


Dell 22 Monitor

SE2225HM

Simplified 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.

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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 monitor that support it) 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 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 stray or loose screws inside your monitor may severely damage your monitor. Protecting Against Electrostatic Discharge.

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 SE2225HM monitor

Front view

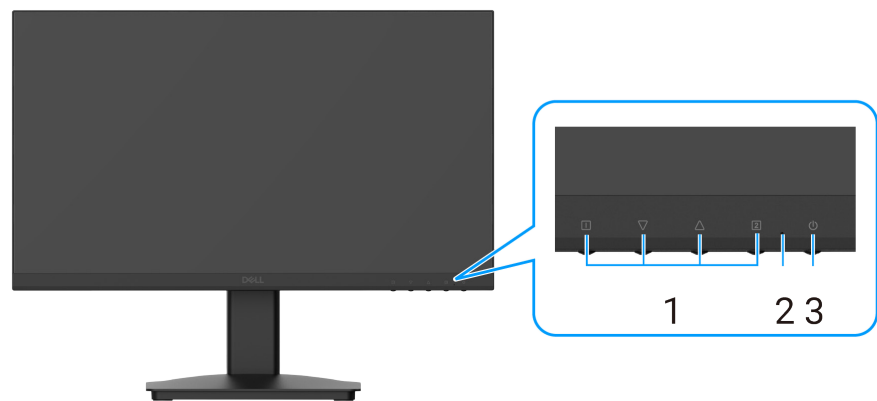


Figure 1. Front view of the monitor

Table 1. Front view descriptions

Label	Description	Use
1	Function buttons	To access the OSD menu and change the settings if required.
2	LED indicator	A solid blue light indicates that the monitor is turned on and functioning. A solid orange light indicates that the monitor is in Standby mode.
3	Power button	Press the power button to turn the monitor on or off.

Back view



Figure 2. Back view of the monitor

Table 2. Back view descriptions

Label	Description	Use
1	Regulatory information	List the regulatory approvals.
2	Regulatory label (including MyDell QRcode, serial number, and Service Tag label)	See this label if you must contact Dell for technical support. The Service Tag enables Dell service technicians to identify the hardware components in your computer and access warranty information.
3	Stand release button	Release the stand from the monitor.
4	VESA mounting holes (100 mm x 100 mm)	Supports an optional mounting of the monitor using a VESA mount or arm.

Side view

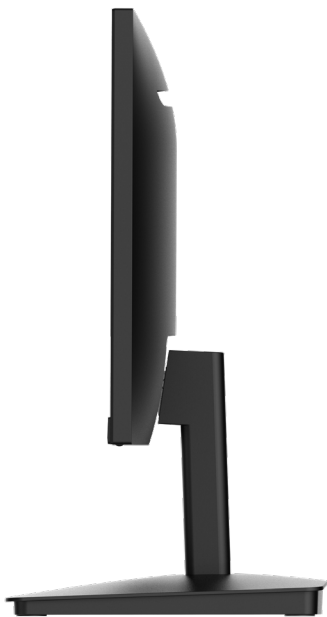


Figure 3. Side view of the monitor

Bottom view

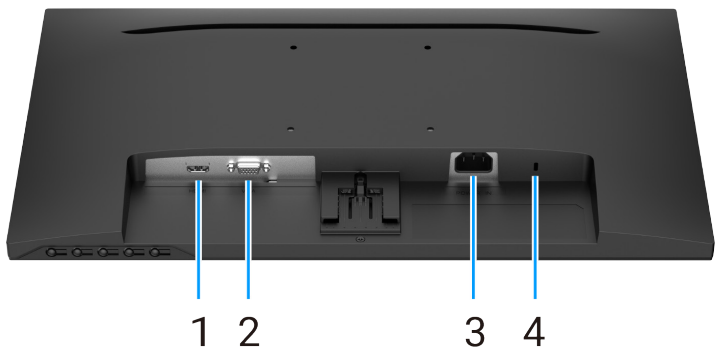


Figure 4. Bottom view of the monitor

Table 3. Bottom view descriptions.

Label	Description	Use
1	HDMI port	Connect to your computer with the HDMI cable.
2	VGA port	Connect to your computer with the VGA cable.
3	Power port	To connect the monitor power cable.
4	Security-lock slot (based on Kensington Security Slot)	Secure your monitor using a security lock (purchased separately) to prevent unauthorized movement of your monitor.

Major components

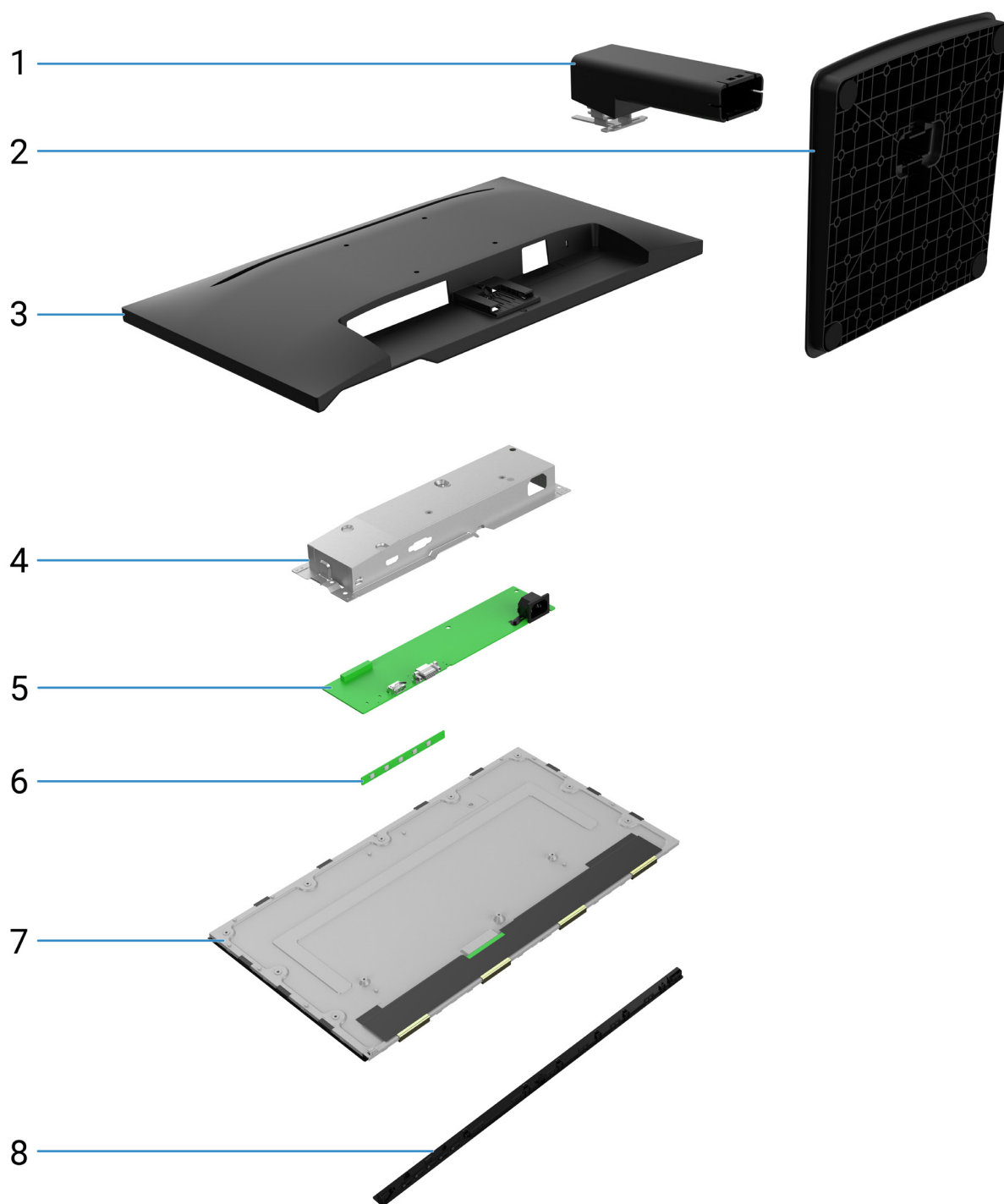


Figure 5. Major components

Table 4. Components.

No.	Description
1	Stand riser
2	Stand base
3	Back cover
4	Chassis
5	Interface board
6	Keypad board
7	Display panel
8	Front bezel

NOTE: For the replacement of power cable, connectivity cable and external power supply (if applicable), contact Dell:

1. Go to <https://www.dell.com/support>.
2. Verify your country or region in the Choose A Country/Region drop-down menu at the upper-right corner of the page.
3. Click Contact Us next to the country dropdown.
4. Select the appropriate service or support link based on your need.
5. Choose the method of contacting Dell that is convenient for you.

Wiring connectivity diagram

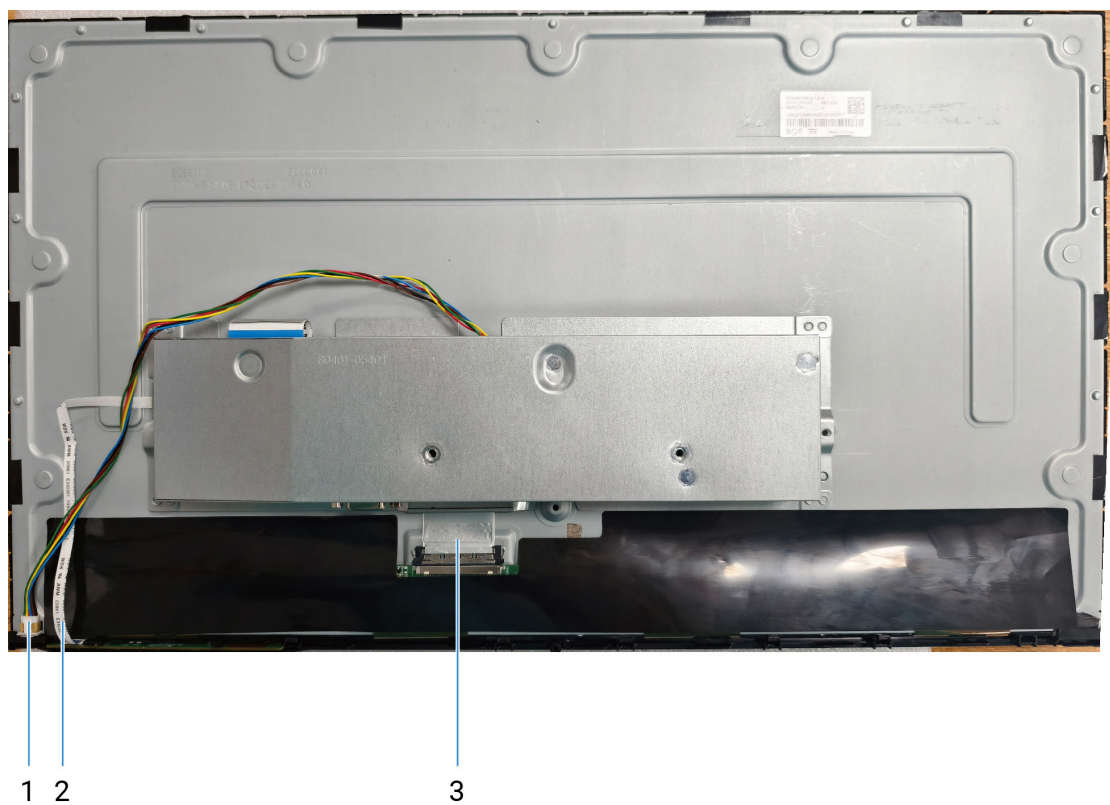


Figure 6. Wiring connectivity diagram

Table 5. Wiring connectivity diagram

No.	Description
1	Lightbar cable
2	Keypad cable
3	EDP cable

Connecting the cables

- ⚠ WARNING:** Before you begin any of the procedures in this section, follow the [Safety instructions](#).
- ⚠ WARNING:** For your safety, be sure that the grounded power outlet you plug the power cable into is accessible to the operator and located as close to the equipment as possible.
To disconnect power from the equipment, unplug the power cable from the power outlet by grasping the plug firmly. Never pull on the cord.
- ⚠ WARNING:** A certified power supply cord has to be used with this equipment. The relevant national installation and/or equipment regulations shall be considered. A certified power supply cord not lighter than ordinary polyvinyl chloride flexible cord according to IEC 60227 (designation H05VV-F 3G 0.75 mm² or H05VVH2-F2 3G 0.75 mm²) shall be used. An alternative flexible cord is synthetic rubber.
- ℹ NOTE:** Do not connect all cables to the computer simultaneously.
- ℹ NOTE:** Dell monitors are designed to work optimally with Dell supplied inbox cables. Dell does not guarantee the video quality and performance when using non-Dell cables.

To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.
2. Connect HDMI or VGA cable from your monitor to the computer.

Connecting HDMI cable

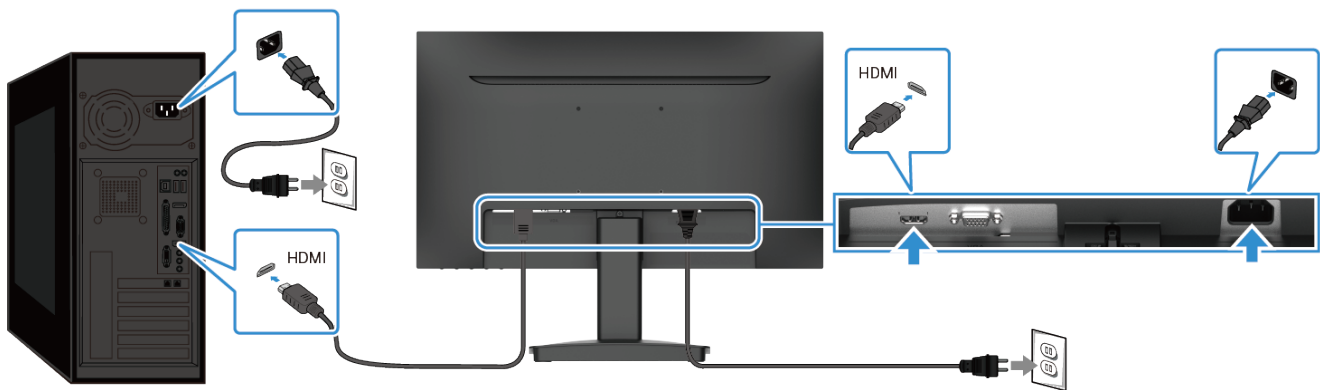


Figure 7. Connecting HDMI cable

Connecting VGA cable

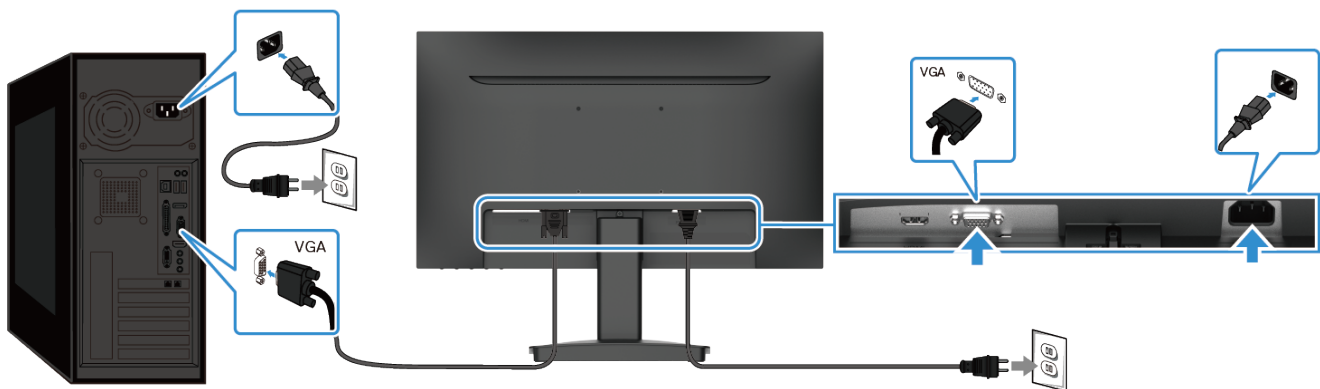


Figure 8. Connecting VGA cable

Disassembly and reassembly

CAUTION: The information in this section is intended for authorized service technicians in the EMEA region. Dell prohibits users from disassembling the monitor, and any damage caused by unauthorized servicing will not be covered under the warranty.

Recommended tools

The procedures in this document may require the following tools:

- Screwdriver (Phillips-head, Hexagonal head)
- Plastic scribe

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 monitors 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 6. Screw list

Component	Screw type	Quantity	Screw image
Back cover	M3x8	1	
Back cover	M3x6	1	
Interface board assembly	M3x5	2	
Interface board	M3x6	3	
Interface board	M4x6	1	

Stand

Removing the stand

Prerequisites

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

Steps

1. Place the monitor on a soft cloth along the desk.
2. Use a long and thin screwdriver to push the release button.
3. While keeping the release button pressed, pull the stand assembly out from the monitor.
4. Lift the stand riser to disconnect it from the stand base.

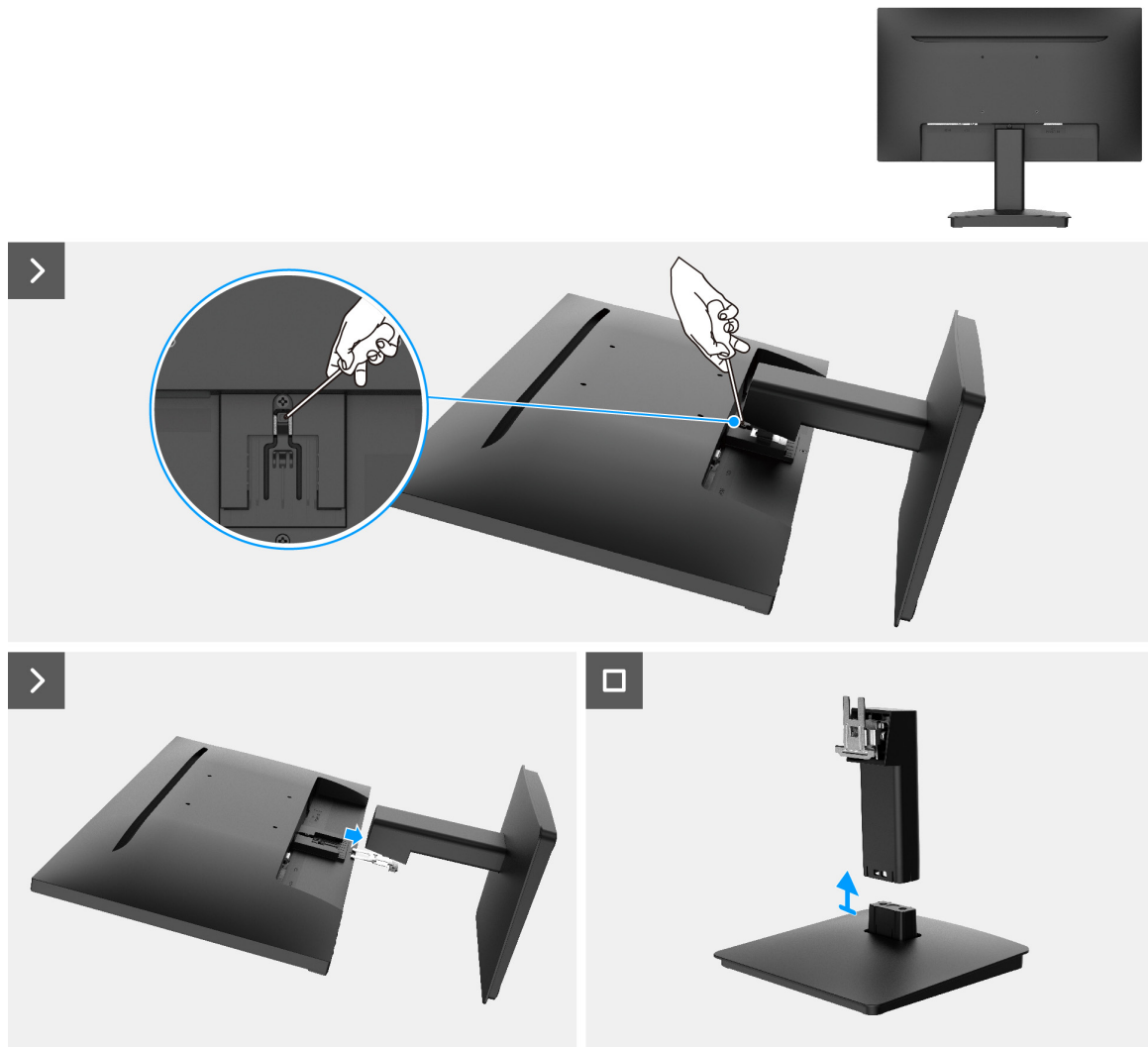


Figure 9. Removing the stand

Installing the stand

Steps

1. Align the stand-riser bracket with the grooves at the back of the monitor.
2. Slide the stand assembly until it snaps into place.

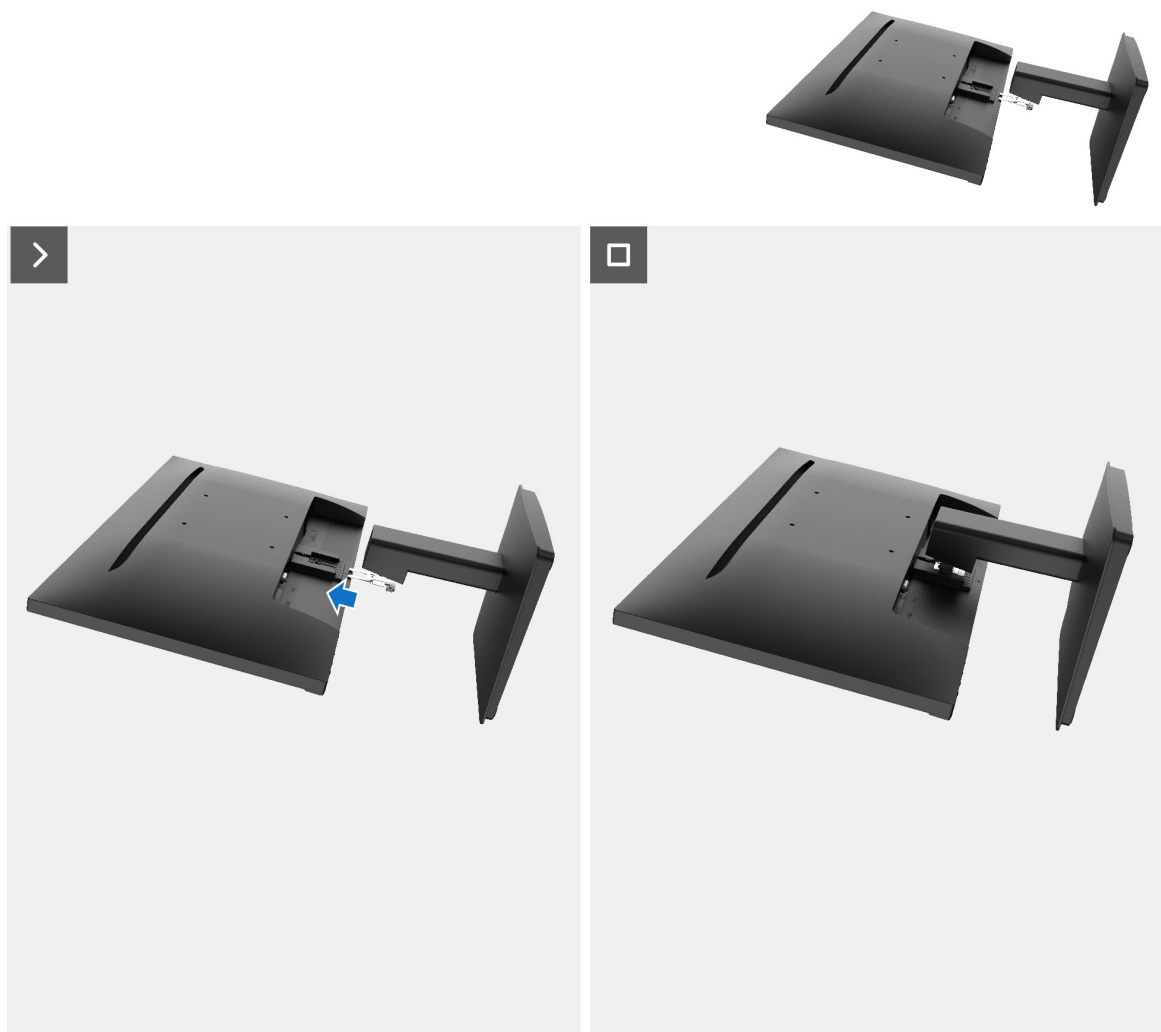


Figure 10. Installing the stand

Next steps

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

Back cover

Removing the back cover

Prerequisites

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

Steps

1. Remove the screw (M3x8) that secures the back cover to the chassis.
2. Remove the screw (M3x6) that secures the back cover to the chassis.
3. Using the plastic scribe, pry the back cover starting from the bottom edge of the monitor.
4. Lift and remove the back cover away from the monitor.

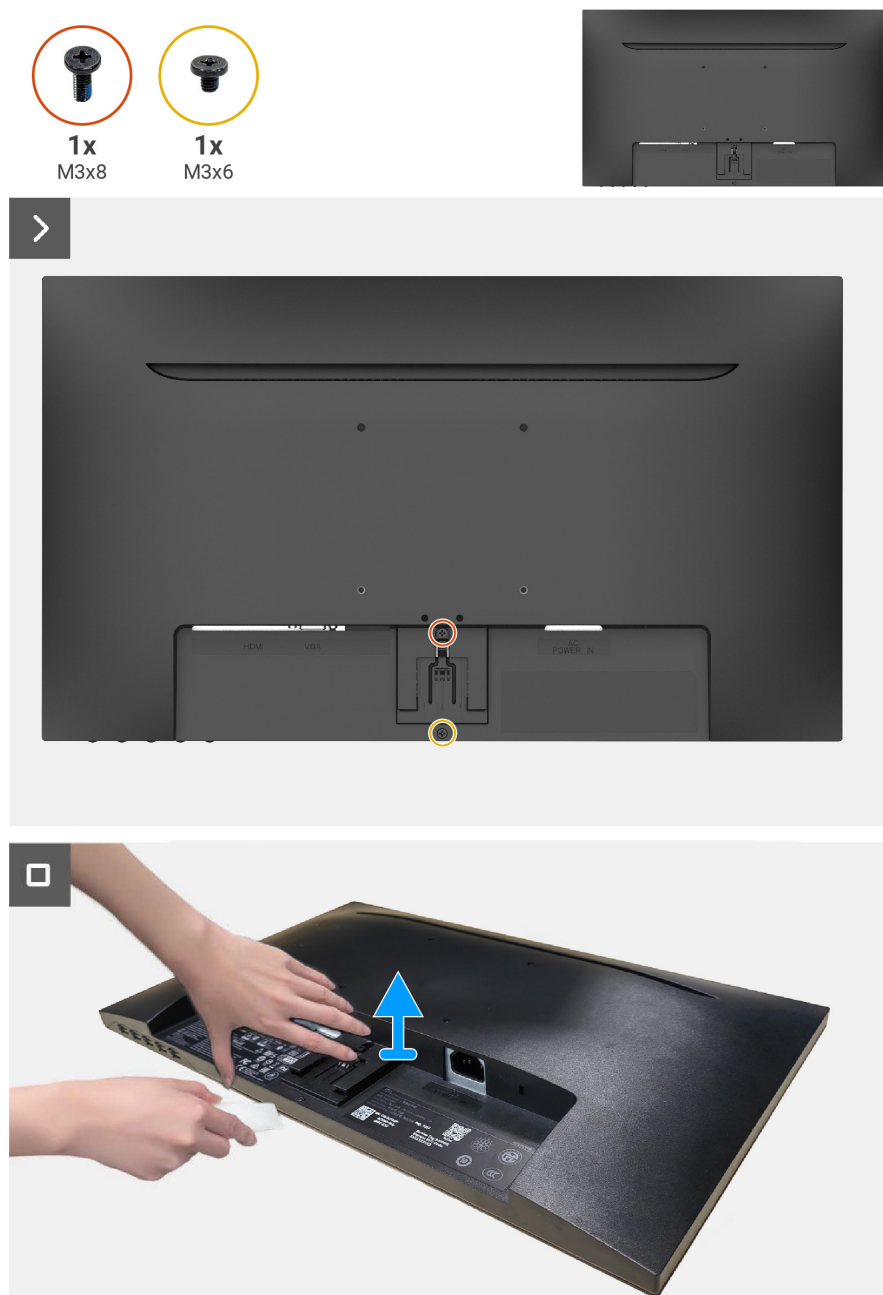


Figure 11. Removing the back cover

Installing the back cover

Steps

1. Align the back cover with the chassis and snap it into place.
1. **NOTE:** Align the screw holes on the back cover with the screw holes on the chassis assembly before applying slight pressure to the back cover.
2. Replace the screw (M3x8) that secures the back cover to the monitor.
3. Replace the screw (M3x6) that secures the back cover to the monitor.

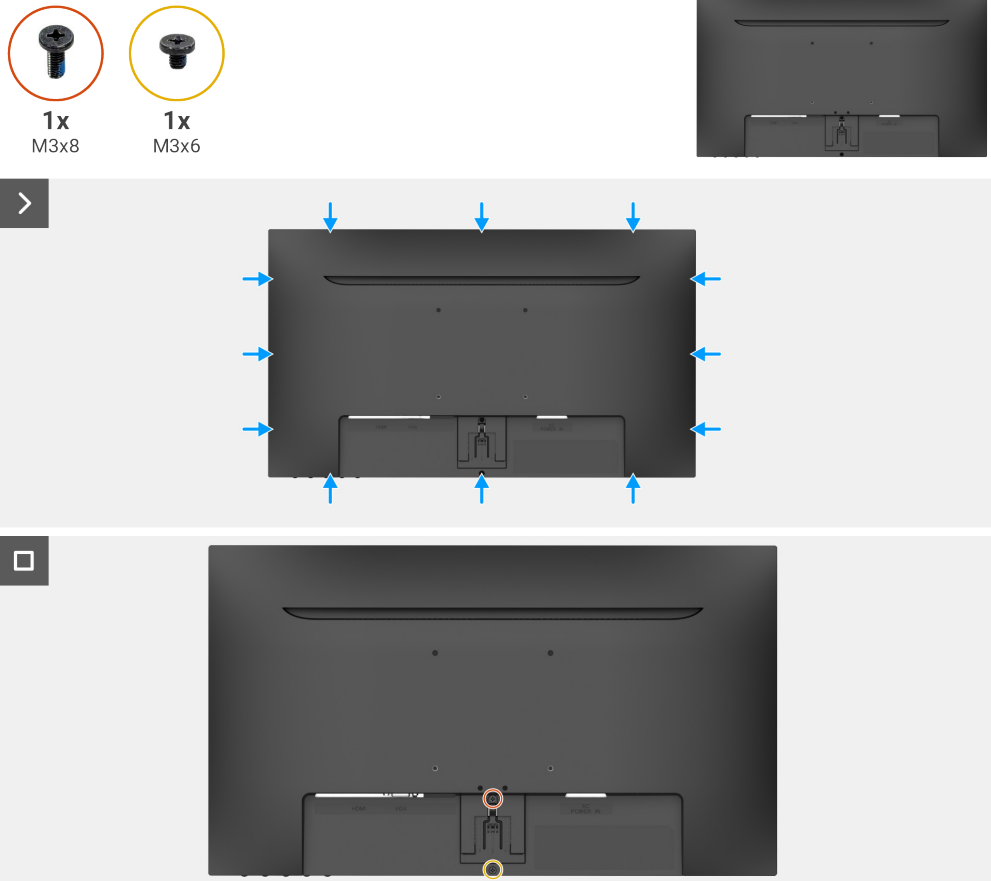


Figure 12. Installing the back cover

Next steps

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

Keypad board

Removing the keypad board

Prerequisites

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

Steps

1. Pull out the keypad board from the deco card slot.
2. Open the latch and disconnect the keypad board cable from the connector on the keypad board.
3. Lift and remove the keypad board away from the back cover.



Figure 13. Removing the keypad board

Steps

-
- The first photograph shows the top of the logic board with various components labeled, including TP01, TP22, TP15, R701, R702, TP10, TP16, R704, R706, TP12, D702, TP19, and TP17. A blue arrow points to the top edge of the board. The second photograph shows the bottom of the logic board with four screws labeled S701, S702, S704, and S705. Blue arrows point to each of these screws. The third photograph shows the display assembly with a blue arrow pointing to the top edge of the display frame.

Next steps

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Interface board assembly

Removing the interface board assembly

Prerequisites

1. Follow the procedure in [Before working inside your monitor](#).
2. Remove the [stand](#).
3. Remove the [back cover](#).
4. Remove the [keypad board](#).

Steps

1. Remove the two screws (M3x5) that secure the interface board assembly to the display panel.
2. Peel the tapes that secure the lightbar board cable to the display panel.
3. Disconnect the lightbar board cable from the display panel.
4. Peel the tape that secures the EDP cable connector to the display panel.
5. Disconnect the EDP cable from the display panel.
6. Lift the interface board assembly from the display panel.



2x
M3x5

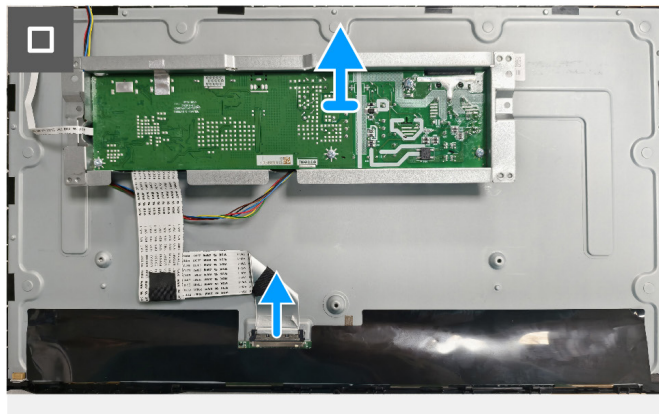
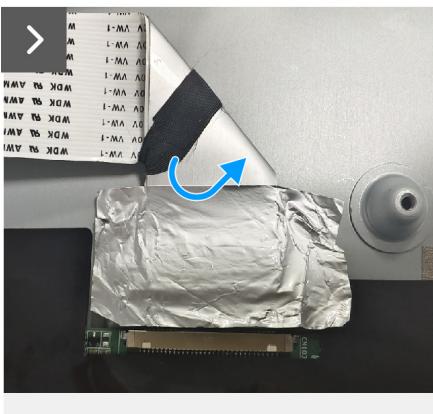
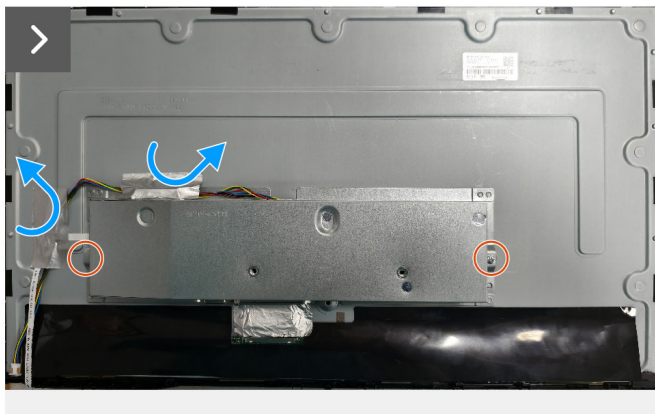


Figure 15. Removing the interface board assembly

Installing the interface board assembly

Steps

1. Connect the EDP cable to the display panel.
2. Adhere the tape that secures the EDP cable connector to the display panel.
3. Connect lightbar board cable to the display panel.
4. Adhere the tapes that secure the lightbar board cable to the display panel.
5. Align the screw holes on the interface board assembly with the screw holes on the display panel.
6. Replace the two screws (M3x5) that secure the interface board assembly to the display panel.

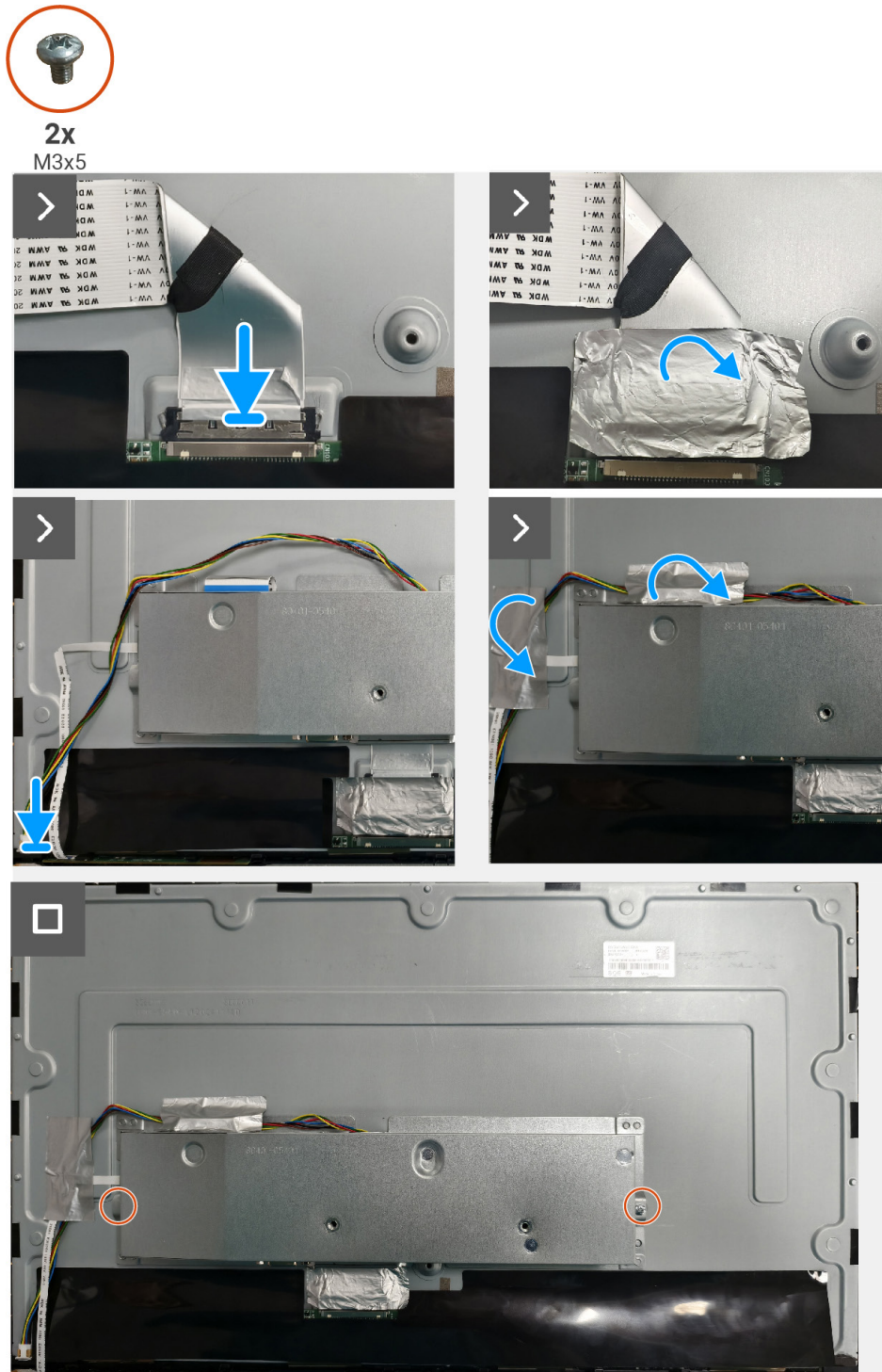


Figure 16. Installing the interface board assembly

Next steps

1. Install the [keypad board](#).
2. Install the [back cover](#).
3. Install the [stand](#).
4. Follow the procedure in [After working inside your monitor](#).

Interface board

Removing the interface board

Prerequisites

1. Follow the procedure in [Before working inside your monitor](#).
2. Remove the [stand](#).
3. Remove the [back cover](#).
4. Remove the [keypad board](#).
5. Remove the [interface board assembly](#).

Steps

1. Remove three screws (M3x6) that secure the interface board to its bracket.
2. Remove the screw (M4x6) and lift the interface board away from its bracket.
3. Open the latch and disconnect the keypad board cable from the interface board.
4. Open the latch and disconnect the EDP cable from the interface board.

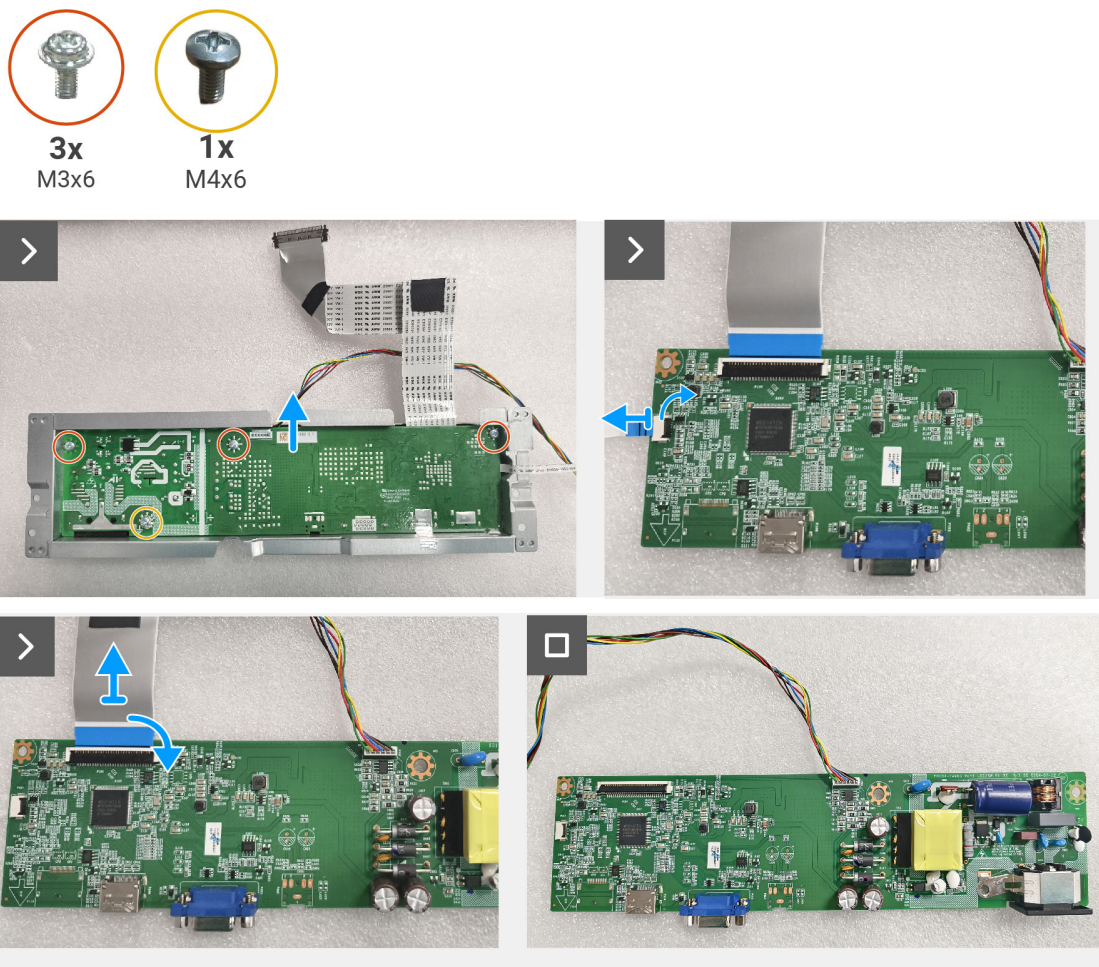


Figure 17. Removing the interface board

Installing the interface board

Steps

1. Slide the EDP cable into its connector on the interface board and close the latch to secure it in place.
2. Slide the keypad board cable into its connector on the interface board and close the latch to secure it in place.
3. Replace the three screws (M3x6) that secure the interface board to its bracket.
4. Replace the screw (M4x6) that secures the interface board to its bracket.

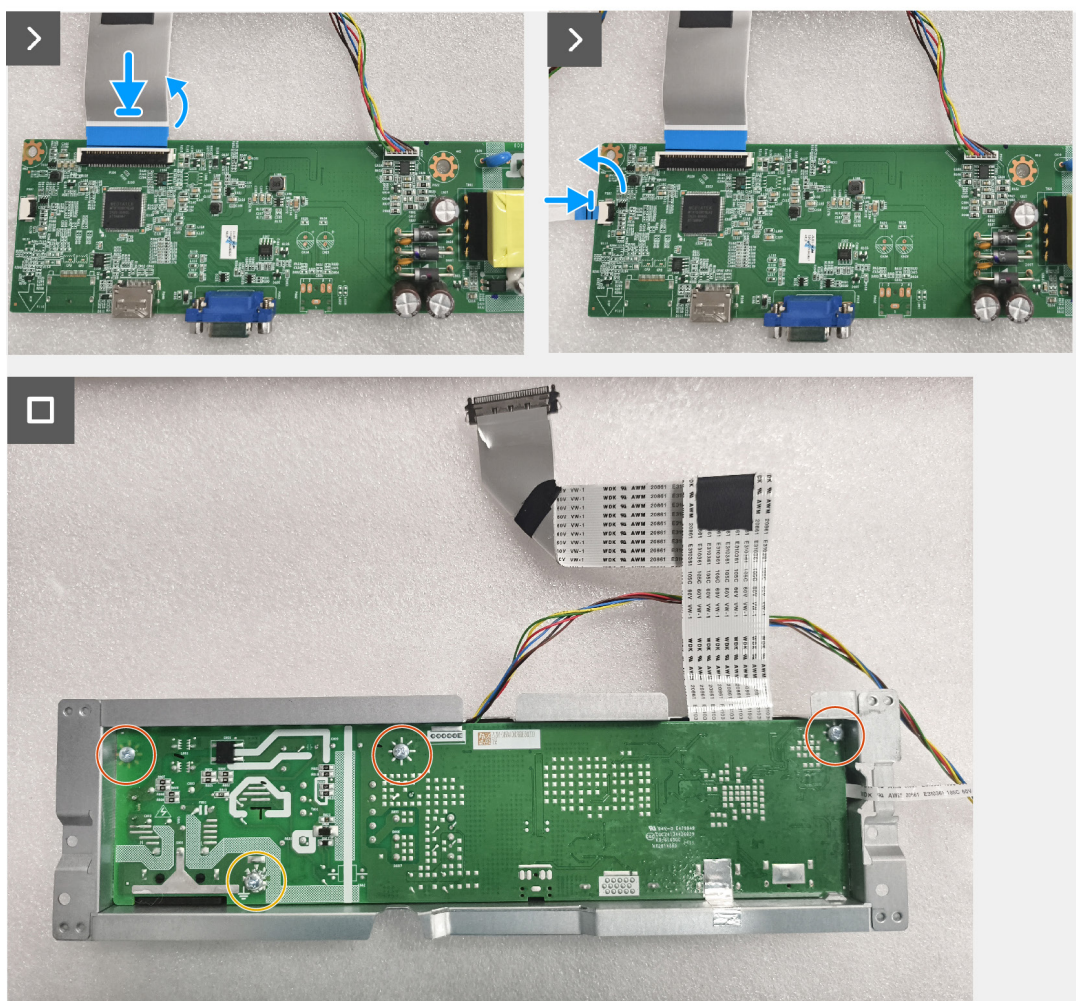



Figure 18. Installing the interface board

Next steps

1. Install the [interface board assembly](#).
2. Install the [keypad board](#).
3. Installing the [back cover](#).
4. Install the [stand](#).
5. Follow the procedure in [After working inside your monitor](#).


Troubleshooting

 **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 both your computer and the monitor.
2. Disconnect all video cables from the monitor. This way, the computer does not have to be involved.
3. Turn on the monitor.

 **NOTE:** A dialog box should appear on-screen (against a black background), if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains blue.



 **NOTE:** This message also appears during normal operation, when the video cable is disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on your computer and the monitor. If your monitor remains dark after you reconnect the cables, 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.

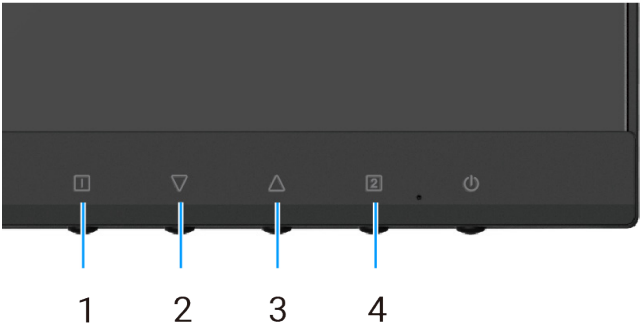


Figure 19. Built-in diagnostics function buttons

Table 7. Label description.

Label	Description
1	Button 1
2	Button 2
3	Button 3
4	Button 4

1. Plug in the power cable and signal cables, and then turn on the monitor.
2. Press the **Button 1** button to display the OSD main menu.
3. Press the **Button 2** and **Button 3** buttons to select **Setup Menu > Self-Diagnostic** to initiate the self-diagnostic process.
4. When initiated, a gray screen appears. Inspect the screen for abnormalities.
5. Press the **Button 1**, **Button 2**, **Button 3** or **Button 4**. The color of the screen changes to red. Inspect the screen for abnormalities.
6. Repeat step 5 and inspect the screen when it displays the colors green, blue, black, and white followed by the on-screen text.
7. The test is completed when the text screen appears. To exit, press the **Button 1**, **Button 2**, **Button 3** or **Button 4** button again.

Common problems

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



Table 8. 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. Ensure that the power button is pressed. Ensure that the correct input source is selected using the Input Select menu.
No video/Power LED on	<ul style="list-style-type: none"> Increase brightness and contrast controls using the OSD. Perform a monitor self-test feature check. Check for bent or broken pins in the video cable connector. Run the built-in diagnostics. Ensure that the correct input source is selected using the Input Select menu.
Poor focus	<ul style="list-style-type: none"> Eliminate video extension cables. Reset the monitor to Factory Settings (Factory Reset). Change the video resolution to the correct aspect ratio.
Shaky/Jittery video	<ul style="list-style-type: none"> Reset the monitor to Factory Settings (Factory Reset). Check environmental factors. Relocate the monitor and test in another room.
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"> Reset the monitor to Factory Settings (Factory Reset). Adjust brightness and contrast controls using OSD.
Geometric distortion	<ul style="list-style-type: none"> Reset the monitor to Factory Settings (Factory Reset). Adjust horizontal and vertical using OSD.
Horizontal/Vertical lines	<ul style="list-style-type: none"> Reset the monitor to Factory Settings (Factory Reset). Perform monitor self-test feature check and determine if these lines are also in self-test mode. Check for bent or broken pins in the video cable connector. Run the built-in diagnostics.
Synchronization problems	<ul style="list-style-type: none"> Reset the monitor to Factory Settings (Factory Reset). 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.

Common symptoms	Possible solutions
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. Reset the monitor to Factory Settings (Factory Reset). Perform a 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.
Wrong color	<ul style="list-style-type: none"> Change the Color Vision Mode in the Color Adjust OSD to Graphics or Video depending on the application. Try different User Color in Color Adjust OSD. Adjust R/G/B value in User Color OSD if the Color Vision Mode is turned off. Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period	<ul style="list-style-type: none"> Set the screen to turn off after a few minutes of screen idle time. These can be adjusted in the Windows Power Options or Mac Energy Saver setting. Alternatively, use a dynamically changing screensaver.
Video ghosting or overshooting	<ul style="list-style-type: none"> Change the Response Time in the Manual Image Adjust OSD to Off/Normal/Fast depending on your application and usage.

Product-specific problems

Table 9. Product-specific problems and solutions.

Specific symptoms	Possible solutions
Screen image is too small	<ul style="list-style-type: none"> Check the Aspect Ratio setting in the Manual Image Adjust settings OSD. Reset the monitor to Factory Settings (Factory Reset).
Cannot adjust the monitor with the buttons on the bottom of the panel	<ul style="list-style-type: none"> Turn off the monitor and disconnect the power cable. Reconnect the power cable and then turn on the monitor. Check whether the OSD menu is locked. If yes, press the  button and  button for 10 seconds to unlock (for more information, see Lock).
No input signal when user controls are pressed	<ul style="list-style-type: none"> Check the signal source. Ensure that the computer is not in standby or sleep mode by moving the mouse or pressing any key on the keyboard. Check if the video cable is plugged in properly. Disconnect and reconnect the video cable if necessary. Reset the computer or video player.
The picture does not fill the entire screen	<ul style="list-style-type: none"> Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. Run the built-in diagnostics.

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