

Dell 14S

DS14265

Service Manual

Notes, cautions, and warnings

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

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

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

Chapter 1: Working inside your computer.....	6
Safety instructions.....	6
Before working inside your computer.....	6
Safety precautions.....	7
Electrostatic discharge—ESD protection.....	7
ESD Field Service kit	8
Transporting sensitive components.....	9
After working inside your computer.....	9
Information on reparability for Québec - From Dell Canada Inc. - to Quebec consumers.....	9
BitLocker.....	9
Recommended tools.....	10
Screw list.....	10
Major components of Dell 14S DS14265.....	11
Customer Replaceable Units (CRUs) and Field Replaceable Units (FRUs) list.....	13
 Chapter 2: Removing and installing Customer Replaceable Units (CRUs).....	 14
Base cover.....	14
Removing the base cover.....	14
Installing the base cover.....	16
Battery.....	17
Rechargeable Li-ion battery precautions.....	17
Removing the battery	18
Installing the battery	18
Battery cable.....	19
Removing the battery cable	19
Installing the battery cable	20
M.2 solid state drive.....	21
Removing the M.2 2230 solid state drive (SSD).....	21
Installing the M.2 2230 solid state drive (SSD).....	22
Fan.....	24
Removing the fan	24
Installing the fan	24
Wireless card.....	25
Removing the wireless card	25
Installing the wireless card	26
Speaker assembly.....	28
Removing the speaker assembly.....	28
Installing the speaker assembly.....	29
 Chapter 3: Removing and installing Field Replaceable Units (FRUs).....	 31
Display assembly.....	31
Removing the display assembly	31
Installing the display assembly	34
I/O-board cable	38

Removing the I/O-board cable.....	38
Installing the I/O-board cable.....	39
I/O board.....	39
Removing the I/O board.....	39
Installing the I/O board.....	40
Heat sink.....	41
Removing the heat sink.....	41
Installing the heat sink.....	42
System board.....	43
Removing the system board.....	43
Installing the system board	46
USB Type-C connector module.....	49
Removing the USB Type-C connector module.....	49
Installing the USB Type-C connector module.....	50
Power button.....	51
Removing the power button.....	51
Installing the power button.....	52
Touchpad.....	53
Removing the touchpad.....	53
Installing the touchpad.....	54
Antennas.....	56
Removing the left antenna.....	56
Installing the left antenna.....	57
Removing the right antenna.....	57
Installing the right antenna.....	58
Palm-rest and keyboard assembly.....	59
Removing the palm-rest and keyboard assembly	59
Installing the palm-rest and keyboard assembly	60
Chapter 4: Software.....	62
Operating system.....	62
Drivers and downloads.....	62
Chapter 5: BIOS Setup.....	63
Entering BIOS Setup program.....	63
Navigation keys.....	63
F12 One Time Boot menu.....	63
BIOS Setup options.....	64
Updating the BIOS.....	71
Updating the BIOS in Windows.....	71
Updating the BIOS using the USB drive in Windows.....	72
Updating the BIOS from the One-Time boot menu.....	72
System and setup password.....	73
Assigning a System Setup password.....	73
Deleting or changing an existing system password or setup password.....	73
Clearing system and setup passwords.....	74
Chapter 6: Troubleshooting.....	75
Handling swollen rechargeable Li-ion batteries.....	75

Dell SupportAssist Pre-boot System Performance Check diagnostics.....	75
Running the SupportAssist Pre-Boot System Performance Check.....	76
Built-in self-test (BIST).....	76
Motherboard Built-In Self-Test (M-BIST).....	76
LCD Built-in Self-Test (LCD-BIST).....	77
Logic Built-in Self-test (L-BIST).....	77
System-diagnostic lights.....	77
Recovering the operating system.....	78
Real-Time Clock (RTC Reset).....	78
Backup media and recovery options.....	79
Network power cycle.....	79
Drain flea power (perform hard reset).....	79
 Chapter 7: Getting help and contacting Dell Technologies.....	 81
 Chapter 8: Revision history.....	 82

Working inside your computer

Safety instructions

Use the following safety guidelines to protect your computer from potential damage and to ensure your personal safety. Unless otherwise noted, each procedure in this document assumes that you have read the safety information that shipped with your computer.

 **WARNING:** Before working inside your computer, read the safety information that is shipped with your computer. For more safety best practices, see [Dell Regulatory Compliance Home Page](#).

 **WARNING:** Disconnect your computer from 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 your computer to an electrical outlet.

 **CAUTION:** To avoid damaging the computer, ensure that the work surface is flat, dry, and clean.

 **CAUTION:** You should only perform troubleshooting and repairs as authorized or directed by the Dell technical support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty.

 **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:** To avoid damaging the components and cards, handle them by their edges, and avoid touching the pins and the contacts.

 **CAUTION:** When you disconnect a cable, pull it by its connector or its pull tab, not the cable itself. Some cables have connectors with locking tabs or thumbscrews that you must disengage before disconnecting the cable. When disconnecting cables, keep them evenly aligned to avoid bending the connector pins. When connecting cables, ensure that the connector on the cable is correctly oriented and aligned with the port.

 **CAUTION:** Press and eject any installed card from the media-card reader.

Before working inside your computer

About this task

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

Steps

1. Save and close all open files and exit all open applications.
2. Shut down your computer. For Windows operating system, click **Start** >  **Power** > **Shut down**.
 **NOTE:** If you are using a different operating system, see the documentation of your operating system for instructions.
3. Turn off all the attached peripherals.
4. Disconnect your computer from the electrical outlet.
5. Disconnect all attached network devices and peripherals, such as keyboard, mouse, and monitor from your computer.
6. Remove any media card and optical drive from your computer, if applicable.
7. To clean the air vents, use a soft brush and move vertically.

 **NOTE:** Do not remove the base cover or use any blower to clean the vents.

8. Enter the Service Mode.

Service Mode

Service Mode is used to cut off power without disconnecting the battery cable from the system board before conducting repairs in the computer.

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

 **NOTE:** Ensure that your computer is shut down and the power adapter is disconnected.

- a. Press and hold the B key and the power button for three seconds, or until the Dell logo appears on the screen.
- b. If the **Owner Tag** is set, it is displayed on the screen. Press any key to continue.

 **NOTE:** If the **Owner Tag** information is not already set, the computer automatically skips this step and proceeds to enter Service Mode.

- c. If the power adapter is still connected, a message appears on the screen prompting you to disconnect it. Disconnect the power adapter, then press any key to continue.
- d. When the **System Ready For Service** message appears on the screen, press any key to proceed. The computer emits three short beeps and shuts down immediately.
The computer shuts down and enters the Service Mode.

Safety precautions

This section details the primary steps to be followed before disassembling any device or component.

Observe the following safety precautions before any installation or break-fix procedures involving disassembly or reassembly:

- Turn off the computer and all attached peripherals.
- Disconnect the computer from AC power.
- Disconnect all network cables and peripherals from the computer.
- Use an ESD field service kit when working inside your computer to avoid electrostatic discharge (ESD) damage.
- Place the removed component on an anti-static mat after removing it from the computer.
- Press and hold the power button for 15 seconds to discharge the residual power in the system board.

Bonding

Bonding is a method for connecting two or more grounding conductors to the same electrical potential. This is done by using a field service electrostatic discharge (ESD) kit. When connecting a bonding wire, ensure that it is connected to bare metal and never to a painted or nonmetal surface. Ensure that the wrist strap is secure and in full contact with your skin. Remove all jewelry, watches, bracelets, or rings before grounding yourself and the equipment.

Electrostatic discharge—ESD protection

ESD is a major concern when you handle electronic components, especially sensitive components such as expansion cards, processors, memory modules, and system boards. A slight charge can damage circuits in ways that may not be obvious, such as intermittent problems or a shortened product life span. As the industry pushes for lower power requirements and increased density, ESD protection is an increasing concern.

Two recognized types of ESD damage are catastrophic and intermittent failures.

- **Catastrophic** – Catastrophic failures represent approximately 20 percent of ESD-related failures. The damage causes an immediate and complete loss of device functionality. An example of catastrophic failure is a memory module that has received a static shock and immediately generates a "No POST/No Video" symptom with a beep code that is emitted for missing or nonfunctional memory.
- **Intermittent** – Intermittent failures represent approximately 80 percent of ESD-related failures. The high rate of intermittent failures means that most of the time when damage occurs, it is not immediately recognizable. The memory module receives a static shock, but the tracing is merely weakened and does not immediately produce outward symptoms that are related to the damage. The weakened trace may take weeks or months to melt, and in the meantime may cause degradation of memory integrity, intermittent memory errors, and so on.

Intermittent failures that are also called latent or "walking wounded" are difficult to detect and troubleshoot.

Perform the following steps to prevent ESD damage:

- Use a wired ESD wrist strap that is properly grounded. Wireless anti-static straps do not provide adequate protection. Touching the chassis before handling parts does not ensure adequate ESD protection on parts with increased sensitivity to ESD damage.
- Handle all static-sensitive components in a static-safe area. If possible, use anti-static floor pads and workbench pads.
- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the anti-static packing material until you are ready to install the component. Before unwrapping the anti-static packaging, use the anti-static wrist strap to discharge the static electricity from your body.

i NOTE: You can protect against ESD and discharge static electricity from your body by touching a metal-grounded object before you interact with anything electronic, for example, an unpainted metal surface on your computer's I/O panel. When connecting a peripheral (including handheld digital assistants) to your computer, you should always ground both yourself and the peripheral before connecting it to the computer. In addition, as you work inside the computer, periodically touch a metal-grounded object to remove any static charge that your body may have accumulated.

For more information about the wrist strap and ESD wrist strap tester, see [Components of an ESD Field Service Kit](#).

- Before transporting a static-sensitive component, place it in an anti-static container or packaging.

ESD Field Service kit

The unmonitored field service kit is the most commonly used service kit. Each Field Service kit includes three main components: anti-static mat, wrist strap, and bonding wire.

⚠ CAUTION: It is critical to keep ESD-sensitive devices away from internal parts that are insulated and often highly charged, such as plastic heat sink casings.

Working environment

Before the ESD Field Service kit is deployed, conduct an evaluation of the site to ensure proper setup and readiness. For example, deploying the kit for a server environment is different than for a desktop or laptop environment. Servers are typically installed in a rack within a data center; desktops or laptops are typically placed on office desks or cubicles. Always look for a large open flat work area that is free of clutter and large enough to deploy the ESD kit with additional space to accommodate the type of computer that is being repaired. The workspace should also be free of insulators that can cause an ESD event. On the work area, insulators such as styrofoam and other plastics should always be moved at least 12 inches or 30 centimeters away from sensitive parts before physically handling any hardware components.

ESD packaging

All ESD-sensitive devices must be shipped and received in static-safe packaging. Metal, static-shielded bags are preferred. However, you should always return the damaged component using the same ESD bag and packaging that the new part arrived in. The ESD bag should be folded over and taped shut and all the same foam packing material should be used in the original box that the new part arrived in. ESD-sensitive devices should be removed from packaging only at an ESD-protected work surface, and parts should never be placed on top of the ESD bag because only the inside of the bag is shielded. Always place parts in your hand, on the anti-static mat, in the computer, or inside an ESD bag.

Components of an ESD Field Service kit

The components of an ESD Field Service kit are:

- **Anti-Static Mat** – The anti-static mat is dissipative and parts can be placed on it during service procedures. When using an anti-static mat, your wrist strap should be snug and the bonding wire should be connected to the anti-static mat and to any bare metal on the computer being worked on. Once deployed properly, service parts can be removed from the ESD bag and placed directly on the anti-static mat. ESD-sensitive items are safe in your hand, on the anti-static mat, in the computer, or inside an ESD bag.
- **Wrist Strap and Bonding Wire** – If an anti-static mat is not being used, the wrist strap and bonding wire should be connected directly between your wrist and an exposed metal part of the hardware. If you are using an anti-static mat, connect the wrist strap and bonding wire to the anti-static mat to ensure protection for any hardware placed on the mat.

The physical connection of the wrist strap and bonding wire between your skin, the anti-static mat, and the hardware is known as bonding. Use only Field Service kits with a wrist strap, anti-static mat, and bonding wire. Never use wireless wrist straps. Always be cautious that the internal wires of a wrist strap are prone to damage from normal wear and tear, and must be checked regularly with a wrist strap tester in order to avoid accidental ESD hardware damage. It is recommended to test the wrist strap and bonding wire at least once per week.

- **ESD Wrist Strap Tester** – The wires inside an ESD strap are prone to damage over time. When using an unmonitored ESD kit, it is recommended to test the wrist strap regularly—ideally before each service session, and at a minimum, once per week. The most reliable method for testing is with a wrist strap tester. To perform the test, connect the bonding wire of the wrist strap to the tester while wearing the strap. Press the test button to initiate the check. A green LED indicates a successful test, while a red LED and audible alarm signal a failure.

 **NOTE:** It is recommended to always use the traditional wired ESD grounding wrist strap and protective anti-static mat when servicing Dell products. In addition, it is critical to keep sensitive parts separate from all insulator parts while servicing the computer.

Transporting sensitive components

When transporting ESD sensitive components such as replacement parts or parts to be returned to Dell, it is critical to place these parts in anti-static bags for safe transport.

After working inside your computer

About this task

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

Steps

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, disks, or any other parts that you removed before working on your computer.
4. Connect your computer to their electrical outlets.

 **NOTE:** To exit service mode, ensure to connect the AC adapter to the power-adapter port on your computer.

5. Press the power button to turn on the computer.

Information on repairability for Québec - From Dell Canada Inc. - to Quebec consumers

Dell does not guarantee the availability of replacement parts, repair services, or information necessary for maintenance or repair.

BitLocker

When updating the BIOS on a computer with BitLocker enabled, consider the following precautions.

 **CAUTION:** If BitLocker is not suspended before updating the BIOS, the BitLocker key is not recognized the next time you reboot the computer. You will then be prompted to enter the recovery key to proceed, and the computer displays a prompt for the recovery key on each reboot. Failure to provide the recovery key can result in data loss or an operating system reinstall. For more information, refer [Updating the BIOS on Dell systems with BitLocker enabled](#).

The installation of the following components triggers BitLocker:

- Hard disk drive or solid state drive
- System board

Recommended tools

The procedures in this document may require the following tools:

- Phillips screwdriver #0
- Flat-headed screwdriver (maximum width: 4 mm)
- Plastic scribe

Screw list

NOTE: When removing screws from a component, it is recommended to note the screw type and the quantity of screws, and then place them in a screw storage box. This is to ensure that the correct number of screws and correct screw type is restored when the component is replaced.

NOTE: Some computers have magnetic surfaces. Ensure that the screws are not left attached to such surfaces when replacing a component.

NOTE: Screw color may vary depending on the configuration ordered.

Table 1. Screw list

Component	Screw type	Quantity	Screw torque strength	Screw image
Base cover	M2x7 (captive screw)	2	2 kgf-cm	
	M2x5	4	2 kgf-cm	
Battery	M2x4.5 (captive screw)	5	2 kgf-cm	
M.2 2230 solid state drive	M2x2	1	2 kgf-cm	
M.2 2230 solid state drive bracket	M2x2	1	2 kgf-cm	
Fan	M2x3	3	2 kgf-cm	
Wireless-card bracket	M2x3	1	2 kgf-cm	
Type-C port module	M2x5	3	2 kgf-cm	
Display-assembly connector bracket	M2x3	2	2 kgf-cm	
Left display-assembly hinge	M2.5x5	3	3.8 kgf-cm	
Right display-assembly hinge	M2.5x5	3	3.8 kgf-cm	

Table 1. Screw list (continued)

Component	Screw type	Quantity	Screw torque strength	Screw image
I/O board	M1.6x1.5	4	1 kgf-cm	
System board	M2x3	2	2 kgf-cm	
	M1.6x1.5	2	1 kgf-cm	
Power button	M1.6x2.5	1	1 kgf-cm	
Touchpad	M1.6x1.5	11	1 kgf-cm	
Left antenna	M1.6x2.5	2	1 kgf-cm	
Right antenna	M1.6x2.5	2	1 kgf-cm	

Major components of Dell 14S DS14265

The following image shows the major components of Dell 14S DS14265.

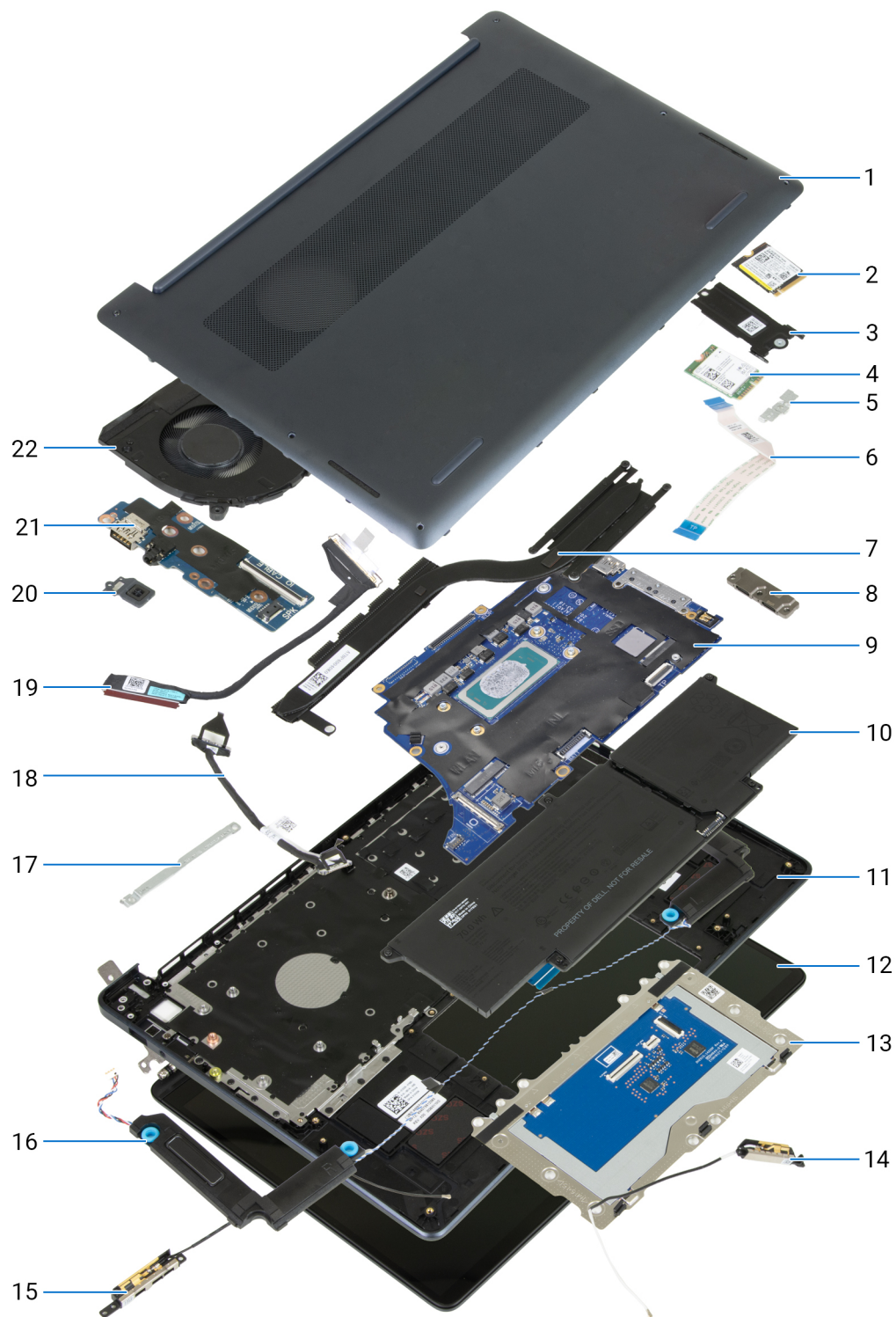


Figure 1. Major components of Dell 14S DS14265

1. Base cover
2. M.2 2230 solid state drive
3. M.2 2230 solid state drive bracket
4. M.2 wireless card
5. Wireless-card bracket
6. Touchpad cable
7. Heat sink

8. USB Type-C connector module
9. System board
10. Battery
11. Palm-rest and keyboard assembly
12. Display assembly
13. Touchpad
14. Right antenna
15. Left antenna
16. Speaker assembly
17. Display-assembly connector bracket
18. Battery cable
19. I/O-board cable
20. Power button
21. I/O board
22. Fan

NOTE: Dell provides a list of components and their part numbers for the original computer configuration purchased. These parts are available depending on the warranty coverage that is selected at the time of purchase. Components from upsell or upgraded variants may not be covered under the standard system warranty. For more details or to explore purchase options, contact your Dell sales representative.

Customer Replaceable Units (CRUs) and Field Replaceable Units (FRUs) list

The replaceable components in Dell 14S DS14265 are either Customer Replaceable Units (CRUs) or Field Replaceable Units (FRUs).

CAUTION: CRUs may be replaced by the customer, following the safety precautions and replacement procedures.

CAUTION: FRUs should be replaced by an authorized service technician, who is a trained technical repair specialist.

CAUTION: Replacement of FRUs by persons other than authorized service technicians may result in damage to the computer or data loss.

NOTE: Damages resulting from improper replacement or from failure to follow instructions are not covered by your warranty. Consider having a trained technical repair specialist perform replacements of FRU components.

Table 2. CRU and FRU list

Customer Replaceable Unit (CRU)	Field Replaceable Unit (FRU)
Base cover	Heat sink
Battery	System board
Battery cable	USB Type-C connector module
M.2 2230 SSD	I/O board
Fan	Power button
Speaker assembly	Display assembly
	Keyboard assembly
	Palm-rest and touchpad assembly

Removing and installing Customer Replaceable Units (CRUs)

The replaceable components in this chapter are Customer Replaceable Units (CRUs).

 **CAUTION:** CRUs may be replaced by the customer, following the safety precautions and replacement procedures.

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

Base cover

Removing the base cover

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).

About this task

The following images indicate the location of the base cover and provide a visual representation of the removal procedure.

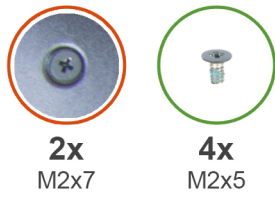


Figure 2. Removing the base cover

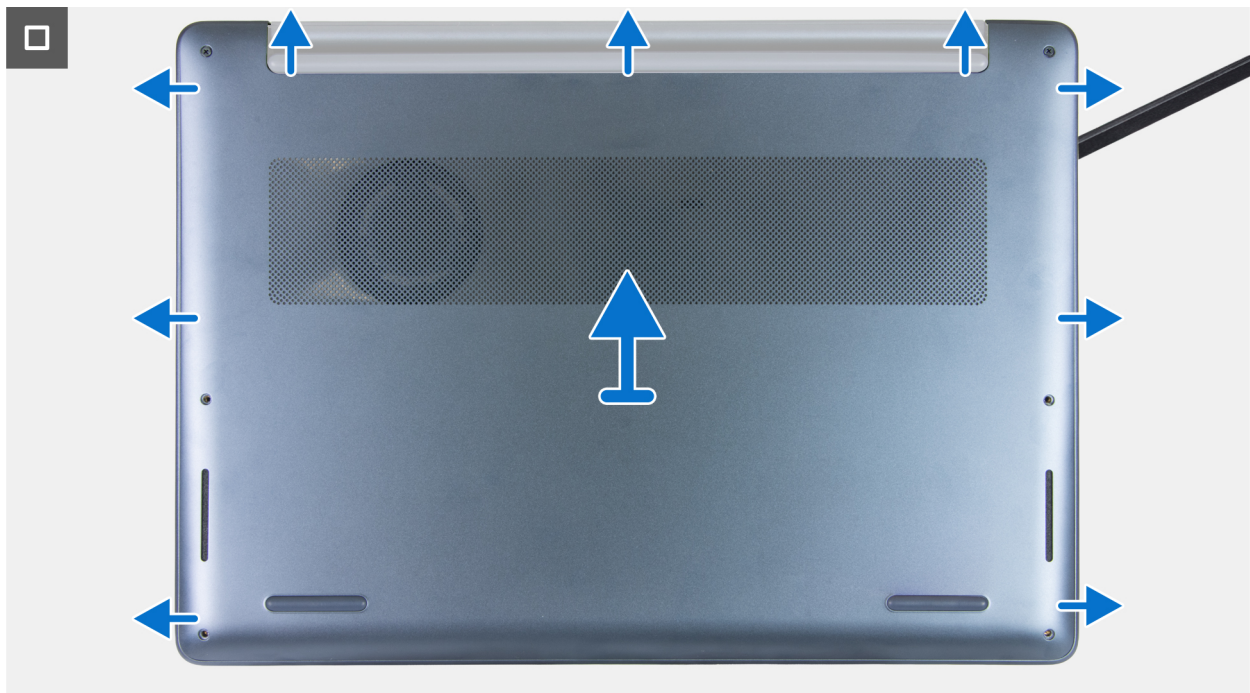


Figure 3. Removing the base cover

Steps

1. Loosen the two captive screws that secure the base cover to the palm-rest and keyboard assembly.
2. Remove the four screws (M2x5) that secure the base cover to the palm-rest and keyboard assembly.
3. Using a plastic scribe, pry open the base cover starting from the recesses at the top edge of the base cover, near the hinges.

 **CAUTION:** Do not slide the scribe along the edges of the base cover as it may damage the latches inside the base cover. Instead, insert the scribe at regular intervals and pry open the base cover.

4. Slide the base cover up and lift it off the palm-rest and keyboard assembly.
5. Turn over the computer, place it on a flat surface, and open the display lid.
6. Press and hold the power button for five seconds to ground the computer and drain the flea power.

Installing the base cover

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the base cover and provide a visual representation of the installation procedure.

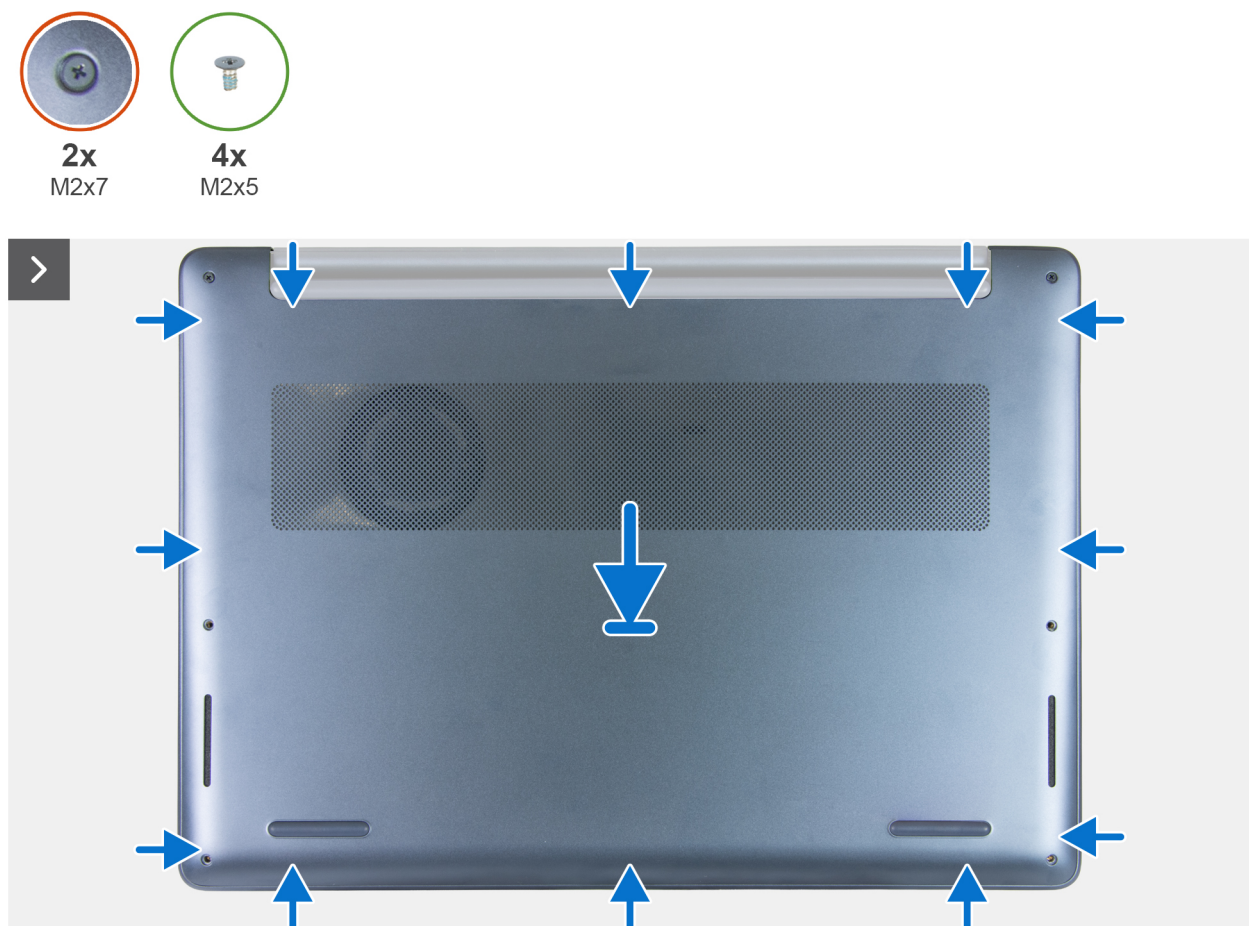


Figure 4. Installing the base cover



Figure 5. Installing the base cover

Steps

1. Align the bottom edge of the base cover with the palm-rest and keyboard assembly.
2. Align the screw holes on the base cover with the screw holes on the palm-rest and keyboard assembly, before snapping the base cover into place.
3. Replace the four screws (M2x5) that secure the base cover to the palm-rest and keyboard assembly.
4. Tighten the two captive screws that secure the base cover to the palm-rest and keyboard assembly.

Next steps

1. Follow the procedure in [After working inside your computer](#).

Battery

Rechargeable Li-ion battery precautions

⚠ CAUTION:

- Exercise caution when handling rechargeable Li-ion batteries.
- Discharge the battery completely before removing it. Disconnect the AC power adapter from the computer and operate the computer solely on battery power—the battery is fully discharged when the computer no longer turns on when the power button is pressed.
- Do not crush, drop, mutilate, or penetrate the battery with foreign objects.
- Do not expose the battery to high temperatures, or disassemble battery packs and cells.
- Do not apply pressure to the surface of the battery.
- Do not bend the battery.
- Do not use tools of any kind to pry on or against the battery.
- To prevent accidental puncture or damage to the battery and other components, ensure that no screws are lost or misplaced during the servicing of the computer.
- Always purchase genuine batteries from [Dell Support Site](#) or authorized Dell partners and resellers.

- Swollen batteries should not be used and should be replaced and disposed properly. For guidelines on how to handle and replace swollen rechargeable Li-ion batteries, see [Handling swollen rechargeable Li-ion batteries](#).

Removing the battery

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

CAUTION: Removing the battery resets the BIOS setup settings to default. It is recommended that you note the BIOS setup settings before removing the battery.

The following image indicates the location of the battery and provides a visual representation of the removal procedure.

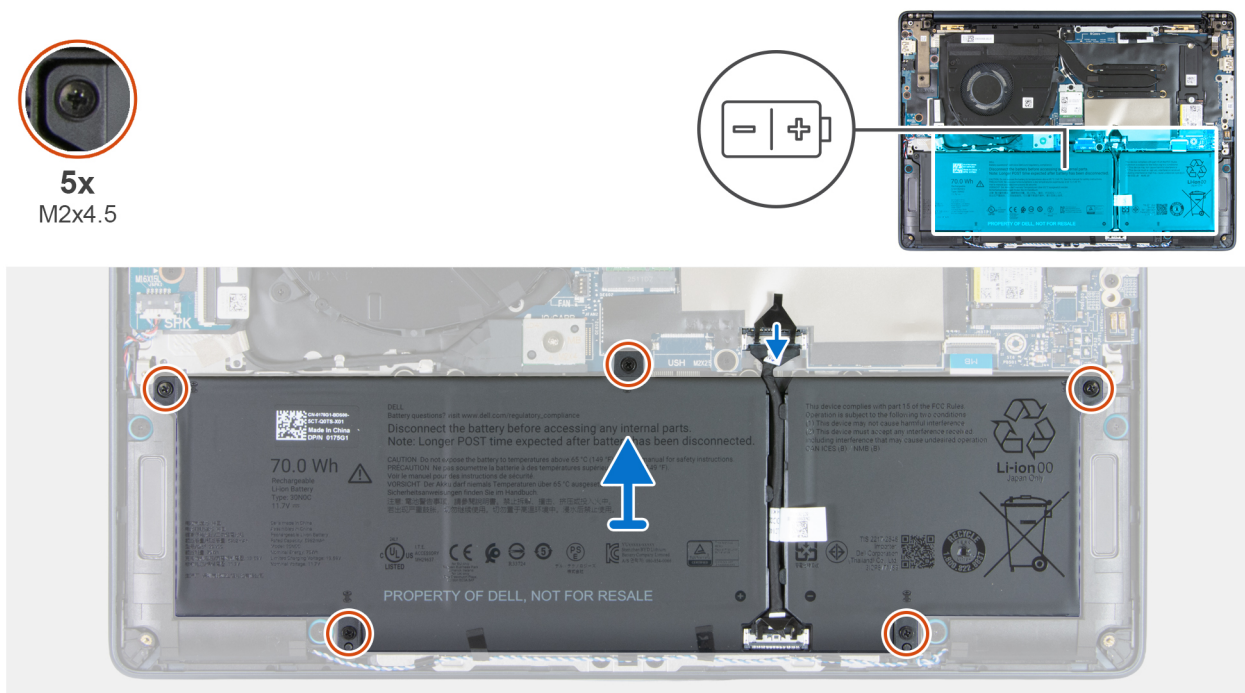


Figure 6. Removing the battery

Steps

1. Peel off the two pieces of tape that secure the speaker cable on the battery.
2. Pull the pull tab vertically to disconnect the battery cable from the connector (BATT) on the system board.
3. Loosen the five captive screws that secure the battery to the palm-rest and keyboard assembly.
4. Lift the battery, along with the battery cable, off the palm-rest and keyboard assembly.

Installing the battery

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following image indicates the location of the battery and provides a visual representation of the installation procedure.

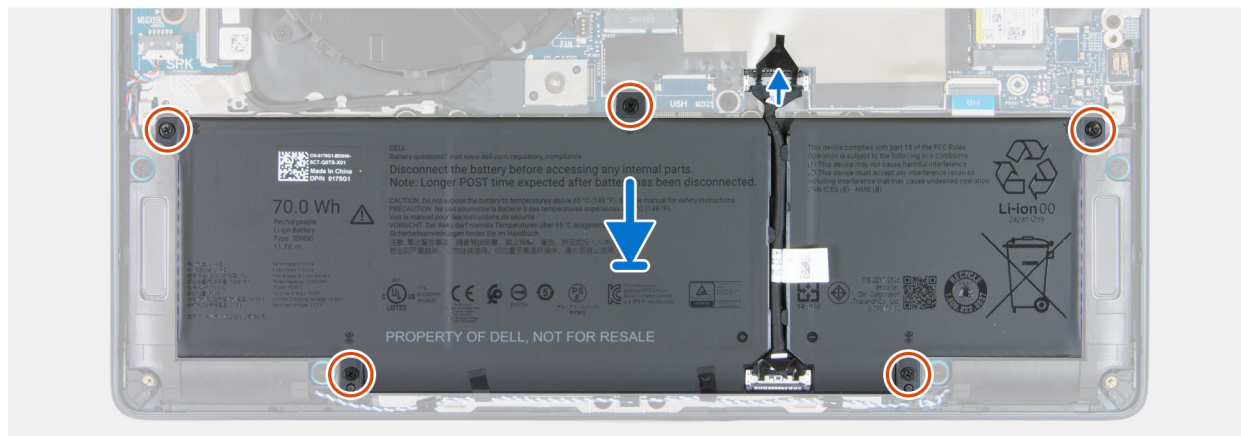
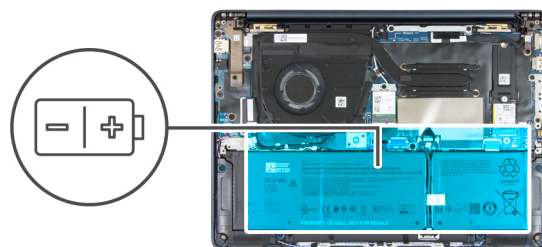


Figure 7. Installing the battery

Steps

1. Place the battery, along with the battery cable, on the palm-rest and keyboard assembly.
2. Align the screw holes on the battery with the screw holes on the palm-rest and keyboard assembly.
3. Tighten the five captive screws that secure the battery to the palm-rest and keyboard assembly.
4. Connect the battery cable to the connector (BATT) on the system board.
5. Adhere the two pieces of tape that secure the speaker cable to the battery.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

Battery cable

Removing the battery cable

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).

NOTE: Ensure that your computer is in Service Mode. For more information, see [Before working inside your computer](#).

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

About this task

The following image indicates the location of the battery cable and provides a visual representation of the removal procedure.

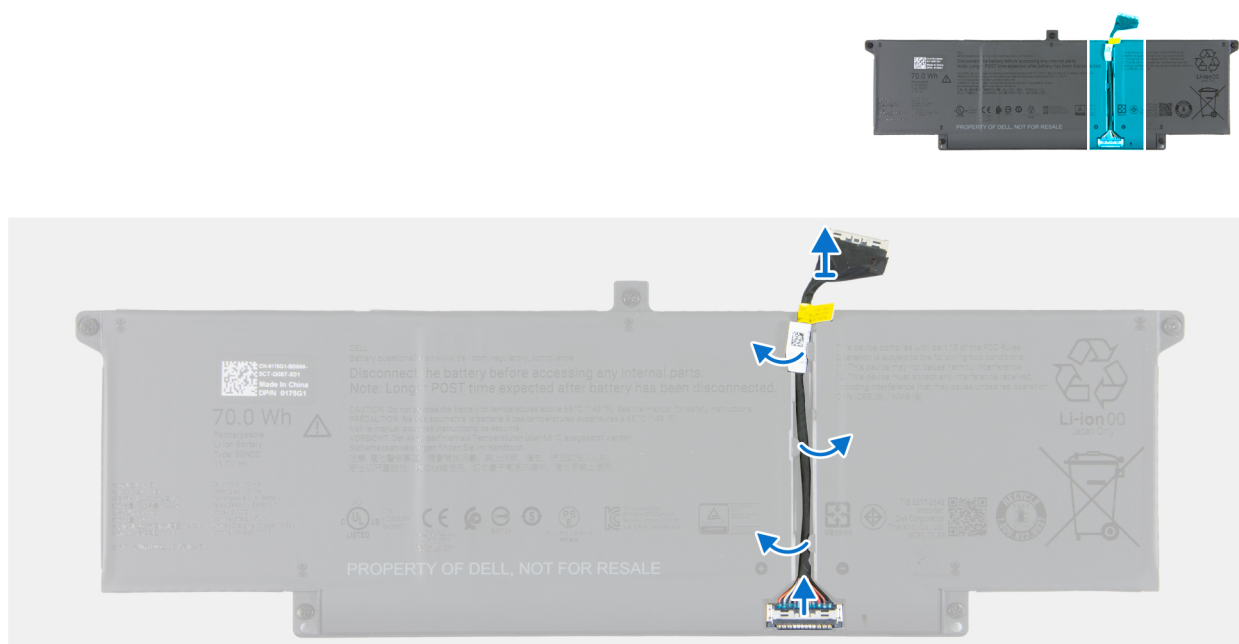


Figure 8. Removing the battery cable

Steps

1. Remove the battery cable from the routing guides on the battery.
2. Slide the clamp up to unlock the battery-cable connector.
3. Disconnect the battery cable from the battery.
4. Lift the battery cable off the battery.

Installing the battery cable

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following image indicates the location of the battery cable and provides a visual representation of the installation procedure.



Figure 9. Installing the battery cable

Steps

1. Place the battery cable on the battery.
2. Connect the battery cable to the connector on the battery.
3. Slide the clamp down to secure the battery-cable connector.
4. Route the battery cable through the routing guides on the battery.

Next steps

1. Install the [battery](#).
2. Install the [base cover](#).
3. Follow the procedure in [After working inside your computer](#).

M.2 solid state drive

Removing the M.2 2230 solid state drive (SSD)

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

The following images indicate the location of the M.2 2230 solid state drive (SSD) and provide a visual representation of the removal procedure.

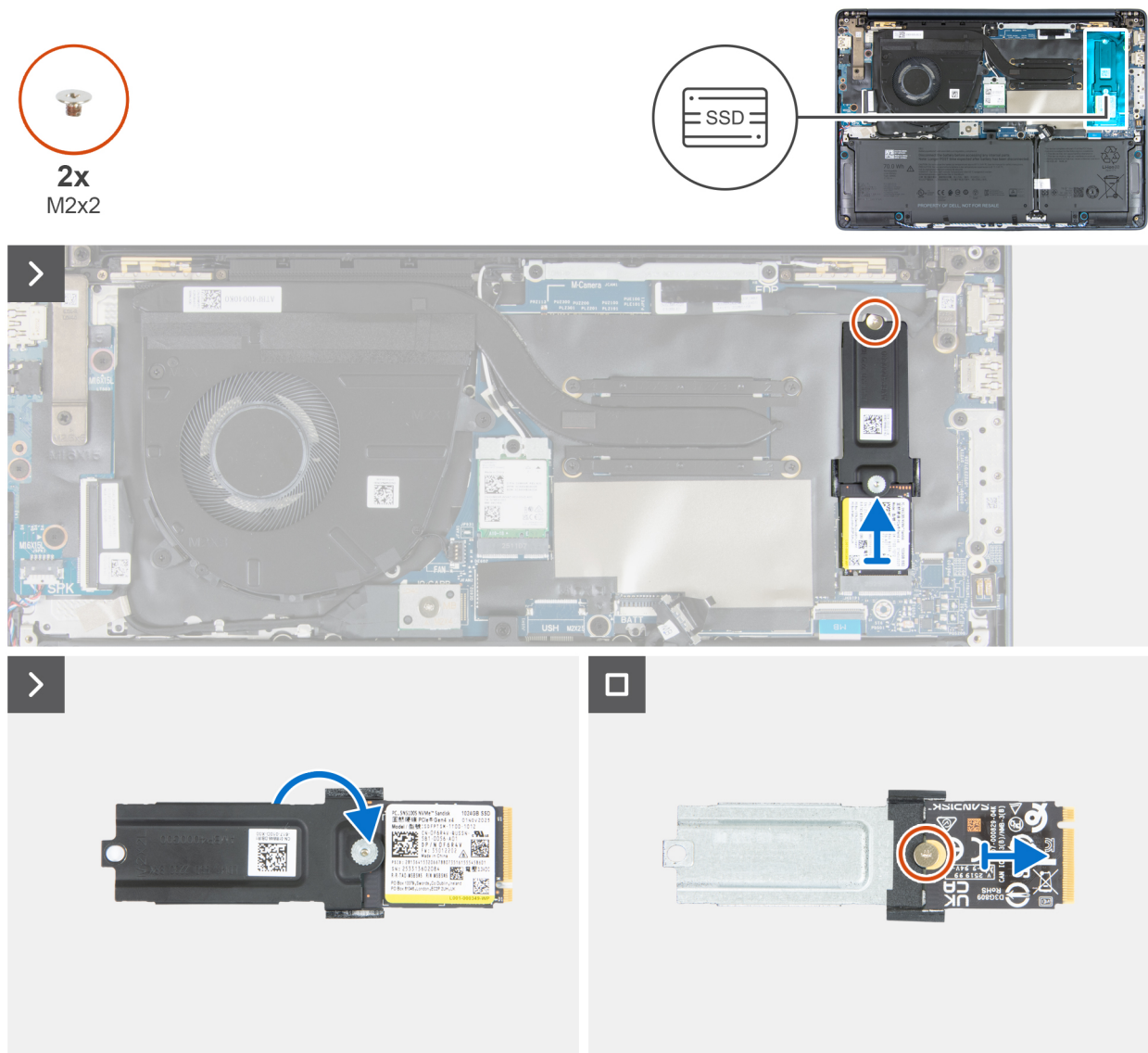


Figure 10. Removing the M.2 2230 SSD

Steps

1. Remove the screw (M2x2) that secures the M.2 2230 solid state drive assembly to the system board.
2. Remove the M.2 2230 solid state drive assembly off the system board.
3. Remove the screw (M2x2) that secures the SSD bracket to the M.2230 SSD.
4. Remove the M.2 2230 SSD from the M.2 2230 SSD bracket.

Installing the M.2 2230 solid state drive (SSD)

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the M.2 2230 solid state drive (SSD) and provide a visual representation of the installation procedure.

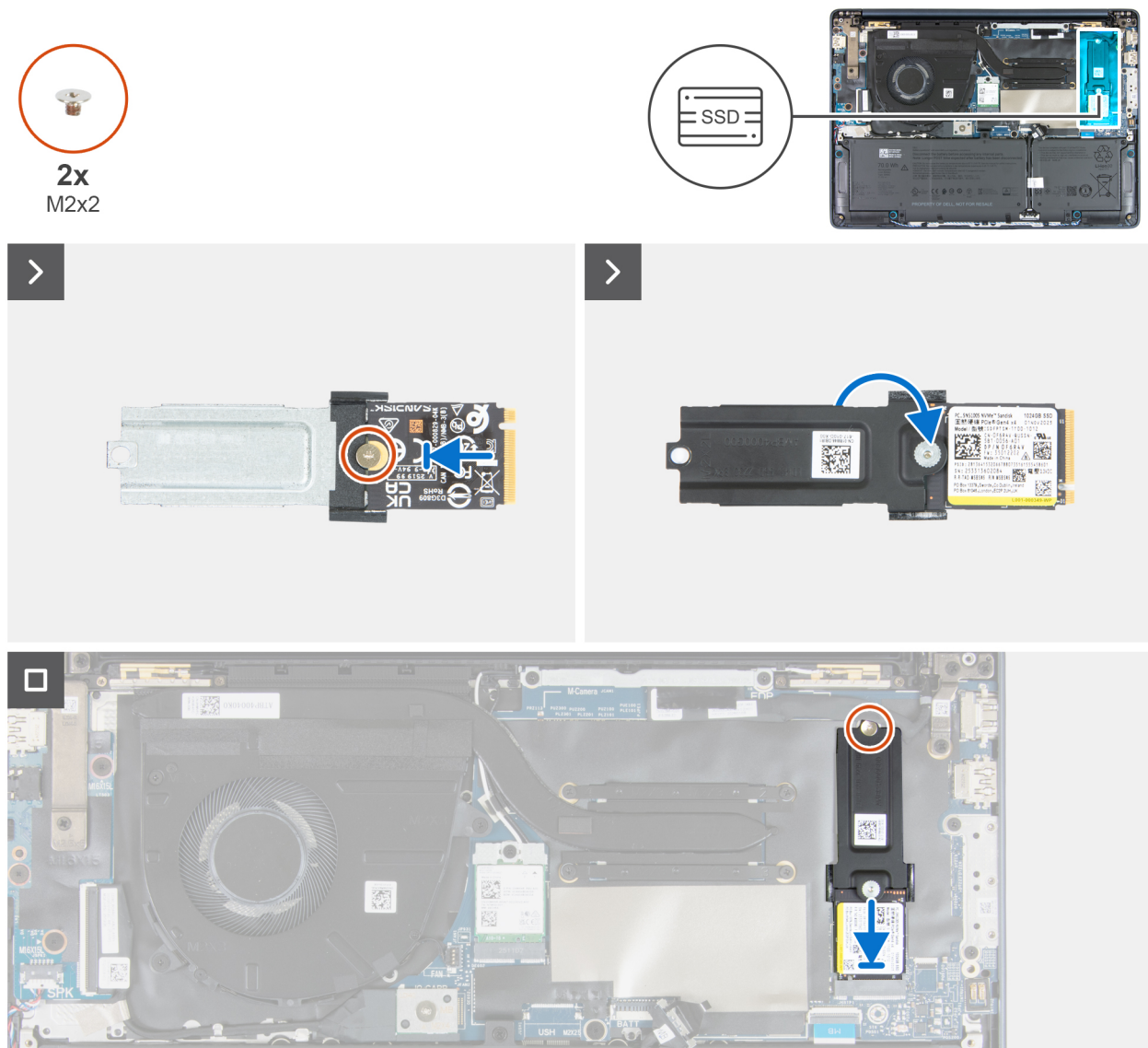


Figure 11. Installing the M.2 2230 solid state drive

Steps

1. Align and place the M.2 2230 SSD on the M.2 2230 SSD bracket.
2. Replace the screw (M2x2) that secures the SSD bracket to the M.2230 SSD.
3. Place the M.2 2230 solid state drive assembly on the system board.
4. Replace the M.2 2230 solid state drive assembly on the system board.
5. Replace the screw (M2x2) that secures the M.2 2230 solid state drive assembly to the system board.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

Fan

Removing the fan

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

The following images indicate the location of the fan and provide a visual representation of the removal procedure.

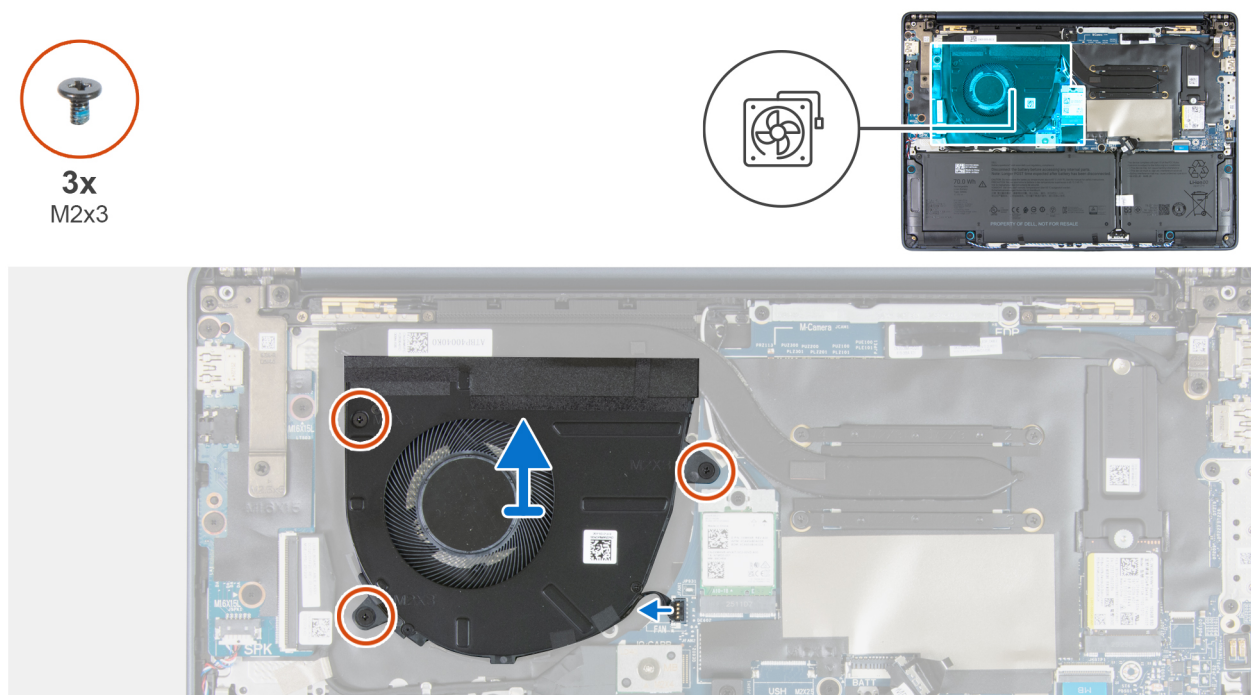


Figure 12. Removing the fan

Steps

1. Disconnect the fan cable from the connector (FAN) on the system board.
2. Remove the three screws (M2x3) that secure the fan to the palm-rest and keyboard assembly.
3. Lift the fan off the palm-rest and keyboard assembly.

Installing the fan

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the fan and provide a visual representation of the installation procedure.

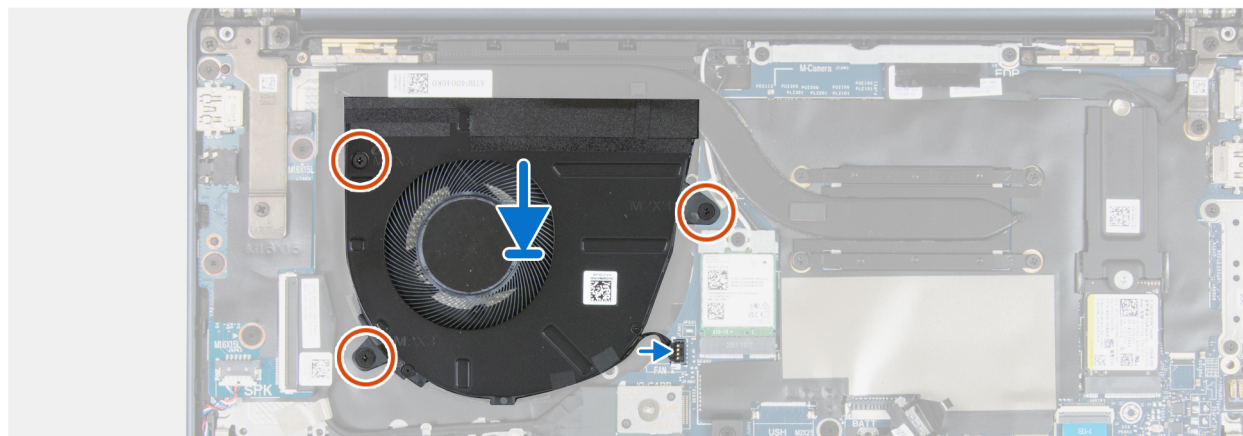
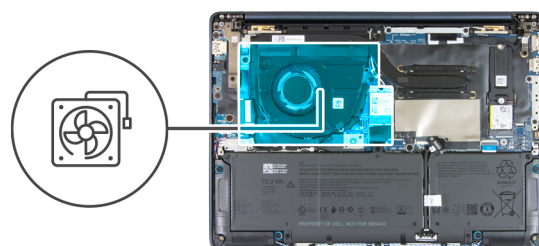


Figure 13. Installing the fan

Steps

1. Place the fan in the slot on the palm-rest and keyboard assembly.
2. Align the screw holes on the fan with the screw holes on the palm-rest and keyboard assembly.
3. Replace the three screws (M2x3) that secure the fan to the palm-rest and keyboard assembly.
4. Connect the fan cable to the connector (FAN) on the system board.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

Wireless card

Removing the wireless card

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

CAUTION: Removing the wireless card resets the BIOS setup settings to default. It is recommended that you note the BIOS setup settings before removing the wireless card.

The following image indicates the location of the wireless card and provides a visual representation of the removal procedure.



1x
M2x3



Figure 14. Removing the wireless card

Steps

1. Remove the screw (M2x3) that secures the wireless-card bracket to the system board.
2. Lift the wireless-card bracket off the wireless card.
3. Disconnect the antenna cables from the wireless card.
4. Lift the wireless card at an angle and slide the wireless card out from the wireless-card slot (WLAN) on the system board.

Installing the wireless card

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following image indicates the location of the wireless card and provides a visual representation of the installation procedure.

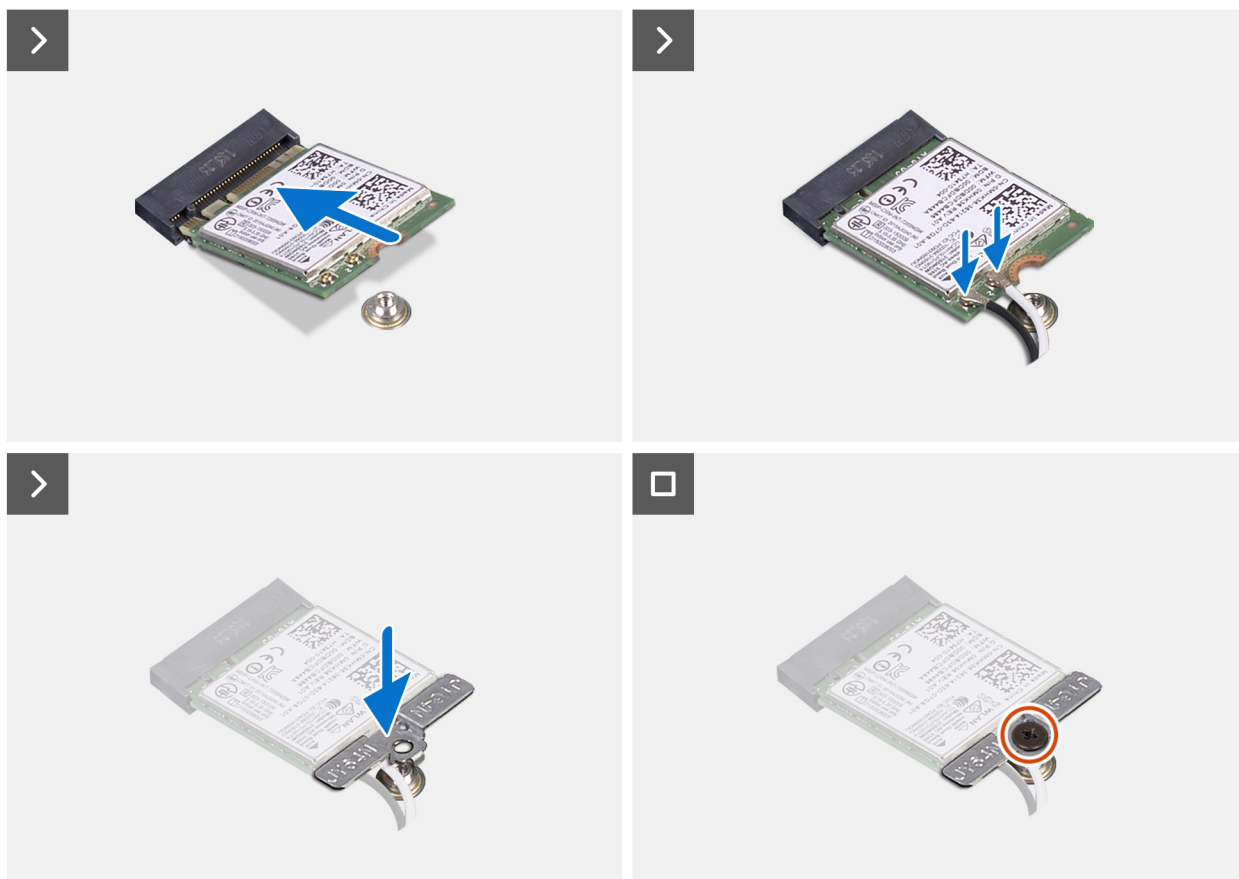
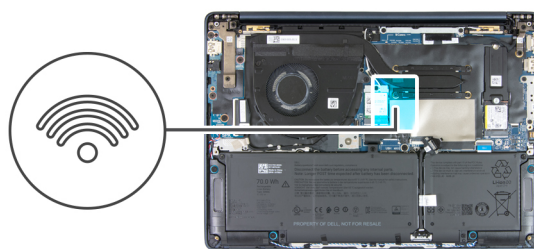


Figure 15. Installing the wireless card

Steps

1. Align the notch on the wireless card with the tab on the M.2 wireless-card slot (WLAN) on the system board.
2. Slide the wireless card into the wireless-card slot (WLAN) on the system board.
3. Connect the antenna cables to the wireless card.

Table 3. Antenna-cable color scheme

Connector on the wireless card	Antenna-cable color	Silkscreen marking	
Main	White	MAIN	△ (white triangle)
Auxiliary	Black	AUX	▲ (black triangle)

4. Place the wireless-card bracket on the wireless card.
5. Align the screw hole on the wireless-card bracket with the screw mount on the system board.
6. Replace the screw (M2x3) that secures the wireless-card bracket to the system board.

Next steps

1. Install the [base cover](#).

2. Follow the procedure in [After working inside your computer](#).

Speaker assembly

Removing the speaker assembly

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

The following image indicates the location of the speaker assembly and provides a visual representation of the removal procedure.

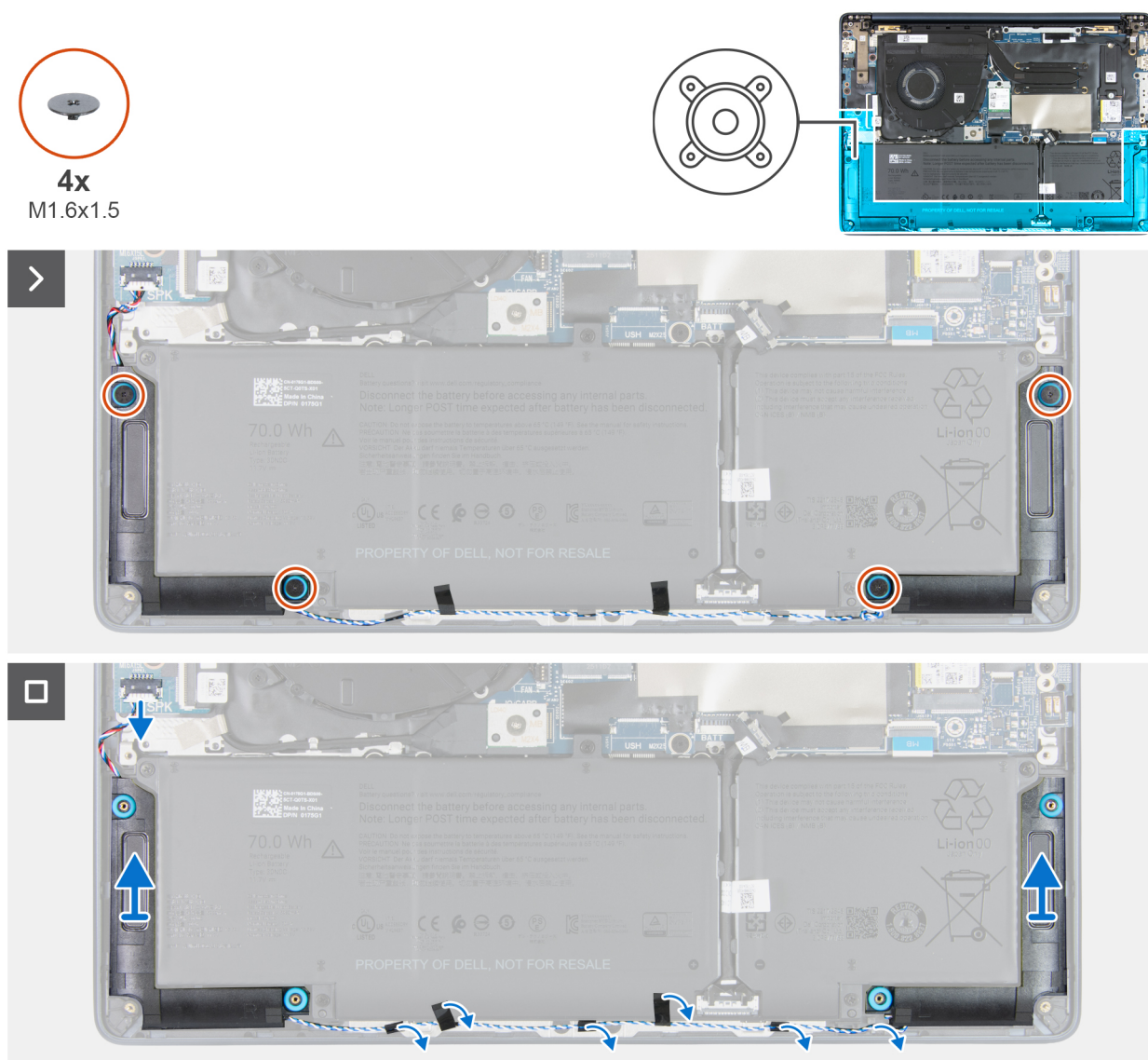


Figure 16. Removing the speaker assembly

Steps

1. Remove the four screws (M1.6x1.5) that secure the speakers to the palm-rest and keyboard assembly.

2. Peel off the two pieces of tape that secure the speaker cable on the battery.
3. Remove the speakers from the routing guides on the palm-rest and keyboard assembly.
4. Lift the speaker assembly off the palm-rest and keyboard assembly.
5. Disconnect the speaker cable from the connector (SPK) on the I/O board.

Installing the speaker assembly

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following image indicates the location of the speaker assembly and provides a visual representation of the installation procedure.

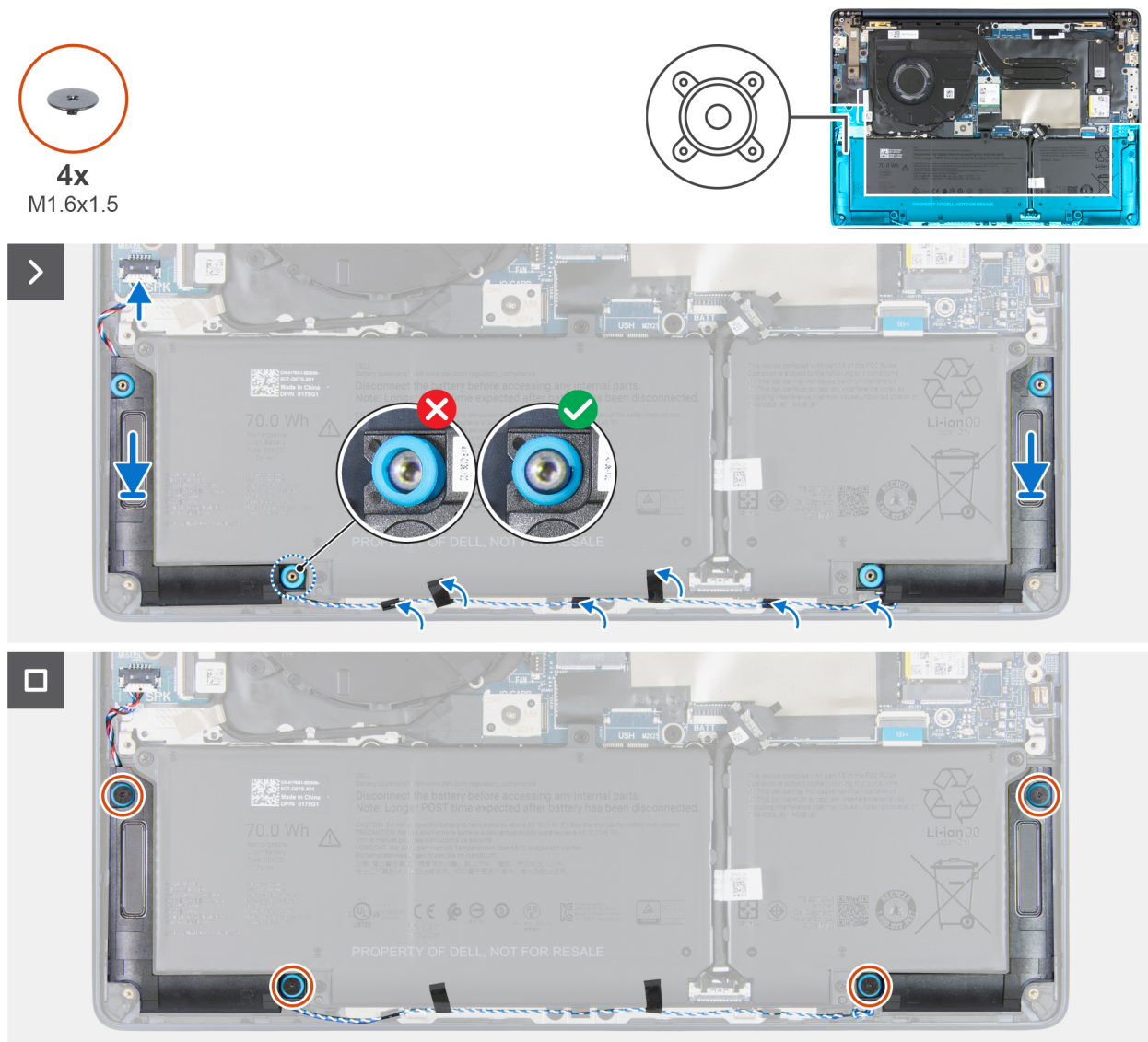


Figure 17. Installing the speaker assembly

Steps

1. Using the alignment posts, place the left speaker and the right speaker on the palm-rest and keyboard assembly.

 **NOTE:** Ensure that the four rubber grommets are seated into the slot and installed correctly on the speakers.

2. Connect the speaker cable to the connector (SPK) on the I/O board.
3. Route the speaker assembly cables through the routing guides on the palm-rest and keyboard assembly.
4. Secure two pieces of tape that secure the speaker cable on the battery.
5. Replace the four screws (M1.6x1.5) that secure the speakers to the palm-rest and keyboard assembly.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

Removing and installing Field Replaceable Units (FRUs)

The replaceable components in this chapter are Field Replaceable Units (FRUs).

 **CAUTION:** FRUs should be replaced by an authorized service technician, who is a trained technical repair specialist.

 **NOTE:** Damages resulting from improper replacement or from failure to follow instructions are not covered by your warranty. Consider having a trained technical repair specialist perform replacements of FRU components.

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

Display assembly

Removing the display assembly

 **CAUTION:** The maximum operating angle for the display-panel hinge is 180 degrees.

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

The following images indicate the location of the display assembly and provide a visual representation of the removal procedure.

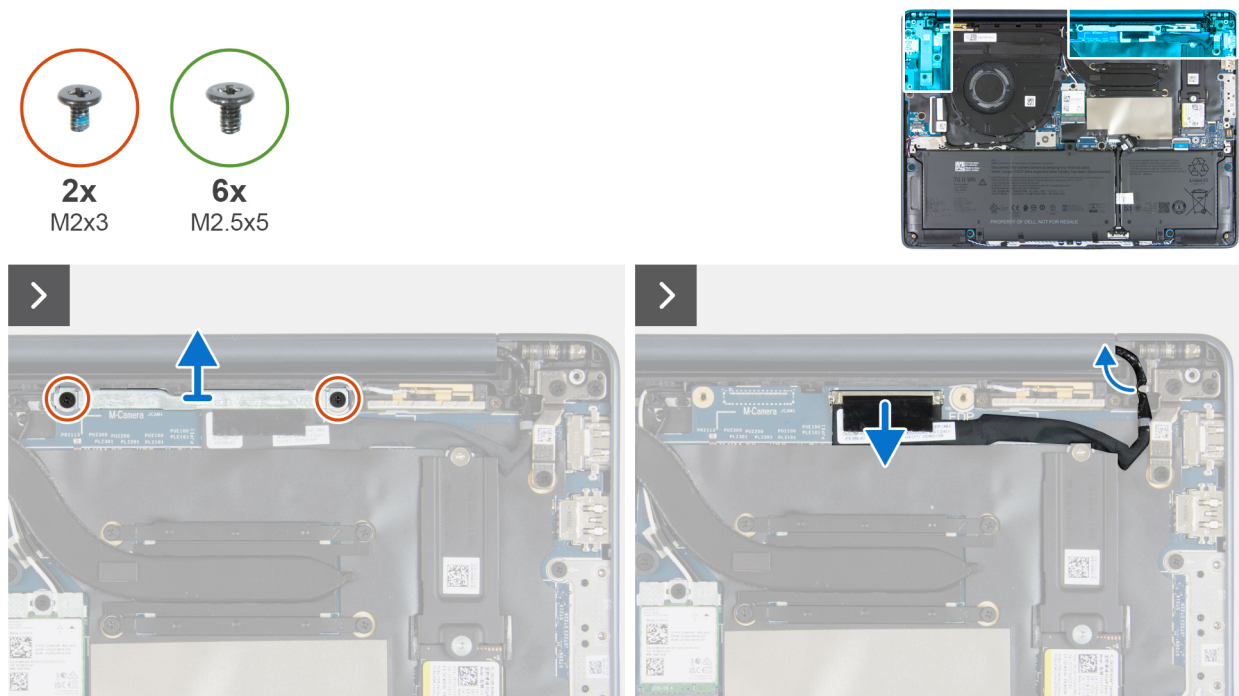


Figure 18. Removing the display assembly

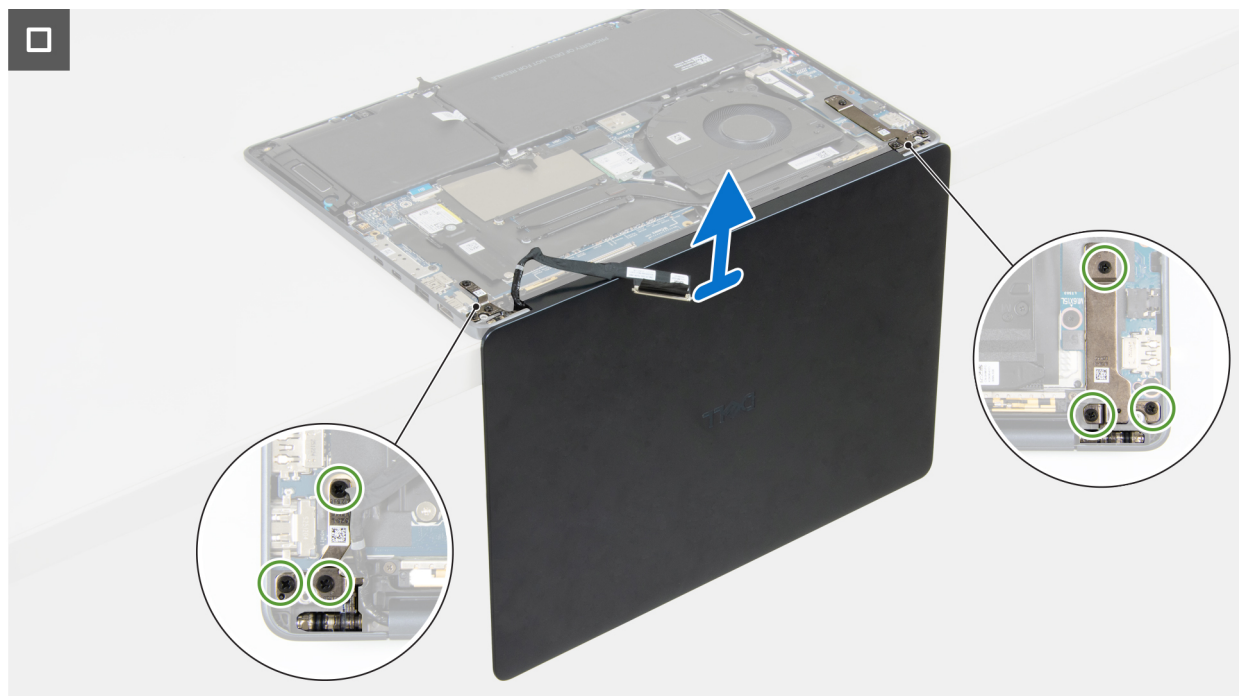


Figure 19. Removing the display assembly

Steps

1. Remove the two screws (M2x3) that secure the display-assembly connector bracket to the system board.
2. Pull the tab to disconnect the display-assembly cable from the connector (EDP) on the system board.
3. Remove the display-assembly cable from the routing guides on the left-display hinge and palm-rest and keyboard assembly.
4. Open the display to a 90-degree angle to the palm-rest and keyboard assembly and place the computer at the edge of the table.
5. Remove the three screws (M2.5x5) that secure the left display-assembly hinge to the palm-rest and keyboard assembly.

6. Remove the three screws (M2.5x5) that secure the right display-assembly hinge to the palm-rest and keyboard assembly.
7. Lift the display assembly off the palm-rest and keyboard assembly.



Figure 20. Display assembly

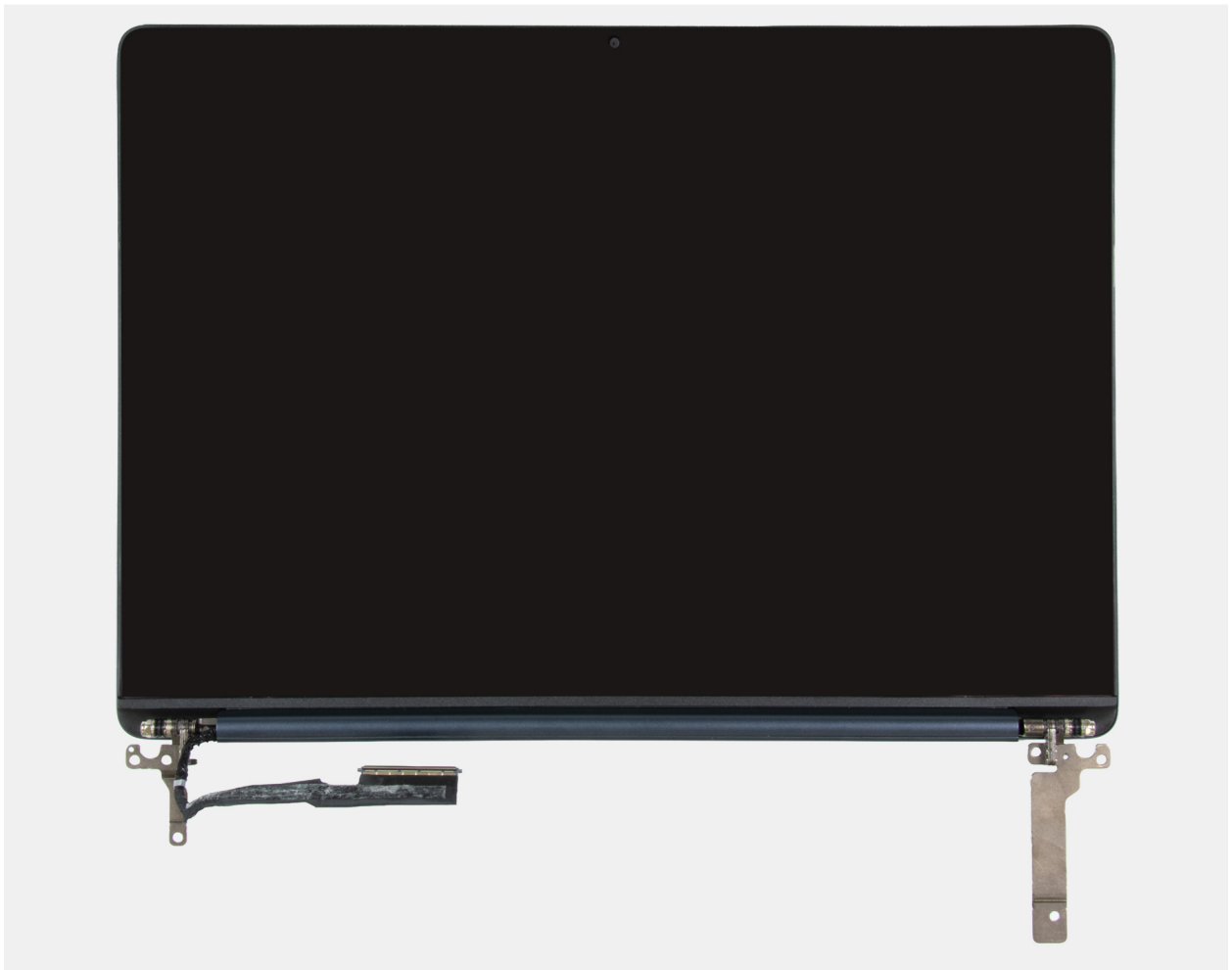


Figure 21. Display assembly with touchscreen

NOTE: The display assembly is a Hinge-Up Design (HUD) assembly. It cannot be further disassembled once it is removed from the palm-rest and keyboard assembly. If any components in the display assembly are malfunctioning, replace the entire display assembly.

Installing the display assembly

NOTE: The maximum operating angle for the display-panel hinge is 180 degrees.

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

NOTE: Ensure that the display hinges are opened to the maximum before replacing the display assembly on the palm-rest and keyboard assembly.

The following images indicate the location of the display assembly and provide a visual representation of the installation procedure.



Figure 22. Display assembly

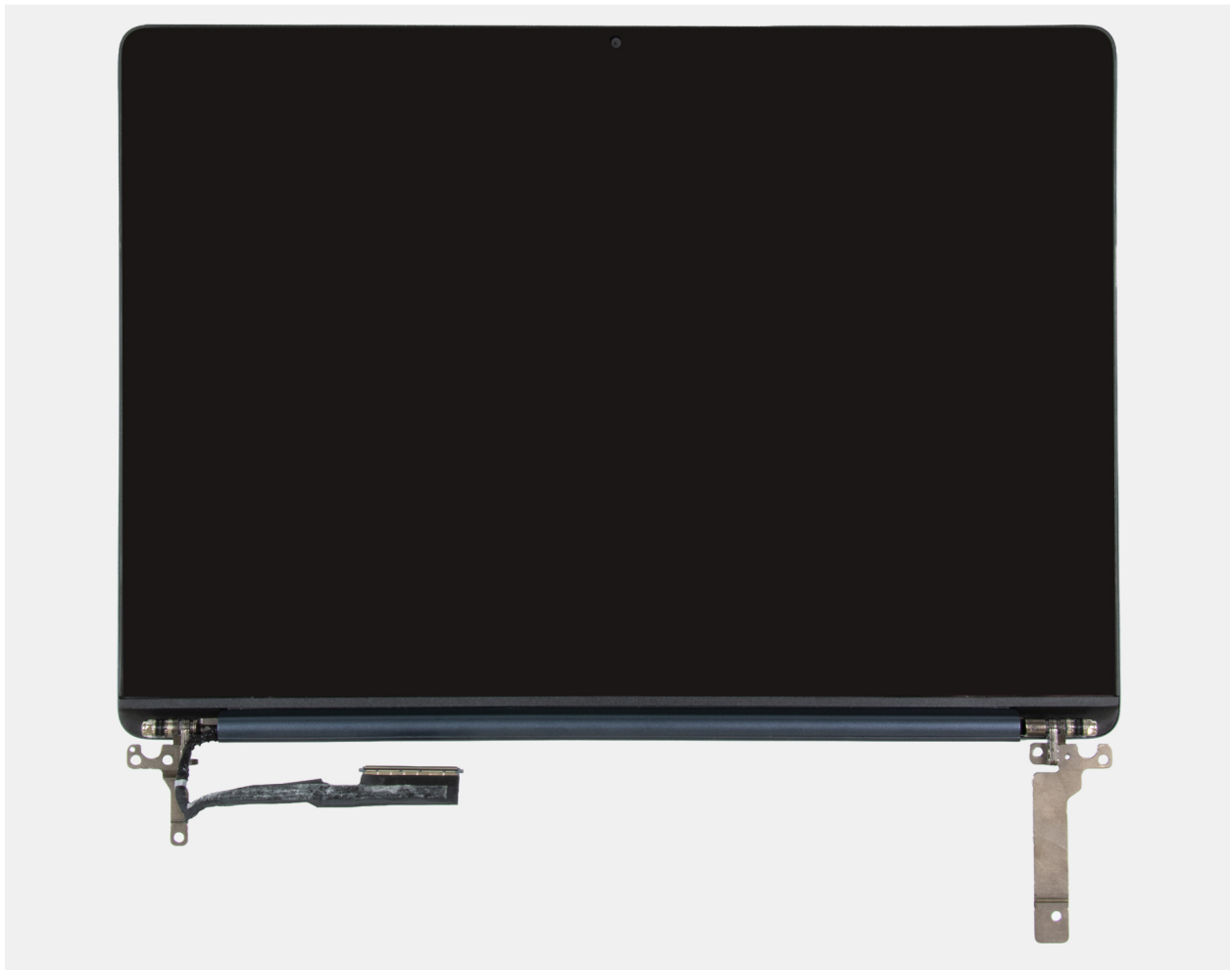


Figure 23. Display assembly with touchscreen

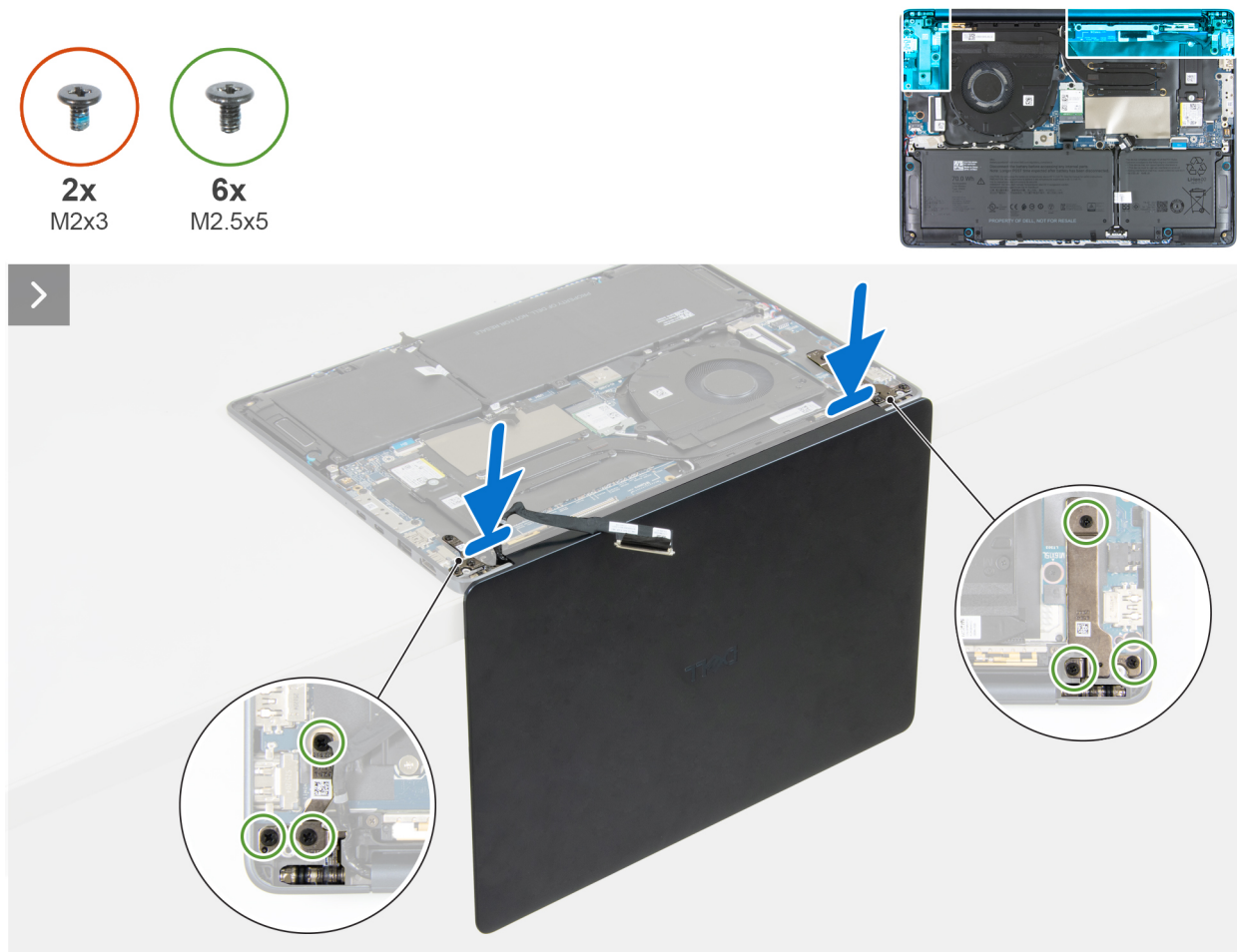


Figure 24. Installing the display assembly

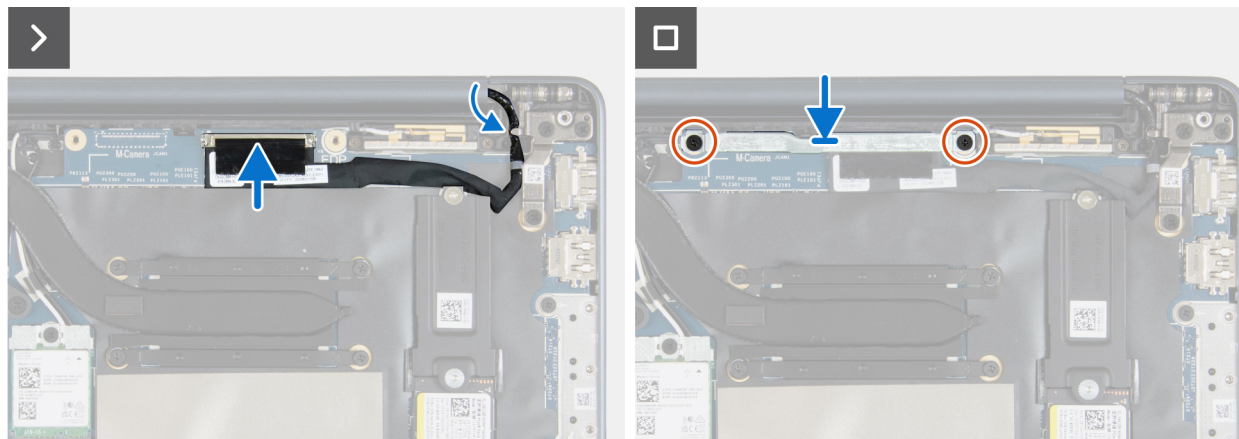


Figure 25. Installing the display assembly

Steps

1. Place the palm rest and keyboard assembly at the edge of a flat table.
2. Open the hinges of the display assembly to a 90-degree angle.
3. Align the screw holes on the display hinges with the screw holes on the palm rest and keyboard assembly.
4. Replace the three screws (M2.5x5) that secure the left display-assembly hinge to the palm-rest and keyboard assembly.
5. Replace the three screws (M2.5x5) that secure the right display-assembly hinge to the palm-rest and keyboard assembly.
6. Close the display assembly and route display assembly cable

7. Replace the two screws (M2x3) that secure the display-assembly connector bracket to the system board.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

I/O-board cable

Removing the I/O-board cable

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

The following images indicate the location of the I/O-board cable and provide a visual representation of the removal procedure.

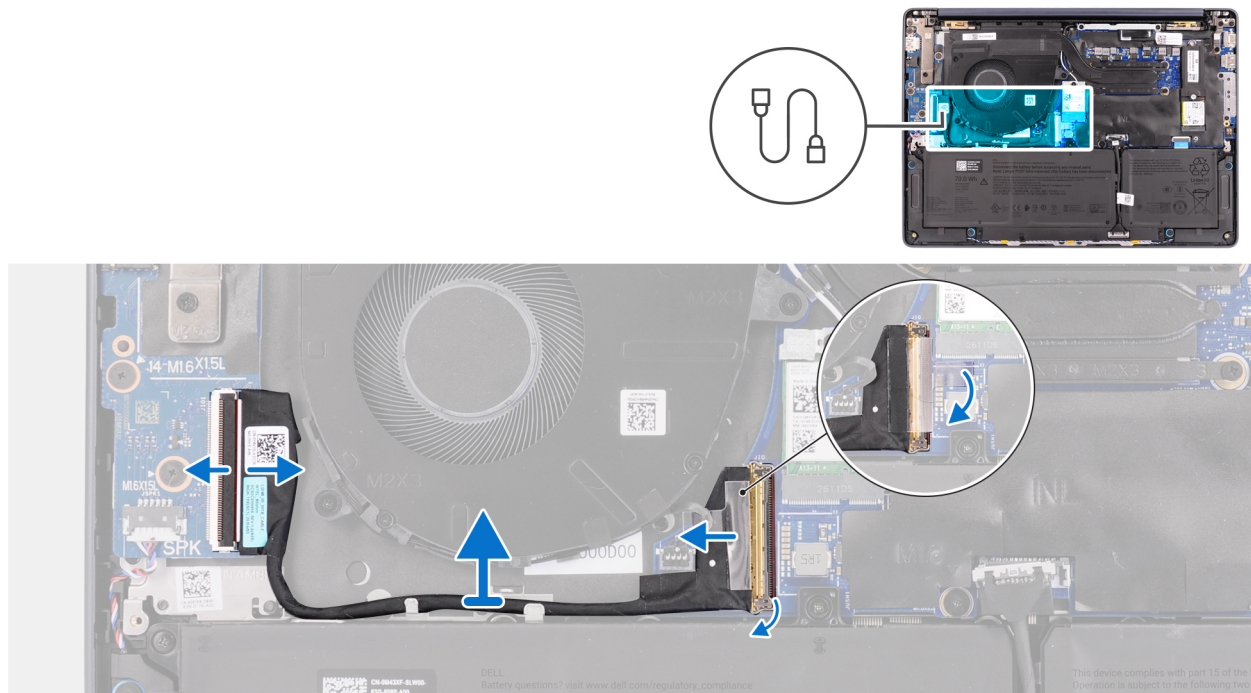


Figure 26. Removing the I/O-board cable

Steps

1. Open the latch and disconnect the I/O-board cable from its connector (IO CABLE) on the system board.
2. Open the latch and disconnect the I/O-board cable from its connector (IO CABLE) on the I/O board.
3. Peel off the tape that secures the I/O-board cable to the palm-rest and keyboard assembly.
4. Remove the I/O-board cable from the routing guides.
5. Lift the I/O-board cable off the palm-rest and keyboard assembly.

Installing the I/O-board cable

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the I/O-board cable and provide a visual representation of the installation procedure.

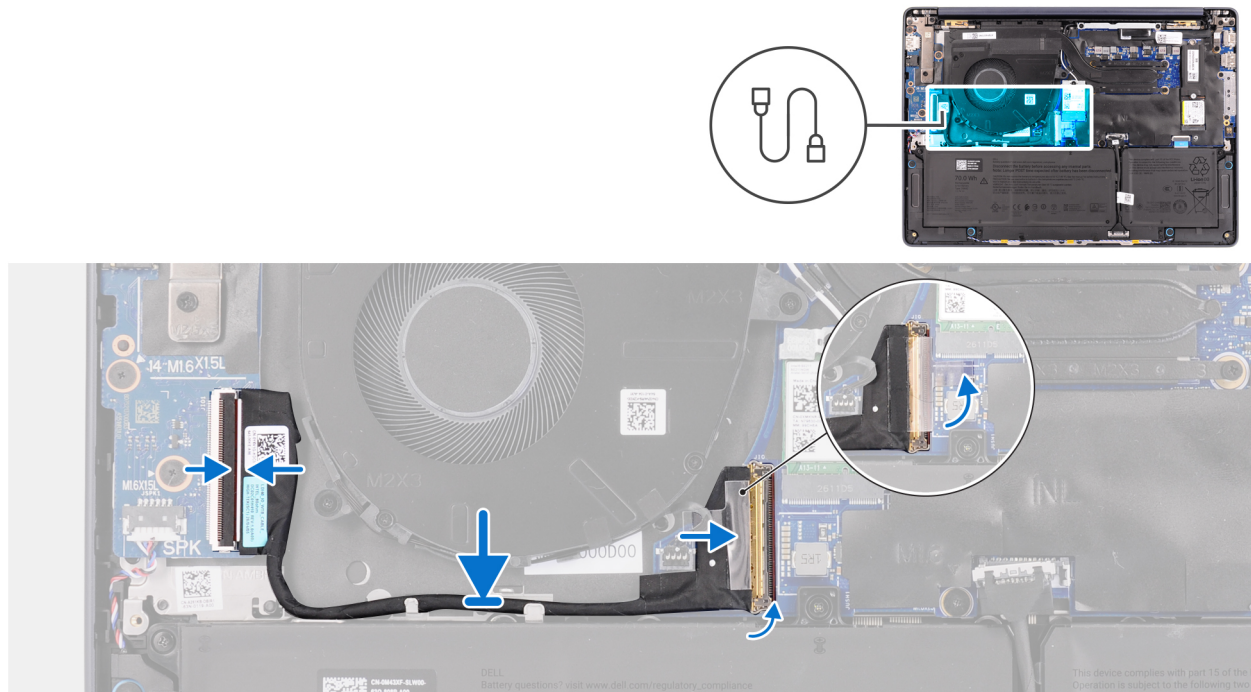


Figure 27. Installing the I/O-board cable

Steps

1. Connect the I/O-board cable to its connector (IO CABLE) on the system board and close the latch.
2. Connect the I/O-board cable to its connector (IO CABLE) on the I/O board and close the latch.
3. Adhere the adhesive tape of the I/O-board cable to the palm-rest and keyboard assembly.
4. Insert the I/O-board cable into the routing guides.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

I/O board

Removing the I/O board

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).
3. Remove the [display assembly](#).

About this task

The following images indicate the location of the I/O board and provide a visual representation of the removal procedure.

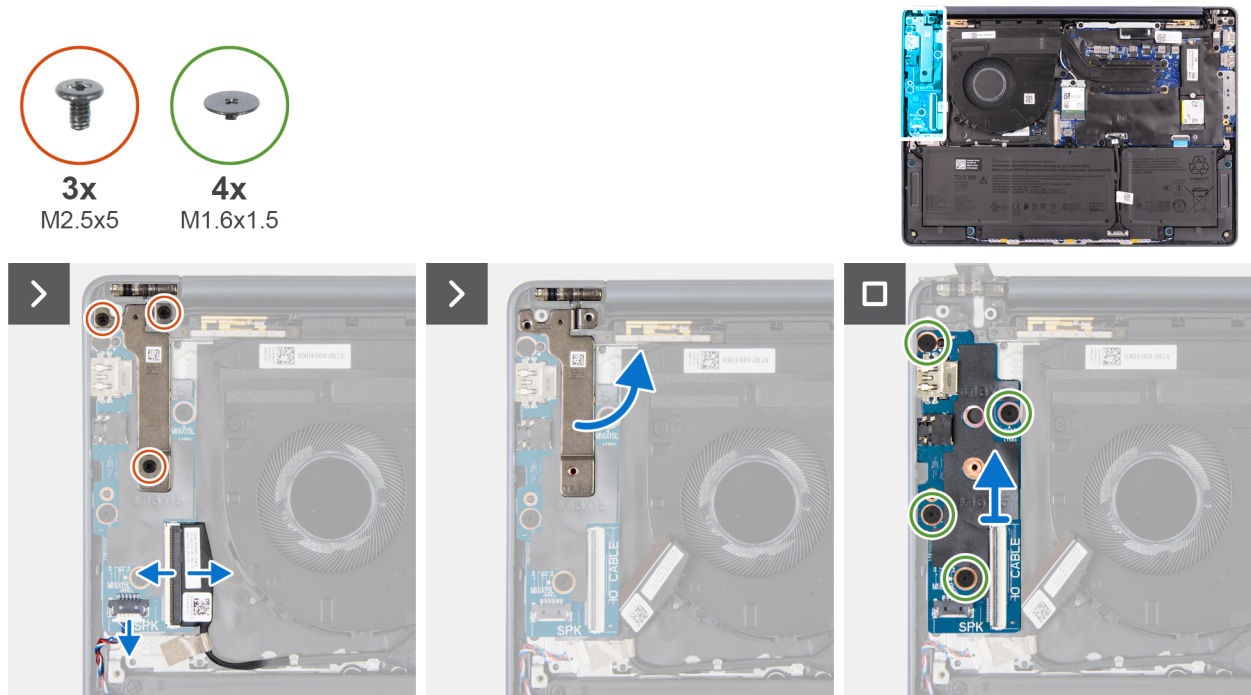


Figure 28. Removing the I/O board

Steps

1. Disconnect the speaker cable from the connector (SPK) on the I/O board.
2. Open the latch and disconnect the I/O-board cable from the connector (IO CABLE) on the I/O board.
3. Remove the three screws (M2.5x5) that secure the right-display hinge to the I/O board.
4. Open the right-display hinge to an angle of 90 degrees to the I/O board.
5. Remove the four screws (M1.6x1.5) that secure the I/O board to the palm-rest and keyboard assembly.
6. Lift the I/O board off the palm-rest and keyboard assembly.

Installing the I/O board

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the I/O board and provide a visual representation of the installation procedure.

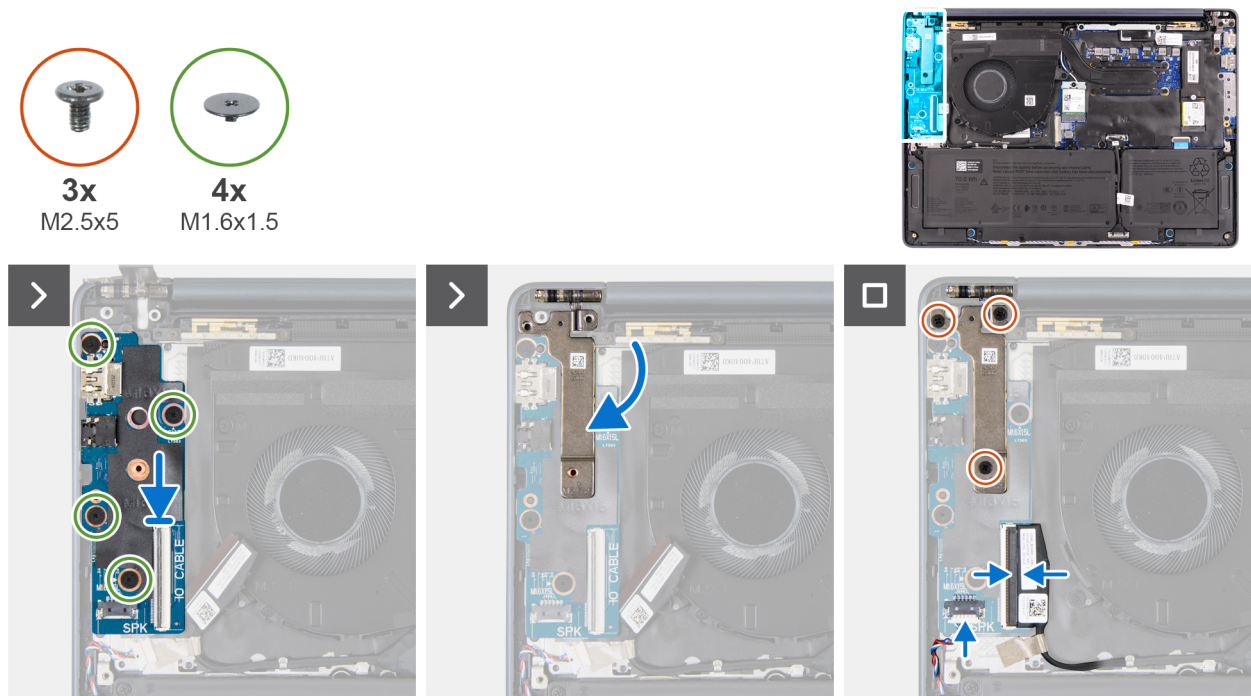


Figure 29. Installing the I/O board

Steps

1. Using the alignment post, place the I/O board on the palm-rest and keyboard assembly.
2. Replace the four screws (M1.6x1.5) that secure the I/O board to the palm-rest and keyboard assembly.
3. Close the right-display hinge until the screw holes on the hinge are aligned to the screw holes on the I/O board.
4. Replace the three screws (M2.5x5) that secure the right-display hinge to the I/O board.
5. Connect the I/O-board cable to the connector (I/O CABLE) on the I/O board.
6. Connect the speaker cable to the connector (SPK) on the I/O board.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

Heat sink

Removing the heat sink

Prerequisites

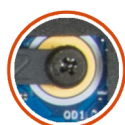
1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

About this task

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

NOTE: For optimal cooling of the processor, do not touch the heat-transfer areas on the heat sink. The oils on your skin can reduce the heat-transfer capability of the thermal grease.

The following image indicates the location of the heat sink and provides a visual representation of the removal procedure.



4x
M2x3

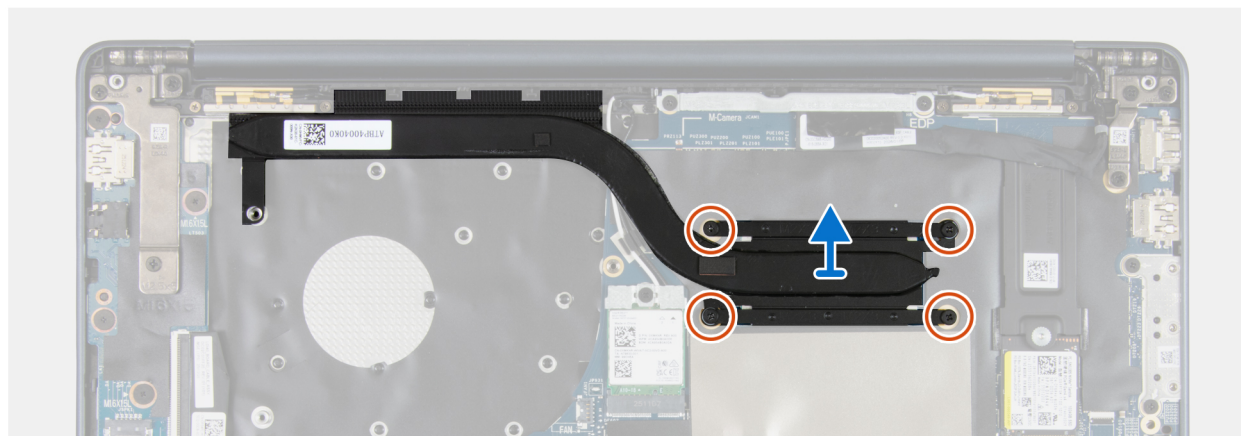
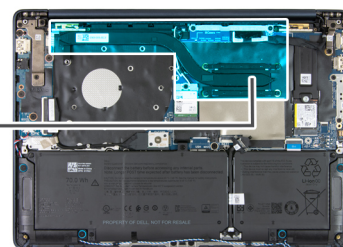


Figure 30. Removing the heat sink

Steps

1. In reverse sequential order (4 > 3 > 2 > 1), as indicated on the heat sink, loosen the four captive screws that secure the heat sink to the system board.
2. Lift the heat sink off the system board.

Installing the heat sink

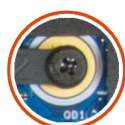
Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

NOTE: If either the system board or the heat sink is replaced, use the thermal grease that is provided in the kit to ensure that thermal conductivity is achieved.

The following image indicates the location of the heat sink and provides a visual representation of the installation procedure.



4x
M2x3

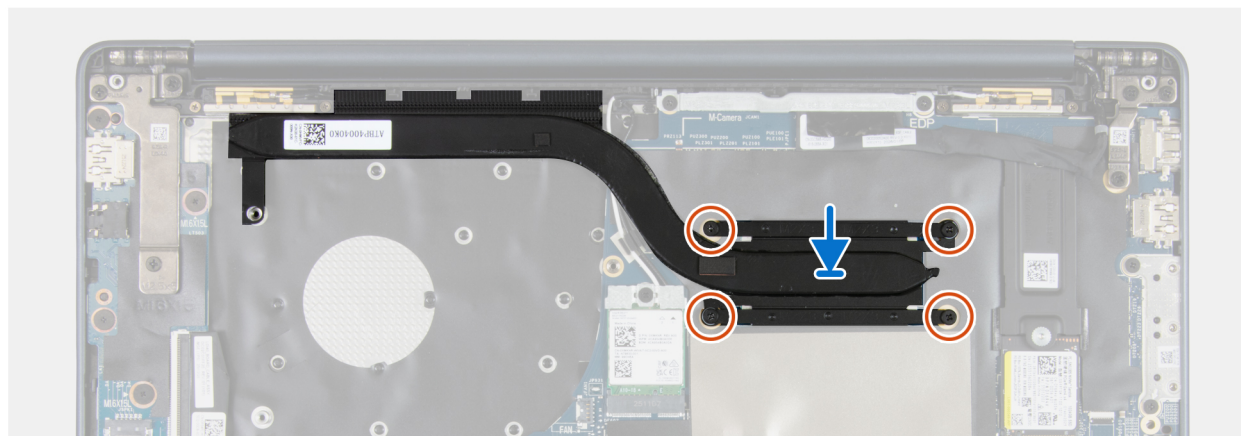
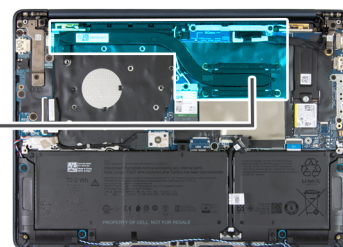


Figure 31. Installing the heat sink

Steps

1. Place the heat sink in the slot on the system board.
2. Align the screw holes on the heat sink with the screw holes on the system board.
3. In sequential order (1 > 2 > 3 > 4), as indicated on the heat sink, tighten the four captive screws that secure the heat sink to the system board.

Next steps

1. Install the [base cover](#).
2. Follow the procedure in [After working inside your computer](#).

System board

Removing the system board

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).
3. Remove the [battery](#).
4. Remove the [fan](#).
5. Remove the [M.2 2230 solid state drive](#).
6. Remove the [wireless card](#).
7. Remove the [display assembly](#).

About this task

The following image indicates the connectors and M.2 card slot on your system board.

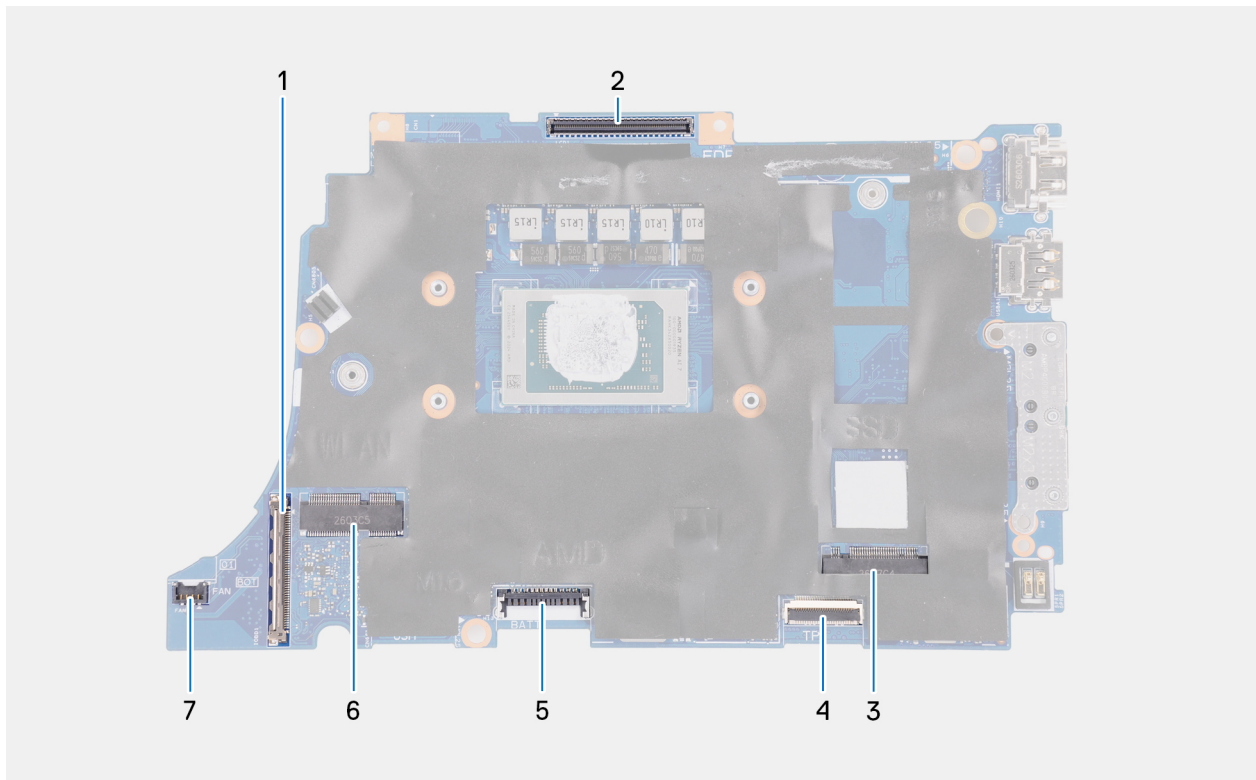
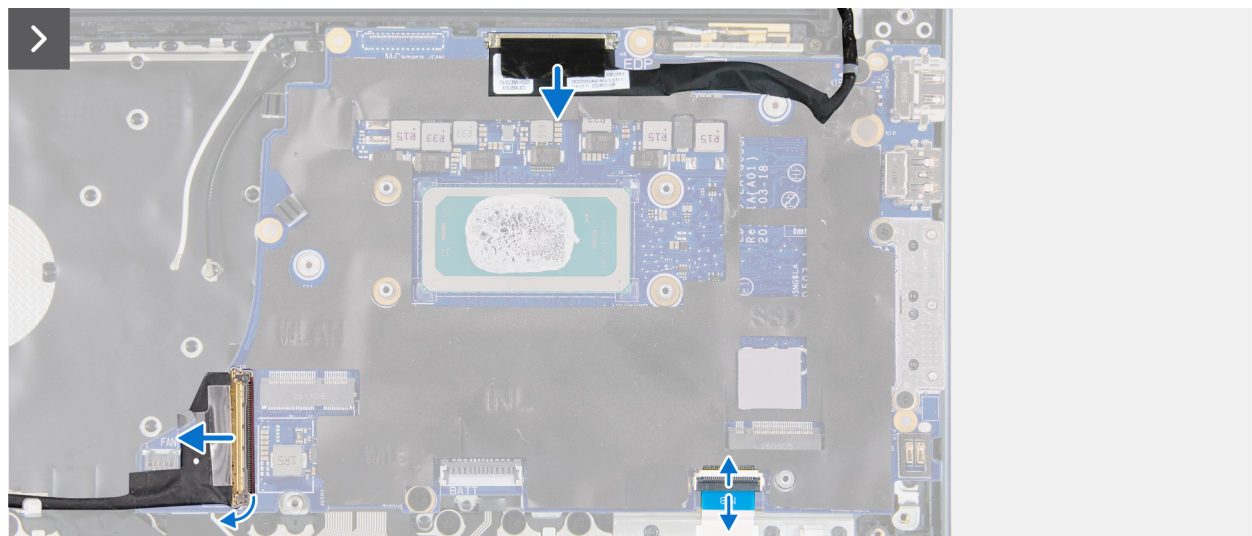
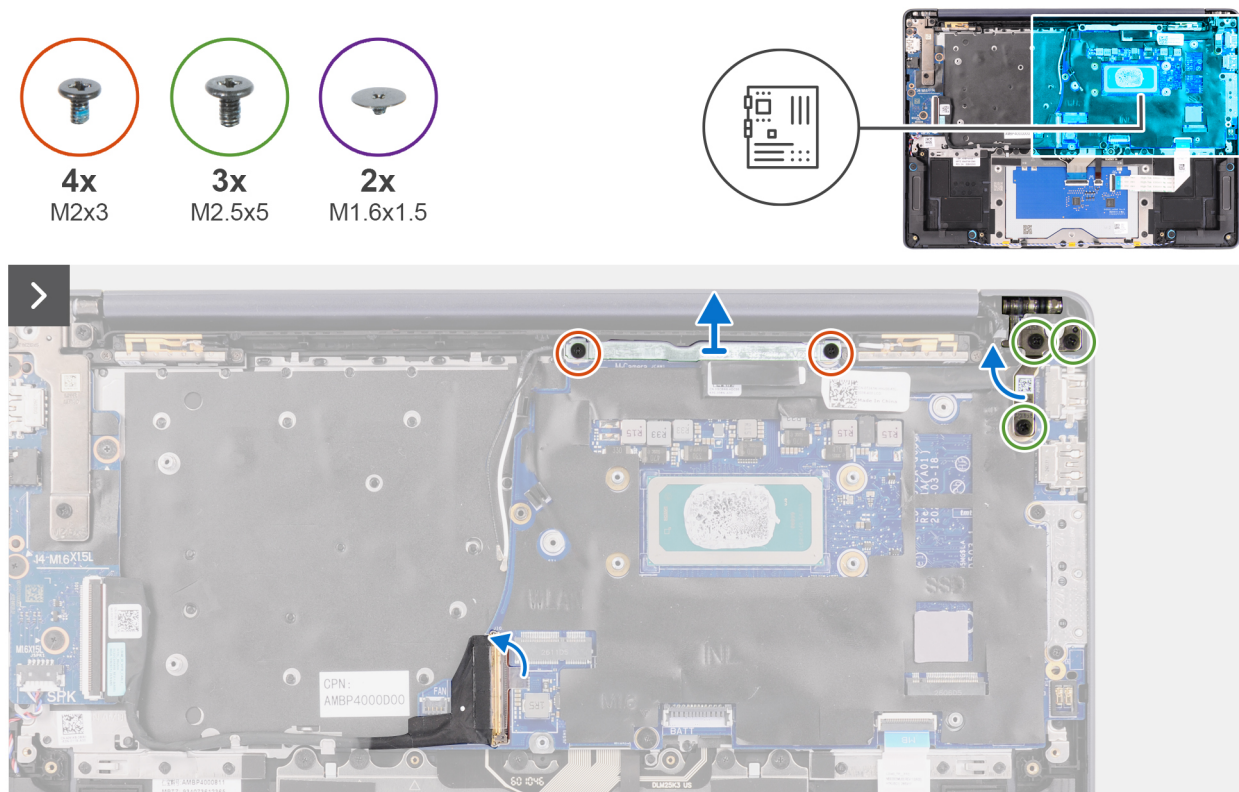


Figure 32. System-board connectors

1. I/O-board connector (IO)
2. Display-assembly cable connector (EDP)
3. M.2 solid state drive slot (SSD)
4. Touchpad-cable connector (TP)
5. Battery-cable connector (BATT)
6. M.2 wireless-card slot (WLAN)
7. Fan-cable connector (FAN)

The following images indicate the location of the system board and provide a visual representation of the removal procedure.



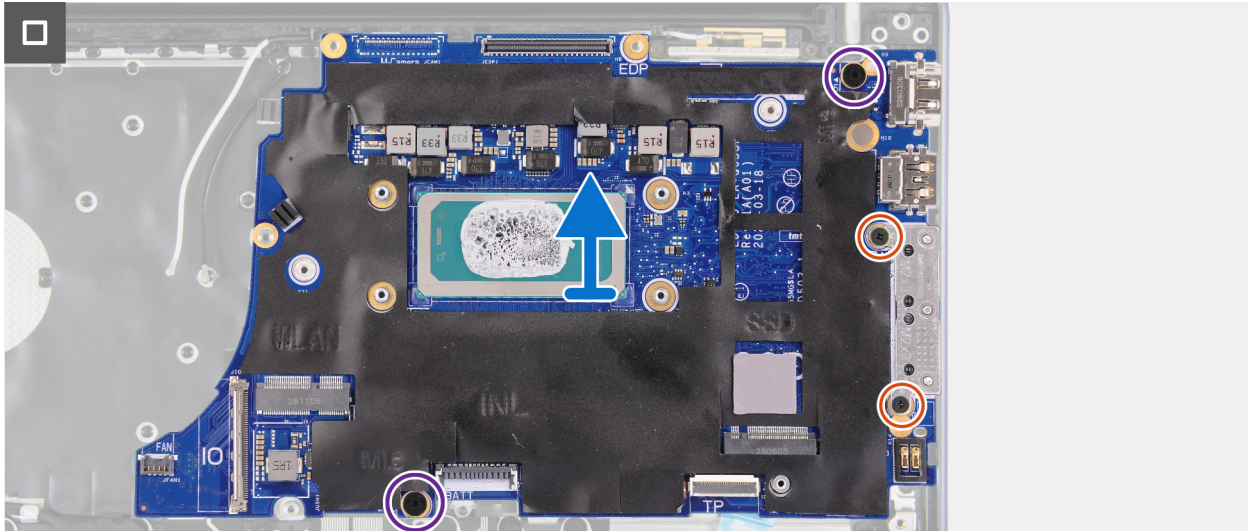


Figure 35. Removing the system board

Steps

1. Remove the three screws (M2.5x5) that secure the left display-assembly hinge to the system board.
2. Pry open the left display-assembly hinge to a 90-degree angle.
3. Disconnect the I/O-board cable from the connector (IO CABLE) on the system board.
4. Open the latch and disconnect the touchpad cable from the connector (TP) on the system board.
5. Remove the two screws (M2x3) that secure the display-assembly connector bracket to the system board.
6. Peel the display-assembly cable off the system board.
7. Remove the two screws (M1.6x1.5) that secure the system board to the palm-rest and keyboard assembly.
8. Remove the two screws (M2x3) that secure the system board to the palm-rest and keyboard assembly.
9. Lift the system board off the palm-rest and keyboard assembly.

NOTE: When removing the system board, carefully lift it at an angle to clear the positioning pin. Doing so minimizes the risk of damaging the system board.

Installing the system board

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following image indicates the connectors and M.2 card slot on your system board.

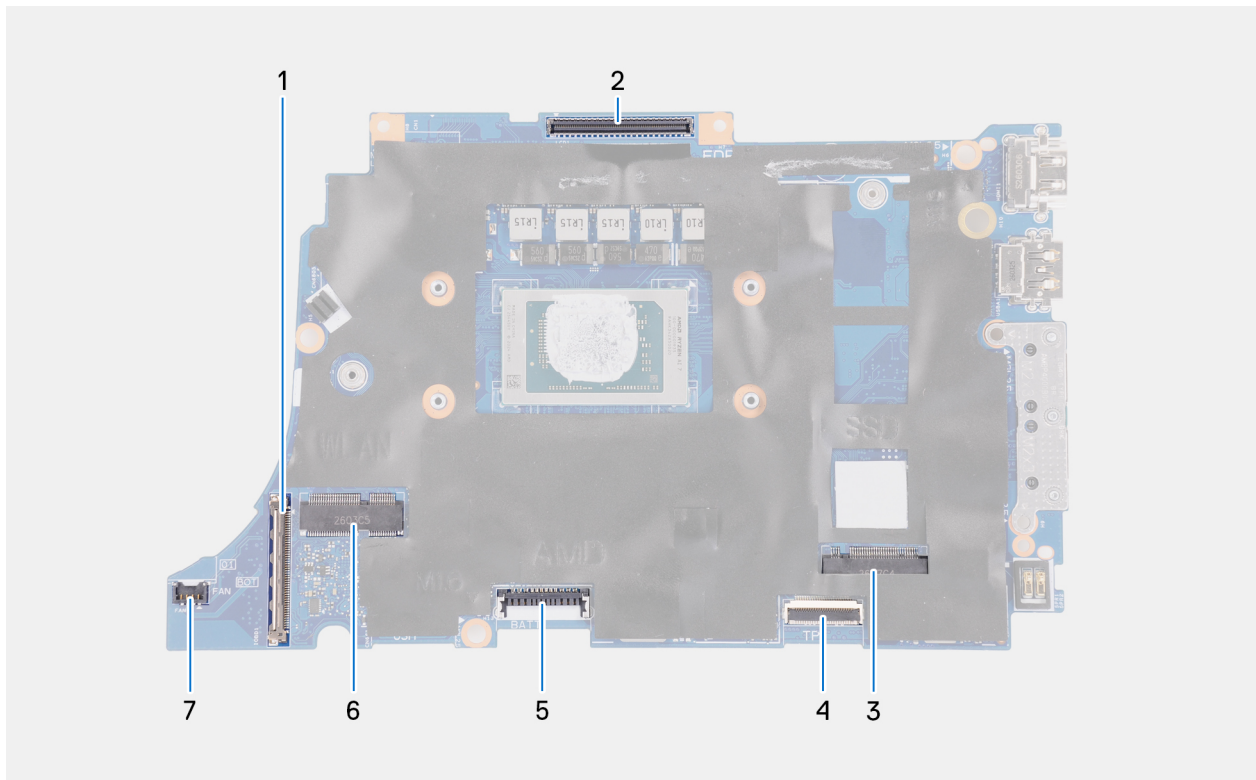


Figure 36. System-board connectors

1. I/O-board connector (IO)
2. Display-assembly cable connector (EDP)
3. M.2 solid state drive slot (SSD)
4. Touchpad-cable connector (TP)
5. Battery-cable connector (BATT)
6. M.2 wireless-card slot (WLAN)
7. Fan-cable connector (FAN)

The following images indicate the location of the system board and provide a visual representation of the installation procedure.

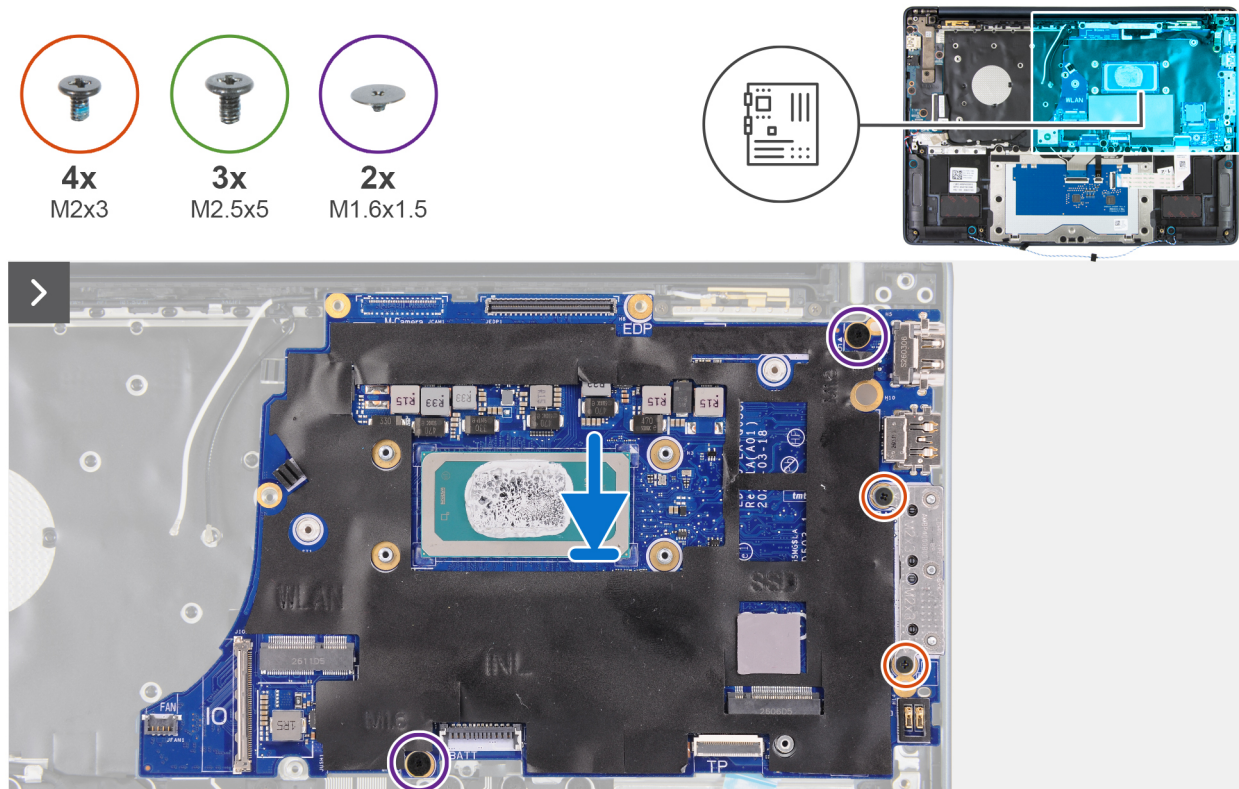


Figure 37. Installing the system board

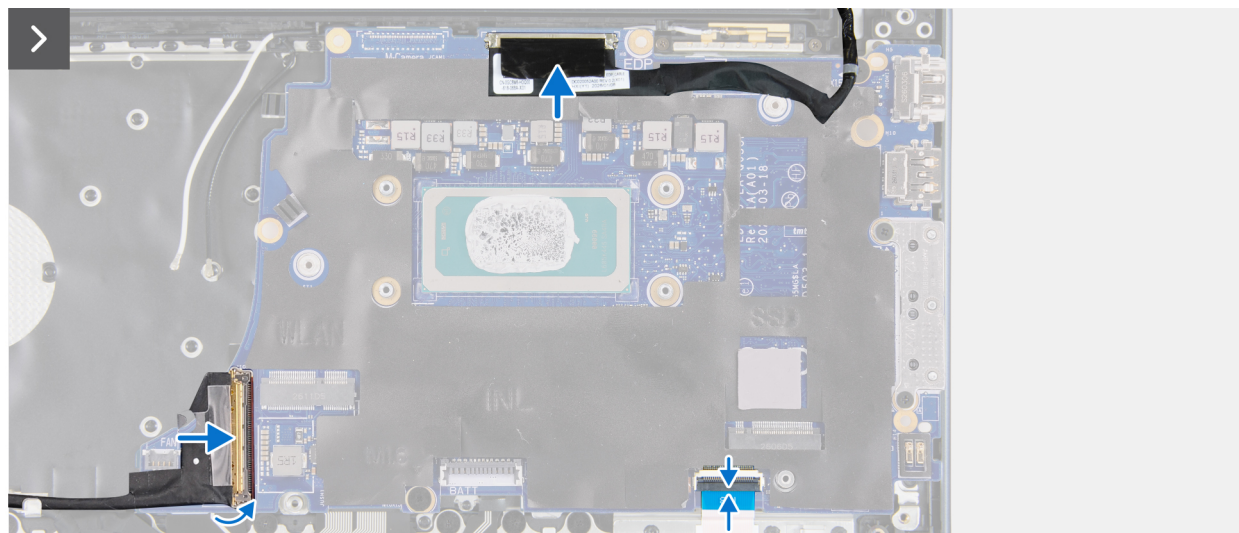


Figure 38. Installing the system board

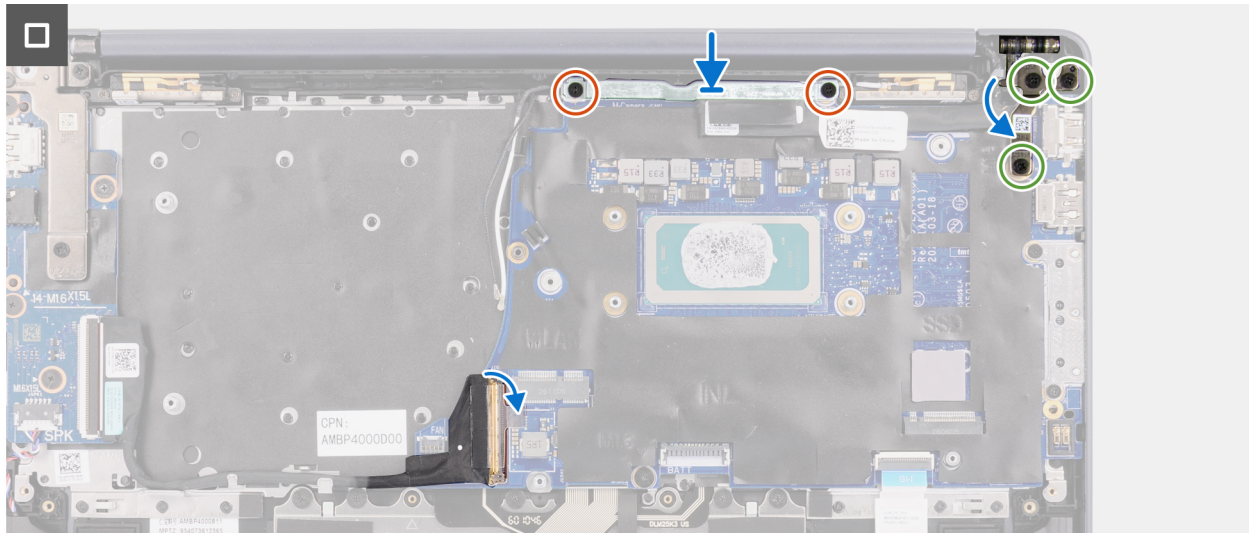


Figure 39. Installing the system board

Steps

1. Align the screw holes on the system board with the screw holes on the palm-rest and keyboard assembly.
2. Replace the two screws (M2x3) that secure the system board to the palm-rest and keyboard assembly.
3. Replace the two screws (M1.6x1.5) that secure the system board to the palm-rest and keyboard assembly.
4. Adhere the display-assembly cable to the system board.
5. Connect the touchpad cable to the connector (TP) on the system board and close the latch to secure the touchpad cable.
6. Connect the I/O-board cable to its connector (IO CABLE) on the system board and close the latch.
7. Close the display-assembly hinge and replace the three screws (M2.5x5) that secure the display-assembly hinge to the system board.
8. Align the screw holes of the display-assembly cable bracket to the screw holes on the system board.
9. Replace the two screws (M2x3) that secure the display-assembly cable bracket to the system board.

Next steps

1. Install the [display assembly](#).
2. Install the [wireless card](#).
3. Install the [M.2 2230 solid state drive](#).
4. Install the [fan](#).
5. Install the [battery](#).
6. Install the [base cover](#).
7. Follow the procedure in [After working inside your computer](#).

USB Type-C connector module

Removing the USB Type-C connector module

Prerequisites

About this task

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).
3. Remove the [battery](#).
4. Remove the [fan](#).
5. Remove the [M.2 2230 solid state drive](#).

6. Remove the [wireless card](#).
7. Remove the [system board](#).

NOTE: The system board can be removed as an assembly with the heat sink to preserve the thermal bond between the system board and heat sink.

The following images indicate the location of the USB Type-C connector module and provide a visual representation of the removal procedure.

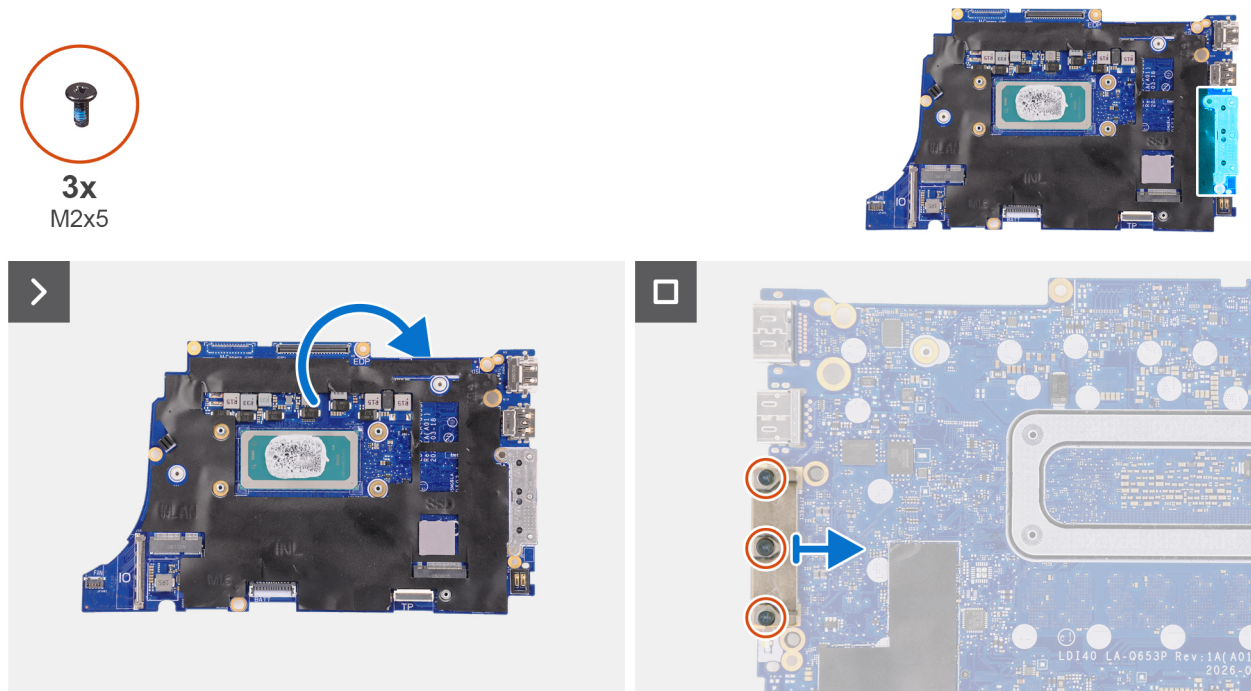


Figure 40. Removing the USB Type-C connector module

Steps

1. Turn over the system board and place it on the flat surface.
2. Remove the three screws (M2x5) that secure the USB Type-C connector module to the bottom side of the system board.
3. Remove the USB Type-C connector module off the system board.

Installing the USB Type-C connector module

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the USB Type-C connector module and provide a visual representation of the installation procedure.



3x
M2x5

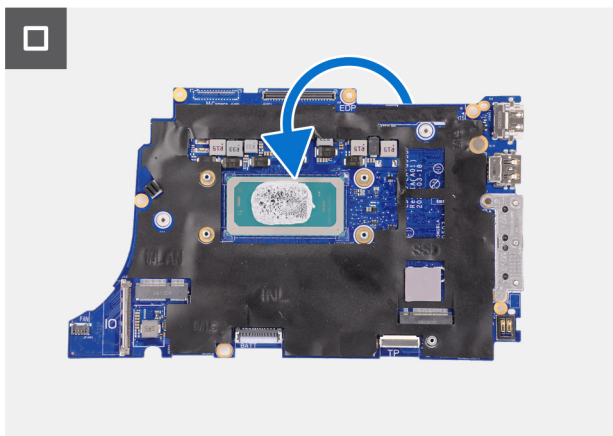
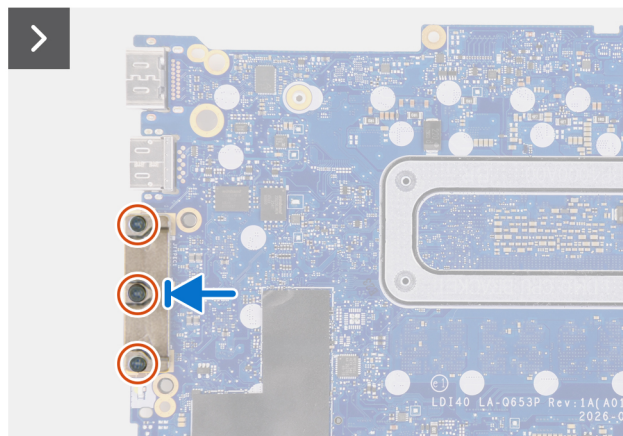
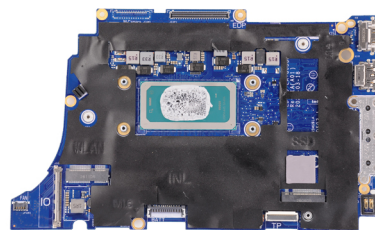


Figure 41. Installing the USB Type-C connector module

Steps

1. Align and place the USB Type-C connector module to the slot on the bottom side of the system board.
2. Replace the three screws (M2x5) that secure the USB Type-C connector module in place.
3. Turn over the system board and place it on the flat surface.

Next steps

1. Install the [system board](#).

NOTE: The system board can be removed as an assembly with the heat sink to preserve the thermal bond between the system board and heat sink.

2. Install the [wireless card](#).
3. Install the [M.2 2230 solid state drive](#).
4. Install the [fan](#).
5. Install the [battery](#).
6. Install the [base cover](#).
7. Follow the procedure in [After working inside your computer](#).

Power button

Removing the power button

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).
3. Remove the [I/O board](#).
4. Remove the [display assembly](#).

About this task

The following images indicate the location of the power button and provide a visual representation of the removal procedure.

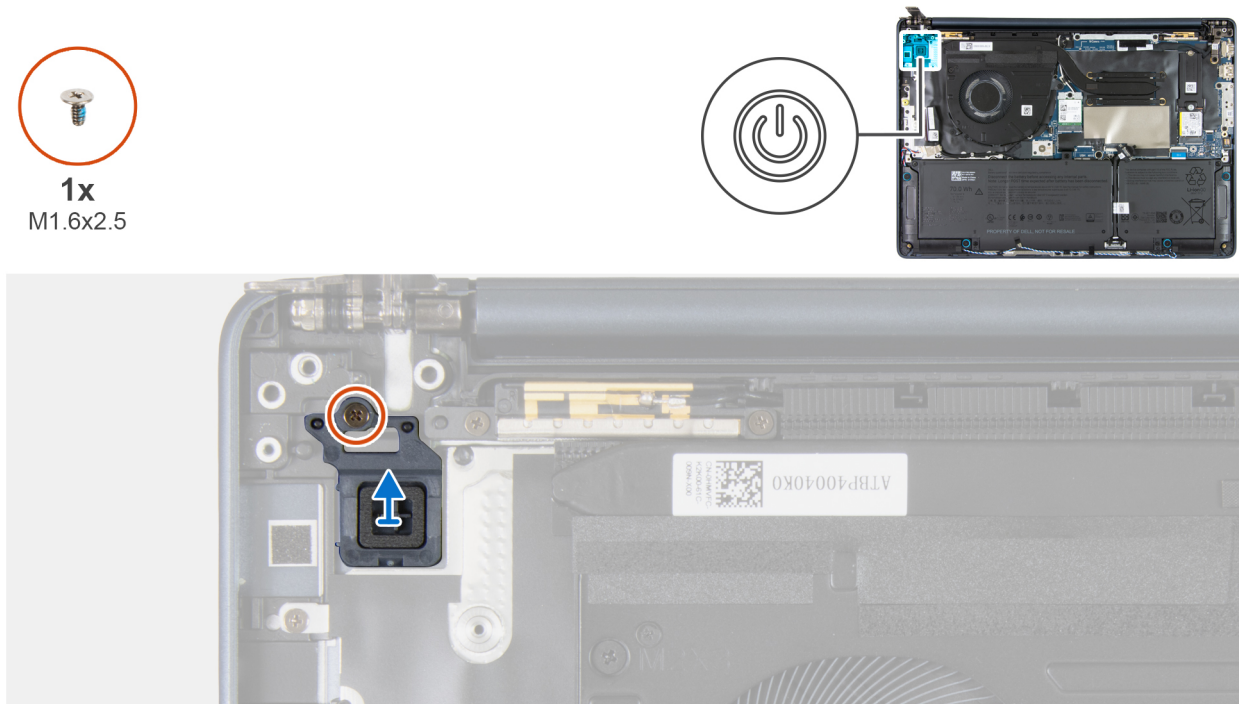


Figure 42. Removing the power button

Steps

1. Remove the screw (M1.6x2.5) that secures the power button to the palm-rest and keyboard assembly.
2. Remove the power button from the palm-rest and keyboard assembly.

Installing the power button

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the power button and provide a visual representation of the installation procedure.

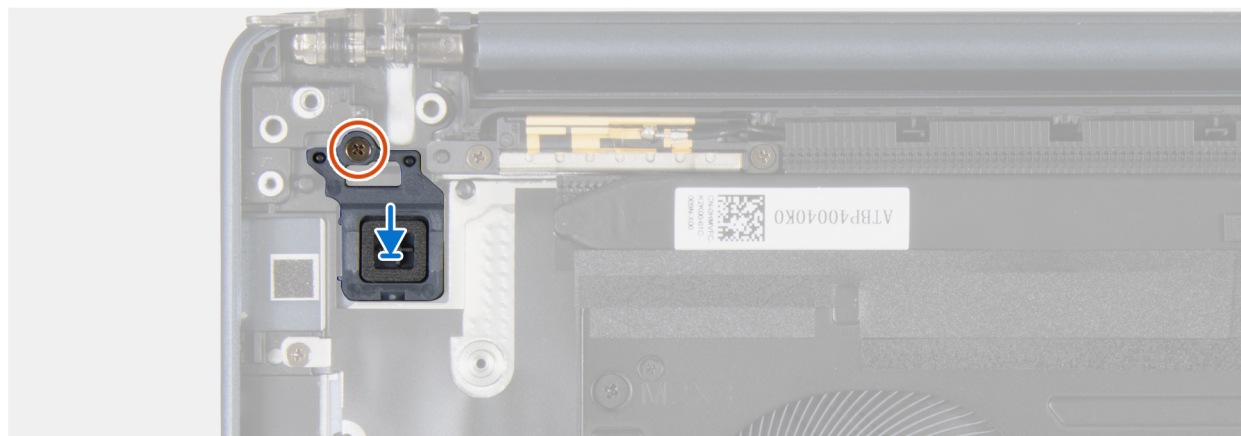
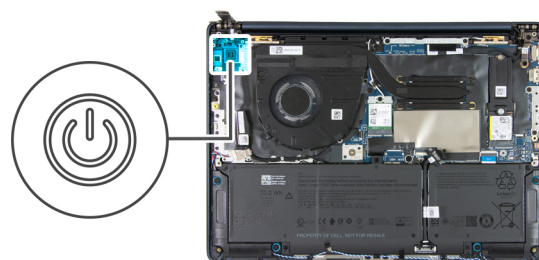


Figure 43. Installing the power button

Steps

1. Place the power button into the slot on the palm-rest and keyboard assembly.
2. Replace the screw (M1.6x2.5) that secures the power button to the palm-rest and keyboard assembly.

Next steps

1. Install the [I/O board](#).
2. Install the [display assembly](#).
3. Install the [base cover](#).
4. Follow the procedure in [After working inside your computer](#).

Touchpad

Removing the touchpad

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).
3. Remove the [battery](#).

About this task

The following image indicates the location of the touchpad and provides a visual representation of the removal procedure.



11x
M1.6x1.5

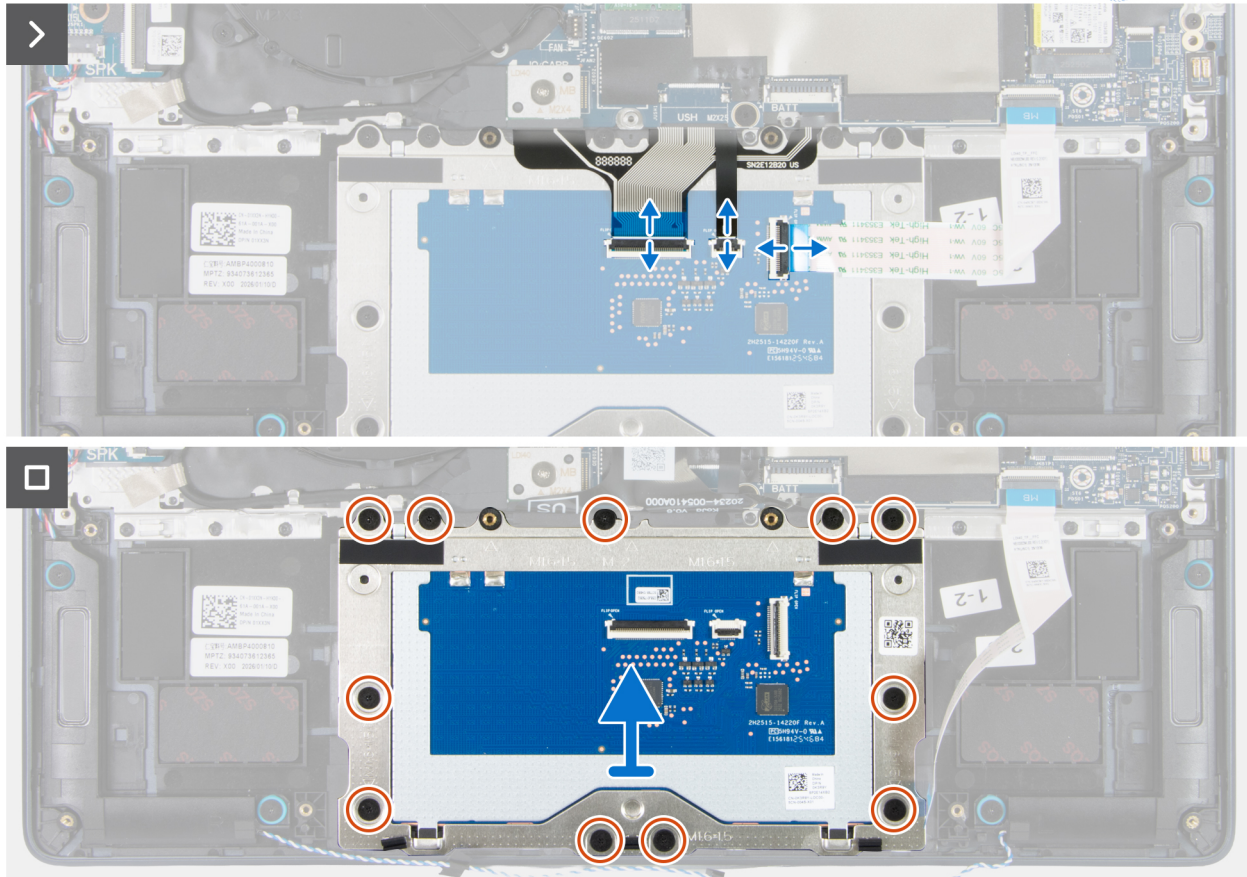
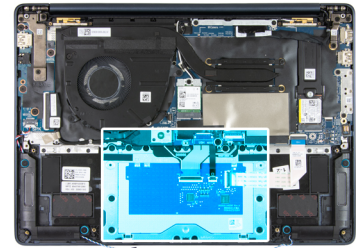


Figure 44. Removing the touchpad

Steps

1. Open the latch and disconnect the keyboard cable from the keyboard-cable connector on the touchpad.
2. For computers shipped with backlit keyboard, open the latch and disconnect the backlit keyboard cable from the connector on the touchpad.
3. Open the touchpad cable connector latch and disconnect the touchpad-cable from the touchpad cable connector on the touchpad.
4. Remove the eleven screws (M1.6x1.5) that secure the touchpad bracket to the palm-rest and keyboard assembly.
5. Open the latch and disconnect the touchpad cable from the connector on the system board.
6. Lift the touchpad bracket off the palm-rest and keyboard assembly.
7. Remove the touchpad from the palm-rest and keyboard assembly.

Installing the touchpad

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following image indicates the location of the touchpad and provides a visual representation of the installation procedure.

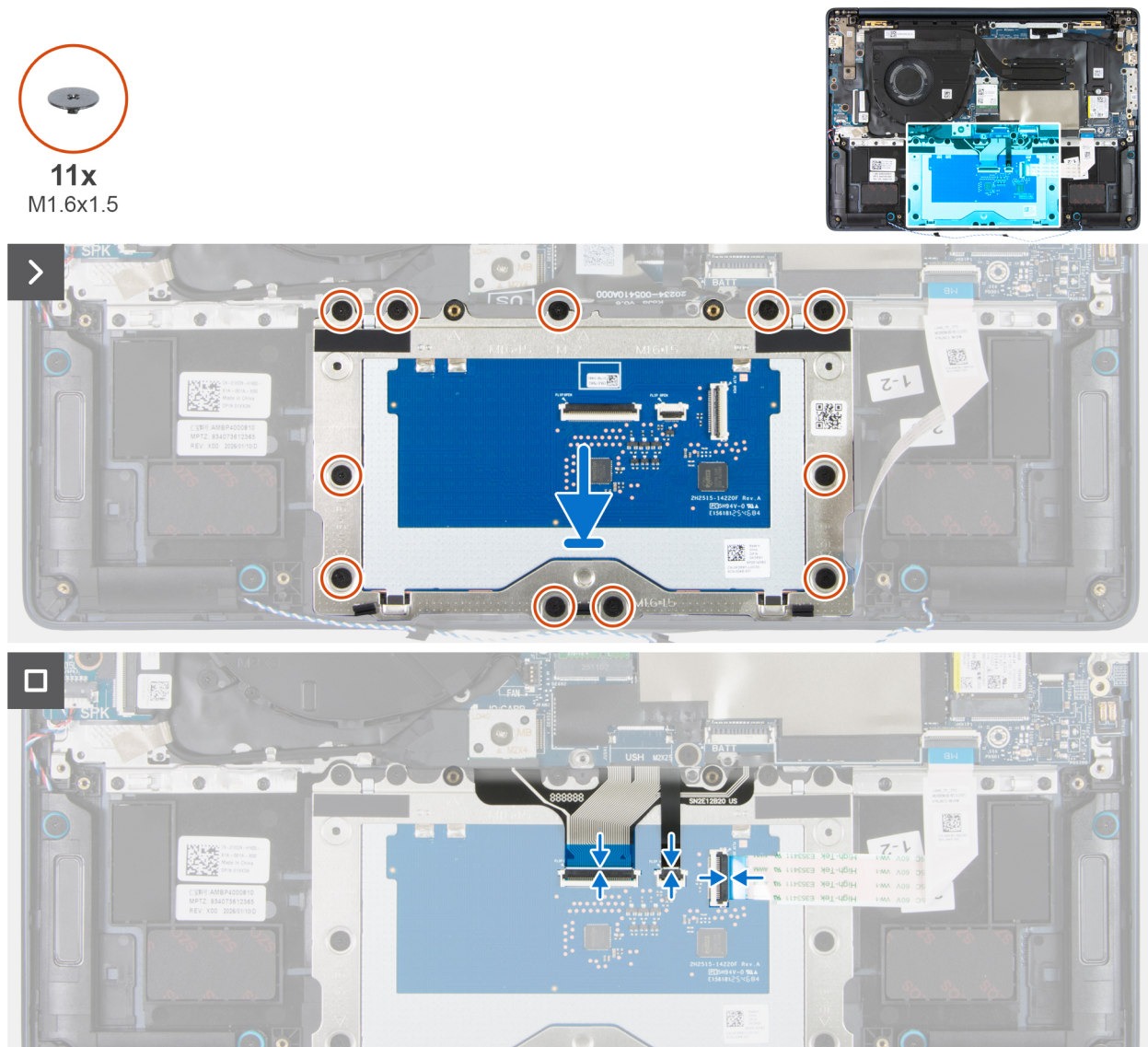


Figure 45. Installing the touchpad

Steps

1. Place the touchpad into its slot on the palm-rest and keyboard assembly.
2. Place the touchpad bracket on the touchpad.
3. Align the screw holes on the touchpad bracket with the screw holes on the palm-rest and keyboard assembly.
4. Connect the touchpad cable from the connector on the system board and close the latch.
5. Replace the eleven screws (M1.6x1.5) that secure the touchpad bracket to the palm-rest and keyboard assembly.
6. Connect the touchpad cable to its connector on the touchpad and close the latch.
7. For computers shipped with backlit keyboard, connect the backlit keyboard cable to the connector on the touchpad and close the latch.
8. Connect the keyboard cable to its connector on the touchpad and close the latch.

Next steps

1. Install the [base cover](#).
2. Install the [battery](#).
3. Follow the procedure in [After working inside your computer](#).

Antennas

Removing the left antenna

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).
3. Remove the [battery](#).
4. Remove the [fan](#).
5. Remove the [M.2 2230 solid state drive](#).
6. Remove the [wireless card](#).
7. Remove the [display assembly](#).
8. Remove the [system board](#).

NOTE: The system board can be removed as an assembly with the heat sink to preserve the thermal bond between the left antenna and heat sink.

About this task

The following images indicate the location of the left antenna and provide a visual representation of the removal procedure.

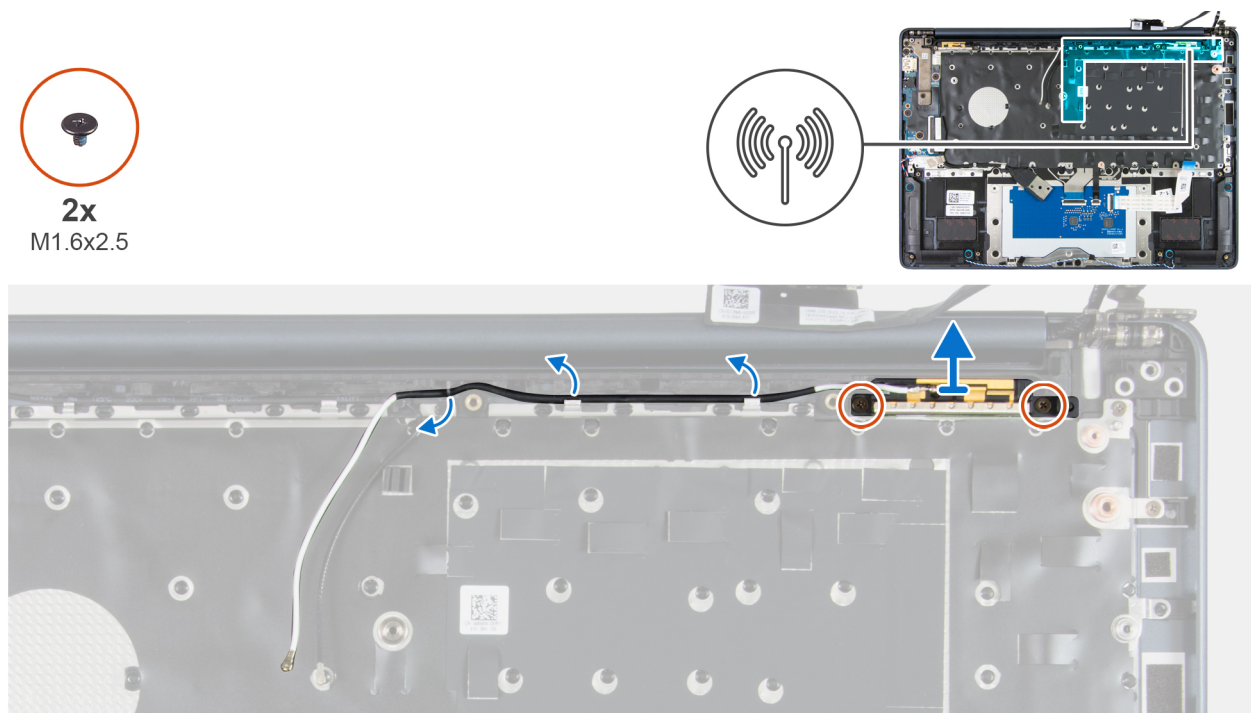


Figure 46. Removing the left antenna

Steps

1. Remove the left-antenna cable from its routing guide on the palm-rest and keyboard assembly.
2. Remove the two screws (M1.6x2.5) that secure the left antenna to the palm-rest and keyboard assembly.
3. Lift the left antenna and the cable off the palm-rest and keyboard assembly.

Installing the left antenna

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the left antenna and provide a visual representation of the installation procedure.

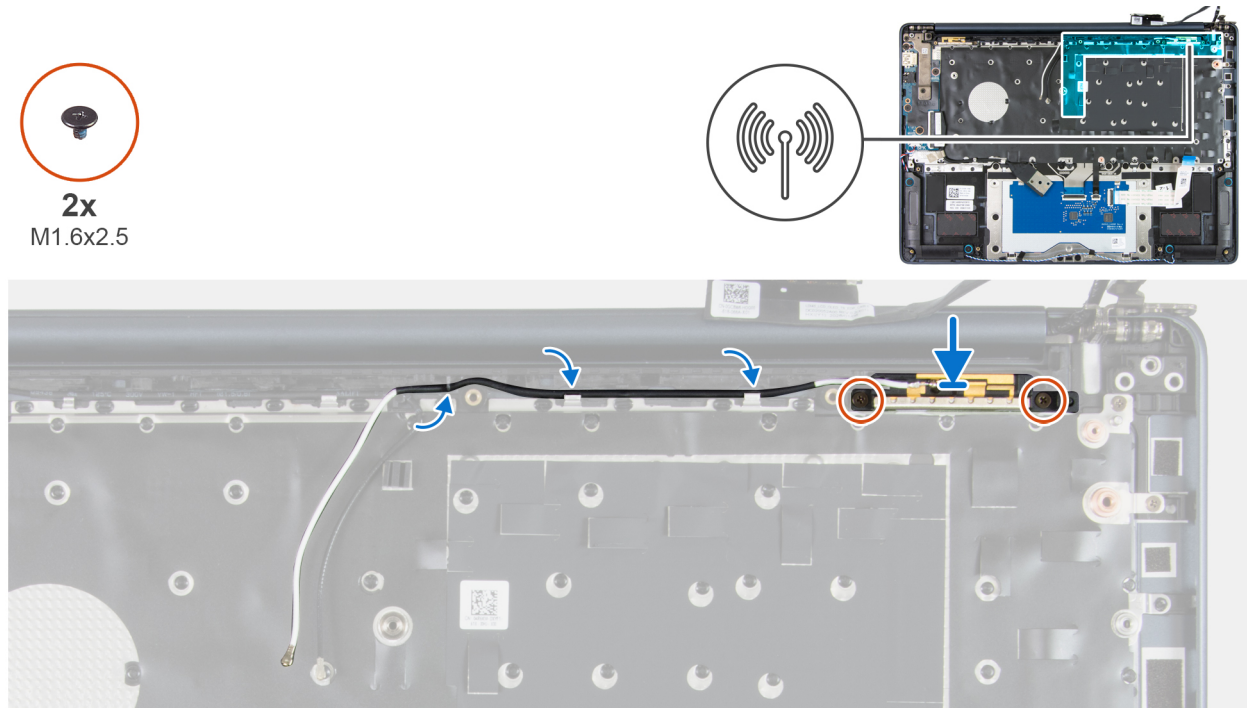


Figure 47. Installing the left antenna

Steps

1. Using the alignment post, place the left antenna on the palm-rest and keyboard assembly.
2. Align the screw holes on the left antenna with the screw holes on the palm-rest and keyboard assembly.
3. Replace the two screws (M1.6x2.5) that secure the left antenna to the palm-rest and keyboard assembly.
4. Route the left-antenna cable into its routing guide on the palm-rest and keyboard assembly.

Next steps

1. Install the [system board](#).
2. Install the [display assembly](#).
3. Install the [wireless card](#).
4. Install the [M.2 2230 solid state drive](#).
5. Install the [fan](#).
6. Install the [battery](#).
7. Install the [base cover](#).
8. Follow the procedure in [After working inside your computer](#).

Removing the right antenna

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).

3. Remove the [battery](#).
4. Remove the [fan](#).
5. Remove the [M.2 2230 solid state drive](#).
6. Remove the [wireless card](#).
7. Remove the [display assembly](#).
8. Remove the [system board](#).

NOTE: The system board can be removed as an assembly with the heat sink to preserve the thermal bond between the left antenna and heat sink.

About this task

The following images indicate the location of the right antenna and provide a visual representation of the removal procedure.

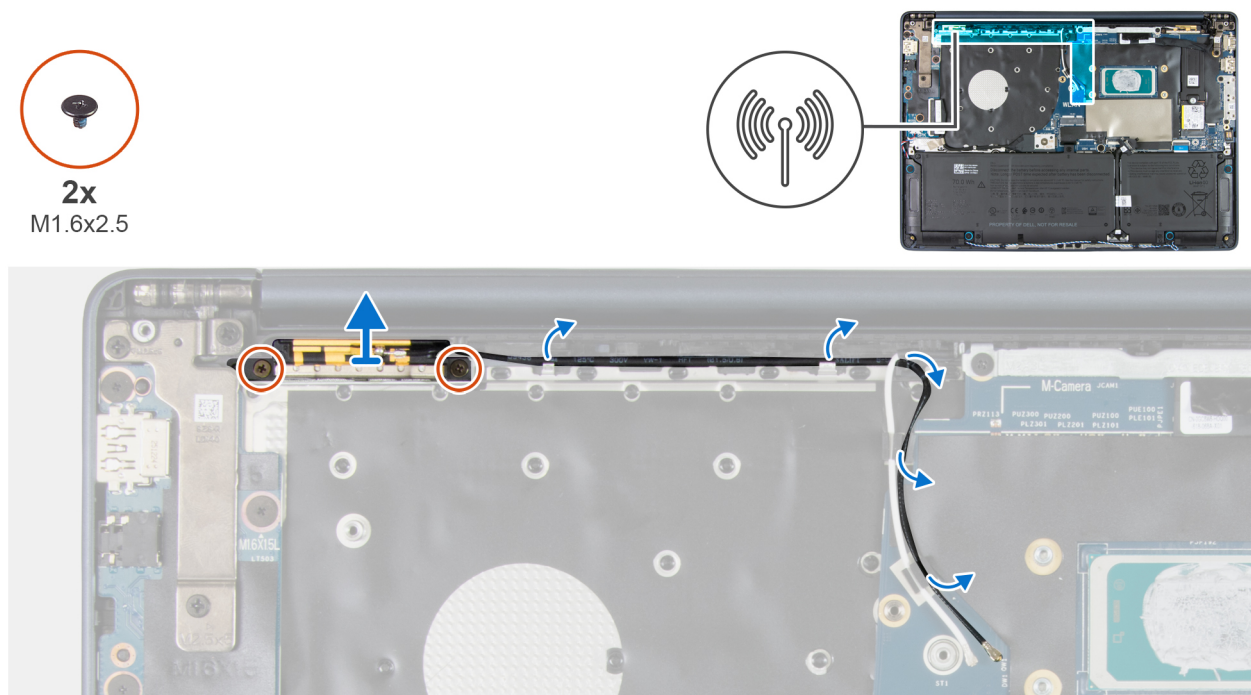


Figure 48. Removing the right antenna

Steps

1. Remove the right-antenna cable from its routing guide on the palm-rest and keyboard assembly.
2. Remove the two screws (M1.6x2.5) that secure the right antenna to the palm-rest and keyboard assembly.
3. Lift the right antenna and the cable off the palm-rest and keyboard assembly.

Installing the right antenna

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The following images indicate the location of the right antenna and provide a visual representation of the installation procedure.

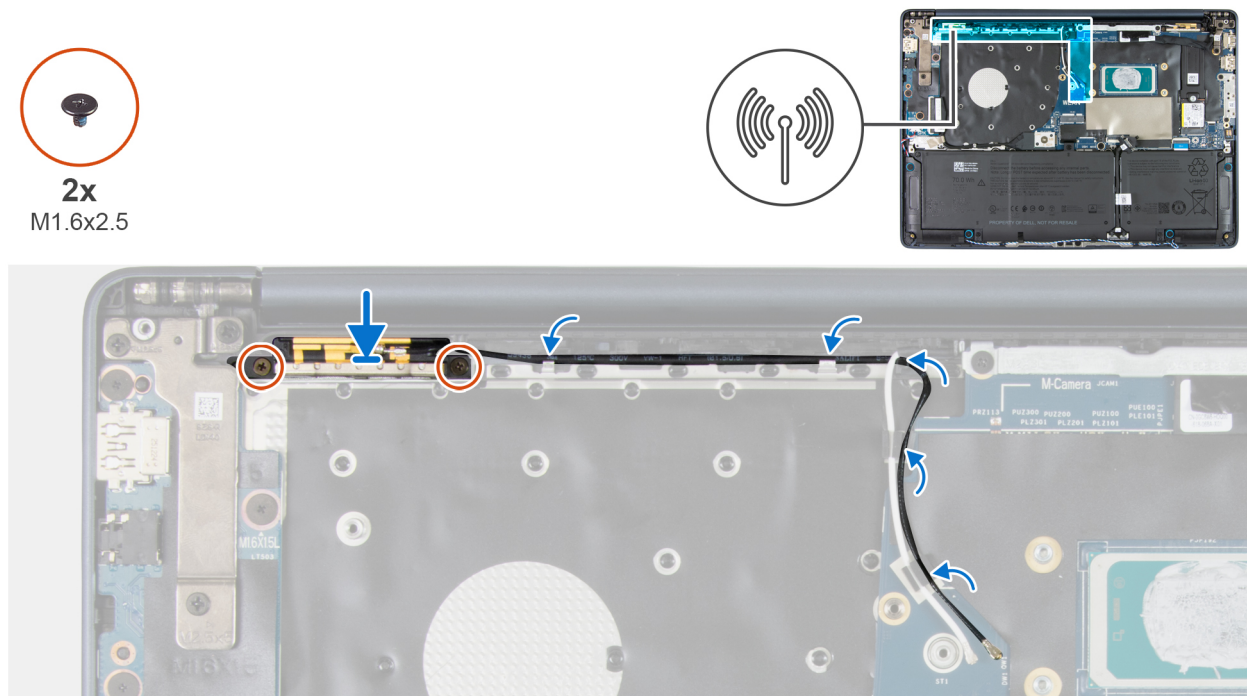


Figure 49. Installing the right antenna

Steps

1. Align the hole on the right antenna to the positioning pin on the palm-rest and keyboard assembly and place the right antenna into position.
2. Align the screw holes on the right antenna with the screw holes on the palm-rest and keyboard assembly.
3. Replace the two screws (M1.6x2.5) that secure the right antenna to the palm-rest and keyboard assembly.
4. Route the right-antenna cable into its routing guide on the palm-rest and keyboard assembly.

Next steps

1. Install the [system board](#).
2. Install the [display assembly](#).
3. Install the [wireless card](#).
4. Install the [M.2 2230 solid state drive](#).
5. Install the [fan](#).
6. Install the [battery](#).
7. Install the [base cover](#).
8. Follow the procedure in [After working inside your computer](#).

Palm-rest and keyboard assembly

Removing the palm-rest and keyboard assembly

Prerequisites

1. Follow the procedure in [Before working inside your computer](#).
2. Remove the [base cover](#).
3. Remove the [M.2 2230 solid state drive](#).
4. Remove the [battery](#).
5. Remove the [fan](#).
6. Remove the [I/O-board](#).
7. Remove the [display assembly](#).

8. Remove the [system board](#).

NOTE: The system board can be removed as an assembly with the heat-sink attached. This action also preserves the thermal bond between the system board and heat-sink.

9. Remove the [power button](#).
10. Remove the [speaker assembly](#).
11. Remove the [touchpad](#).

About this task

The following images indicate the location of the palm-rest and keyboard assembly and provide a visual representation of the removal procedure.

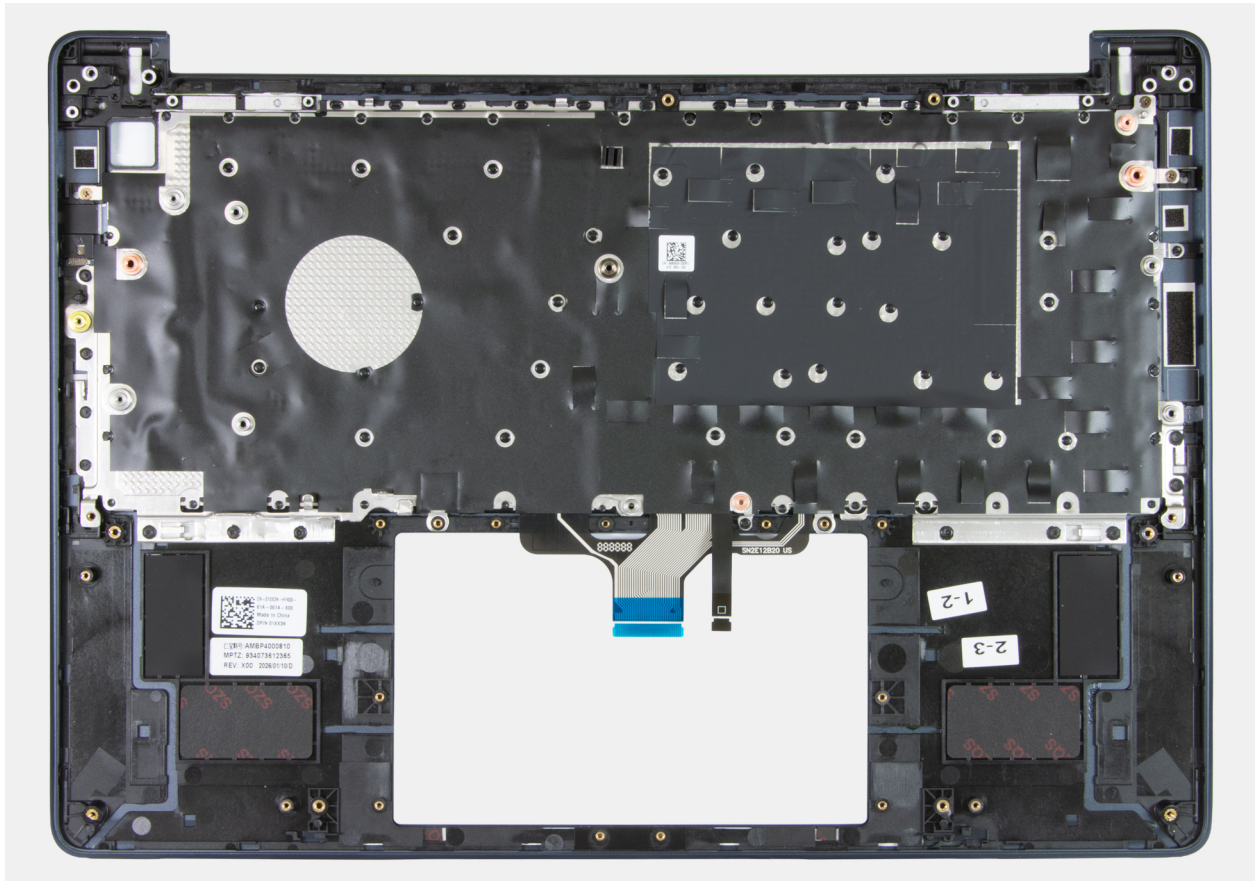


Figure 50. Palm-rest and keyboard assembly

Steps

After performing the **Prerequisites**, you are left with the palm-rest and keyboard assembly.

Installing the palm-rest and keyboard assembly

Prerequisites

If you are replacing a component, remove the existing component before performing the installation procedure.

About this task

The image below shows the palm-rest and keyboard assembly.

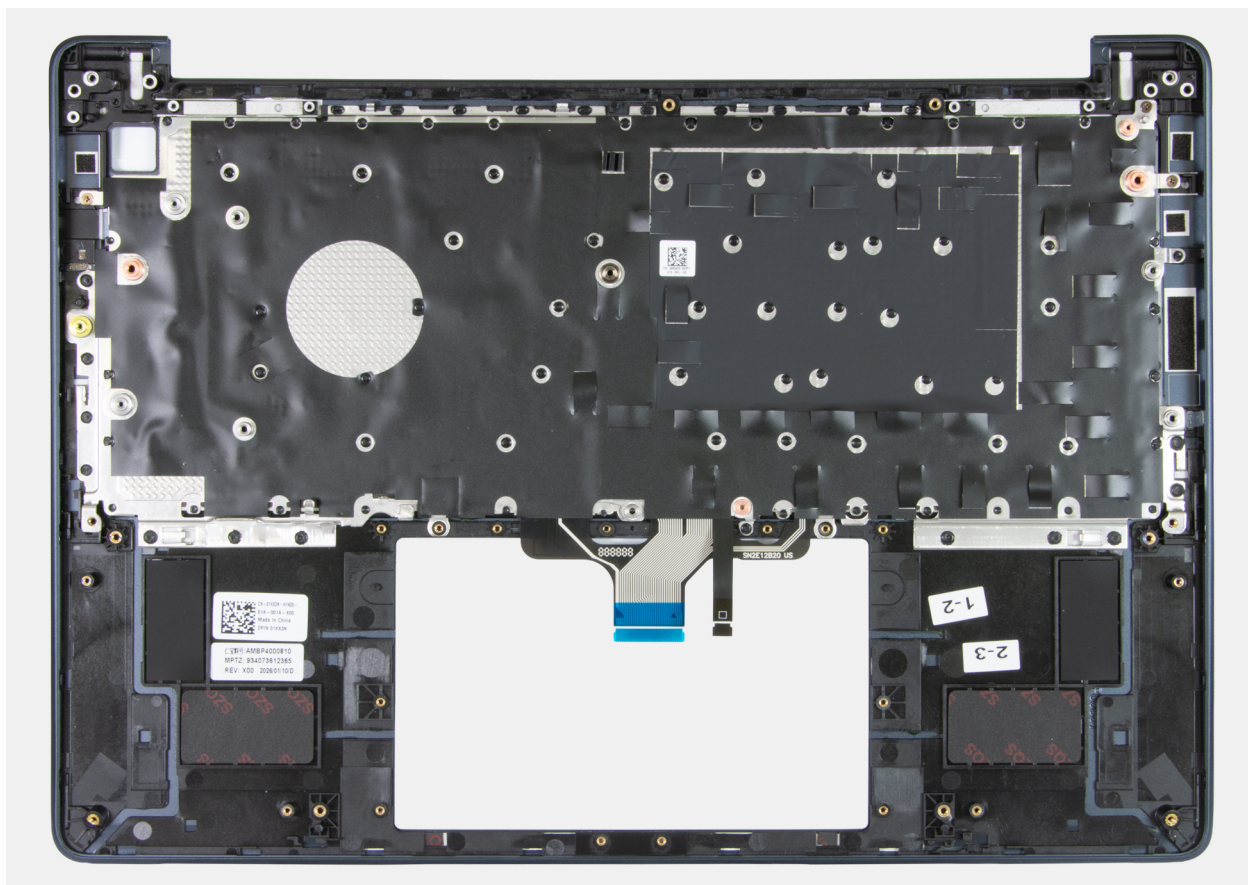


Figure 51. Palm-rest and keyboard assembly

Steps

1. Place the palm-rest and keyboard assembly on a flat surface.
2. Perform the **Next steps** to install the palm-rest and keyboard assembly.

Next steps

1. Install the [touchpad](#).
2. Install the [speaker assembly](#).
3. Install the [power button](#).
4. Install the [system board](#).

NOTE: The system board can be installed with the heat sink attached to it in order to simplify the procedure and preserve the thermal bond between the system board and heat sink.

5. Install the [display assembly](#).
6. Install the [I/O-board](#).
7. Install the [fan](#).
8. Install the [battery](#).
9. Install the [M.2 2230 solid state drive](#).
10. Install the [base cover](#).
11. Follow the procedure in [After working inside your computer](#).

Software

This chapter details the supported operating systems along with instructions on how to install the drivers.

Operating system

Your Dell 14S DS14265 supports the following operating systems:

- Windows 11 Home
- Windows 11 Pro

Drivers and downloads

When troubleshooting, downloading, or installing drivers, it is recommended that you read the Dell Knowledge Base article [Drivers and Downloads FAQs](#).

BIOS Setup

 **CAUTION:** Certain changes can make your computer work incorrectly. Before you change the settings in BIOS Setup, it is recommended that you note down the original settings for future reference.

 **NOTE:** Depending on the computer and the installed devices, the options that are listed in below may differ.

Use BIOS Setup for the following purposes:

- Get information about the hardware installed in your computer, such as the amount of RAM and the capacity of the storage device.
- Change the system configuration information.
- Set or change user-selectable options such as the user password, enabling or disabling base devices, and configuring hard drive settings.

Entering BIOS Setup program

Turn on or restart your computer and press F2 immediately.

Navigation keys

 **NOTE:** For most of the BIOS Setup options, changes that you make are recorded but do not take effect until you restart the computer.

Table 4. Navigation keys

Keys	Navigation
Up arrow	Moves to the previous field.
Down arrow	Moves to the next field.
Enter	Selects a value in the selected field (if applicable) or follows the link in the field.
Spacebar	Expands or collapses a drop-down list, if applicable.
Tab	Moves to the next focus area.
Esc	Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that prompts you to save any unsaved changes and restart the computer.

F12 One Time Boot menu

To enter the One Time Boot menu, turn on or restart your computer, and then press F12 immediately.

 **NOTE:** If you are unable to enter the One Time Boot menu, repeat the above action.

The One Time Boot menu displays the devices that you can boot from and also display the options to start diagnostics. The boot menu options are:

- Removable Drive (if available)
- STXXXX Drive (if available)

 **NOTE:** XXX denotes the SATA drive number.

- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics

The One Time Boot menu screen also displays the option to access BIOS Setup.

BIOS Setup options

 **NOTE:** For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the computer.

 **NOTE:** Depending on your computer and its installed devices, the items that are listed in this section may differ.

Table 5. System Setup options—Overview menu

Overview	
Dell 14S DS14265	
BIOS Version	Displays the BIOS version number.
Service Tag	Displays the Service Tag of the computer.
Asset Tag	Displays the Asset Tag of the computer.
Manufacture Date	Displays the manufacture date of the computer.
Ownership Date	Displays the ownership date of the computer.
Express Service Code	Displays the Express Service Code of the computer.
Ownership Tag	Displays the Ownership Tag of the computer.
Signed Firmware Update	Displays whether the Signed Firmware Update is enabled on your computer. By default, the Signed Firmware Update option is enabled.  NOTE: To view this option, enable Service options as described in View Service options .
System UUID	Displays System UUID of the computer.
BATTERY	
Primary	Displays the primary battery of the computer.
Battery Level	Displays the battery level of the computer.
Battery State	Displays the battery state of the computer.
Health	Displays the battery health of the computer.
AC Adapter	Displays whether an AC adapter is connected. If connected, displays the type of AC adapter that is connected.
Battery Life Type	Displays the battery life type of the computer.
PROCESSOR	
Processor Type	Displays the processor type.
Maximum Clock Speed	Displays the maximum processor clock speed.
Minimum Clock Speed	Displays the minimum processor clock speed.
Current Clock Speed	Displays the current processor clock speed.
Processor L2 Cache	Displays the Processor L2 Cache value of the processor.

Table 5. System Setup options—Overview menu (continued)

Overview	
Processor L3 Cache	Displays the Processor L3 Cache value of the processor.
Simultaneous Multi-Threading Capable	Displays if Simultaneous Multi-Threading Capable is supported on the computer.
MEMORY	
Memory Installed	Displays the total memory installed on the computer.
Memory Speed	Displays the memory speed.
Memory Channel Mode	Displays the memory channel mode.
DEVICES	
Panel Type	Displays the type of display panel available on the computer.
Panel Revision	Displays the type of panel revision available on the computer.
Video Controller	Displays the type of video controller available on the computer.
Video Memory	Displays the video memory information of the computer.
Wi-Fi Device	Displays the wireless device information of the computer.
Native Resolution	Displays the native resolution of the computer.
Audio Controller	Displays the audio controller information of the computer.
Bluetooth Device	Displays the Bluetooth device information of the computer.

Table 6. System Setup options—Boot Configuration menu

Boot Configuration	
Boot Sequence	
Boot Mode: UEFI only	Displays the boot mode of the computer.
Boot Sequence	Displays the boot sequence.
Secure Boot	Secure Boot is a method of guaranteeing the integrity of the boot path by performing additional validation of the operating system and PCI add-in cards. The computer stops booting to the operating system when a component is not authenticated during the boot process. Secure Boot can be enabled in BIOS setup or using management interfaces like Dell Command Configure, but can only be disabled from BIOS setup.
Enable Secure Boot	Enables the computer to boot using only validated boot software. By default, this Enable Secure Boot option is disabled. For additional security, Dell Technologies recommends keeping the Secure Boot option enabled to ensure that the UEFI firmware validates the operating system during the boot process.  NOTE: To enable Secure Boot, the computer must be in UEFI boot mode and the Enable Legacy Option ROMs option must be turned off.
Enable Microsoft UEFI CA	When disabled, the UEFI CA is removed from the BIOS UEFI Secure Boot database.  CAUTION: If you disable Microsoft UEFI CA, the computer may not boot, computer graphics may not function, some devices may not function properly, and the computer could become unrecoverable. By default, the Enable Microsoft UEFI CA option is enabled. For additional security, Dell Technologies recommends keeping the Enable Microsoft UEFI CA option enabled to ensure the broadest compatibility with devices and operating systems.

Table 6. System Setup options—Boot Configuration menu (continued)

Boot Configuration	
Secure Boot Mode	Enables or disables the Secure Boot operation mode. By default, the Deployed Mode is selected. Deployed Mode should be selected for normal operation of Secure Boot.

Table 7. System Setup options—Integrated Devices menu

Integrated Devices	
Date/Time	
Date	Sets the computer date in MM/DD/YYYY format. Changes to the date format take effect immediately.
Time	Sets the computer time in HH/MM/SS 24-hour format. You can select between a 12-hour or 24-hour clock. Changes to the time format take effect immediately.
USB/Thunderbolt Configuration	
Enable USB Boot Support	Enables booting from USB mass storage devices that are connected to external USB ports. By default, the Enable USB Boot Support option is enabled.

Table 8. System Setup options—Storage menu

Storage	
Smart Reporting	
Enable Smart Reporting	Enables or disables the Smart reporting option. By default, the Smart Reporting option is disabled.
Drive Information	Displays the information of onboard drives.

Table 9. System Setup options—Display menu

Display	
Display Brightness	
Brightness on battery power	By default, the screen brightness is set to 50 when the computer is running on battery power. Set the screen brightness when the computer is running on battery power.
Brightness on AC power	By default, the screen brightness is set to 100 when the computer is running on AC power. Set the screen brightness when the computer is running on AC power.

Table 10. System Setup options—Connection menu

Connection	
Enable UEFI Network Stack	Enables or disables the UEFI Network Stack and controls the onboard LAN Controller. By default, the Auto Enabled option is enabled.

Table 11. System Setup options—Power menu

Power	
Battery Configuration	Enables or disables the computer to run on battery during peak power usage hours. Use the table Custom Charge Start and Custom Charge Stop , to prevent AC power usage between certain times of each day.

Table 11. System Setup options—Power menu (continued)

Power	
	By default, the Adaptive option is selected. Battery settings are adaptively optimized based on your typical battery usage pattern.
Lid Switch	
Enable Lid Switch	Enables or disables the Lid Switch. By default, the Enable Lid Switch option is enabled.

Table 12. System Setup options—Security menu

Security	
Chassis Intrusion	
Chassis Intrusion	Enables or disables the detection of chassis intrusion events. This feature notifies the user when the base cover has been removed from the computer. When set to Enabled, a notification is displayed on the next boot and the event is logged in the BIOS Events log. When set to Disabled, no notification is displayed and no event is logged in the BIOS Events log. When set to On-Silent, the event is logged in the BIOS Events log, but no notification is displayed. By default, the On-Silent option is disabled. For additional security, Dell Technologies recommends keeping the Chassis Intrusion option enabled.
Block Boot Until Cleared	The Block Boot Until Clear option is enabled when Chassis Intrusion is enabled. When enabled, the computer does not boot until the chassis intrusion is cleared.
SMM Security Mitigation	
	Enables or disables additional UEFI SMM Security Mitigation protections. This option uses the Windows SMM Security Mitigations Table (WSMT) to confirm to the operating system that security best practices have been implemented by the UEFI firmware. By default, the SMM Security Mitigation option is enabled. For additional security, Dell Technologies recommends keeping the SMM Security Mitigation option enabled unless you have a specific application which is not compatible.  NOTE: This feature may cause compatibility issues or loss of functionality with some legacy tools and applications.
Data Wipe on Next Boot	
Start Data Wipe	Data Wipe is a secure wipe operation that deletes information from a storage device.  CAUTION: The secure Data Wipe operation deletes information in a way that it cannot be reconstructed. Commands such as delete and format in the operating system may remove files from showing up in the file system. However, they can be reconstructed through forensic means as they are still represented on the physical media. Data Wipe prevents this reconstruction and the data can no longer be recovered. When enabled, the data wipe option provides prompts to wipe any storage devices that are connected to the computer on the next boot. By default, the Start Data Wipe option is disabled.

Table 12. System Setup options—Security menu (continued)

Security	
Absolute	Absolute Software provides various cyber security solutions, some requiring software preloaded on Dell computers and integrated into the BIOS. To use these features, you must enable the Absolute BIOS setting and contact Absolute for configuration and activation. By default, the Enable Absolute option is enabled. For additional security, Dell Technologies recommends keeping the Enable Absolute option enabled.  WARNING: The Permanently Disabled option can only be selected once. When Permanently Disabled is selected, Absolute Persistence cannot be reenabled. No further changes to the Enable/Disable states are allowed.  NOTE: The Enable/Disable options are unavailable while the computer is in the activated state.  NOTE: When the Absolute features are activated, the Absolute integration cannot be disabled from the BIOS Setup screen.

Table 13. System Setup options—Passwords menu

Passwords	
Admin Password	The Admin Password prevents unauthorized access to the BIOS Setup options. Once the administrator password is set, the BIOS Setup options can only be modified after providing the correct password. The following rules and dependencies apply to the Admin Password - • The administrator password cannot be set if computer and/or internal storage device passwords are already set. • The administrator password can be used in place of the system and/or internal storage passwords. • When set, the administrator password must be provided during a firmware update. • Clearing the administrator password also clears the system password (if set). Dell Technologies recommends using an administrator password to prevent unauthorized changes to BIOS Setup options.
System Password	The System Password prevents the computer from booting to an operating system without entering the correct password. The following rules and dependencies apply when the System Password is used - • The computer shuts down when idle for approximately 10 minutes at the system password prompt. • The computer shuts down after three incorrect attempts to enter the system password. • The computer shuts down when the Esc key is pressed at the System Password prompt. • The system password is not prompted when the computer resumes from standby mode. Dell Technologies recommends using the system password in situations where it is likely that a computer may be lost or stolen.
M.2 PCIe SSD-0	The hard drive password can be set to prevent unauthorized access of the data stored on the solid-state drive. The computer prompts for the hard drive password during boot in order to unlock the drive. A password-secured hard drive stays locked even when removed from the computer or placed into another computer. It prevents an attacker from accessing data on the drive without authorization.

Table 13. System Setup options—Passwords menu (continued)

Passwords	
	The following rules and dependencies apply when the Hard Drive Password or M.2 PCIe SSD-0 option is used. • The hard drive password option cannot be accessed when the hard drive is disabled in the BIOS Setup. • The computer shuts down when idle for approximately 10 minutes at the hard drive password prompt. • The computer shuts down after three incorrect attempts to enter the hard drive password and treats the hard drive as not available. • The hard drive does not accept password unlock attempts after five incorrect attempts to enter the hard drive password from the BIOS Setup. The hard drive password must be reset for the new password unlock attempts. • The computer treats the hard drive as not available when the Esc key is pressed at the hard drive password prompt. • The hard drive password is not prompted when the computer resumes from standby mode. When the hard drive is unlocked by the user before the computer goes into standby mode, it remains unlocked after the computer resumes from standby mode. • If the system and hard drive passwords are set to the same value, the hard drive unlocks after the correct system password is entered. Dell Technologies recommends using a hard drive password to protect unauthorized data access.
Password Changes	
Allow Non-Admin Password Changes	The Allow Non-Admin Password Changes option in BIOS Setup allows an end user to set or change the system or hard drive passwords without entering the administrator password. This gives an administrator control over the BIOS settings but enables an end user to provide their own password. By default, the Allow Non-Admin Password Changes option is enabled. For additional security, Dell Technologies recommends keeping the Allow Non-Admin Password Changes option disabled.
Admin Setup Lockout	The Admin Setup Lockout option prevents an end user from even viewing the BIOS Setup configuration without first entering the administrator password (if set). By default, the Enable Admin Setup Lockout option is disabled. For additional security, Dell Technologies recommends keeping the Admin Setup Lockout option disabled.
Allow Non-Admin PSID Revert	The Allow Non-Admin PSID Revert option allows a user to clear the hard drive password without entering the BIOS Admin Password. When an Admin Password is set, the ability to enter the PSID is protected by requiring authentication with the Admin Password. If this option is enabled, any user can clear the drive without entering the Admin Password. By default, the Enable Allow Non-Admin PSID Revert option is disabled.

Table 14. System Setup options—Update, Recovery menu

Update, Recovery	
UEFI Capsule Firmware Updates	
Enable UEFI Capsule Firmware Updates	Enables or disables BIOS updates through UEFI capsule update packages.  NOTE: Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS). By default, the Enable UEFI Capsule Firmware Updates option is enabled.

Table 14. System Setup options—Update, Recovery menu (continued)

Update, Recovery	
BIOS Recovery from Hard Drive	Enables or disables the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB drive. By default, the BIOS Recovery from Hard Drive option is enabled.  NOTE: BIOS Recovery from Hard Drive is not available for self-encrypting drives (SED).  NOTE: BIOS recovery is designed to fix the main BIOS block and cannot work if the Boot Block is damaged. In addition, this feature cannot work in the event of EC corruption, ME corruption, or a hardware issue. The recovery image must exist on an unencrypted partition on the drive.
Connected Service Delivery	Enables or disables the user to Connected Service Delivery. When enabled, Dell maintains support and service resources on the computer.

Table 15. System Setup options—System Management menu

System Management	
Service Tag	Displays the Service Tag of the computer.
First Power On Date	This option lets you set the Ownership date.
Diagnostics	
OS Agent Requests	Enable or disable the option for applications running in the operating system to run with preboot diagnostics on subsequent boots.
Power-On-Self-Test Automatic Recovery	Enable or disable the automatic recovery of the computer from no power or no-POST failure by applying mitigation steps. By default, the Power-On-Self-Test Automatic Recovery option is enabled.

Table 16. System Setup options—Keyboard menu

Keyboard	
Keyboard Illumination	Configures the operating mode of the keyboard illumination feature. By default, the Dim option is selected. Enables the keyboard illumination feature at 100% brightness level.
Keyboard Backlight Timeout on AC	Sets the timeout value for the keyboard backlight when an AC adapter is connected to the computer. By default, the 10 seconds option is selected.
Keyboard Backlight Timeout on Battery	Sets the timeout value for the keyboard backlight when the computer is running only on the battery power. The keyboard backlight timeout value is only effective when the backlight is enabled. By default, the 10 seconds option is selected.

Table 17. System Setup options—Pre-boot Behavior menu

Pre-boot Behavior	
Adapter Warnings	Enables the warning messages during boot when the adapters with less power capacity are detected.
Warnings and Errors	Enables or disables the action to be taken when a warning or error is encountered. By default, the Prompt on Warnings and Errors option is selected.  NOTE: Errors deemed critical to the operation of the computer hardware stop the functioning of the computer.

Table 17. System Setup options—Pre-boot Behavior menu (continued)

Pre-boot Behavior	
Sign of Life	
Early Keyboard Backlight	Enables or disables the Keyboard Backlight Sign of Life. By default, the Early Keyboard Backlight option is enabled.

Table 18. System Setup options—Performance menu

Performance	
C-States Control	
Enable C-State Control	Enables or disables the ability of the CPU to enter and exit low-power state. When disabled, it disables all C-states. When enabled, it enables all C-states that the chipset or platform allows. By default, the Enable C-State Control option is enabled.
AMD Core Performance Boost	
Enable AMD Core Performance Boost	Enables or disables the AMD Core Performance Boost of the processor.

Table 19. System Setup options—System Logs menu

System Logs	
BIOS Event Log	
Clear BIOS Event Log	Select the option to keep or clear BIOS events logs. By default, the Keep Log option is selected.
Thermal Event Log	
Clear Thermal Event Log	Select the option to keep or clear thermal events logs. By default, the Keep Log option is selected.
Power Event Log	
Clear Power Event Log	Select the option to keep or clear power events logs. By default, the Keep Log option is selected.

Updating the BIOS

Updating the BIOS in Windows

About this task

 **CAUTION:** If BitLocker is not suspended before updating the BIOS, the BitLocker key is not recognized the next time you reboot the computer. You will then be prompted to enter the recovery key to proceed, and the computer displays a prompt for the recovery key on each reboot. Failure to provide the recovery key can result in data loss or an operating system reinstall. For more information, refer [Updating the BIOS on Dell systems with BitLocker enabled](#).

 **CAUTION:** Do not turn off the computer during the BIOS flash update process. The computer may not boot if you turn off your computer.

Steps

1. Go to [Dell Support Site](#).

2. Go to **Identify your product or ask support**. In the box, enter the product identifier, model, service request or describe what you are looking for, and then click **Search**.

 **NOTE:** If you do not have the Service Tag, click **Detect This PC**. The site automatically detects your device, and you can then click **Explore Product Support** to go to the support page for your device. You can also use the product ID or manually browse for your computer model.

3. Click **Drivers & Downloads**.
4. Select the operating system installed on your computer.
5. In the **Category** drop-down list, select **BIOS**.
6. Select the latest version of BIOS, and click **Download** to download the BIOS file for your computer.
7. After the download is complete, navigate to the folder where the BIOS update file has been saved.
8. Double-click the BIOS update file and follow the on-screen instructions.

For more information, search [Dell Support Site](#).

Updating the BIOS using the USB drive in Windows

About this task

 **CAUTION:** If BitLocker is not suspended before updating the BIOS, the BitLocker key is not recognized the next time you reboot the computer. You will then be prompted to enter the recovery key to proceed, and the computer displays a prompt for the recovery key on each reboot. Failure to provide the recovery key can result in data loss or an operating system reinstall. For more information, refer [Updating the BIOS on Dell systems with BitLocker enabled](#).

 **CAUTION:** Do not turn off the computer during the BIOS flash update process. The computer may not boot if you turn off your computer.

Steps

1. Go to [Dell Support Site](#).
 2. Go to **Identify your product or ask support**. In the box, enter the product identifier, model, service request or describe what you are looking for, and then click **Search**.
-  **NOTE:** If you do not have the Service Tag, click **Detect This PC**. The site automatically detects your device, and you can then click **Explore Product Support** to go to the support page for your device. You can also use the product ID or manually browse for your computer model.
3. Click **Drivers & Downloads**.
 4. Select the operating system installed on your computer.
 5. In the **Category** drop-down list, select **BIOS**.
 6. Select the latest version of BIOS, and click **Download** to download the BIOS file for your computer.
 7. Create a bootable USB drive. For more information, search [Dell Support Site](#).
 8. Copy the BIOS setup program file to the bootable USB drive.
 9. Connect the bootable USB drive to the computer that needs the BIOS update.
 10. Restart the computer and press **F12**.
 11. Select the USB drive from the **One Time Boot Menu**.
 12. Type the BIOS setup program filename and press **Enter**.
The **BIOS Update Utility** appears.
 13. Follow the on-screen instructions to complete the BIOS update.

Updating the BIOS from the One-Time boot menu

To update the BIOS from the One-Time boot menu, see [Updating the BIOS from the One Time Boot Menu](#) at [Dell Support Site](#).

System and setup password

 **CAUTION:** The password features provide a basic level of security for the data on your computer.

 **CAUTION:** Ensure that your computer is locked when it is not in use. Anyone can access the data that is stored on your computer, when left unattended.

Table 20. System and setup password

Password type	Description
System password	Password that you must enter to boot to your operating system.
Setup password	Password that you must enter to access and change the BIOS settings of your computer.

You can create a system password and a setup password to secure your computer.

 **NOTE:** The System and setup password feature is disabled by default.

Assigning a System Setup password

Prerequisites

You can assign a new System or Admin Password only when the status is set to **Not Set**. To enter BIOS System Setup, press F2 immediately after a power-on or reboot.

Steps

1. To enter the **System Setup**, press **F2** immediately after a power-on or reboot.
2. In the **System BIOS** or **System Setup** screen, select **Security** and press Enter.
The **Security** screen is displayed.
3. Select **System/Admin Password** and create a password in the **Enter the new password** field.
Use the following guidelines to create the system password:
 - Password can be up to 32 characters.
 - Password must contain at least one special character: "(! " # \$ % & ' * + , - . / : ; < = > ? @ [\] ^ _ ` { | })")"
 - The password can contain numbers from 0 to 9.
 - The password can contain alphabets A to Z and a to z.
4. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.
5. Press Y to save the changes.
The computer restarts.

Deleting or changing an existing system password or setup password

Prerequisites

Ensure that the **Password Status** is Unlocked in the System Setup before attempting to delete or change the existing system password and/or setup password. You cannot delete or change an existing system password or setup password if the **Password Status** is Locked. To enter the System Setup, press F2 immediately after a power-on or reboot.

Steps

1. To enter the **System Setup**, press **F2** immediately after a power-on or reboot.
2. In the **System BIOS** or **System Setup** screen, select **System Security** and press Enter.
The **System Security** screen is displayed.
3. In the **System Security** screen, verify that the **Password Status** is Unlocked.

4. Select **System Password**. Update or delete the existing system password, and press Enter or Tab.
5. Select **Setup Password**. Update or delete the existing setup password, and press Enter or Tab.
 -  **NOTE:** If you change the system password and/or setup password, reenter the new password when prompted. If you delete the system password and/or setup password, confirm the deletion when prompted.
6. Press Esc. A message prompts you to save the changes.
7. Press Y to save the changes and exit from **System Setup**.
The computer restarts.

Clearing system and setup passwords

About this task

To clear the system or setup passwords, contact Dell technical support as described at [Contact Support](#).

-  **NOTE:** For information about how to reset Windows or application passwords, see the documentation accompanying Windows or your application.

Troubleshooting

Handling swollen rechargeable Li-ion batteries

Like most laptops, Dell laptops use Lithium-ion batteries. One type of Lithium-ion battery is the rechargeable Li-ion battery. Rechargeable Li-ion batteries have increased in popularity in recent years and have become a standard in the electronics industry due to customer preferences for a slim form factor (especially with newer ultra-thin laptops) and long battery life. Inherent to rechargeable Li-ion battery technology is the potential for swelling of the battery cells.

A swollen battery may impact the performance of the laptop. To prevent possible further damage to the device enclosure or internal components leading to malfunction, discontinue the use of the laptop and discharge it by disconnecting the AC adapter and letting the battery drain.

Swollen batteries should not be used and must be replaced and disposed of properly. We recommend contacting Dell Support for options to replace a swollen battery under the terms of the applicable warranty or service contract, including options for replacement by a Dell authorized service technician.

The guidelines for handling and replacing rechargeable Li-ion batteries are as follows:

- Exercise caution when handling rechargeable Li-ion batteries.
- Discharge the battery before removing it from the laptop. To discharge the battery, unplug the AC adapter from the computer and operate the computer only on battery power. The battery is fully discharged when the computer no longer turns on when the power button is pressed.
- Do not crush, drop, mutilate, or penetrate the battery with foreign objects.
- Do not expose the battery to high temperatures, or disassemble battery packs and cells.
- Do not apply pressure to the surface of the battery.
- Do not bend the battery.
- Do not use tools of any type to pry on or against the battery.
- If a battery gets stuck in a device as a result of swelling, do not try to free it as puncturing, bending, or crushing a battery can be dangerous.
- Do not attempt to reassemble a damaged or swollen battery into a laptop.
- Swollen batteries that are covered under warranty should be returned to Dell in an approved shipping container (provided by Dell)—this is to comply with transportation regulations. Swollen batteries that are not covered under warranty should be disposed of at an approved recycling center. Contact Dell Support at [Dell Support Site](#) for assistance and further instructions.
- Using a non-Dell or incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell that is designed to work with your Dell computer. Do not use a battery from other computers with your computer. Always purchase genuine batteries from [Dell Site](#) or otherwise directly from Dell.

Rechargeable Li-ion batteries can swell for various reasons such as age, number of charge cycles, or exposure to high heat. For more information about how to improve the performance and lifespan of the laptop battery and to minimize the possibility of occurrence of the issue, search Dell laptop battery at [Dell Support Site](#).

Dell SupportAssist Pre-boot System Performance Check diagnostics

About this task

SupportAssist diagnostics (also known as system diagnostics) performs a complete check of your hardware. The Dell SupportAssist Pre-boot System Performance Check diagnostics is embedded within the BIOS and launched by the BIOS internally. The embedded system diagnostics provides options for particular devices or device groups allowing you to:

- Run tests automatically or in an interactive mode.
- Repeat the tests.
- Display or save test results.
- Run thorough tests to add more options and obtain details about any failed devices.

- View status messages that inform you when the tests are completed successfully.
 - View error messages that inform you of problems encountered during testing.
- NOTE:** Some tests for specific devices require user interaction. Always ensure that you are present at the computer when the diagnostic tests are performed.

For more information, see [How to Run Dell Preboot Diagnostics and Hardware Tests on Your Dell Computer](#).

Running the SupportAssist Pre-Boot System Performance Check

Steps

1. Turn on your computer.
2. As the computer boots, press the F12 key.
3. On the boot menu screen, select **Diagnostics**.
The quick diagnostic test begins.

NOTE: For more information about running the SupportAssist Pre-Boot System Performance Check on a specific device, see [Dell Support Site](#).
4. If there are any issues, error codes are displayed.
Note the error code and validation number and contact Dell.

Built-in self-test (BIST)

Motherboard Built-In Self-Test (M-BIST)

M-BIST is the system board onboard self-test diagnostics tool that improves the diagnostics accuracy of system board Embedded Controller (EC) failures.

- NOTE:** M-BIST can be manually initiated before Power On Self-Test (POST).

How to run M-BIST

- NOTE:** Before initiating M-BIST, ensure that the computer is in a power-off state.
1. Press and hold both the **M** key and the power button to initiate M-BIST.
 2. The battery-status light may exhibit two states:
 - Off: No fault was detected.
 - Amber and White: Indicates a problem with the system board.
 3. If there is a failure with the system board, the battery-status light flashes one of the following error codes for 30 seconds:

Table 21. LED error codes

Blinking Pattern		Possible Problem
Amber	White	
2	1	Processor Failure
2	8	LCD Power rail failure
1	1	TPM detection failure
2	4	Memory/RAM failure

4. If there is no failure with the system board, the LCD cycles through the solid color screens (that are described in the LCD-BIST) for 30 seconds and then turn off.

LCD Built-in Self-Test (LCD-BIST)

Dell laptops have a built-in diagnostic tool that helps you determine if the screen abnormality you are experiencing is an inherent problem with the LCD (screen) of the Dell laptop or with the video card (GPU) and computer settings.

When you notice screen abnormalities like flickering, distortion, clarity issues, fuzzy or blurry image, horizontal or vertical lines, color fade, it is always a good practice to isolate the LCD (screen) by running the LCD-BIST.

How to invoke the LCD-BIST

1. Turn off your computer.
2. Disconnect any peripherals that are connected to the computer. Connect only the AC adapter (charger) to the computer.
3. Ensure that the LCD (screen) is clean (no dust particles on the surface of the screen).
4. Press and hold the **D** key and press the power button to enter LCD-BIST mode. Continue to hold the **D** key until the computer boots up.
5. The screen displays solid colors and changes colors on the entire screen to white, black, red, green, and blue twice.
6. Then it displays the colors white, black, and red.
7. Carefully inspect the screen for abnormalities (any lines, fuzzy color, or distortion on the screen).
8. At the end of the last solid color (red), the computer shuts down.

 **NOTE:** Dell SupportAssist Preboot diagnostics upon launch initiates an LCD-BIST first, expecting a user intervention to confirm functionality of the LCD.

Logic Built-in Self-test (L-BIST)

L-BIST is an enhancement to the single LED error code diagnostics and is automatically initiated during POST. L-BIST will check the LCD power rail. If there is no power being supplied to the LCD (that is if the L-BIST circuit fails), the battery status LED flashes either an error code [2,8] or an error code [2,7].

 **NOTE:** If L-BIST fails, LCD-BIST cannot function as no power will be supplied to the LCD.

How to invoke the L-BIST

1. Turn on your computer.
2. If the computer does not start up look at the battery status LED:
 - If the battery status LED flashes an error code [2,7], the display cable may not be connected properly.
 - If the battery status LED flashes an error code [2,8], there is a failure on the LCD power rail of the system board, hence there is no power that is supplied to the LCD.
3. For cases, when a [2,7] error code is shown, check to see if the display cable is properly connected.
4. For cases when a [2,8] error code is shown, replace the system board.

System-diagnostic lights

This section lists the system-diagnostic lights of your Dell 14S DS14265.

The following table shows different Service LED blinking patterns and associated problems. The diagnostic light codes consist of a two-digit number, and the digits are separated by a comma. The number stands for a blinking pattern; the first digit shows the number of blinks in amber color, and the second digit shows the number of blinks in white color. The Service LED blinks in the following manner:

- The Service LED blinks the number of times equal to the value of the first digit and turns off with a short pause.
- After that, the Service LED blinks the number of times equal to the value of the second digit.
- The Service LED turns off again with a longer pause.
- After the second pause, the blinking pattern will be repeated.

Table 22. Diagnostic light codes

Diagnostic light codes (Amber, White)	Problem description
1,1	TPM Detection Failure
1,2	Unrecoverable SPI Flash Failure
1,5	EC unable to program i-Fuse
1,6	Generic catch-all for ungraceful EC code flow errors
2,1	CPU configuration or CPU failure
2,2	System board: BIOS or Read-Only Memory (ROM) failure
2,3	No memory, or Random-Access Memory (RAM) detected
2,4	Memory, or Random-Access Memory (RAM) failure
2,5	Invalid memory module
2,6	System board/Chipset Error
2,7	LCD failure SBIOS message
2,8	Display power-rail failure on the system board
3,1	CMOS battery failure
3,2	PCI of Video card/chip failure
3,3	Recovery image not found
3,4	Recovery image found but invalid
3,5	EC power-rail error
3,6	Flash corruption detected by SBIOS
3,7	Timeout waiting on ME to reply to HECI message

Recovering the operating system

When your computer is unable to boot to the operating system even after repeated attempts, it automatically starts Dell SupportAssist OS Recovery.

Dell SupportAssist OS Recovery is a standalone tool that is preinstalled on Dell computers running the Windows operating system. It consists of tools to diagnose and troubleshoot issues that may occur before your computer boots to the operating system. It enables you to diagnose hardware issues, repair your computer, back up your files, and restore your computer to its factory state.

You can also download it from the Dell Support website to troubleshoot and fix your computer when it fails to boot into the primary operating system due to software or hardware failures.

For more information about the Dell SupportAssist OS Recovery, see *Dell SupportAssist OS Recovery User's Guide* at [Serviceability Tools at the Dell Support Site](#). Click **SupportAssist** and then click **SupportAssist OS Recovery**.

 **NOTE:** Windows 11 IoT Enterprise LTSC 2024 and Dell ThinOS 10 do not support Dell SupportAssist. For more information about recovering ThinOS 10, see [Recovery mode using R-Key](#).

Real-Time Clock (RTC Reset)

The Real-Time Clock (RTC) reset function enables you or the service technician to recover Dell computers from No POST/No Power/No Boot situations.

Start the RTC reset with the computer powered off and connected to AC power. Press and hold the power button for twenty-five seconds. The computer RTC Reset occurs after you release the power button.

Backup media and recovery options

It is recommended to create a recovery drive to troubleshoot and fix problems that may occur with Windows. Dell provides multiple options for recovering the Windows operating system on your Dell computer. For more information, see [Dell Windows Backup Media and Recovery Options](#).

Network power cycle

About this task

If your computer is unable to access the Internet due to network connectivity issues, reset your network devices by performing the following steps:

Steps

1. Turn off the computer.
2. Turn off the modem.
 **NOTE:** Some Internet service providers (ISPs) provide a modem and router combo device.
3. Turn off the wireless router.
4. Wait for 30 seconds.
5. Turn on the wireless router.
6. Turn on the modem.
7. Turn on the computer.

Drain flea power (perform hard reset)

About this task

Flea power is the residual static electricity that remains in the computer even after it has been powered off and the battery is removed.

For your safety, and to protect the sensitive electronic components in your computer, you must drain residual flea power before removing or replacing any components in your computer.

Draining flea power, also known as performing a "hard reset," is also a common troubleshooting step if your computer does not turn on or boot into the operating system.

Perform the following steps to drain the flea power:

Steps

1. Turn off the computer.
2. Disconnect the power adapter from the computer.
3. Remove the base cover.
4. Remove the battery.
 **CAUTION:** If the battery is a Field Replaceable Unit (FRU), the removal and installation procedures are intended for authorized service technicians only.
5. Press and hold the power button for 20 seconds to drain the flea power.
6. Install the battery.
7. Install the base cover.
8. Connect the power adapter to the computer.
9. Turn on the computer.

 **NOTE:** For more information about performing a hard reset, go to [Dell Support Site](#). On the menu bar at the top of the Support page, select Support > Support Library. In the Search field on the Support Library page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Getting help and contacting Dell Technologies

Self-help resources

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

Table 23. Self-help resources

Self-help resources	Resource location
Information about Dell Technologies products and services	Dell Site
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	Windows Support Site
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents.	Your Dell Technologies computer is uniquely identified using a Service Tag or Express Service Code. To view relevant support resources for your Dell Technologies computer, enter the Service Tag or Express Service Code at Dell Support Site. For more information about how to find the Service Tag for your computer, see Instructions on how to find your Service Tag or Serial Number.
Dell Technologies knowledge base articles	1. Go to Dell Support Site. 2. On the menu bar at the top of the Support page, select Support > Support Library. 3. In the Search field on the Support Library page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell Technologies

To contact Dell Technologies for sales, technical support, or customer service issues, see [Contact Support at Dell Support Site](#).

 **NOTE:** Availability of the services may vary depending on the country or region, and product.

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

Revision history

Tracks all updates that are made to the document. It typically includes the date of change, version number, and a brief description of the modification. This log helps maintain transparency, accountability, and a clear timeline of progress.

Table 24. Revision history

Revision	Date	Description
A00	May 2026	Original publish date.