inserts from the front of the LCD panel assembly.

10 Remove the six screws from the front of the LCD panel assembly.

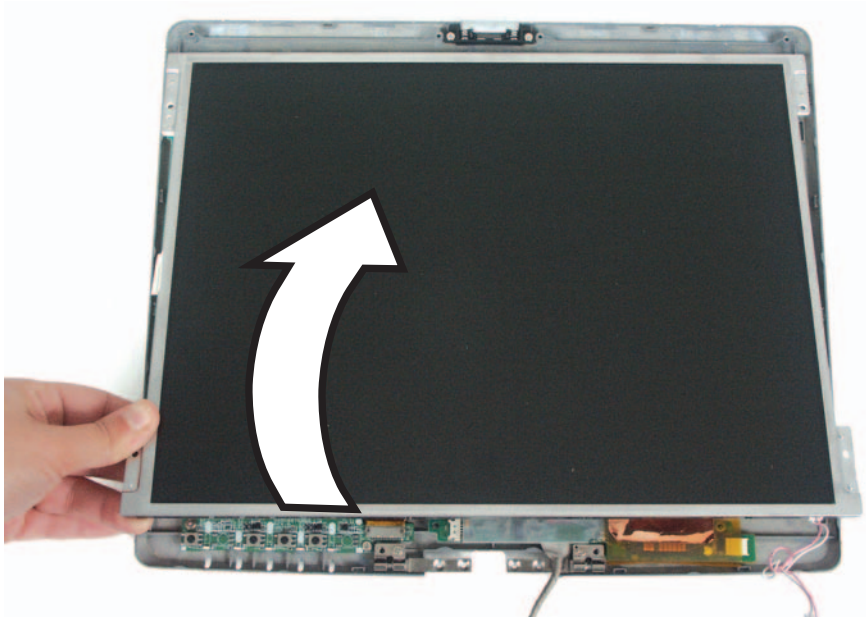
11 Carefully separate the front and back of the LCD panel assembly.

12 Disconnect the three LCD panel connectors from the bottom of the LCD panel assembly.

13 Remove the four screws that secure the LCD panel to the LCD panel assembly.



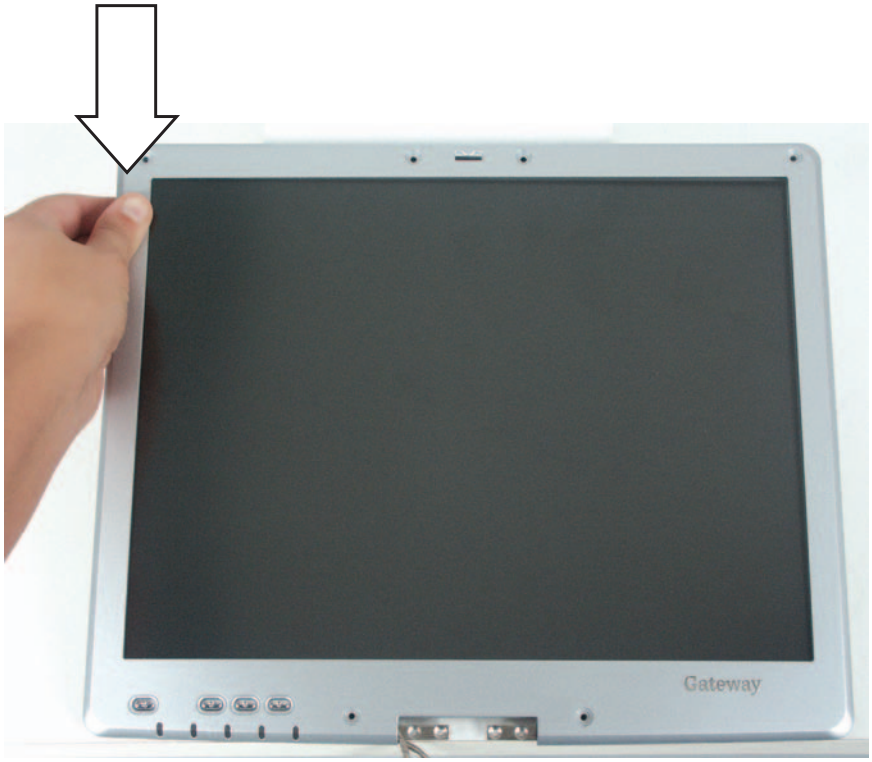
14 Remove the LCD panel from the LCD panel assembly.



15 Place the new LCD panel into the LCD panel assembly back and replace the four screws.

16 Reconnect the three LCD panel connectors from the bottom of the LCD panel assembly. For more information, see Step 12.

17 Starting in the upper-left corner, press the LCD panel front and back together. Press the two halves together in several places until they click in place. You should find no loose spots or spots where the two halves do not meet.



18 Replace the six LCD panel assembly screws.

Caution

The two longer screws go next to the hinge.

19 Replace the six inserts.

Caution

The two rubber inserts go next to the latch.

20 Reassemble the convertible tablet PC.

Repairing the digital panel

Tools you need to complete this task:

Flat-blade driver

- OR -

Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 6 mm and 4 chrome 2.5 × 4 mm (LCD panel assembly)

4 chrome2.5 × 4 mm
(LCD panel)

3 chrome 2 × 5 mm
(digital panel)

To repair the digital panel:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.

3 Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.

4 Turn the convertible tablet PC over so the top is facing up.

5 Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.

6 Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.

7 Open the keyboard compartment by following the instructions in "Replacing the keyboard" on page 20.

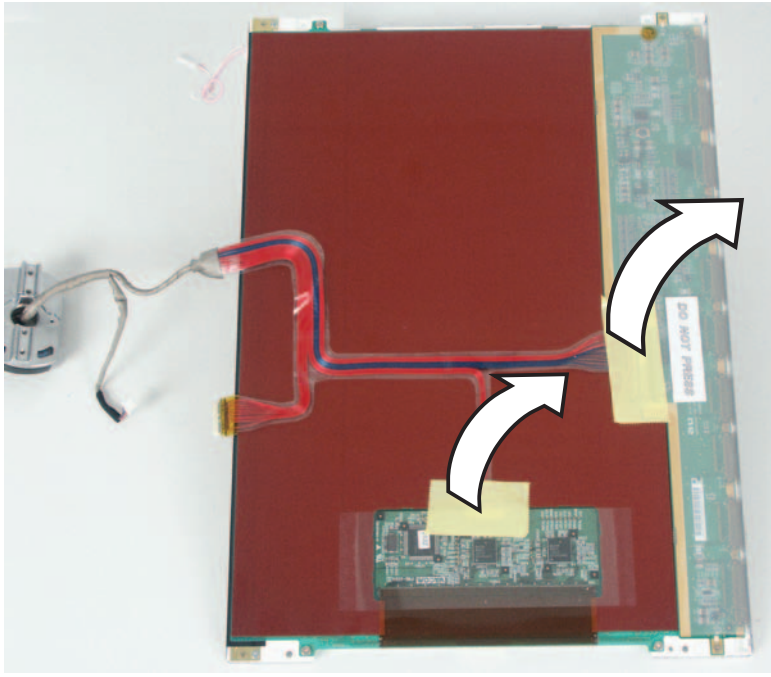
Tips & Tricks

You do not need to disconnect the keyboard from the system board.

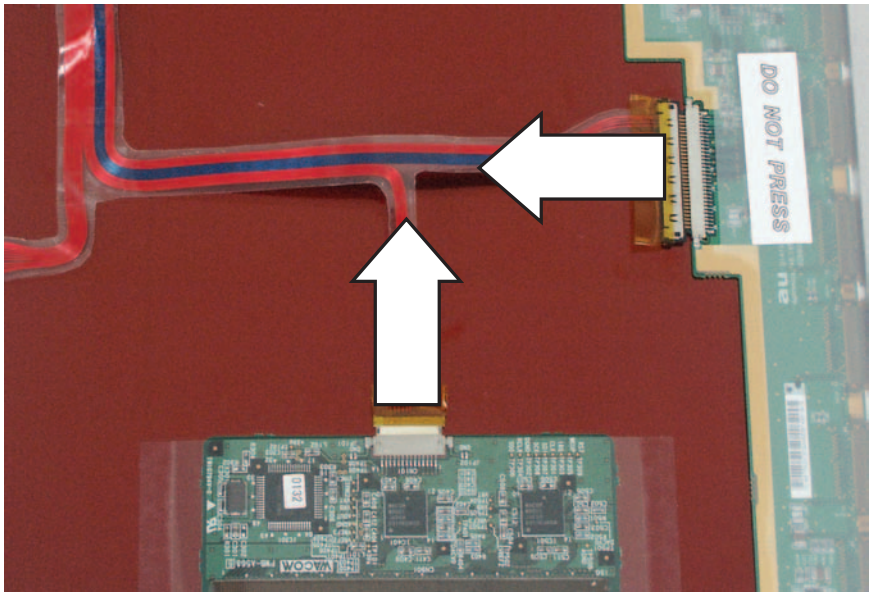
8 Complete removal of the LCD panel assembly by following the instructions in "Replacing the LCD panel assembly" on page 33.

9 Remove the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.

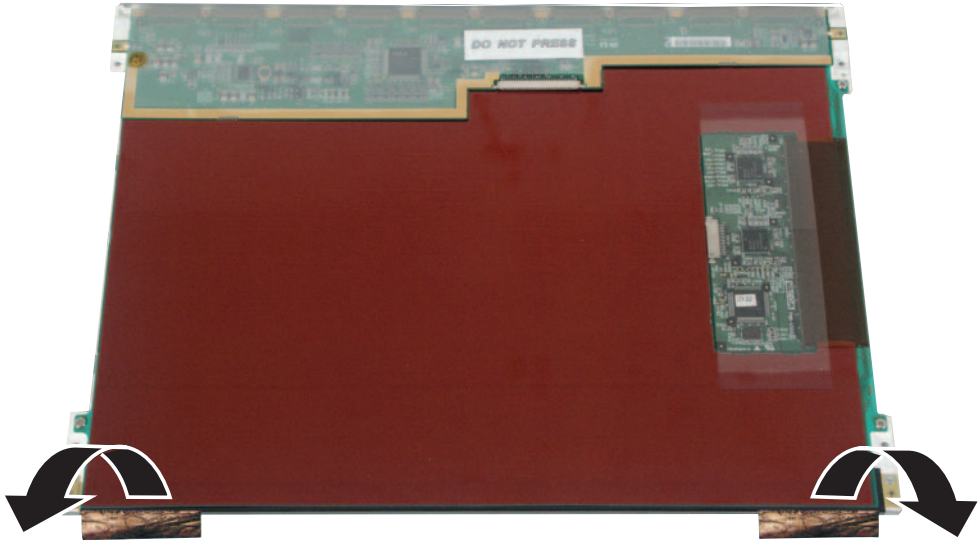
10 Remove the tape from the back of the LCD panel.



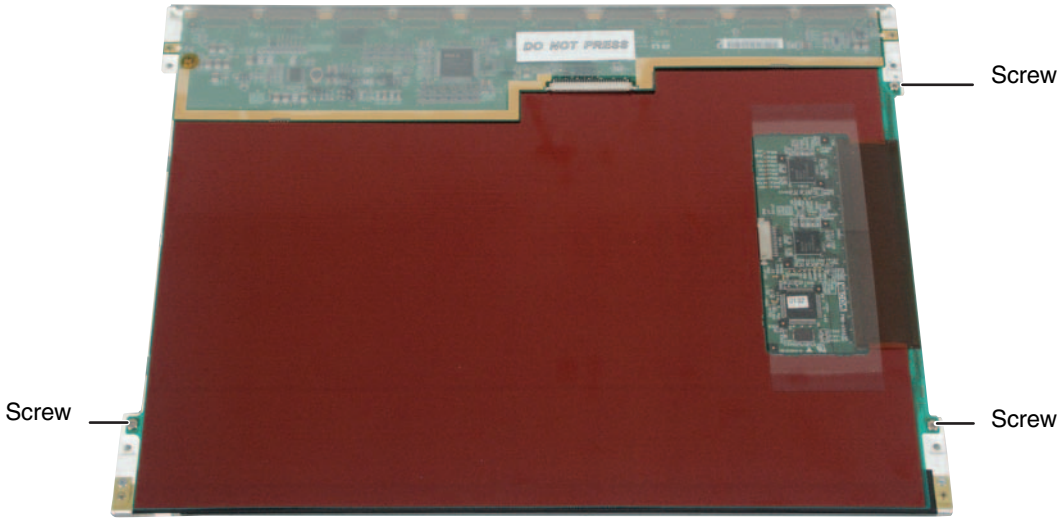
11 Disconnect the two connectors from the back of the LCD panel.



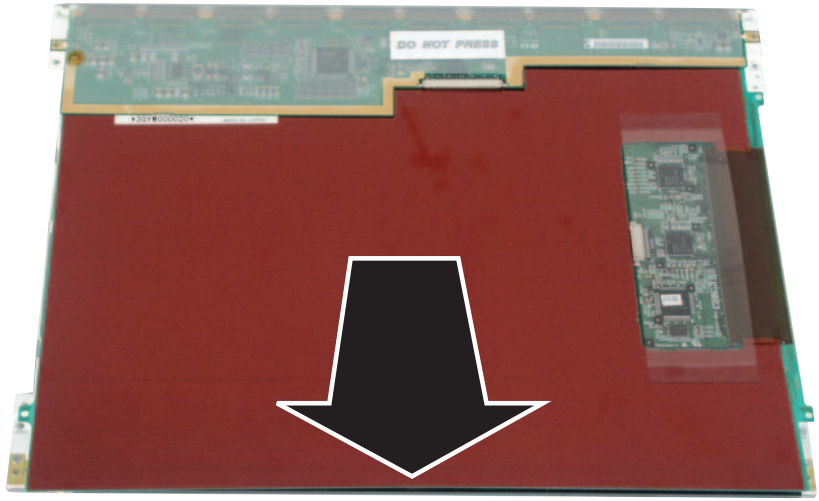
12 Unwrap the copper foil from the back of the LCD panel.



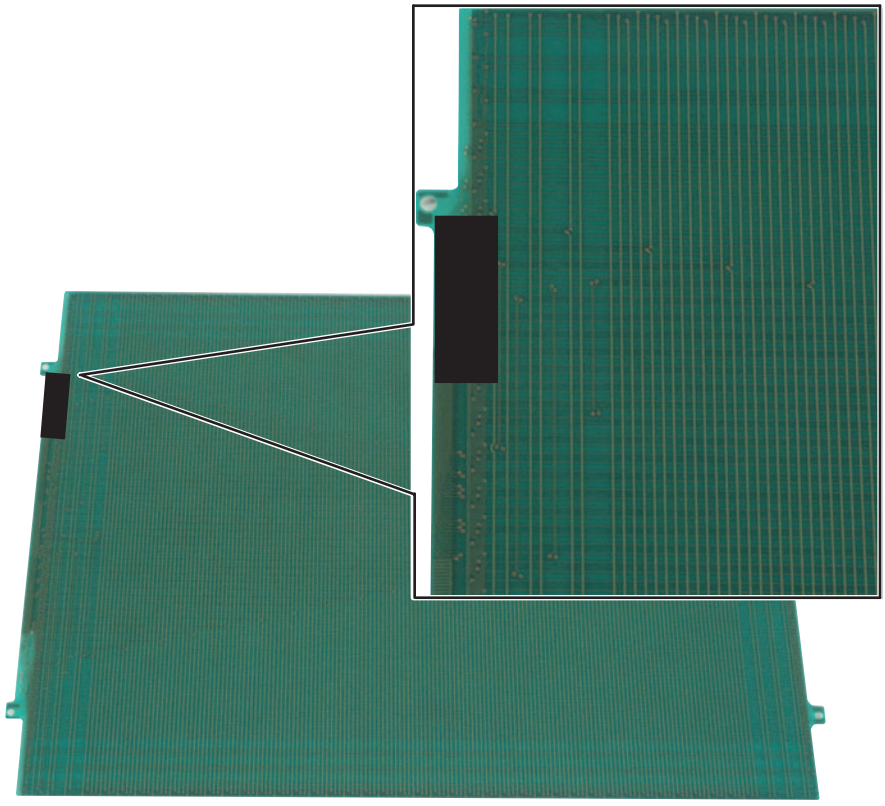
13 Remove the three screws that secure the digital panel to the LCD panel.



14 Remove the digital panel from the LCD panel.



15 Turn the digital panel over and place a piece of mylar tape in the location shown.



16 Reinstall the digital panel on the LCD panel.

17 Reinstall the three screws that you removed in Step 13.

18 Rewrap the copper foil around the LCD panel.

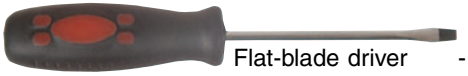
19 Reconnect the two connectors to the back of the LCD panel. For more information, see Step 11.

20 Replace the tape on the back of the LCD panel that you removed in Step 10.

21 Reassemble the convertible tablet PC.

Replacing the palm rest assembly

Tools you need to complete this task:


Flat-blade driver

- OR -

Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

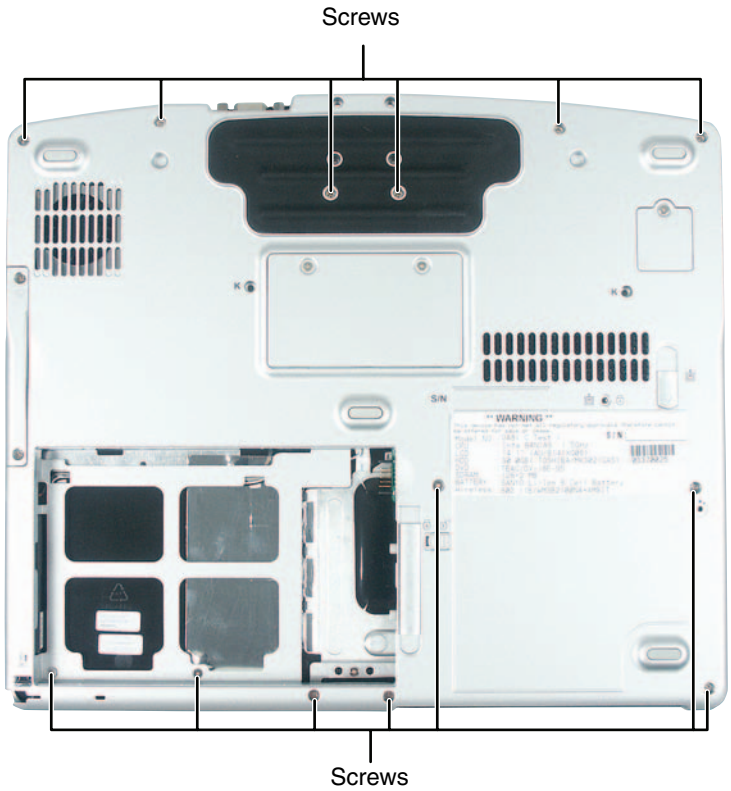
2 black 2.5 × 2.5 mm
(LED panel)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 5 mm
(palm rest - top)

To replace the palm rest assembly:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC.

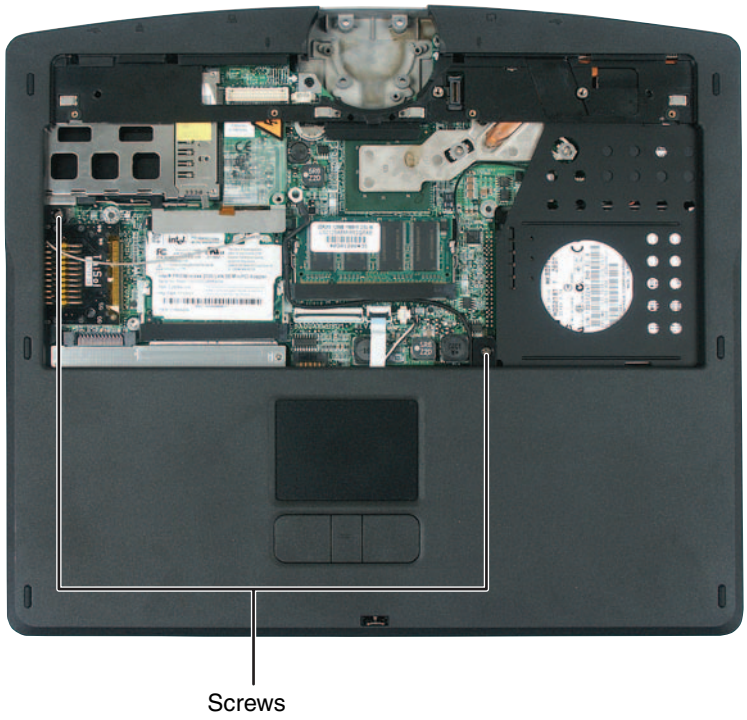


5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.

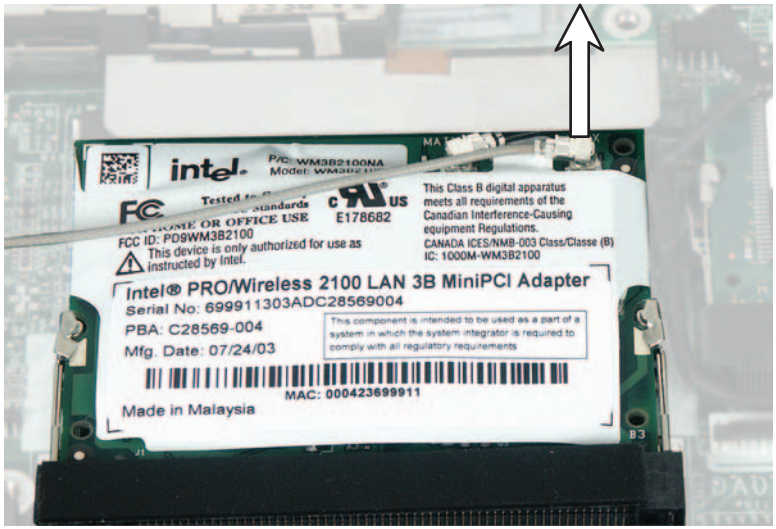
9 Remove the LED panel by following the instructions in “Replacing the LED indicator panel” on page 31.

10 Complete removal of the LCD panel by following the instructions in “Replacing the LCD panel assembly” on page 33.

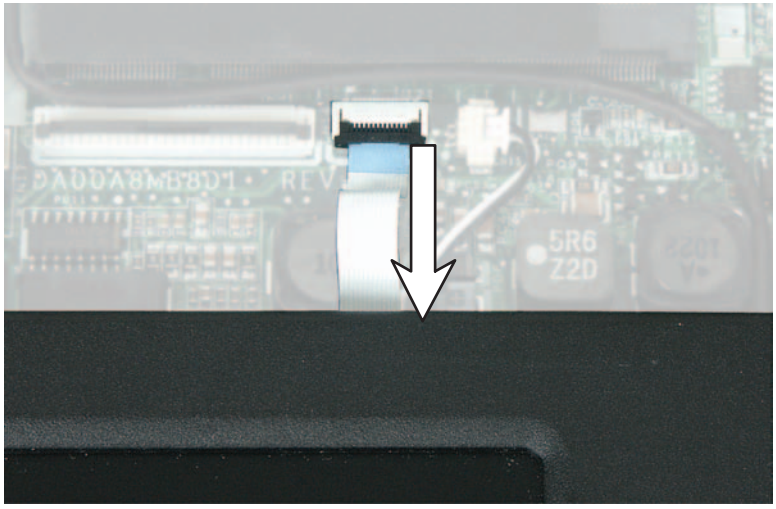
11 Remove the two screws on the top of the convertible tablet PC.



12 Unplug the gray secondary antenna cable.



13 Carefully insert the small flat-blade screwdriver between the touchpad cable and the black plastic hinge where the cable connects to the system board. Gently lift the hinge off the cable. The cable is now free and you can remove the palm rest assembly.



14 Lift the palm rest assembly up and away from the convertible tablet PC.

15 Place the new palm rest assembly onto the convertible tablet PC.

Important

The palm rest assembly does not snap into place. The magnesium cover sits on top of the convertible tablet PC and is secured with screws.

16 Reattach the gray secondary antenna cable to the system board.

17 Replace the two top palm rest screws.

18 Make sure that the black plastic hinge on the system board touchpad connector is in the raised position.

19 Insert the end of the touchpad cable between the black plastic hinge and the white connector.

20 Press the black plastic hinge onto the touchpad cable.

21 Replace the LED panel, LCD panel, the hinge cover, the keyboard, and the keyboard cover.

22 Turn the convertible tablet PC over so the top is facing down.

23 Replace the thirteen palm rest screws on the bottom of the convertible tablet PC.

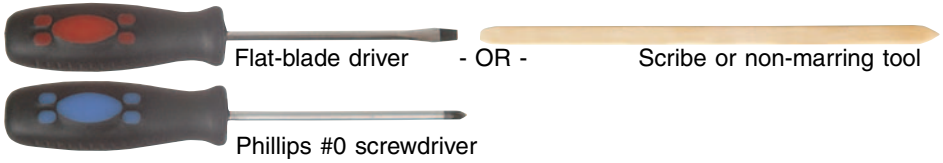
Important

The two shorter screws fit into the battery bay. The single screw fits next to the optical drive.

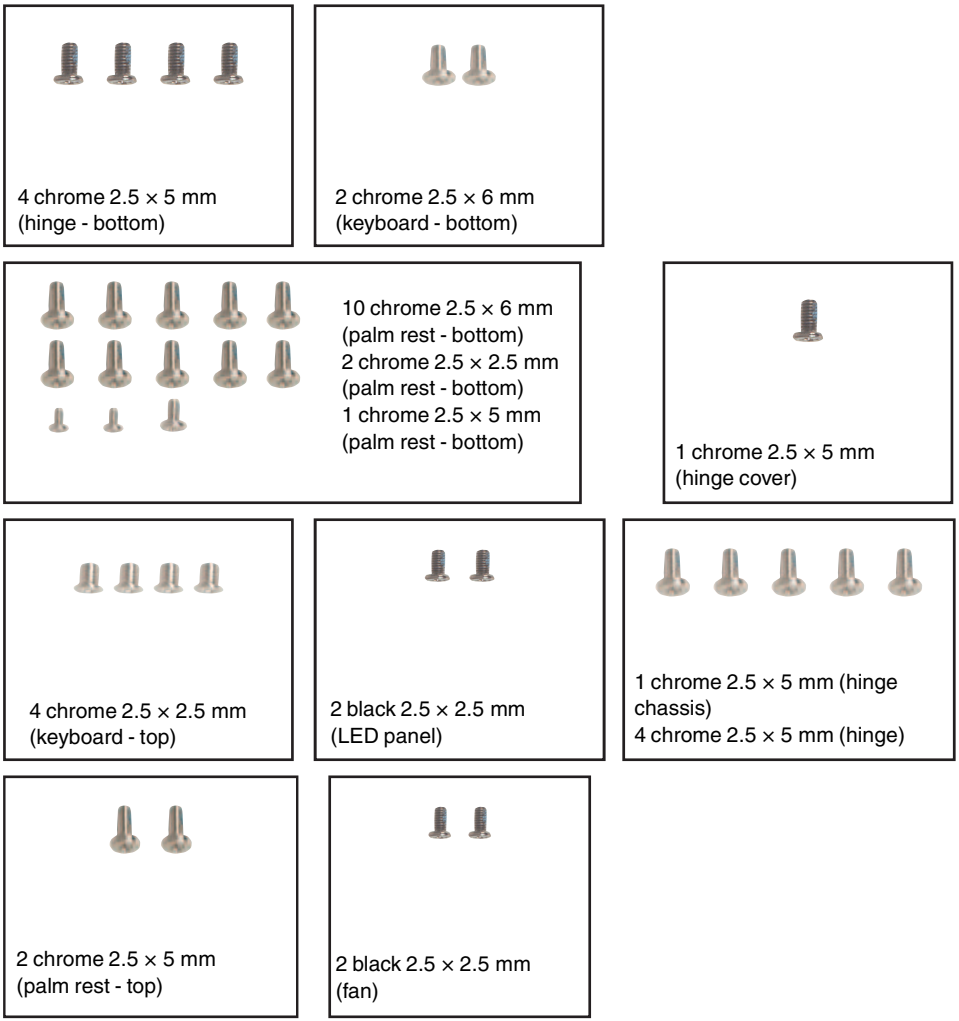
24 Reassemble the convertible tablet PC.

Replacing the cooling fan

Tools you need to complete this task:



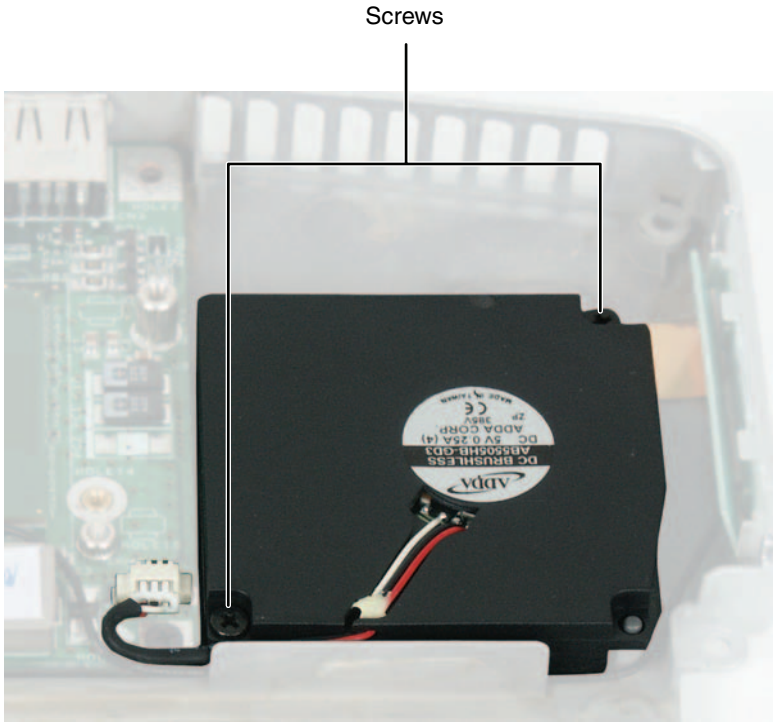
Screws removed during this task:



To replace the fan:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.
5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.
9. Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.
10. Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.
11. Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.

12 Remove the two screws from the fan.



13 Unplug the fan wires from the system board.

14 Lift the fan up and away from the convertible tablet PC. Replace with new fan assembly.

15 Secure the new fan with the two screws.

16 Reassemble the convertible tablet PC.

Replacing the cooling assembly

Tools you need to complete this task:

Flat-blade driver - OR - Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

2 black 2.5 × 2.5 mm
(LED panel)

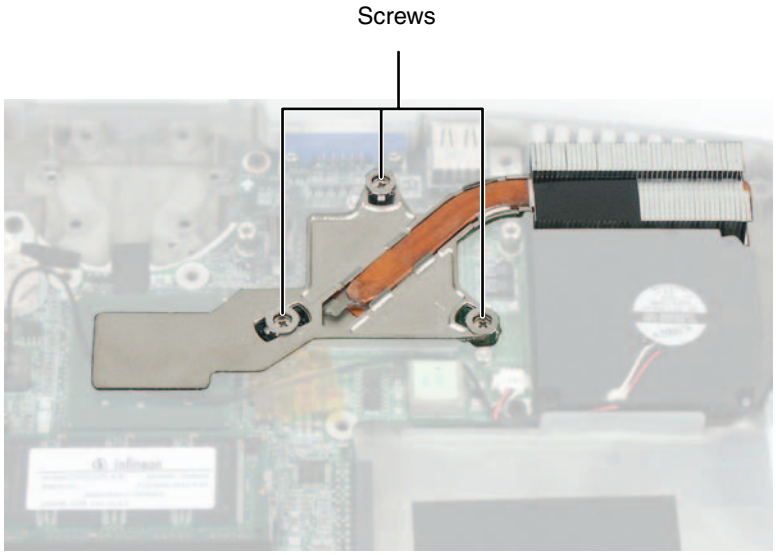
1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 5 mm
(palm rest - top)

To replace the cooling assembly:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.
5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.
9. Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.
10. Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.
11. Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.

12 Loosen the three captive screws from the cooling assembly.



Caution

There is a thermal pad beneath the cooling assembly on the system board. Do not remove the thermal pad.

13 Lift the cooling assembly up and away from the convertible tablet PC.

14 Install the new cooling assembly in the convertible tablet PC.

15 Tighten the three screws that are stamped with the numbers 1 through 3 next to them. Make sure that you tighten the screws in numerical order.

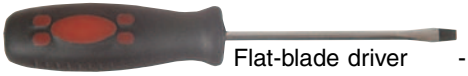
Caution

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

16 Reassemble the convertible tablet PC.

Replacing the CMOS battery

Tools you need to complete this task:


Flat-blade driver

- OR -

Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

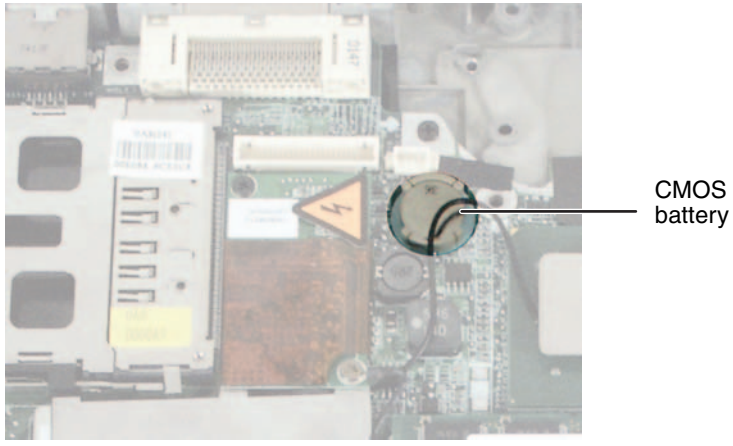
2 black 2.5 × 2.5 mm
(LED panel)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 5 mm
(palm rest - top)

To replace the CMOS battery:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.
5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.
9. Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.
10. Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.
11. Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.
12. Locate the old battery on the system board.



13 Insert the small flat-blade screwdriver or non-marring tool under the old battery and gently pry it up until it pops out of the socket.

14 Make sure the positive (+) side of the new battery is facing up, then press the battery into the socket until it snaps into place.

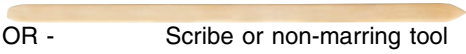
15 Reassemble the convertible tablet PC.

Replacing the modem

Tools you need to complete this task:

Flat-blade driver

- OR -


Scribe or non-marring tool

Phillips #0 screwdriver

Torx T8 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

2 black 2.5 × 2.5 mm
(LED panel)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

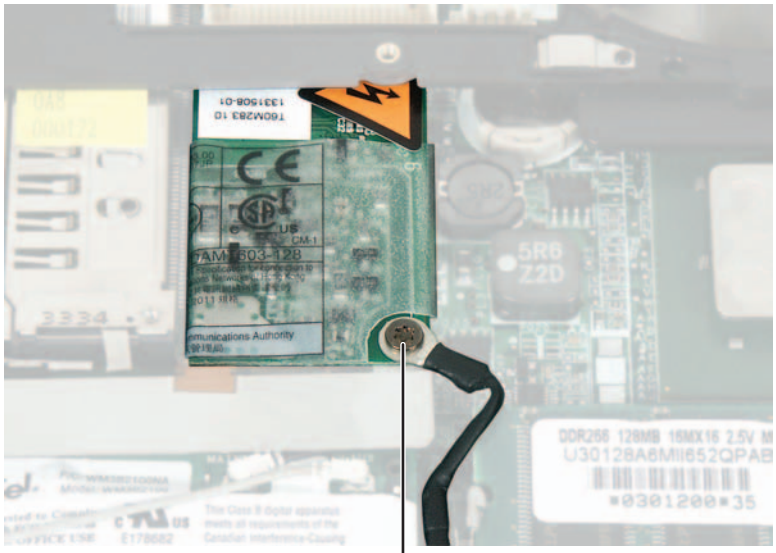
2 chrome 2.5 × 5 mm
(palm rest - top)

1 black 2.5 × 2.5 mm
(modem)
1 black Torx screw
(modem)

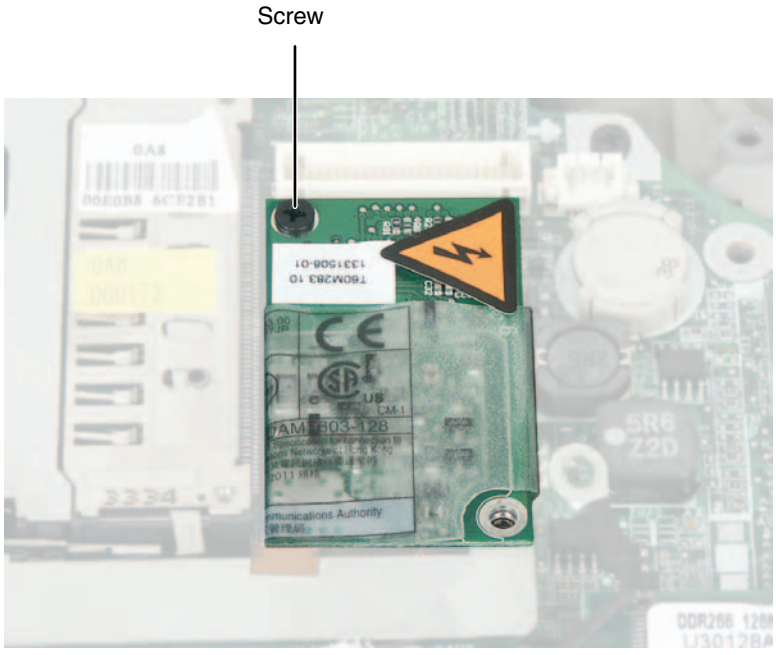
To replace the modem:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.
5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.
9. Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.
10. Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.
11. Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.

12 Remove the Torx screw that secures the modem to the convertible tablet PC.

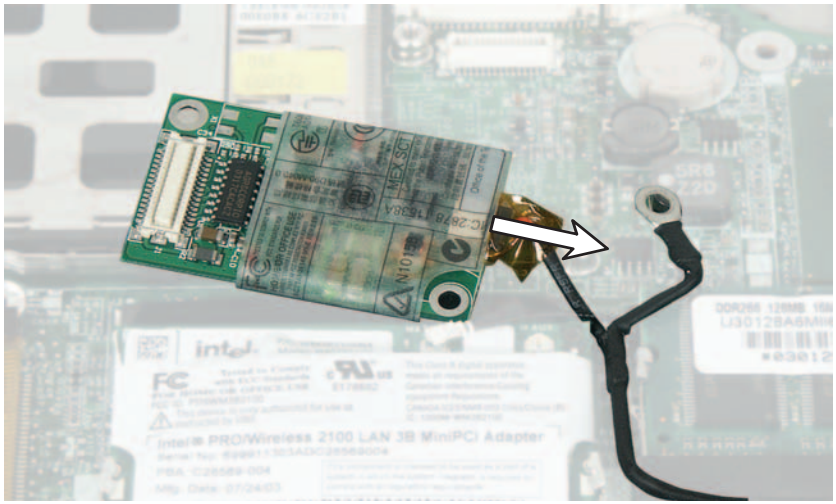


13 Remove the screw that secures the modem to the convertible tablet PC.



14 Insert the small flat-blade screwdriver or non-marring tool under the modem and gently pry it up about ¼ inch.

15 Turn the modem over, then unplug the modem cable from the modem.



16 Connect the modem cable into the new modem.

17 Align the modem's screw holes with the holes on the convertible tablet PC, then press the modem into place.

18 Replace the screw that secures the modem to the convertible tablet PC.

19 Replace the Torx screw that secures the modem to the convertible tablet PC. Be sure to attach the grounding cable to the screw.

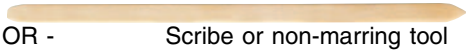
20 Reassemble the convertible tablet PC.

Replacing the IEEE 802.11 Mini PCI card

Tools you need to complete this task:

Flat-blade driver

- OR -


Scribe or non-marring tool

Phillips #0 screwdriver

Torx T8 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

2 black 2.5 × 2.5 mm
(LED panel)

1 chrome 2.5 × 5 mm (hinge
chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 5 mm
(palm rest - top)

1 black 2.5 × 2.5 mm
(modem)
1 black Torx screw
(modem)

Caution

By law, only approved wireless modules provided by Gateway, or a Gateway authorized representative, explicitly for the Gateway M275 may be installed in this convertible tablet PC.

Caution

Legal requirements dictate that a security screw (or other means) be used to attach the mini-PCI cover plate to the system board in a manner that restricts end user access. End users are strictly prohibited from having access to the wireless card. Gateway M275 convertible tablet PCs require a Torx head security screw to attach the mini-PCI cover plate.

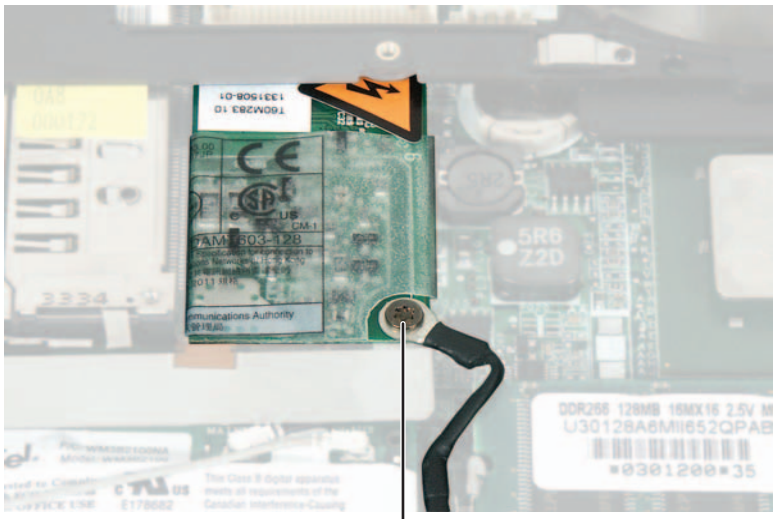
Caution

Legal requirements dictate the mini-PCI cover plate be in place during any and all operation of the convertible tablet PC's wireless feature.

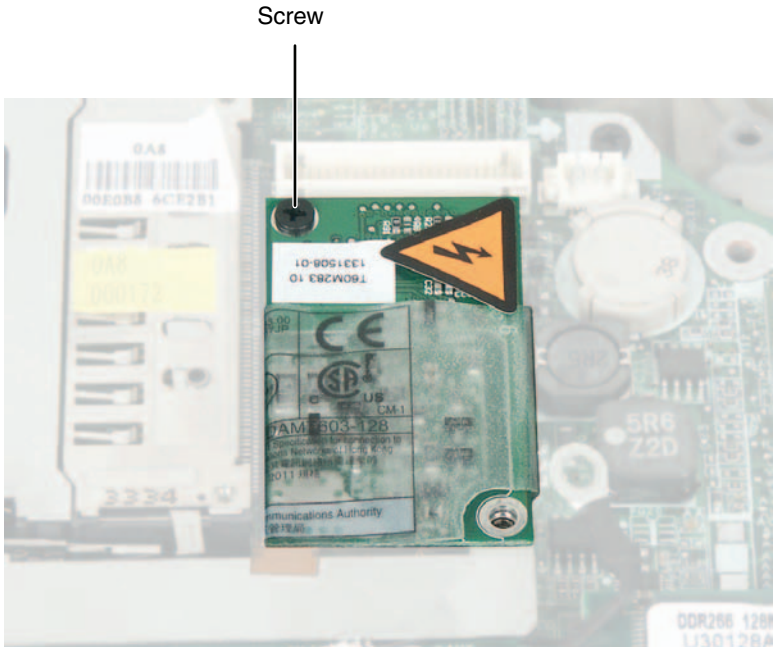
To replace the IEEE 802.11 Mini PCI card:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.
5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.
9. Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.
10. Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.
11. Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.

12 Remove the Torx screw that secures the modem grounding cable to the modem. This screw holds down a metal plate that covers the antenna connections.



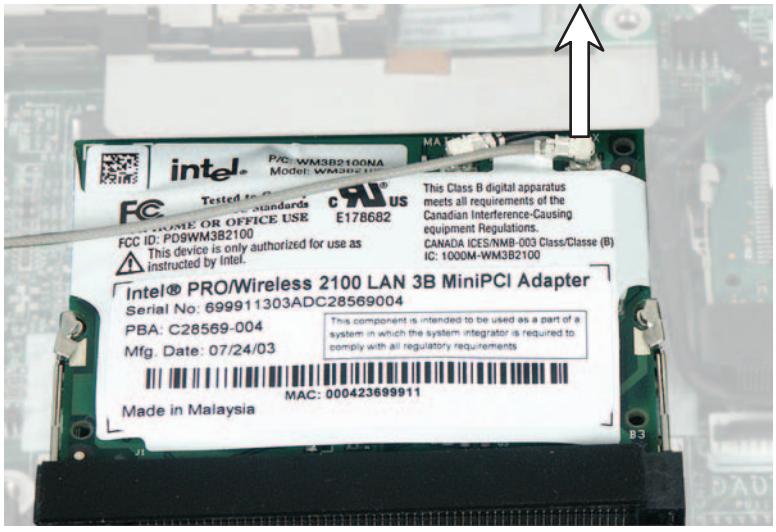
13 Remove the screw that secures the modem to the convertible tablet PC.



14 Insert the small flat-blade screwdriver or non-marring tool under the modem and gently pry it up about ¼ inch.

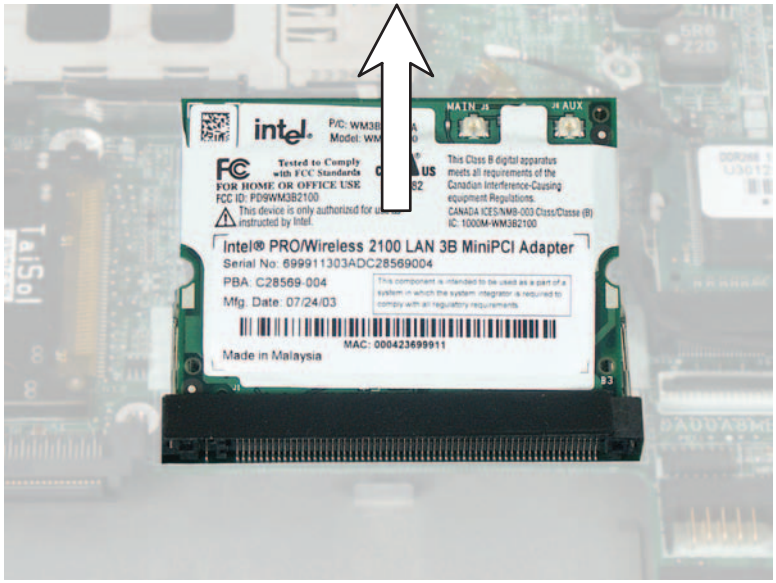
15 Remove the mini-PCI cover plate located between the mini-PCI card and the modem.

16 Unplug the two antenna cables on the mini-PCI card, noting how they are installed for later re-assembly.



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

18 Pull the card out of the slot.



19 Hold the new card at a 30-degree angle and press it into the empty slot. This card is keyed so 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.

20 Move the antenna wires out of the way, then press the card down until it clicks into place.

21 Reattach the black antenna cable to the connector labelled MAIN or M, then reattach the light gray antenna cable to the connector labelled AUX or A.

22 Position the metal plate on top of the mini PCI card.

23 Align the modem's screw holes with the holes on the convertible tablet PC, then press the modem into place.

24 Replace the Torx screw that secures the modem to the convertible tablet PC.

25 Replace the screw that secures the modem to the convertible tablet PC.

26 Reassemble the convertible tablet PC.

Replacing the latch

Tools you need to complete this task:

Flat-blade driver

- OR -

Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

2 black 2.5 × 2.5 mm
(LED panel)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

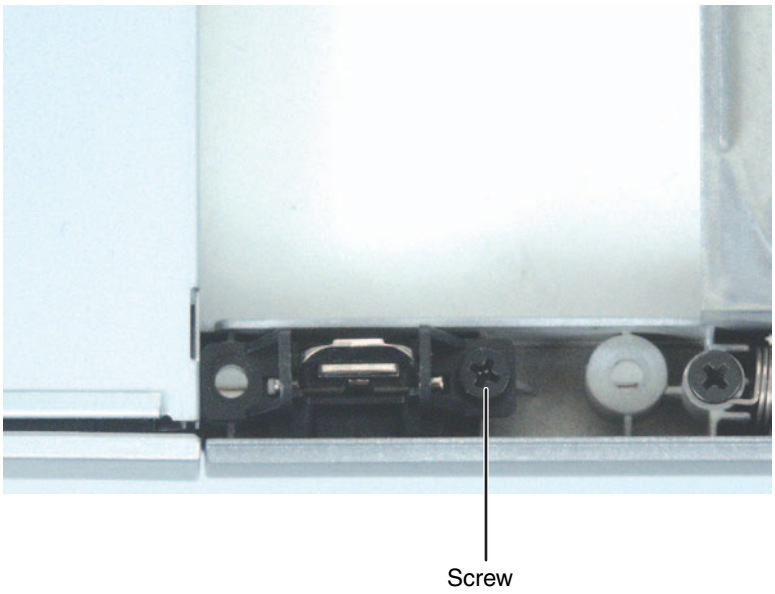
2 chrome 2.5 × 5 mm
(palm rest - top)

1 black 2.5 × 4 mm
(latch)

To replace the latch:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.
5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.
9. Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.
10. Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.
11. Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.

12 Locate the palm rest latch assembly, then remove the screw connecting it to the bottom of the convertible tablet PC.

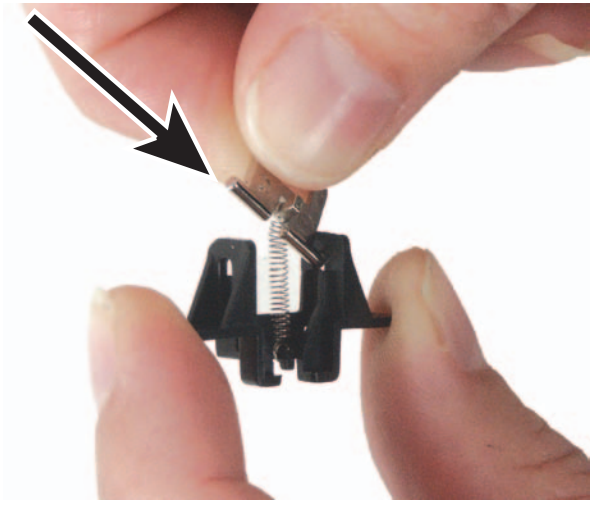


13 Assemble your new latch assembly if it was shipped to you disassembled.

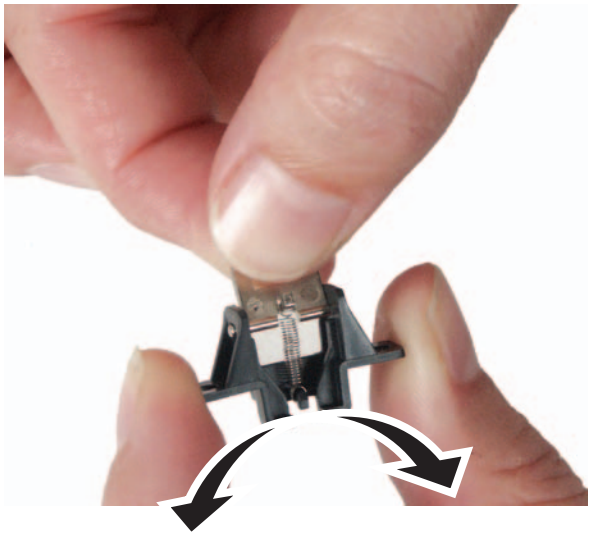
1 Connect the spring to the metal latch as shown.

2 Connect the other end of the spring to the plastic latch holder.

3 Insert one end of the metal latch bar into the hole in the plastic latch holder.



4 Spread the two sides of the latch holder apart by squeezing with two fingers, then snap the other end of the metal latch bar into the other hole in the plastic latch holder.

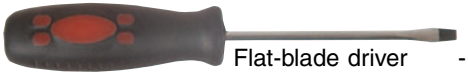


14 Place the new latch assembly into the convertible tablet PC and attach it using the screw.

15 Reassemble the convertible tablet PC.

Replacing the speaker

Tools you need to complete this task:



Flat-blade driver - OR - Scribe or non-marring tool

Phillips #0 screwdriver

Screws removed during this task:

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

2 black 2.5 × 2.5 mm
(LED panel)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 5 mm
(palm rest - top)

2 black 2.5 × 2.5 mm
(speaker)

To replace the speaker:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
3. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
4. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.
5. Turn the convertible tablet PC over so the top is facing up.
6. Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.
7. Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.
8. Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.
9. Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.
10. Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.
11. Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.

12 Unplug the speaker cables from the system board (one connector).

13 Slide speaker cables away from slots on convertible tablet PC.

14 Remove the screws near the front corner securing the speakers to the convertible tablet PC.

15 Install the new speakers and secure with the screw.

16 Plug the speaker cables into system board and secure the speaker cables in the slots provided.

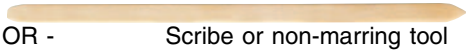
17 Reassemble the convertible tablet PC.

Replacing the system board

Tools you need to complete this task:

Flat-blade driver

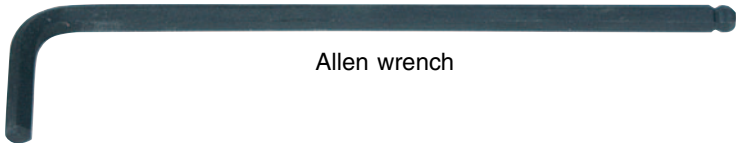
- OR -


Scribe or non-marring tool

Phillips #0 screwdriver

Torx T8 screwdriver

5.0 mm hex nutdriver


Allen wrench

Screws removed during this task:

2 chrome 2.5 × 6 mm
(hard drive kit)

1 chrome 2.5 × 6 mm
(optical drive)

4 chrome 2.5 × 5 mm
(hinge - bottom)

2 chrome 2.5 × 6 mm
(keyboard - bottom)

10 chrome 2.5 × 6 mm
(palm rest - bottom)
2 chrome 2.5 × 2.5 mm
(palm rest - bottom)
1 chrome 2.5 × 5 mm
(palm rest - bottom)

1 chrome 2.5 × 5 mm
(hinge cover)

4 chrome 2.5 × 2.5 mm
(keyboard - top)

2 black 2.5 × 2.5 mm
(LED panel)

1 chrome 2.5 × 5 mm (hinge chassis)
4 chrome 2.5 × 5 mm (hinge)

2 chrome 2.5 × 5 mm (palm rest - top)

2 black 2.5 × 2.5 mm (fan)

1 black 2.5 × 2.5 mm (modem)
1 black Torx screw (modem)

2 chrome 2.5 × 4.5 mm shaft with 5 × 4.5 mm head hexnut (rear I/O panel)

2 chrome hexnuts (rear I/O panel)

3 chrome 2.5 × 5 mm (top, system board)

To replace the system board:

1. Complete the steps in "Preparing the convertible tablet PC" on page 6.
2. Remove the hard drive kit by following the instructions in "Replacing the hard drive kit" on page 9.
3. Remove the optical drive by following the instructions in "Replacing the optical drive" on page 14.
4. Remove the memory modules from the memory bay by following the instructions in "Adding or replacing memory in the memory bay" on page 25.
5. Remove the four screws on the bottom that secure the LCD panel hinge to the chassis. For more information, see Step 2 on page 34.
6. Remove the two keyboard screws marked with a K. For more information, see Step 2 on page 21.
7. Remove the thirteen screws on the bottom of the convertible tablet PC. For more information, see Step 4 on page 52.

8 Turn the convertible tablet PC over so the top is facing up.

9 Remove the hinge cover by following the instructions in "Replacing the hinge cover" on page 16.

10 Remove the keyboard cover by following the instructions in "Replacing the keyboard cover" on page 18.

11 Complete removal of the keyboard by following the instructions in "Replacing the keyboard" on page 20.

12 Remove the LED panel by following the instructions in "Replacing the LED indicator panel" on page 31.

13 Complete removal of the LCD panel by following the instructions in "Replacing the LCD panel assembly" on page 33.

14 Complete removal of the palm rest assembly by following the instructions in "Replacing the palm rest assembly" on page 51.

15 Remove the fan from the convertible tablet PC by following the instructions in "Replacing the cooling fan" on page 56.

16 Remove the cooling assembly from the convertible tablet PC by following the instructions in "Replacing the cooling assembly" on page 60.

17 Remove the modem from the convertible tablet PC by following the instructions in "Replacing the modem" on page 66.

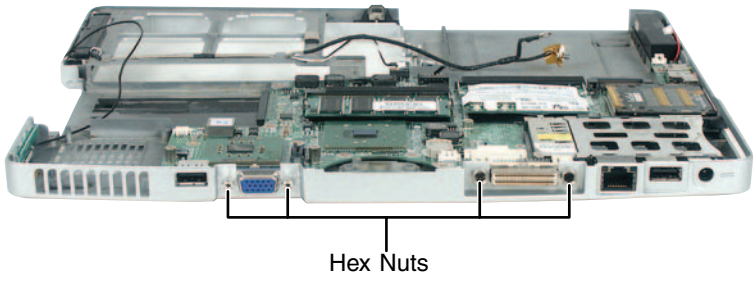
18 Remove the mini PC card from the convertible tablet PC by following the instructions in "Replacing the IEEE 802.11 Mini PCI card" on page 70.

19 Unplug the speakers from the system board (one connector).

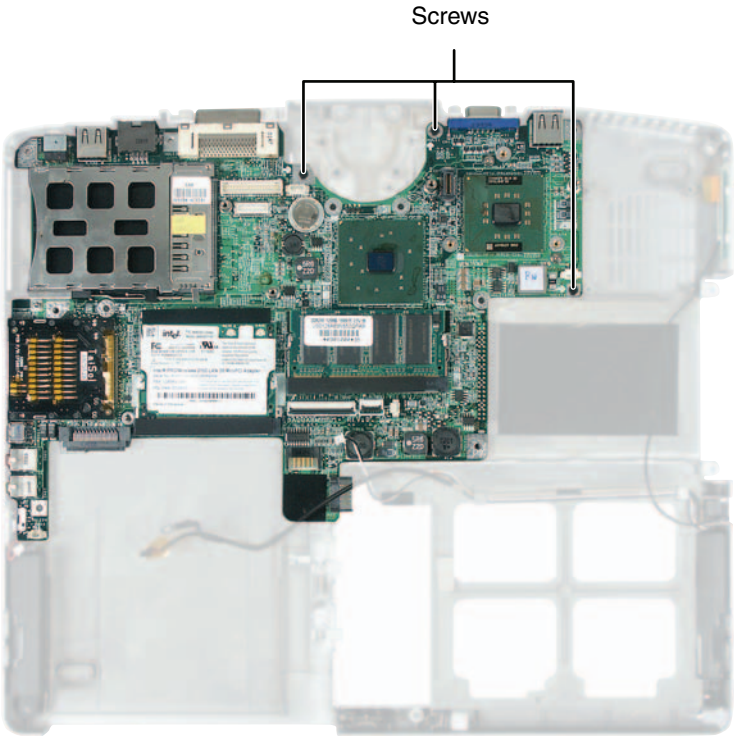
20 Unplug the modem cable from the old system board and install it on the new board.

21 Remove the two small hex nuts on the rear I/O panel.

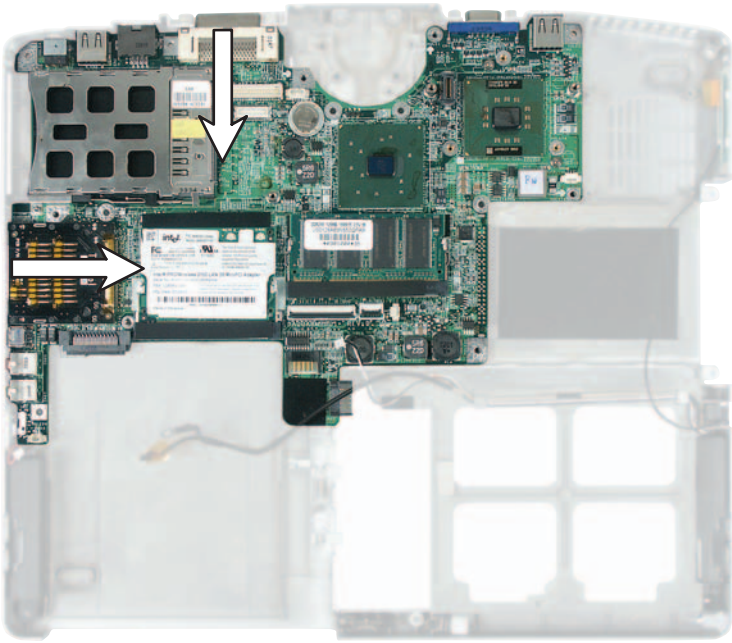
22 Use the Allen wrench to remove the two larger hex nuts securing the docking station connector.



23 Remove the three system board screws.



24 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 side audio jacks clear the bottom of the chassis (shown by the left arrow).



25 Place the new system board into the convertible tablet PC.

26 Replace the three system board screws in the holes on the top of the system board.

27 Replace the two rear I/O panel hex nuts and the two rear docking station hex nuts.

28 Reassemble the convertible tablet PC.

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