



**packard bell**

**EasyNote TJ  
Series  
Disassembly Manual**

# CHAPTER 3

## Replacing notebook components

- Preventing static electricity discharge
- Preparing the work space
- Required tools
- Preparing the notebook
- Adding or replacing memory modules
- Replacing the wireless card
- Replacing the hard drive
- Replacing the optical drive
- Replacing the keyboard cover
- Replacing the multimedia board
- Replacing the keyboard
- Replacing the LCD panel assembly
- Replacing the palm rest
- Replacing the speakers
- Replacing the touchpad board
- Replacing the USB board
- Replacing the Bluetooth module
- Replacing the system board
- Replacing the cooling assembly
- Replacing the processor
- Replacing the LCD front panel
- Replacing the LCD
- Replacing the LCD panel hinge brackets
- Replacing the power button board
- Replacing the Kensington lock cap
- Replacing the microphone
- Replacing the antennas
- Replacing the LCD assembly lid

# Preventing static electricity discharge



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**Warning**

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

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**Warning**

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

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**Important**

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

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

Before performing maintenance on the notebook, 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.

## Tape

Some of the procedures in this guide involve removing tape that secures cables or components. Two types of tape are used in this notebook:

- Mylar, non-conductive tape is typically transparent, with a red or brown tint.
- Conductive tape is typically grey or silver in color.

If the existing tape cannot be reused, replace it with the same type. Make sure the replacement tape is of the non-ESD generating kind. Do not use cellophane tape.

# Preparing the work space

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

- Wear a grounding (ESD) wrist strap, and use a grounded or dissipative work mat.
- Use a sturdy table. Make sure that the table top is wide enough to hold each component as you remove it.
- Ensure that clear lighting condition is available to make part identification easier.
- Keep your work surface free from clutter and debris that may damage components.
- Use a magnetized screwdriver for removing screws.
- When removing components that are attached to the notebook by a cable, unplug the cable before removing the screws, when possible, to avoid damaging the cable.
- As you remove components and screws, lay them toward the rear of your work surface (behind the notebook) or far enough to the side that your arms will 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 section on the page.
  - 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 the work surface, stand them on their heads to prevent the screws from rolling off the table.

## Required tools

To disassemble the notebook, you need the following tools:

- Wrist grounding strap (for ESD prevention)



- Conductive mat (for ESD prevention)

- Flat screwdriver



- Phillips screwdriver



- Non-marring plastic scribe



# Preparing the notebook

► To prepare the notebook for maintenance:

- 1 Make sure that the optical disc drive is empty.
- 2 Turn off the notebook.
- 3 Close the LCD panel.
- 4 Disconnect the AC adapter.



- 5 Disconnect the network cable and all peripheral devices connected to the notebook.
- 6 Make sure there is no memory card on the card reader slot. To remove a memory card:
  - a Push against the card, as if you were pushing it further into the slot, letting the card spring out
  - b Pull the memory card out of its slot.



# Removing the battery

► To remove the battery:

- 1 Turn the notebook over so the base is facing up.
- 2 Slide the battery lock to the unlocked position.



- 3 Slide the battery latch (a), then remove the battery out of the notebook (b).



**Note**

The battery has been highlighted with a yellow circle in the above image. Detach the battery and follow local regulations for disposing it.



# Removing the bay cover

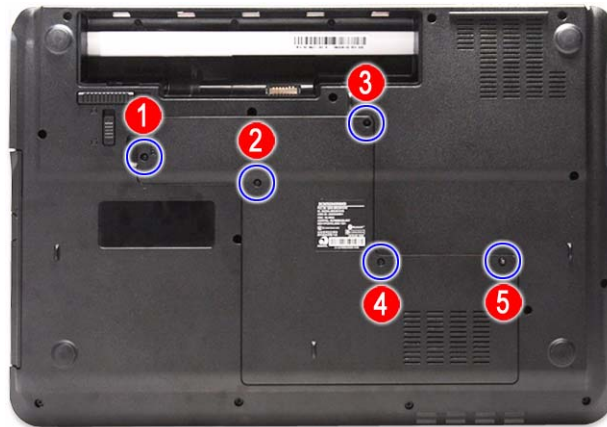
To remove or replace components located on the lower bay, you need to remove the bay cover first.

Tools you need to complete this task:

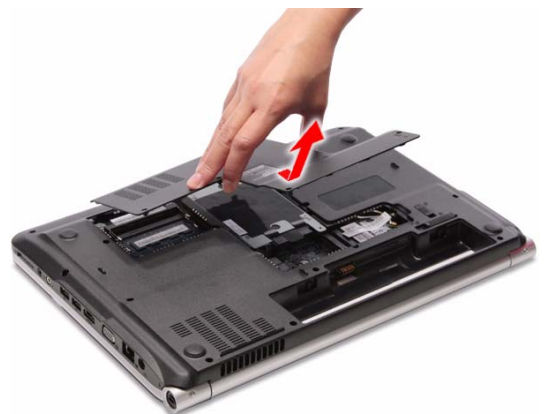


► To remove the bay cover:

- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Turn the notebook over so the base is facing up.
- 3 Loosen the bay cover screws (these screws cannot be removed).



- 4 Insert a non-marring plastic scribe on the cover's notch to release the cover from the computer, and then remove the cover.





# Adding or replacing memory modules



## Important

Use only memory modules designed for this Packard Bell notebook.

Tools you need to complete this task:



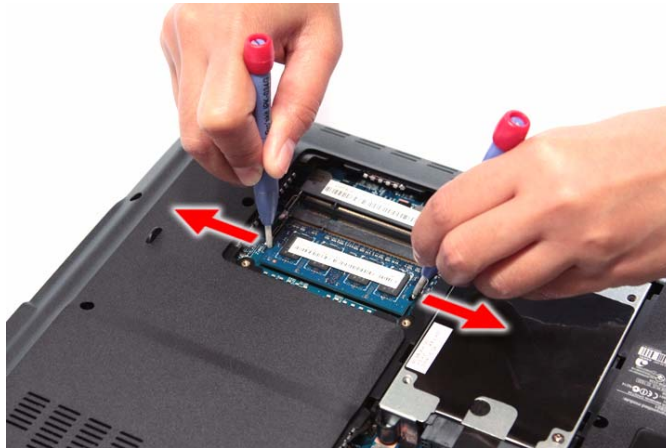
Phillips #0 screwdriver



Non-marring plastic scribe

► To add or replace memory modules:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Complete the steps in [“Removing the bay cover”](#) on page 53.
- 3 If you are replacing a memory module, go to [step 4](#).  
If you installing an additional memory module, go to [step 6](#).
- 4 Use a non-marring plastic scribe to push out the latches on both sides of the memory slot until the module tilts upward.



- 5 Remove the memory module from its slot.



- 6 Insert the new memory module at a 30° angle into an empty memory slot, and then press it down until it clicks into place.

The 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 slot.

- 7 Reinstall the bay cover.



# Replacing the wireless card

Tools you need to complete this task:

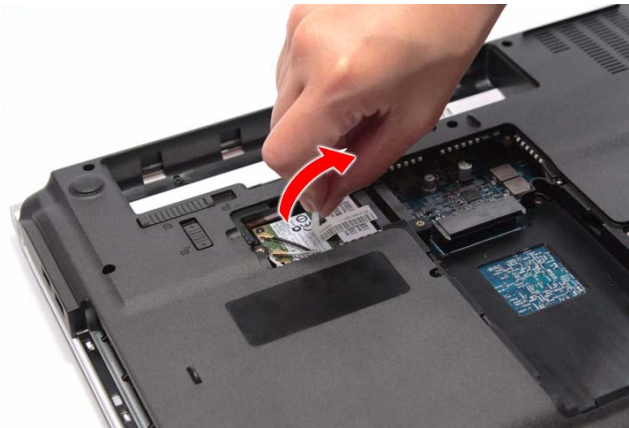


Screws removed during this task:

- 1 black M2x5 (wireless card)

► To replace the wireless card:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Complete the steps in [“Removing the bay cover”](#) on page 53.
- 3 Detach the bar code sticker covering the antenna cables.



- 4 Unplug the antenna cables. Note which color cable corresponds to each of the connectors.



### Important

The number of antenna cables varies depending on the type of wireless card installed on the notebook. IEEE 802.11n cards typically have three antenna cables. Other types of wireless cards usually have only two antenna cables.



- 5 Move the antenna cables away from the wireless card screw.
- 6 Remove the screw securing the wireless card.



- 7 Pull the card out of the slot.

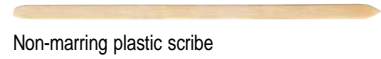


- 8 Insert the new wireless card at a 30° angle into the empty Mini Card slot. The card is keyed so it can only be inserted in one direction. If the card does not fit, make sure that the notch in the card lines up with the tab in the card slot.
- 9 Secure the new wireless card with the screw removed in [step 6](#).
- 10 Reconnect the antenna cables to the connectors.
- 11 Reinstall the bay cover.





# Replacing the hard drive

Tools you need to complete this task:

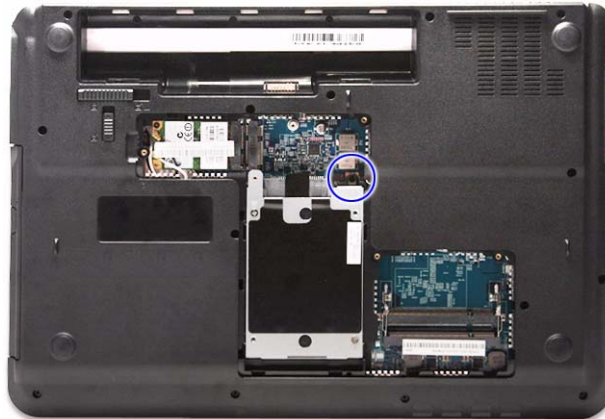


Screws removed during this task:

-  1 black M2x5 (hard drive)
-  2 chrome M3x3 (hard drive bracket)

► To replace the hard drive:

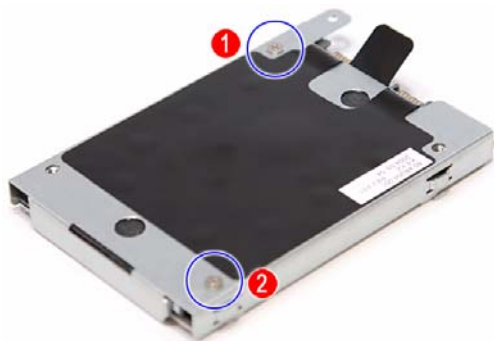
- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Complete the steps in [“Removing the bay cover”](#) on page 53.
- 3 Remove the hard drive screw.



- 4 Grasp the black mylar tab and use it to disengage the hard drive from its connector, and then remove the drive from its bay.



- 5 If your new hard drive already includes the hard drive bracket, go to [step 8](#). If you need to use the bracket from the old hard drive, go to [step 6](#).
- 6 Remove the screws that secure the hard drive bracket, and then detach the bracket from the drive.



- 7 Place the bracket on the new drive and secure it with the two screws removed in [step 6](#).
- 8 Slide the new hard drive into the hard drive bay and make sure it's properly engaged to the SATA1 connector.
- 9 Secure the new drive to the system board with the screw removed in [step 6](#).
- 10 Reinstall the bay cover.



# Replacing the optical drive

Tools you need to complete this task:

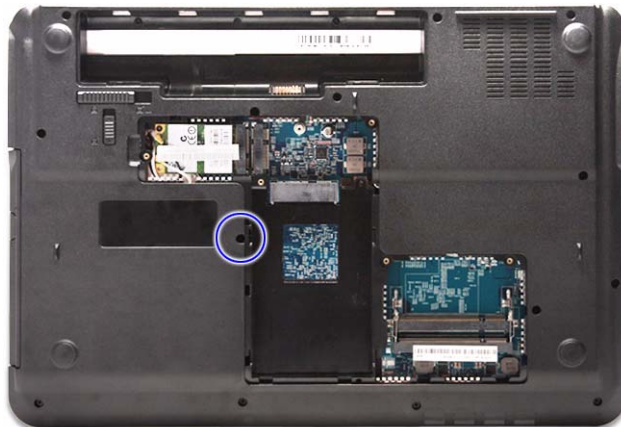


Screws removed during this task:

- 1 black M2.5x6 (optical drive)
- 1 chrome M2x3 (optical drive bracket)

► To replace the optical drive:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Complete the steps in [“Removing the bay cover”](#) on page 53.
- 3 Remove the optical drive screw.



- 4 Use the non-marring plastic scribe to carefully push the optical drive out of the drive bay, and then slide the drive out.



- 5 If your new optical drive already has its own bracket and bezel, go to [step 10](#). If you need to use the bracket and bezel from the old optical drive, perform steps [6–9](#) as necessary.
- 6 Detach the bezel from the old optical drive.



- 7 Remove the screw that secures the optical drive bracket, and then detach the bracket from the drive.



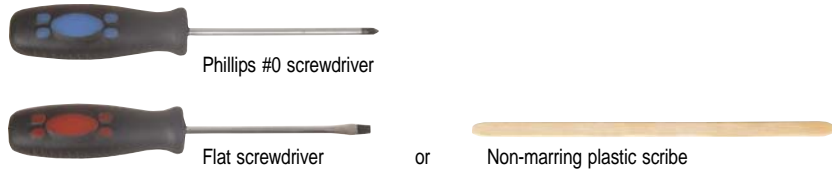
- 8 Attach the bezel to the new optical drive.
- 9 Attach the bracket to the new optical drive and secure it with the screw removed in [step 7](#).
- 10 Slide the new optical drive into the drive bay and make sure it's properly engaged to the ODD1 connector.
- 11 Secure the new drive to the system board with the screw removed in [step 3](#).
- 12 Reinstall the bay cover.





# Replacing the keyboard cover

Tools you need to complete this task:

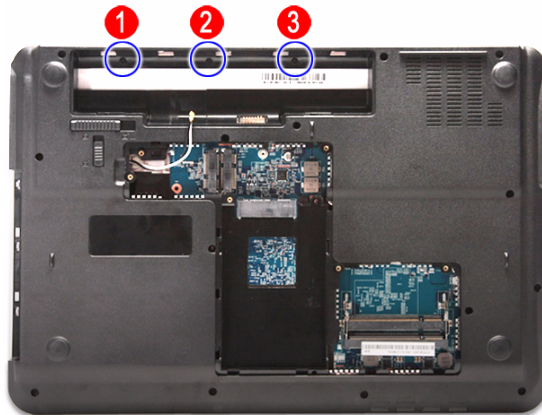


Screws removed during this task:

-  3 black M2.5x6 (keyboard cover)

► To replace the keyboard cover:

- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Complete the steps in [“Removing the battery” on page 52](#).
- 3 Remove the screws securing the keyboard cover.



- 4 Turn the notebook over and open the LCD panel to its fully extended position.
- 5 Insert a small flat-blade screwdriver or non-marring scribe between the LCD hinge side and the keyboard cover, and carefully pry the cover up.

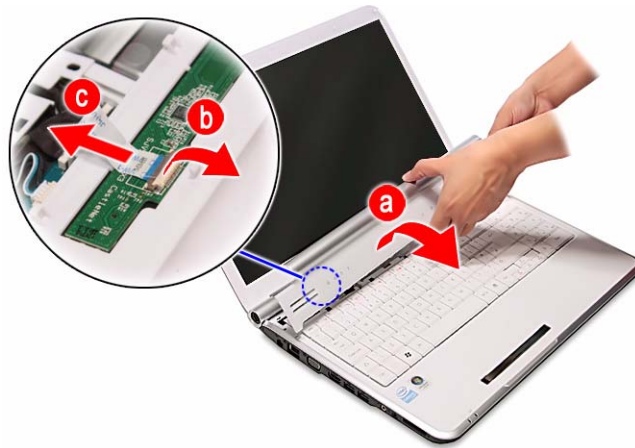




**Caution**

The keyboard cover is connected to the notebook through the multimedia board cable. Disconnect this cable first before pulling the cover away from the palm rest assembly.

- 6 Detach the keyboard cover from the palm rest assembly and turn it over the keyboard to access its underside **(a)**.  
Open the multimedia board cable connector **(b)** and disconnect the cable **(c)**.



- 7 If you will be using the multimedia board from the old keyboard cover, remove it by performing steps 3 and 4 of the “[Replacing the multimedia board](#)” procedure on [page 64](#).
- 8 Secure the multimedia board, with the connector facing up, on the new keyboard cover.
- 9 Insert the multimedia cable to its connector on the multimedia board, then close the clip to lock the cable in place.
- 10 Insert the tabs on the front side of the keyboard cover into the slots located on the top corners of the palm rest assembly, then press down on the back part.
- 11 Press down on the cover until it clicks in place.  
The keyboard cover is correctly mounted when you can run your finger along the sides of the cover and find no gaps.
- 12 Close the LCD panel and turn the notebook over so the base is facing up.
- 13 Secure the keyboard cover with the screws removed in [step 3](#).



**Caution**

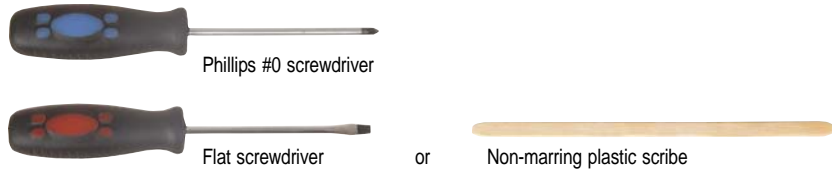
If the cover is not correctly installed, your notebook could be damaged when you try to close the LCD panel.

- 14 Reinstall the battery.



# Replacing the multimedia board

Tools you need to complete this task:



Screws removed during this task:

-  3 black M2.5×6 (keyboard cover)

► To replace the multimedia board:

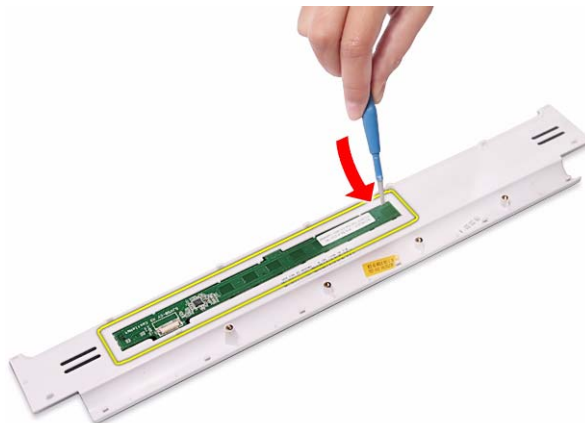
- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Remove the keyboard cover by performing steps 2–6 of the [“Replacing the keyboard cover”](#) procedure on [page 62](#).



### Caution

The multimedia board is glued to the keyboard cover. Remove this board only if it is defective.

- 3 Insert a small flat-blade screwdriver or non-marring scribe between the multimedia board and the keyboard cover's underside, and carefully pry the board loose.



- 4 Remove the multimedia board from the keyboard cover.



### Note

A circuit board that is  $>10 \text{ cm}^2$  has been highlighted with a yellow rectangle as shown in the above image. Follow the local regulations for disposing this type of circuit board.

- 5 Secure the new multimedia board, with the connector facing up, on the keyboard cover.
- 6 Insert the multimedia cable to its connector on the multimedia board, then close the clip to lock the cable in place.
- 7 Insert the tabs on the front side of the keyboard cover into the slots located on the top corners of the palm rest assembly, then press down on the back part.
- 8 Press down on the cover until it clicks in place.  
The keyboard cover is correctly mounted when you can run your finger along the sides of the cover and find no gaps.
- 9 Close the LCD panel and turn the notebook over so the base is facing up.
- 10 Secure the keyboard cover with the screws removed in [step 3](#) of the ["Replacing the keyboard cover"](#) procedure on [page 62](#).



**Caution**

If the cover is not correctly installed, your notebook could be damaged when you try to close the LCD panel.

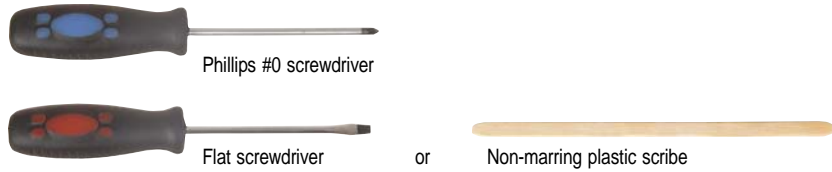
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- 11 Reinstall the battery.



# Replacing the keyboard

Tools you need to complete this task:



Screws removed during this task:

-  3 black M2.5×6 (keyboard cover)

► To replace the keyboard:

- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Remove the keyboard cover by performing steps 2–6 of the [“Replacing the keyboard cover”](#) procedure on [page 62](#).

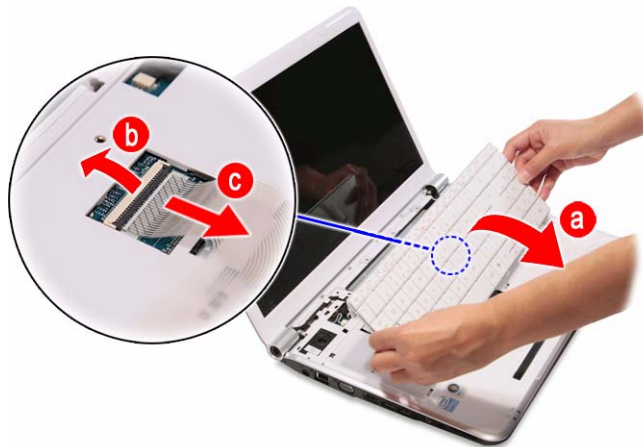


### Caution

The keyboard is connected to the notebook through the keyboard cable. Disconnect this cable first before pulling the keyboard away from the palm rest.

- 3 Lift the back edge of the keyboard slightly, then carefully slide it toward the LCD panel to release the keyboard retaining tabs from the palm rest.
- 4 Flip the keyboard over onto the touchpad area to access to the keyboard cable **(a)**.

Open the keyboard cable connector **(b)** and disconnect the cable **(c)**.



- 5 Insert the retaining tabs of the new keyboard into the slots located on the top side of the touchpad area.
- 6 Reach underneath the keyboard and insert the keyboard cable to its system board connector, then close the clip to lock the cable in place.



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**Important**

The keyboard cable is correctly oriented if it is not twisted.

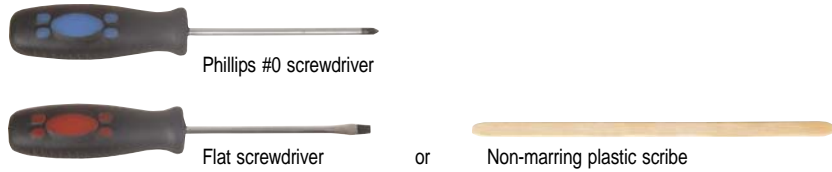
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- 7 Gently press the keyboard down until it is flat all the way across.
- 8 Reinstall the keyboard cover by performing steps 9–13 of the [“Replacing the keyboard cover”](#) procedure on [page 62](#).
- 9 Reinstall the battery.






# Replacing the LCD panel assembly

Tools you need to complete this task:



Screws removed during this task:

-  3 black M2.5x6 (keyboard cover)
-  2 black M2.5x6 (LCD panel hinges - bottom)
-  2 black M2.5x6+Nylok (LCD panel hinges - top)

► To replace the LCD panel assembly:

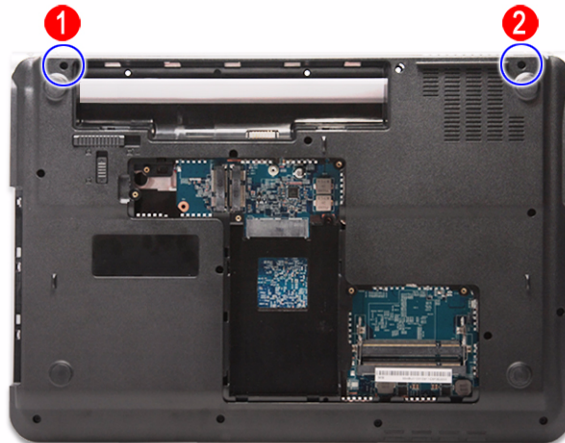
- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 If the notebook has a wireless card installed, complete the steps in [“Removing the bay cover”](#) on page 53, and then unplug the antenna cables. If there’s no wireless card installed, proceed to [step 5](#).
- 3 Remove the keyboard by performing steps 2–4 of the [“Replacing the keyboard”](#) procedure on page 66.



### Caution

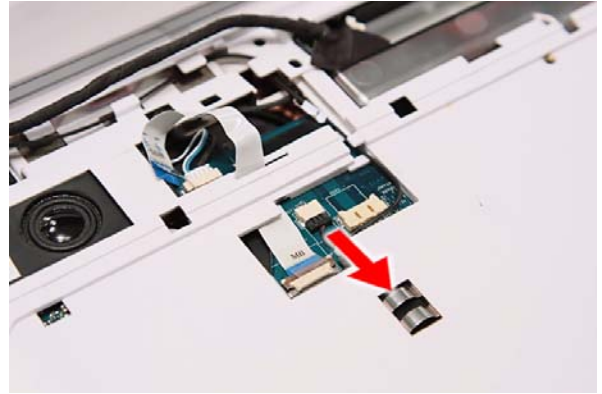
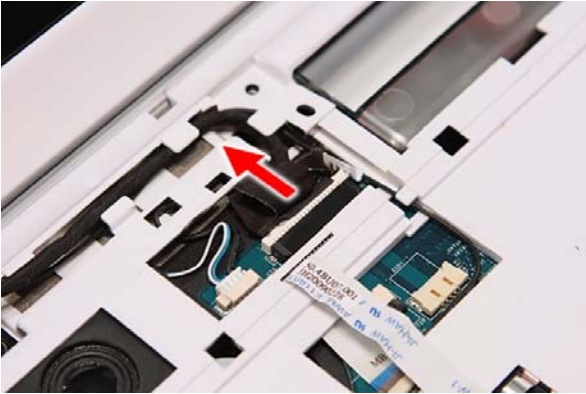
The keyboard is connected to the notebook through a keyboard cable. Disconnect this cable first before pulling the keyboard away from the palm rest assembly.

- 4 Turn the notebook over so the base is facing up.
- 5 Remove the base screws that secure the LCD panel hinges.

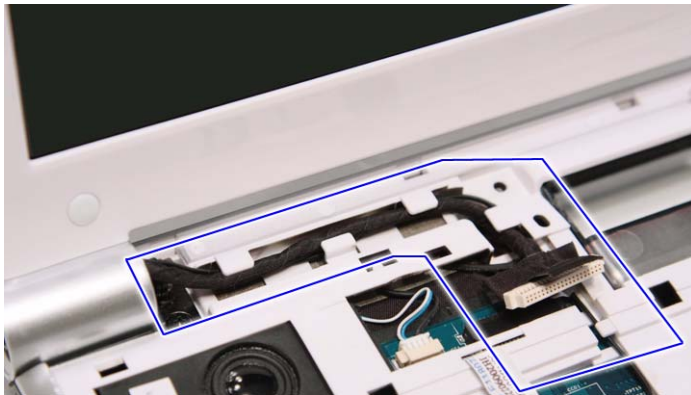


- 6 Turn the notebook over again so the palm rest is facing up.

- 7 Disconnect the LCD and microphone cables from their system board connectors.



- 8 Release the LCD and microphone cables from their latches.



- 9 If the notebook has a wireless card installed, note the antenna cable routing for later reference and then perform [step 10](#) to release the antenna cables from the palm rest.

If there's no wireless card installed, proceed to [step 11](#) to disconnect the power button board cable.

- 10 Release the antenna cables from their palm rest latches, and then pull them out from underneath the computer.

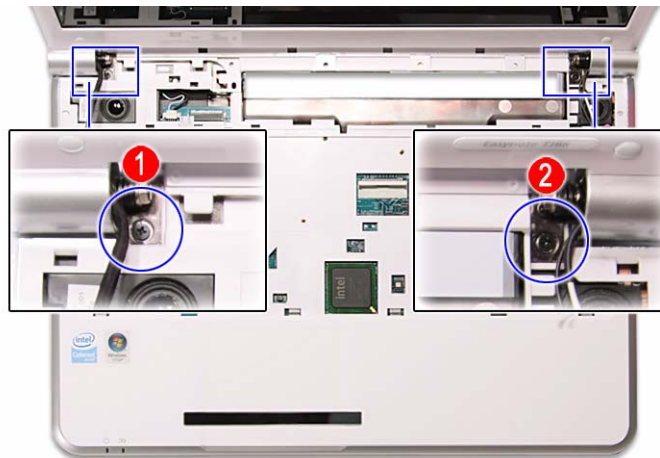




- 11 Disconnect the power button board cable from its system board connector, and then release it from its palm rest latches.



- 12 Carefully open the LCD panel to its fully extended position.
- 13 Move the LCD and microphone cables away from the top hinge screws.
- 14 Remove the top hinge screws securing the LCD assembly.



- 15 Lift the LCD panel assembly up and away from the notebook.

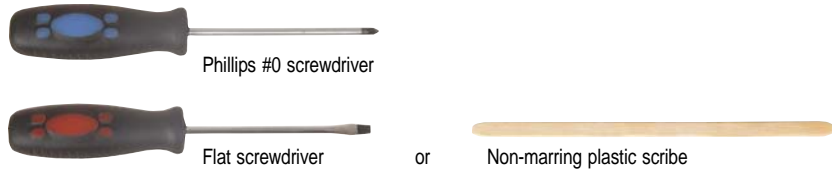


- 16 Position the new LCD panel assembly on the notebook, and then secure it with the hinge screws removed in [step 14](#).
- 17 If the notebook has a wireless card installed, proceed to [step 18](#) to arrange the antenna cables.  
If there's no wireless card installed, proceed to [step 19](#) to reconnect the power button board cable.
- 18 Refer to the antenna cable routing note made on [step 9](#) and secure the antenna cables to the palm rest before pulling the ends downward to the notebook base.
- 19 Arrange the power button cable on the palm rest and reconnect it to its system board connector.
- 20 Arrange the LCD and microphone cables on the palm rest and reconnect them to their system board connectors.
- 21 Close the LCD panel and turn the notebook over so the base is facing up.
- 22 If the notebook has a wireless card installed, reconnect the antenna cables and then reinstall the bay cover.
- 23 Return the base hinge screws removed in [step 5](#).
- 24 Turn the notebook over so the palm rest is facing up.
- 25 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the "[Replacing the keyboard](#)" procedure on [page 66](#).
- 26 Reinstall the battery.



# Replacing the palm rest

Tools you need to complete this task:



Screws removed during this task:

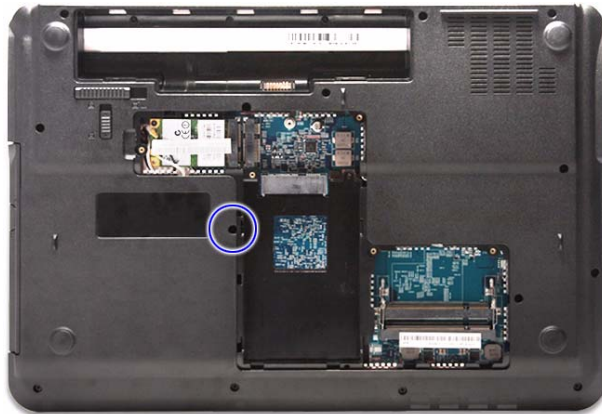
- 1 black M2x5 (hard drive)
- 1 black M2.5x6 (optical drive)
- 3 black M2.5x6 (keyboard cover)
- 2 black M2.5x6 (LCD panel hinges - bottom)
- 2 black M2.5x6+Nylok (LCD panel hinges - top)
- 10 M2.5x6 black (palm rest - base side)
- 3 M2.5x6 black (palm rest - top side)

► To replace the palm rest:

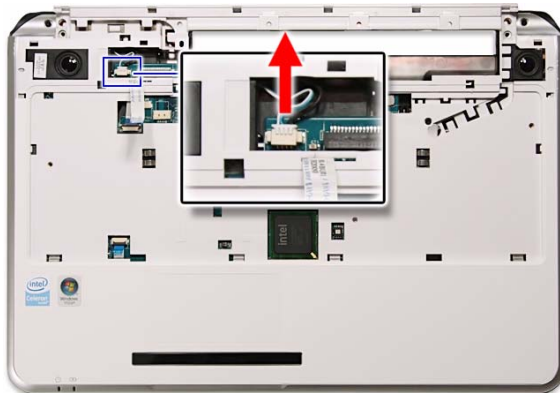
- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Complete the steps in [“Removing the bay cover” on page 53](#).
- 3 If the notebook has a wireless card installed, unplug the antenna cables.
- 4 Remove the hard drive screw, and then remove the hard drive from its bay.



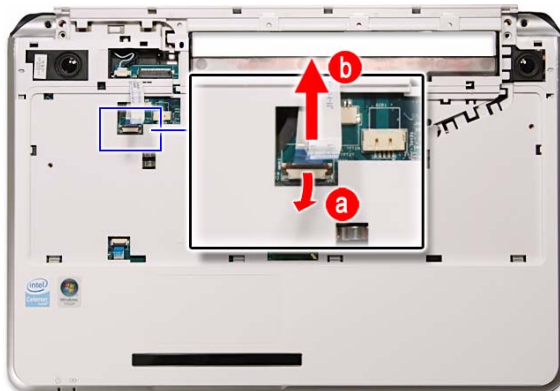
- 5 Remove the optical drive screw.



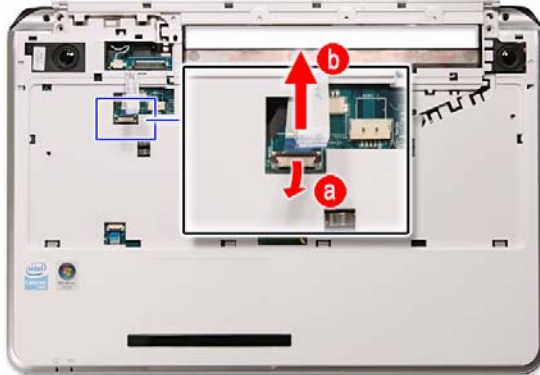
- 6 Remove the keyboard cover by performing steps 2–6 of the “Replacing the keyboard cover” procedure on page 62.
- 7 Remove the keyboard by performing steps 3 and 4 of the “Replacing the keyboard” procedure on page 66.
- 8 Remove the LCD panel assembly by performing steps 5–15 of the “Replacing the LCD panel assembly” procedure on page 68.
- 9 Disconnect the speaker cable from the system board.



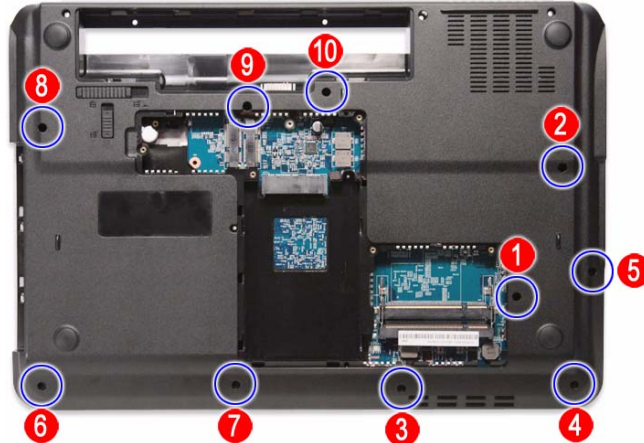
- 10 Open the multimedia cable connector (a) and disconnect the cable (b).



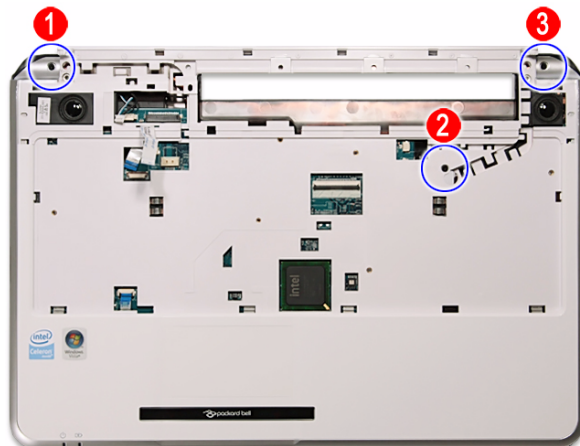
- 11 Open the touchpad cable connector **(a)** and disconnect the cable from the system board **(b)**.



- 12 Turn the notebook over so the base is facing up.
- 13 Remove the screws securing the palm rest on the base side.



- 14 Turn the notebook over again so the palm rest is facing up.
- 15 Remove the screws securing the palm rest on the top side.



- 16 Locate the small gaps on the top side of the palm rest and insert a small flat-blade screwdriver or non-marring scribe into each gap to separate the palm rest from the base enclosure.



- 17 Once the top side is separated, pry loose the left and right sides of the palm rest, and finally the bottom side until all the palm rest retaining tabs have been released.
- 18 Lift the palm rest assembly from the base enclosure.

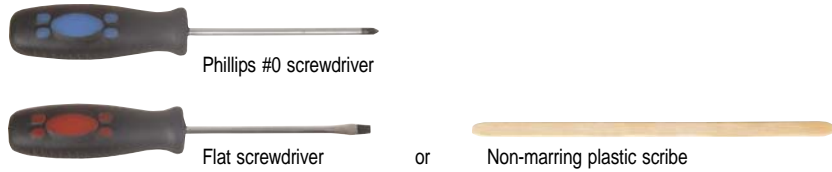


- 19 Place the new palm rest assembly on top of the base enclosure and press it down on all sides until it snaps into place.
- 20 Reconnect the speaker, multimedia, and touchpad cables to their respective system board connectors.
- 21 Secure the palm rest assembly with the screws removed in steps [13](#) and [15](#).
- 22 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 23 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 24 Return the optical screw drive in its place.
- 25 Reinstall the hard drive by performing steps [8](#) and [9](#) of the “[Replacing the hard drive](#)” procedure on [page 58](#).
- 26 If you have disconnected any wireless antennas, reconnect them now.
- 27 Reinstall the bay cover.

























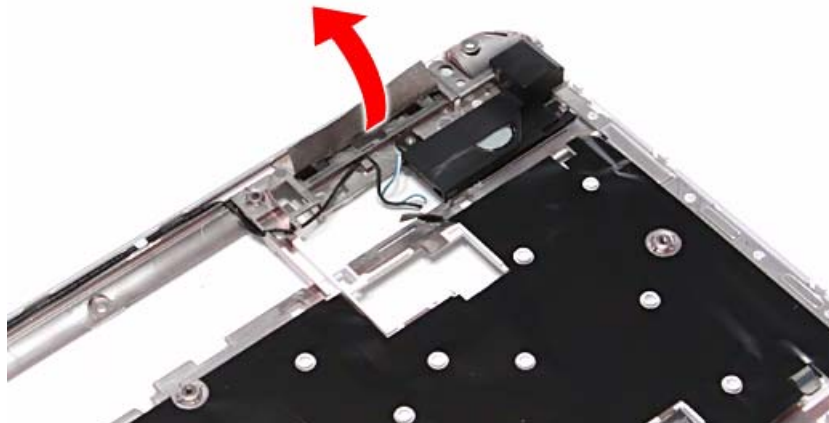
# Replacing the speakers

Tools you need to complete this task:

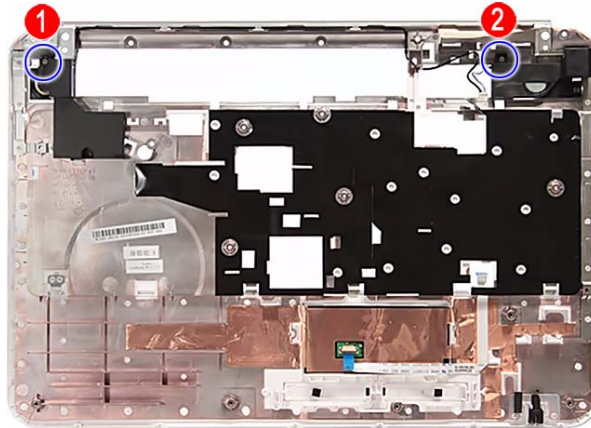


Screws removed during this task:

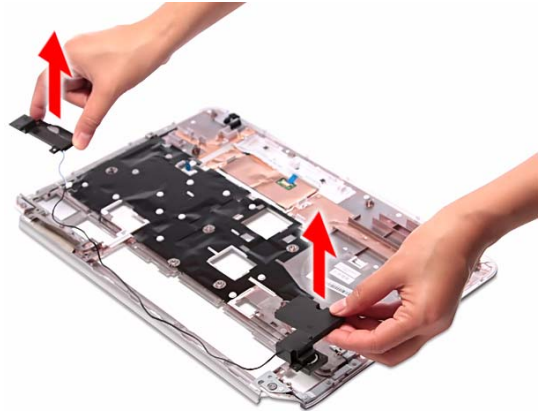
-  1 black M2x5 (hard drive)
  -  1 black M2.5x6 (optical drive)
  -    3 black M2.5x6 (keyboard cover)
  -   2 black M2.5x6 (LCD panel hinges - bottom)
  -   2 black M2.5x6+Nylok (LCD panel hinges - top)
  -         10 M2.5x6 black (palm rest - base side)
  -    3 M2.5x6 black (palm rest - top side)
  -   2 chrome M2x3 (speakers)
- To replace the speakers:
- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
  - 2 Remove the palm rest by performing steps 2–18 of the [“Replacing the palm rest”](#) procedure on page 72.
  - 3 Turn the palm rest over so that its underside is facing up.
  - 4 Peel off the tape covering the left speaker screw.



- 5 Remove the speaker screws.



- 6 Release the speaker cable from the palm rest, and then remove the speakers.



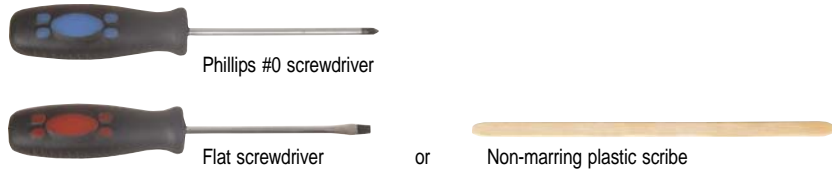
- 7 Position the new speakers on the palm rest.
- 8 Secure the speakers with the screws removed in [step 5](#) and cover it with the tape that was detached in [step 4](#).
- 9 Secure the speaker cable on the palm rest latches
- 10 Reinstall the palm rest by performing steps [19–21](#) of the “[Replacing the palm rest](#)” procedure on [page 72](#).
- 11 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 12 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 13 Return the optical screw drive in its place.
- 14 Reinstall the hard drive by performing steps [8](#) and [9](#) of the “[Replacing the hard drive](#)” procedure on [page 58](#).
- 15 If you have disconnected any wireless antennas, reconnect them now.
- 16 Reinstall the bay cover.





# Replacing the touchpad board

Tools you need to complete this task:

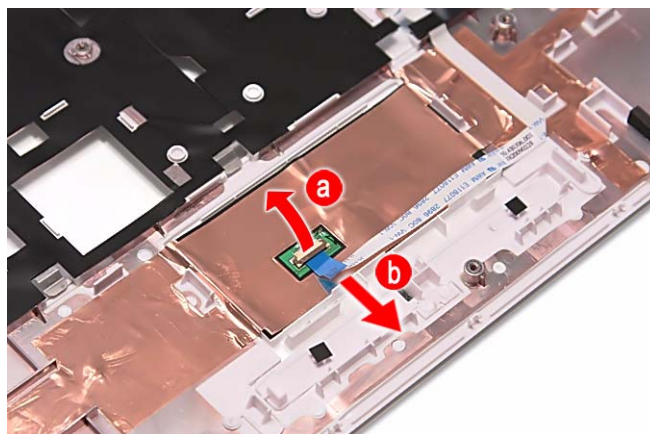


Screws removed during this task:

- 1 black M2x5 (hard drive)
- 1 black M2.5x6 (optical drive)
- 3 black M2.5x6 (keyboard cover)
- 2 black M2.5x6 (LCD panel hinge - bottom)
- 2 black M2.5x6+Nylok (LCD panel hinge - top)
- 10 M2.5x6 black (palm rest - base side)
- 3 M2.5x6 black (palm rest - top side)

► To replace the touchpad board:

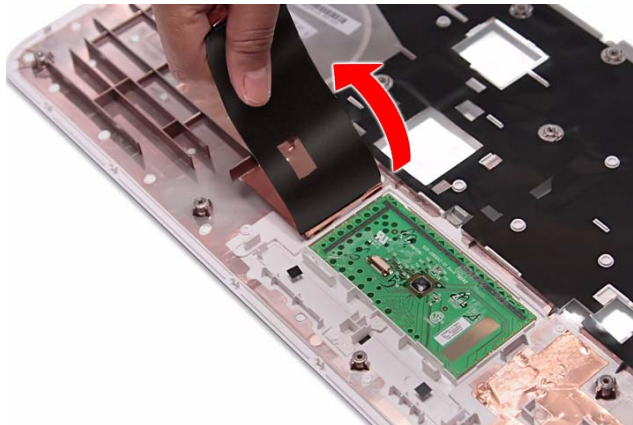
- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Remove the palm rest by performing steps 2–18 of the [“Replacing the palm rest”](#) procedure on [page 72](#).
- 3 Turn the palm rest over so that its underside is facing up.
- 4 Open the touchpad board cable connector **(a)** and disconnect the cable **(b)**.



- 5 Remove the touchpad board cable from the palm rest.

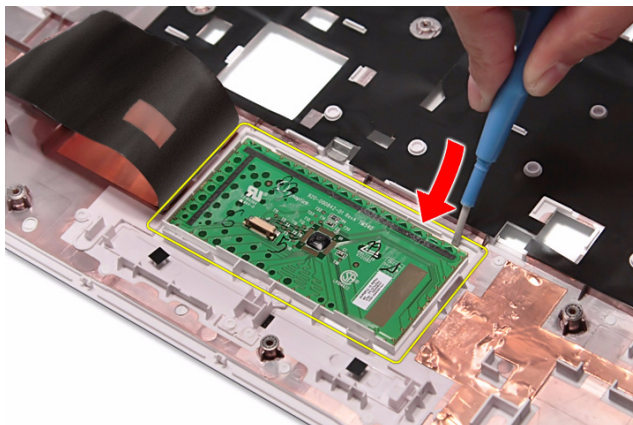


- 6 Peel off the tape protecting the touchpad board.



- 7 Note the orientation of the touchpad board for later reference in installing the new touchpad board.

- 8 Insert a small flat-blade screwdriver or non-marring scribe between the touchpad board and the palm rest's underside, and carefully pry the board loose.



- 9 Remove the touchpad board from the palm rest.



**Note**

A circuit board that is  $>10 \text{ cm}^2$  has been highlighted with a yellow rectangle as shown in the above image. Follow the local regulations for disposing this type of circuit board.

- 10 Observing the same orientation as the old touchpad board, secure the new board on the palm rest.
- 11 Cover the new touchpad board with the tape removed in [step 6](#).
- 12 Insert the touchpad cable to the touchpad board cable connector, and then close the clip to lock the cable in place.
- 13 Reinstall the palm rest by performing steps [19–21](#) of the “[Replacing the palm rest](#)” procedure on [page 72](#).
- 14 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 15 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 16 Return the optical screw drive in its place.
- 17 Reinstall the hard drive by performing steps [8](#) and [9](#) of the “[Replacing the hard drive](#)” procedure on [page 58](#).
- 18 If you have disconnected any wireless antennas, reconnect them now.
- 19 Reinstall the bay cover.



# Replacing the USB board

Tools you need to complete this task:



Phillips #0 screwdriver





















Flat screwdriver

or



Non-marring plastic scribe

Screws removed during this task:

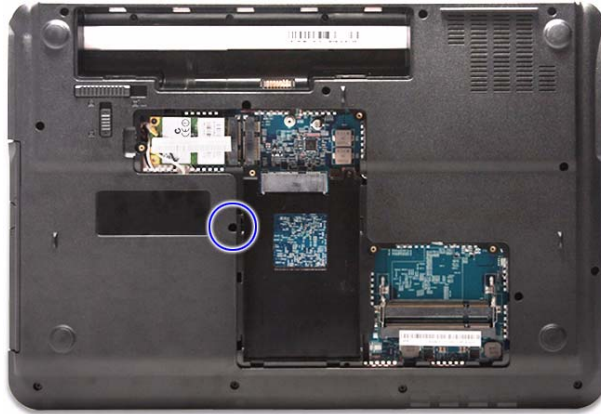
-  1 black M2x5 (hard drive)
-  1 black M2.5x6 (optical drive)
-    3 black M2.5x6 (keyboard cover)
-   2 black M2.5x6 (LCD panel hinge - bottom)
-   2 black M2.5x6+Nylok (LCD panel hinge - top)
-          10 M2.5x6 black (palm rest - base side)
-    3 M2.5x6 black (palm rest - top side)

► To replace the USB board:

- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Complete the steps in [“Removing the battery” on page 52](#).
- 3 Complete the steps in [“Removing the bay cover” on page 53](#).
- 4 If the notebook has a wireless card installed, unplug the antenna cables.
- 5 Remove the hard drive screw, and then remove the hard drive from its bay.



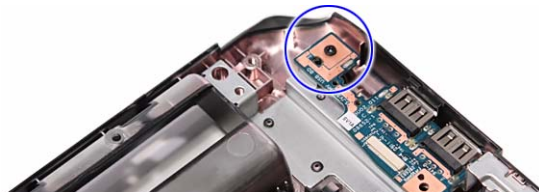
- 6 Remove the optical drive screw.



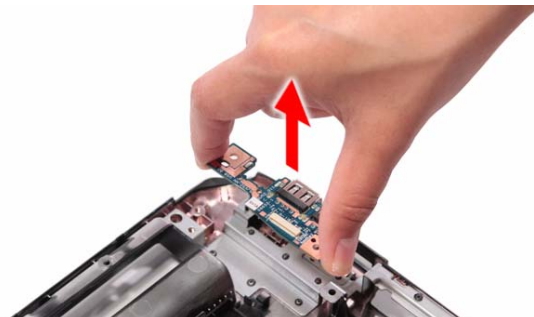
- 7 Remove the palm rest by performing steps 6–18 of the “Replacing the palm rest” procedure on [page 72](#).
- 8 Disconnect the USB board cable from the USB board.



- 9 Remove the USB board screw.



- 10 Remove the USB board from the base enclosure.

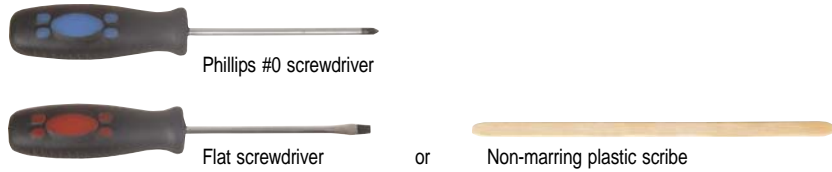


- 11 Place the new USB board in the base enclosure and secure it with the screw removed in [step 9](#).
- 12 Connect the USB board cable to the new USB board.
- 13 Reinstall the palm rest by performing steps [19–21](#) of the “[Replacing the palm rest](#)” procedure on [page 72](#).
- 14 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 15 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 16 Close the LCD panel and turn the notebook over so the base is facing up.
- 17 Return the optical screw drive in its place.
- 18 Reinstall the hard drive by performing steps [8](#) and [9](#) of the “[Replacing the hard drive](#)” procedure on [page 58](#).
- 19 If you have disconnected any wireless antennas, reconnect them now.
- 20 Reinstall the bay cover.
- 21 Reinstall the battery.



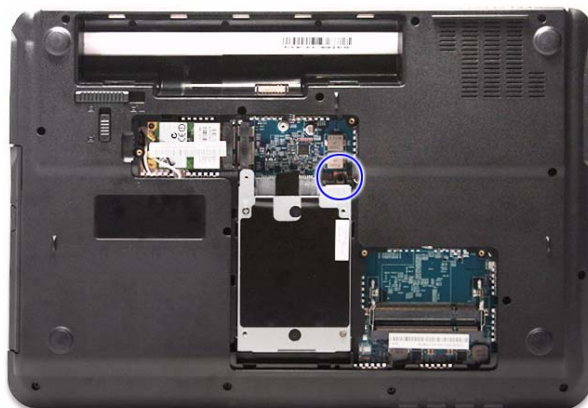
# Replacing the Bluetooth module

Tools you need to complete this task:

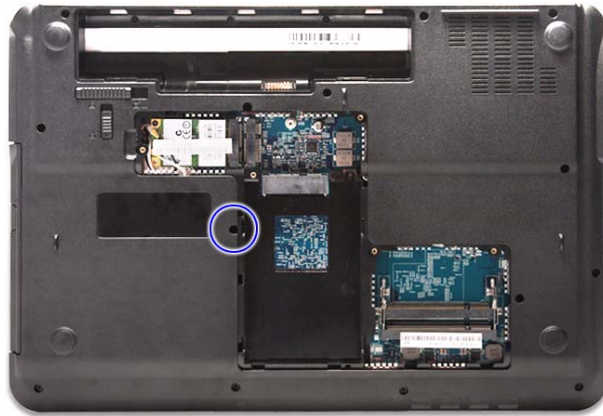


Screws removed during this task:

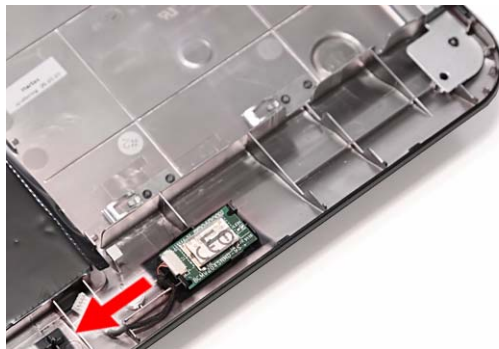
- 1 black M2x5 (hard drive)
  - 1 black M2.5x6 (optical drive)
  - 3 black M2.5x6 (keyboard cover)
  - 2 black M2.5x6 (LCD panel hinge - bottom)
  - 2 black M2.5x6+Nylok (LCD panel hinge - top)
  - 10 M2.5x6 black (palm rest - base side)
  - 3 M2.5x6 black (palm rest - top side)
- To replace the Bluetooth module:
- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
  - 2 Complete the steps in [“Removing the battery” on page 52](#).
  - 3 Complete the steps in [“Removing the bay cover” on page 53](#).
  - 4 If the notebook has a wireless card installed, unplug the antenna cables.
  - 5 Remove the hard drive screw, and then remove the hard drive from its bay.



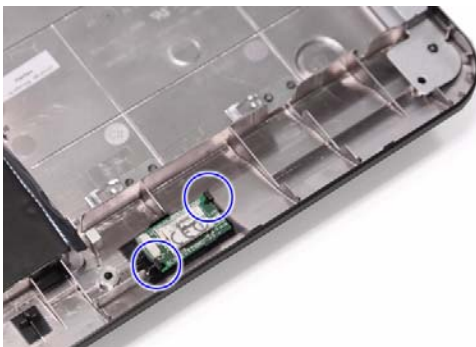
- 6 Remove the optical drive screw.



- 7 Remove the palm rest by performing steps 6–18 of the “Replacing the palm rest” procedure on [page 72](#).
- 8 Disconnect the Bluetooth cable from the Bluetooth module.



- 9 Release the Bluetooth module from the tabs securing it.



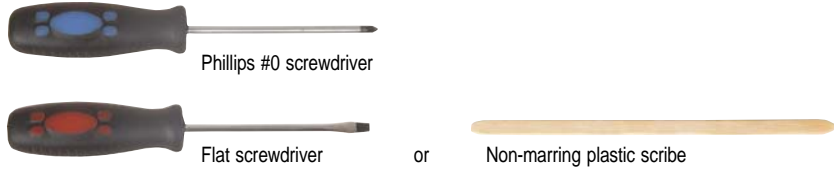


- 10 Secure the new Bluetooth module on the base enclosure and connect the Bluetooth cable to it.
- 11 Reinstall the palm rest by performing steps 19–21 of the “[Replacing the palm rest](#)” procedure on [page 72](#).
- 12 Reinstall the LCD panel assembly by performing steps 16–23 of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 13 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 14 Close the LCD panel and turn the notebook over so the base is facing up.
- 15 Return the optical screw drive in its place.
- 16 Reinstall the hard drive by performing steps 8 and 9 of the “[Replacing the hard drive](#)” procedure on [page 58](#).
- 17 If you have disconnected any wireless antennas, reconnect them now.
- 18 Reinstall the bay cover.
- 19 Reinstall the battery.

























# Replacing the system board

Tools you need to complete this task:



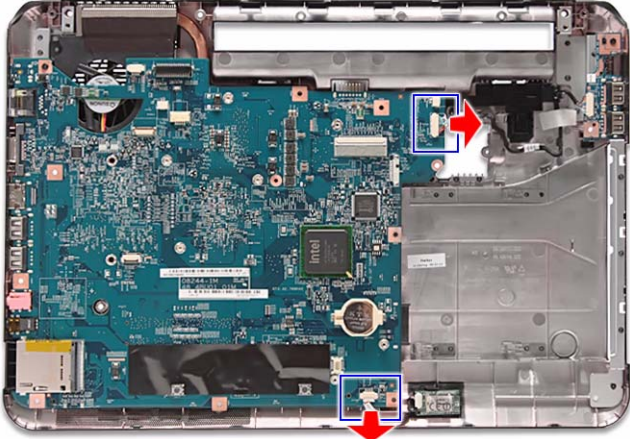
Screws removed during this task:

-  1 black M2x5 (hard drive)
-  1 black M2.5x6 (optical drive)
-    3 black M2.5x6 (keyboard cover)
-   2 black M2.5x6 (LCD panel hinge - bottom)
-   2 black M2.5x6+Nylok (LCD panel hinge - top)
-          10 M2.5x6 black (palm rest - base side)
-    3 M2.5x6 black (palm rest - top side)
-  1 black M2x4 (system board)

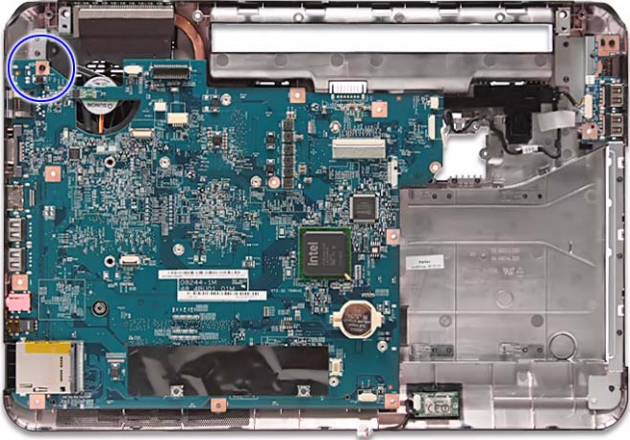
► To replace the system board:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Complete the steps in [“Removing the battery”](#) on page 52.
- 3 Remove the memory from the old system board and install it on the new system board by following the instructions in the [“Adding or replacing memory modules”](#) section on page 54.
- 4 If the notebook has a wireless card installed, remove the card from the old system board and install it on the new system board by following the instructions in the [“Replacing the wireless card”](#) section on page 56.
- 5 Remove the hard drive by performing steps 3 and 4 of the [“Replacing the hard drive”](#) procedure on page 58.
- 6 Remove the optical drive by performing steps 3 and 4 of the [“Replacing the optical drive”](#) procedure on page 60.
- 7 Remove the palm rest by following steps 6–18 of the [“Replacing the palm rest”](#) procedure on page 72.

- 8 Disconnect the USB board and Bluetooth module cables from their system board connectors.



- 9 Remove the system board screw.



- 10 Carefully remove the system board from the base enclosure.



**Note**

A circuit board that is  $>10\text{ cm}^2$  has been highlighted with a yellow rectangle as shown in the previous image. Follow the local regulations for disposing this type of circuit board.

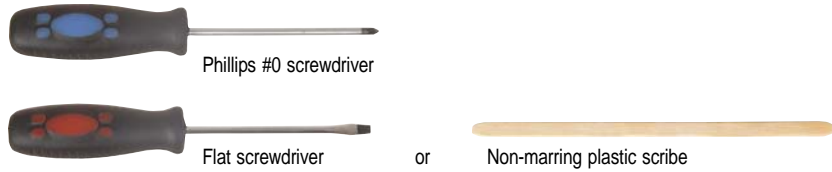
The RTC battery has been highlighted with a yellow circle in the previous image. Detach the RTC battery and follow local regulations for disposing it.

- 11 Turn the system board over and remove the cooling assembly by performing steps 4–7 of the “[Replacing the cooling assembly](#)” procedure on [page 90](#).
- 12 If your new system board does not include a processor, remove the processor from the old system board and install it on the new system board by performing steps 4–7 in the “[Replacing the processor](#)” section on [page 93](#).
- 13 Reinstall the cooling assembly by performing steps 9–12 of the “[Replacing the cooling assembly](#)” procedure on [page 90](#).
- 14 Place the new system board in the base enclosure and secure it with the screw removed in [step 9](#).
- 15 Reconnect the USB board and Bluetooth module cables to their system board connectors.
- 16 Reinstall the palm rest by performing steps 19–21 of the “[Replacing the palm rest](#)” procedure on [page 72](#).
- 17 Reinstall the LCD panel assembly by following the steps 16–23 of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 18 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 19 Close the LCD panel and turn the notebook over so the base is facing up.
- 20 Reinstall the optical drive by performing steps 10 and 11 of the “[Replacing the optical drive](#)” procedure on [page 60](#).
- 21 Reinstall the hard drive by performing steps 8 and 9 of the “[Replacing the hard drive](#)” procedure on [page 58](#).
- 22 If you have disconnected any wireless antennas, reconnect them now.
- 23 Reinstall the bay cover.
- 24 Reinstall the battery.



# Replacing the cooling assembly

Tools you need to complete this task:



Additional materials you need to complete this task:

- Soft cloth and isopropyl alcohol; or alcohol pad
- Thermal grease

Screws removed during this task:

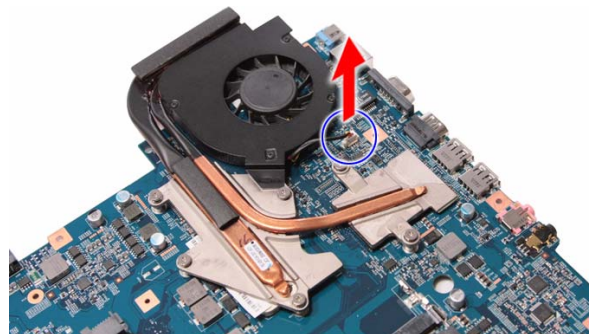
- 1 black M2x5 (hard drive)
- 1 black M2.5x6 (optical drive)
- 3 black M2.5x6 (keyboard cover)
- 2 black M2.5x6 (LCD panel hinge - bottom)
- 2 black M2.5x6+Nylok (LCD panel hinge - top)
- 10 M2.5x6 black (palm rest - base side)
- 3 M2.5x6 black (palm rest - top side)
- 1 black M2x4 (system board)

► To replace the cooling assembly:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Remove the system board by performing steps 2–10 of the [“Replacing the system board”](#) procedure on page 87.
- 3 Turn the system board over to access the cooling fan cable.
- 4 Disconnect the cooling fan cable from its system board connector.

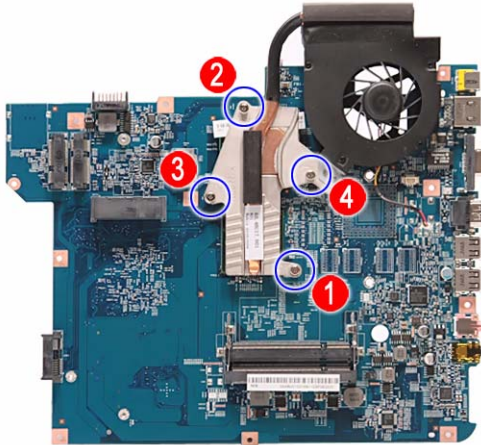


EasyNote TJ65/TJ66 models

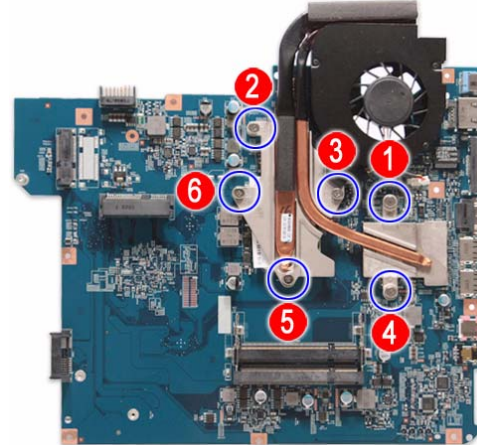


EasyNote TJ61/TJ62 models

- 5 Loosen the spring-loaded captive screws securing cooling assembly. Follow the screw sequence indicated on the below images.

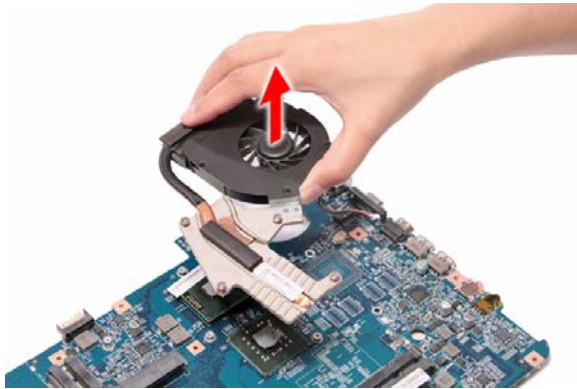


EasyNote TJ65/TJ66 models

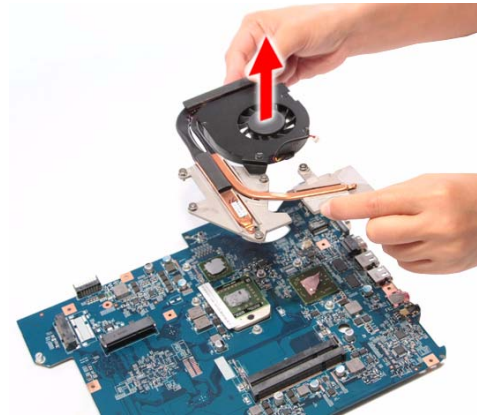


EasyNote TJ61/TJ62 models

- 6 Remove the cooling assembly from the system board.



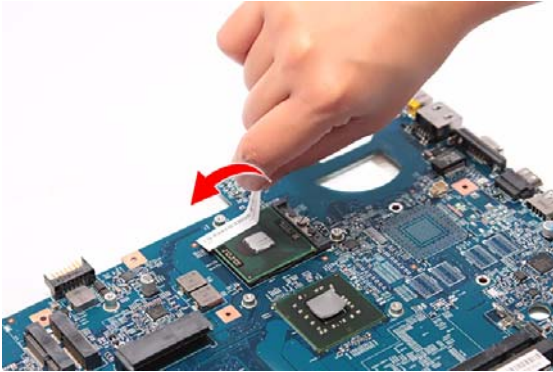
EasyNote TJ65/TJ66 models



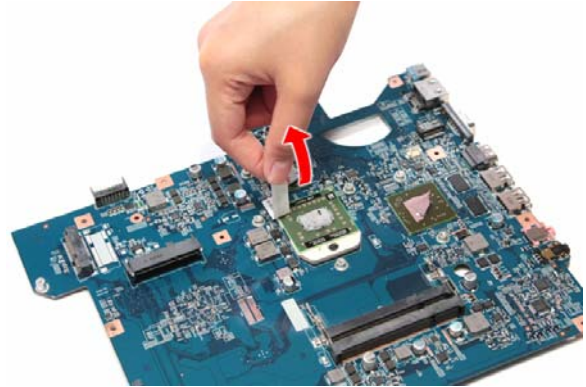
EasyNote TJ61/TJ62 models

- 7 Lay the cooling assembly down in an upright position to avoid tainting your work space with thermal grease.

- 8 Remove the barcode sticker on top of the processor.



EasyNote TJ65/TJ66 models



EasyNote TJ61/TJ62 models

- 9 Moisten a soft cloth with isopropyl alcohol and clean the processor die to remove any thermal grease residue. Wipe the die surface several times to make sure that no particles or dust contaminants are evident. Allow the alcohol to evaporate before continuing.



**Caution**

Do not touch the contact surface of the new cooling assembly nor the processor die as this may leave dead skin cells or oils from your finger that can result in poor thermal grease performance.

- 10 Apply just enough thermal grease to evenly coat the surface of the processor die.
- 11 Place the new cooling assembly on the system board and tighten its captive screws to secure it in place. Follow the sequence of the number beside each screw when securing the cooling assembly.
- 12 Reconnect the cooling fan cable to its system board connector.
- 13 Reinstall the system board by performing steps 14 and 15 of the “Replacing the system board” procedure on page 87.
- 14 Reinstall the palm rest by performing steps 19–21 of the “Replacing the palm rest” procedure on page 72.
- 15 Reinstall the LCD panel assembly by performing steps 16–23 of the “Replacing the LCD panel assembly” procedure on page 68.
- 16 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the “Replacing the keyboard” procedure on page 66.
- 17 Close the LCD panel and turn the notebook over so the base is facing up.
- 18 Reinstall the optical drive by performing steps 10 and 11 of the “Replacing the optical drive” procedure on page 60.
- 19 Reinstall the hard drive by performing steps 8 and 9 of the “Replacing the hard drive” procedure on page 58.
- 20 If you have disconnected any wireless antennas, reconnect them now.
- 21 Reinstall the bay cover.
- 22 Reinstall the battery.



# Replacing the processor

Tools you need to complete this task:



Phillips #0 screwdriver



Flat screwdriver



Non-marring plastic scribe

Additional materials you need to complete this task:

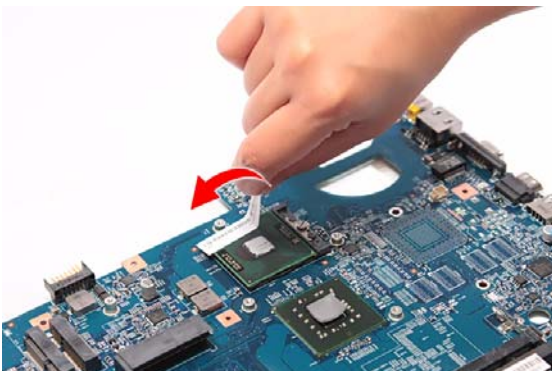
- Soft cloth and isopropyl alcohol; or alcohol pad
- Thermal grease

Screws removed during this task:

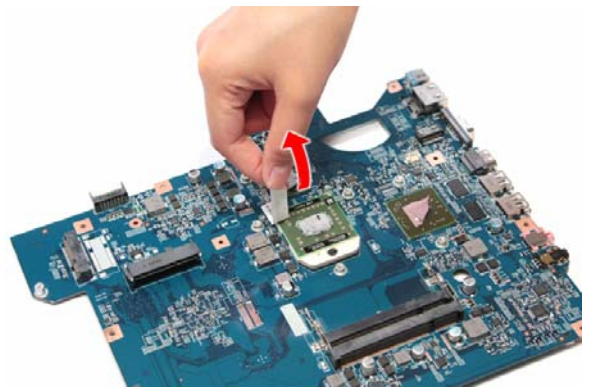
- 1 black M2x5 (hard drive)
- 1 black M2.5x6 (optical drive)
- 3 black M2.5x6 (keyboard cover)
- 2 black M2.5x6 (LCD panel hinge - bottom)
- 2 black M2.5x6+Nylok (LCD panel hinge - top)
- 10 M2.5x6 black (palm rest - base side)
- 3 M2.5x6 black (palm rest - top side)
- 1 black M2x4 (system board)

► To replace the processor:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Remove the cooling assembly by performing steps 2–7 of the [“Replacing the cooling assembly”](#) procedure on page 90.
- 3 Remove the barcode sticker on top of the processor.



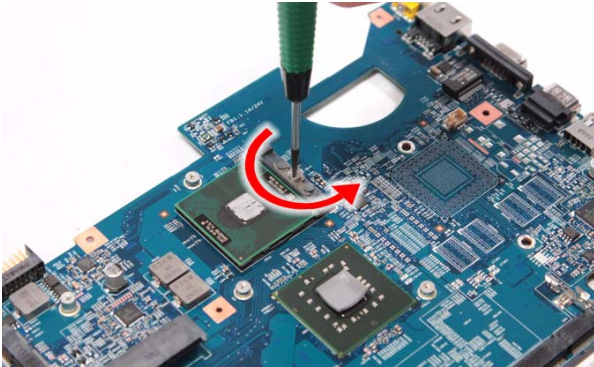
EasyNote TJ65/TJ66 models



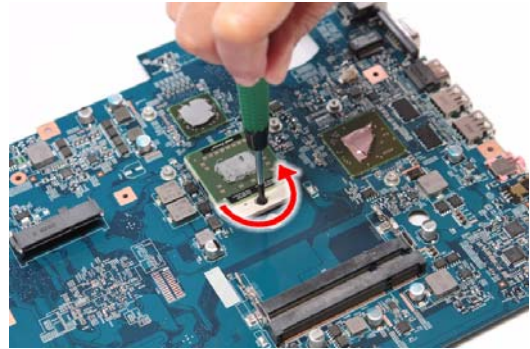
EasyNote TJ61/TJ62 models



- 4 Use a flat-blade screwdriver to turn the processor lock screw 180° counter-clockwise.

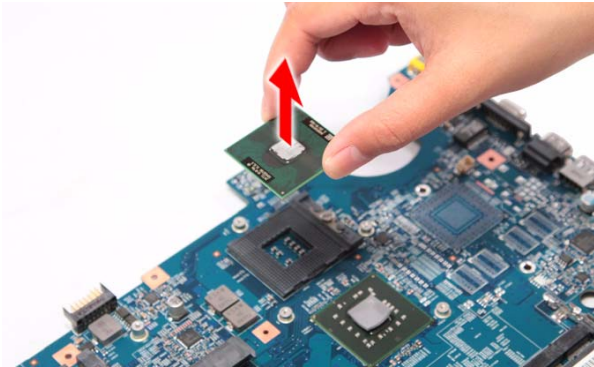


EasyNote TJ65/TJ66 models

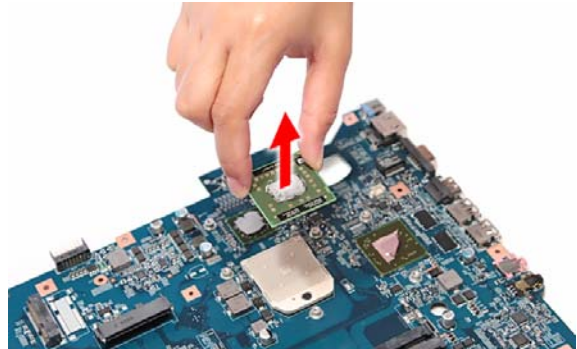


EasyNote TJ61/TJ62 models

- 5 Remove the old processor from the system board.



EasyNote TJ65/TJ66 models



EasyNote TJ61/TJ62 models

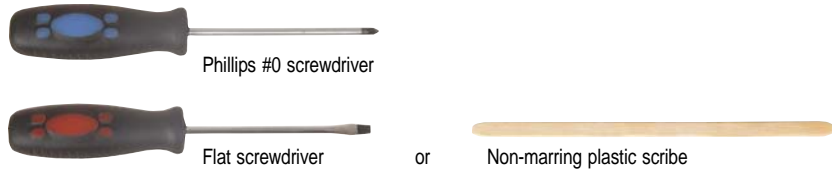
- 6 Align pin 1 of the new processor (indicated by the gold arrow on the corner of the processor) with the beveled corner of the processor socket.  
The processor will easily fit into the socket if you oriented it properly.
- 7 Use a flat-blade screwdriver to turn the lock screw 180° clockwise to secure the processor in place.
- 8 Apply just enough thermal grease to evenly coat the surface of the processor die.
- 9 Reinstall the cooling assembly by performing steps 9–12 of the “[Replacing the cooling assembly](#)” procedure on [page 90](#).
- 10 Reinstall the system board by performing steps 14 and 15 of the “[Replacing the system board](#)” procedure on [page 87](#).
- 11 Reinstall the palm rest by performing steps 19–21 of the “[Replacing the palm rest](#)” procedure on [page 72](#).
- 12 Reinstall the LCD panel assembly by performing steps 16–23 of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 13 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 14 Close the LCD panel and turn the notebook over so the base is facing up.

- 15 Reinstall the optical drive by performing steps 10 and 11 of the "Replacing the optical drive" procedure on page 60.
- 16 Reinstall the hard drive by performing steps 8 and 9 of the "Replacing the hard drive" procedure on page 58.
- 17 If you have disconnected any wireless antennas, reconnect them now.
- 18 Reinstall the bay cover.
- 19 Reinstall the battery.



# Replacing the LCD front panel

Tools you need to complete this task:



Screws removed during this task:

- 1 black M2x5 (hard drive)
- 1 black M2.5x6 (optical drive)
- 3 black M2.5x6 (keyboard cover)
- 2 black M2.5x6 (LCD panel hinges - bottom)
- 2 black M2.5x6+Nylok (LCD panel hinges - top)
- 4 black M2.5x6+Nylok (LCD front panel)
- 2 chrome M2x4 (LCD hinge covers)

► To replace the LCD front panel:

- 1 Complete the steps in [“Preparing the notebook” on page 51](#).
- 2 Remove the LCD panel assembly by performing steps 2–15 of the [“Replacing the LCD panel assembly” procedure on page 68](#).
- 3 Remove the rubber inserts from the corners of the LCD front panel.



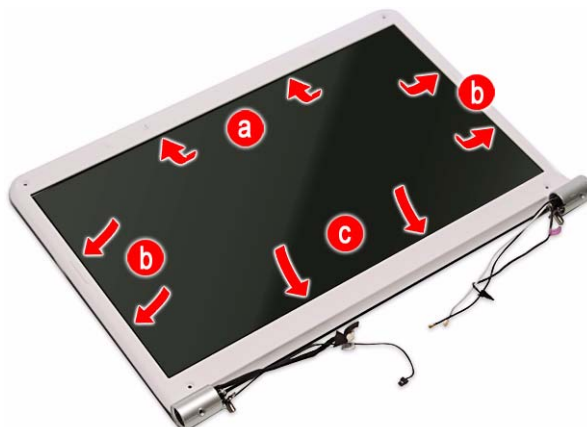
- 4 Remove the LCD front panel screws.



- 5 Remove the LCD hinge cover screws.



- 6 Carefully pry loose the front panel from the LCD assembly lid. Start on the top side (a), continue to the left and right sides (b), and finally the bottom side (c).



- 7 Remove the front panel.



- 8 Place the new front panel on top of the LCD assembly lid.  
Make sure that the LCD, microphone, antenna, and power button cables are properly routed on the hinge sides.
- 9 Press the front panel on all sides until it snaps into place.  
Make sure that there is no gap between the front panel and the LCD assembly lid.
- 10 Secure the front panel with screws removed in steps 4 and 5.
- 11 Return the LCD front panel rubber inserts to their places.
- 12 Reinstall the LCD panel assembly by performing steps 16–23 of the “Replacing the LCD panel assembly” procedure on page 68.
- 13 Turn the notebook over so the palm rest is facing up.
- 14 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the “Replacing the keyboard” procedure on page 66.
- 15 Reinstall the battery.



# Replacing the LCD

Tools you need to complete this task:



Phillips #0 screwdriver























Flat screwdriver

or



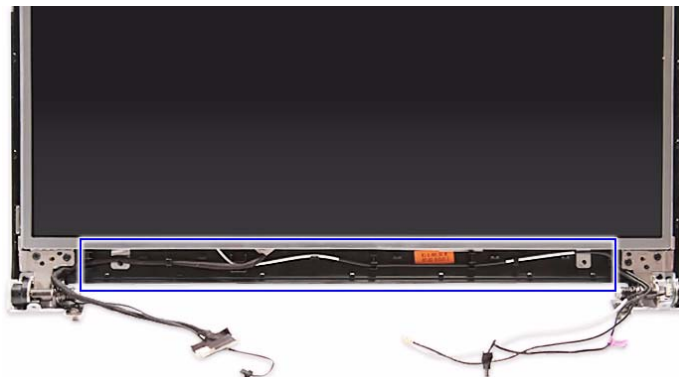
Non-marring plastic scribe

Screws removed during this task:

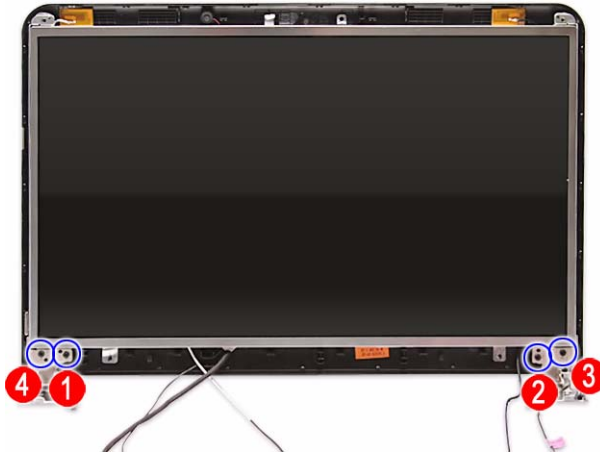
-  1 black M2x5 (hard drive)
-  1 black M2.5x6 (optical drive)
-    3 black M2.5x6 (keyboard cover)
-   2 black M2.5x6 (LCD panel hinges - bottom)
-   2 black M2.5x6+Nylok (LCD panel hinges - top)
-     4 black M2.5x6+Nylok (LCD front panel)
-   2 chrome M2x4 (LCD hinge covers)
-     4 black M2.5x6+Nylok (LCD front panel)
-     4 black M2.5x5 (LCD panel hinges)
-     4 chrome M2x3 (LCD panel brackets)

► To replace the LCD:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Remove the LCD panel assembly by performing steps 2–15 of the [“Replacing the LCD panel assembly”](#) procedure on page 68.
- 3 Remove the LCD front panel by performing steps 3–7 of the [“Replacing the LCD front panel”](#) procedure on page 96.
- 4 Release the LCD, microphone, antenna, and power button from their LCD assembly lid latches.



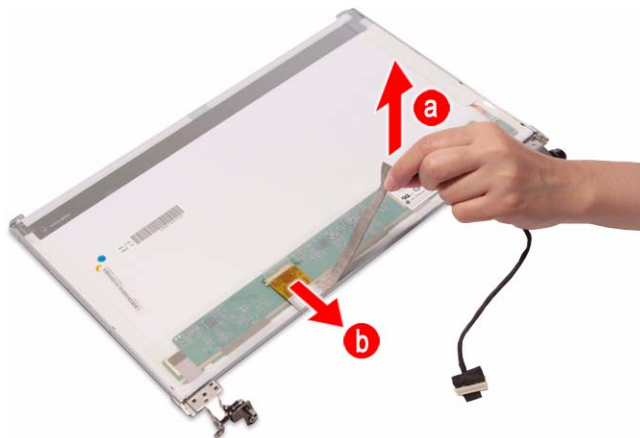
- 5 Remove the LCD hinge screws.



- 6 Remove the LCD from the LCD assembly lid.



- 7 Lay the LCD on its front to access the LCD cable.
- 8 Detach the LCD cable from the LCD's underside **(a)** and disconnect it from the LCD PCB **(b)**.



- 9 Remove the screws securing the LCD panel hinge brackets.



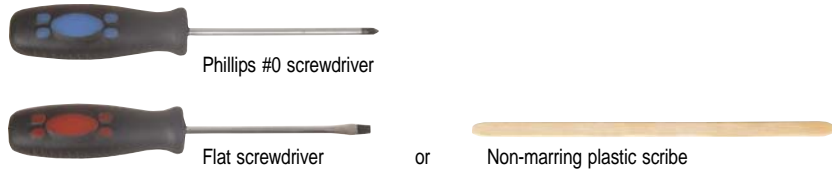
- 10 Attach the LCD panel hinge brackets and the LCD cable to the new LCD.
- 11 Place the new LCD on the LCD assembly lid and secure it with the screws removed in [step 5](#).
- 12 Reinstall the LCD front panel by performing steps [8–11](#) of the “[Replacing the LCD front panel](#)” procedure on [page 96](#).
- 13 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 14 Turn the notebook over so the palm rest is facing up.
- 15 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 16 Reinstall the battery.





# Replacing the LCD panel hinge brackets

Tools you need to complete this task:



Screws removed during this task:

- 1 black M2x5 (hard drive)
- 1 black M2.5x6 (optical drive)
- 3 black M2.5x6 (keyboard cover)
- 2 black M2.5x6 (LCD panel hinges - bottom)
- 2 black M2.5x6+Nylok (LCD panel hinges - top)
- 4 black M2.5x6+Nylok (LCD front panel)
- 2 chrome M2x4 (LCD hinge covers)
- 4 black M2.5x6+Nylok (LCD front panel)
- 4 black M2.5x5 (LCD panel hinges)
- 4 chrome M2x3 (LCD panel brackets)

► To replace the LCD panel hinge brackets:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Remove the LCD panel assembly by performing steps 2–15 of the [“Replacing the LCD panel assembly”](#) procedure on page 68.
- 3 Remove the LCD front panel by performing steps 3–7 of the [“Replacing the LCD front panel”](#) procedure on page 96.
- 4 Remove the LCD by performing steps 4–6 of the [“Replacing the LCD”](#) procedure on page 99.
- 5 Remove the screws securing the LCD panel brackets.

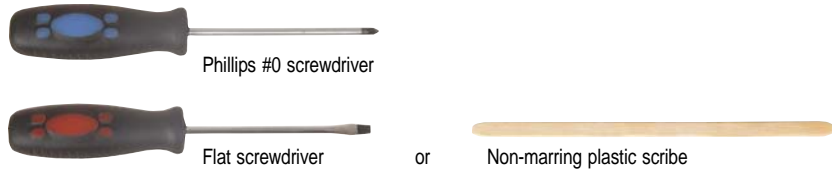


- 6 Attach the new LCD panel brackets to the LCD.
- 7 Place the LCD on the LCD assembly lid and secure it with the screws removed in [step 5](#).
- 8 Reinstall the LCD front panel by performing steps [8–11](#) of the “[Replacing the LCD front panel](#)” procedure on [page 96](#).
- 9 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 10 Turn the notebook over so the palm rest is facing up.
- 11 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 12 Reinstall the battery.


























# Replacing the power button board

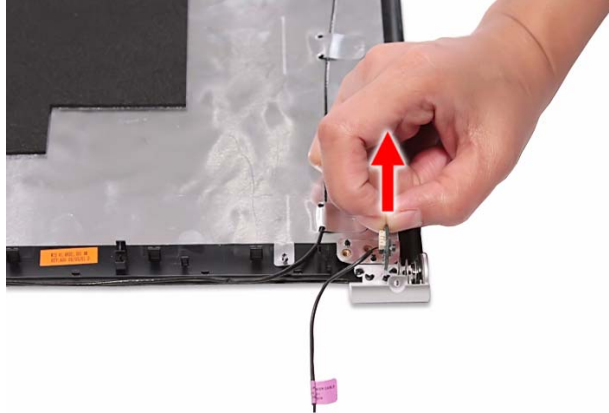
Tools you need to complete this task:



Screws removed during this task:

-  1 black M2x5 (hard drive)
  -  1 black M2.5x6 (optical drive)
  -    3 black M2.5x6 (keyboard cover)
  -   2 black M2.5x6 (LCD panel hinges - bottom)
  -   2 black M2.5x6+Nylok (LCD panel hinges - top)
  -     4 black M2.5x6+Nylok (LCD front panel)
  -   2 chrome M2x4 (LCD hinge covers)
  -     4 black M2.5x6+Nylok (LCD front panel)
  -     4 black M2.5x5 (LCD panel hinges)
- To replace the power button board:
- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
  - 2 Remove the LCD panel assembly by performing steps 2–15 of the [“Replacing the LCD panel assembly”](#) procedure on page 68.
  - 3 Remove the LCD front panel by performing steps 3–7 of the [“Replacing the LCD front panel”](#) procedure on page 96.
  - 4 Remove the LCD by performing steps 4–6 of the [“Replacing the LCD”](#) procedure on page 99.

- 5 Note the orientation of the power button board for later reference and then remove the board from the LCD assembly lid.



- 6 Disconnect the power button cable from the board.

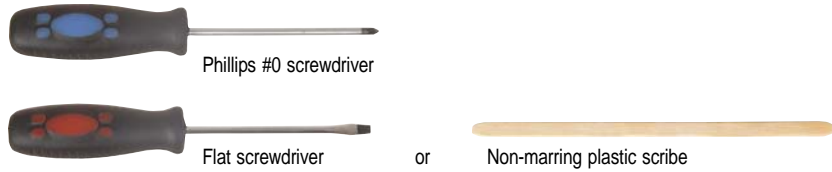


- 7 Connect the power button cable to the new power button board.
- 8 Position the new power button board on the LCD assembly lid making sure it is in the same orientation noted on [step 5](#).  
The board should fit snugly against the spring to ensure proper contact when pressing the power button.
- 9 Place the LCD back on the LCD assembly lid.
- 10 Return the hinge screws to their places.
- 11 Reinstall the LCD front panel by performing steps [8–11](#) of the “[Replacing the LCD front panel](#)” procedure on [page 96](#).
- 12 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 13 Turn the notebook over so the palm rest is facing up.
- 14 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 15 Reinstall the battery.

























# Replacing the Kensington lock cap

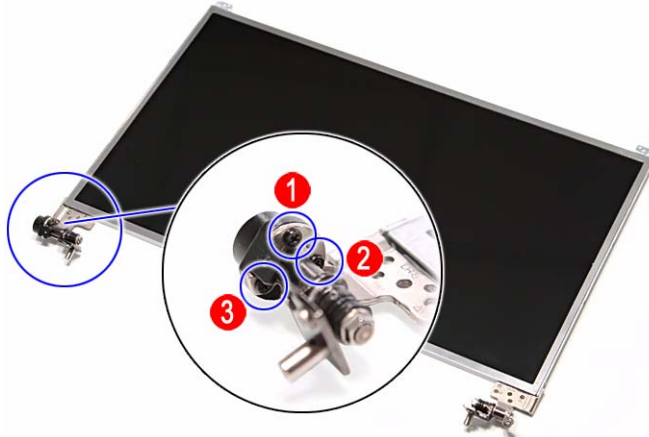
Tools you need to complete this task:



Screws removed during this task:

-  1 black M2x5 (hard drive)
  -  1 black M2.5x6 (optical drive)
  -    3 black M2.5x6 (keyboard cover)
  -   2 black M2.5x6 (LCD panel hinges - bottom)
  -   2 black M2.5x6+Nylok (LCD panel hinges - top)
  -     4 black M2.5x6+Nylok (LCD front panel)
  -   2 chrome M2x4 (LCD hinge covers)
  -     4 black M2.5x6+Nylok (LCD front panel)
  -    3 black (Kensington lock cap)
- To replace the Kensington lock cap:
- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
  - 2 Remove the LCD panel assembly by performing steps 2–15 of the [“Replacing the LCD panel assembly”](#) procedure on page 68.
  - 3 Remove the LCD front panel by performing steps 3–7 of the [“Replacing the LCD front panel”](#) procedure on page 96.
  - 4 Move the LCD, microphone, and antenna cables away from the Kensington lock cap screws.

- 5 Note the orientation of the Kensington lock cap for later reference and then remove the screws securing it.



- 6 Detach the Kensington lock cap from the left hinge.

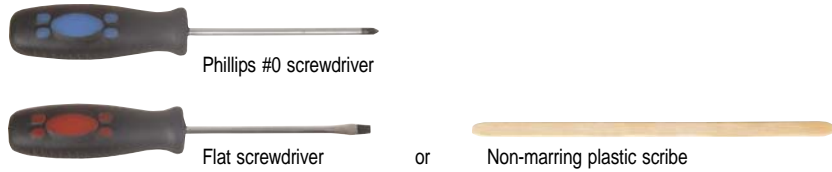


- 7 Position the new Kensington lock cap on the left hinge making sure it is in the same orientation noted on [step 5](#).
- 8 Secure the cap with the screws removed in [step 5](#).
- 9 Reinstall the LCD front panel by performing steps [8–11](#) of the “[Replacing the LCD front panel](#)” procedure on [page 96](#).
- 10 Reinstall the LCD panel assembly by performing steps [16–23](#) of the “[Replacing the LCD panel assembly](#)” procedure on [page 68](#).
- 11 Turn the notebook over so the palm rest is facing up.
- 12 Reinstall the keyboard and the keyboard cover by performing steps [5–8](#) of the “[Replacing the keyboard](#)” procedure on [page 66](#).
- 13 Reinstall the battery.




# Replacing the microphone

Tools you need to complete this task:

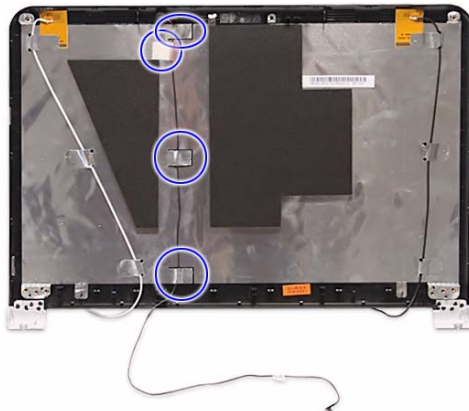


Screws removed during this task:

-  1 black M2x5 (hard drive)
-  1 black M2.5x6 (optical drive)
-    3 black M2.5x6 (keyboard cover)
-   2 black M2.5x6 (LCD panel hinges - bottom)
-   2 black M2.5x6+Nylok (LCD panel hinges - top)
-     4 black M2.5x6+Nylok (LCD front panel)
-   2 chrome M2x4 (LCD hinge covers)
-     4 black M2.5x6+Nylok (LCD front panel)
-     4 black M2.5x5 (LCD panel hinges)

► To replace the microphone:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Remove the LCD panel assembly by performing steps 2–15 of the [“Replacing the LCD panel assembly”](#) procedure on page 68.
- 3 Remove the LCD front panel by performing steps 3–7 of the [“Replacing the LCD front panel”](#) procedure on page 96.
- 4 Remove the LCD by performing steps 4–6 of the [“Replacing the LCD”](#) procedure on page 99.
- 5 Release the microphone cable from the adhesive tabs securing it.



- 6 Remove the microphone from the LCD assembly lid.



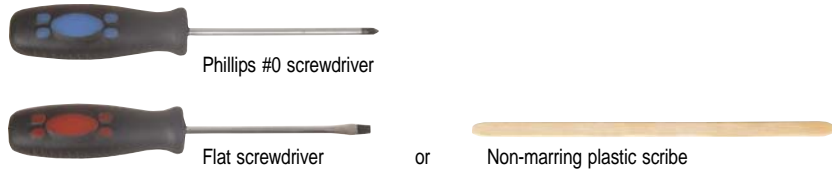
- 7 Place the new microphone on the LCD assembly lid and secure its cable on the adhesive tabs.
- 8 Place the LCD back on the LCD assembly lid.
- 9 Return the hinge screws to their places.
- 10 Reinstall the LCD front panel by performing steps 8–11 of the [“Replacing the LCD front panel”](#) procedure on [page 96](#).
- 11 Reinstall the LCD panel assembly by performing steps 16–23 of the [“Replacing the LCD panel assembly”](#) procedure on [page 68](#).
- 12 Turn the notebook over so the palm rest is facing up.
- 13 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the [“Replacing the keyboard”](#) procedure on [page 66](#).
- 14 Reinstall the battery.





# Replacing the antennas

Tools you need to complete this task:

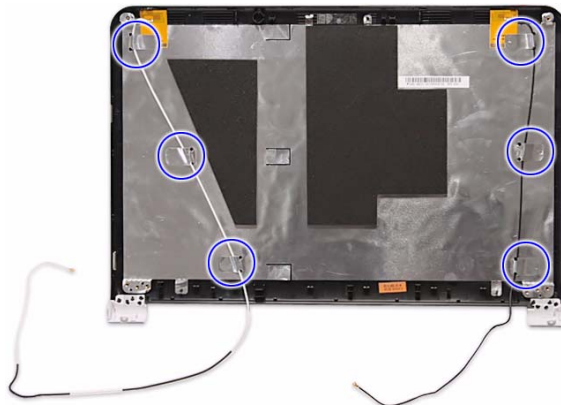


Screws removed during this task:

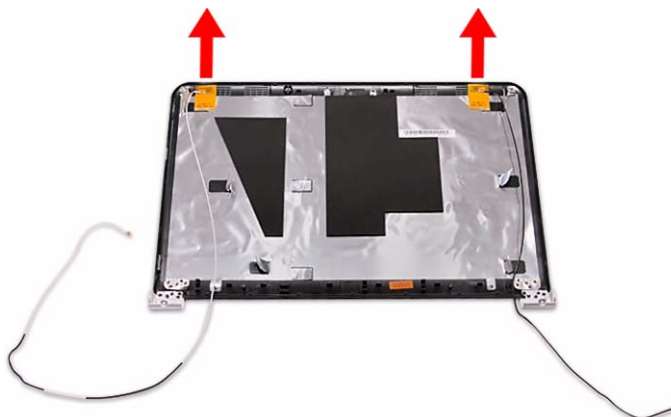
-  1 black M2x5 (hard drive)
-  1 black M2.5x6 (optical drive)
-    3 black M2.5x6 (keyboard cover)
-   2 black M2.5x6 (LCD panel hinges - bottom)
-   2 black M2.5x6+Nylok (LCD panel hinges - top)
-     4 black M2.5x6+Nylok (LCD front panel)
-   2 chrome M2x4 (LCD hinge covers)
-     4 black M2.5x6+Nylok (LCD front panel)
-     4 black M2.5x5 (LCD panel hinges)

► To replace the antennas:

- 1 Complete the steps in [“Preparing the notebook”](#) on [page 51](#).
- 2 Remove the LCD panel assembly by performing steps [2–15](#) of the [“Replacing the LCD panel assembly”](#) procedure on [page 68](#).
- 3 Remove the LCD front panel by performing steps [3–7](#) of the [“Replacing the LCD front panel”](#) procedure on [page 96](#).
- 4 Remove the LCD by performing steps [4–6](#) of the [“Replacing the LCD”](#) procedure on [page 99](#).
- 5 Release the antenna cables from the adhesive tabs securing them.



- 6 Carefully pry the antenna boards loose from the LCD assembly lid to remove the antennas.

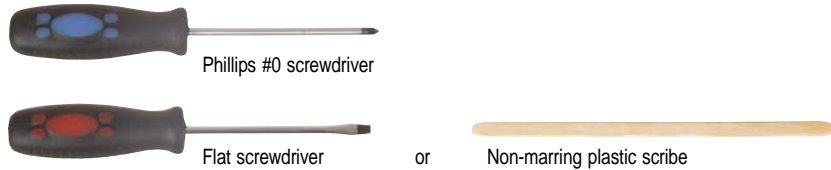


- 7 Secure the new antenna on the LCD assembly lid and route their cables underneath the adhesive tabs.
- 8 Place the LCD back on the LCD assembly lid.
- 9 Return the hinge screws to their places.
- 10 Reinstall the LCD front panel by performing steps 8–11 of the [“Replacing the LCD front panel”](#) procedure on [page 96](#).
- 11 Reinstall the LCD panel assembly by performing steps 16–23 of the [“Replacing the LCD panel assembly”](#) procedure on [page 68](#).
- 12 Turn the notebook over so the palm rest is facing up.
- 13 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the [“Replacing the keyboard”](#) procedure on [page 66](#).
- 14 Reinstall the battery.








# Replacing the LCD assembly lid

Tools you need to complete this task:



Screws removed during this task:

-  1 black M2x5 (hard drive)
-  1 black M2.5x6 (optical drive)
-    3 black M2.5x6 (keyboard cover)
-   2 black M2.5x6 (LCD panel hinges - bottom)
-   2 black M2.5x6+Nylok (LCD panel hinges - top)
-     4 black M2.5x6+Nylok (LCD front panel)
-   2 chrome M2x4 (LCD hinge covers)
-     4 black M2.5x6+Nylok (LCD front panel)
-     4 black M2.5x5 (LCD panel hinges)

► To replace the LCD assembly lid:

- 1 Complete the steps in [“Preparing the notebook”](#) on page 51.
- 2 Remove the LCD panel assembly by performing steps 2–15 of the [“Replacing the LCD panel assembly”](#) procedure on page 68.
- 3 Remove the LCD front panel by performing steps 3–7 of the [“Replacing the LCD front panel”](#) procedure on page 96.
- 4 Remove the LCD by performing steps 4–6 of the [“Replacing the LCD”](#) procedure on page 99.
- 5 If you are going to use the same Kensington lock cap, power button assembly, microphone and wireless antennas, remove these items from the old LCD assembly lid and attach them to the new one. Refer to the related replacement procedure on previous pages for instructions.
- 6 Place the LCD on the new LCD assembly lid.
- 7 Return the hinge screws to their places.
- 8 Reinstall the LCD front panel by performing steps 8–11 of the [“Replacing the LCD front panel”](#) procedure on page 96.
- 9 Reinstall the LCD panel assembly by performing steps 16–23 of the [“Replacing the LCD panel assembly”](#) procedure on page 68.

- 10 Turn the notebook over so the palm rest is facing up.
- 11 Reinstall the keyboard and the keyboard cover by performing steps 5–8 of the [“Replacing the keyboard”](#) procedure on [page 66](#).
- 12 Reinstall the battery.



