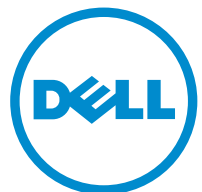


Inspiron 17

7000 Series 2-in-1

Service Manual

Computer Model: Inspiron 17-7778
Regulatory Model: P30E
Regulatory Type: P30E001



Notes, cautions, and warnings



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



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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2016-05

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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 or tap **Start** →  **Power** → **Shut down**.
- Windows 8.1: On the **Start** screen, click or tap the power icon  → **Shut down**.
- Windows 7: Click or tap **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 cables such as telephone cables, network cables, and so on, from your computer.
- 5 Disconnect all attached devices and peripherals, such as keyboard, mouse, monitor, and so on, from your computer.
- 6 Remove any media card and optical disc from your computer, if applicable.

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:

- Phillips screwdriver

- Plastic scribe


After working inside your computer



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

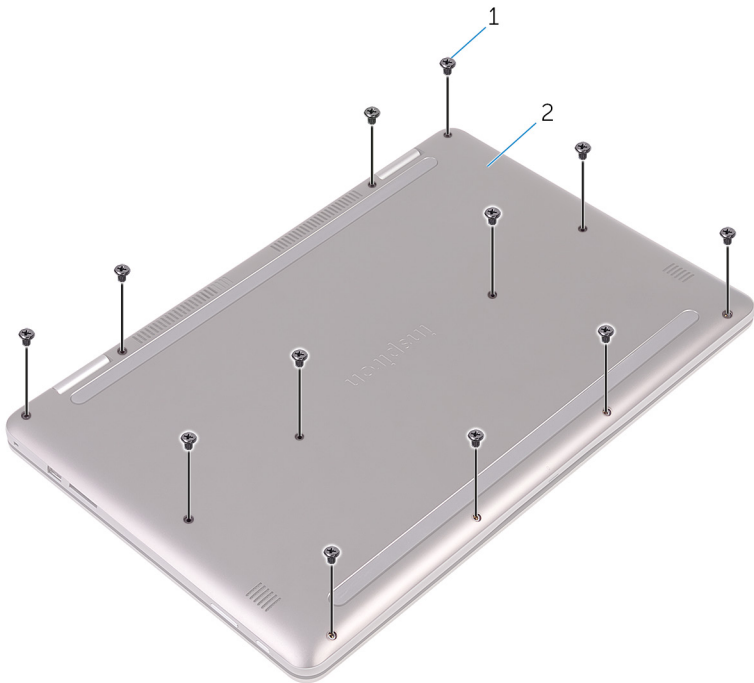
- 1 Replace all screws and ensure that no stray screws remain inside your computer.
- 2 Connect any external devices, peripherals, or cables you removed before working on your computer.
- 3 Replace any media cards, discs, or any other parts that you removed before working on your computer.
- 4 Connect 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 Remove the screws that secure the base cover to the palm-rest assembly.



1 screws (12)

2 base cover

3 Using your fingertips, pry the base cover off the palm-rest assembly.



1 palm-rest assembly

2 base cover

Replacing 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 Align the base cover with the palm-rest assembly and snap it into place.
- 2 Replace the screws that secure the base cover to the palm-rest assembly.

Removing the battery



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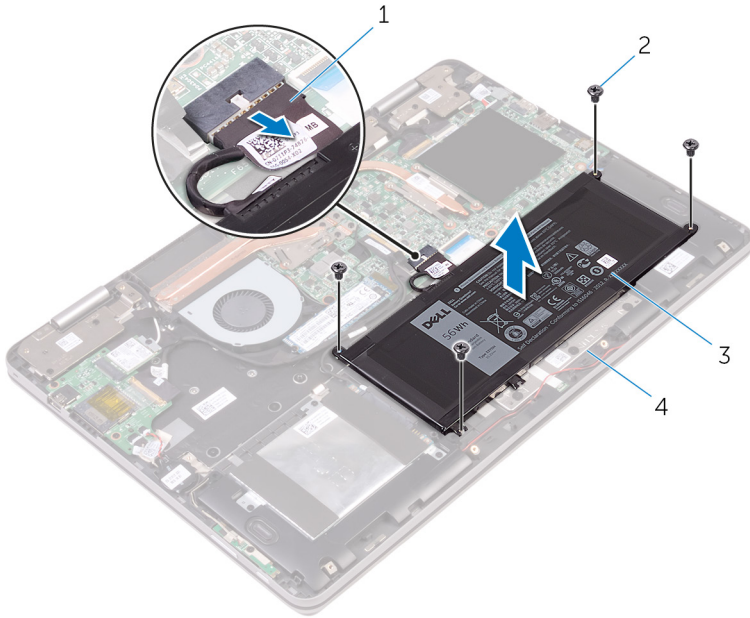
Prerequisites

Remove the [base cover](#).

Procedure

- 1 Disconnect the battery cable from the system board.
- 2 Remove the screws that secure the battery to the palm-rest assembly.

3 Lift the battery off the palm-rest assembly.



1 battery cable

2 screws (4)

3 battery

4 palm-rest assembly

4 Press and hold the power button for five seconds to ground the system board.

Replacing the battery



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Procedure

- 1 Align the screw holes on the battery with the screw holes on the palm-rest assembly.
- 2 Replace the screws that secure the battery to the palm-rest assembly.
- 3 Connect the battery cable to the system board.

Post-requisites

Replace the [base cover](#).

Removing the memory modules

 **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](#).

Procedure

- 1 Lift the Mylar to access the memory module.

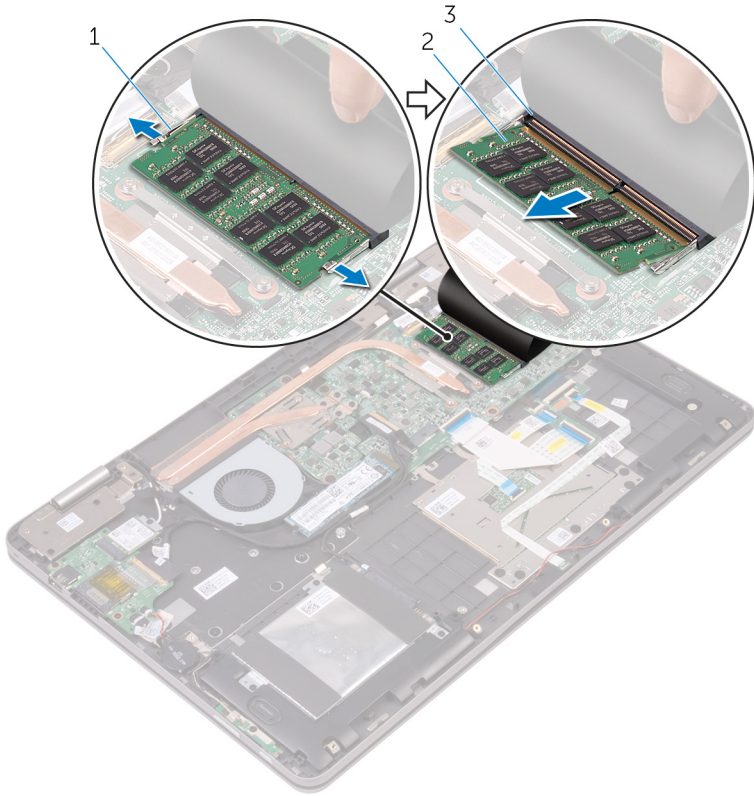


1 memory module

2 Mylar

- 2 Use your fingertips to carefully spread apart the securing-clips on each end of the memory-module slot until the memory module pops up.

3 Slide and remove the memory module from the memory-module slot.




1 securing clips (2)

2 memory module

3 memory-module slot


Replacing the memory modules

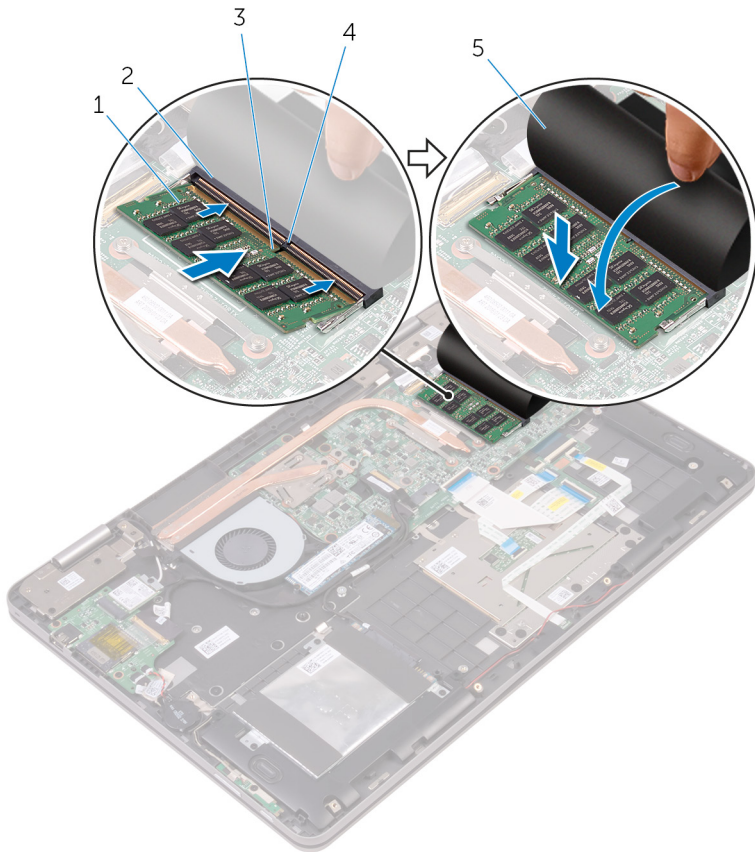
 **WARNING:** Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best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

Procedure

- 1 Lift the Mylar to access the memory-module slot.
- 2 Align the notch on the memory module with the tab on the memory-module slot.

- 3 Slide the memory module firmly into the slot at an angle and press the memory module down until it clicks into place.

 **NOTE:** If you do not hear the click, remove the memory module and reinstall it.



- 1 memory module
- 3 notch
- 5 Mylar


- 2 memory-module slot
- 4 tab


Post-requisites


- 1 Replace the [battery](#).

2 Replace the [base cover](#).

Removing the solid-state 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:** Solid-state drives are fragile. Exercise care when handling the solid-state drive.

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

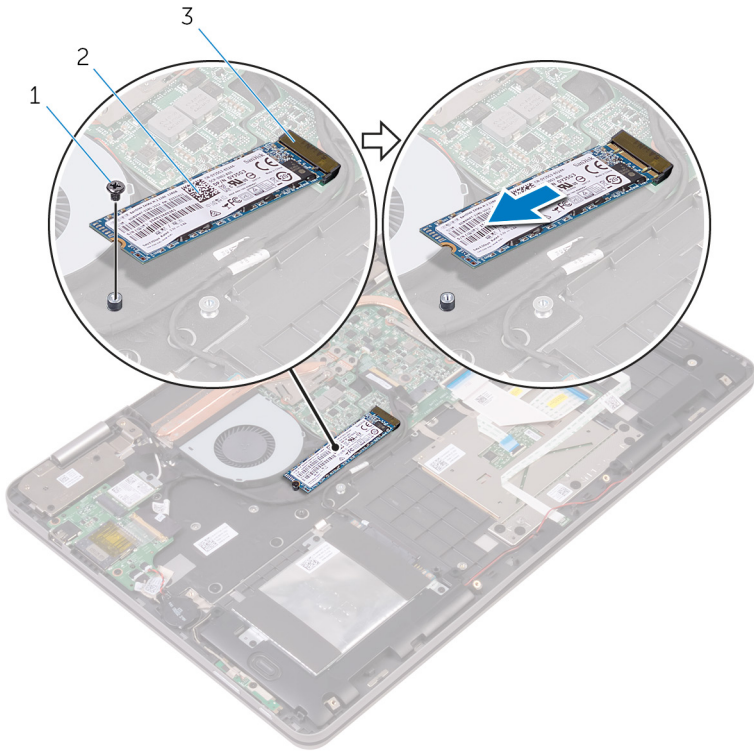
Prerequisites

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

Procedure

- 1 Remove the screw that secures the solid-state drive to the palm-rest assembly.

2 Slide and remove the solid-state drive from the solid-state drive slot.





1 screw

2 solid-state drive

3 solid-state drive slot

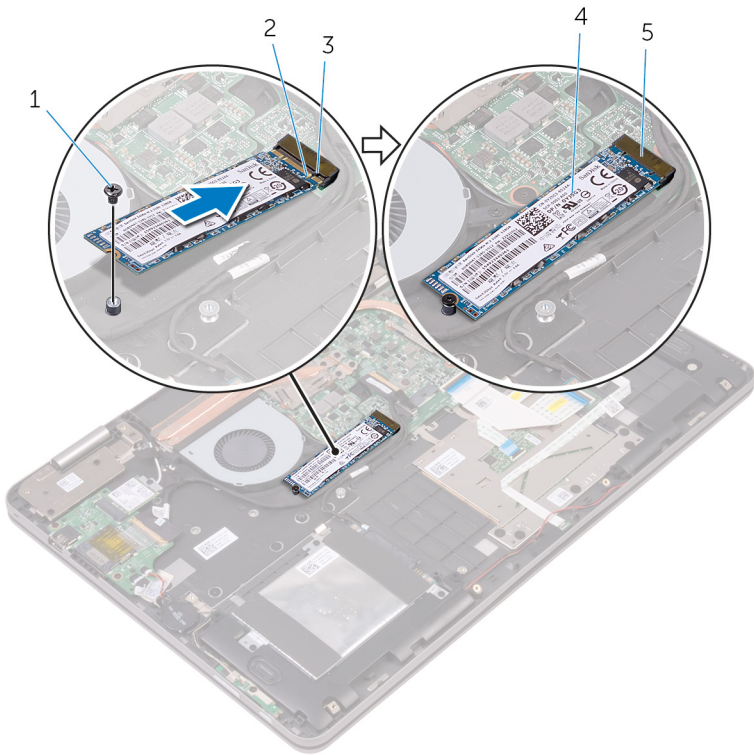
Replacing the solid-state drive

-  **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:** Solid-state drives are fragile. Exercise care when handling the solid-state drive.

Procedure

- 1 Align the notch on the solid-state drive with the tab on the solid-state drive slot.
- 2 Slide the solid-state drive firmly into the solid-state drive slot at an angle.

- 3 Press the other end of the solid-state drive and replace the screw that secures the solid-state drive to the palm-rest assembly.



1 screw

3 tab

5 solid-state drive slot


2 notch

4 solid-state drive


Post-requisites

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

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.

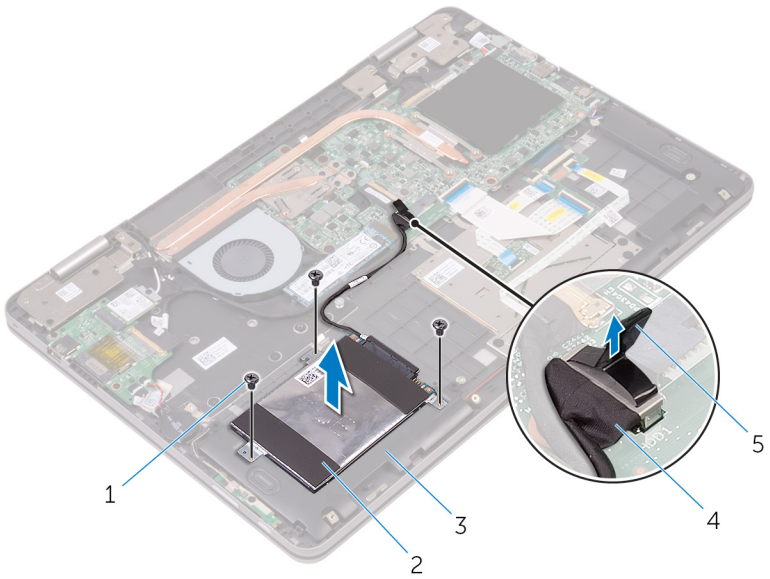
Prerequisites

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

Procedure

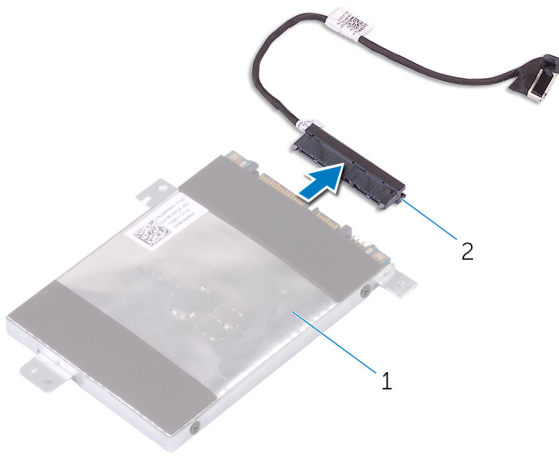
- 1 Remove the screws that secure the hard-drive assembly to the palm-rest assembly.
- 2 Using the pull tab, disconnect the hard-drive cable from the system board.

3 Lift the hard-drive assembly, along with its cable, off the palm-rest assembly.



- | | | | |
|---|--------------------|---|---------------------|
| 1 | screws (3) | 2 | hard-drive assembly |
| 3 | palm-rest assembly | 4 | hard-drive cable |
| 5 | pull tab | | |

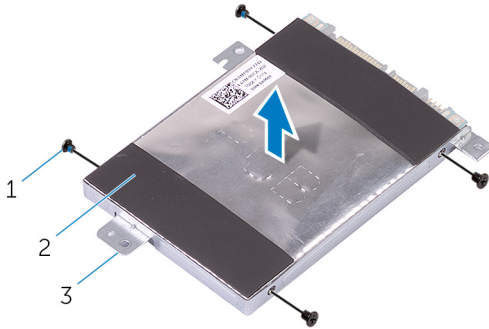
- 4 Disconnect the interposer from the hard-drive assembly.



1 hard-drive assembly

2 interposer

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





1 screws (4)

2 hard drive

3 hard-drive bracket

Replacing 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.



Procedure

- 1 Align the screw holes on the hard-drive bracket with the screw holes on the hard drive.
- 2 Replace the screws that secure the hard-drive bracket to the hard drive.
- 3 Connect the interposer to the hard-drive assembly.
- 4 Align the screw holes on the hard-drive assembly with the screw holes on the palm-rest assembly.
- 5 Replace the screws that secure the hard-drive assembly to the palm-rest assembly.
- 6 Connect the hard-drive cable to the system board.

Post-requisites

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

Removing the coin-cell battery

-  **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:** 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.

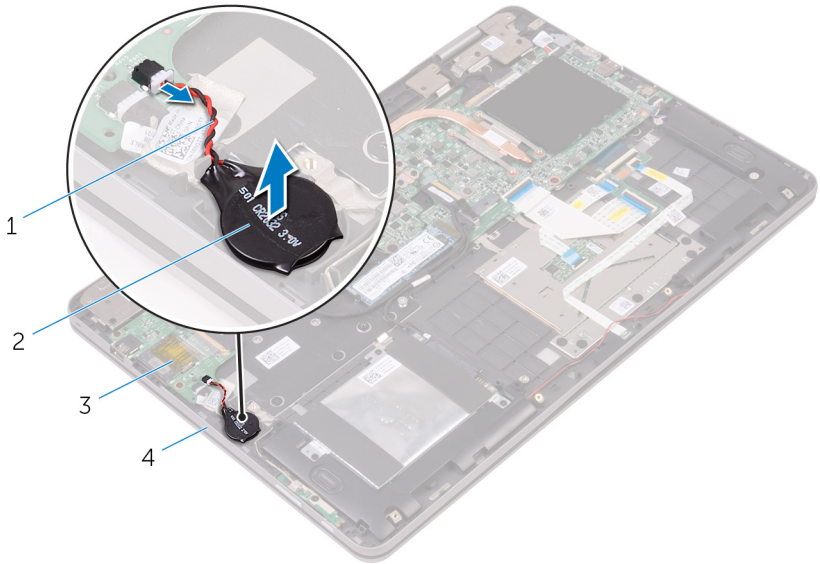
Prerequisites

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

Procedure

- 1 Disconnect the coin-cell battery cable from the I/O board.

2 Peel the coin-cell battery off the palm-rest assembly.



1 coin-cell battery cable

2 coin-cell battery

3 I/O board

4 palm-rest assembly

Replacing the coin-cell battery



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Procedure

- 1 Adhere the coin-cell battery to the palm-rest assembly.
- 2 Connect the coin-cell battery cable to the I/O board.

Post-requisites

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

Removing the wireless card



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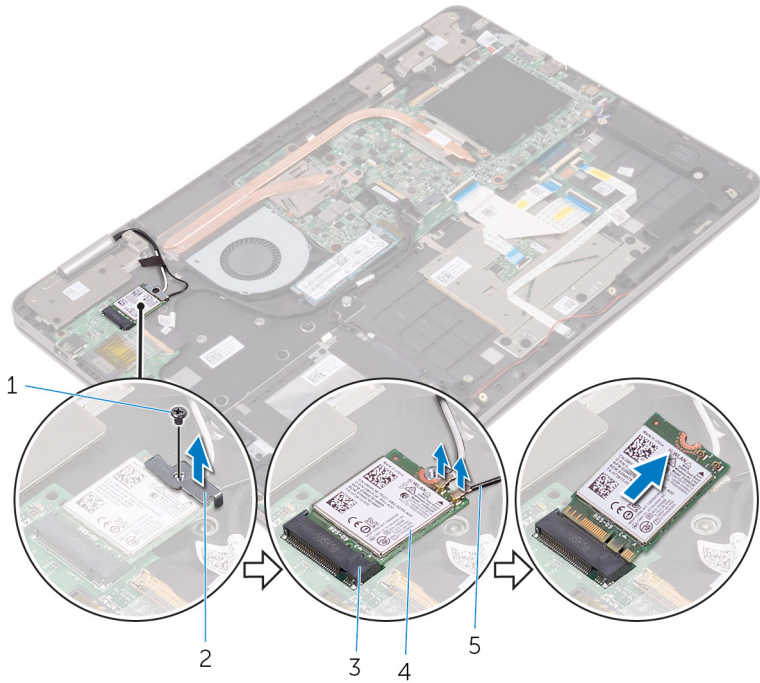
Prerequisites

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

Procedure


- 1 Remove the screw that secures the wireless-card bracket to the wireless card and palm-rest assembly.
- 2 Remove the wireless-card bracket and disconnect the antenna cables from the wireless card.

3 Slide and remove the wireless card from the wireless-card slot.




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

Replacing the wireless card

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Procedure

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

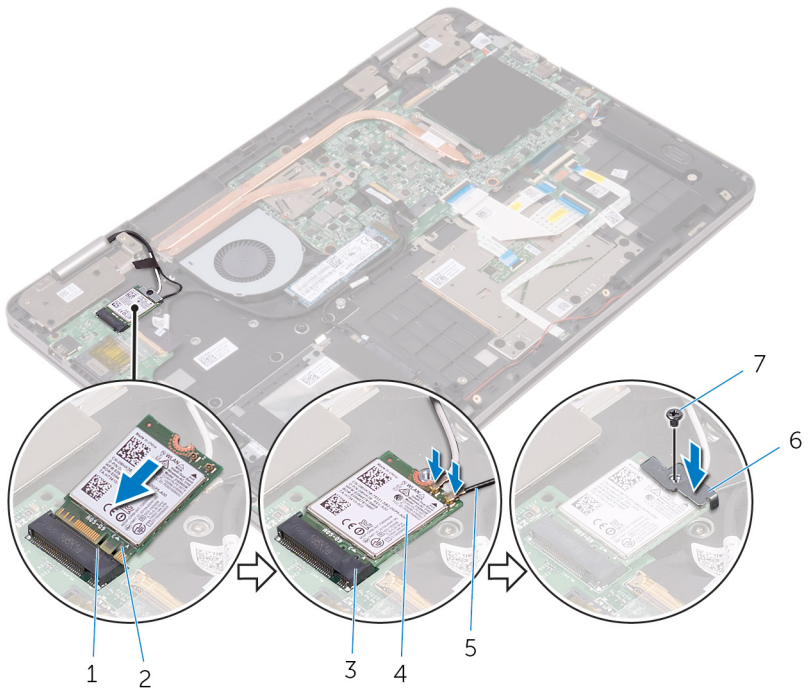
- 1 Align the notch on the wireless card with the tab on the wireless-card slot.
- 2 Insert the wireless card at an angle into the wireless-card slot.
- 3 Connect the antenna cables to the wireless card.

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

- 4 Align the screw hole on the wireless-card bracket with the screw hole on the wireless card and palm-rest assembly.

- 5 Replace the screw that secures the wireless-card bracket to the wireless card and palm-rest assembly.



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

Post-requisites

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

Removing the keyboard daughter-board



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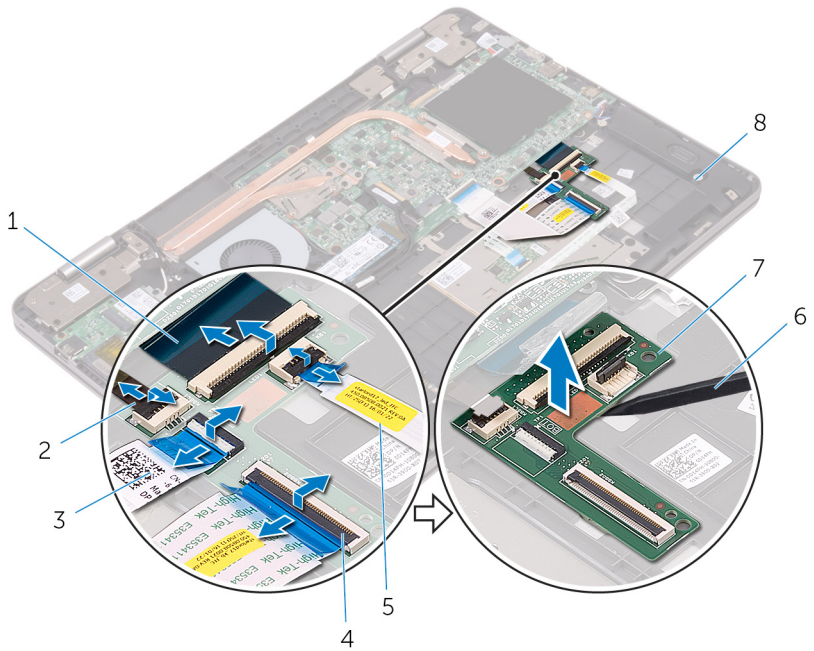
Prerequisites

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

Procedure


- 1 Open the latches and disconnect the keyboard cables, keyboard-backlight cable, status-light board cable and the touch-pad cable from the keyboard daughter-board.

- 2 Using a plastic scribe, gently pry out the keyboard daughter-board from the palm-rest assembly.



- | | | | |
|---|--------------------------|---|--------------------------|
| 1 | keyboard cables (2) | 2 | keyboard backlight-cable |
| 3 | touch-pad cable | 4 | latches (5) |
| 5 | status-light board cable | 6 | plastic scribe |
| 7 | keyboard daughter-board | 8 | palm-rest assembly |

Replacing the keyboard daughter-board

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Procedure

- 1 Adhere the keyboard daughter-board to the palm-rest assembly.
- 2 Slide the keyboard cables, keyboard-backlight cable, status-light board cable and the touch-pad cable into their respective connectors on the keyboard daughter-board and close the latches to secure the cables.

Post-requisites

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

Removing the speakers



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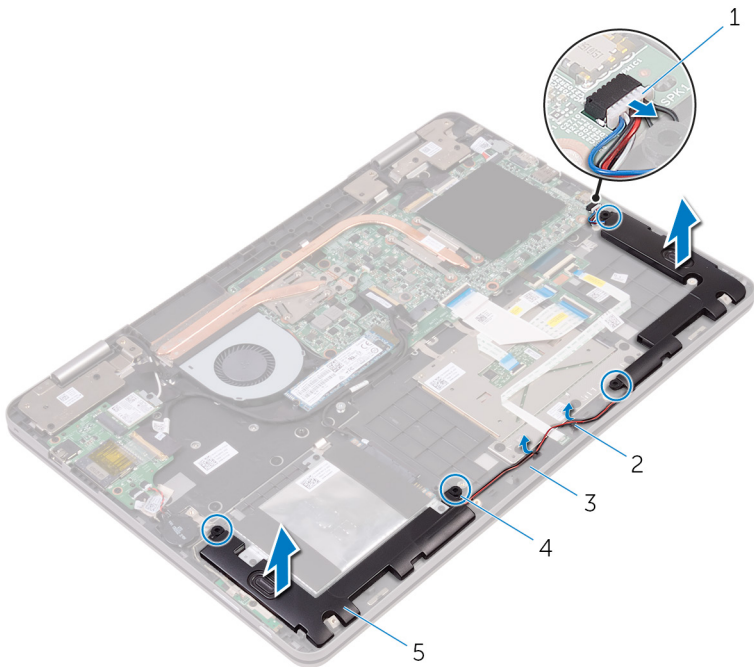
Prerequisites

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

Procedure

- 1 Disconnect the speaker cable from the system board.
- 2 Remove the speaker cable from the routing guides on the palm-rest assembly.

- 3** Remove the speakers from the alignment posts and lift the speakers off the palm-rest assembly.



- | | | | |
|---|--------------------|---|---------------------|
| 1 | speaker cable | 2 | routing guides (2) |
| 3 | palm-rest assembly | 4 | alignment posts (4) |
| 5 | speakers (2) | | |

Replacing the speakers



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Procedure

- 1 Using the alignment posts on the palm-rest assembly, place the speakers on the palm-rest assembly.
- 2 Route the speaker cable through the routing guides on the palm-rest assembly.
- 3 Connect the speaker cable to the system board.

Post-requisites

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

Removing the status-light board

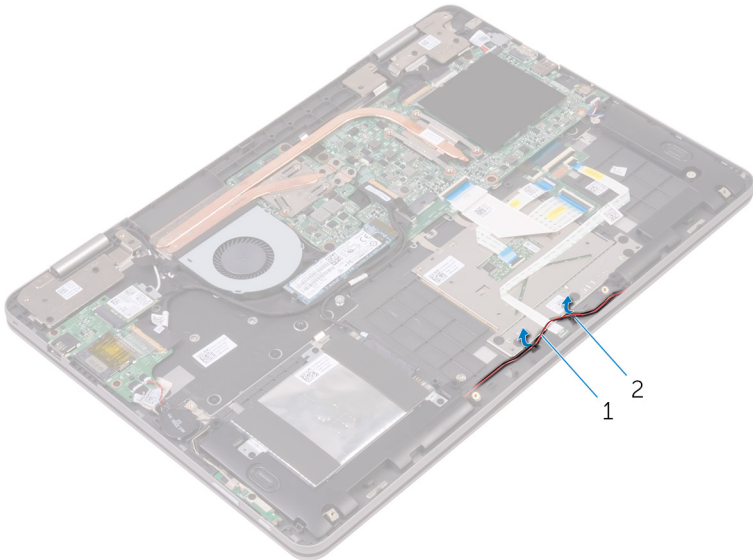
 **WARNING:** Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best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

Prerequisites

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

Procedure

- 1 Remove the speaker cable from the routing guides on the palm-rest assembly.

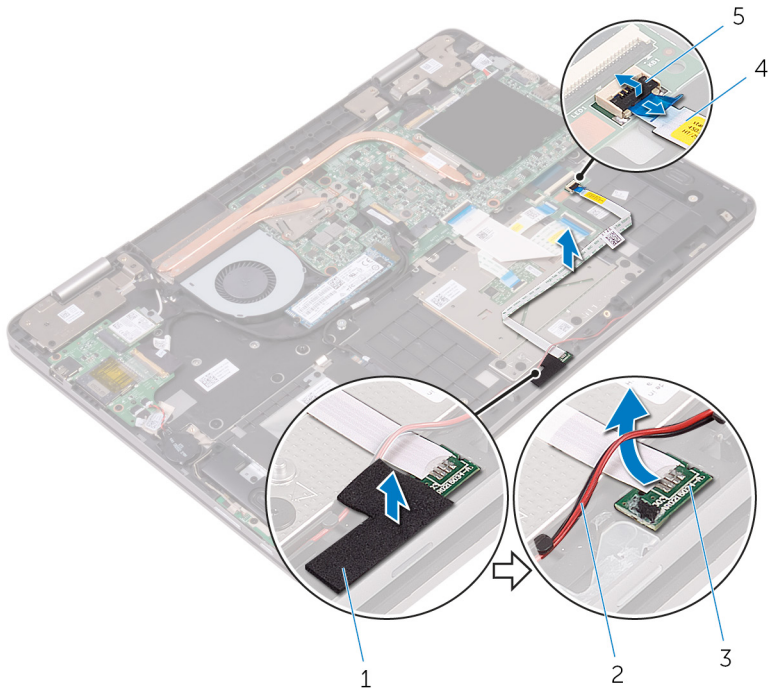


1 speaker cable

2 routing guides (2)

- 2 Open the latch and disconnect the status-light board cable from the keyboard daughter-board.
- 3 Remove the speaker cable from the routing guides on the palm-rest assembly.
- 4 Peel off the foam that secures the status-light board to the palm-rest assembly.

5 Slide the status-light board under the speaker cable and lift the status-light board off the palm-rest assembly.



- | | | | |
|---|--------------------|---|--------------------------|
| 1 | foam | 2 | speaker cable |
| 3 | status-light board | 4 | status-light board cable |
| 5 | latch | | |

Replacing the status-light board



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Procedure

- 1 Slide the status-light board under the speaker cable.
- 2 Place the status-light board into the slot on the palm-rest assembly.
- 3 Adhere the foam that secures the status-light board to the palm-rest assembly.
- 4 Slide the status-light board cable into the connector on the keyboard daughter-board and close the latch to secure the cable.
- 5 Route the speaker cable through the routing guides on the palm-rest assembly.

Post-requisites

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

Removing the touch pad



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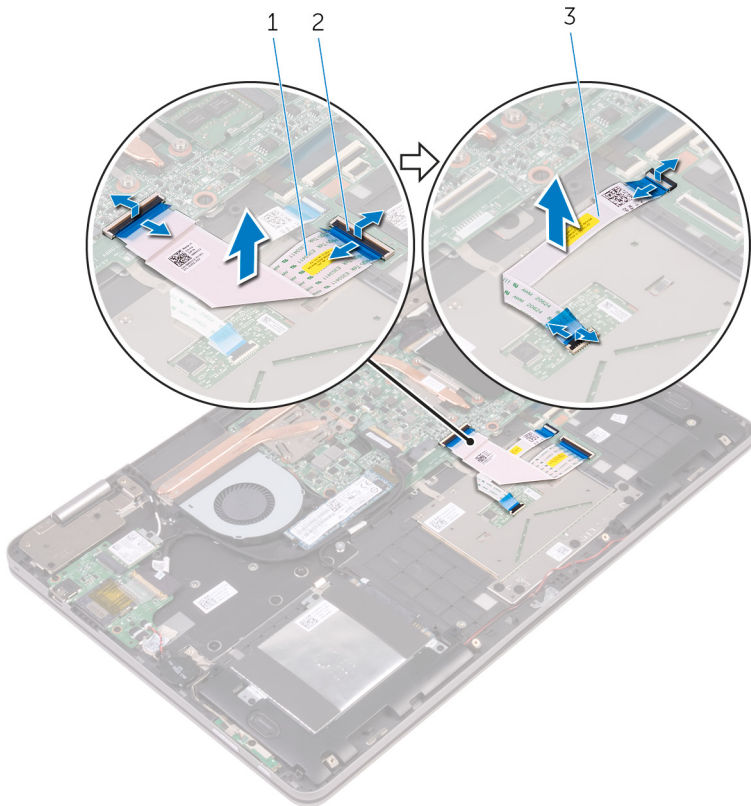
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [status-light board](#).

Procedure

- 1 Open the latches, and then disconnect the keyboard cable from the keyboard daughter-board and the system board.

- 2 Open the latches, and then disconnect the touch-pad cable from the keyboard daughter-board and the touch-pad assembly.

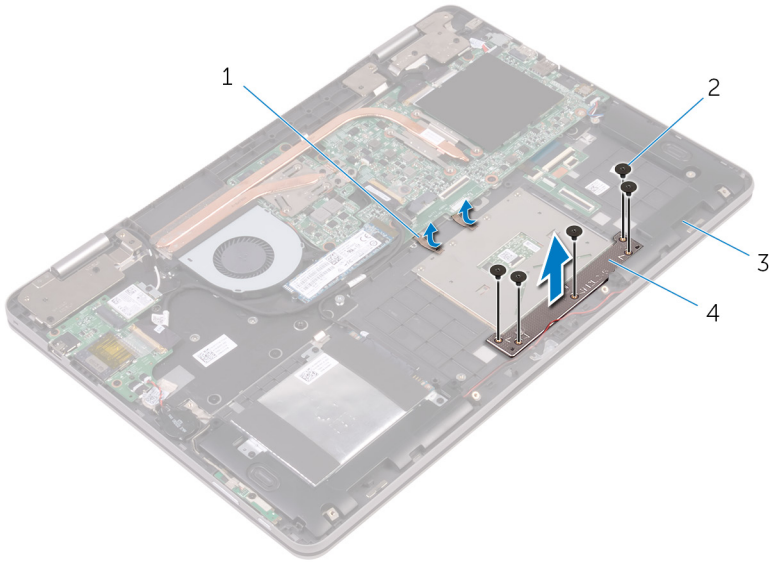


- 1 keyboard cable
- 3 touch-pad cable

- 2 latches (4)

- 3 Peel off the tapes that secure the touch-pad assembly to the palm-rest assembly.
- 4 Remove the screws that secure the touch-pad bracket to the palm-rest assembly.

5 Lift the touch-pad bracket off the palm-rest assembly.



1 tapes (2)

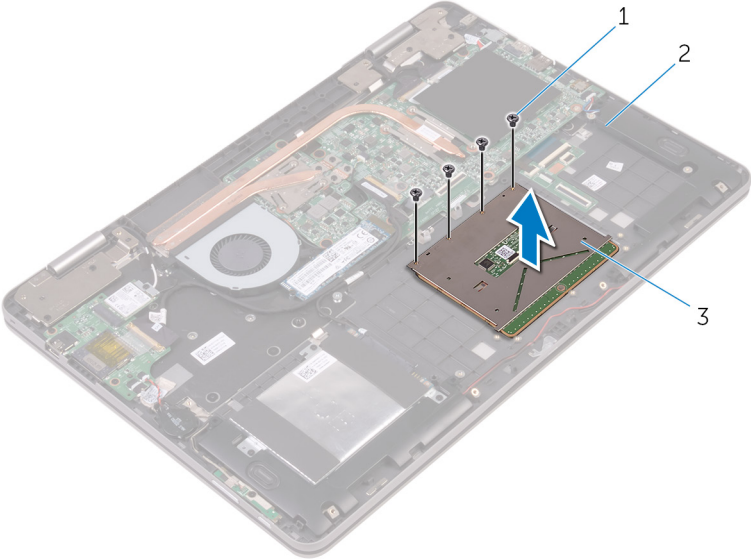
2 screws (5)

3 palm-rest assembly

4 touch-pad bracket

6 Remove the screws that secure the touch pad to the palm-rest assembly.

7 Lift the touch pad off the palm-rest assembly.



- 1 screws (4)
- 3 touch pad

2 palm-rest assembly

Replacing the touch pad



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Procedure

- 1 Align the screw holes on the touch pad with the screw holes on the palm-rest assembly.
- 2 Replace the screws that secure the touch pad to the palm-rest assembly.
- 3 Align the screw holes on the touch-pad bracket with the screw holes on the palm-rest assembly.
- 4 Replace the screws that secure the touch-pad bracket to the palm-rest assembly.
- 5 Adhere the tapes that secure the touch-pad assembly to the palm-rest assembly.
- 6 Slide both ends of the touch-pad cable into their respective connectors and close the latches to secure the cable.
- 7 Slide both ends of the keyboard cable into their respective connectors and close the latches to secure the cable.

Post-requisites

- 1 Replace the [status-light board](#).
- 2 Replace the [battery](#).
- 3 Replace the [base cover](#).

Removing the fan



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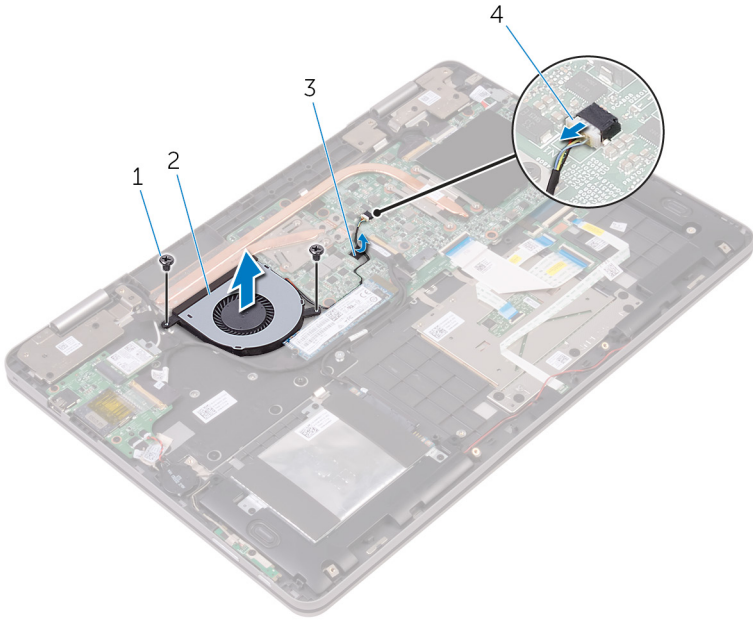
Prerequisites

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

Procedure

- 1 Remove the screws that secure the fan to the palm-rest assembly.
- 2 Disconnect the fan cable from the system board.
- 3 Peel off tape that secures the fan cable to the palm-rest assembly.

4 Lift the fan off the palm-rest assembly.



1 screws (2)

3 tape

2 fan

4 fan cable

Replacing the fan



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Procedure


- 1 Align the screw holes on the fan with the screw holes on the palm-rest assembly.
- 2 Replace the screws that secure the fan to the palm-rest assembly.
- 3 Connect the fan cable to the system board.


Post-requisites

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

Removing the heat sink

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 **WARNING:** The heat sink may become hot during normal operation. Allow sufficient time for the heat sink to cool before you touch it.

 **CAUTION:** For maximum cooling of the processor, do not touch the heat transfer areas on the heat sink. The oils in your skin can reduce the heat transfer capability of the thermal grease.

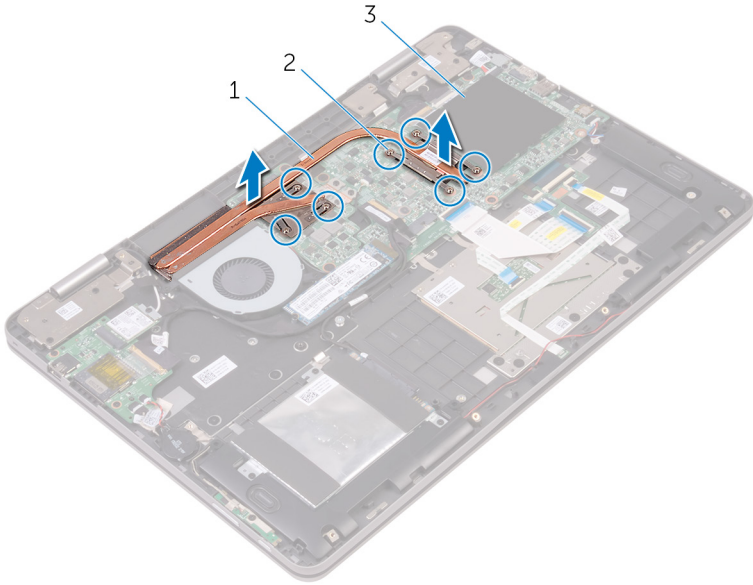
Prerequisites

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

Procedure

- 1 In sequential order (as indicated on the heat sink), loosen the captive screws that secure the heat sink to the system board.

2 Lift the heat sink off the system board.





1 heat sink


2 captive screws (7)

3 system board

Replacing the heat sink

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 **CAUTION:** Incorrect alignment of the heat sink can damage the system board and processor.

 **NOTE:** The original thermal grease can be reused if the original system board and heat sink are reinstalled together. If either the system board or the heat sink is replaced, use the thermal pad provided in the kit to ensure that thermal conductivity is achieved.


Procedure

- 1 Align the screw holes on the heat sink with the screw holes on the system board.
- 2 In sequential order (indicated on the heat sink), tighten the captive screws that secure the heat sink to the system board.

Post-requisites

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

Removing the power-adapter port

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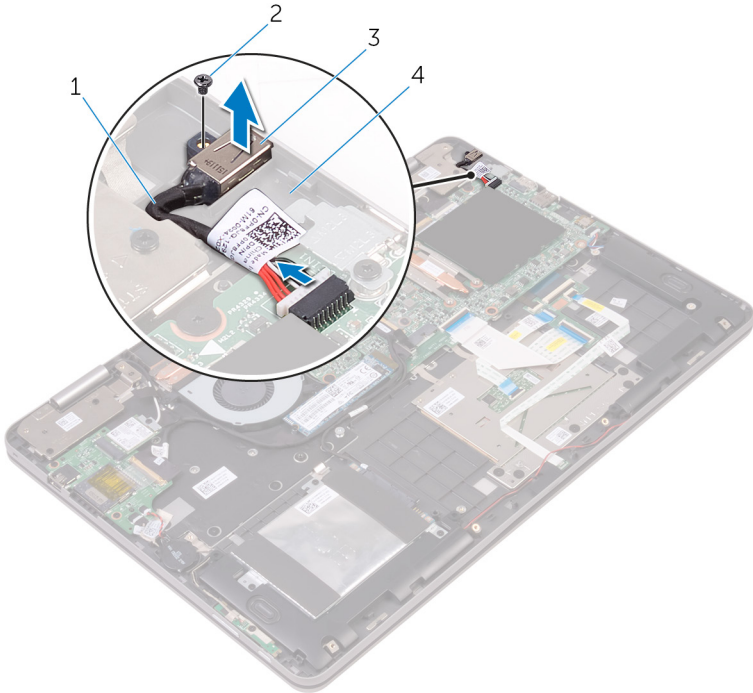
Prerequisites

- 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 palm-rest assembly.

3 Lift the power-adapter port off the palm-rest assembly.



1 power-adapter port cable

2 screw

3 power-adapter port

4 palm-rest assembly

Replacing the power-adapter port

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Procedure

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

Post-requisites

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

Removing the power and volume-buttons board



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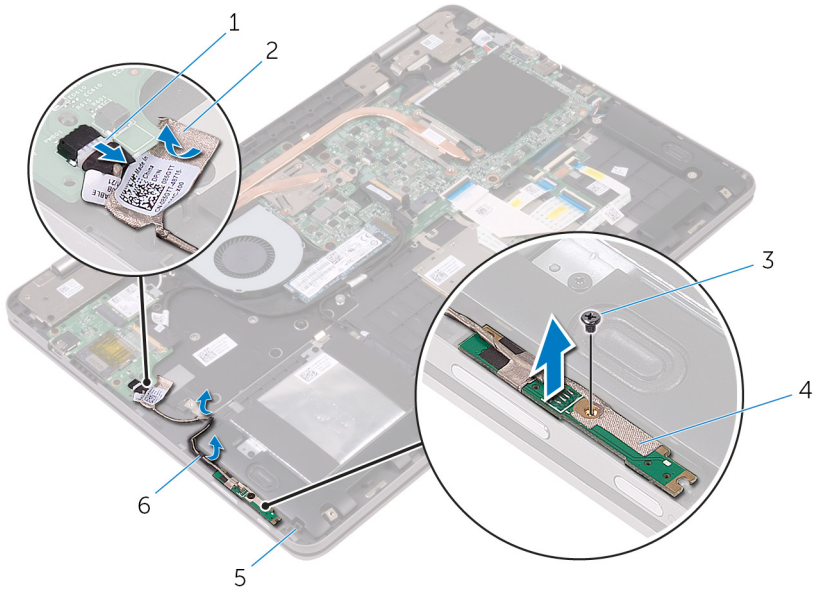
Prerequisites

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

Procedure

- 1 Peel off the tape that secures the power and volume-buttons board cable to the palm-rest assembly.
- 2 Disconnect the power and volume-buttons board cable from the I/O board.
- 3 Remove the power and volume-buttons board cable from the routing guides on the palm-rest assembly.
- 4 Remove the screw that secures the power and volume-buttons board to the palm-rest assembly.

5 Lift the power and volume-buttons board off the palm-rest assembly.



1 power and volume-buttons board cable

2 tape

3 screw

4 power and volume-buttons board

5 palm-rest assembly

6 routing guides (2)

Replacing the power and volume-buttons board



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Procedure

- 1 Align the screw hole on the power and volume-buttons board with the screw hole on the palm-rest assembly.
- 2 Replace the screw that secures the power and volume-buttons board to the palm-rest assembly.
- 3 Route the power and volume-buttons board cable through the routing guides on the palm-rest assembly.
- 4 Connect the power and volume-buttons board cable to the I/O board.
- 5 Adhere the tape that secures the power and volume-buttons board cable to the palm-rest assembly.

Post-requisites

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

Removing the graphics daughter-board



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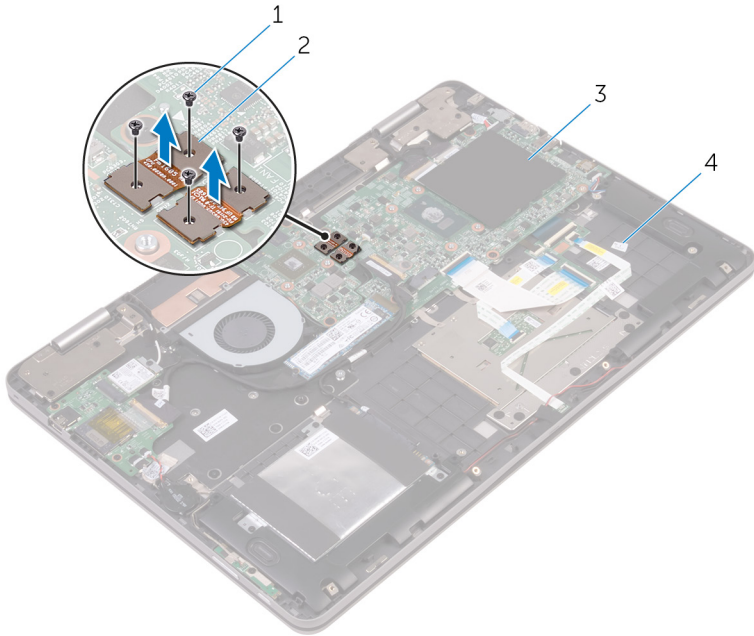
Prerequisites

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

Procedure

- 1 Remove the screws from the graphics daughter-board brackets that secure the graphics daughter-board to the system board.

- 2** Lift the graphics daughter-board brackets off the palm-rest assembly.



1 screws (4)

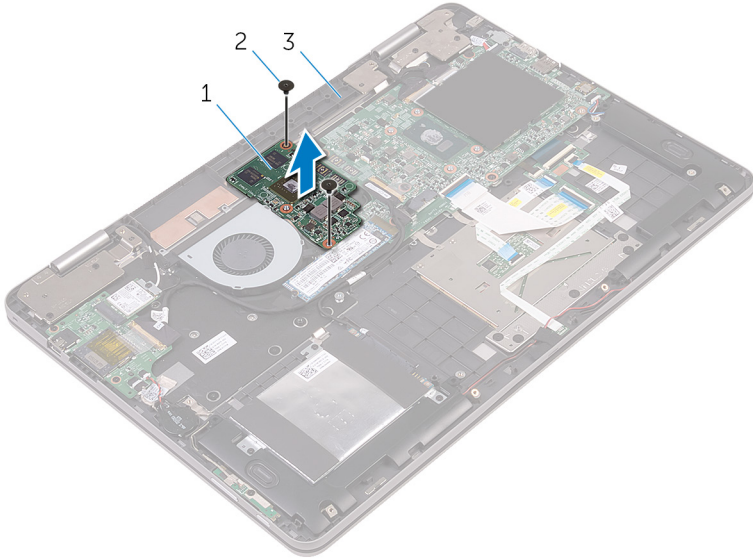
2 graphics daughter-board brackets (2)

3 system board

4 palm-rest assembly

- 3** Remove the screws that secure the graphics daughter-board to the palm-rest assembly.

4 Lift the graphics daughter-board off the palm-rest assembly.




1 graphics daughter-board

2 screws (2)

3 palm-rest assembly

Replacing the graphics daughter-board

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Procedure

- 1 Align the screw holes on the graphics daughter-board with the screw holes on the palm-rest assembly.
- 2 Replace the screws that secure the graphics daughter-board to the palm-rest assembly.
- 3 Align the screw holes on the graphics daughter-board brackets with the screw holes on the graphics daughter-board and the system board.
- 4 Replace the screws that secure the graphics daughter-board brackets to the graphics daughter-board and the system board.

Post-requisites

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

Removing the I/O board



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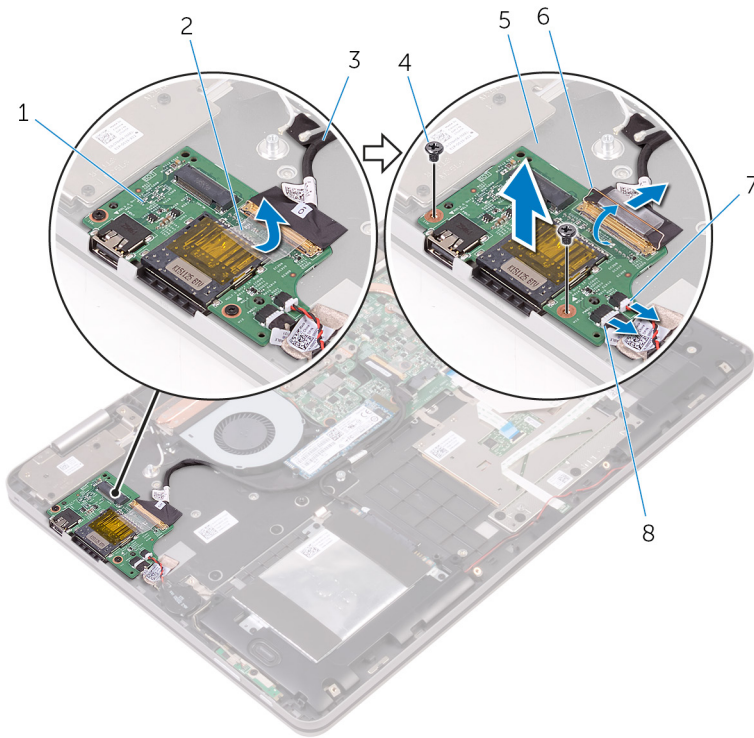
Prerequisites

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

Procedure

- 1 Peel off the tape that secures the I/O-board cable to the I/O board.
- 2 Open the latch and disconnect the I/O-board cable from the I/O board.
- 3 Disconnect the power and volume-buttons board cable from the I/O board.
- 4 Disconnect the coin-cell battery cable from the I/O board.
- 5 Remove the screws that secure the I/O board to the palm-rest assembly.

6 Lift the I/O board off the palm-rest assembly.



1 I/O board

3 I/O-board cable

5 palm-rest assembly

7 coin-cell battery cable


2 tape

4 screw

6 latch

8 power and volume-
buttons board cable

Replacing the I/O board

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Procedure

- 1 Using the alignment posts, place the I/O board on the palm-rest assembly.
- 2 Align the screw holes on the I/O board with the screw holes on the palm-rest assembly.
- 3 Replace the screws that secure the I/O board to the palm-rest assembly.
- 4 Connect the power and volume-buttons board cable and coin-cell battery cable to the I/O board.
- 5 Connect the I/O-board cable to the I/O board.
- 6 Adhere the tape that secures the I/O-board cable to the I/O board.

Post-requisites

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

Removing the display assembly



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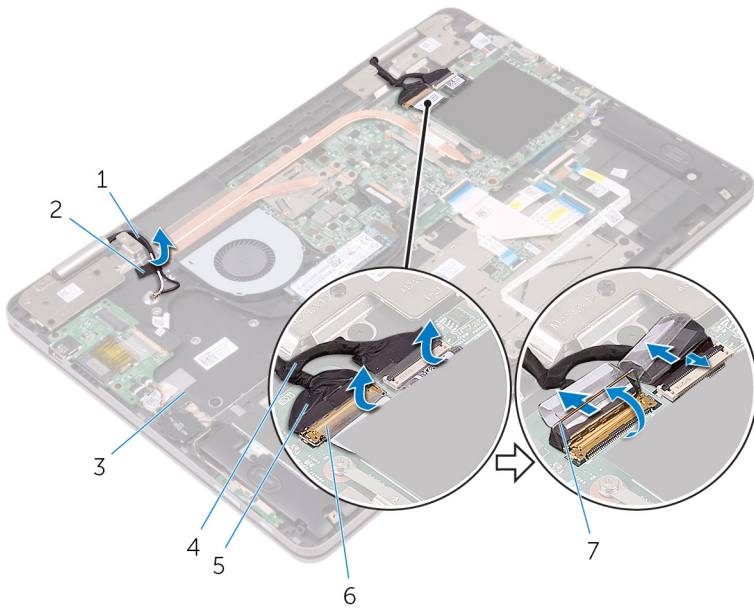
Prerequisites

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

Procedure

- 1 Peel off the tape that secures the antenna cables to the palm-rest assembly.
- 2 Peel off the tapes that secure the display cable and touch-screen board cable to the system board.
- 3 Open the latches and disconnect the display cable and the touch-screen board cable from the system board.

- 4 Peel off the display cable and the touch-screen board cable from the system board.



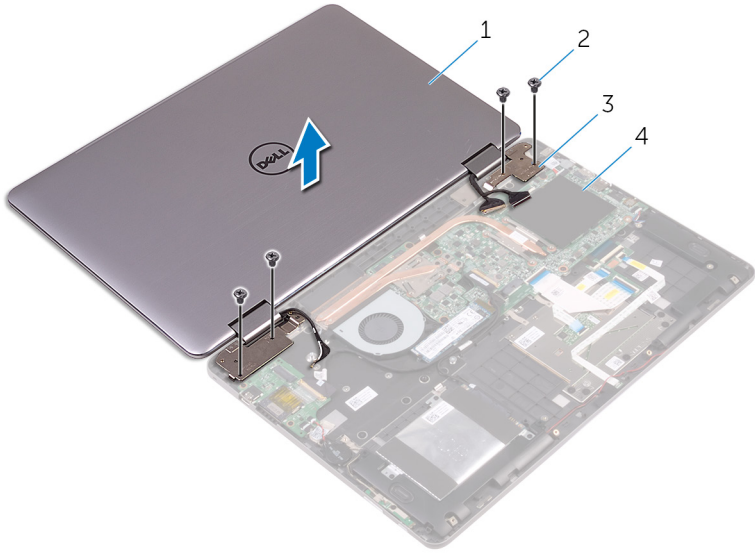
- | | | | |
|---|--------------------|---|--------------------------|
| 1 | antenna cables (2) | 2 | tape |
| 3 | palm-rest assembly | 4 | touch-screen board cable |
| 5 | display cable | 6 | tapes (2) |
| 7 | latches (2) | | |

- 5 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.

- 6 Place the computer face down on a flat surface.

7 Remove the screws that secure the display assembly to the palm-rest assembly.



- 1 display assembly
- 3 display hinges (2)


- 2 screws (4)
- 4 palm-rest assembly

- 8** Lift the display assembly off the palm-rest assembly.




- 1 display assembly

Replacing the display assembly

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Procedure

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

- 1 Place the display assembly on the palm-rest assembly.
- 2 Align the screw holes on the display hinges with the screw holes on the palm-rest assembly.
- 3 Replace the screws that secure the display assembly to the palm-rest assembly.
- 4 Close the display and turn the computer over.
- 5 Adhere the tape that secures the antenna cables to the palm-rest assembly.
- 6 Slide the display cable and the touch-screen board cable into their respective connectors on the system board and close the latches to secure the cables.
- 7 Adhere the tapes that secure the display cable and the touch-screen board cable to their respective connectors on the system board.

Post-requisites

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

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

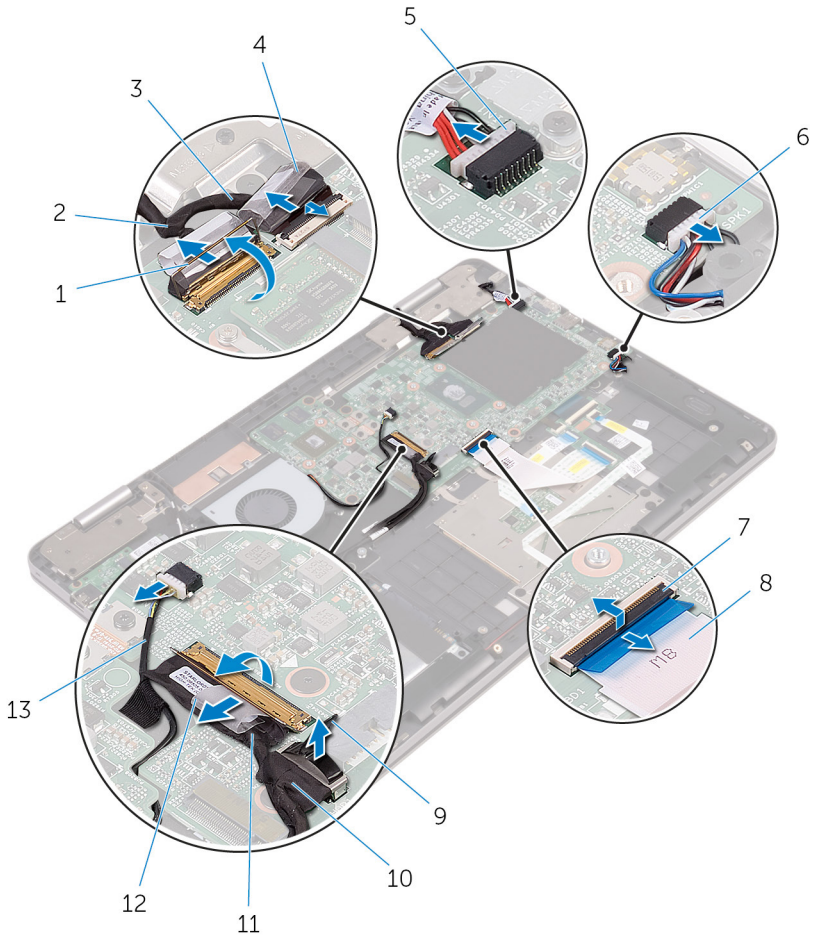
- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [memory modules](#).
- 4 Remove the [heat sink](#).
- 5 Remove the [solid-state drive](#).

Procedure

- 1 Peel off the pieces of tape that secure the display cable and touch-screen board cable to the connectors on the system board.
- 2 Open the latches and disconnect the display cable and the touch-screen board cable from the system board.
- 3 Peel off the display cable and the touch-screen board cable from the system board.
- 4 Disconnect the power-adaptor cable and the speaker cable from the system board.

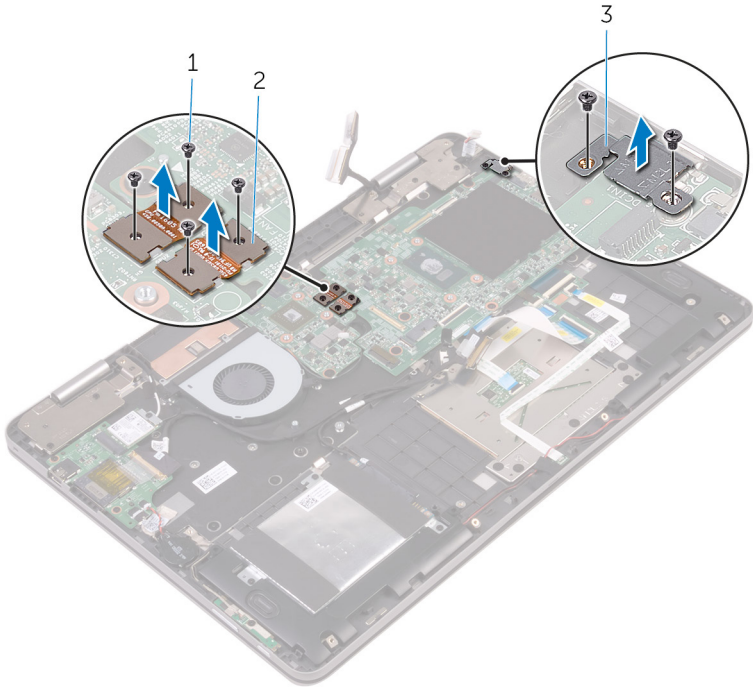
- 5** Open the latch and disconnect the keyboard cable from the system board.
- 6** Using the pull tab, disconnect the hard-drive cable from the system board.
- 7** Disconnect the fan cable from the system board.
- 8** Peel off the tape that secures the I/O-board cable to the system board.

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



- | | | | |
|----|--------------------------|----|------------------|
| 1 | latches (2) | 2 | display cable |
| 3 | touch-screen board cable | 4 | tapes (2) |
| 5 | power-adaptor port cable | 6 | speaker cable |
| 7 | latch | 8 | keyboard cable |
| 9 | pull tab | 10 | hard-drive cable |
| 11 | I/O-board cable | 12 | tape |
| 13 | fan cable | | |

- 10 Remove the screws that secure the graphics daughter-board brackets to the graphics daughter-board and the system board.
- 11 Remove the screws that secure the I/O bracket to the system board and the palm-rest assembly.



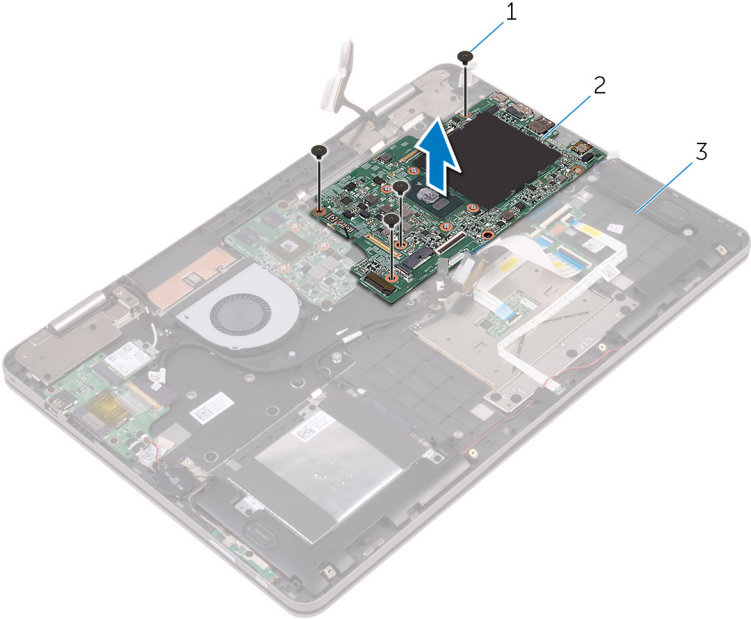
1 screws (6)

2 graphics daughter-board brackets

3 I/O bracket

- 12 Remove the screws that secure the system board to the palm-rest assembly.

13 Lift the system board off the palm-rest assembly.



1 screws (4)

2 system board

3 palm-rest assembly

Replacing the system board



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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 palm-rest assembly.
- 2 Replace the screws that secure the system board to the palm-rest assembly.
- 3 Align the screw holes on the I/O bracket with the screw holes on the system board and the palm-rest assembly.
- 4 Replace the screws that secure the I/O bracket to the system board and the palm-rest assembly.
- 5 Align the screw holes on the graphics daughter-board brackets with the screw holes on the graphics daughter-board and the system board.
- 6 Replace the screws that secure the graphics daughter-board brackets to the graphics daughter-board and the system board.
- 7 Slide the I/O-board cable into the connector on the system board and close the latch to secure the cable.
- 8 Adhere the tape that secures the I/O-board cable to the system board.
- 9 Connect the hard-drive cable and fan cable to the system board.
- 10 Slide the keyboard cable into the connector on the system board and close the latch to secure the cable.
- 11 Connect the power-adaptor port cable and the speaker cable to the system board.

- 12 Slide the display cable and the touch-screen board cable into their respective connectors on the system board and close the latches to secure the cables.
- 13 Adhere the tapes that secure the display cable and touch-screen board cable to their respective connectors on the system board.

Post-requisites

- 1 Replace the [solid-state drive](#).
- 2 Replace the [heat sink](#).
- 3 Replace the [memory modules](#).
- 4 Replace the [battery](#).
- 5 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 keyboard



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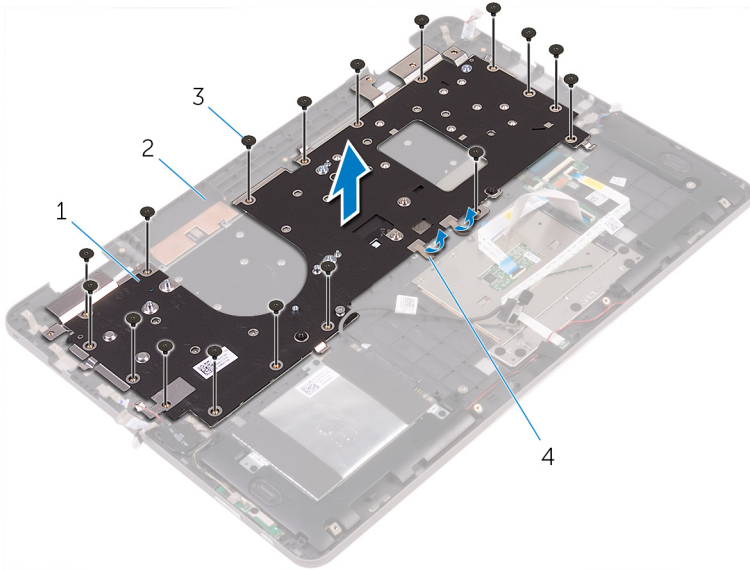
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [memory modules](#).
- 4 Remove the [solid-state drive](#).
- 5 Remove the [wireless card](#).
- 6 Remove the [fan](#).
- 7 Remove the [display assembly](#).
- 8 Remove the [graphics daughter-board](#).
- 9 Remove the [heat sink](#).
- 10 Remove the [I/O board](#).
- 11 Remove the [power-adaptor port](#).
- 12 Remove the [system board](#).

Procedure

- 1 Remove the screws that secure the keyboard bracket to the palm-rest assembly.
- 2 Peel off the tapes that secure the keyboard bracket to the palm-rest assembly.

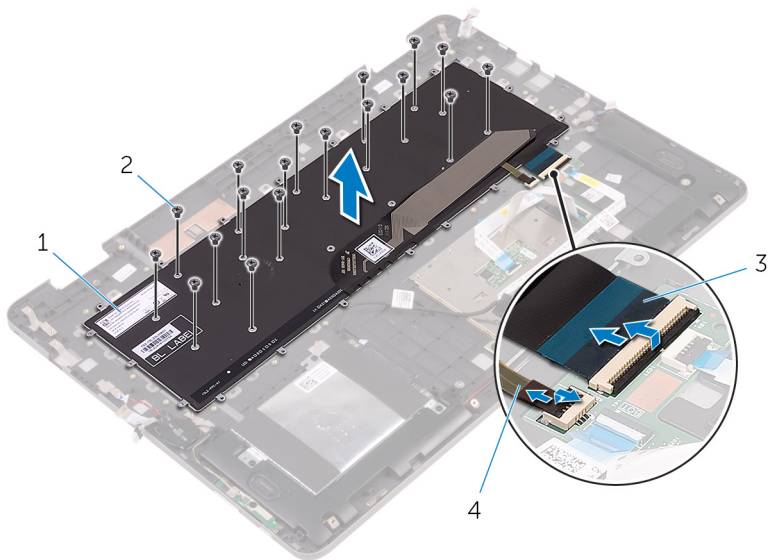
- 3** Lift the keyboard bracket off the palm-rest assembly.



- | | | | |
|---|------------------|---|--------------------|
| 1 | keyboard bracket | 2 | palm-rest assembly |
| 3 | screws (17) | 4 | tape |

- 4** Open the latches and disconnect the keyboard cable and keyboard-backlight cable from the keyboard daughter-board.
- 5** Remove the screws that secure the keyboard to the palm-rest assembly.

6 Lift the keyboard off the palm-rest assembly.



1 keyboard

3 keyboard cable

2 screws (18)

4 keyboard backlight-cable

Replacing the keyboard



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Procedure

- 1 Align the screw holes on the keyboard with the screw holes on the palm-rest assembly.
- 2 Slide the keyboard cable and the keyboard-backlight cable into their respective connectors on the keyboard daughter-board and close the latches to secure the cables.
- 3 Replace the screws that secure the keyboard to the palm-rest assembly.
- 4 Align the screw holes on the keyboard bracket with the screw holes on the palm-rest assembly.
- 5 Replace the screws that secure the keyboard bracket to the palm-rest assembly.
- 6 Adhere the tapes that secure the keyboard bracket to the palm-rest assembly.

Post-requisites

- 1 Replace the [system board](#).
- 2 Replace the [power-adapter port](#).
- 3 Replace the [I/O board](#).
- 4 Replace the [heat sink](#).
- 5 Replace the [graphics daughter-board](#).
- 6 Replace the [display assembly](#).
- 7 Replace the [fan](#).
- 8 Replace the [wireless card](#).
- 9 Replace the [solid-state drive](#).
- 10 Replace the [memory modules](#).

- 11** Replace the [battery](#).
- 12** Replace the [base cover](#).

Removing the palm rest



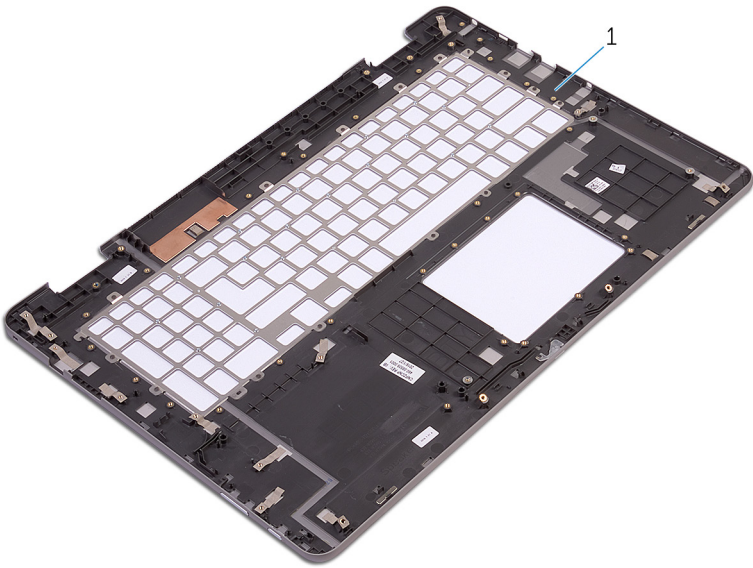
WARNING: Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best practices, 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 [memory modules](#).
- 4 Remove the [coin-cell battery](#).
- 5 Remove the [solid-state drive](#).
- 6 Follow the procedure from step 1 to step 3 in "[Removing the hard drive](#)".
- 7 Remove the [wireless card](#).
- 8 Remove the [fan](#).
- 9 Remove the [status-light board](#).
- 10 Remove the [touch pad](#).
- 11 Remove the [display assembly](#).
- 12 Remove the [graphics daughter-board](#).
- 13 Remove the [heat sink](#).
- 14 Remove the [I/O board](#).
- 15 Remove the [keyboard](#).
- 16 Remove the [keyboard daughter-board](#).
- 17 Remove the [power-adaptor port](#).
- 18 Remove the [power and volume-buttons board](#).
- 19 Remove the [speakers](#).
- 20 Remove the [system board](#).

Procedure

After performing the steps in prerequisites we are left with the palm rest.



1 palm rest

Replacing the palm rest



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Procedure

Place the palm rest on a flat surface.

Post-requisites

- 1 Replace the [system board](#).
- 2 Replace the [speakers](#).
- 3 Replace the [power and volume-buttons board](#).
- 4 Replace the [power-adapter port](#).
- 5 Replace the [keyboard daughter-board](#).
- 6 Replace the [keyboard](#).
- 7 Replace the [I/O board](#).
- 8 Replace the [heat sink](#).
- 9 Replace the [graphics daughter-board](#).
- 10 Replace the [display assembly](#).
- 11 Replace the [touch pad](#).
- 12 Replace the [status-light board](#).
- 13 Replace the [fan](#).
- 14 Replace the [wireless card](#).
- 15 Follow the procedure from step 4 to step 6 in "[Replacing the hard drive](#)".
- 16 Replace the [solid-state drive](#).
- 17 Replace the [coin-cell battery](#).
- 18 Replace the [memory modules](#).
- 19 Replace the [battery](#).
- 20 Replace the [base cover](#).

Removing the display panel



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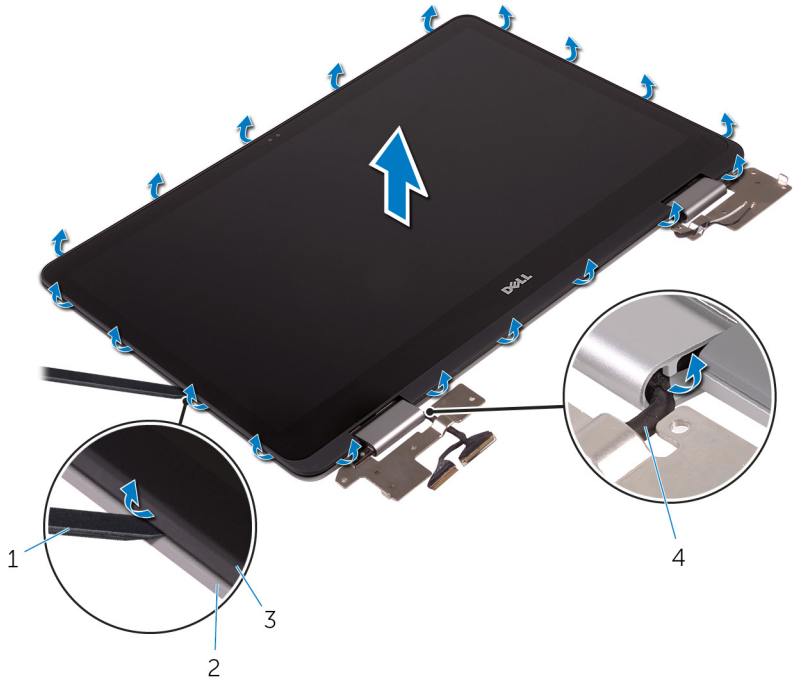
Prerequisites

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

Procedure

- 1 Remove the display cable from the routing guide inside the hinge cover.
- 2 Using a plastic scribe, release the tabs that secure the display-panel assembly to the display back-cover and antenna assembly.

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



- | | | | |
|---|------------------------|---|---|
| 1 | plastic scribe | 2 | display back-cover and antenna assembly |
| 3 | display-panel assembly | 4 | display cable |

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

- 4 Turn the display-panel assembly over and place it on a flat surface with the display facing down.
- 5 Remove the [camera](#).
- 6 Remove the [touch-screen board](#).
- 7 Remove the [sensor board](#).

- 8 Remove the [display cable](#).

After performing the above steps, we are left with the display panel.



- 1 display panel

Replacing the display panel



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Procedure

- 1 Place the display panel on a flat surface.
- 2 Replace the [display cable](#).
- 3 Replace the [sensor board](#).
- 4 Replace the [touch-screen board](#).
- 5 Replace the [camera](#).
- 6 Turn the display-panel assembly over.
- 7 Route the display cable through the routing guide inside the hinge cover.
- 8 Align the tabs on the display-panel assembly with the slots on the display back-cover and antenna assembly and gently snap the display-panel assembly into place.

Post-requisites

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

Removing the display back-cover and antenna assembly

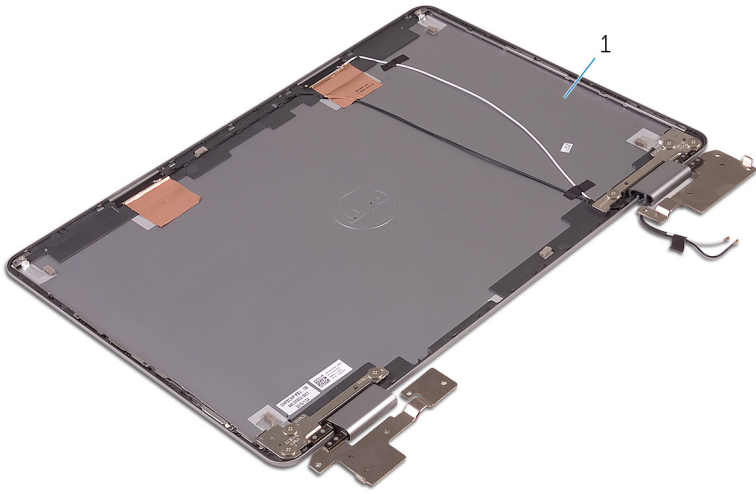
 **WARNING:** Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before working inside your computer](#). After working inside your computer, follow the instructions in [After working inside your computer](#). For more safety best 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 [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Follow the procedure from step 1 to step 3 in "[Removing the display panel](#)".


Procedure

After performing all the prerequisites, we are left with the display back-cover and antenna assembly.



- 1 display back-cover and antenna assembly

Replacing the display back-cover and antenna assembly

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Procedure

Place the display back-cover and antenna assembly on a flat surface.

Post-requisites

- 1 Follow the procedure from step 6 to step 8 in "[Replacing 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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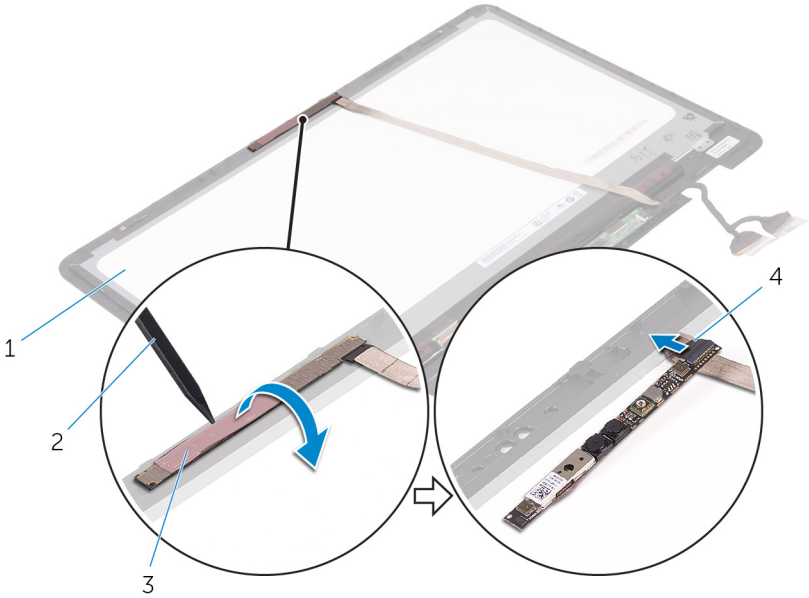
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Follow the procedure from step 1 to step 4 in "[Removing the display panel](#)".

Procedure

- 1 Using a plastic scribe, gently pry the camera module off the display-panel assembly.
- 2 Turn the camera module over.

3 Disconnect the camera cable from the camera module.



- 1 display-panel assembly
- 3 camera module

- 2 plastic scribe
- 4 camera cable

Replacing the camera



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Procedure

- 1 Connect the camera cable to the camera module.
- 2 Turn the camera module over.
- 3 Using the alignment post, adhere the camera to the display-panel assembly.

Post-requisites

- 1 Follow the procedure from step 6 to step 8 in "[Replacing the display panel](#)".
- 2 Replace the [display assembly](#).
- 3 Replace the [wireless card](#).
- 4 Replace the [battery](#).
- 5 Replace the [base cover](#).

Removing the touch-screen board



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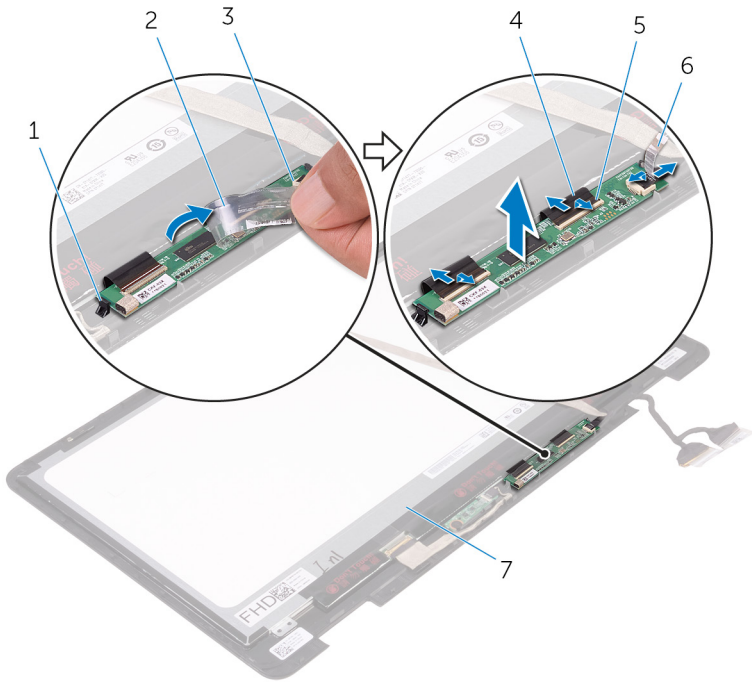
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Follow the procedure from step 1 to step 4 in "[Removing the display panel](#)".

Procedure

- 1 Peel off the tapes that secure the display cables to the touch-screen board.
- 2 Open the latches and disconnect the display cables from the touch-screen board.

3 Pry the touch-screen board off the tabs on the display-panel assembly.



1 tabs (2)

3 touch-screen board


5 latches (3)

2 tape

4 display cables (3)

6 tape

Replacing the touch-screen board

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Procedure

- 1 Align the touch-screen board with the tabs on the display-panel assembly and snap the touch-screen board in place.
- 2 Slide the display cables into their respective connectors on the touch-screen board and close the latches to secure the cables.
- 3 Adhere the tapes that secure the display cables to the touch-screen board.

Post-requisites

- 1 Follow the procedure from step 6 to step 8 in "[Replacing 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



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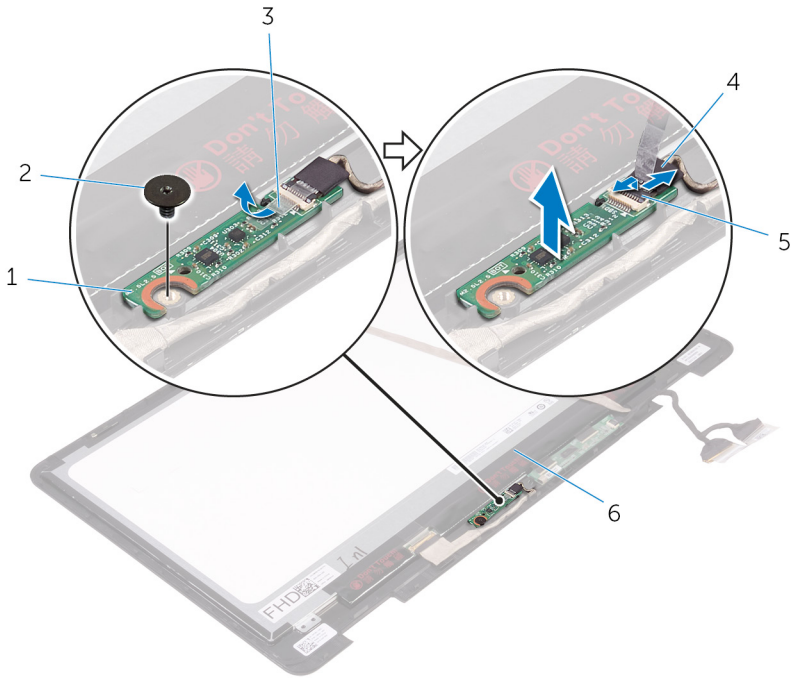
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Follow the procedure from step 1 to step 4 in "[Removing the display panel](#)".

Procedure

- 1 Remove the screw that secures the sensor board to the display-panel assembly.
- 2 Peel off the tape that secures the sensor-board cable to the sensor board.
- 3 Open the latch and disconnect the sensor-board cable from the sensor board.

4 Lift the sensor board off the display-panel assembly.



1 sensor board

3 tape

5 latch

2 screw

4 sensor-board cable

Replacing the sensor board



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Procedure

- 1 Align the sensor board on the display-panel assembly and snap the sensor board in place.
- 2 Slide the sensor-board cable into the connector on sensor board and press down the latch to secure the cable.
- 3 Adhere the tape that secures the sensor-board cable to the sensor board.
- 4 Replace the screw that secures the sensor board to the display-panel assembly.

Post-requisites

- 1 Follow the procedure from step 6 to step 8 in "[Replacing the display panel](#)".
- 2 Replace the [display assembly](#).
- 3 Replace the [wireless card](#).
- 4 Replace the [battery](#).
- 5 Replace the [base cover](#).

Removing the display cable



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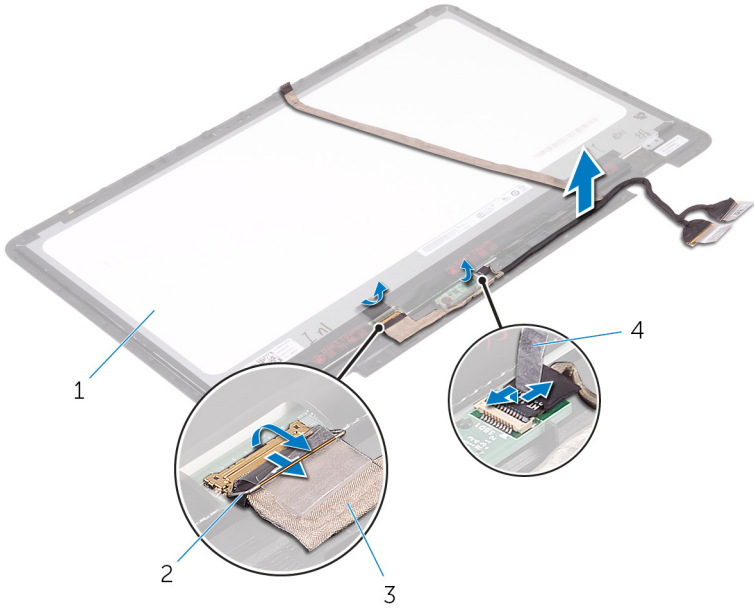
Prerequisites

- 1 Remove the [base cover](#).
- 2 Remove the [battery](#).
- 3 Remove the [wireless card](#).
- 4 Remove the [display assembly](#).
- 5 Follow the procedure from step 1 to step 4 in "[Removing the display panel](#)".
- 6 Remove the [touch-screen board](#).

Procedure

- 1 Peel off the tapes that secure the display cable to the display-panel assembly and sensor board.
- 2 Open the latches and disconnect the display cable from the display-panel assembly and the sensor board.

3 Lift the display cable off the display-panel assembly.



1 display-panel assembly

2 latches (2)

3 display cables (2)

4 tapes (2)

Replacing the display cable



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Procedure

- 1 Slide the display cable into their respective connectors on the display-panel assembly and sensor board and close the latches to secure the cable.
- 2 Adhere the tapes that secure the display cable to the display-panel assembly and sensor board.

Post-requisites

- 1 Replace the [touch-screen board](#).
- 2 Follow the procedure from step 6 to step 8 in "[Replacing the display panel](#)".
- 3 Replace the [display assembly](#).
- 4 Replace the [wireless card](#).
- 5 Replace the [battery](#).
- 6 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 or tap **Product support**, enter the Service Tag of your computer, and then click or tap **Submit**.



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

- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Select the operating system installed on your computer.
- 6 Scroll down the page and expand **BIOS**.
- 7 Click or tap **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 or double-tap the BIOS update file icon and follow the instructions on the screen.

Technology and components

Audio

The Inspiron 17-7778 is shipped with Realtek ALC3234CG with Waves MaxxAudio Pro, which is the utility to adjust various audio settings.



NOTE: The audio drivers are already installed when you receive your computer.

Downloading the audio driver

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



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

- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Scroll down the page and expand **Audio**.
- 6 Click or tap **Download** to download the audio driver for your computer.
- 7 After the download is complete, navigate to the folder where you saved the audio driver file.
- 8 Double-click or double-tap the audio driver file icon and follow the instructions on the screen to install the driver.

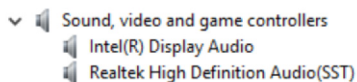
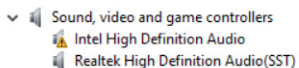
Identifying the audio controller

- 1 On the taskbar, click or tap the search box, and then type *Device Manager*.
- 2 Click or tap **Device Manager**.
The **Device Manager** window is displayed.

- 3 Expand **Sound, video and game controllers** to view the audio controller.

Before installation

After installation




Changing the audio settings

- 1 On the taskbar, click or tap the search box, and then type **Dell Audio**.
- 2 Click or tap **Dell Audio** and change the audio settings as required.

Camera

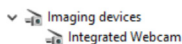
The Inspiron 17-7778 is shipped with an integrated 0.92 megapixel high-speed camera with a maximum of 1280 x 720 HD resolution at 30 FPS. The camera has built-in digital-array microphones.

The depth-sensing feature of the camera enhances security when paired with Windows Hello.

 **NOTE:** You must replace the camera module if you encounter any issues with the built-in microphones.

Identifying the webcam in device manager

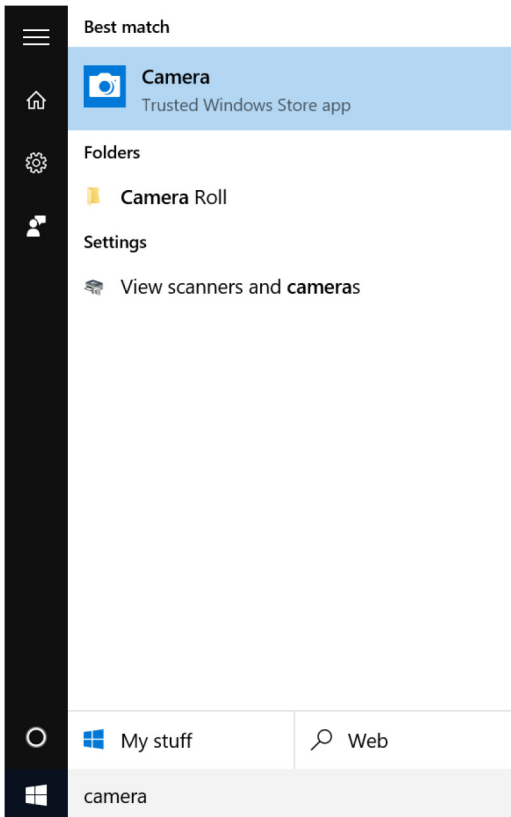
- 1 On the taskbar, click or tap the search box, and then type **Device Manager**.
- 2 Click or tap **Device Manager**.
The **Device Manager** window is displayed.
- 3 Expand **Imaging devices**.



Starting the camera application


- 1 On the taskbar, click or tap the search box, and then type **Camera**.

2 Click or tap **Camera**.



Getting the Dell Webcam Central

A CD is shipped along with your computer, which contains the Dell Webcam Central software. If you do not have the software, you can download it by registering through My Account on the Dell website.

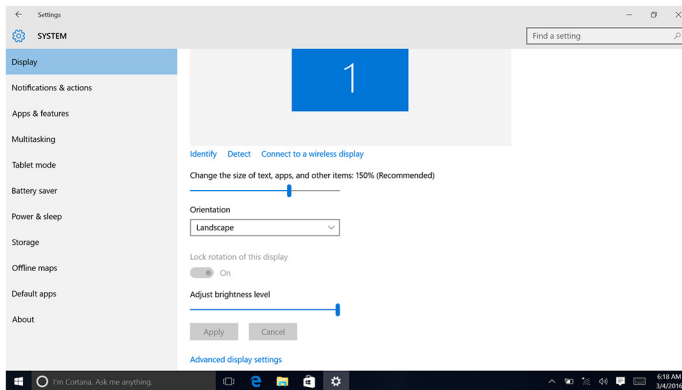
 **NOTE:** The Dell Webcam Central is not available for download from the support site or the resource CD.

Display

The Inspiron 17-7778 is shipped with 17.3-inch full HD touch screen with 1920 x 1080 resolution.

Adjusting the brightness

- 1 Right-click or touch and hold on your desktop and select **Display settings**.
- 2 Drag or swipe the **Adjust brightness level** slider to adjust the brightness.

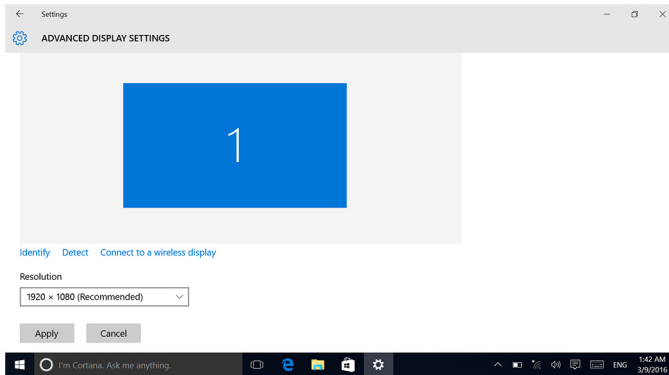


You can press F11 to decrease brightness and F12 to increase brightness.

Changing the screen resolution

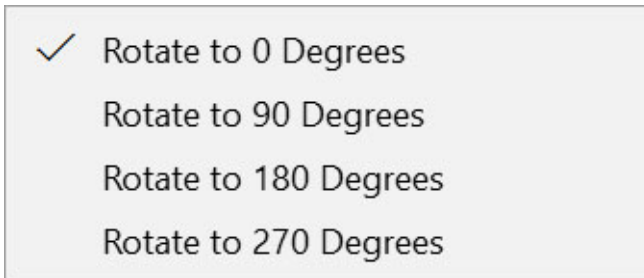
- 1 Right-click or touch and hold on your desktop and select **Display settings**.
- 2 Click or tap **Advanced display settings**.
- 3 Select the appropriate resolution from the drop-down list.

4 Click or tap **Apply**.



Rotating the display


- 1 Right-click or touch and hold on your desktop.
- 2 Select **Graphics Options** → **Rotation** and select from the following options.



The display can also be rotated using the following key combinations:

- Ctrl+Alt+Up arrow key (Rotate to 0 Degrees)
- Ctrl+Alt+Right arrow key (Rotate to 90 Degrees)
- Ctrl+Alt+Down arrow key (Rotate to 180 Degrees)
- Ctrl+Alt+Left arrow key (Rotate to 270 Degrees)

Cleaning the display

 **CAUTION: Do not use substances such as alcohol, chemicals, or household cleaners for cleaning the display.**



CAUTION: To avoid damaging the display, do not apply force when cleaning and wipe off any remaining liquid after cleaning.



NOTE: A commercial display cleaning kit should be used for cleaning. If unavailable, use a soft, damp microfiber cloth lightly sprayed with distilled water.

- 1 Turn off your computer and display before cleaning.
- 2 Gently wipe the display in circular motions to remove any dust or dirt particles.
- 3 Let the display dry thoroughly before turning it on.

HDMI

The Inspiron 17-7778 supports HDMI to connect a TV or another HDMI-in enabled device. It provides video and audio output. The HDMI port is located on the left side of your computer.



NOTE: Appropriate converters (sold separately) are required to connect standard DVI and DisplayPort devices.

Connecting to external display devices

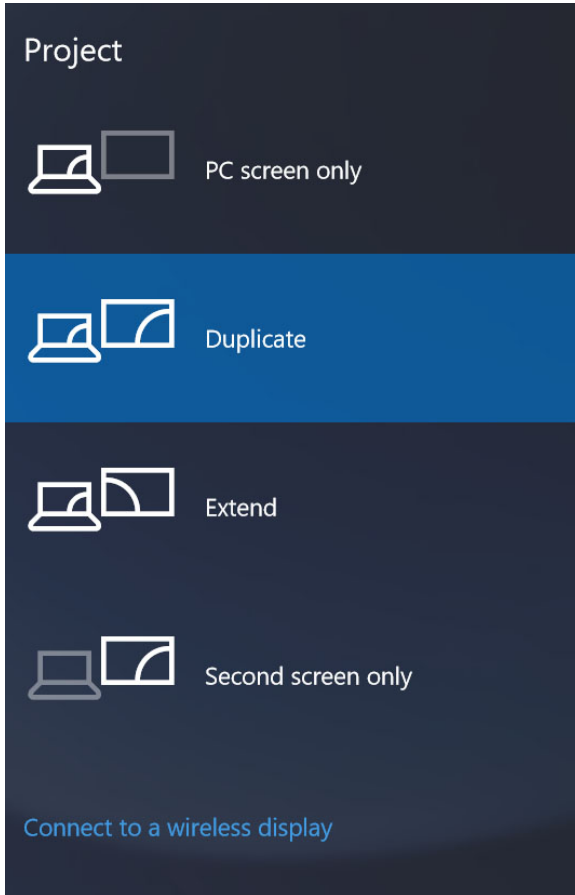
- 1 Connect the HDMI cable to your computer and the external display device.
- 2 Press F8 to display different display modes.

3 Select one of the following display modes:

- PC screen only
- Duplicate
- Extend
- Second screen only



NOTE: For more information, see the document that shipped with your display device.




Graphics

The Inspiron 17-7778 is shipped with the following options:

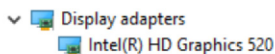
Integrated	Discrete
Intel HD Graphics 520	NVIDIA GeForce 940M

Downloading the graphics driver

- 1 Turn on your computer.
- 2 Go to www.dell.com/support.
- 3 Click or tap **Product support** enter the Service Tag of your computer, and then click or tap **Submit**.
 **NOTE:** If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.
- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Scroll down the page and expand **Video**.
- 6 Click or tap **Download** to download the graphics driver for your computer.
- 7 After the download is complete, navigate to the folder where you saved the graphics driver file.
- 8 Double-click or double-tap the graphics driver file icon and follow the instructions on the screen.

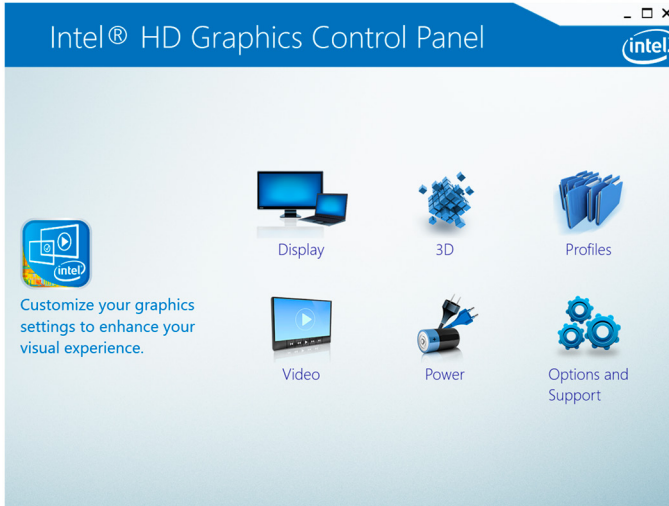
Identifying the display adapter

- 1 On the taskbar, click or tap the search box, and then type *Device Manager*.
- 2 Click or tap **Device Manager**.
The **Device Manager** window is displayed.
- 3 Expand **Display adapters**.



Changing the display settings in Intel HD Graphics Control Panel

- 1 Right-click or touch and hold on the desktop and select **Graphics Properties** to launch the **Intel HD Graphics Control Panel**.



- 2 Click or tap **Display**.
- 3 Change the display settings as required.

Intel WiDi


The wireless display feature allows you to share your computer display with a compatible TV without using cables. You must connect a wireless display adapter to your TV before setting up the wireless display. To check if your TV supports this feature, see the documentation that is shipped with the TV.

The following table provides the basic system requirements for a wireless display.


Processor	2nd generation Intel Core i5, i7
Video controller	Intel HD Graphics
WLAN card	Intel 2230 or Intel 6150

Operating system	Windows 7 or later
Driver	Download and install the latest driver for “Intel Wireless Display Connection Manager” available at www.dell.com/support

Downloading the WiDi application

- 1 Turn on your computer.
- 2 Go to www.dell.com/support.
- 3 Click or tap **Product Support**, enter the Service Tag of your computer, and then click or tap **Submit**.
 **NOTE:** If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.
- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Scroll down the page and expand **Video**.
- 6 Click or tap **Download** to download the Intel WiDi application for your computer.
- 7 After the download is complete, navigate to the folder where you saved the WiDi application file.
- 8 Double-click or double-tap the application file icon and follow the instructions on the screen.

Setting up the wireless display

- 1 Turn on your computer.
 **NOTE:** Ensure that Wi-Fi is enabled.
- 2 Connect the wireless display adapter to the TV.
- 3 Turn on the TV and the wireless display adapter.
- 4 Select the appropriate video source for your TV, such as HDMI1, HDMI2, or S-Video.
- 5 Double-click or double-tap the Intel Wireless Display icon on the desktop.
The **Intel Wireless Display** window is displayed.
- 6 Click or tap **Scan for available displays**.
- 7 Select your wireless display adapter from the **Detected Wireless Displays** list.
- 8 Enter the security code that is displayed on your TV.

USB

The following table shows the USB ports available in Inspiron 17-7778.

Ports	Location
USB Type-C port	Left side
USB 3.0 port with PowerShare	Left side
USB 2.0 port	Right side



NOTE: USB 3.0 needs the driver to be installed before it can detect any USB devices.

Downloading the USB 3.0 driver

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



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

- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Scroll down the page and expand **Chipset**.
- 6 Click or tap **Download** to download the USB 3.0 driver for your computer.
- 7 After the download is complete, navigate to the folder where you saved the USB 3.0 driver file.
- 8 Double-click or double-tap the driver file icon and follow the instructions on screen.

Enabling or disabling the USB in BIOS setup program

- 1 Turn on or restart your computer.
- 2 Press F2 when the Dell logo is displayed on the screen to enter the BIOS setup program.
The BIOS setup program is displayed.
- 3 On the left pane, select **Settings** → **System Configuration** → **USB Configuration**.
The USB configuration is displayed on the right pane.

- 4 Select or clear the **Enable External USB Port** check box to enable or disable it respectively.
- 5 Save the BIOS setup program settings and exit.

Fixing a no-boot issue caused by USB emulation


Sometimes the computer does not boot to the operating system when USB devices are connected to the computer during startup. This behavior occurs because the computer is looking for bootable files in the USB devices. Follow these steps to fix the no-boot issue:

- 1 Turn on or restart your computer.
- 2 Press F2 when the Dell logo is displayed on the screen to enter the BIOS setup program.
The BIOS setup program is displayed.
- 3 On the left pane, select **Settings** → **System Configuration** → **USB Configuration**.
The USB configuration is displayed on the right pane.
- 4 Clear the **Enable Boot Support** check box to disable it.
- 5 Save the settings and exit.

Wi-Fi

The Inspiron 17-7778 is shipped with Wi-Fi 802.11ac.

Turning on or off Wi-Fi


 **NOTE:** There is no physical switch to enable or disable Wi-Fi. It has to be done through computer settings.

- 1 Swipe-in from the right edge of the display, or click or tap the **Action Center** icon on the taskbar to access the Action Center.
- 2 Click or tap **Wi-Fi** to turn Wi-Fi on or off.

Downloading the Wi-Fi driver

- 1 Turn on your computer.
- 2 Go to www.dell.com/support.

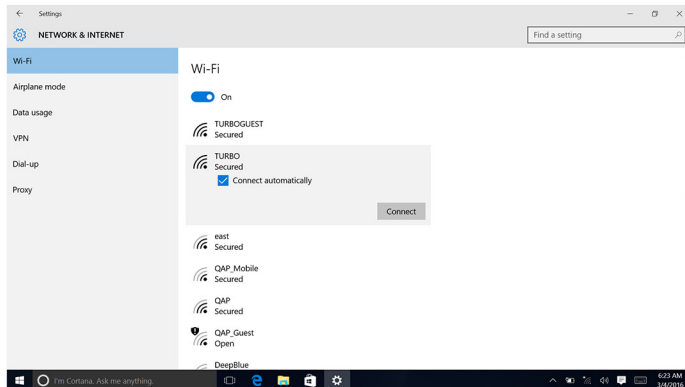
- 3 Click or tap **Product support** enter the Service Tag of your computer, and then click or tap **Submit**.

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

- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Scroll down the page and expand **Network**.
- 6 Click or tap **Download** to download the Wi-Fi driver for your computer.
- 7 After the download is complete, navigate to the folder where you saved the Wi-Fi driver file.
- 8 Double-click or double-tap the driver file icon and follow the on-screen instructions to install the driver.

Configuring the Wi-Fi

- 1 Turn on Wi-Fi. For more information, see [Turning Wi-Fi on or off](#).
- 2 Swipe-in from the right edge of the display, or click or tap the Action Center icon on the taskbar to access the Action Center.
- 3 Touch and hold **Wi-Fi**, and then click or tap **Go to settings**.
A list of available networks is displayed.
- 4 Select your network and click or tap **Connect**.




 **NOTE:** Type the network security key, if prompted.

Bluetooth

The Inspiron 17-7778 is shipped with Bluetooth 4.0.

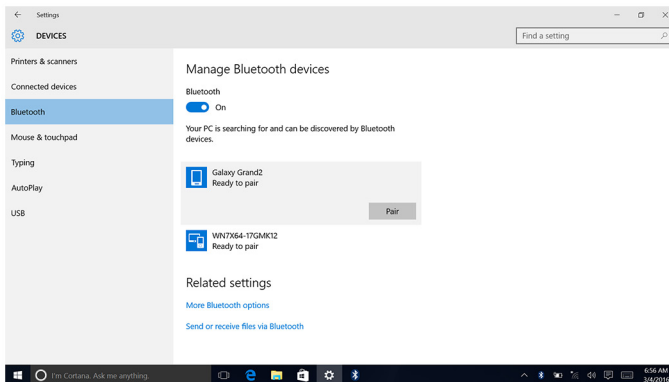
Turning on or off Bluetooth

 **NOTE:** There is no physical switch to enable or disable Bluetooth. It has to be done through the computer settings.

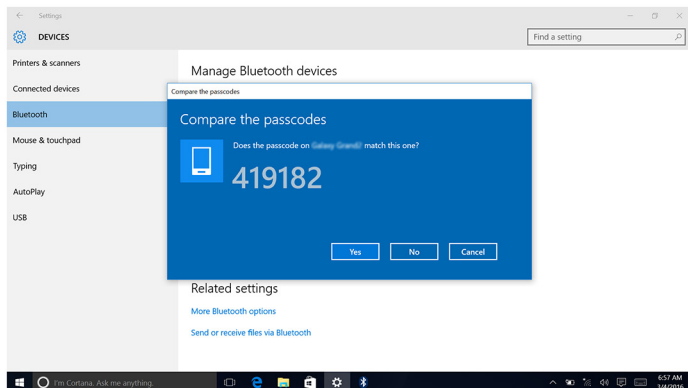
- 1 Swipe-in from the right edge of the display, or click or tap the **Action Center** icon on the taskbar to access the Action Center.
- 2 Click or tap **Bluetooth** to turn Bluetooth on or off.

Pairing the Bluetooth-enabled devices

- 1 Turn on Bluetooth. For more information, see [Turning on or off Bluetooth](#).
- 2 Swipe-in from the right edge of the display, or click or tap the **Action Center** icon on the taskbar to access the Action Center.
- 3 Touch and hold **Bluetooth**, and then click or tap **Go to settings**.
- 4 Select the required Bluetooth device for pairing.
- 5 Click or tap **Pair** to pair the bluetooth devices.

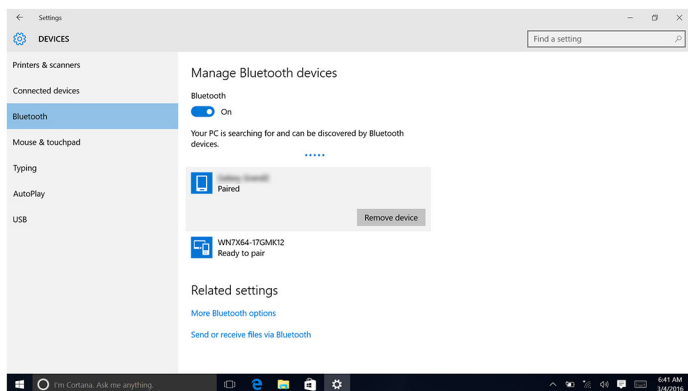


- Click or tap **Yes** to confirm the passcodes on both the devices.



Removing the Bluetooth device

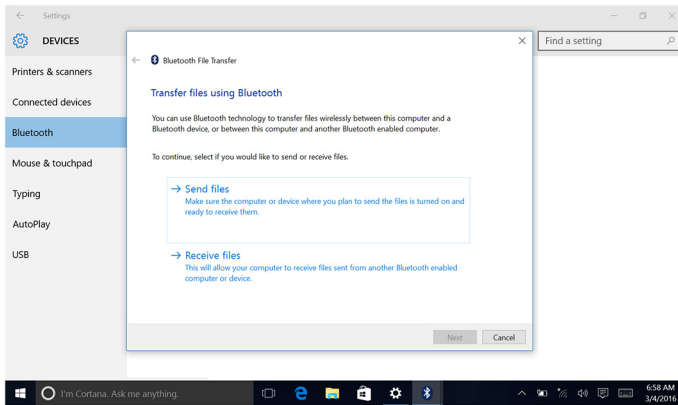
- Swipe-in from the right edge of the display, or click or tap the **Action Center** icon on the taskbar to access the Action Center.
- Touch and hold **Bluetooth**, and then click or tap **Go to settings**.
- Click or tap the device you want to remove, and then click or tap **Remove device**.



Transferring files between devices using Bluetooth

- Swipe-in from the right edge of the display, or click or tap the **Action Center** icon on the taskbar to access the Action Center.
- Touch and hold **Bluetooth**, and then click or tap **Go to settings**.

- 3 Select your Bluetooth device.
- 4 Click or tap **Send or receive files via Bluetooth**.
- 5 In the **Bluetooth File Transfer** window, click or tap **Send files**, and then select the file you want to transfer.



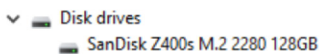
Hard drive

The following table shows the hard-drive options available in Inspiron 17-7778.

Options	Dimensions
SSD	M.2 drive/2.5–inch drive
HDD	2.5–inch drive

Identifying the hard drive

- 1 On the taskbar, click or tap the search box, and then type *Device Manager*.
- 2 Click or tap **Device Manager**.
The **Device Manager** window is displayed.
- 3 Expand **Disk drives**.




Identifying the hard drive in BIOS setup program

- 1 Turn on or restart your computer.
- 2 Press F2 when the Dell logo is displayed on the screen to enter the BIOS setup program.
A list of hard drives is displayed under the **System Information** in the **General** group.

Media-card reader

The Inspiron 17-7778 has one SD-card slot located on the right side of your computer.

Downloading the media-card reader driver

- 1 Turn on your computer.
- 2 Go to www.dell.com/support.
- 3 Click or tap **Product support** enter the Service Tag of your computer, and then click or tap **Submit**.
 **NOTE:** If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.
- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Scroll down the page and expand **Chipset**.
- 6 Click or tap **Download** to download the media-card reader driver for your computer.
- 7 After the download is complete, navigate to the folder where you saved the media-card reader driver file.
- 8 Double-click or double-tap the card reader driver file icon and follow the instructions on screen.



Browsing a media card

- 1 Insert the media card with the metal contacts facing down.
The card will auto-play and a notification appears on the screen.
- 2 Follow the instructions on the screen.










Keyboard















The Inspiron 17-7778 is shipped with a backlit keyboard.

Changing the keyboard language

- 1 Click or tap **Start** .
- 2 Click or tap **Settings** .
- 3 Click or tap **Time & language** → **Region & language**.
- 4 Click or tap **Add a language**.
- 5 Choose the language you want to add and select a country for the language.
- 6 Under **Languages**, click or tap the language that you want to set as the default language.
- 7 Click or tap **Set as default**.

Keyboard shortcuts

Icons	Description
	Mute audio
	Decrease volume
	Increase volume
	Play previous track/chapter
	Play/Pause
	Play next track/chapter
	Switch to external display
	Search
	Toggle keyboard backlight

Icons	Description
	Decrease brightness
	Increase brightness
	Turn off/on wireless
	Pause/Break
	Sleep
	Toggle scroll lock
	Toggle between power and battery-status light/hard-drive activity light
	System request
	Open application menu
	Toggle Fn-key lock
	End
	Home
	Page down
	Page up

Touch pad

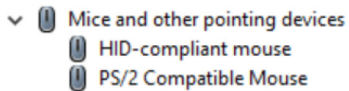
The Inspiron 17-7778 is shipped with a Precision touch pad.

A precision touch pad is a new class of input device that provides high precision pointer input and gesture functionality. Precision touch pads interact with the operating system directly without a driver.

The operating system handles the overall functionality of the touch pad and there are no separate drivers available for download.

Identifying the touch pad

- 1 On the taskbar, click or tap the search box, and then type *Device Manager*.
- 2 Click or tap **Device Manager**.
The **Device Manager** window is displayed.
- 3 Expand **Mice and other pointing devices**.





Touch pad gestures


Gesture	Procedure	Result
Tap to click	Tap on the touch pad.	Selects an item
Tap, tap-slide to highlight or drag	Tap, tap-slide on the touch pad	Highlights text, and drags and drops an item
Slide to scroll	Place two fingers on the touch pad, and then slide.	Scrolls the page. Pages can scroll left and right, up and down, or both.
Pinch or stretch to zoom	Place two fingers on the touch pad and move them toward each other or away from each other	Zooms out or zooms in on the touch pad.
Swipe for Action Center	Swipe in from the right edge	Opens the Action Center. Swipe again to hide the Action Center.
Swipe for adding new desktop	Swipe in from the left edge	Click or tap New desktop to add a new desktop.

Power adapter

The Inspiron 17-7778 is shipped with a 65 W power adapter.

 **WARNING:** When you disconnect the power adapter cable from the computer, pull on its connector, not the cable itself. When disconnecting cable, keep it evenly aligned to avoid bending any connector pins. When connecting the cable, ensure that the port and the connector are correctly oriented and aligned.


 **WARNING:** The power adapter works with electrical outlets worldwide. However, power connectors and power strips vary among countries. Using an incompatible cable or improperly connecting the cable to the power strip or electrical outlet may cause fire or equipment damage.

 **NOTE:** Depending on the region, two or three pin adapters are available. Please verify part numbers from SPMD before replacing the power adapter.

Battery

The Inspiron 17-7778 is shipped with the following battery options:

- 3-cell 42 WHr smart lithium ion
- 4-cell 56 WHr smart lithium ion

 **NOTE:** Batteries are covered for a period of one year from the invoice date unless stated otherwise in the invoice.


Chipset

The chipset is virtually divided into two sections — Northbridge and Southbridge. All computer components communicate with the CPU through the chipset.

The Inspiron 17-7778 is shipped with the chipset that is integrated in the processor.

Downloading the chipset driver

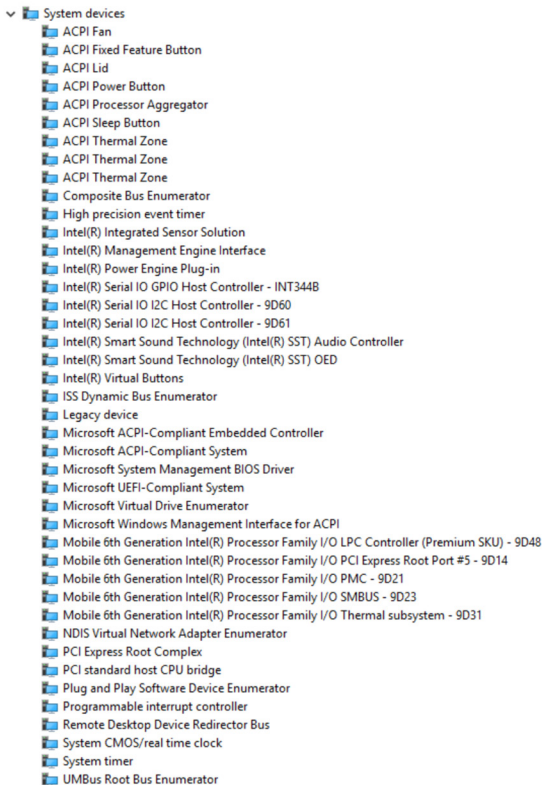
- 1 Turn on your computer.
- 2 Go to www.dell.com/support.
- 3 Click or tap **Product support**, enter the Service Tag of your computer, and then click or tap **Submit**.

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

- 4 Click or tap **Drivers & downloads** → **Find it myself**.
- 5 Scroll down the page and expand **Chipset**.
- 6 Click or tap **Download** to download the chipset driver for your computer.
- 7 After the download is complete, navigate to the folder where you saved the chipset driver file.
- 8 Double-click or double-tap the chipset driver file icon and follow the instructions on the screen.

Identifying the chipset



- 1 On the taskbar, click or tap the search box, and then type `Device Manager`.
- 2 Click or tap **Device Manager**.
The **Device Manager** window is displayed.
- 3 Expand **System devices**.



Memory

The Inspiron 17-7778 has two SODIMM (RAM) slots, which are accessible by removing the base cover. Your computer supports 4 GB, 8 GB, 12 GB, and 16 GB dual-channel DDR4 memory of up to 2133 MHz.

Checking the system memory in Windows


- 1 Click or tap **Start** .
- 2 Select **Settings** .
- 3 Click or tap **System** → **About**.

Checking the system memory in BIOS setup program

- 1 Turn on or restart your computer.
- 2 Press F2 when the Dell logo is displayed on the screen to enter the BIOS setup program.
- 3 On the left pane, select **Settings** → **General** → **System Information**.
The memory information is displayed on the right pane.

Testing memory using ePSA

- 1 Turn on or restart your computer.
- 2 Press F12 after the Dell logo is displayed on the screen to access the boot menu.
- 3 Use the arrow keys to highlight the **Diagnostics** menu option and press **Enter**.
- 4 Follow the instructions on the screen to complete the ePSA Pre-boot System Assessment (PSA).

 **NOTE:** If the operating system logo appears, wait until you see the desktop. Turn off your computer and try again.

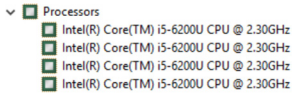
Processors

The Inspiron 17-7778 is shipped with the following processor options:

- 6th generation Intel Core i5
- 6th generation Intel Core i7

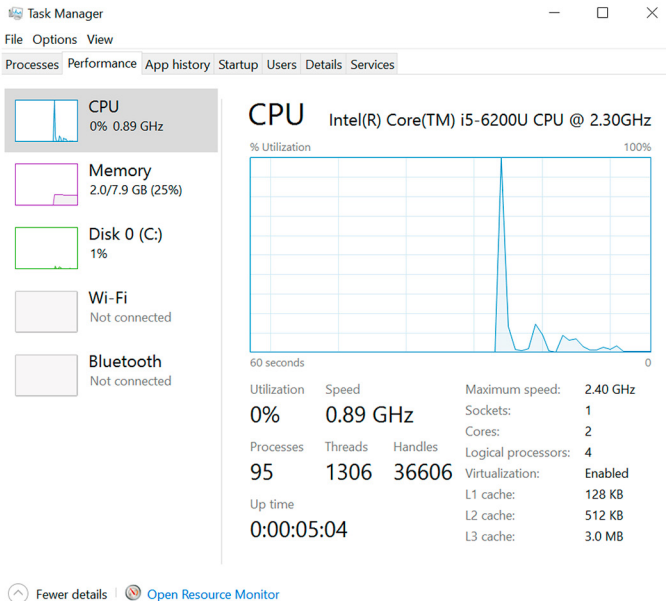
Identifying the processors in Windows

- 1 On the taskbar, click or tap the search box, and then type *Device Manager*.
- 2 Click or tap **Device Manager**.
The **Device Manager** window is displayed.
- 3 Expand **Processors** .



Checking the processor usage in the task manager

- 1 Right-click or double-tap on the taskbar.
- 2 Click or tap **Task Manager**.
The **Task Manager** window is displayed.
- 3 Click or tap **Performance** tab to display the processor performance details.



Operating System

The Inspiron 17-7778 is shipped with the Windows 10 factory installation.

Service Tag location

The service tag is a unique alphanumeric identifier that allows Dell service technicians to identify the hardware components in your computer and access warranty information.

Device drivers

Intel Dynamic Platform and Thermal Framework

In the Device Manager, check if the Intel Dynamic Platform and Thermal Framework is installed.

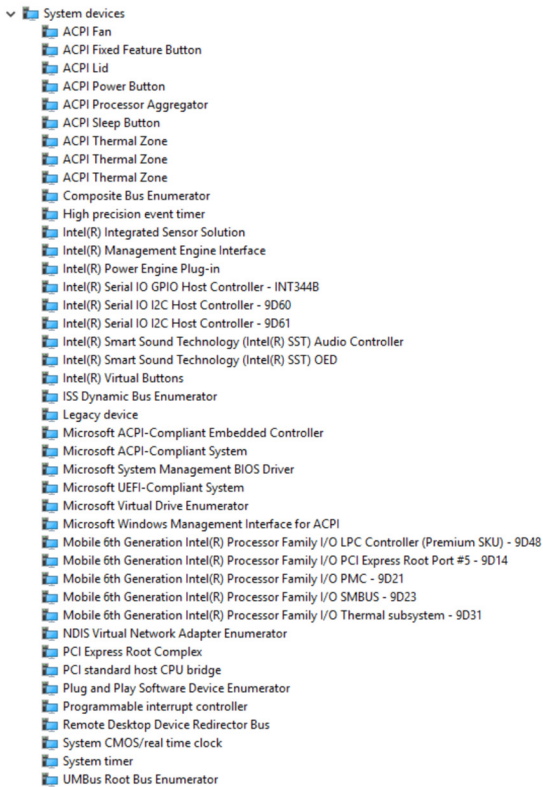
Install the driver updates from www.dell.com/support.

- ▼ Intel(R) Dynamic Platform and Thermal Framework
 - Intel(R) Dynamic Platform and Thermal Framework Generic Participant
 - Intel(R) Dynamic Platform and Thermal Framework Generic Participant
 - Intel(R) Dynamic Platform and Thermal Framework Manager
 - Intel(R) Dynamic Platform and Thermal Framework Memory Participant
 - Intel(R) Dynamic Platform and Thermal Framework Processor Participant

Intel Chipset Software Installation Utility

In the Device Manager, check if the chipset driver is installed.

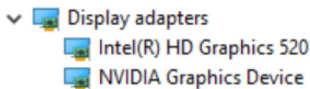
Install the Intel chipset updates from www.dell.com/support.



Video drivers

In the Device Manager, check if the video driver is installed.









Install the video driver update from www.dell.com/support.



Intel Serial IO driver

In the Device Manager, check if the Intel Serial IO driver is installed.

Install the driver updates from www.dell.com/support.

- ▼  Human Interface Devices
 -  Converted Portable Device Control device
 -  GPIO Dock Mode Indicator Driver
 -  GPIO Laptop or Slate Indicator Driver
 -  HID PCI Minidriver for ISS
 -  HID PCI Minidriver for ISS
 -  HID PCI Minidriver for ISS
 -  HID PCI Minidriver for ISS
 -  HID-compliant consumer control device
 -  HID-compliant consumer control device
 -  HID-compliant consumer control device
 -  HID-compliant consumer control device
 -  HID-compliant consumer control device
 -  HID-compliant consumer control device
 -  HID-compliant consumer control device
 -  HID-compliant consumer control device
 -  HID-compliant system controller
 -  HID-compliant system controller
 -  HID-compliant system controller
 -  HID-compliant system controller
 -  HID-compliant touch pad
 -  HID-compliant touch screen
 -  HID-compliant vendor-defined device
 -  HID-compliant vendor-defined device
 -  HID-compliant vendor-defined device
 -  HID-compliant vendor-defined device
 -  HID-compliant vendor-defined device
 -  HID-compliant vendor-defined device
 -  HID-compliant wireless radio controls
 -  I2C HID Device
 -  Microsoft Input Configuration Device
 -  Microsoft Input Configuration Device
 -  Portable Device Control device
 -  USB Input Device
 -  USB Input Device
 -  USB Input Device

- ▼  Mice and other pointing devices
 -  HID-compliant mouse
 -  PS/2 Compatible Mouse

- System devices
 - ACPI Fan
 - ACPI Fixed Feature Button
 - ACPI Lid
 - ACPI Power Button
 - ACPI Processor Aggregator
 - ACPI Sleep Button
 - ACPI Thermal Zone
 - ACPI Thermal Zone
 - ACPI Thermal Zone
 - Composite Bus Enumerator
 - High precision event timer
 - Intel(R) Integrated Sensor Solution
 - Intel(R) Management Engine Interface
 - Intel(R) Power Engine Plug-in
 - Intel(R) Serial IO GPIO Host Controller - INT344B
 - Intel(R) Serial IO I2C Host Controller - 9D60
 - Intel(R) Serial IO I2C Host Controller - 9D61
 - Intel(R) Smart Sound Technology (Intel(R) SST) Audio Controller
 - Intel(R) Smart Sound Technology (Intel(R) SST) OED
 - Intel(R) Virtual Buttons
 - Intel(R) Virtual Buttons
 - ISS Dynamic Bus Enumerator
 - Legacy device
 - Microsoft ACPI-Compliant Embedded Controller
 - Microsoft ACPI-Compliant System
 - Microsoft System Management BIOS Driver
 - Microsoft UEFI-Compliant System
 - Microsoft Virtual Drive Enumerator
 - Microsoft Windows Management Interface for ACPI
 - Mobile 6th Generation Intel(R) Processor Family I/O LPC Controller (Premium SKU) - 9D48
 - Mobile 6th Generation Intel(R) Processor Family I/O PCI Express Root Port #5 - 9D14
 - Mobile 6th Generation Intel(R) Processor Family I/O PMC - 9D21
 - Mobile 6th Generation Intel(R) Processor Family I/O SMBUS - 9D23
 - Mobile 6th Generation Intel(R) Processor Family I/O Thermal subsystem - 9D31
 - NDIS Virtual Network Adapter Enumerator
 - PCI Express Root Complex
 - PCI standard host CPU bridge
 - Plug and Play Software Device Enumerator
 - Programmable interrupt controller
 - Remote Desktop Device Redirector Bus
 - System CMOS/real time clock
 - System timer
 - UMBus Root Bus Enumerator

Intel Trusted Execution Engine Interface

In the Device Manager, check if the Intel Trusted Execution Engine Interface driver is installed.

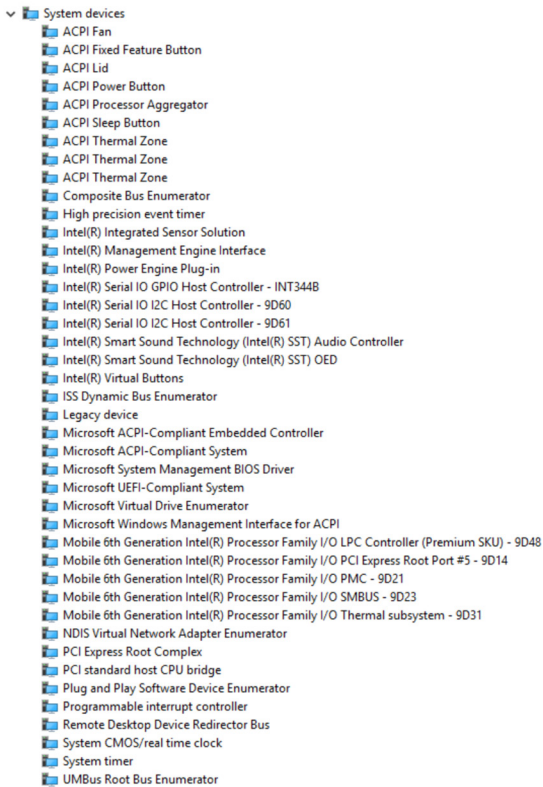
Install the driver update from www.dell.com/support.

- System devices
 - ACPI Fan
 - ACPI Fixed Feature Button
 - ACPI Lid
 - ACPI Power Button
 - ACPI Processor Aggregator
 - ACPI Sleep Button
 - ACPI Thermal Zone
 - ACPI Thermal Zone
 - ACPI Thermal Zone
 - Composite Bus Enumerator
 - High precision event timer
 - Intel(R) Integrated Sensor Solution
 - Intel(R) Management Engine Interface
 - Intel(R) Power Engine Plug-in
 - Intel(R) Serial IO GPIO Host Controller - INT344B
 - Intel(R) Serial IO I2C Host Controller - 9D60
 - Intel(R) Serial IO I2C Host Controller - 9D61
 - Intel(R) Smart Sound Technology (Intel(R) SST) Audio Controller
 - Intel(R) Smart Sound Technology (Intel(R) SST) OED
 - Intel(R) Virtual Buttons
 - ISS Dynamic Bus Enumerator
 - Legacy device
 - Microsoft ACPI-Compliant Embedded Controller
 - Microsoft ACPI-Compliant System
 - Microsoft System Management BIOS Driver
 - Microsoft UEFI-Compliant System
 - Microsoft Virtual Drive Enumerator
 - Microsoft Windows Management Interface for ACPI
 - Mobile 6th Generation Intel(R) Processor Family I/O LPC Controller (Premium SKU) - 9D48
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 - Mobile 6th Generation Intel(R) Processor Family I/O SMBUS - 9D23
 - Mobile 6th Generation Intel(R) Processor Family I/O Thermal subsystem - 9D31
 - NDIS Virtual Network Adapter Enumerator
 - PCI Express Root Complex
 - PCI standard host CPU bridge
 - Plug and Play Software Device Enumerator
 - Programmable interrupt controller
 - Remote Desktop Device Redirector Bus
 - System CMOS/real time clock
 - System timer
 - UMBus Root Bus Enumerator

Intel Virtual Button driver

In the Device Manager, check if the Intel Virtual Button driver is installed.

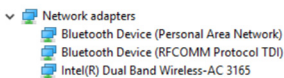
Install the driver updates from www.dell.com/support.



Intel Wireless 3165 Wi-Fi and Bluetooth drivers

In the Device Manager, check if the network card driver is installed.

Install the driver updates from www.dell.com/support.



In the Device Manager, check if the Bluetooth driver is installed.

Install the driver updates from www.dell.com/support.



BIOS overview

The BIOS manages data flow between the computer's operating system and attached devices such as hard disk, video adapter, keyboard, mouse, and printer.

Entering the BIOS setup program

- 1 Turn on or restart your computer.
- 2 Press F2 when the Dell logo is displayed on the screen to enter the BIOS setup program.

You can change the user-defined settings in BIOS setup program.

Boot menu

The Inspiron 17-7778 includes a one-time boot menu. By using this feature, you can change the sequence of devices that your computer attempts to boot from, for example, floppy, CD-ROM, or hard drive.

Boot menu enhancements

The boot menu enhancements are as follows:

- **Easier Access** — Press F12 to access the boot selection menu.
- **User Prompting** — The user is prompted to use the keystroke on the BIOS screen.
- **Diagnostics Options** — The boot menu includes the ePSA diagnostic options.

Timing key sequences

The keyboard is not the first device initialized by Setup. As a result, if you press a keystroke too early, the keyboard is locked out. In such case, a keyboard error message is displayed on the screen, and you cannot restart your computer with the Ctrl+Alt+Del key combination.

To prevent the keyboard from locking, wait until the keyboard is initialized completely. The keyboard is initialized if one of the following occurs:

- The keyboard lights flash.

- The F2=Setup prompt appears at the top-right corner of the screen during boot.

System diagnostic lights

Power and battery-status light/hard-drive activity light

Indicates the battery-charge status or the hard-drive activity.



NOTE: Press Fn+H to toggle this light between power and battery-status light and hard-drive activity light.

Hard-drive activity light

Turns on when the computer reads from or writes to the hard drive.

Power and battery-status light

Indicates the power and battery-charge status

Solid white — Power adapter is connected and the battery has more than 5 percent charge.

Amber — Computer is running on battery and the battery has less than 5 percent charge.

Off

- Power adapter is connected and the battery is fully charged.
- Computer is running on battery and the battery has more than 5 percent charge.
- Computer is in sleep state, hibernation, or turned off

The power and battery-status light blinks amber along with beep codes indicating failures.

For example, the power and battery-status light blinks amber two times followed by a pause, and then blinks white three times followed by a pause. This 2,3 pattern continues until the computer is turned off indicating no memory or RAM is detected.

The following table shows different light patterns, what they indicate, and the suggested solutions.

Light pattern	Problem description	Suggested solution
2,1	CPU failure	Replace the system board.
2,2	System board: BIOS and ROM failure	Flash latest BIOS version. If problem persists, replace the system board.
2,3	No memory or RAM detected	Confirm that the memory module is installed properly. If

Light pattern	Problem description	Suggested solution
		problem persists, replace the memory module.
2,4	Memory or RAM failure	Replace the memory module.
2,5	Invalid memory installed	Replace the memory module.
2,6	System board or chipset error	Replace the system board.
2,7	LCD failure	Replace the LCD.
3,1	CMOS battery failure	Replace the CMOS battery.
3,2	PCI or video card or chip failure	Replace the CMOS battery.
3,3	Recovery image not found	Reimage the system.
3,4	Recovery image found but invalid	Reimage the system.

Camera status light: Indicates whether the camera is in use.

- Solid white — Camera is in use.
- Off — Camera is not in use.

Caps Lock status light: Indicates whether Caps Lock is enabled or disabled.

- Solid white — Caps Lock enabled.
- Off — Caps Lock disabled.

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.