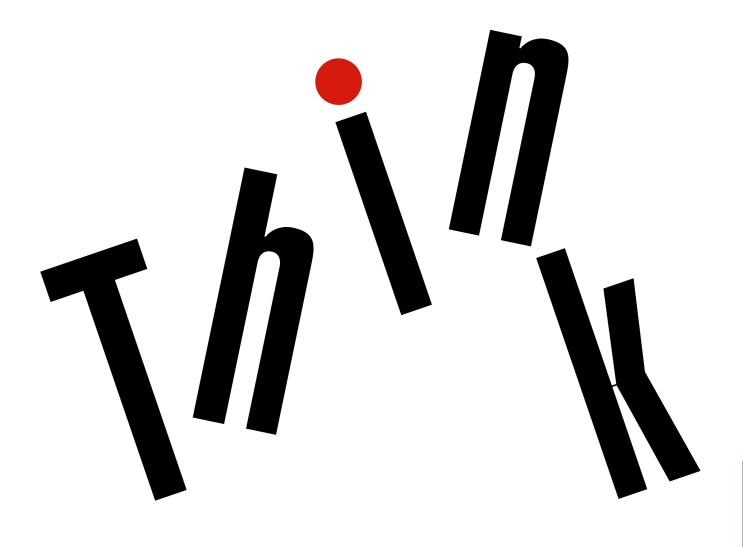
Lenovo

ThinkSmart

Hub 500 User Guide and Hardware Maintenance Manual



Machine Types: 10V5 and 10V6

Note: Before using this information and the product it supports, be sure to read and understand the <i>Important Product Information Guide</i> and Appendix A "Notices" on page 59.
First Edition (February 2018)
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Chapter 1. Overview

This chapter provides basic information to help you get familiar with your meeting console.

Front view

Note: Your meeting console model might look slightly different from the illustration.

CAUTION:



Move the meeting console by holding the base instead of the hinge or the LCD panel.



Figure 1. Moving the meeting console

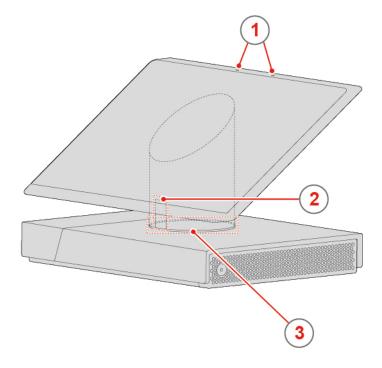


Figure 2. Front view

1 Internal microphones (2)	2 Motion sensor
System-status indicator (LED ring)	

Internal microphone

Used to amplify your voice in a meeting without using an external microphone.

Motion sensor

When the meeting console is on, the motion sensor can detect whether you are in front of the screen. When you exit a meeting and move away from the meeting console, the screen will dim after several minutes (determined by your settings). When you move in front of the dimmed screen, it will brighten automatically.

Note: The screen will also brighten when you tap it.

System-status indicator

The LED ring at the bottom of the hinge shows the system status of the meeting console.

- Off: The meeting console is off.
- White light rotates and then is solid on: You enter Skype Room System, or log in to Skype Room System successfully, or exit the meeting.
- Solid white: The meeting console is turned on or in the idle mode.
- Solid green: A meeting is in progress.
- Solid red: Your microphone is mute in a meeting.

Note: Only the basic behaviors of the LED ring are listed above.

Right-side and left-side view

Note: Your meeting console model might look slightly different from the illustration.

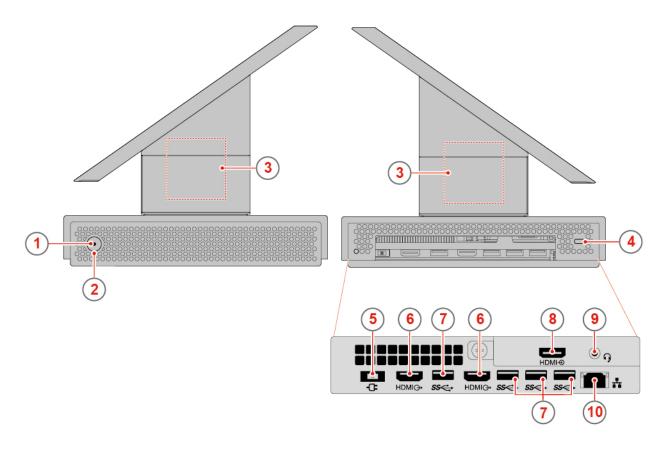


Figure 3. Right-side and left-side view

■ Power indicator	2 Power button
Internal speakers (2)	4 Security-lock slot
5 Power adapter connector	■ HDMI TM out connectors (2)
■ USB 3.1 Gen 1 connectors (4)	■ HDMI in connector
9 Headset connector	10 Ethernet connector

1 Power indicator

This indicator is on when the meeting console is on.

2 Power button

Used to turn on your meeting console. When you cannot shut down the meeting console from the operating system, press and hold the power button for four or more seconds to turn off the meeting console.

3 Internal speaker

Used to listen to the high-quality sounds from the meeting console without using a headset or headphones.

4 Security-lock slot

Used to secure a Kensington-style cable lock.

■ Power adapter connector

Used to connect the power adapter to the meeting console for power supply.

HDMI out connector

Used to send audio and video signals from the meeting console to another audio or video device, such as a high-performance monitor.

I USB 3.1 Gen 1 connector

Used to connect a USB-compatible device. For optimal data transfer, connect a USB 3.1 Gen 1 device to a USB 3.1 Gen 2 or USB 3.1 Gen 1 connector instead of a USB 2.0 connector.

HDMI in connector

Used to receive audio and video signals from an external computer with HDMI signals output.

Used to connect a headset to the meeting console.

To enable the headset function, do the following:

- 1. In the Skype mode, tap **Settings** → **Settings**.
- 2. Enter the default administrator password "sfb" and tap Yes.
- 3. Tap **Features**, and then select **Headset Microphone (Lenovo Hub500 Audio)** in the Microphone for Conferencing area.
- 4. Tap Save and Exit.

Note: The Bluetooth headset function can be enabled only in the administrator mode.

10 Ethernet connector

Used to connect an Ethernet cable for network access.

System board, Skype board, and video capture card

Note: See "Front view" on page 1 and "Right-side and left-side view" on page 3 for additional component descriptions.

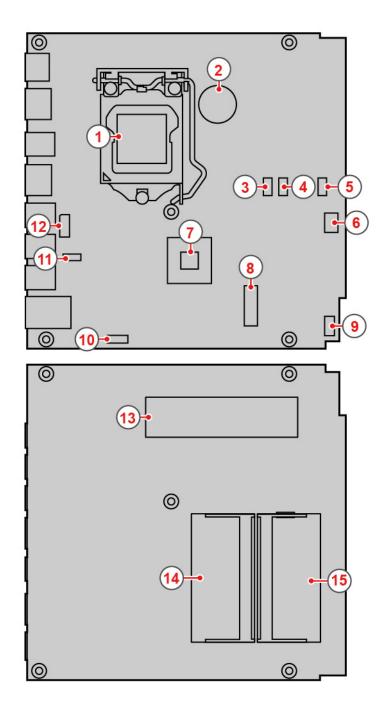


Figure 4. System board

Microprocessor socket	2 Coin-cell battery
3 System fan connector	4 Skype board I ² C connector
Skype board USB 2.0 connector (for the motion sensor)	Skype board USB 2.0 connector (for audio signals)
■ PCH	M.2 Wi-Fi card slot
Power button board	10 Skype board power connector

111 Video capture module connector (connected to the video capture card)	12 Skype board DisplayPort® connector
13 M.2 solid-state drive slot	14 Memory slot (DIMM1)
15 Memory slot (DIMM2)	

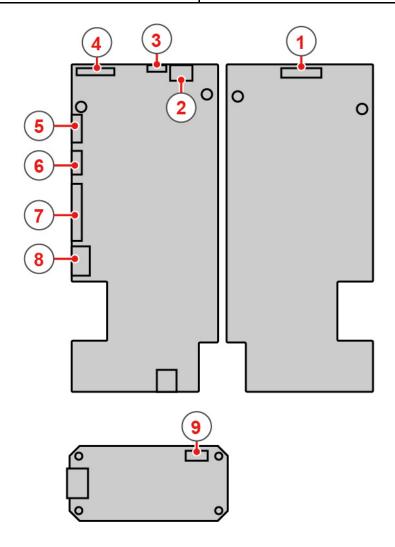


Figure 5. Skype board and video capture card

■ 3-in-1 connector (connected to the integrated microphones, the LED board, and the motion sensor)	2 Internal speaker connector
3 Touch connector	4 Embedded DisplayPort connector
■ USB 2.0 connector (for audio signals and the motion sensor)	6 I ² C connector
☑ DisplayPort connector	Power connector
Video capture module connector	

Machine type and model label

The machine type and model label identifies the meeting console. When you contact Lenovo for help, the machine type and model information helps support technicians to identify the meeting console and provide faster service. The machine type and model label is attached on the meeting console as shown.

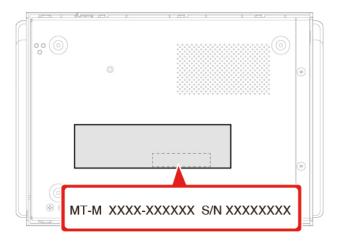


Figure 6. Machine type and model label

Chapter 2. Specifications

Power supply

• 90-watt automatic voltage-sensing power supply

Storage drives

• M.2 solid-state drive

Video features

- HDMI in connector
- HDMI out connector

Audio features

- · Headset connector
- Internal microphones
- Internal speaker

Input/Output (I/O) features

- Audio connectors (headset)
- Display connectors (HDMI in and HDMI out)
- Ethernet connector
- USB 3.1 Gen 1 connector

Network features

- Ethernet LAN
- Wireless LAN
- Bluetooth

Physical dimensions

- Width: 280.0 mm (11.0 inches)
- Height: 180.0 mm (7.1 inches)
- Depth: 193 mm (7.6 inches)

Weight (without the package)

Maximum configuration as shipped: 2.5 kg (5.0 lb)

Chapter 3. Meeting console lock

This chapter provides instructions on how to lock your meeting console with the locking device to keep your meeting console safe.

Attaching a Kensington-style cable lock

You can use a Kensington-style cable lock to secure your meeting console to a desk, table, or other nonpermanent fixture. The cable lock connects to the security-lock slot at the rear of your meeting console. Depending on the type selected, the cable lock can be operated with a key or combination. The cable lock also locks the buttons used to open the system cover. This is the same type of lock used with many notebook meeting consoles. You can order such a cable lock directly from Lenovo by searching for *Kensington* at:

http://www.lenovo.com/support

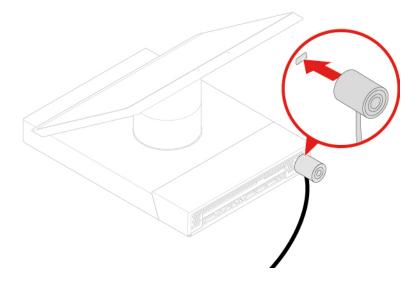


Figure 7. Attaching a Kensington-style cable lock

Chapter 4. Replacing hardware

This chapter provides instructions on how to replace hardware for your meeting console.

Before replacing hardware

Attention: Do not open your meeting console or attempt any repairs before reading this section and the *Important Product Information Guide*.

Notes before replacing hardware

- Use meeting console components provided only by Lenovo.
- When installing or replacing an option, use the appropriate instructions explained in this manual along with the instructions that come with the option.
- In most areas of the world, Lenovo requires the return of defective CRUs. Information about this will come with the CRU or will come a few days after the CRU arrives.

Handling static-sensitive devices

Do not open the static-protective package containing the new part until the defective part has been removed and you are ready to install the new part. Static electricity, although harmless to you, can seriously damage meeting console components and options.

When you handle options and other meeting console components, take these precautions to avoid staticelectricity damage:

- Limit your movement. Movement can cause static electricity to build up around you.
- Always handle options and other meeting console components carefully. Handle PCI/PCIe cards, memory modules, system boards, and microprocessors by the edges. Never touch any exposed circuitry.
- Prevent others from touching the options and other meeting console components.
- Touch the static-protective package containing the part to a metal expansion-slot cover or other unpainted metal surface on the meeting console for at least two seconds. This reduces static electricity from the package and your body before you install or replace a new part.
- When possible, remove the new part from the static-protective package, and install it directly in the
 meeting console without setting the part down. When this is not possible, place the static-protective
 package on a smooth, level surface and place the part on the package.
- Do not place the part on the system cover or other metal surface.

Knowing FRUs (including CRUs)

- Field Replaceable Units (FRUs) are computer parts that a trained technician can upgrade or replace. FRUs
 include all CRUs. For detailed FRU information, such as the FRU part numbers and supported meeting
 console models, go to:
 - http://www.lenovo.com/serviceparts-lookup
- Customer Replaceable Units (CRUs) are computer parts that a user can upgrade or replace.
 - Self-service CRUs: You can install self-service CRUs easily. These CRUs might be stand-alone, latched, or secured by up to two screws. Examples of self-service CRUs include the keyboard, mouse, any USB device. You are responsible for replacing all self-service CRUs.
 - Optional-service CRUs: Handling optional-service CRUs requires some technical skills and simple tools (such as a screwdriver). These CRUs are isolated parts within the computer. They are usually

concealed by an access panel that is secured by more than two screws. You must remove the screws and panel to access the specific CRU. Optional-service CRUs can be removed and installed by users or, during the warranty period, by a Lenovo service technician.

Before replacing FRUs

Before replacing any FRU, read the following:

- Only certified and trained personnel can service the meeting console.
- · Before replacing an FRU, read the entire section about replacing the part.
- Be extremely careful during writing operations such as copying, saving, or formatting.

The sequence of the drives in the meeting console that you are servicing might have been altered. If you select an incorrect drive, data or programs might be overwritten.

- Replace an FRU only with another FRU of the correct model.
 - When you replace an FRU, ensure that the model of the machine and the FRU part number are correct.
- An FRU should not be replaced because of a single, unreproducible failure.
 - Single failures can occur for a variety of reasons that have nothing to do with a hardware defect, such as cosmic radiation, electrostatic discharge, or software errors. Consider replacing an FRU only when a problem recurs. If you suspect that an FRU is defective, clear the error log and run the test again. If the error does not recur, do not replace the FRU.
- Only replace a defective FRU.

Locating FRUs (including CRUs)

Notes:

- Self-service CRUs: 10 and 111
- Some of the following components are optional.
- To replace a component that is not in the list below, contact a Lenovo service technician. For a list of Lenovo Support phone numbers, go to: http://www.lenovo.com/support/phone

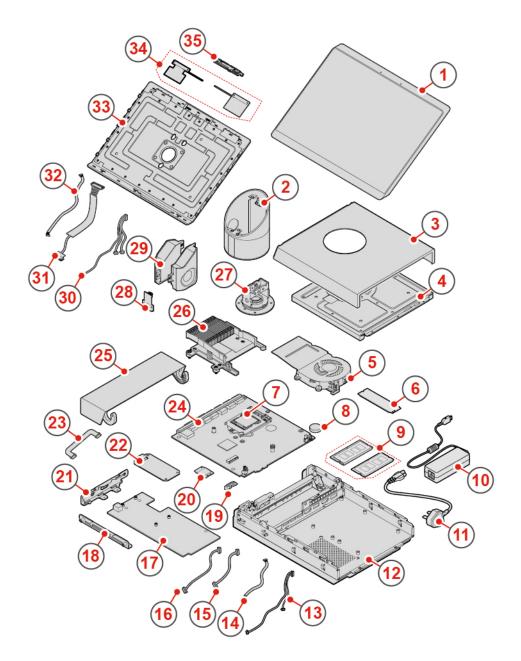


Figure 8. Locating FRUs (including CRUs)

1 Front panel	2 Hinge pipe
3 Upper cover	4 LED board
5 System fan	6 M.2 solid-state drive
Microprocessor	8 Coin-cell battery
Memory modules (2)	10 Power adapter
11 Power cord	12 Chassis
13 Skype board audio cable	14 Skype board I ² C cable
15 Skype board DisplayPort cable	16 Skype board power cable

17 Skype board	18 Skype board bracket
19 Wi-Fi card shield	20 Wi-Fi card
21 Skype board holder	22 Video capture card
23 Video capture module cable	24 System board
25 Cable management door	26 Heat sink
27 Hinge assembly	28 Infrared board
29 Internal speakers (2)	30 3-in-1 cable (connected to the integrated microphones, the LED board, and the motion sensor)
31 Embedded DisplayPort cable	32 Touch cable
33 Back cover	34 Wi-Fi antennas
35 Internal microphones	

Replacing the cable management door

Attention: Do not open your meeting console or attempt any repairs before reading the Important Product Information Guide.

- 1. Remove all connected devices, turn off the meeting console, and disconnect the power cord from the electrical outlet.
- 2. Unlock the Kensington-style cable lock.
- 3. Replace the cable management door.

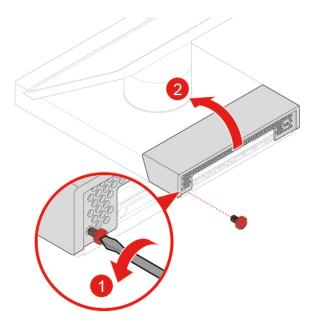


Figure 9. Opening the cable management door

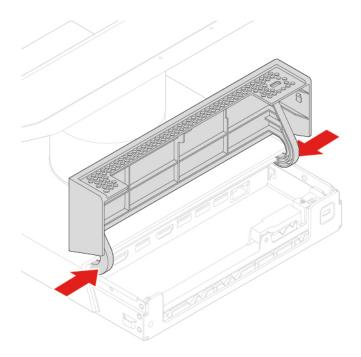


Figure 10. Removing the cable management door

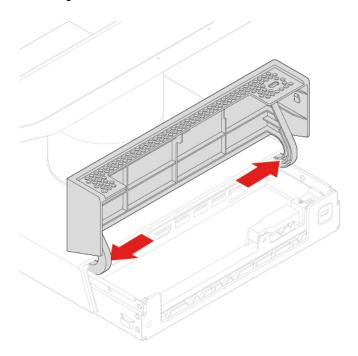


Figure 11. Installing the cable management door

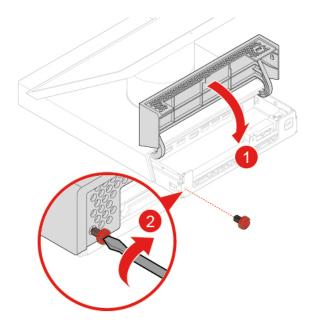


Figure 12. Closing and locking the cable management door

- 4. Use the Kensington-style cable lock to lock the meeting console.
- 5. Reconnect all devices to the meeting console and the power cord to the electrical outlet.

Replacing the internal microphones

Attention: Do not open your meeting console or attempt any repairs before reading the *Important Product Information Guide*.

- 1. Remove all connected devices, turn off the meeting console, and disconnect the power cord from the electrical outlet.
- 2. Unlock the Kensington-style cable lock.
- 3. Replace the internal microphones.

CAUTION:



Separate the LCD panel and the back cover without undue force so that the cables connected to the LCD panel will not be broken.

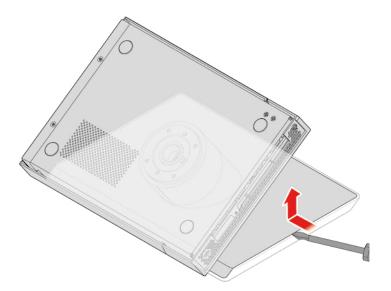


Figure 13. Separating the LCD panel and the back cover

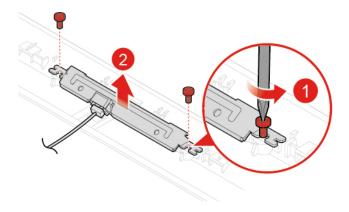


Figure 14. Removing the internal microphones

Note: Before you install the new internal microphones, disconnect the cable from the failing internal microphones to the new one.

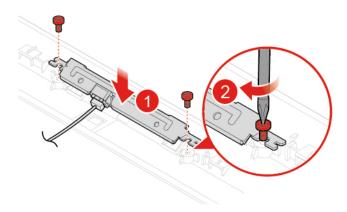


Figure 15. Installing the internal microphones

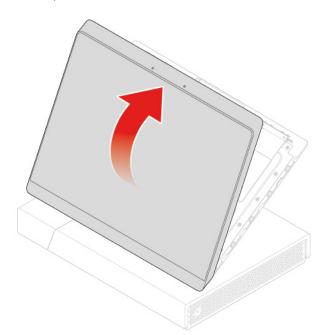


Figure 16. Closing the back cover

- 4. Use the Kensington-style cable lock to lock the meeting console.
- 5. Reconnect all devices to the meeting console and the power cord to the electrical outlet.

Removing the system cover

Attention: Do not open your meeting console or attempt any repairs before reading the Important Product Information Guide.

CAUTION:



Before you open the system cover, turn off the meeting console and wait several minutes until the meeting console is cool.

- 1. Remove all connected devices, turn off the meeting console, and disconnect the power cord from the electrical outlet.
- 2. Unlock the Kensington-style cable lock.
- 3. Remove the system cover.

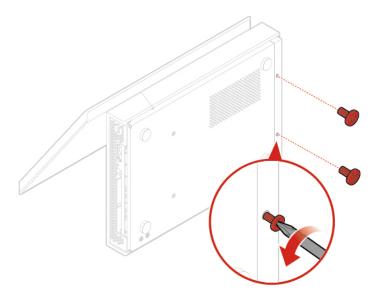


Figure 17. Removing the screws on the bottom

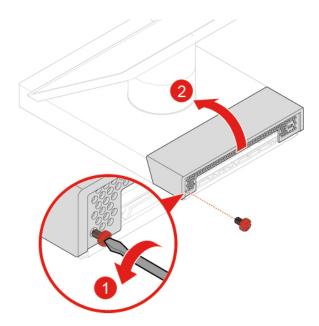


Figure 18. Opening the cable management door

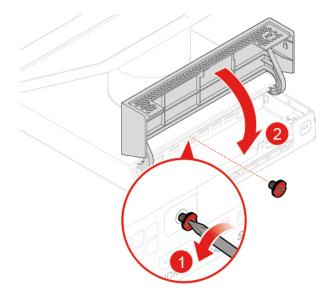
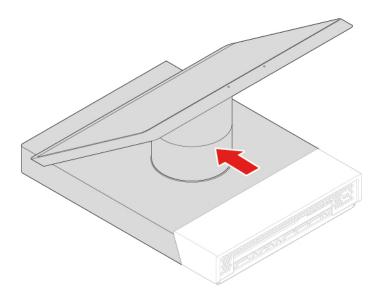


Figure 19. Removing the screw on the side



CAUTION:

Slide the system cover without undue force so that the cables connected to the Skype board and the system board will not be broken.

Figure 20. Sliding the system cover out

- 4. Disconnect all the cables from the Skype board and the system board except the Wi-Fi antenna cables.
- 5. Remove the video capture card. For details, see "Replacing the video capture card" on page 23.
- 6. Remove the Skype board. For details, see "Replacing the Skype board" on page 24.
- 7. Remove the Wi-Fi antenna cables. For details, see "Replacing the Skype board" on page 24.
- 8. Remove the system cover completely from the chassis.

Replacing the video capture card

Attention: Do not open your meeting console or attempt any repairs before reading the Important Product Information Guide.

- 1. Disconnect the video capture card cable from the video capture card.
- 2. Replace the video capture card.

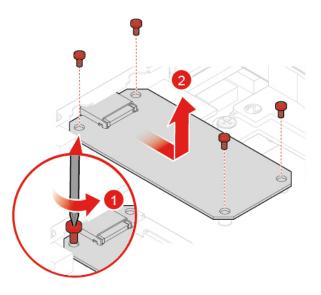


Figure 21. Removing the video capture card

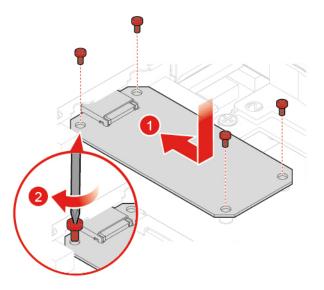


Figure 22. Installing the video capture card

- 3. Connect the video capture card cable to the new video capture card.
- 4. Complete the replacement. See "Completing the parts replacement" on page 56.

Replacing the Skype board

Attention: Do not open your meeting console or attempt any repairs before reading the *Important Product Information Guide*.

- 1. Remove the video capture card. For details, see "Replacing the video capture card" on page 23.
- 2. Record the cable routing and cable connections, and then disconnect all cables from the Skype board.
- 3. Replace the Skype board.

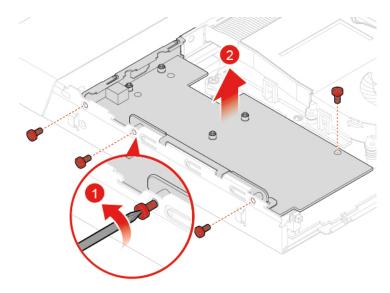


Figure 23. Removing the Skype board with the bracket and holder

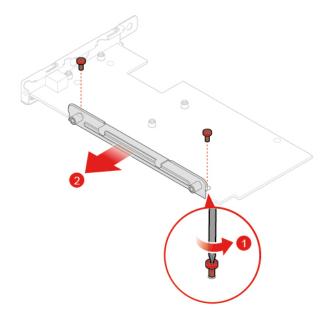


Figure 24. Removing the Skype board bracket

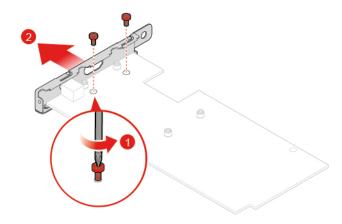


Figure 25. Removing the Skype board holder

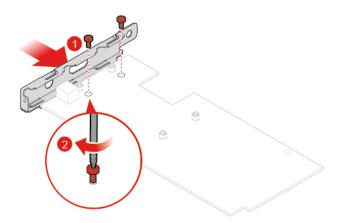


Figure 26. Installing the Skype board holder

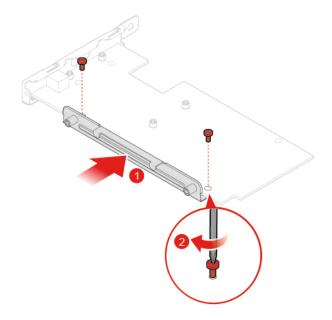


Figure 27. Installing the Skype board bracket

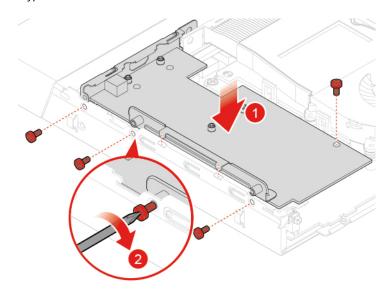


Figure 28. Installing the Skype board with the bracket and holder

- 4. Route all the cables that you disconnected from the failing Skype board, and then reconnect the cables to the new Skype board.
- 5. Reinstall the removed parts. To complete the replacement, see "Completing the parts replacement" on page 56.

Replacing the Wi-Fi card

Attention: Do not open your meeting console or attempt any repairs before reading the *Important Product Information Guide*.

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Replace the Wi-Fi card.
 - Type 1

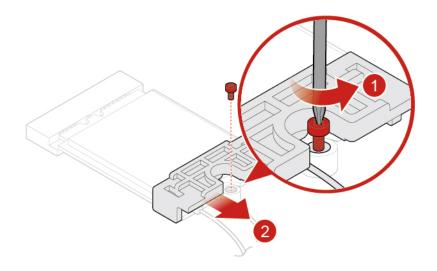


Figure 29. Removing the Wi-Fi card shield

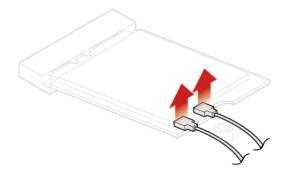


Figure 30. Disconnecting the Wi-Fi antenna cables

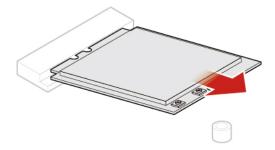


Figure 31. Removing the Wi-Fi card

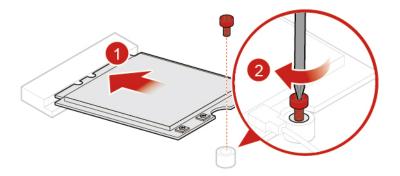


Figure 32. Installing the Wi-Fi card

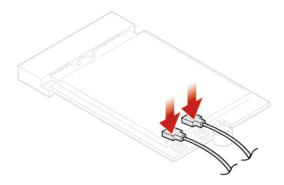


Figure 33. Connecting the Wi-Fi antenna cables

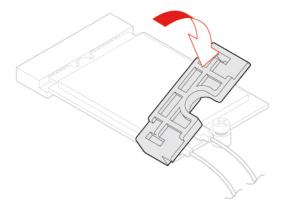


Figure 34. Installing the Wi-Fi card shield

• Type 2

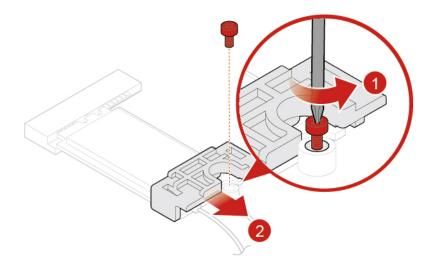


Figure 35. Removing the Wi-Fi card shield

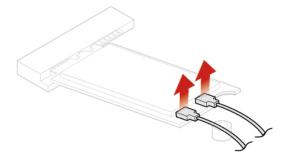


Figure 36. Disconnecting the Wi-Fi antenna cables

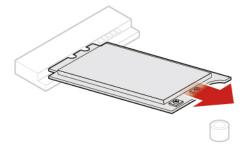


Figure 37. Removing the Wi-Fi card

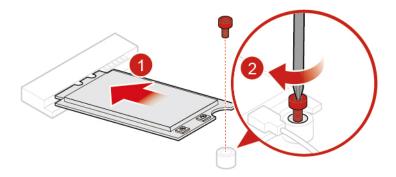


Figure 38. Installing the Wi-Fi card

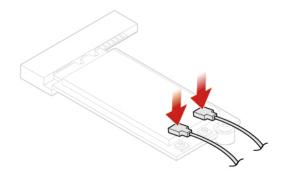


Figure 39. Connecting the Wi-Fi antenna cables

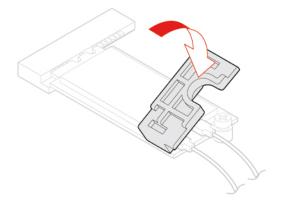


Figure 40. Installing the Wi-Fi card shield

3. Reinstall the removed parts. To complete the replacement, see "Completing the parts replacement" on page 56.

Replacing the system fan

Attention: Do not open your meeting console or attempt any repairs before reading the *Important Product Information Guide*.

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Disconnect the system fan cable from the system board.

3. Replace the system fan.

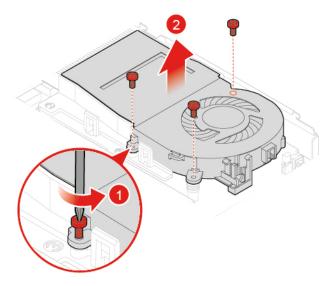


Figure 41. Removing the system fan

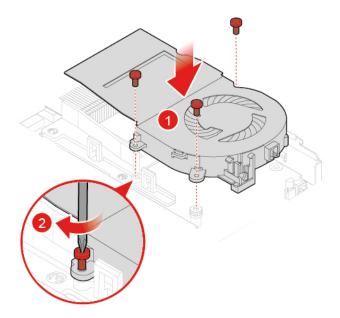


Figure 42. Installing the system fan

- 4. Connect the new system fan cable to the system board.
- 5. Complete the replacement. See "Completing the parts replacement" on page 56.

Replacing the heat sink

Attention: Do not open your meeting console or attempt any repairs before reading the Important Product Information Guide.

CAUTION:





The heat sink might be very hot. Before you open the system cover, turn off the meeting console and wait several minutes until the meeting console is cool.

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the system fan. For details, see "Replacing the system fan" on page 30.
- 3. Replace the heat sink.

Notes:

- Carefully remove the screws from the system board to avoid any possible damage to the system board. The screws cannot be removed from the heat sink.
- You might have to gently twist the heat sink to free it from the microprocessor.
- Do not touch the thermal grease while handling the heat sink.

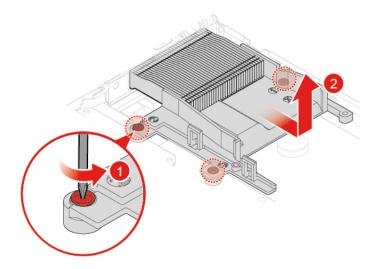


Figure 43. Removing the heat sink

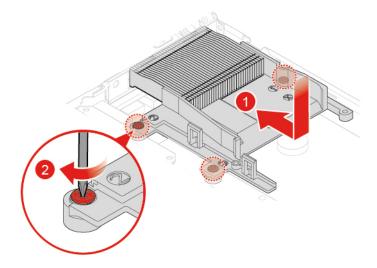


Figure 44. Installing the heat sink

Replacing the coin-cell battery

Attention: Do not open your meeting console or attempt any repairs before reading the *Important Product Information Guide*.

Note: To dispose of the coin-cell battery, refer to "Lithium coin-cell battery notice" in the *Safety, Warranty, and Setup Guide*.

Your meeting console has a special type of memory that maintains the date, time, and settings for built-in features, such as parallel connector assignments (configurations). A coin-cell battery keeps this information active when you turn off the meeting console.

The coin-cell battery normally requires no charging or maintenance throughout its life; however, no coin-cell battery lasts forever. If the coin-cell battery fails, the date, time, and configuration information (including passwords) are lost. An error message is displayed when you turn on the meeting console.

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the system fan. For details, see "Replacing the system fan" on page 30.
- 3. Remove the heat sink. For details, see "Replacing the heat sink" on page 31.
- 4. Replace the coin-cell battery.

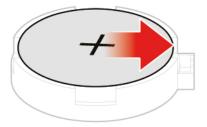


Figure 45. Opening the retainer

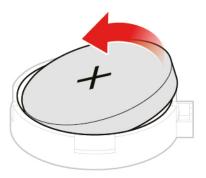


Figure 46. Removing the coin-cell battery

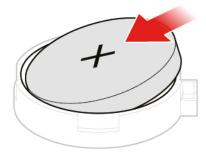


Figure 47. Installing the coin-cell battery

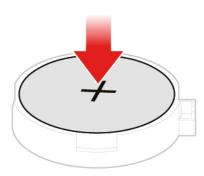


Figure 48. Closing the retainer

Replacing the microprocessor

Attention: Do not open your meeting console or attempt any repairs before reading the *Important Product Information Guide*.

CAUTION:



The heat sink and microprocessor might be very hot. Before you open the system cover, turn off the meeting console and wait several minutes until the meeting console is cool.

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the system fan. For details, see "Replacing the system fan" on page 30.

- 3. Remove the heat sink. For details, see "Replacing the heat sink" on page 31.
- 4. Record the cable routing and cable connections, and then disconnect all cables from the system board.
- 5. Replace the microprocessor.

Note: Touch only the edges of the microprocessor. Do not touch the gold contacts on the bottom.

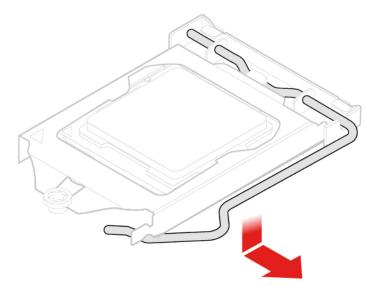


Figure 49. Lifting the handle

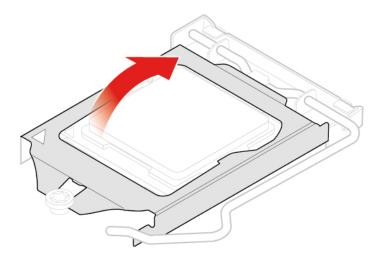


Figure 50. Opening the retainer

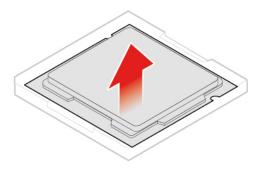


Figure 51. Removing the microprocessor

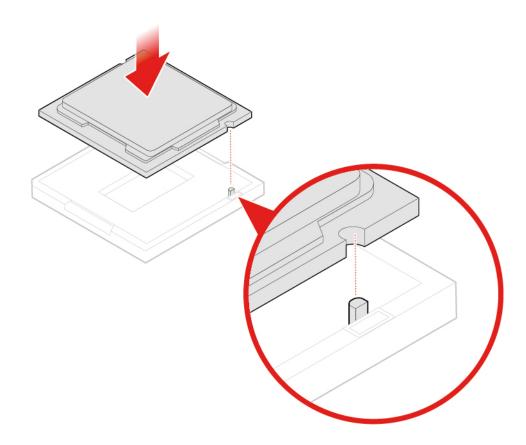


Figure 52. Installing the microprocessor

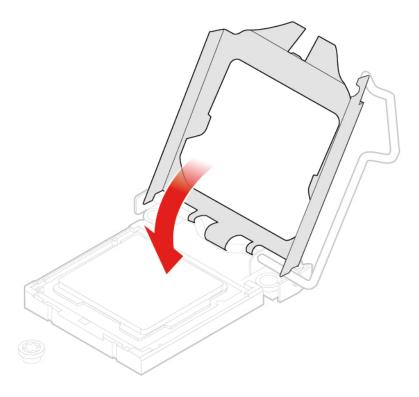


Figure 53. Closing the retainer

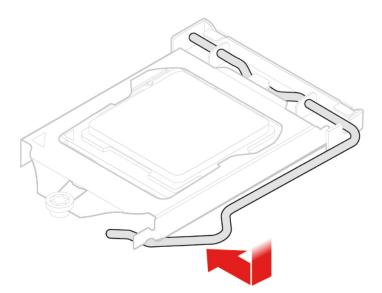


Figure 54. Locking the retainer

- 6. Route and reconnect all the cables to the system board.
- 7. Reinstall the removed parts. To complete the replacement, see "Completing the parts replacement" on page 56.

Replacing the system board

Attention: Do not open your meeting console or attempt any repairs before reading the *Important Product Information Guide*.

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the Wi-Fi card. For details, see "Replacing the Wi-Fi card" on page 26.
- 3. Remove the system fan. For details, see "Replacing the system fan" on page 30.
- 4. Remove the heat sink. For details, see "Replacing the heat sink" on page 31.
- 5. Remove the coin-cell battery. For details, see "Replacing the coin-cell battery" on page 33.
- 6. Remove the microprocessor. For details, see "Replacing the microprocessor" on page 35.
- 7. Record the cable routing and cable connections, and then disconnect all cables from the system board.
- 8. Replace the system board.

Note: Use a six point socket to remove the standoff.

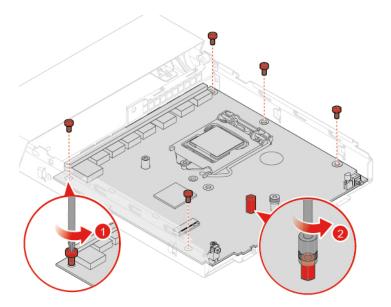


Figure 55. Removing the screws and the standoff

Notes:

- Handle the system board carefully by its edges.
- The failing system board must be returned with a microprocessor socket cover to protect the pins during shipping and handling.

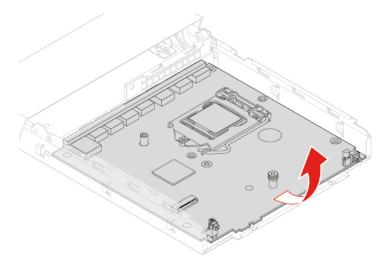


Figure 56. Removing the system board

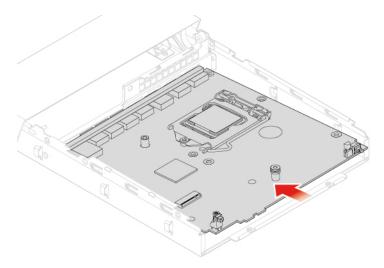


Figure 57. Installing the system board

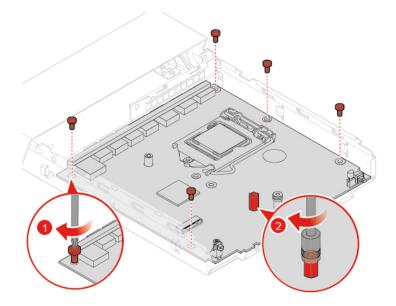


Figure 58. Installing the screws and the standoff

- 9. Route and connect all the cables to the new system board.
- 10. Reinstall the removed parts. To complete the replacement, see "Completing the parts replacement" on page 56.

Replacing a memory module

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the system fan. For details, see "Replacing the system fan" on page 30.
- 3. Remove the heat sink. For details, see "Replacing the heat sink" on page 31.
- 4. Remove the system board. For details, see "Replacing the system board" on page 39.
- 5. Replace the memory module.

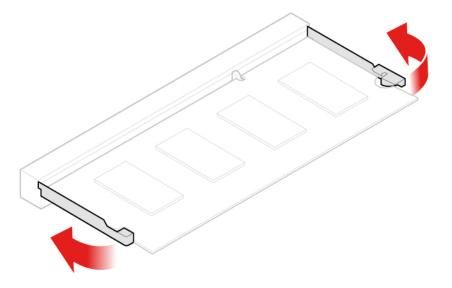


Figure 59. Opening the retainer

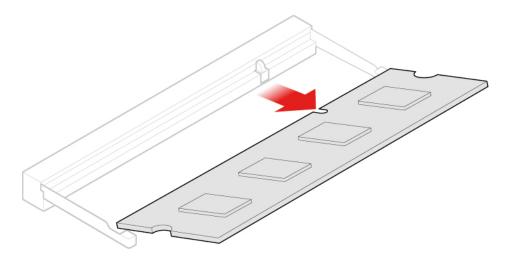


Figure 60. Removing the memory module

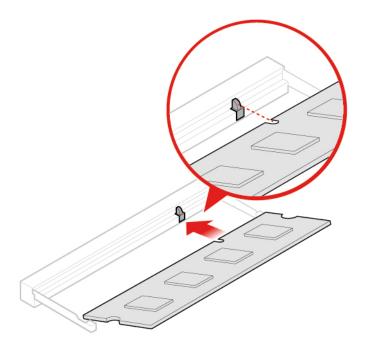


Figure 61. Installing the memory module

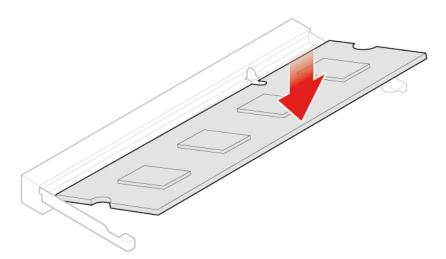


Figure 62. Closing the retainer

Replacing the M.2 solid-state drive

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the system fan. For details, see "Replacing the system fan" on page 30.
- 3. Remove the heat sink. For details, see "Replacing the heat sink" on page 31.
- 4. Remove the system board. For details, see "Replacing the system board" on page 39.
- 5. Replace the M.2 solid-state drive.

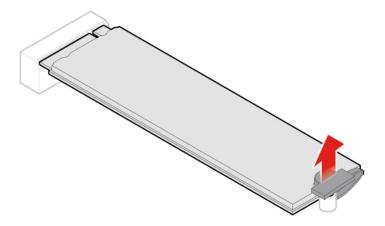


Figure 63. Pulling out the stopper

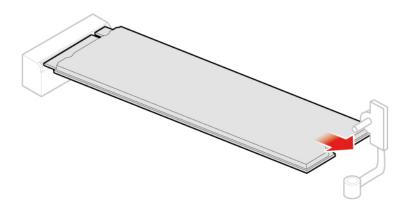


Figure 64. Removing the M.2 solid-state drive

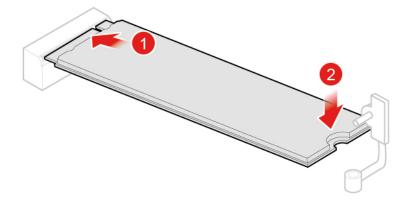


Figure 65. Installing the M.2 solid-state drive

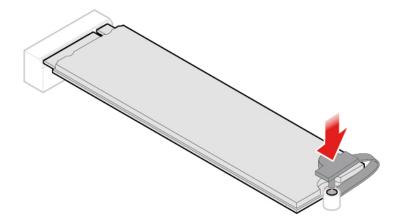


Figure 66. Inserting the stopper

Replacing the LED board

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Disconnect the LED board cable from the LED board.
- 3. Replace the LED board.

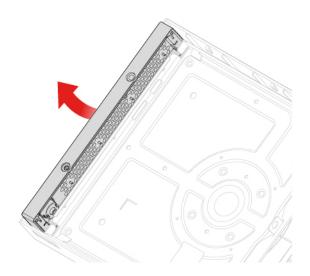


Figure 67. Removing the right cover

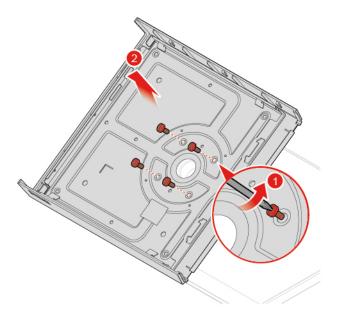


Figure 68. Removing the LED board and the upper cover

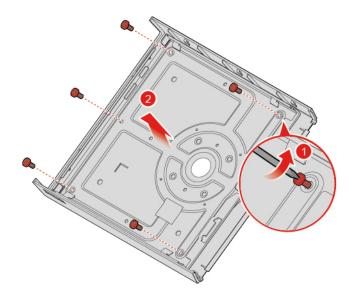


Figure 69. Removing the LED board

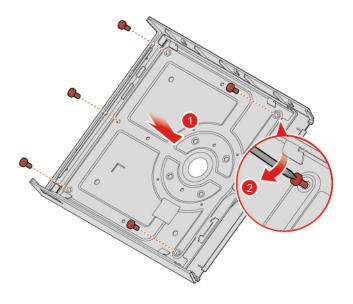


Figure 70. Installing the LED board

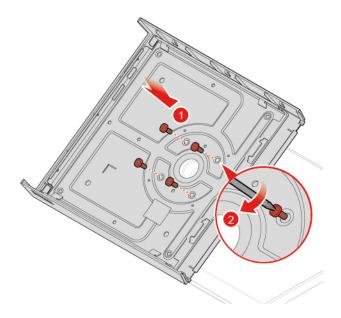


Figure 71. Installing the LED board and the upper cover

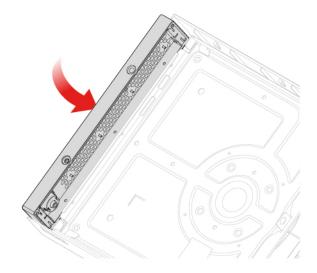


Figure 72. Installing the right cover

- 4. Connect the LED board cable to the new LED board.
- 5. Complete the replacement. See "Completing the parts replacement" on page 56.

Replacing the hinge pipe

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Replace the hinge pipe.

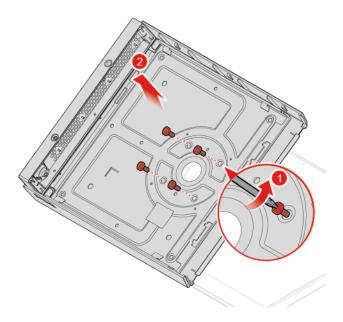


Figure 73. Removing the upper cover and the LED board

CAUTION:



Separate the LCD panel and the back cover without undue force so that the cables connected to the LCD panel will not be broken.

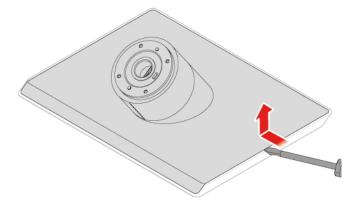


Figure 74. Separating the LCD panel and the back cover

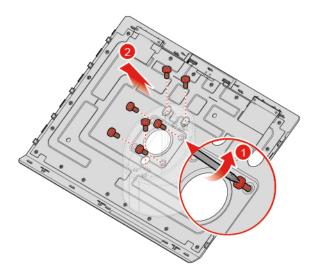


Figure 75. Removing the hinge

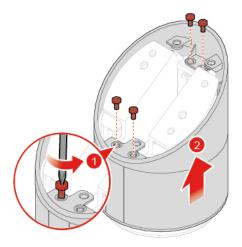


Figure 76. Removing the hinge pipe

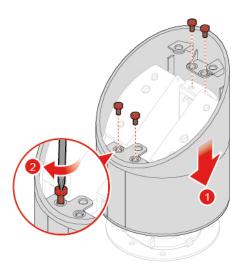


Figure 77. Installing the hinge pipe

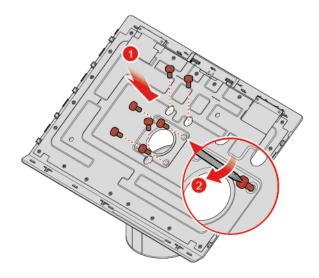


Figure 78. Installing the hinge

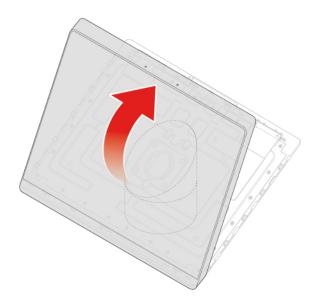


Figure 79. Closing the back cover

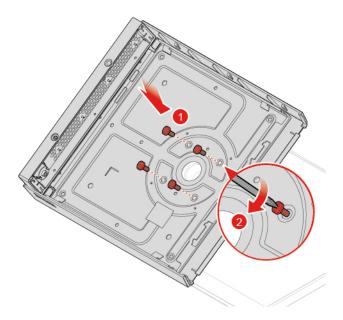


Figure 80. Installing the upper cover and the LED board

Replacing the internal speakers

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the hinge pipe. For details, see "Replacing the hinge pipe" on page 48.
- 3. Record the cable routing and cable connection, and then disconnect the internal speakers cable from the Skype board.
- 4. Replace the internal speakers.

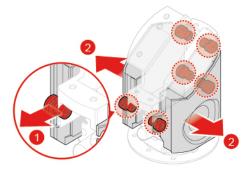


Figure 81. Removing the internal speakers

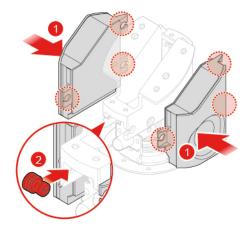


Figure 82. Installing the internal speakers

- 5. Route the new internal speakers cable, and then connect it to the Skype board.
- 6. Reinstall the removed parts. To complete the replacement, see "Completing the parts replacement" on page 56.

Replacing the infrared board

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Remove the hinge pipe. For details, see "Replacing the hinge pipe" on page 48.
- 3. Disconnect the infrared board cable from the infrared board.
- 4. Replace the infrared board.

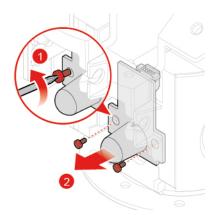


Figure 83. Removing the infrared board

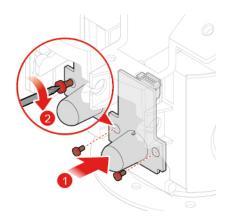


Figure 84. Installing the infrared board

- 5. Connect the infrared board cable to the new infrared board.
- 6. Reinstall the removed parts. To complete the replacement, see "Completing the parts replacement" on page 56.

Replacing the Wi-Fi antennas

- 1. Remove the system cover. For details, see "Removing the system cover" on page 20.
- 2. Replace the Wi-Fi antennas.

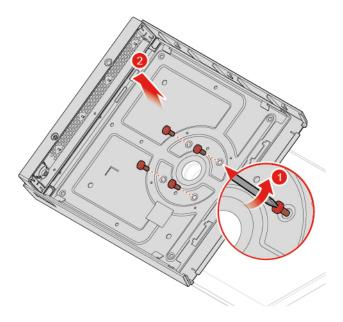


Figure 85. Removing the upper cover and the LED board

CAUTION:



Separate the LCD panel and the back cover without undue force so that the cables connected to the LCD panel will not be broken.

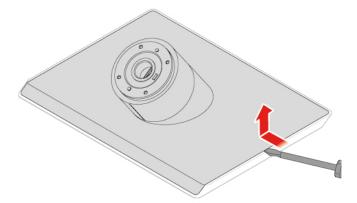


Figure 86. Separating the LCD panel and the back cover

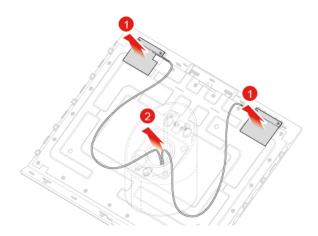


Figure 87. Removing the Wi-Fi antennas

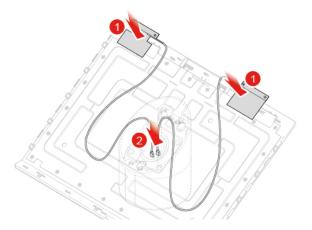


Figure 88. Installing the Wi-Fi antennas

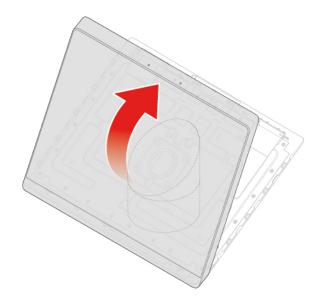


Figure 89. Closing the back cover

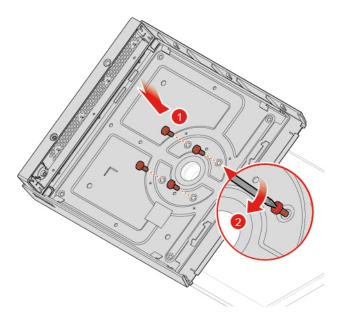


Figure 90. Installing the upper cover and the LED board

Completing the parts replacement

After completing the replacement for all parts, reinstall the system cover and reconnect the cables.

To reinstall the system cover and reconnect the cables to your meeting console, do the following:

1. Ensure that all components have been reassembled correctly and that no tools or loose screws are left inside your meeting console.

- 2. Ensure that the cables are routed correctly before reinstalling the system cover. Keep cables clear of the hinges and sides of the meeting console chassis to avoid interference when reinstalling the system cover.
- 3. Reinstall the system cover.

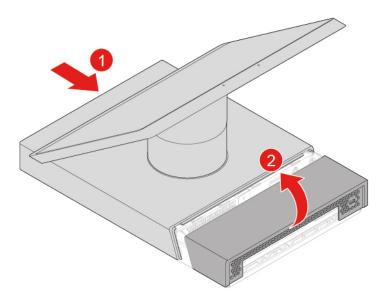


Figure 91. Reinstalling the system cover

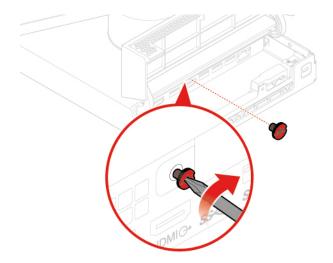


Figure 92. Reinstalling the screw on the side

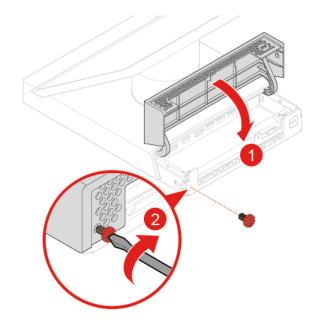


Figure 93. Closing and locking the cable management door

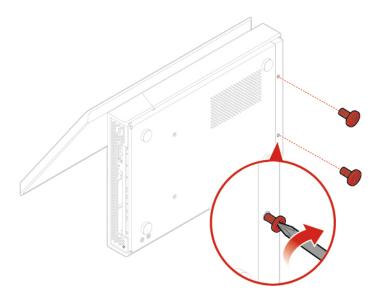


Figure 94. Reinstalling the screws on the bottom

- 4. Place the meeting console in an upright position.
- 5. Use the Kensington-style cable lock to lock the meeting console.
- 6. Reconnect all devices to the meeting console and the power cord to the electrical outlet.

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