

Inspiron 11 3000

Service Manual

Computer Model: Inspiron 11-3169
Regulatory Model: P25T
Regulatory Type: P25T002



Notes, cautions, and warnings



NOTE: A NOTE indicates important information that helps you make better use of your product.



CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Before working inside your computer



NOTE: The images in this document may differ from your computer depending on the configuration you ordered.

Before you begin

- 1 Save and close all open files and exit all open applications.
- 2 Shut down your computer.

The shut-down instruction varies depending on the operating system installed on your computer.

- Windows 10: Click **Start** →  **Power** → **Shut down**.
- Windows 8.1: On the **Start** screen, Click the power icon  → **Shut down**.
- Windows 7: Click **Start** → **Shut down**.



NOTE: If you are using a different operating system, see the documentation of your operating system for shut-down instructions.








- 3 Disconnect your computer and all attached devices from their electrical outlets.
- 4 Disconnect all attached network devices and peripherals, such as keyboard, mouse, and monitor, from your computer.
- 5 Remove any media card and optical disc from your computer, if applicable.
- 6 Close the display and turn the computer over.

Safety instructions

Use the following safety guidelines to protect your computer from potential damage and ensure your personal safety.



WARNING: Before working inside your computer, read the safety information that shipped with your computer. For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

-  **WARNING:** Disconnect all power sources before opening the computer cover or panels. After you finish working inside the computer, replace all covers, panels, and screws before connecting to the electrical outlet.
-  **CAUTION:** To avoid damaging the computer, ensure that the work surface is flat and clean.
-  **CAUTION:** To avoid damaging the components and cards, handle them by their edges, and avoid touching pins and contacts.
-  **CAUTION:** You should only perform troubleshooting and repairs as authorized or directed by the Dell technical assistance team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. See the safety instructions that shipped with the product or at www.dell.com/regulatory_compliance.
-  **CAUTION:** Before touching anything inside your computer, ground yourself by touching an unpainted metal surface, such as the metal at the back of the computer. While you work, periodically touch an unpainted metal surface to dissipate static electricity, which could harm internal components.
-  **CAUTION:** When you disconnect a cable, pull on its connector or on its pull tab, not on the cable itself. Some cables have connectors with locking tabs or thumb-screws that you must disengage before disconnecting the cable. When disconnecting cables, keep them evenly aligned to avoid bending any connector pins. When connecting cables, ensure that the ports and connectors are correctly oriented and aligned.
-  **CAUTION:** Press and eject any installed card from the media-card reader.

Recommended tools

The procedures in this document may require the following tools:

- Philips screwdriver
- Flat-head screwdriver
- Plastic scribe



Screw list

| Component | Secured to | Screw type | Quantity |
|-----------------------|---------------------------------|---------------------|----------|
| LCD module | LCD cover | M2L2.5 | 2 |
| Hinge plate | Cover | M2.5L2.5 (Big Head) | 4 |
| Touch pad | Palm-rest and keyboard assembly | M2L2 | 4 |
| Display cable bracket | Palm-rest and keyboard assembly | M2L2 (Big Head) | 1 |
| Power adapter | Palm-rest and keyboard assembly | M2L3 | 1 |
| Wireless card | Palm-rest and keyboard assembly | M2L3 | 1 |
| Battery | Palm-rest and keyboard assembly | M2L3 | 1 |
| System board | Palm-rest and keyboard assembly | M2L2 (Big Head) | 1 |
| I/O board | Palm-rest and keyboard assembly | M2L3 | 2 |
| System board | Palm-rest and keyboard assembly | M2L3 | 1 |
| Hard-drive | Palm-rest and keyboard assembly | M2L3 | 1 |
| Hinges | Palm-rest and keyboard assembly | M2.5L5 | 4 |
| Back cover | | M2.5L7 | 9 |
| Hard-drive bracket | Hard drive | M3L3 | 4 |

After working inside your computer



CAUTION: Leaving stray or loose screws inside your computer may severely damage your computer.

- 1** Replace all screws and ensure that no stray screws remain inside your computer.
- 2** Connect any external devices, peripherals, or cables you removed before working on your computer.
- 3** Replace any media cards, discs, or any other parts that you removed before working on your computer.
- 4** Connect your computer and all attached devices to their electrical outlets.
- 5** Turn on your computer.



Removing the base cover



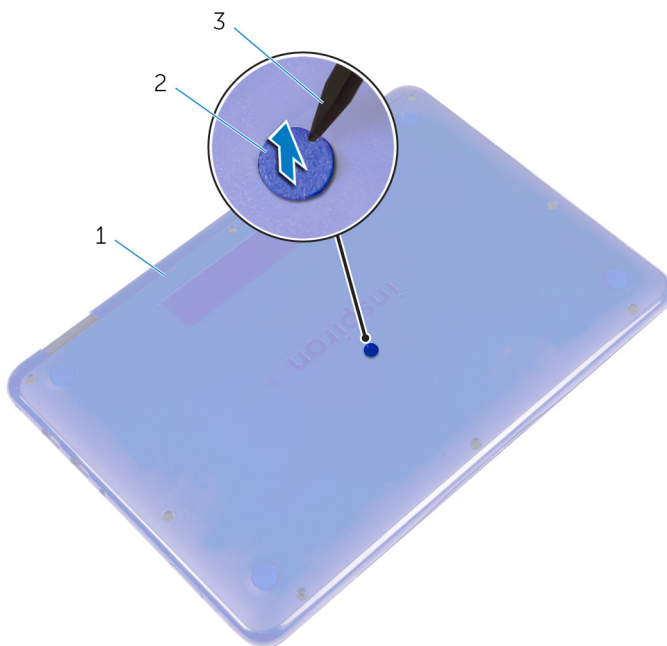
WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

Procedure

- 1 Close the display and turn the computer over.



- 2** Using a plastic scribe, remove the screw cover located at the center of the base cover.

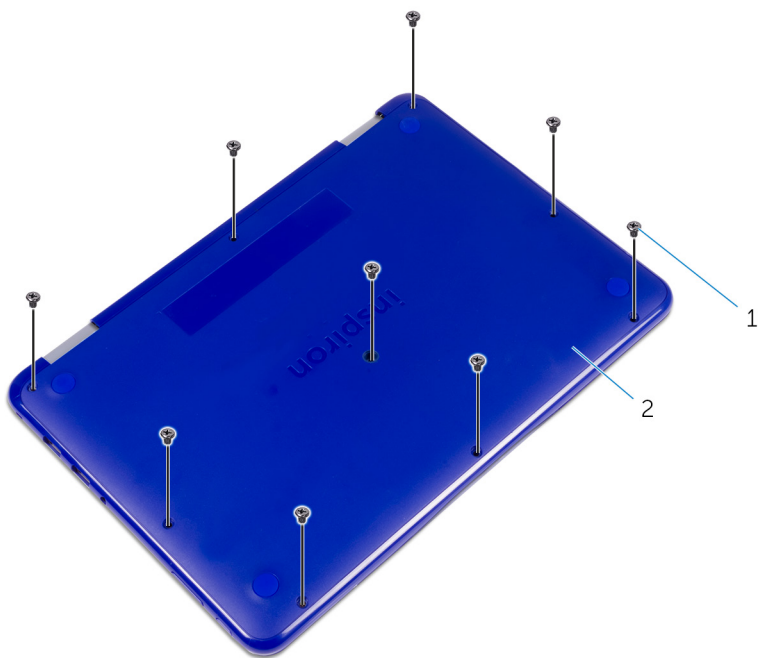


1 base cover

2 screw cover

3 plastic scribe

- 3** Remove the screws that secure the base cover to the palmrest and keyboard assembly.



1 screws (9)

2 base cover

- 4 Using a plastic scribe, pry the base cover from the palmrest and keyboard assembly.



1 plastic scribe

2 base cover

Replacing the base cover



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Procedure

- 1 Slide the tabs on the base cover into the slots on the palmrest and keyboard assembly and snap the base cover into place.
- 2 Replace the screws that secure the base cover to the palmrest and keyboard assembly.
- 3 Replace the screw cover into its slot on the base cover.



Removing the battery



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Prerequisites

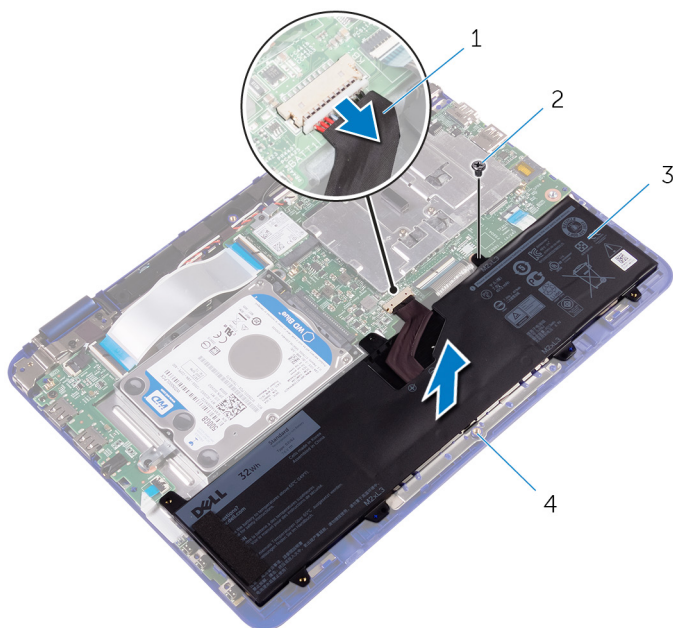
Remove the [base cover](#).

Procedure

- 1 Remove the screw that secures the battery to the palmrest and keyboard assembly.
- 2 Disconnect the battery cable from the system board.



- 3** Lift the battery off the palmrest and keyboard assembly.



1 battery cable

2 screw

3 battery

4 palmrest and keyboard
assembly

- 4** Turn the computer over.

- 5** Press and hold the power button for 5 seconds to ground the system board.

Replacing the battery



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Procedure

- 1 Align the screw hole on the battery with the screw hole on the palmrest and keyboard assembly.
- 2 Replace the screw that secures the battery to the palmrest and keyboard assembly.
- 3 Connect the battery cable to the system board.

Post-requisites

Replace the [base cover](#).



Removing the power and volume-buttons board

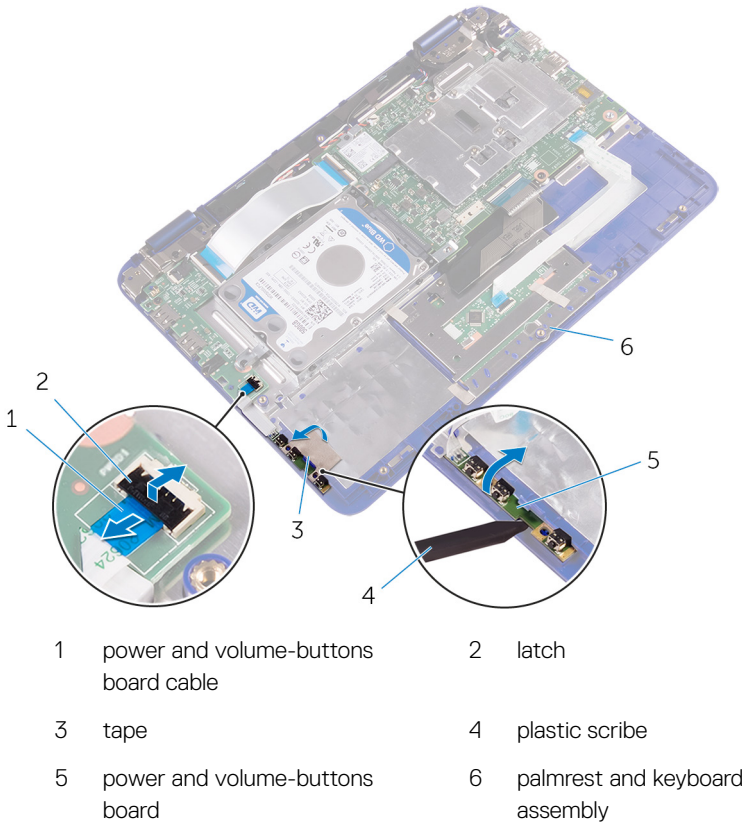


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Procedure

- 1 Open the latch and disconnect the power and volume-buttons board cable from the I/O board.
- 2 Peel the tape that secures the power and volume-buttons board to the palmrest and keyboard assembly.

- 3 Using a plastic scribe, pry the power and volume-buttons board, along with its cable, off the palmrest and keyboard assembly.



Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).



Replacing the power and volume-buttons board



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Procedure

- 1 Place the power and volume-buttons board into the slot on the palmrest and keyboard assembly.
- 2 Adhere the tape that secures the power and volume-buttons board to the palmrest and keyboard assembly.
- 3 Connect the power and volume-buttons board cable to the I/O board.

Post-requisites

- 1 Replace the [battery](#).
- 2 Replace the [base cover](#).

Removing the power-adapter port



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Prerequisites

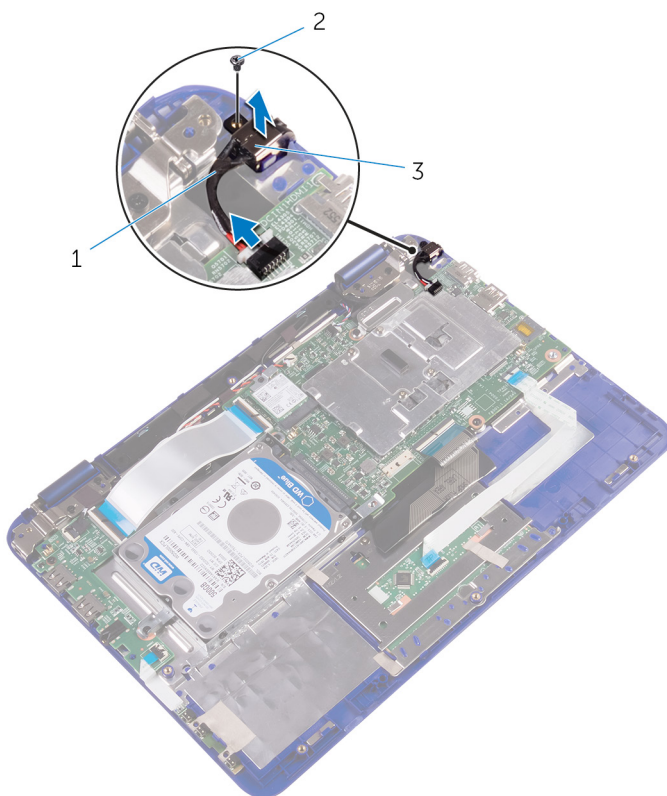
- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).

Procedure

- 1 Disconnect the power-adapter port cable from the system board.
- 2 Remove the screw that secures the power-adapter port to the palmrest and keyboard assembly.



- 3** Lift the power-adaptor port with its cable, off the palmrest and keyboard assembly.



1 power-adaptor port cable

2 screw

3 power-adaptor port

Replacing the power-adapter port



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Post-requisites

- 1 Replace the [battery](#).
- 2 Replace the [base cover](#).

Procedure

- 1 Place the power-adapter port into the slot on the palmrest and keyboard assembly.
- 2 Align the screw hole on the power-adapter port with the screw hole on the palmrest and keyboard assembly.
- 3 Replace the screw that secures the power-adapter port to the palm rest and keyboard assembly.
- 4 Connect the power-adapter port cable to the system board.



Removing the hard drive



WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.



CAUTION: Hard drives are fragile. Exercise care when handling the hard drive.



CAUTION: To avoid data loss, do not remove the hard drive while the computer is in sleep or on state.

Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).

Procedure



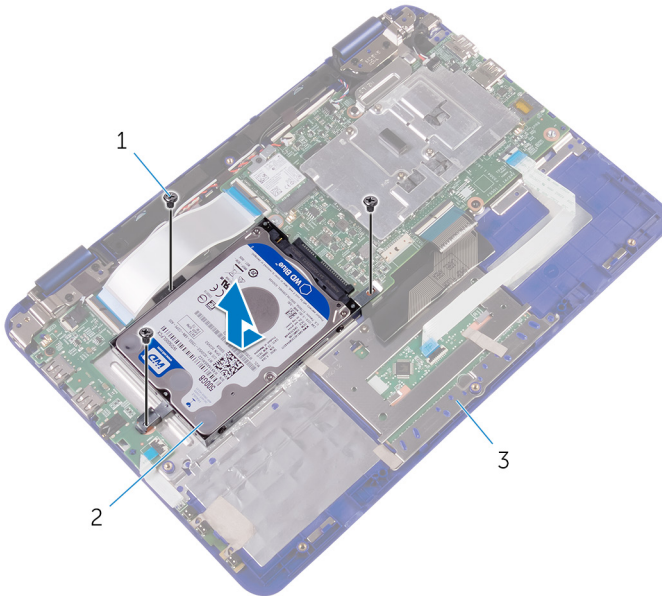
NOTE: The following procedure is applicable only if your computer is shipped with a hard drive.

- 1 Remove the screw that secures the hard-drive assembly to the palmrest and keyboard assembly.
- 2 Remove the screw that secures the hard-drive assembly to the system board.
- 3 Remove the screw that secures the hard-drive assembly to the I/O board.

- 4 Lift the hard-drive assembly off the palmrest and keyboard assembly.



NOTE: The images in this chapter may differ from your computer depending on the processor you ordered.



1 screws (3)

2 hard-drive assembly

3 palmrest and keyboard
assembly

- 5 Remove the screws that secure the hard-drive bracket to the hard drive.

6 Lift the hard drive from the hard-drive bracket.



- 1 screws (4)
- 3 hard drive

2 hard-drive bracket



Replacing the hard drive



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CAUTION: Hard drives are fragile. Exercise care when handling the hard drive.

Procedure

- 1 Align the screw holes on the hard drive with the screw holes on the hard-drive bracket.
- 2 Replace the screws that secure the hard-drive bracket to the hard drive.
- 3 Align the screw holes on the hard-drive assembly with the screw holes on the palmrest and keyboard assembly, system board and I/O board.
- 4 Replace the screws that secure the hard-drive assembly to the palmrest and keyboard assembly, system board and I/O board.

Post-requisites

- 1 Replace the [battery](#).
- 2 Replace the [base cover](#).



Removing the I/O board



WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

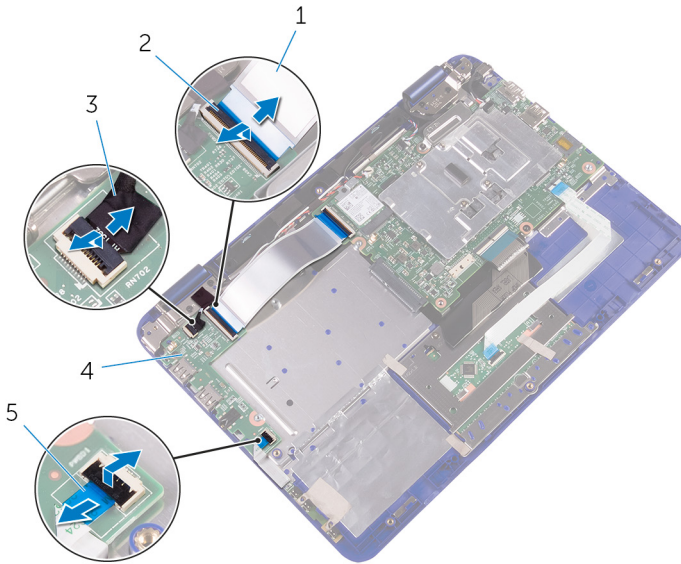
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Follow the procedure from step 1 to step 4 in "[Removing the hard drive](#)" (Only for computers shipped with a hard drive).



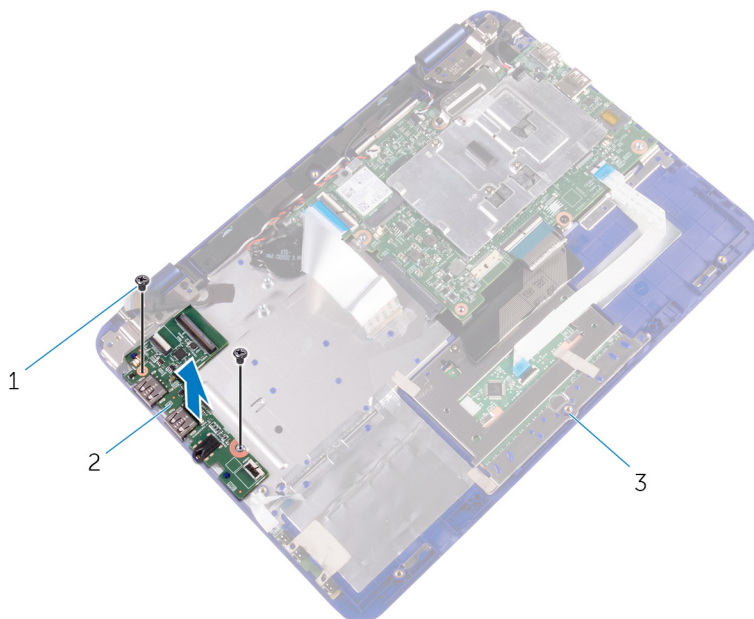
Procedure

- 1 Open the latches and disconnect the I/O-board cable, power and volume-buttons board cable, and sensor board cables from the I/O board.



- | | | | |
|---|--------------------------------------|---|-----------|
| 1 | I/O-board cable | 2 | latch |
| 3 | sensor-board cable | 4 | I/O board |
| 5 | power and volume-buttons board cable | | |

- 2** Remove the screws that secure the I/O board to the palmrest and keyboard assembly.



1 screws (2)

2 I/O board

3 palmrest and keyboard
assembly

- 3** Lift the I/O board off the palmrest and keyboard assembly.

Replacing the I/O board



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Procedure

- 1 Place the I/O board on the palmrest and keyboard assembly.
- 2 Align the screw holes on the I/O board with the screw holes on the palmrest and keyboard assembly.
- 3 Replace the screws that secure the I/O board to the palmrest and keyboard assembly.
- 4 Slide the power and volume-buttons board, sensor board and I/O-board cables into their respective slots on the I/O board and press down on the latches to secure the cables.

Post-requisites

- 1 Follow the procedure from step 3 to step 4 in "[Replacing the hard drive](#)".
- 2 Replace the [battery](#).
- 3 Replace the [base cover](#).



Removing the wireless card



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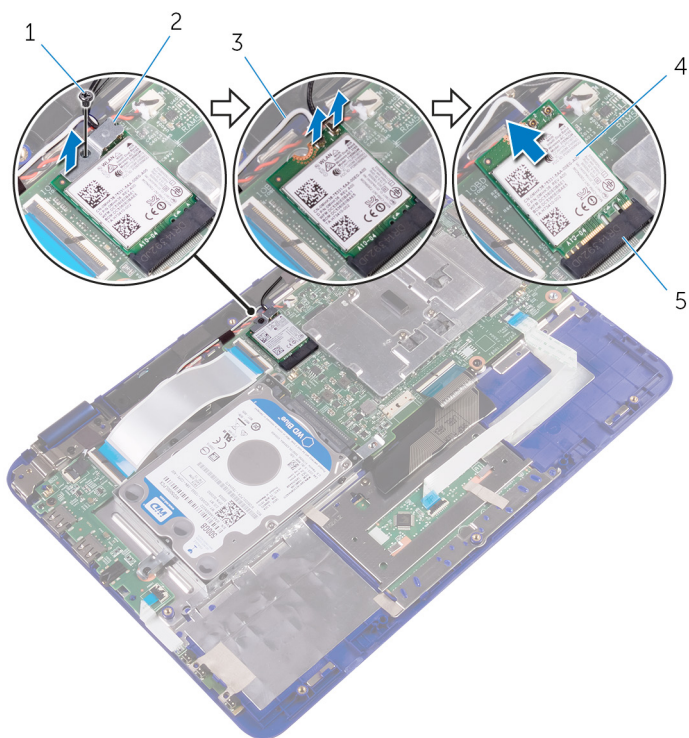
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).

Procedure

- 1 Loosen the captive screw from the wireless-card bracket.
- 2 Disconnect the antenna cables from the wireless card.
- 3 Remove the screw that secures the wireless card to the system board.

- 4 Slide the wireless card from the wireless-card slot on the system board.



- | | | | |
|---|--------------------|---|-----------------------|
| 1 | screw | 2 | wireless-card bracket |
| 3 | antenna cables (2) | 4 | wireless card |
| 5 | wireless-card slot | | |

Replacing the wireless card



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Procedure



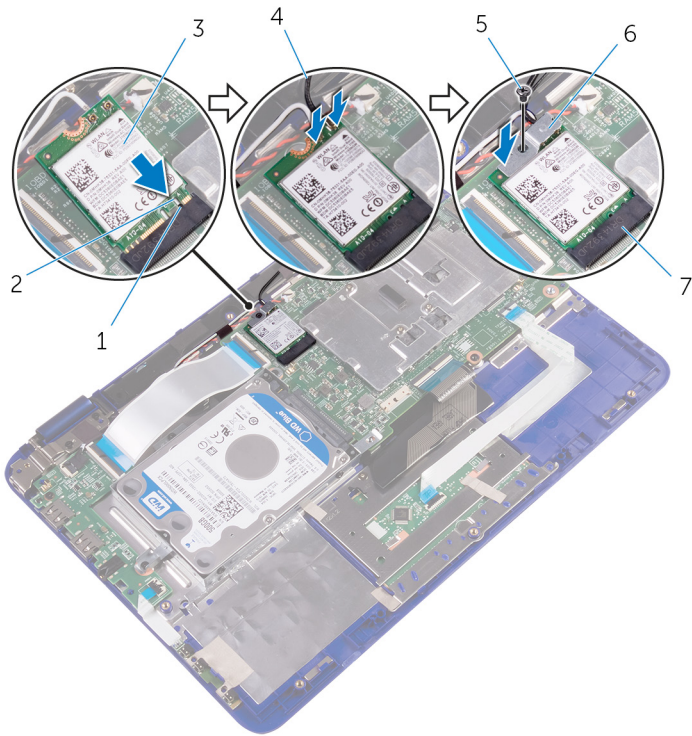
CAUTION: To avoid damage to the wireless card, do not place any cables under it.

- 1 Align the notch on the wireless card with the tab on the wireless-card slot on the system board.
- 2 Insert the wireless card at an angle into the wireless-card slot.
- 3 Align the screw hole on the wireless card with the screw hole on the system board.
- 4 Replace the screw that secures the wireless card to the system board.
- 5 Connect the antenna cables to the wireless card.

- 6 Align the screw hole on the wireless-card bracket with the screw hole on the wireless card and tighten the captive screw that secures the wireless-card bracket to the wireless card,

The following table provides the antenna-cable color scheme for the wireless card supported by your computer.

| Connectors on the wireless card | Antenna-cable color |
|---------------------------------|---------------------|
| Main (white triangle) | white |
| Auxiliary (black triangle) | black |



- | | | | |
|---|--------------------|---|-----------------------|
| 1 | tab | 2 | notch |
| 3 | wireless card | 4 | antenna cables (2) |
| 5 | screw | 6 | wireless-card bracket |
| 7 | wireless-card slot | | |



Post-requisites

- 1 Replace the [battery](#).
- 2 Replace the [base cover](#).



Removing the coin-cell battery



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CAUTION: Removing the coin-cell battery resets the BIOS setup program's settings to default. It is recommended that you note the BIOS setup program's settings before removing the coin-cell battery.

Prerequisites

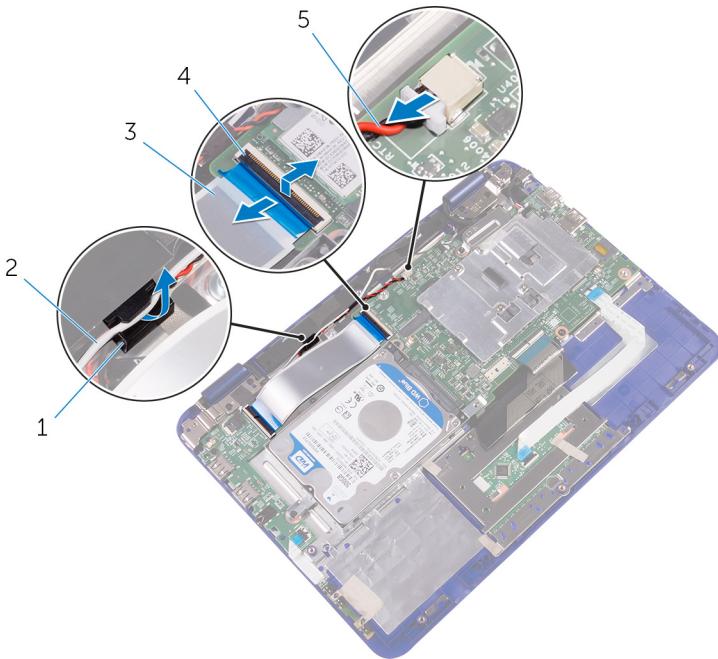
- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).

Procedure

- 1 Disconnect the coin-cell battery cable from the system board.
- 2 Take out the antenna and coin-cell battery cables from the routing guide on the right speaker.



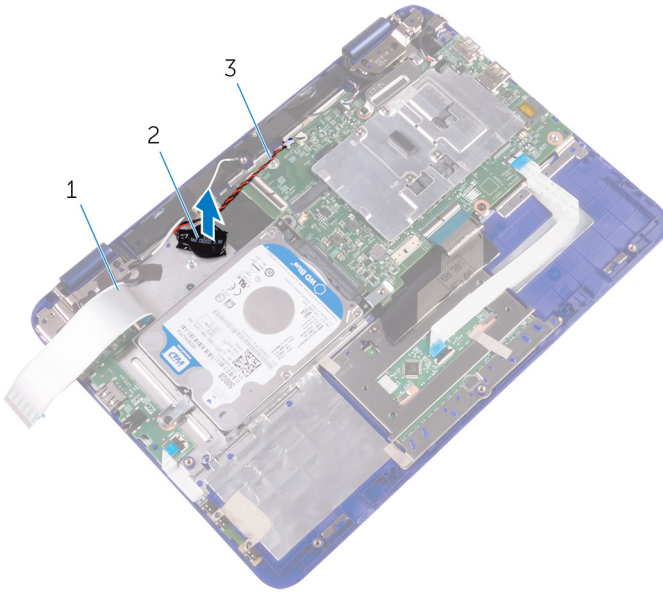
- 3** Open the latch and disconnect the I/O-board cable from the system board.



- | | | | |
|---|-------------------------|---|---------------|
| 1 | routing guide | 2 | antenna cable |
| 3 | I/O-board cable | 4 | latch |
| 5 | coin-cell battery cable | | |

- 4** Turn the I/O-board cable over to expose the coin-cell battery.

- 5** Pry the coin-cell battery from the palm-rest assembly.



1 I/O-board cable

2 coin-cell battery

3 coin-cell battery cable



Replacing the coin-cell battery



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Procedure

- 1 With the positive-side facing up, place the coin-cell battery into the battery socket on the system board.
- 2 Route the coin-cell battery cable through its routing guides on the right speaker.
- 3 Connect the coin-cell battery cable to the system board.
- 4 Turn the I/O-board cable over to cover the coin-cell battery.
- 5 Slide the I/O-board cable into its slot on the system board and press down the latch to secure the cable.

Post-requisites

- 1 Replace the [battery](#).
- 2 Replace the [base cover](#).

Removing the speakers



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Prerequisites

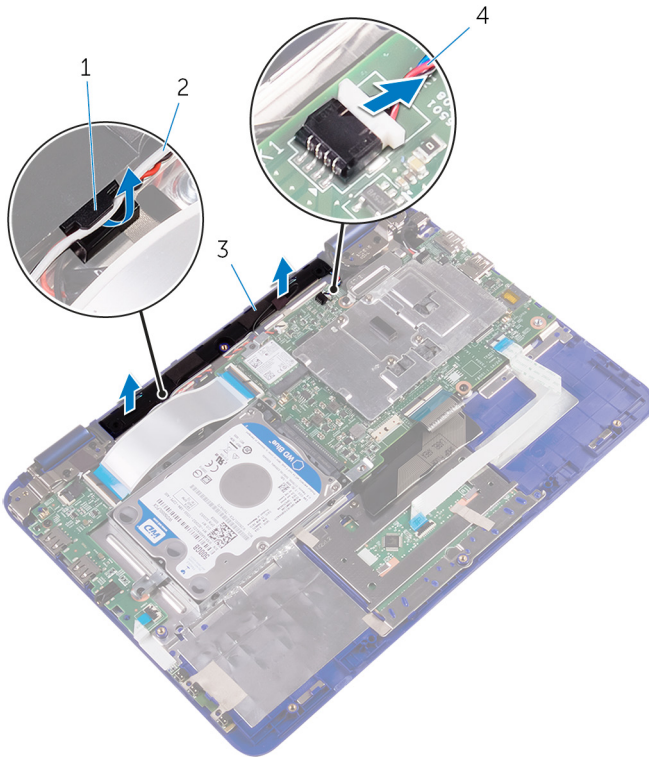
- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).

Procedure

- 1 Disconnect the speaker cable from the system board.
- 2 Remove the coin-cell battery and antenna cables from the routing guides on the right speaker.



- 3** Release the speakers from the alignment posts and lift the speakers off the palmrest and keyboard assembly.



1 routing guide

2 coin-cell and antenna cables

3 speakers (2)

4 speaker cable

Replacing the speakers



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Procedure

- 1 Using the alignment posts on the palmrest and keyboard assembly, place the speakers on the palmrest and keyboard assembly.
- 2 Route the coin-cell battery and antenna cables through the routing guides on the palmrest and keyboard assembly.
- 3 Connect the speaker cable to the system board.

Post-requisites

- 1 Replace the [battery](#).
- 2 Replace the [base cover](#).



Removing the touch pad



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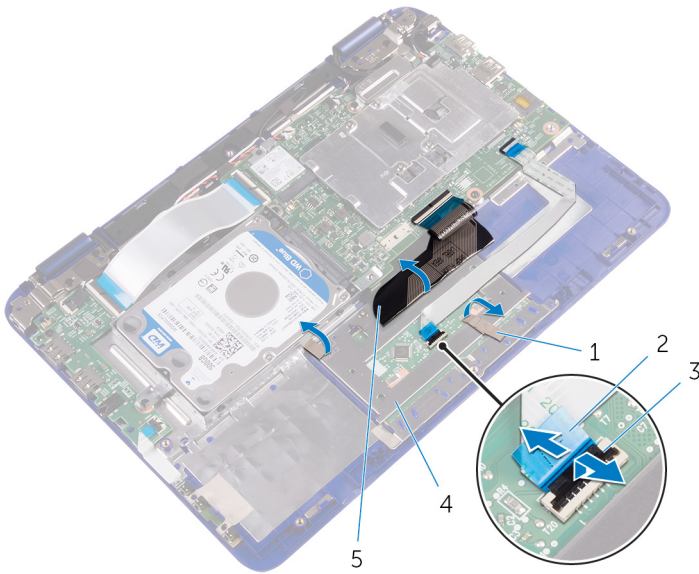
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).

Procedure

- 1 Open the latch and disconnect the touch-pad cable from the touch pad.
- 2 Peel the tapes from the touch pad.

- 3** Turn the keyboard cable over and place it on the system board.



1 tapes

2 touch-pad cable

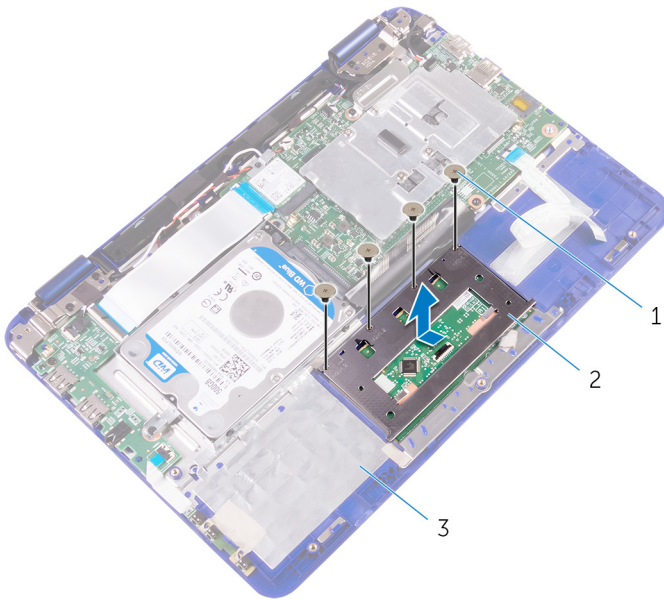
3 latch

4 touch pad

5 keyboard cable

- 4** Remove the screws that secure the touch pad to the palmrest and keyboard assembly.

- 5** Slide and remove the touch pad away from the palmrest and keyboard assembly.



- 1 screws (4) 2 touch pad
3 palmrest and keyboard
assembly

Replacing the touch pad



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Procedure

- 1 Slide the tabs on the touch pad into the slots on the palmrest and keyboard assembly.
- 2 Align the screw holes on the touch pad with the screw holes on the palmrest and keyboard assembly.
- 3 Replace the screws that secure the touch pad to the palmrest and keyboard assembly.
- 4 Place the keyboard cable over the touch pad.
- 5 Adhere the tapes over the touch pad.
- 6 Slide the touch-pad cable into its slot on the touch pad and press down the latch to secure the cable.

Post-requisites

- 1 Replace the [battery](#).
- 2 Replace the [base cover](#).



Removing the display assembly



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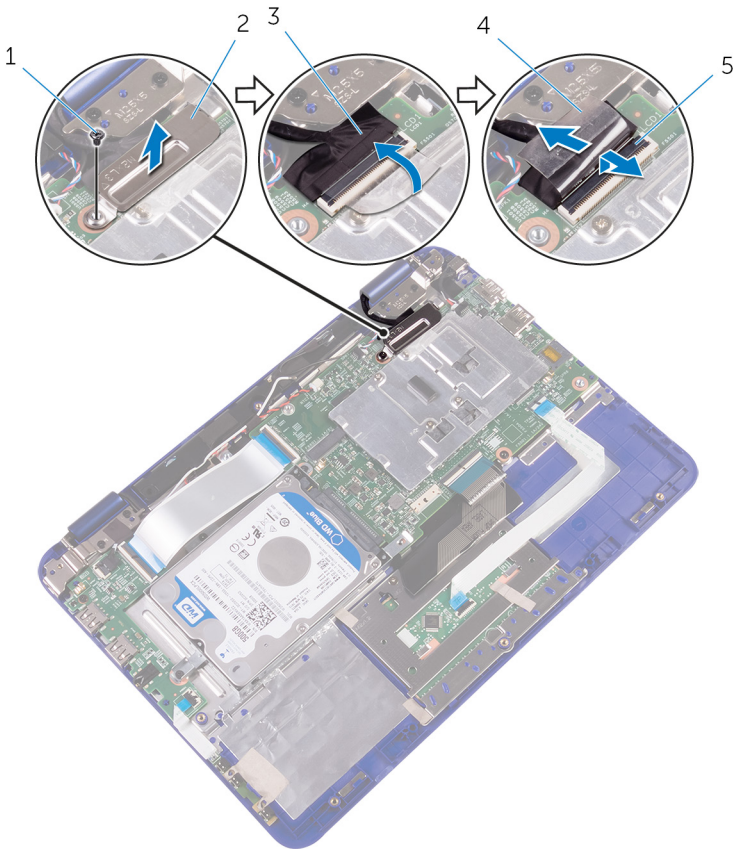
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).

Procedure

- 1 Remove the screw that secures the display-cable bracket to the system board.
- 2 Lift the display-cable bracket off the system board.
- 3 Peel off the tape to access the display cable.

- 4** Open the latch and disconnect the display cable.



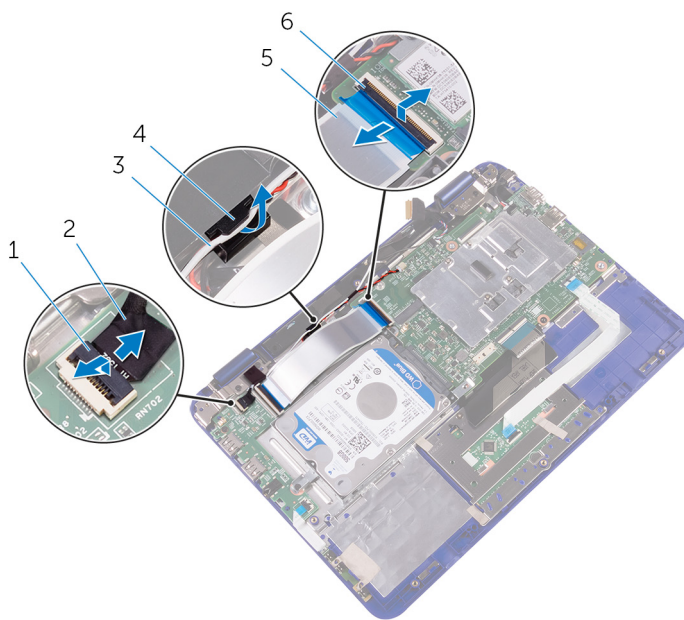
- | | | | |
|---|---------------|---|-----------------------|
| 1 | screw | 2 | display-cable bracket |
| 3 | display cable | 4 | tape |
| 5 | latch | | |

- 5** Open the latch and disconnect the sensor-board cable from the I/O board.

- 6** Remove the antenna cable from the routing guide on the right speaker.

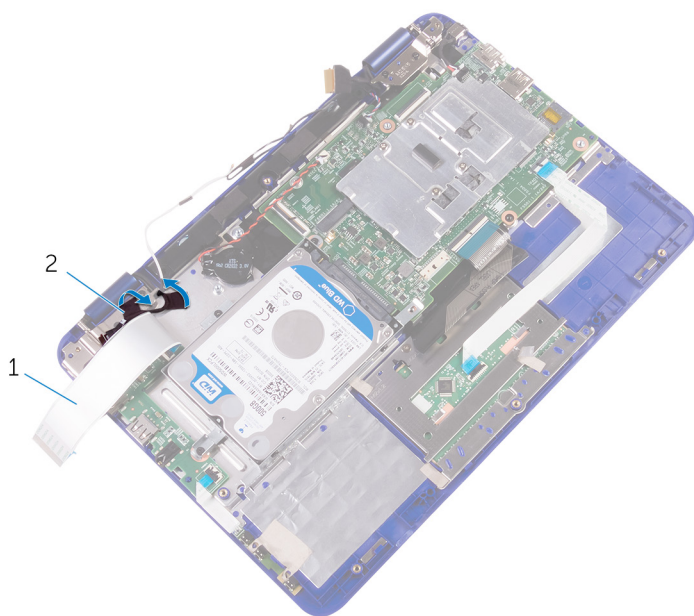


- 7 Open the latch and disconnect the I/O-board cable from the system board.



- | | | | |
|---|-----------------|---|--------------------|
| 1 | latch | 2 | sensor-board cable |
| 3 | antenna cable | 4 | routing guide |
| 5 | I/O-board cable | 6 | latch |

- 8** Peel the tapes off the display hinges.



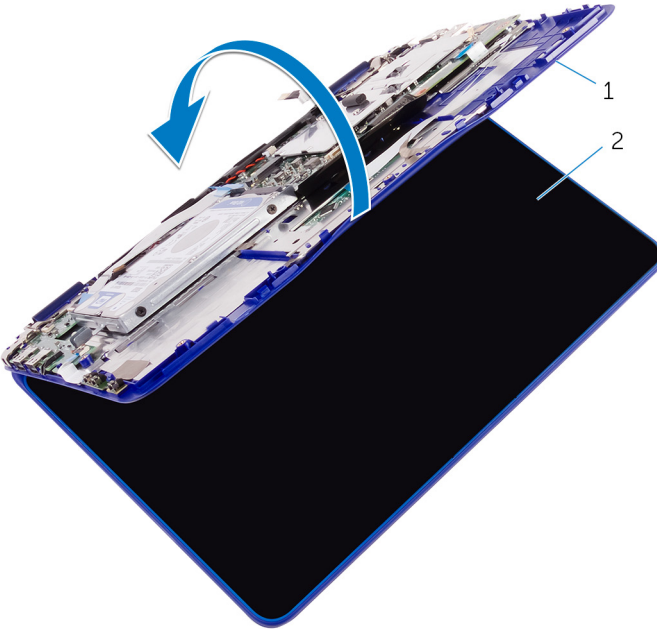
1 I/O-board cable

2 tape



- 9 Turn the computer over and open the display as far as possible.

 **CAUTION: Place the computer on a soft and clean surface to avoid scratching the display.**

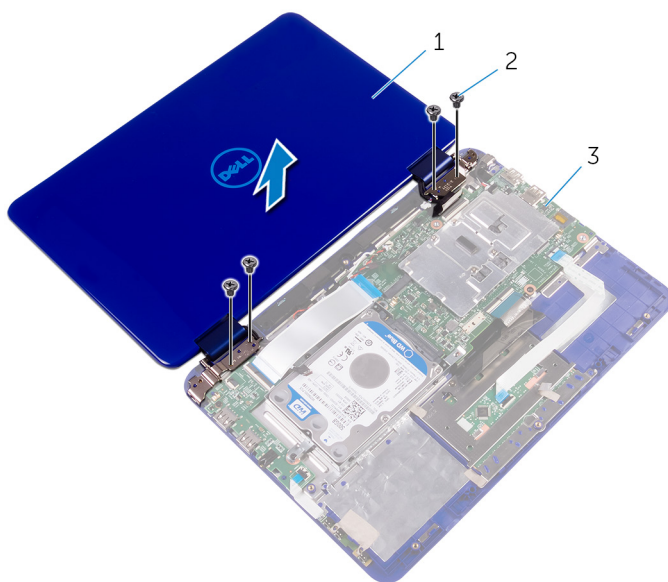


1 palm-rest assembly

2 display assembly

- 10 Place the computer face down on a flat surface.
- 11 Remove the screws that secure the display assembly to the palmrest and keyboard assembly.

- 12** Lift the display assembly off the palmrest and keyboard assembly.



1 display assembly

2 screws (4)

3 palmrest and keyboard
assembly

Replacing the display assembly



WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

Post-requisites

- 1 Replace the [wireless card](#).
- 2 Replace the [battery](#).
- 3 Replace the [base cover](#).

Procedure



CAUTION: Place the computer on a soft and clean surface to avoid scratching the display.

- 1 Place the display assembly on the palmrest and keyboard assembly.
- 2 Align the screw holes on the display hinges with the screw holes on the palmrest and keyboard assembly.
- 3 Replace the screws that secure the display assembly to the palmrest and keyboard assembly.
- 4 Turn the computer over and close the display.
- 5 Slide the I/O-board cable into its slot on the system board and press down the latch to secure the cable.
- 6 Route the antenna cable through its routing on the right speaker.
- 7 Slide the sensor-board cable into its slot on the I/O board and press down the latch to secure the cable.
- 8 Slide the display cable into its slot on the system board and press down the latch to secure the cable.
- 9 Adhere the tape on the display cable.

- 10** Align the screw hole on the display-cable bracket with the screw hole on the system board.
- 11** Replace the screw that secures the display-cable bracket to the system board.



Removing the system board



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NOTE: Your computer's Service Tag is stored in the system board. You must enter the Service Tag in the BIOS setup program after you replace the system board.



NOTE: Replacing the system board removes any changes you have made to the BIOS using the BIOS setup program. You must make the appropriate changes again after you replace the system board.



NOTE: Before disconnecting the cables from the system board, note the location of the connectors so that you can reconnect the cables correctly after you replace the system board.

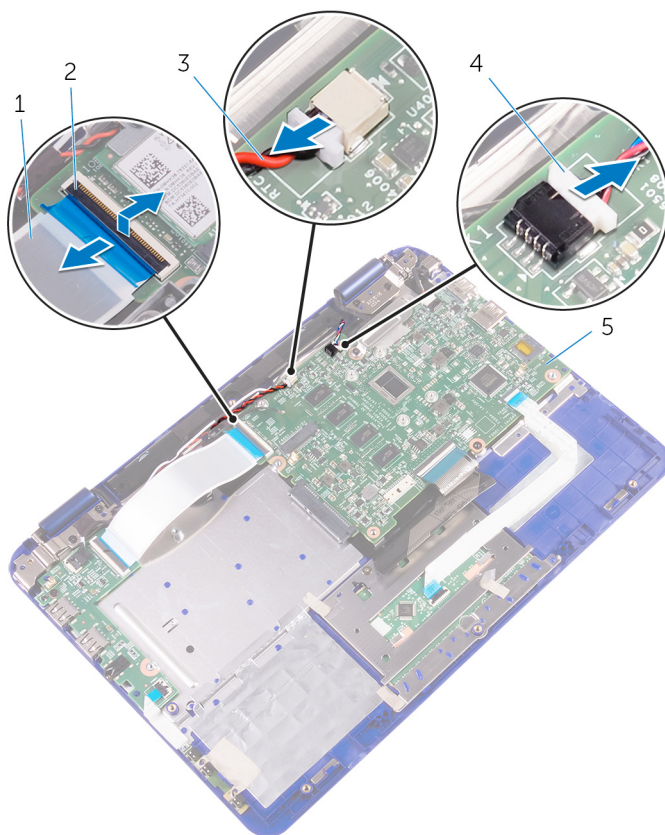
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Follow the procedure from "[Removing the hard drive](#)" (Only for computers shipped with a hard drive).

Procedure

- 1 Open the latch and disconnect the I/O-board cable from the system board.

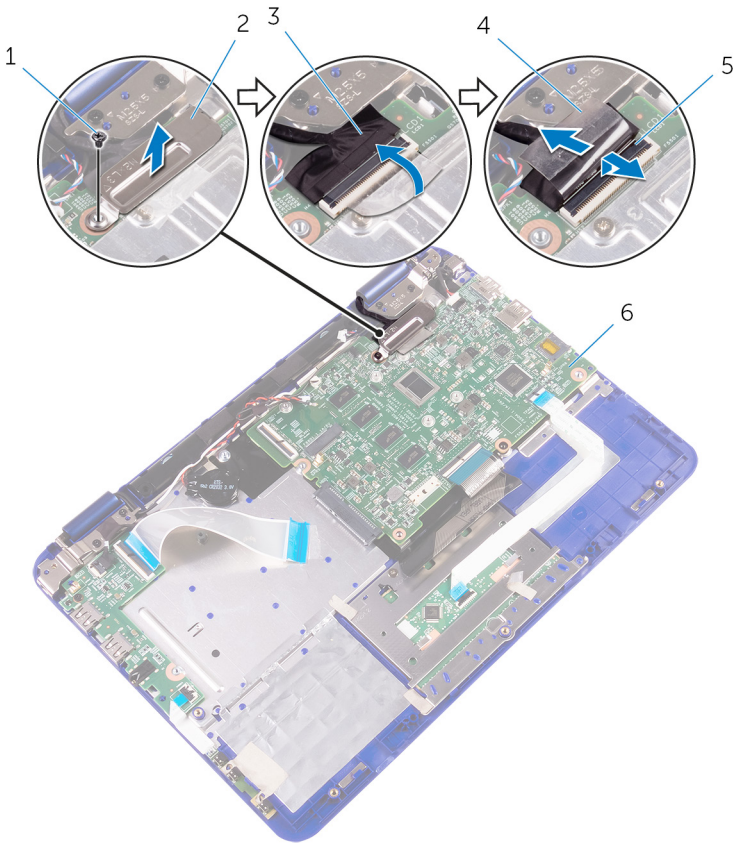
- 2** Disconnect the coin-cell battery and speaker cables from the system board.



- | | | | |
|---|-------------------------|---|---------------|
| 1 | I/O-board cable | 2 | latch |
| 3 | coin-cell battery cable | 4 | speaker cable |
| 5 | system board | | |

- 3** Remove the screw that secures the display-cable bracket to the system board and lift the display-cable bracket off the system board.

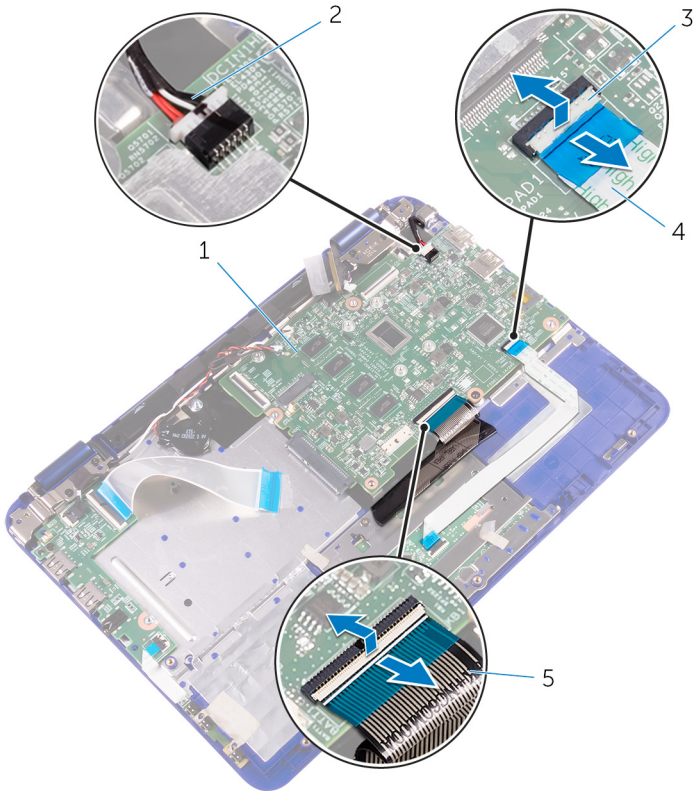
- 4** Disconnect the display cable from the system board.



- | | | | |
|---|---------------|---|-----------------------|
| 1 | screw | 2 | display-cable bracket |
| 3 | display cable | 4 | tape |
| 5 | latch | 6 | system board |

- 5** Open the latch and disconnect the touch-pad cable from the system board.
- 6** Open the latch and disconnect the keyboard cable from the system board.

- 7** Disconnect the power-adaptor port cable from the system board.



- | | | | |
|---|----------------|---|--------------------------|
| 1 | system board | 2 | power-adaptor port cable |
| 3 | latch | 4 | touch-pad cable |
| 5 | keyboard cable | | |

- 8** Remove the screw that secures the system board to the palmrest and keyboard assembly.



- 9 Lift the system board off the palmrest and keyboard assembly.



1 system board

2 palmrest and keyboard assembly

Replacing the system board



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NOTE: Your computer's Service Tag is stored in the system board. You must enter the Service Tag in the BIOS setup program after you replace the system board.



NOTE: Replacing the system board removes any changes you have made to the BIOS using the BIOS setup program. You must make the appropriate changes again after you replace the system board.

Procedure

- 1 Align the screw holes on the system board with the screw holes on the palmrest and keyboard assembly.
- 2 Replace the screw that secures the system board to the palmrest and keyboard assembly.
- 3 Connect the power-adaptor port cable and the speaker cable to the system board.
- 4 Slide the touch-pad cable into the slot on the system board and press down the latch to secure the cable.
- 5 Slide the keyboard cable into its slot on the system board and press down the latch to secure the cable.
- 6 Slide the I/O-board cable into the slot on the system board and press down the latch to secure the cable.
- 7 Align the screw hole on the display-cable bracket to the screw holes on the system board.
- 8 Replace the screw that secures the display-cable bracket to the screw holes on the system board.
- 9 Connect the display cable to the system board.
- 10 Connect the coin-cell battery and speaker cables from the system board.



Post-requisites

- 1 Follow the procedure from step 3 to step 4 in "[Replacing the hard drive](#)".
- 2 Replace the [wireless card](#).
- 3 Replace the [battery](#).
- 4 Replace the [base cover](#).

Entering the Service Tag in the BIOS setup program

- 1 Turn on or restart your computer.
- 2 Press F2 when the Dell logo is displayed to enter the BIOS setup program.
- 3 Navigate to the **Main** tab and enter the Service Tag in the **Service Tag Input** field.



Removing the palm rest and keyboard assembly



WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

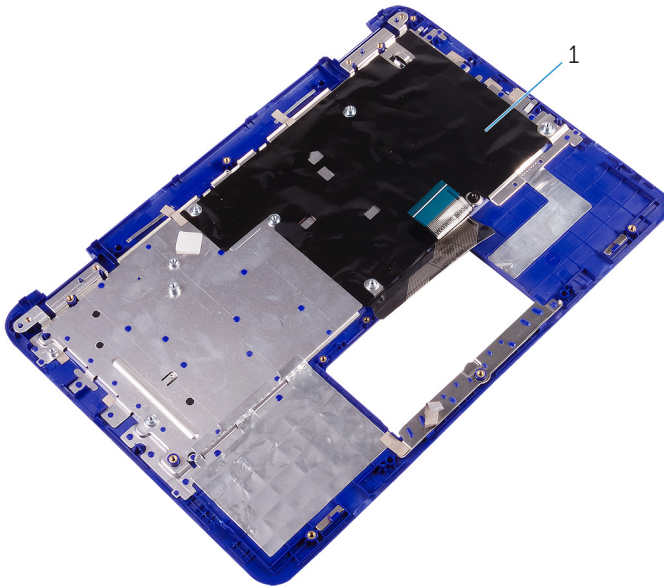
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [power and volume-buttons board](#).
- 4 Remove the [wireless card](#).
- 5 Follow the procedure from “[Removing the hard drive](#)” (Only for computers shipped with a hard drive).
- 6 Remove the [I/O board](#).
- 7 Remove the [power-adapter port](#).
- 8 Remove the [touch pad](#).
- 9 Remove the [speakers](#).
- 10 Remove the [system board](#).
- 11 Remove the [display assembly](#).

Procedure

After performing the steps in prerequisites we are left with the palmrest and keyboard assembly.





- 1 palmrest and keyboard assembly

Replacing the palm rest and keyboard assembly



WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

Procedure

Place the palmrest and keyboard assembly on a flat surface with the keyboard facing down.

Post-requisites

- 1 Replace the [display assembly](#).
- 2 Replace the [system board](#).
- 3 Replace the [speakers](#).
- 4 Replace the [touch pad](#).
- 5 Replace the [power-adapter port](#).
- 6 Replace the [I/O board](#).
- 7 Follow the procedure from step 3 to step 4 in "[Replacing the hard drive](#)".
- 8 Replace the [wireless card](#).
- 9 Replace the [power and volume-buttons board](#).
- 10 Replace the [battery](#).
- 11 Replace the [base cover](#).



Removing the display panel



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Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).

Procedure

- 1 Release the sensor-board cable from the routing guide on the right hinge.
- 2 Release the display cable from the routing guides on the left hinge.

- 3** Using a plastic scribe, pry the display panel off the display-back cover.



- | | | | |
|---|--------------------|---|--------------------|
| 1 | display panel | 2 | display hinges (2) |
| 3 | routing guide | 4 | sensor-board cable |
| 5 | plastic scribe | 6 | display cable |
| 7 | display-back cover | | |

Replacing the display panel



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Procedure



CAUTION: Place the computer on a soft and clean surface to avoid scratching the display.

- 1 Align the display panel on the display-back cover and snap the display panel into place.
- 2 Route the display cable through the routing guide on the left hinge.
- 3 Route the sensor-board cable through the routing guide on the right hinge.

Post-requisites

- 1 Replace the [display assembly](#).
- 2 Replace the [wireless card](#).
- 3 Replace the [battery](#).
- 4 Replace the [base cover](#).

Removing the display hinges



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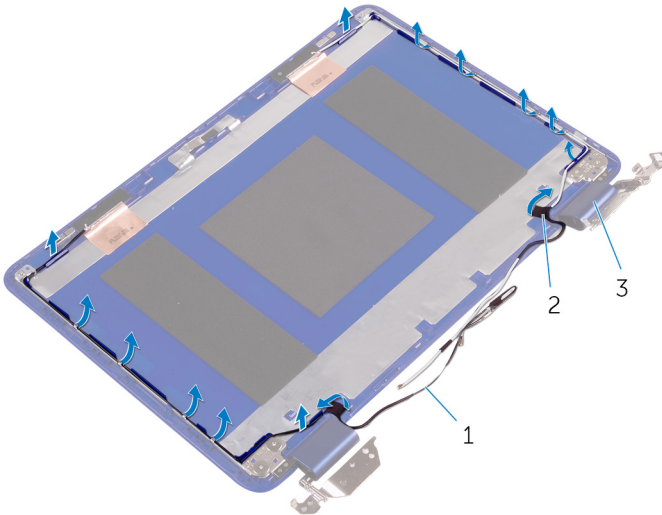
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Remove the [display panel](#).



Procedure

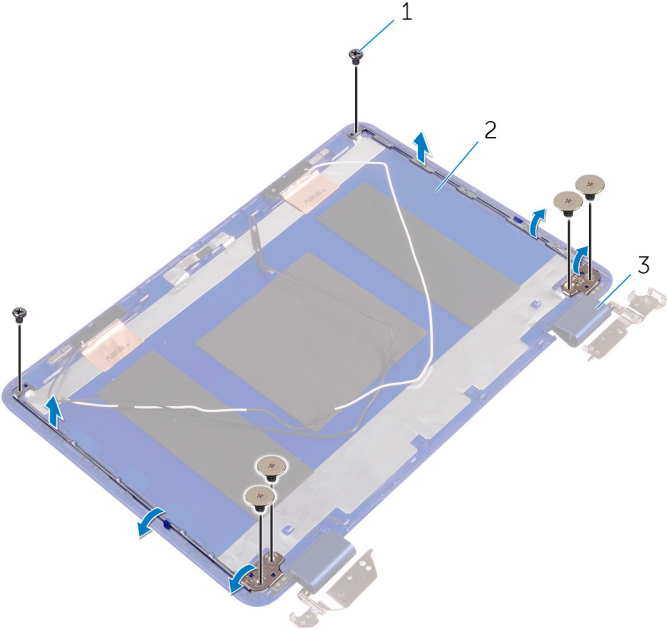
- 1 Peel the tapes and remove the antenna cables from the routing guide on the hinge cover.



- | | | | |
|---|--------------------|---|------|
| 1 | antenna cables (2) | 2 | tape |
| 3 | hinge cover (2) | | |

- 2 Remove the screws that secure the display hinges to the display back-cover and antenna assembly.

3 Lift the display hinges off the display back-cover and antenna assembly.



1 screws (6)

2 display back-cover and antenna assembly

3 hinges (2)



Replacing the display hinges



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Procedure

- 1 Align the screw holes on the display hinges with the screw holes on the display back-cover and antenna assembly.
- 2 Replace the screws that secure the display hinges to the display back-cover and antenna assembly.
- 3 Route the antenna cables through the routing guide on the hinge cover and secure it in place.

Post-requisites

- 1 Replace the [display panel](#).
- 2 Replace the [display assembly](#).
- 3 Replace the [wireless card](#).
- 4 Replace the [battery](#).
- 5 Replace the [base cover](#).

Removing the camera



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Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Remove the [display panel](#).

Procedure

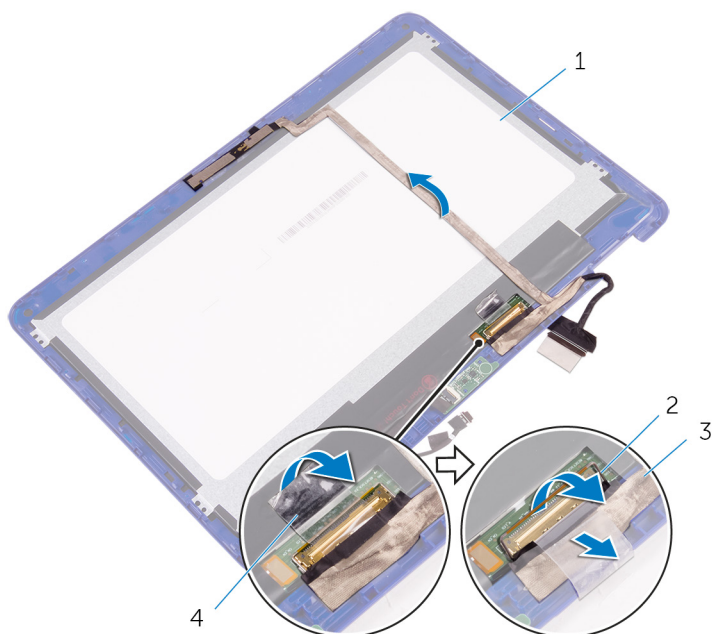


CAUTION: Place the display-panel assembly on a soft and clean surface to avoid scratching the display.

- 1 Peel the tape to access the latch for the display cable.
- 2 Open the latch and disconnect the display cable.



- 3** Peel the tape that secures the display cable to the display panel.



1 display panel

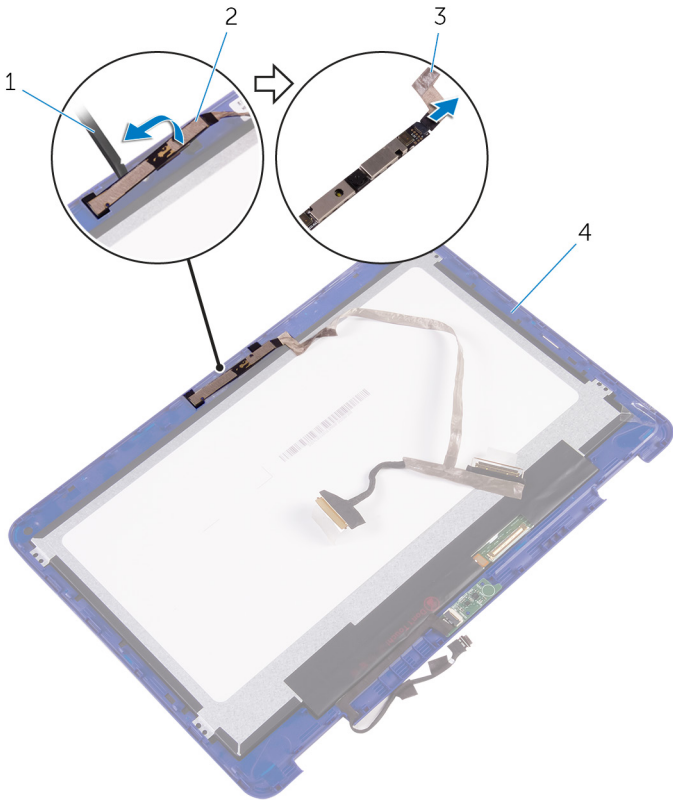
2 latch

3 display cable

4 tape

- 4** Using a plastic scribe, pry the camera off the display-back cover.

- 5** Turn over the camera and disconnect the camera cable from the camera.



1 plastic scribe

2 camera

3 camera cable

4 display-back cover



Replacing the camera



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Procedure

- 1 Connect the camera cable to the camera.
- 2 Using the alignment post, place the camera on the display-back cover and snap it into place.
- 3 Slide the display cable into its slot on the display-back cover and press down the latch to secure the cable.
- 4 Adhere the tape on the display-cable connector.
- 5 Adhere the tape to secure the display cable to the display panel.

Post-requisites

- 1 Replace the [display panel](#).
- 2 Replace the [display assembly](#).
- 3 Replace the [wireless card](#).
- 4 Replace the [battery](#).
- 5 Replace the [base cover](#).

Removing the sensor board



WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Remove the [display panel](#).

Procedure

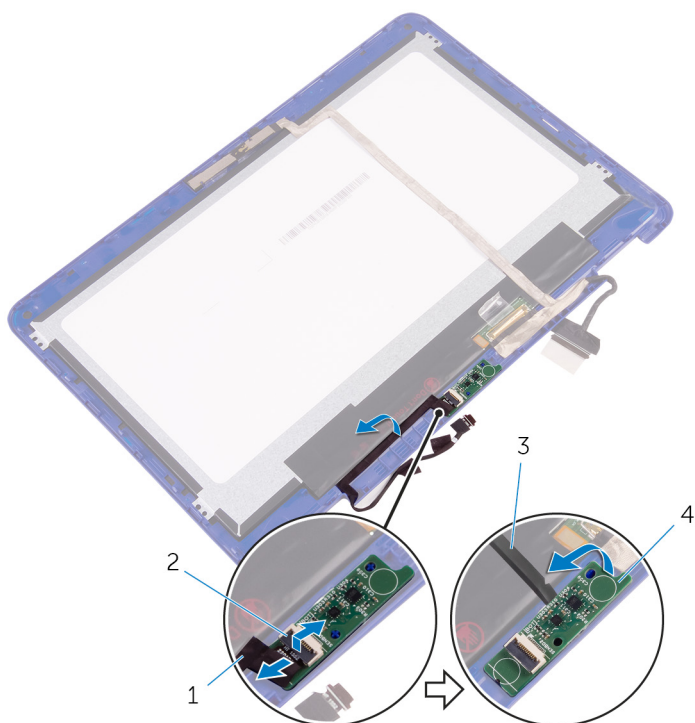


CAUTION: Place the display-panel assembly on a soft and clean surface to avoid scratching the display.

- 1 Open the latch and disconnect the sensor-board cable from the sensor board.



- 2** Using a plastic scribe, pry the sensor board off the display-back cover.



1 sensor-board cable

2 latch

3 plastic scribe

4 sensor board

Replacing the sensor board



WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, see the Regulatory Compliance home page at www.dell.com/regulatory_compliance.

Procedure

- 1 Align the sensor board on the display-back cover and snap the sensor board into place.
- 2 Slide the sensor-board cable into the slot on the sensor board and press down the latch to secure the cable.

Post-requisites

- 1 Replace the [display panel](#).
- 2 Replace the [display assembly](#).
- 3 Replace the [wireless card](#).
- 4 Replace the [battery](#).
- 5 Replace the [base cover](#).



Flashing the BIOS

You may need to flash (update) the BIOS when an update is available or when you replace the system board. To flash the BIOS:

- 1 Turn on your computer.
- 2 Go to www.dell.com/support.
- 3 Click **Product support**, enter the Service Tag of your computer, and then click **Submit**.



NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

- 4 Click **Drivers & downloads** → **Find it myself**.
- 5 Select the operating system installed on your computer.
- 6 Scroll down the page and expand **BIOS**.
- 7 Click **Download** to download the latest version of the BIOS for your computer.
- 8 After the download is complete, navigate to the folder where you saved the BIOS update file.
- 9 Double-click the BIOS update file icon and follow the instructions on the screen.

Getting help and contacting Dell

Self-help resources

You can get information and help on Dell products and services using these self-help resources:

Information about Dell products and services

www.dell.com

Windows 8.1 and Windows 10

Dell Help & Support app



Windows 10

Get started app



Windows 8.1

Help + Tips app



Accessing help in Windows 8, Windows 8.1, and Windows 10

In Windows search, type **Help and Support**, and press Enter.

Accessing help in Windows 7

Click **Start** → **Help and Support**.

Online help for operating system

www.dell.com/support/windows

www.dell.com/support/linux

Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on.

www.dell.com/support

Learn about your operating system, setting up and using your computer, data backup, diagnostics, and so on.

See *Me and My Dell* at www.dell.com/support/manuals.



Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.



NOTE: Availability varies by country and product, and some services may not be available in your country.



NOTE: If you do not have an active internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.