

Dell Pro 14 Plus Portable Monitor P1425

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: Safety Instructions	4
Before working inside your monitor	5
After working inside your monitor	5
Chapter 2: Views of P1425 monitor	6
Side view	6
Back view and label information	7
Front and back view	8
Chapter 3: Major components of P1425 monitor	9
Chapter 4: Wiring connectivity diagram	10
Chapter 5: Connecting the cables	11
Normal usage	11
Plug-in usage	12
Chapter 6: Disassembly and reassembly	13
Recommended tools	13
Screw list	13
Sleeve	14
Removing the sleeve	14
Installing the sleeve	14
Bottom base cover	15
Removing the bottom base cover	15
Installing the bottom base cover	17
Main board	18
Removing the main board	18
Installing the main board	20
Auto-rotation sensor board	23
Removing the auto-rotation sensor board	23
Installing the auto-rotation sensor board	24
Hinge	26
Removing the hinge	26
Installing the hinge	27
Power button	29
Removing the power button	29
Installing the power button	30
Function button	31
Removing the function button	31
Installing the function button	32
Chapter 7: Troubleshooting Instructions	33
Self-test	33
Built-in diagnostics	34
Common problems	35
Chapter 8: Contacting Dell	36

Safety Instructions

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

NOTE: Before using the monitor, read the safety information that is shipped with your monitor and printed on the product. Keep the documentation at a secure location for future reference.

WARNING: Use of controls, adjustments, or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards and/or mechanical hazards.

CAUTION: The possible long-term effect of listening to audio at high volume through the headphones (on supported monitors) may damage your hearing ability.

- Place the monitor on a solid surface and handle it carefully. The screen is fragile and can be damaged if dropped or hit with a sharp object.
- Ensure that your monitor is electrically rated to operate with the AC power available in your location.
- Keep the monitor in room temperature. Excessive cold or hot conditions can have an adverse effect on the liquid crystal of the display.
- Connect the power cable from the monitor to a wall outlet that is near and accessible. See [Connecting the cables](#).
- Do not place and use the monitor on a wet surface or near water.
- Do not subject the monitor to severe vibration or high impact conditions. For example, do not place the monitor inside a car trunk.
- Unplug the monitor when it is going to be left unused for an extended period.
- To avoid electric shock, do not attempt to remove any cover or touch the inside of the monitor.
- Read these instructions carefully. Keep this document for future reference. Follow all warnings and instructions that are marked on the product.
- Certain monitors can be wall mounted using the VESA mount that is sold separately. Ensure to use the correct VESA specifications as mentioned in the wall mounting section of the User's Guide.

For information about safety instructions, see the *Safety, Environmental and Regulatory Information (SERI)* document that is shipped with your monitor.

Before working inside your monitor

Steps

1. Save and close all open files and exit all open applications.
2. Turn off your monitor.
3. Disconnect your monitor and all attached devices from their electrical outlets.
4. Disconnect all attached network devices and peripherals, such as keyboard, mouse, and dock from your monitor.

△ CAUTION: To disconnect a network cable, first unplug the cable from your monitor and then unplug the cable from the network device.

5. Remove any media card and optical disc from your monitor, if applicable.

After working inside your monitor

△ CAUTION: Leaving any loose or misplaced screws inside your monitor may severely damage it.

Steps

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

Views of P1425 monitor

Side view

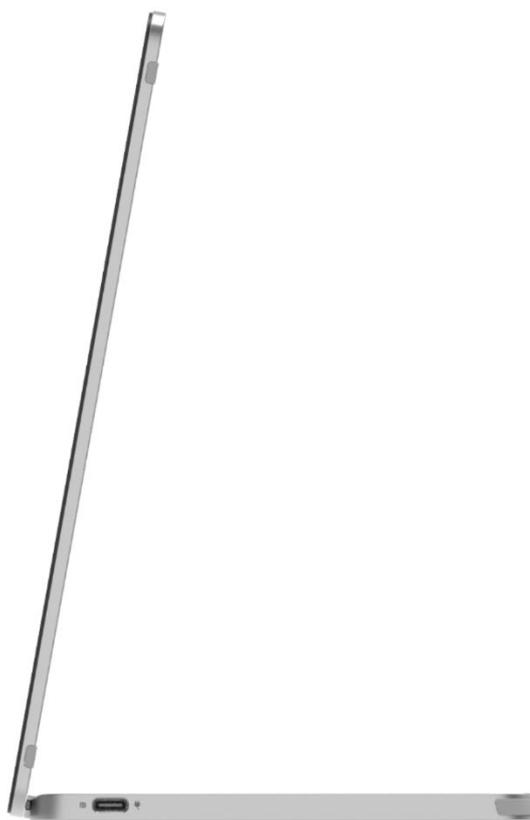


Figure 1. Side view of the monitor

Back view and label information



Figure 2. Bottom view of the monitor

Front and back view

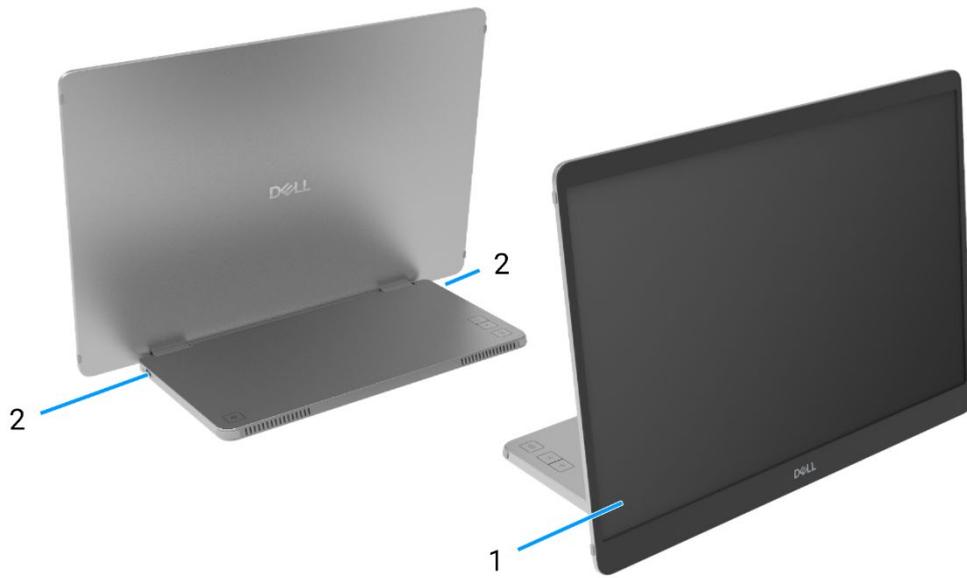


Figure 3. Front and back view of the monitor

- 1. Display panel**
Provides visual output to the user.
- 2. USB Type-C (support Alt mode DP 1.2 and PD function)**
Connect to your computer/phone with the USB Type-C (C to C) cable.
Alt Mode DP1.2, HBR, HDCP 1.4, power pass-through of up to 65 W.

Major components of P1425 monitor

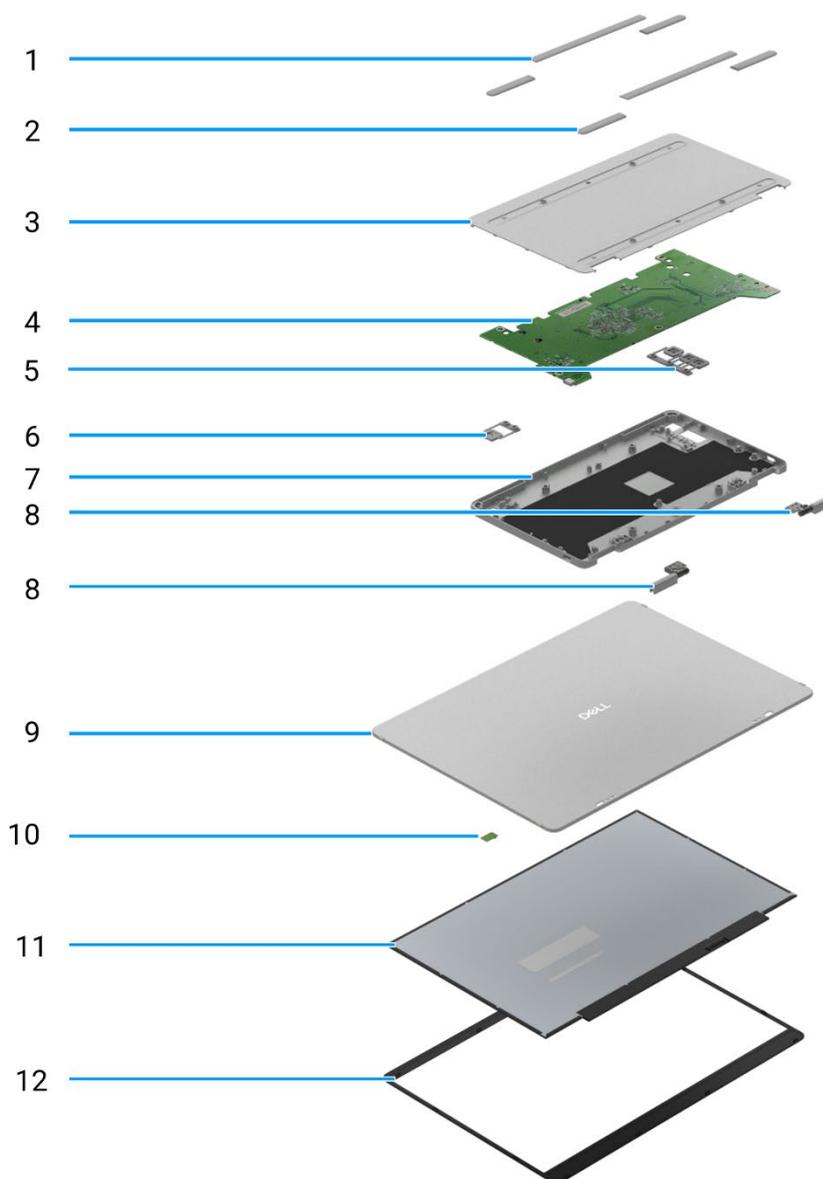


Figure 4. Major components

Table 1 Components

Item	Description	Item	Description
1	VESA rubber	7	Base top cover
2	Base rubber	8	Hinge
3	Base bottom cover	9	Back cover
4	Main board	10	Auto-rotation sensor board
5	Function buttons	11	Panel
6	Power button	12	Front bezel

Wiring connectivity diagram

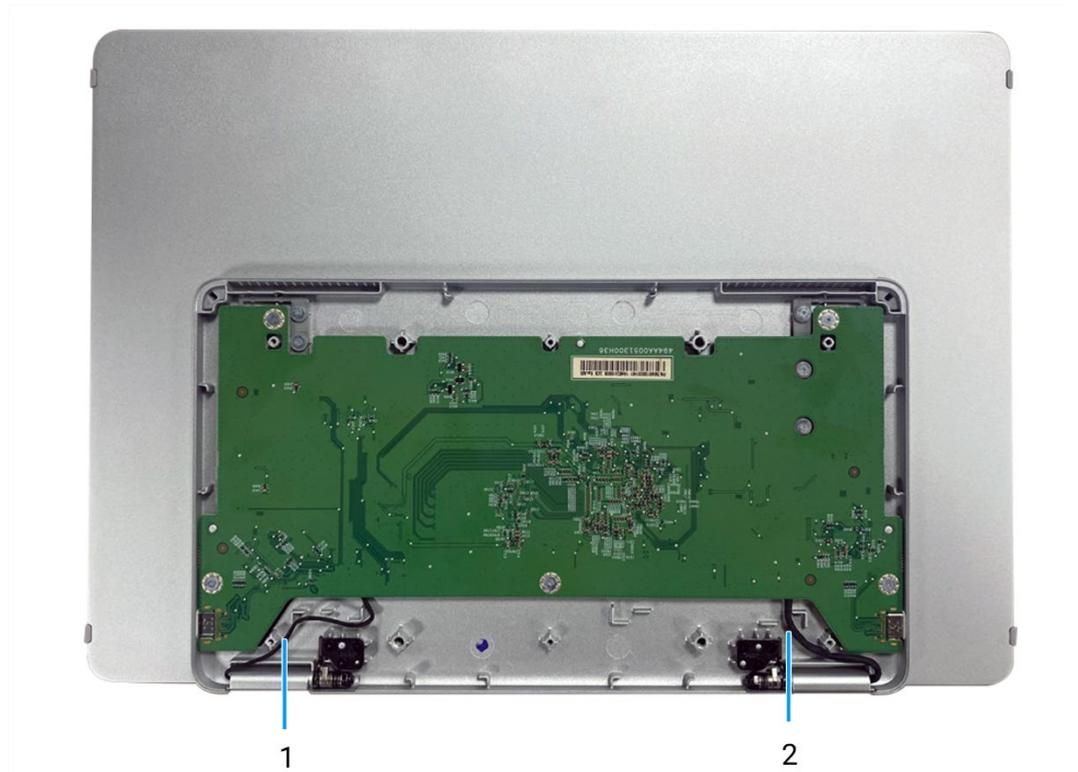


Figure 5. Wiring connectivity diagram

Table 2 Cables

Item	Description
1	Auto-rotation sensor cable
2	eDP cable

Connecting the cables

⚠ WARNING: Before you begin any of the following procedures, follow the [Safety Instructions](#).

- ⓘ NOTE:** Dell monitors are designed to work optimally with the Dell supplied cables inside the box. Dell does not guarantee the video quality and performance if non-Dell cables are used.
- ⓘ NOTE:** Do not connect all cables to the computer at the same time.
- ⓘ NOTE:** The images are for the purpose of illustration only. The appearance of the computer may vary.

To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.
2. There are 2 kinds of usage for the P1425: Normal usage and charging usage.

Normal usage

There are 2 kinds of normal usage for P1425: computer and mobile phone.

1. Connect the USB Type-C port of the computer and P1425 with a USB Type-C cable.

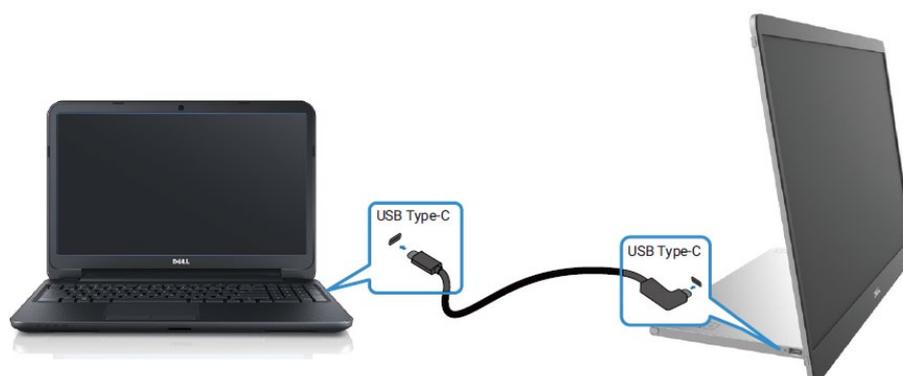


Figure 6. Connect the USB Type-C port of computer

2. Connect the USB Type-C port of the mobile phone and P1425 with a USB Type-C cable.

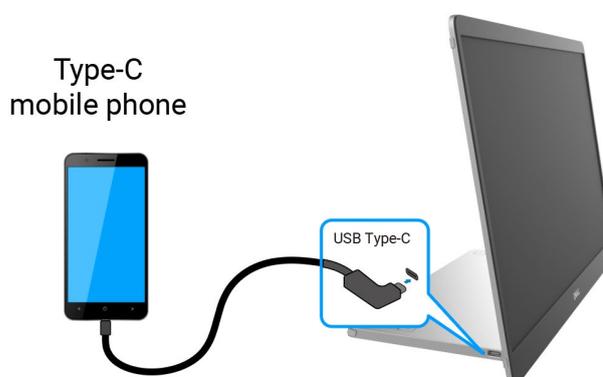


Figure 7. Connect the USB Type-C port of mobile phone

- ⓘ NOTE:** For normal usage, devices of computer and mobile phone that connect to P1425 need to support video signal and power output of 7.0 W (5 V/1.4 A). When you encounter abnormal display condition, check your devices to see if they support USB Type-C Alt-mode DisplayPort 1.2 and PD 2.0 or above. After checking, re-connect and try again.
- ⓘ NOTE:** It is suggested to connect to power adapter when connecting to mobile phone.

Plug-in usage

There are 2 kinds of plug in usage for P1425: computer and mobile phone with power adapter.

1. Connect Type-C power adapter to P1425 and connect P1425 to the computer with a USB Type-C cable. (Electronically marked cable, current rating: 5 A)

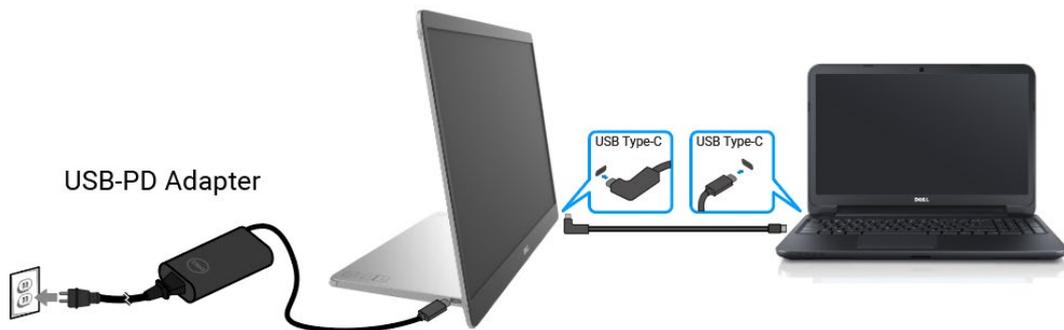


Figure 8. Connect P1425 to the computer

2. Connect Type-C power adapter to P1425 and connect P1425 to the mobile phone with a USB Type-C cable.

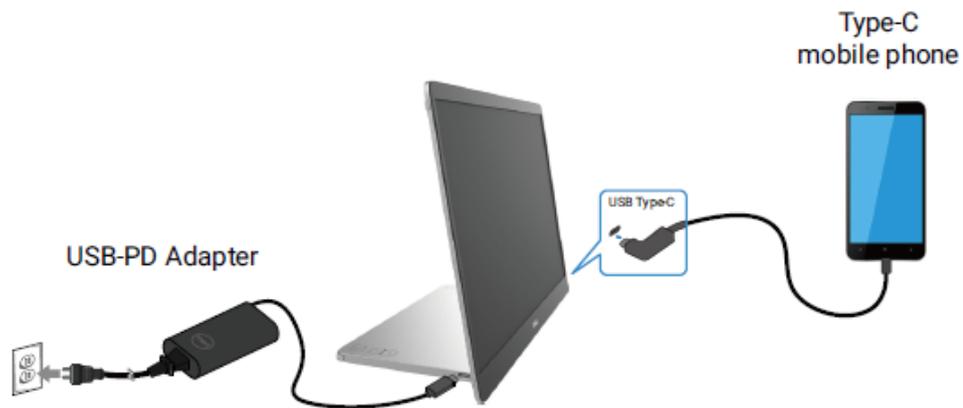


Figure 9. Connect P1425 to the mobile phone

- ① **NOTE:** When you encounter an abnormal charging condition, check the power capacity of power adapter connected with P1425 and make sure it is enough for P1425 and other devices.
- ① **NOTE:** While you disconnect the power adapter from P1425, a blank screen appears.
- ① **NOTE:** When connecting an adapter of 90 W or above, a maximum of up to 65 W is supported via power pass-through.
When connecting an adapter of 65 W, a maximum of up to 45 W is supported via power pass-through.
When connecting an adapter of 45 W, a maximum of up to 30 W is supported via power pass-through.
When connecting an adapter of <30 W, a maximum of up to 7.5 W is supported via power pass-through.

The Dell monitor P1425 can only output a maximum of 65 W to the computer. If the computer requires 90 W or above, it will need an adapter of 90 W or above connected to the computer or the battery will drain during usage.

Disassembly and reassembly

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

Recommended tools

- Phillips screwdriver #00

Screw list

NOTE: When removing screws from a component, it is recommended to note the screw type, 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 with the configuration ordered.

Table 3 Screw list

Component	Screw type	Quantity	Screw image
Base bottom cover	M2x4	6	
Main board	M1.6x2.5	5	
Base top cover	M2x3	6	
Power button	M1.6x2.5	2	
Function buttons	M1.6x2.5	3	
Hinge	M2x3	6	

Sleeve

Removing the sleeve

Prerequisites

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

Steps

1. Pull the monitor out from the sleeve.



Figure 10. Removing the sleeve

Installing the sleeve

Steps

1. Replace the monitor to the sleeve.



Figure 11. Installing the sleeve

Next steps

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

Bottom base cover

Removing the bottom base cover

Prerequisites

1. Follow the procedure in [Before working inside your monitor](#).
2. Remove the [sleeve](#).

Steps

1. Remove the six rubbers on the bottom base cover.
2. Remove the six screws (M2x4) that secure the bottom base cover.
3. Lift the bottom cover up from the monitor.

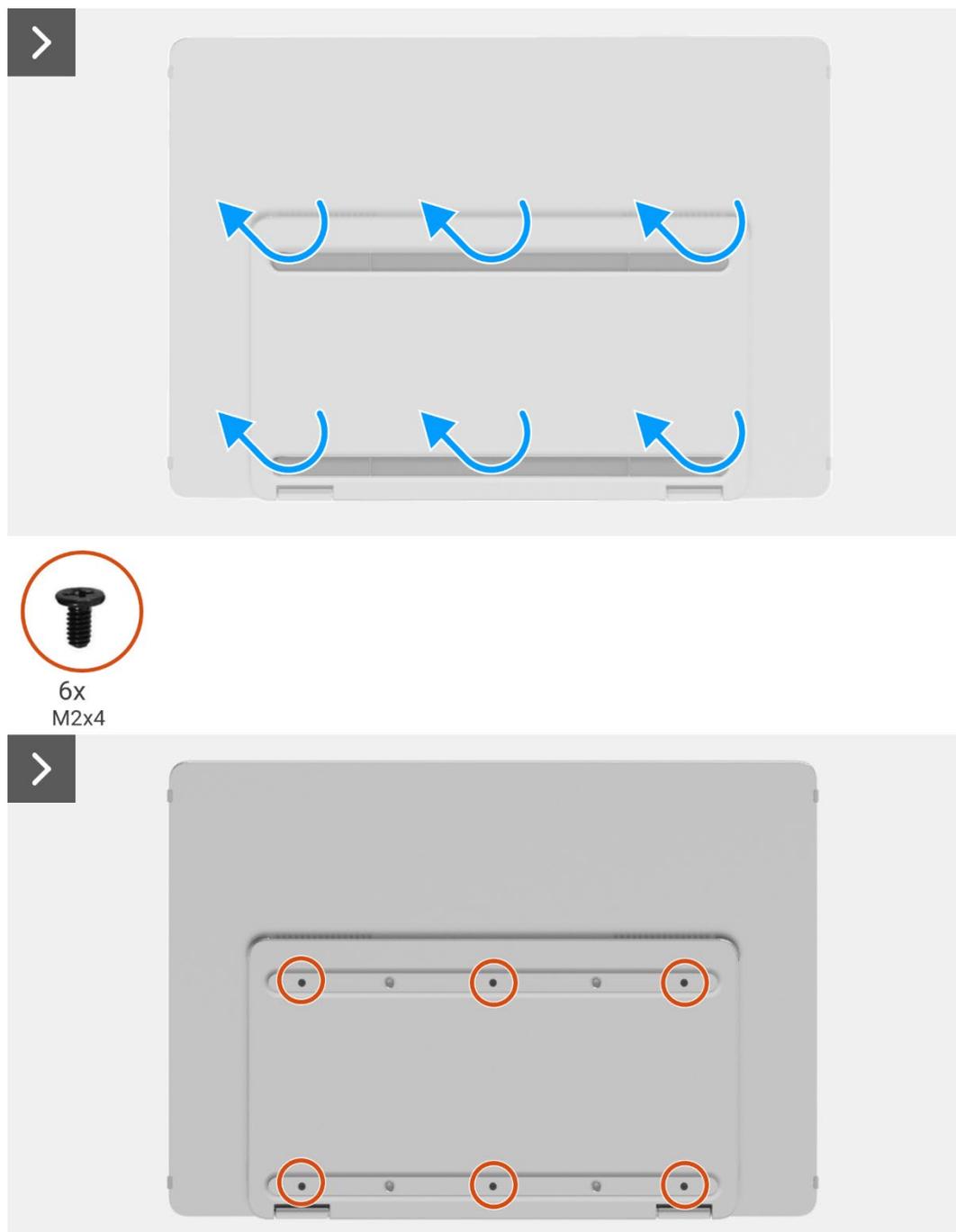


Figure 12. Removing the bottom base cover



Figure 13. Removing the bottom base cover

Installing the bottom base cover

Steps

1. Replace the six screws (M2x4) to secure the bottom base cover.
2. Adhere the six rubbers on the bottom base cover to cover the screws.

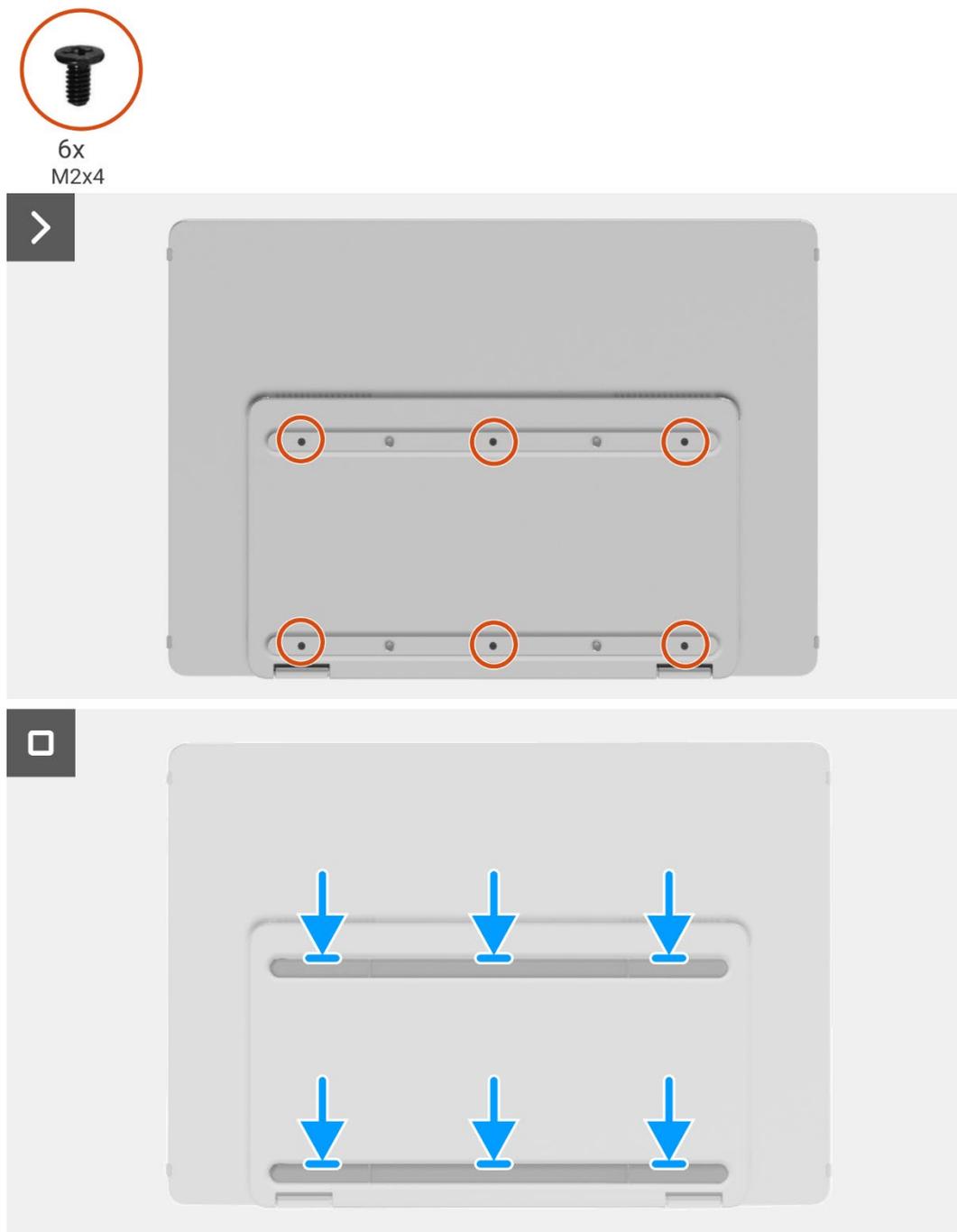


Figure 14. Installing the bottom base cover

Next steps

1. Install the [sleeve](#).
2. Follow the procedure in [After working inside your monitor](#).

Main board

Removing the main board

Prerequisites

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

Steps

1. Remove the five screws (M1.6x2.5) that secure the main board.
2. Pull the main board up and flip it over to make the connector visible.
3. Disconnect the auto-rotation sensor cable from the connector on the main board.
4. Open the latch and disconnect the eDP cable from the connector on the main board.



Figure 15. Removing the main board

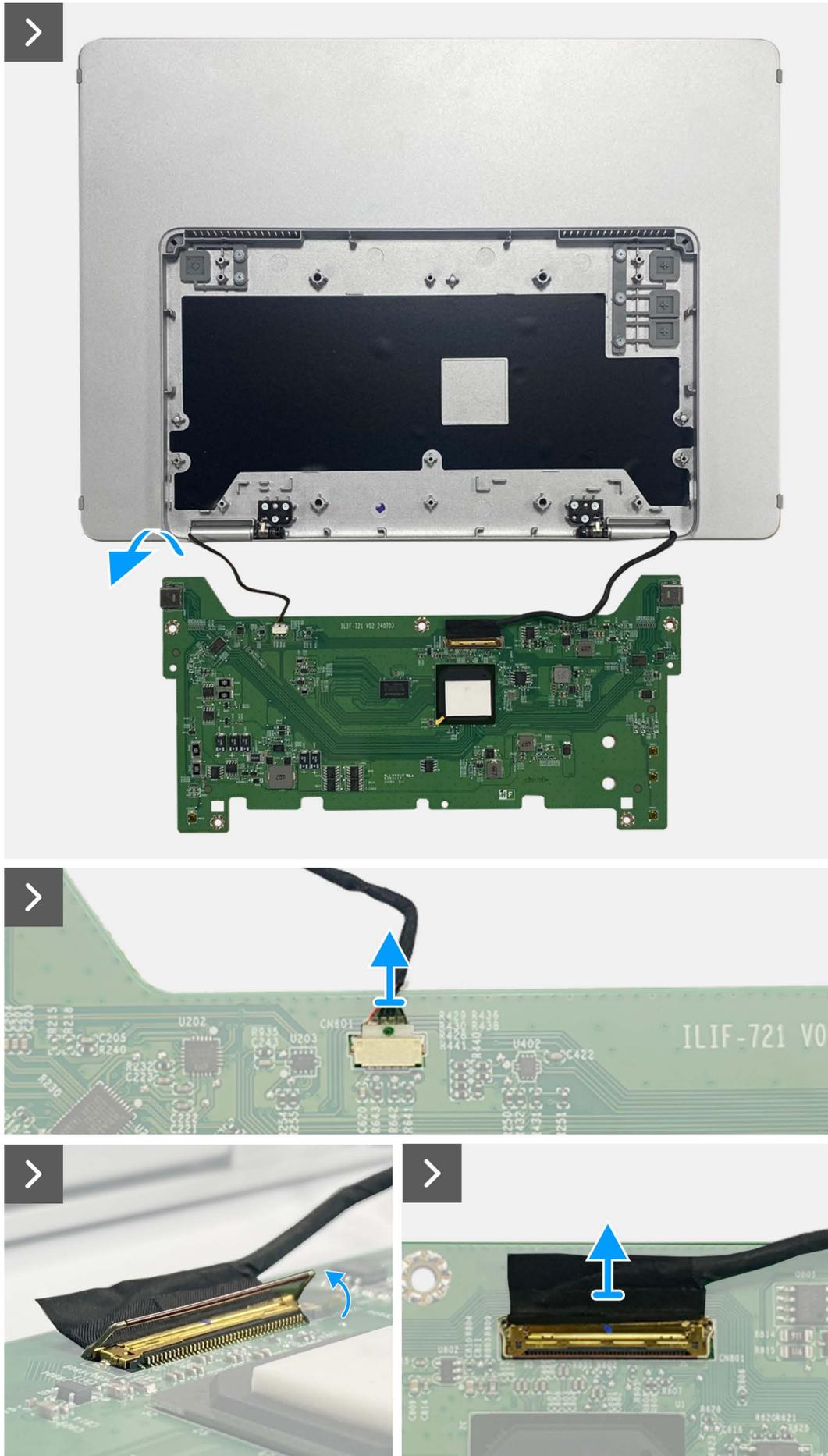


Figure 16. Removing the main board



Figure 17. Removing the main board

Installing the main board

Steps

1. Connect the eDP cable to the connector on the main board.
2. Connect the auto-rotation sensor cable to the connector on the main board.
3. Flip the main board over and place it into the top base cover.
4. Replace the five screws (M1.6x2.5) to secure the main board with the top base cover.

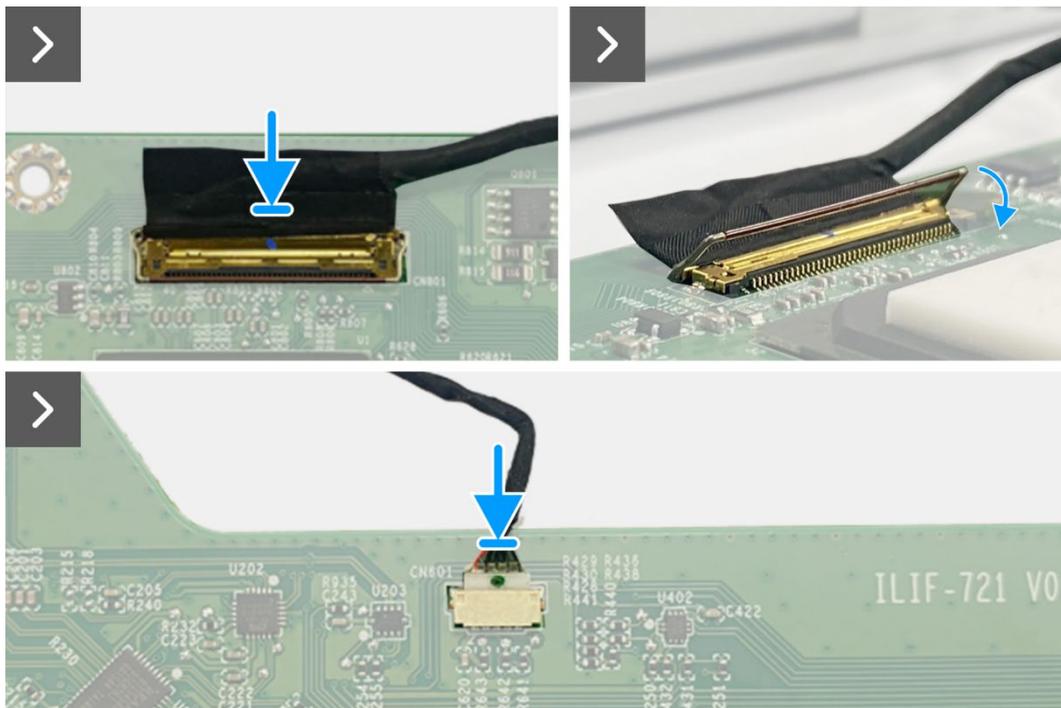
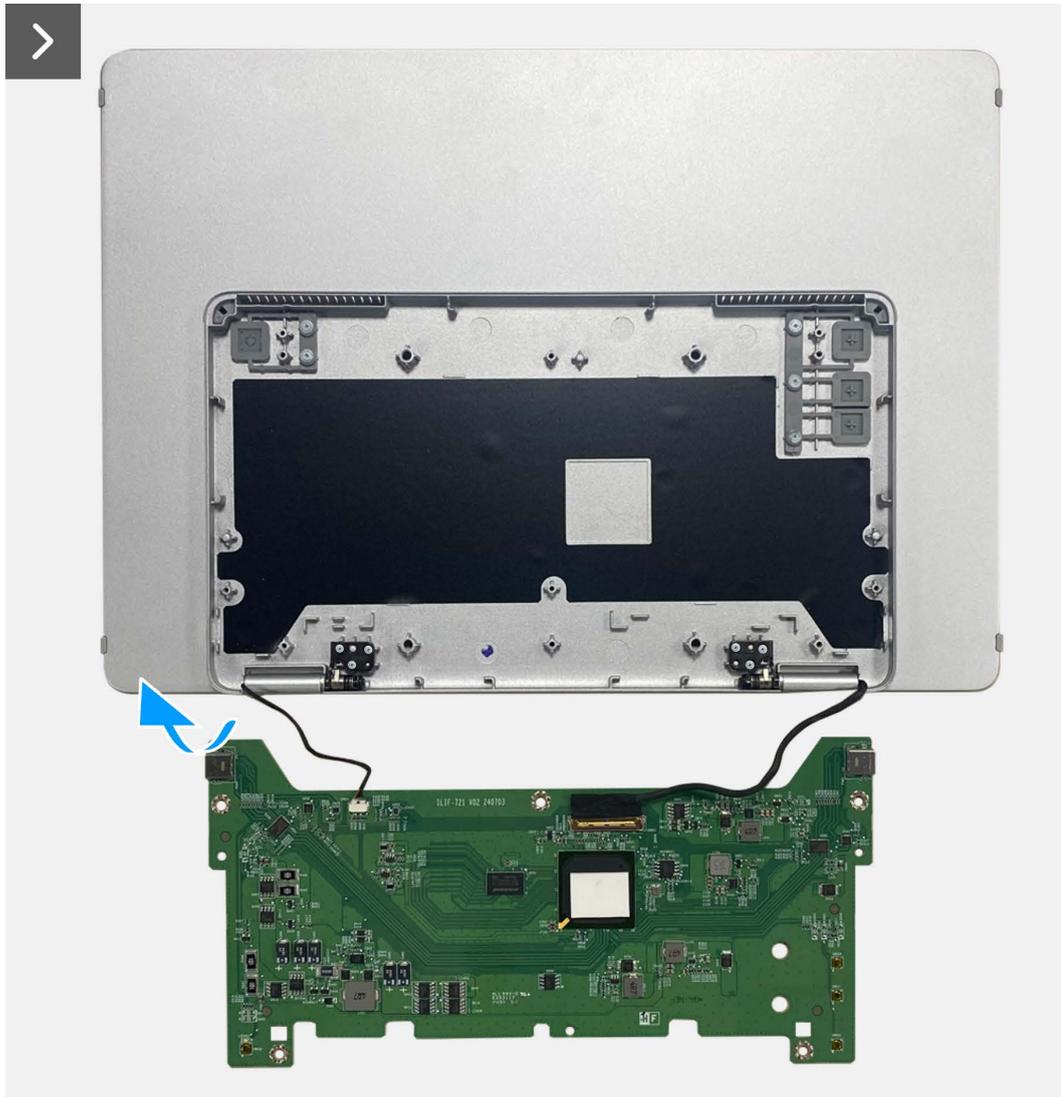


Figure 18. Installing the main board



5x
M1.6x2.5

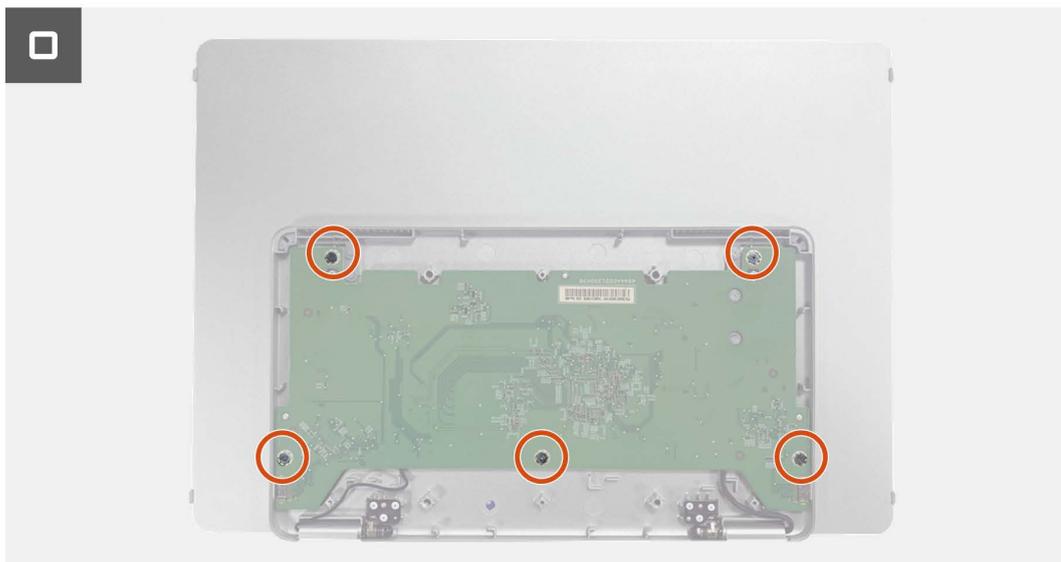


Figure 19. Installing the main board

Next steps

1. Installing the [bottom base cover](#).
2. Install the [sleeve](#).
3. Follow the procedure in [After working inside your monitor](#).

Auto-rotation sensor board

Removing the auto-rotation sensor board

Prerequisites

1. Follow the procedure in [Before working inside your monitor](#).
2. Remove the [sleeve](#).
3. Remove the [bottom base cover](#).
4. Remove the [main board](#).

Steps

1. Remove the front bezel from the back cover. (Can not rework without new adhesive.)
2. Tilt open the monitor base.
3. Pull the auto-rotation sensor board out from the back cover.
4. Disconnect the auto-rotation sensor cable from the connector on the auto-rotation sensor board.

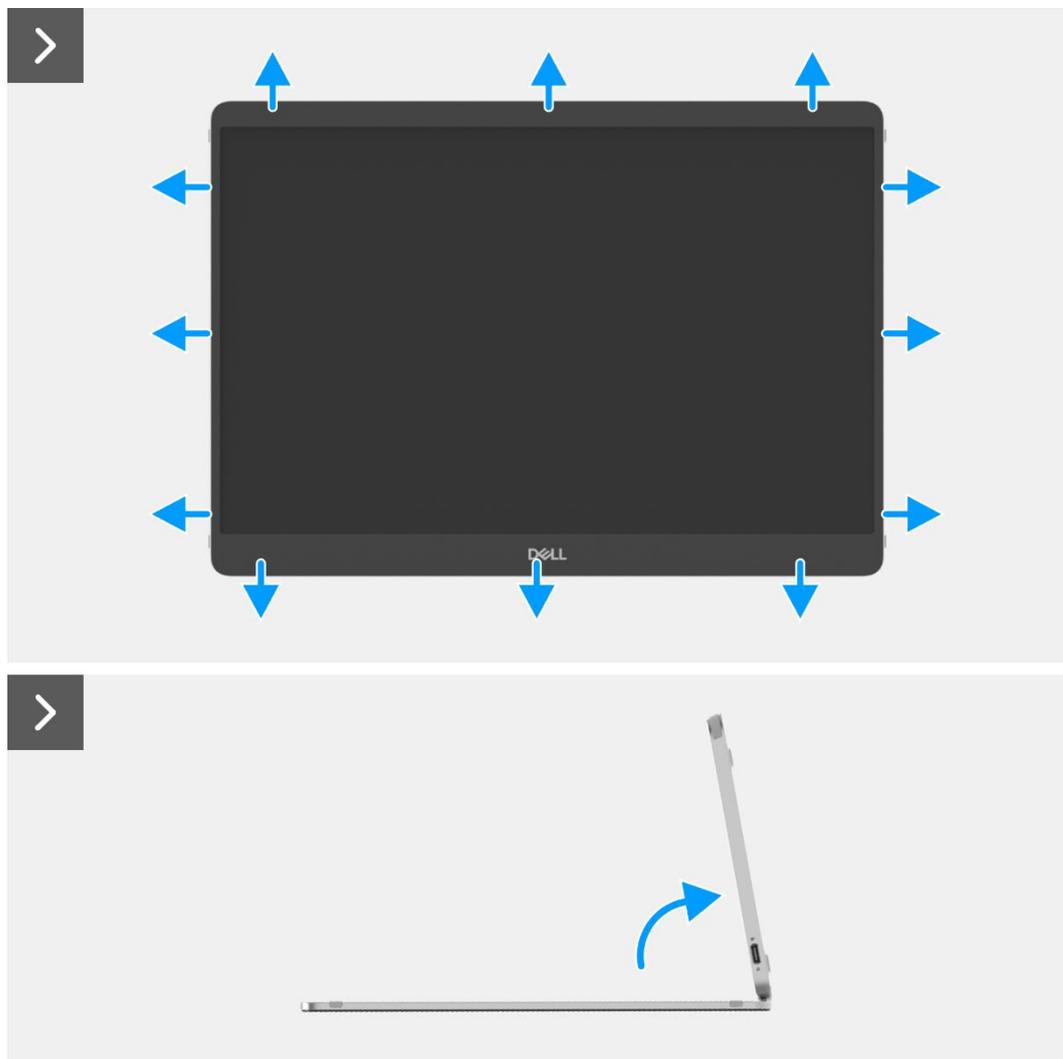


Figure 20. Removing the auto-rotation sensor board

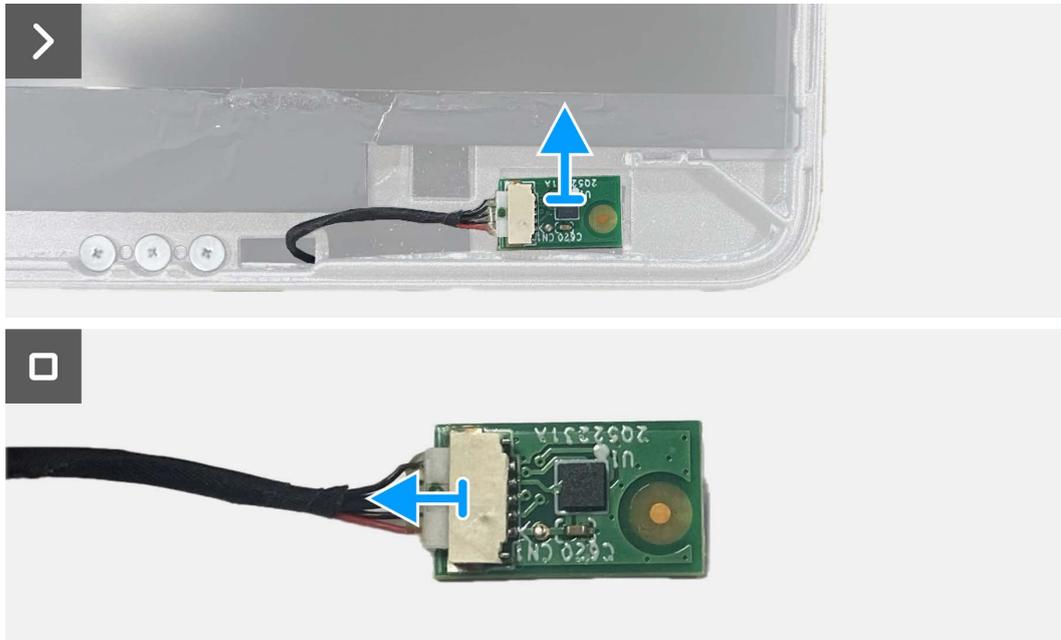


Figure 21. Removing the auto-rotation sensor board

Installing the auto-rotation sensor board

Steps

1. Connect the auto-rotation sensor cable to the connector on the auto-rotation sensor board.
2. Open the monitor base.
3. Make the auto-rotation sensor cable go through the hole between the back cover and the hinge.
4. Adhere the auto-rotation sensor board on the back cover.
5. Adhere the front bezel to the back cover.

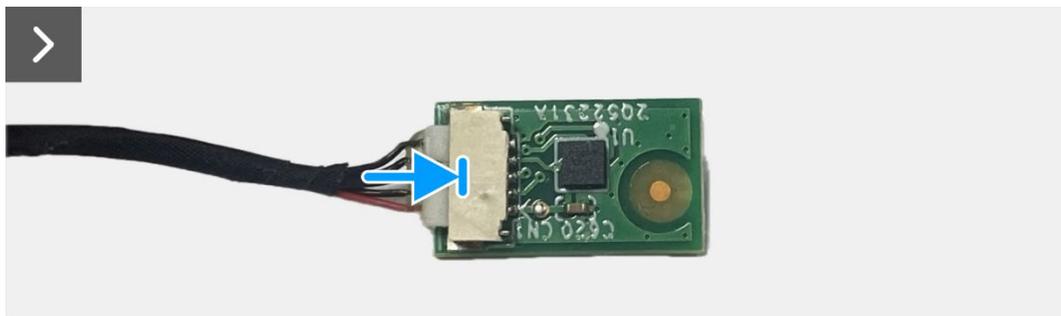


Figure 22. Installing the auto-rotation sensor board

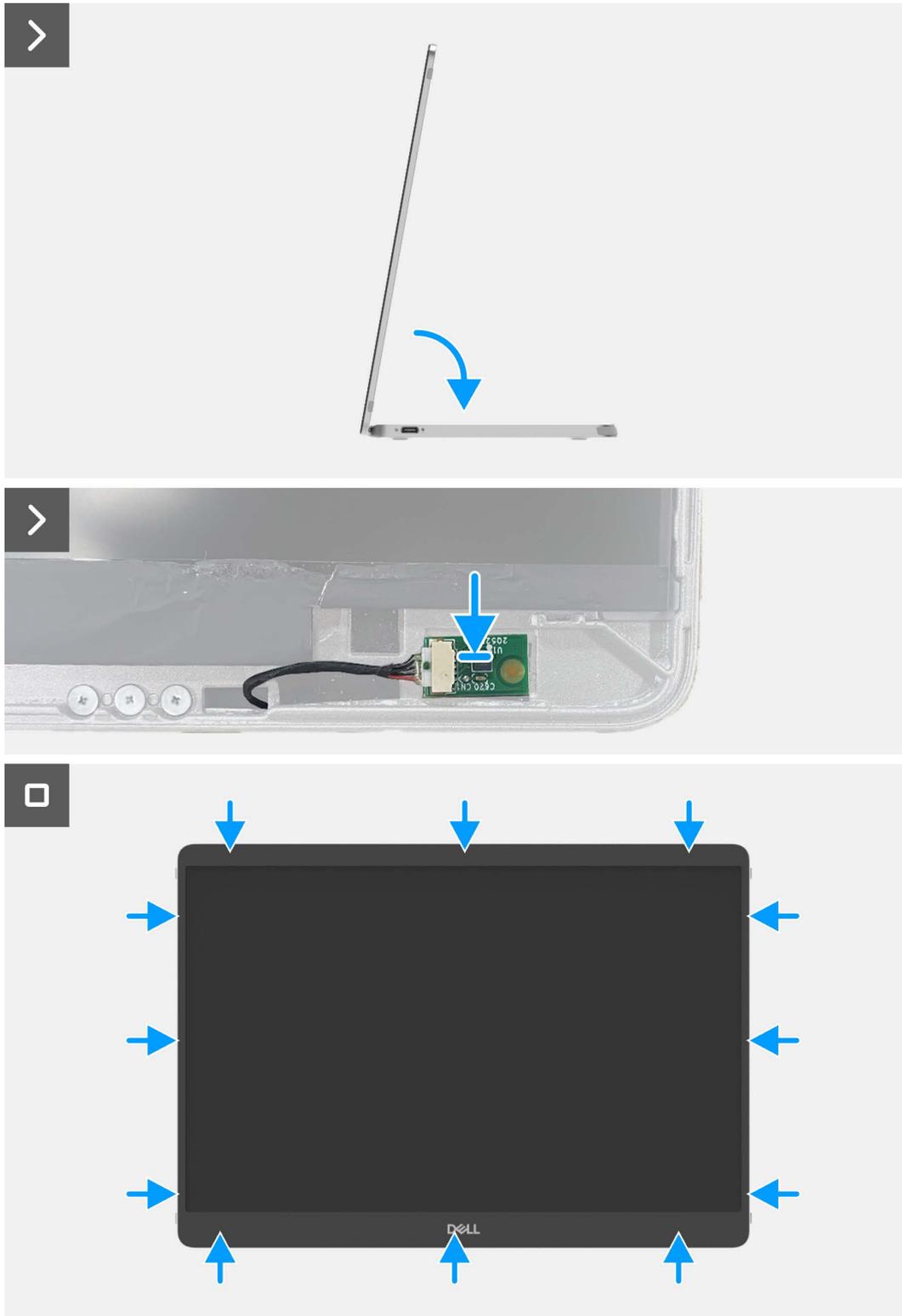


Figure 23. Installing the auto-rotation sensor board

Next steps

1. Install the [main board](#).
2. Install the [bottom base cover](#).
3. Install the [sleeve](#).
4. Follow the procedure in [After working inside your monitor](#).

Hinge

Removing the hinge

Prerequisites

1. Follow the procedure in [Before working inside your monitor](#).
2. Remove the [sleeve](#).
3. Remove the [bottom base cover](#).
4. Remove the [main board](#).
5. Remove the [auto-rotation sensor board](#).

Steps

1. Remove the six screws (M2x3) that secure the hinge to the top base cover.
2. Remove the six screws (M2x3) that secure the hinge to the back cover.
3. Flip the monitor over, pull the hinge out from the monitor.

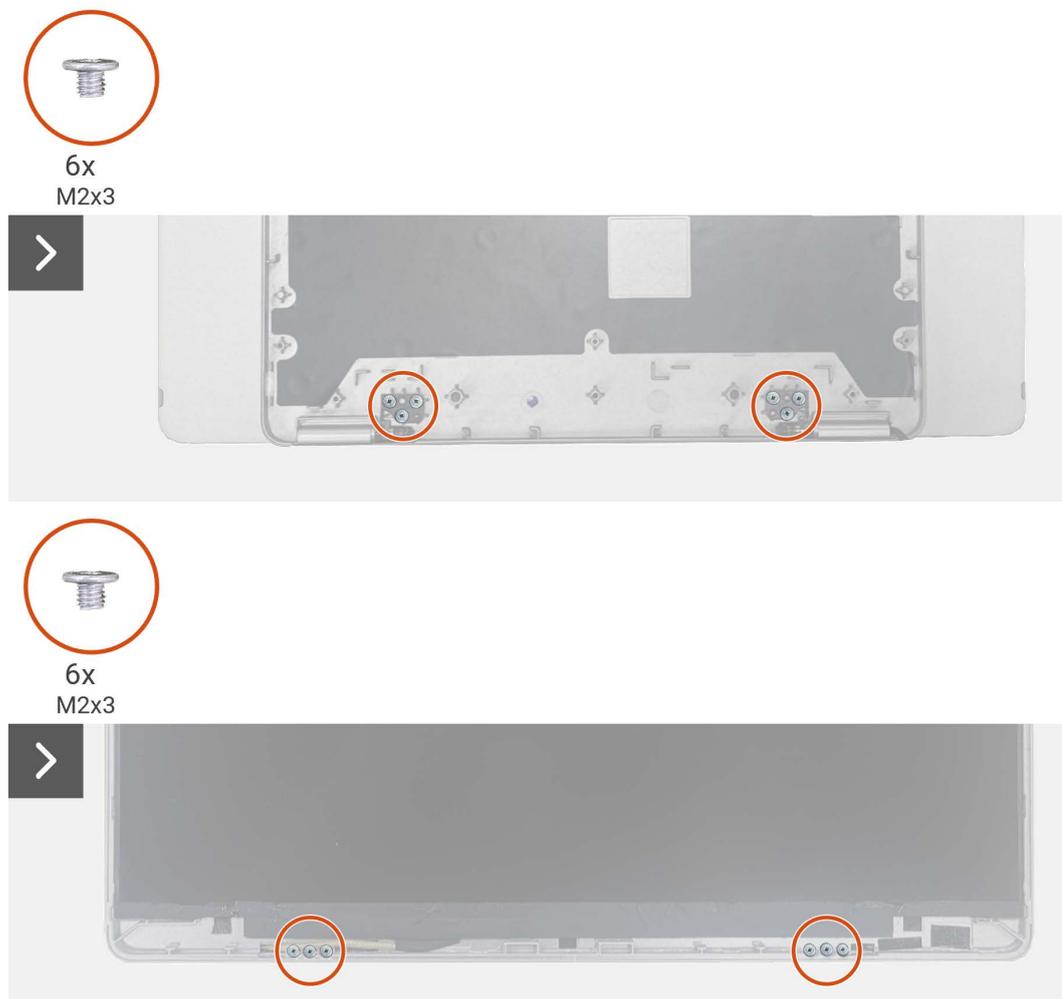


Figure 24. Removing the hinge

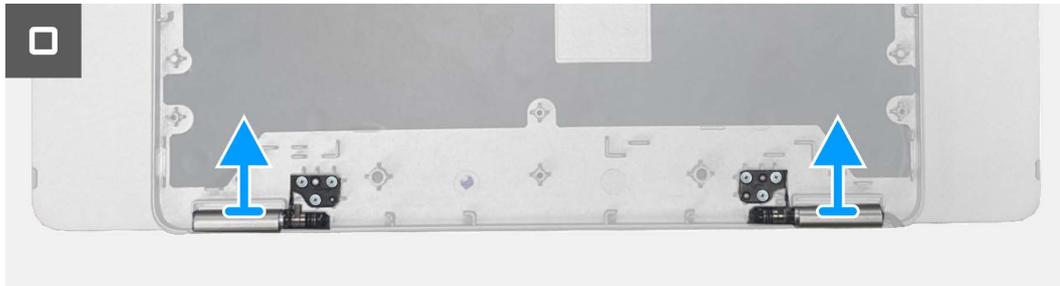
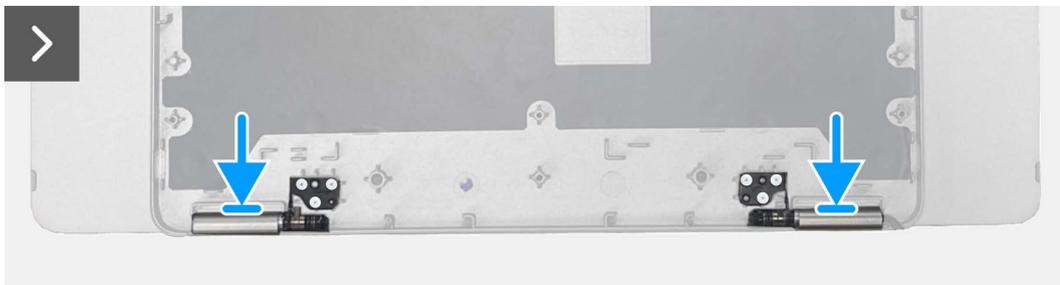


Figure 25. Removing the hinge

Installing the hinge

Steps

1. Place the hinges on the top base cover.
2. Replace the six screws (M2x3) to secure the hinges to the top base cover.
3. Flip the monitor over, replace the six screws (M2x3) to secure the hinges to the back cover.



6x
M2x3



Figure 26. Installing the hinge

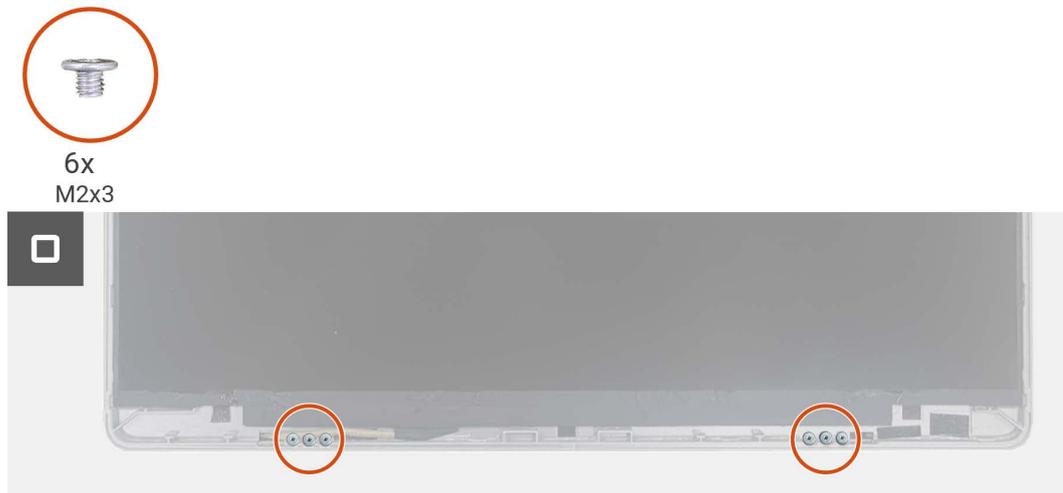


Figure 27. Installing the hinge

Next steps

1. Install the [auto-rotation sensor board](#).
2. Install the [main board](#).
3. Install the [bottom base cover](#).
4. Install the [sleeve](#).
5. Follow the procedure in [After working inside your monitor](#).

Power button

Removing the power button

Prerequisites

1. Follow the procedure in [Before working inside your monitor](#).
2. Remove the [sleeve](#).
3. Remove the [bottom base cover](#).
4. Remove the [main board](#).
5. Remove the [auto-rotation sensor board](#).
6. Remove the [hinge](#).

Steps

1. Remove the two screws (M1.6x2.5) that secure the power button to the top base cover.
2. Lift the power button up from the top base cover.



Figure 28. Removing the power button

Installing the power button

Steps

1. Replace the power button on the top base cover.
2. Replace the two screws (M1.6x2.5) to secure the power button to the top base cover.

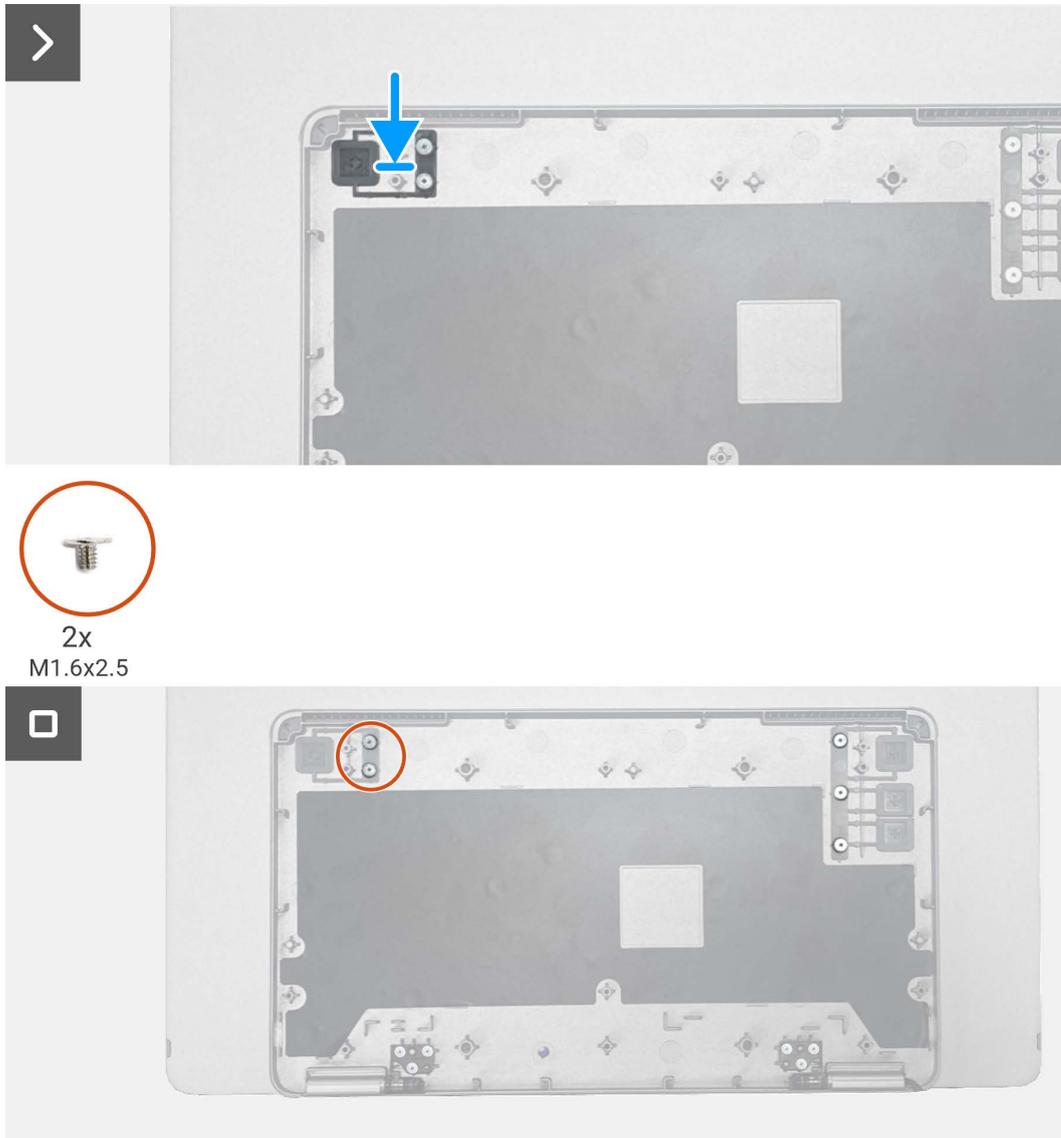


Figure 29. Installing the power button

Next steps

1. Install the [hinge](#).
2. Install the [auto-rotation sensor board](#).
3. Install the [main board](#).
4. Install the [bottom base cover](#).
5. Install the [sleeve](#).
6. Follow the procedure in [After working inside your monitor](#).

Function button

Removing the function button

Prerequisites

1. Follow the procedure in [Before working inside your monitor](#).
2. Remove the [sleeve](#).
3. Remove the [bottom base cover](#).
4. Remove the [main board](#).
5. Remove the [auto-rotation sensor board](#).
6. Remove the [hinge](#).
7. Remove the [power button](#).

Steps

1. Remove the three screws (M1.6x2.5) that secure the function button to the top base cover.
2. Lift the function button up from the top base cover.



Figure 30. Removing the function button

Installing the function button

Steps

1. Replace the function button on the top base cover.
2. Replace the three screws (M1.6x2.5) to secure the function button to the top base cover.

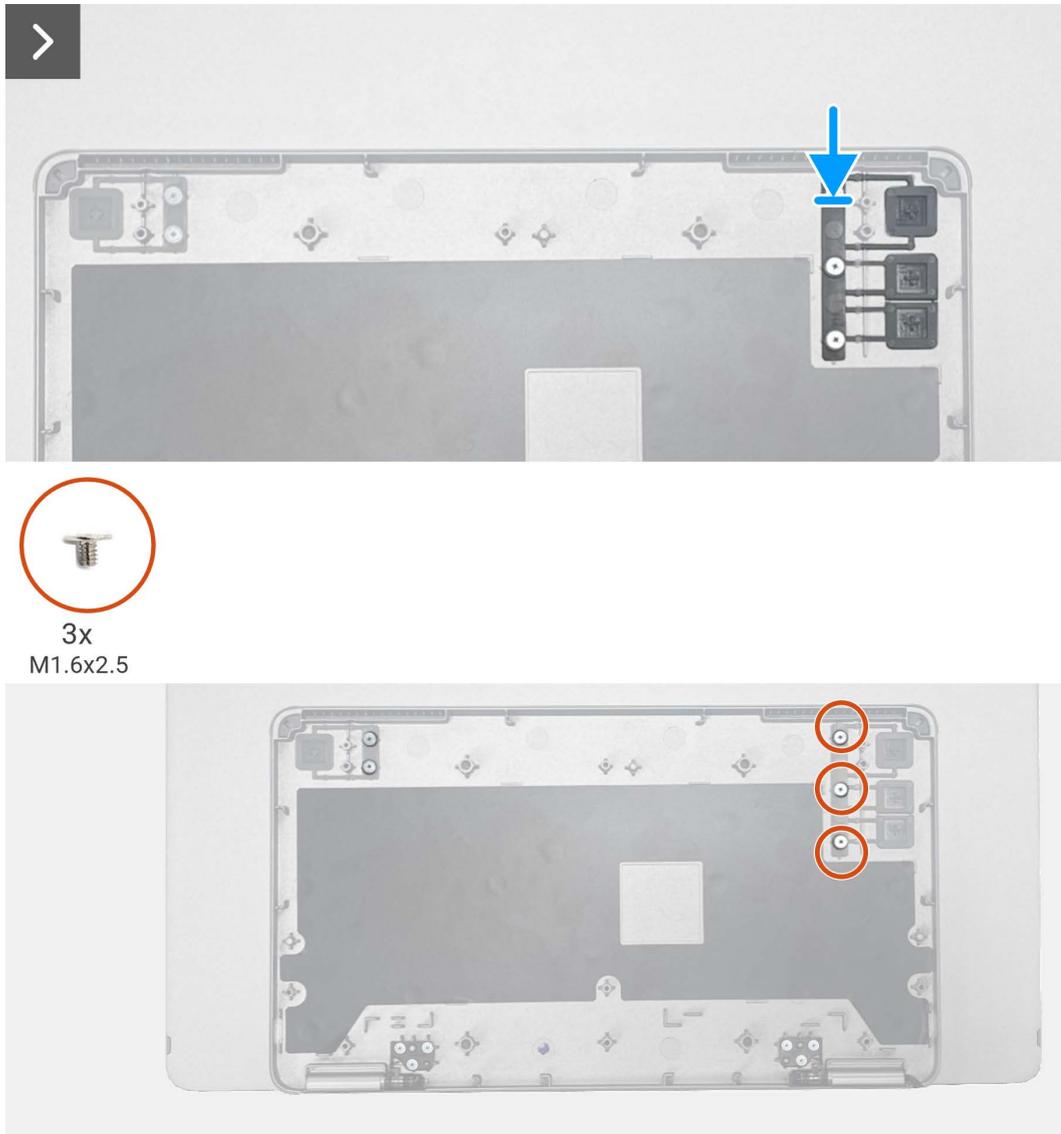


Figure 31. Installing the function button

Next steps

1. Installing the [power button](#).
2. Install the [hinge](#).
3. Install the [auto-rotation sensor board](#).
4. Install the [main board](#).
5. Install the [bottom base cover](#).
6. Install the [sleeve](#).
7. Follow the procedure in [After working inside your monitor](#).

Troubleshooting Instructions

⚠ WARNING: Before you begin any of the procedures in this section, follow the [Safety Instructions](#).

Self-test

Your monitor provides a self-test feature that allows you to check if your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off your computer.
2. Disconnect Type-C power adapter cable and computer USB Type-C cable from the monitor.



Figure 32. Disconnect Type-C power adapter cable

3. Connect Type-C power adapter cable to the monitor. This way, the computer does not have to be involved.
4. If the monitor is working correctly, it scans for signal and detects that there is no signal and the following message appears. While in self-test mode, the power LED remains white.

Scanning for signal...

P1425

Figure 33. Scanning for signal warning message

  No USB Type-C1 signal from your device.

P1425

Figure 34. No signal warning message

ⓘ NOTE: OSD menu supports English only.

ⓘ NOTE: These messages also appear during normal operation, when the computer USB Type-C cable is disconnected or damaged.

5. Reconnect the computer USB Type-C cable, turn on your computer and then wait for the computer boot up to complete.

If your monitor remains dark after step 5, check your video controller and computer.

Built-in diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if any screen abnormality you experience is an inherent problem with your monitor, or with your computer and video card. To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Press and hold the button  for about 3 seconds and wait for a pop up diagnostic pattern.
3. Use the button  to switch pattern. A gray test pattern appears at the beginning of the diagnostic program.
4. Carefully inspect the screen for abnormalities.
5. Press the button  to change the test patterns.
6. Repeat steps 4 and 5 to inspect the display in red, green, blue, black, white, and text screens.
7. When in White color test screen, check for white color uniformity and if there white color appears greenish/reddish, etc.
8. Press the button  to end the diagnostic program.

Common problems

The following table provides general information about common monitor problems that you might encounter and the possible solutions:

Table 4. Common problems and solutions.

Common symptoms	Possible solutions
No video/Power LED off	<ul style="list-style-type: none"> • Ensure that the video cable connecting the monitor and the computer is properly connected and secure. • Verify that the power outlet is functioning properly using any other electrical equipment. • Verify if the device required more than 65 W power charging. • Ensure that the power button is pressed. • Ensure that the USB Type-C cable is not damaged.
No video/Power LED on	<ul style="list-style-type: none"> • Increase brightness controls using the OSD. • Perform monitor self-test feature check. • Check for bent or broken pins in the video cable connector. • Verify if the USB Type-C interface of the device can support DP alternate mode. • Set Windows to Projection mode.
Poor focus	<ul style="list-style-type: none"> • Eliminate video extension cables. • Change the video resolution to the correct aspect ratio.
Missing pixels	<ul style="list-style-type: none"> • Cycle power On-off. • A pixel that is permanently off is a natural defect that can occur in LCD technology. • For more information about Dell Monitor Quality and Pixel Policy, see Dell Support site at: www.dell.com/pixelguidelines.
Stuck-on pixels	<ul style="list-style-type: none"> • Cycle power On-off. • A pixel that is permanently off is a natural defect that can occur in LCD technology. • For more information about Dell Monitor Quality and Pixel Policy, see Dell Support site at: www.dell.com/pixelguidelines.
Brightness problems	<ul style="list-style-type: none"> • Adjust brightness controls using OSD
Synchronization problems	<ul style="list-style-type: none"> • Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode. • Check for bent or broken pins in the video cable connector. • Restart the computer in safe mode.
Safety related issues	<ul style="list-style-type: none"> • Do not perform any troubleshooting step. • Contact Dell immediately.
Intermittent problems	<ul style="list-style-type: none"> • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.
Missing color	<ul style="list-style-type: none"> • Perform monitor self-test feature check. • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Check for bent or broken pins in the video cable connector.
Intermittent charging when using USB Type-C connection to computer, laptop, and so on	<ul style="list-style-type: none"> • Check if the maximum power consumption device is over 65 W. • Ensure that you use only Dell approved adapter or the adapter that comes with the product. • Ensure that you use Dell-approved USB Type-C cable provided with the monitor. • Ensure that the USB Type-C cable is not damaged.

Contacting Dell

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

- ① **NOTE:** Availability varies by country and product, and some services may not be available in your country.
- ① **NOTE:** If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog.