DELLTechnologies

Dell 24 Monitor
SE2425HM

Simplified Service Manual

DELLTechnologies

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.

Contents

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 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.
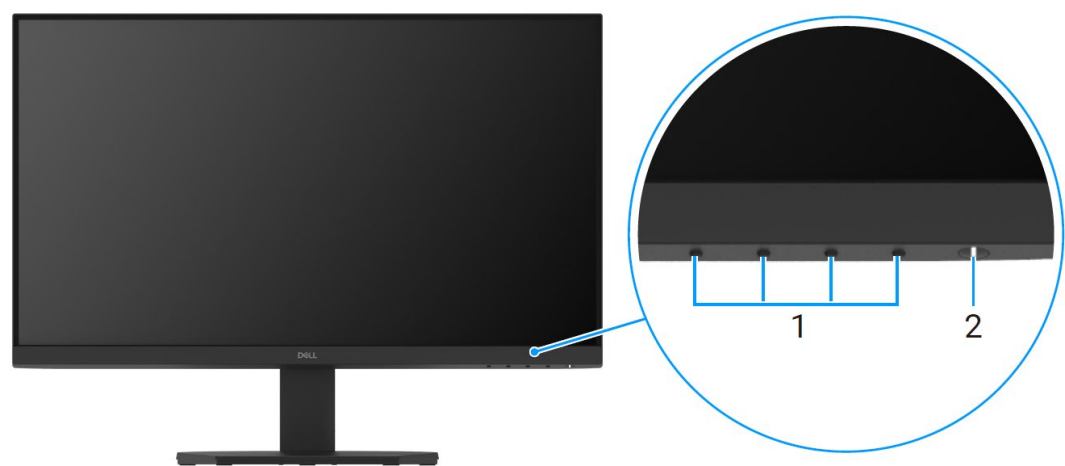
Views of SE2425HM monitor

Front view

Figure 1.   **Front view of the monitor**

Table 1. **Components and descriptions.**

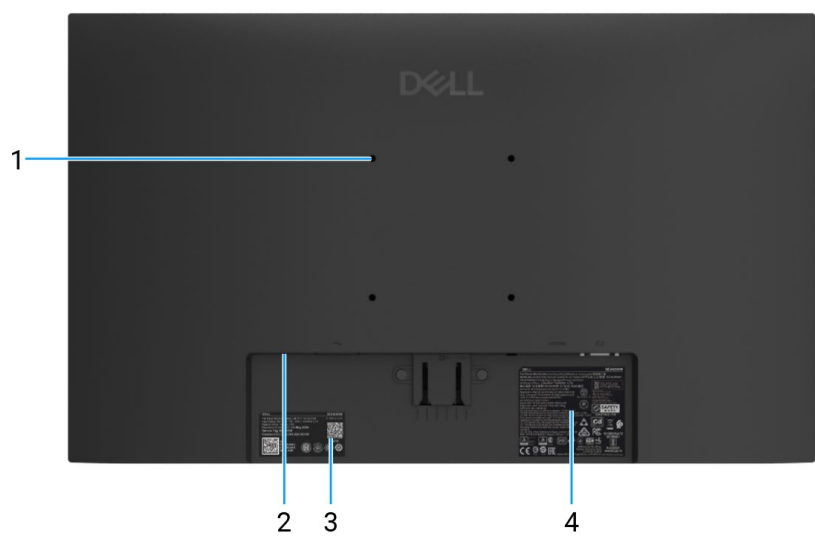| Label	Description	Use
1	Function buttons	To access the OSD menu and change the settings if required.
2	Power button (with LED indicator)	To turn the monitor on or off. A solid white light indicates that the monitor is turned on and is functioning. Blinking white light indicates that the monitor is in Standby Mode.

Back view

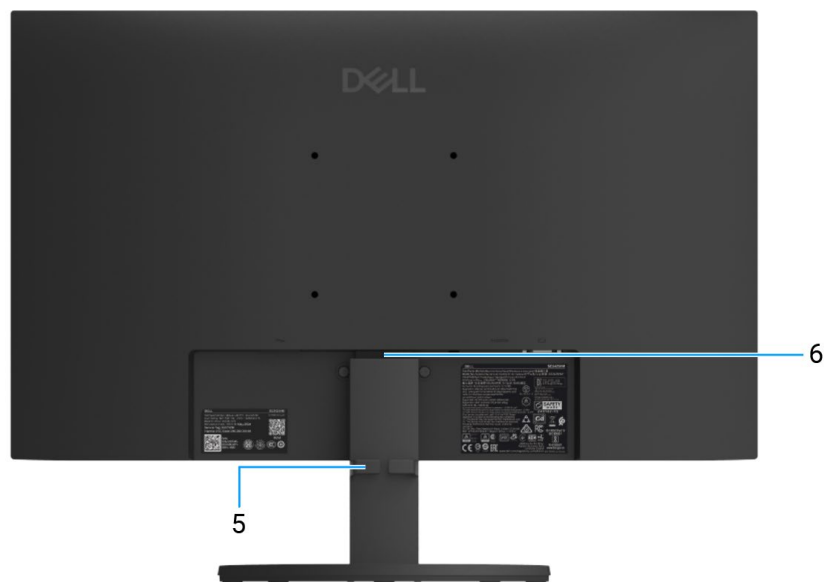Figure 2. Back view without monitor stand

Figure 3. Back view with monitor stand

Table 2. Components and descriptions.

Label	Description	Use
1	VESA mounting holes (100 mm x 100 mm)	Wall-mount the monitor using VESA-compatible Wall-mount kit.
2	Security-lock slot (based on Kensington Security Slot)	Secure your monitor using a security lock (purchased separately) to prevent unauthorized movement of your monitor.
3	Regulatory label (including MyDell QR code, serial number, and Service Tag label)	See this label if you need to contact Dell for technical support. The Service Tag is a unique alphanumeric identifier that allows Dell service technicians to identify your monitor's specifications and access warranty information.
4	Regulatory information label	Lists the regulatory approvals.
5	Cable-management clip	Use to organize cables by inserting them through the slot.
6	Stand release button	Releases the stand from the monitor.

Side view

Figure 4. Side view of the monitor

Bottom view

Figure 5. Bottom view of the monitor

Table 3. Components and descriptions.

Label	Description	Use
1	Power port	To connect the monitor power cable.
2	HDMI port	Connect to your computer with the HDMI cable.
3	VGA port	Connect to your computer with the VGA cable.

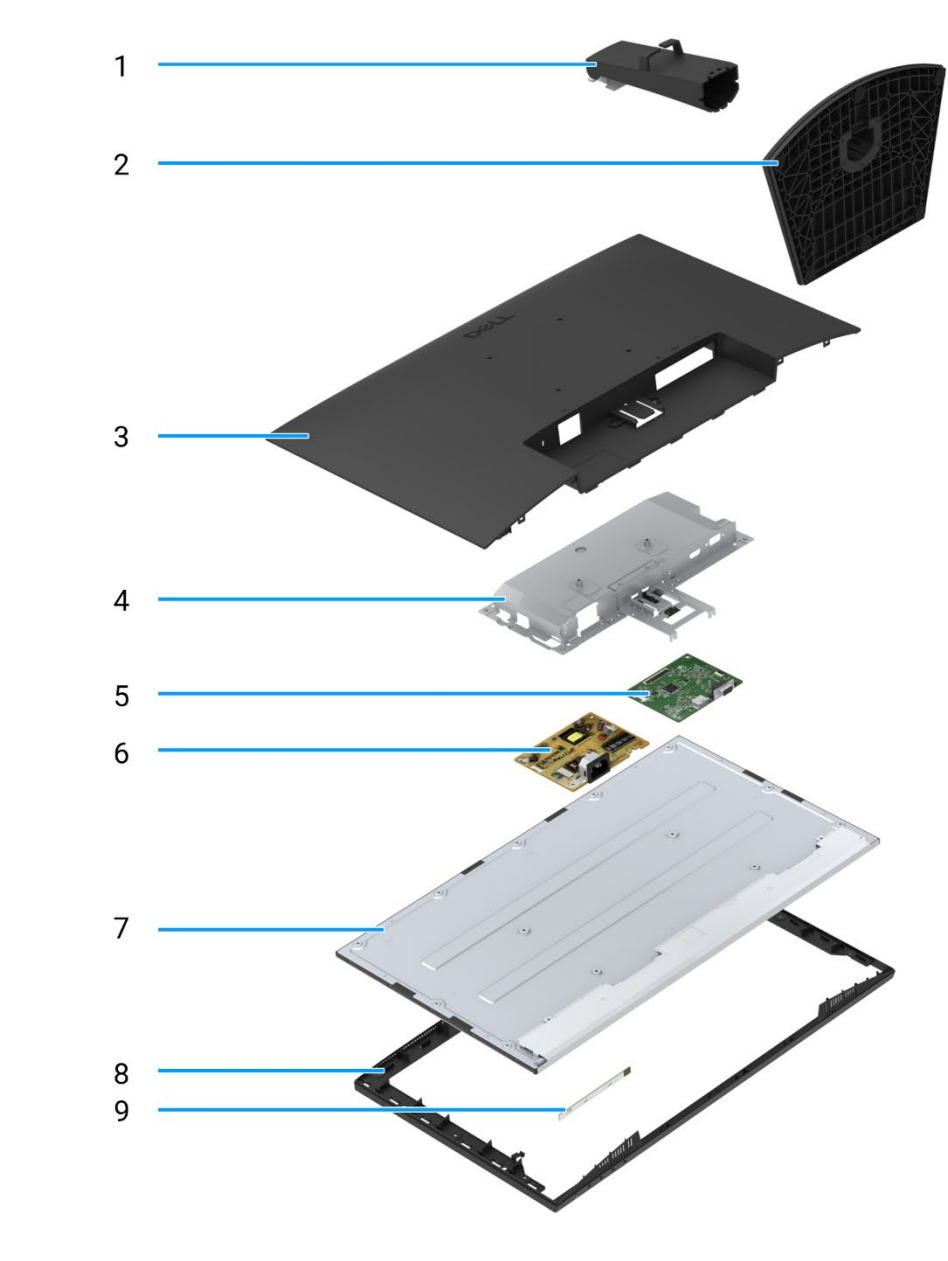# Major components of SE2425HM monitor

Figure 6.   **Major components**

Table 4 **Components.**

Item	Description	Item	Description
1	Stand riser	6	Power board
2	Stand base	7	Display panel
3	Back cover	8	Display middle-frame
4	Chassis	9	Keypad board
5	Interface board		

Wiring connectivity diagram

Figure 7.   Wiring connectivity diagram

Table 5 Cables.

Item	Description
1	Lightbar cable
2	Low-Voltage Differential Signaling (LVDS) cable
3	Keypad cable

Connecting the cables

⚠ **WARNING: Before you begin any of the following procedures, follow the Safety Instructions.**

⚠ **WARNING: For your safety, ensure 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 should 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) should be used.**

ⓘ **NOTE:** Do not connect all cables to the computer simultaneously. It is recommended to route the cables through the cable-management slot before you connect them to the monitor.

ⓘ **NOTE:** Dell monitors are designed to work optimally with Dell-supplied inbox cables. Dell does not guarantee the video quality and performance if non-Dell cables are used.

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 8. Connecting HDMI cable

Connecting VGA cable

Figure 9. 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

- Phillips screwdriver #0
- Phillips screwdriver #2
- Nut driver 5 mm
- 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 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 6 Screw list.

Component	Screw type	Quantity	Screw image
Back cover hinge	M4x4.5	2	
Display middle-frame	M3x4	9	
Chassis assembly	M3x3	4	
Interface board	M3x6	2	
Power board	M3x6	1	
Power-board grounding	M4x9	1	
VGA port	#4-40x11.8	2	

Stand

Removing the stand

Prerequisites

1. Follow the procedure in Before working inside your monitor.

Steps

1. Press the stand assembly down to access the release button.
2. Using a screwdriver, press the release button and pull the stand assembly away from the monitor.
3. Press the release tab at the bottom of the stand base and separate the stand riser from the stand base.
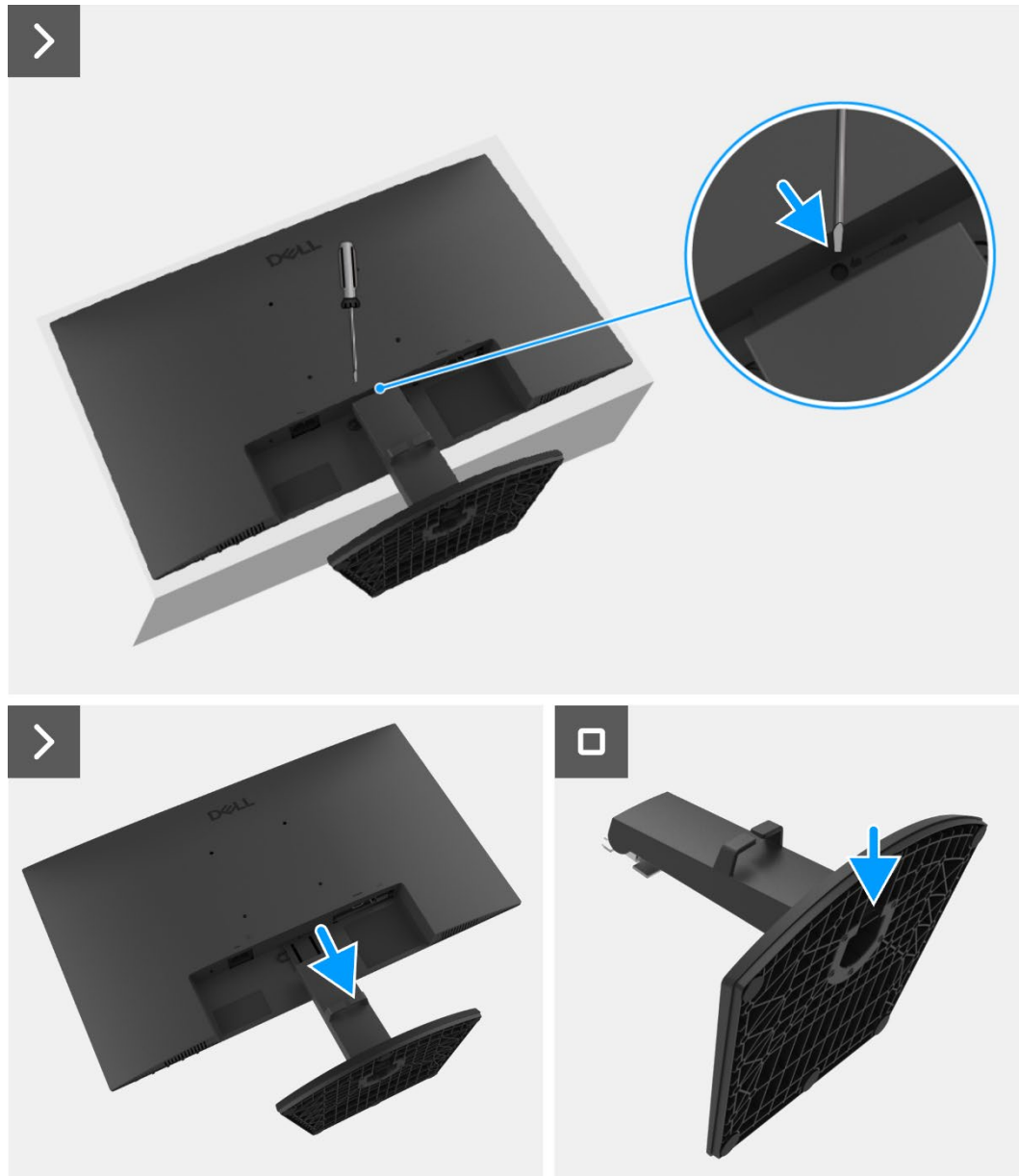

Figure 10. Removing the stand

Installing the stand

Steps

1. Align and insert the stand riser into the stand base until it snaps into place.
2. Slide the stand assembly into the grooves on the display back cover and snap it in place.

Figure 11. 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 two screws (M4x4.5) that secure the back cover to the chassis assembly.
2. Using a plastic scribe, pry the back cover starting from the bottom edge of the monitor.
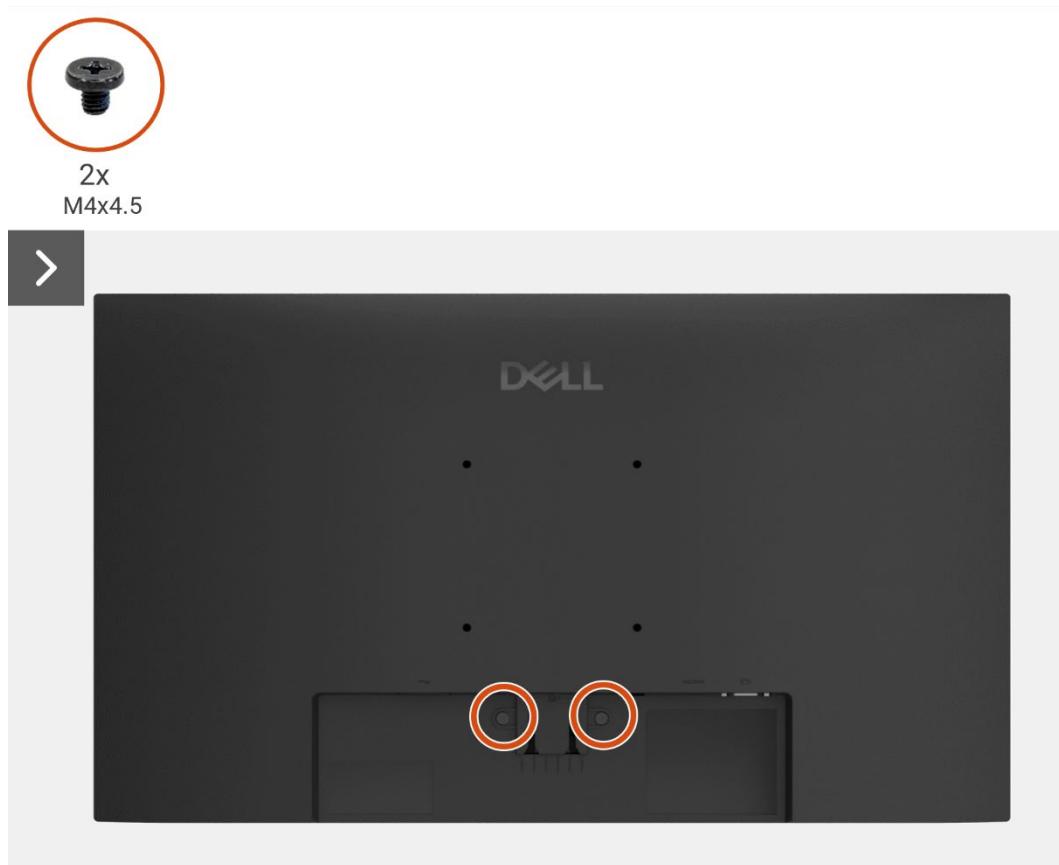3. Lift and remove the back cover away from the monitor.

Figure 12. Removing the back cover

Figure 13. Removing the back cover

Installing the back cover

Steps

1. Align the back cover with the chassis and snap it into place.

   ⓘ **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.

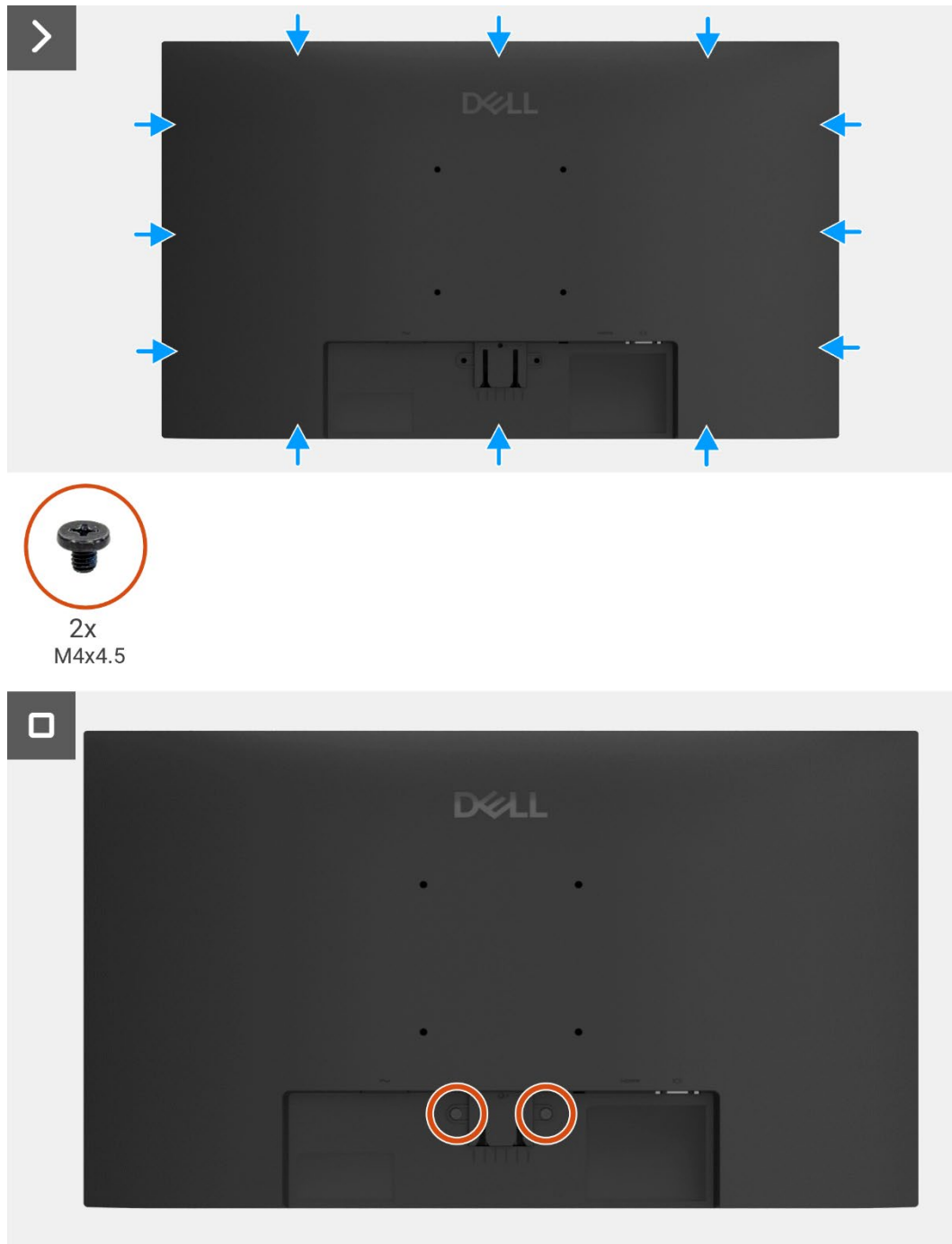2. Replace the two screws (M4x4.5) that secure the back cover to the monitor.

Figure 14. Installing the back cover

Next steps

1. Install the stand.
2. Follow the procedure in After working inside your monitor.

Chassis assembly

Removing the chassis assembly

Prerequisites

1. Follow the procedure in Before working inside your monitor.
2. Remove the stand.
3. Remove the back cover.

Steps

1. Remove the four screws (M3x3) that secure the chassis to the display panel.
2. Peel the tape that secures the lightbar cable to the display panel.
3. Disconnect the lightbar cable from the connector on the display panel.
4. Open the latch and disconnect the keypad cable from the connector on the interface board.
5. Peel the five aluminum foils from the LVDS cable and chassis assembly.
6. Disconnect the LVDS cable from the connector on the display panel.
7. Remove the chassis assembly from the display panel.

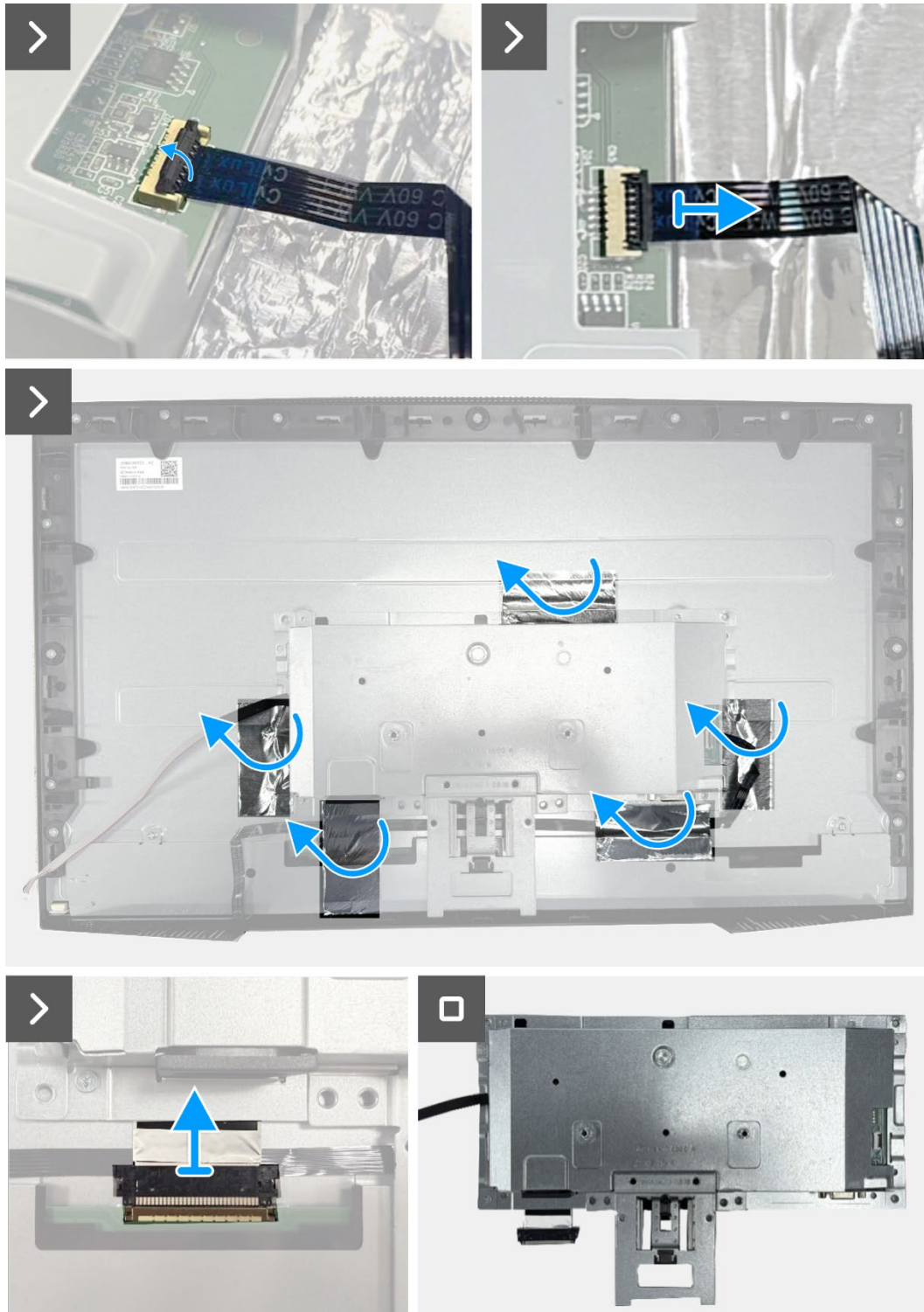**Figure 15.** **Removing the chassis assembly**

Figure 16. Removing the chassis assembly

Installing the chassis assembly

Steps

1. Connect the LVDS cable to the connector on the display panel.
2. Position the chassis assembly on the display panel, ensuring the notch on the chassis bracket aligns with the rib at the bottom of the display middle-frame.
3. Slide the keypad cable into the connector on the interface board and close the latch to secure it in place.
4. Replace four screws (M3x3) that secure the chassis assembly to display panel.
5. Adhere the five aluminum foils to the LVDS cable and the chassis assembly.
6. Connect the lightbar cable to connector on the display panel and adhere the tape that secures it to the panel.

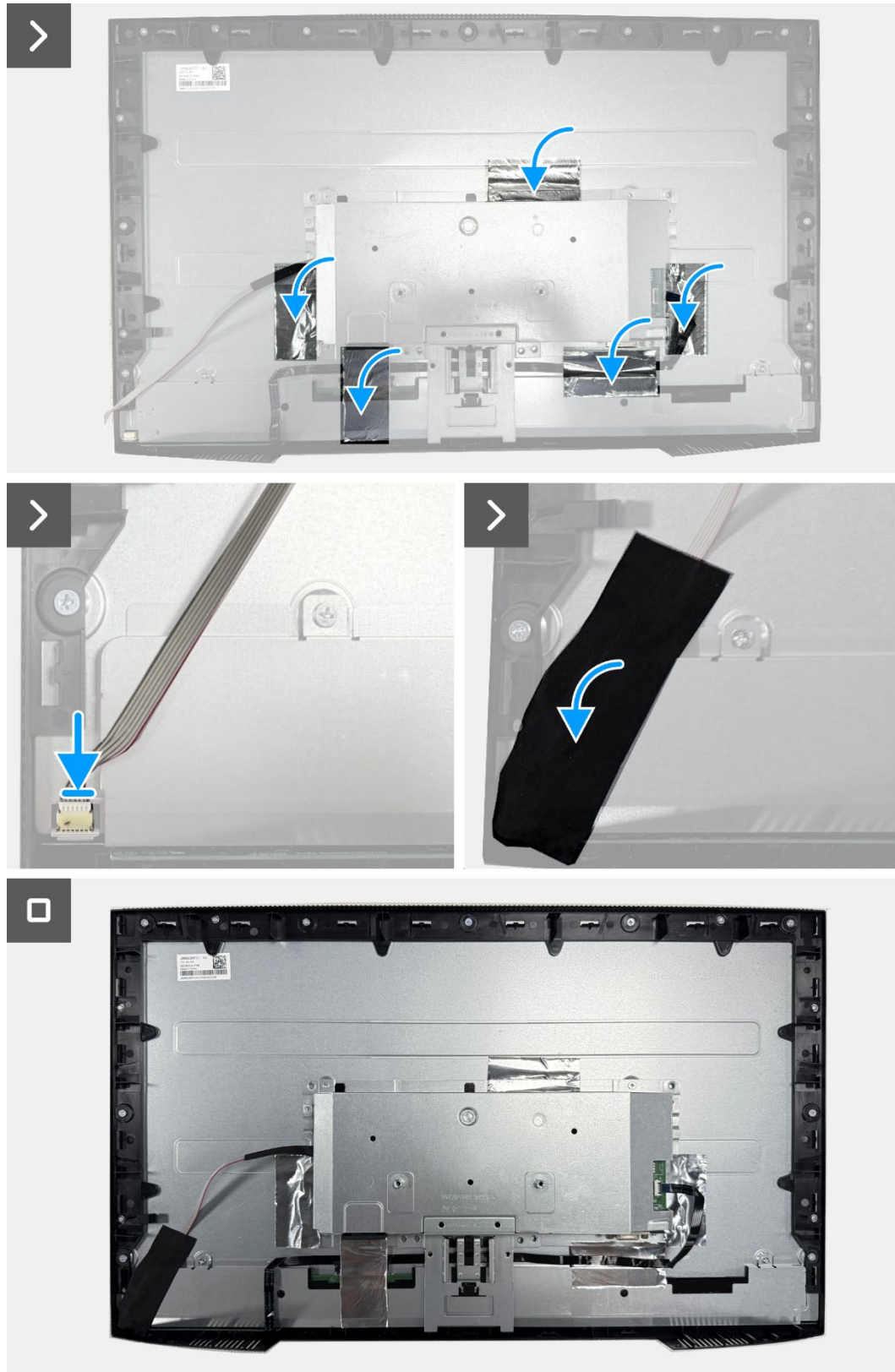**Figure 17. Installing the chassis assembly**

Figure 18. Installing the chassis assembly

Next steps

1. Install the back cover.
2. Install the stand.
3. 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.
4. Remove the chassis assembly.

Steps

1. Remove the keypad board from the slot on the display middle-frame.
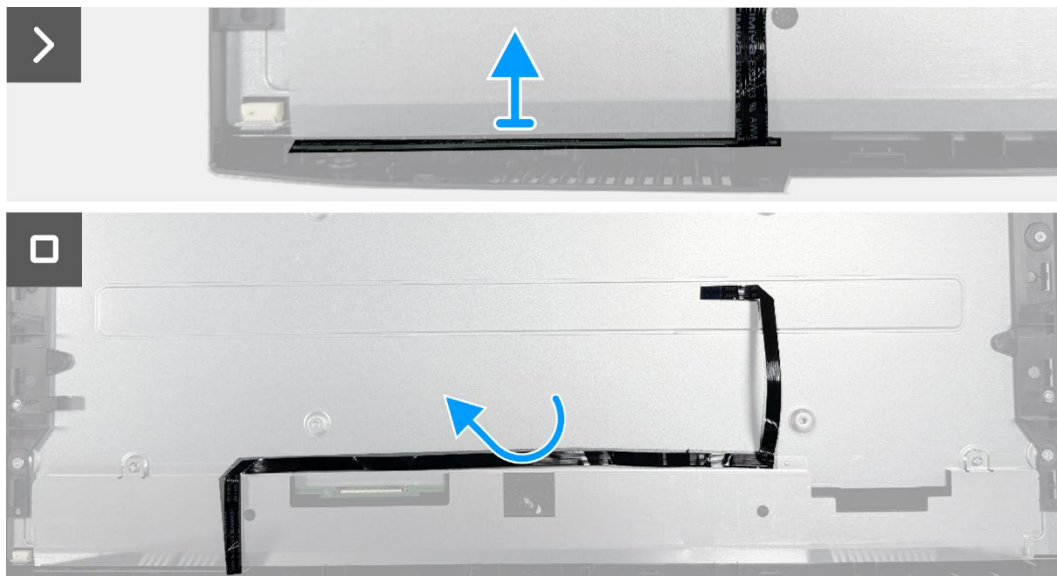2. Peel the keypad cable from the panel shielding.

Figure 19. Removing the keypad board

Installing the keypad board

Steps

1. Align and place the keypad board onto the display middle-frame.
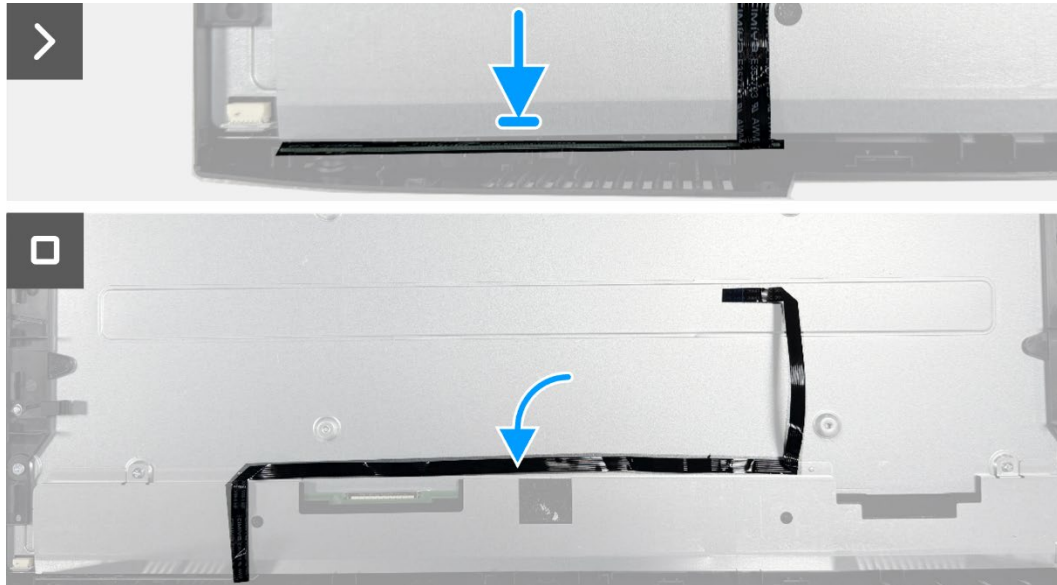2. Adhere the keypad cable to the panel shielding.

Figure 20. Installing the keypad board

Next steps

1. Install the chassis assembly.
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 chassis assembly.
5. Remove the keypad board.

Steps

1. Remove the two hex screws from the VGA port.
2. Remove the mylar from the chassis assembly.
3. Remove the three screws (M3x6) that secure the interface board and power board to the chassis assembly.
4. Remove the screw (M4x9) that secures the power board to the chassis assembly.
5. Remove the interface board and power board from the chassis assembly.
6. Disconnect the power cable from the connector on the interface board.
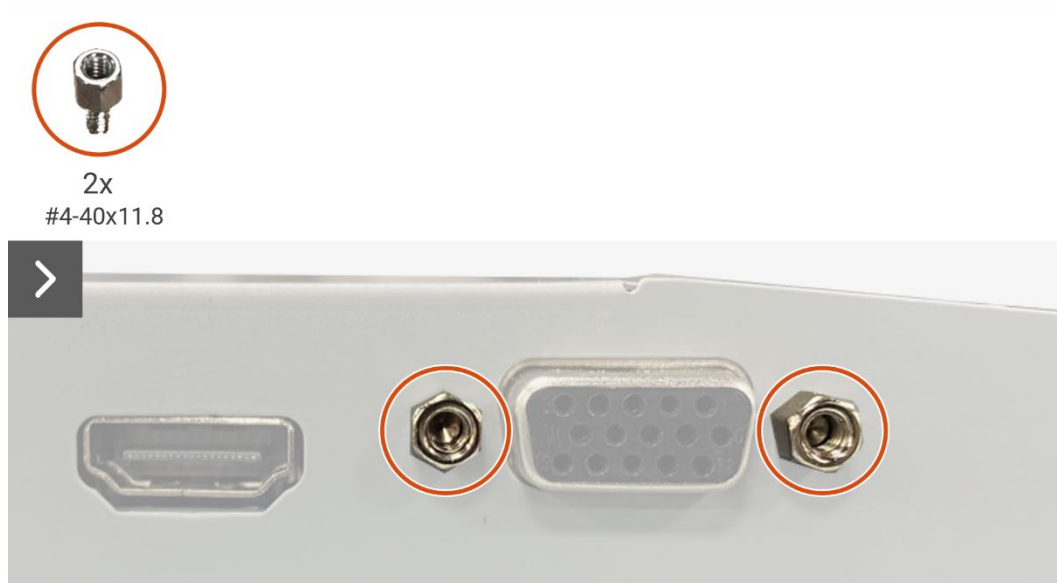7. Disconnect the LVDS cable from the connector on the interface board.

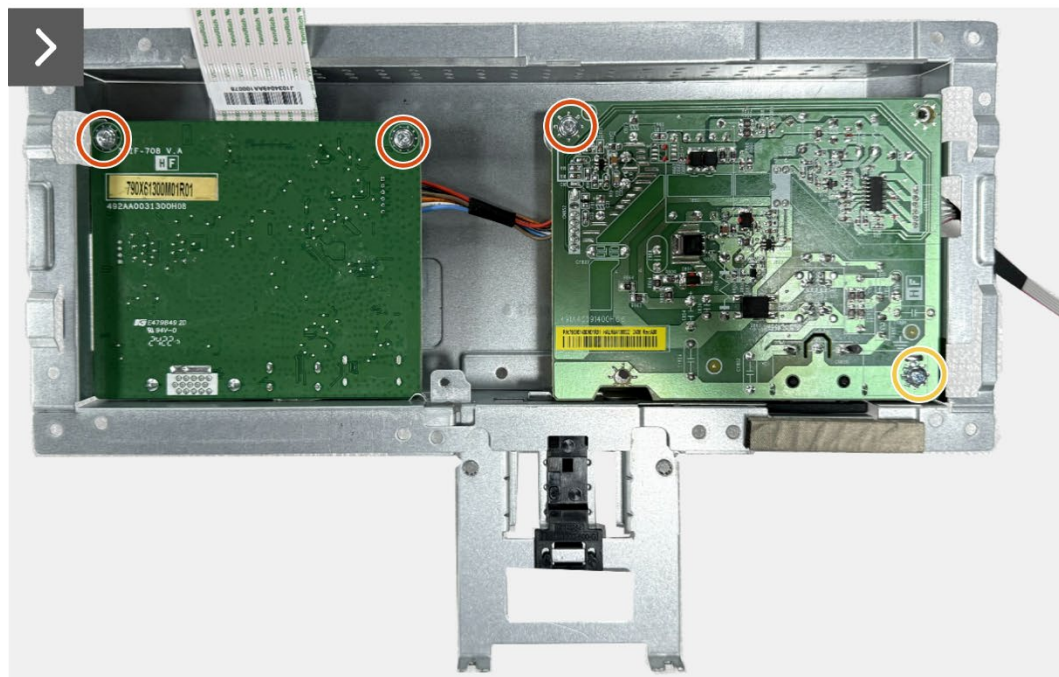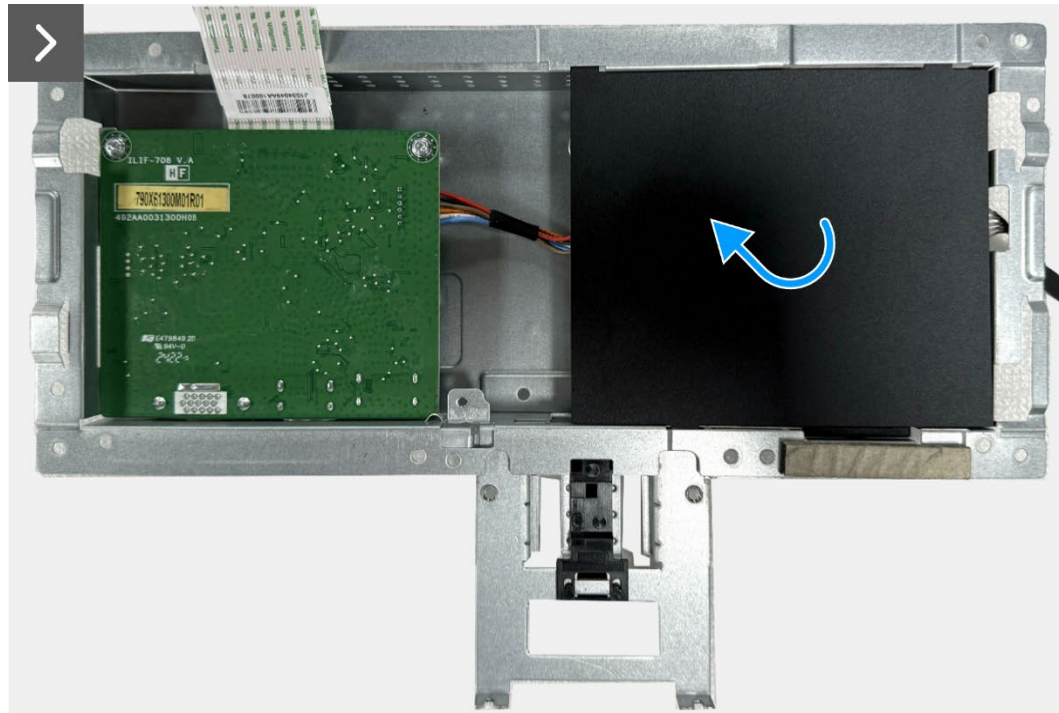**Figure 21. Removing the interface board**
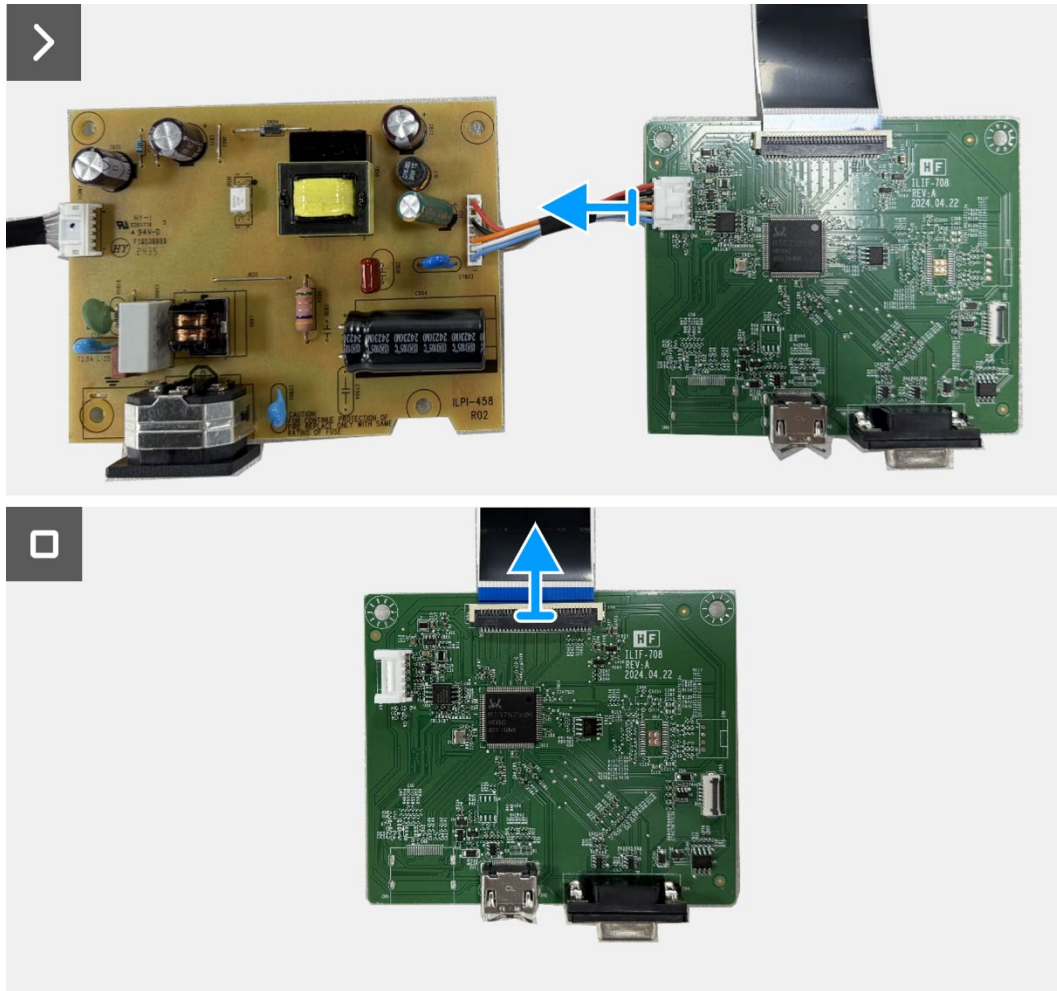
Figure 22. Removing the interface board

Figure 23. Removing the interface board

Installing the interface board

Steps

1. Connect the LVDS cable to the connector on the interface board.
2. Connect the power cable to the connector on the interface board.
3. Align and place the interface board and power board to the chassis assembly.
4. Replace the three screws (M3x6) to secure the interface board and power board to the chassis assembly.
5. Replace the screw (M4x9) to secure the power board to the chassis assembly.
6. Attach the mylar to the chassis assembly.
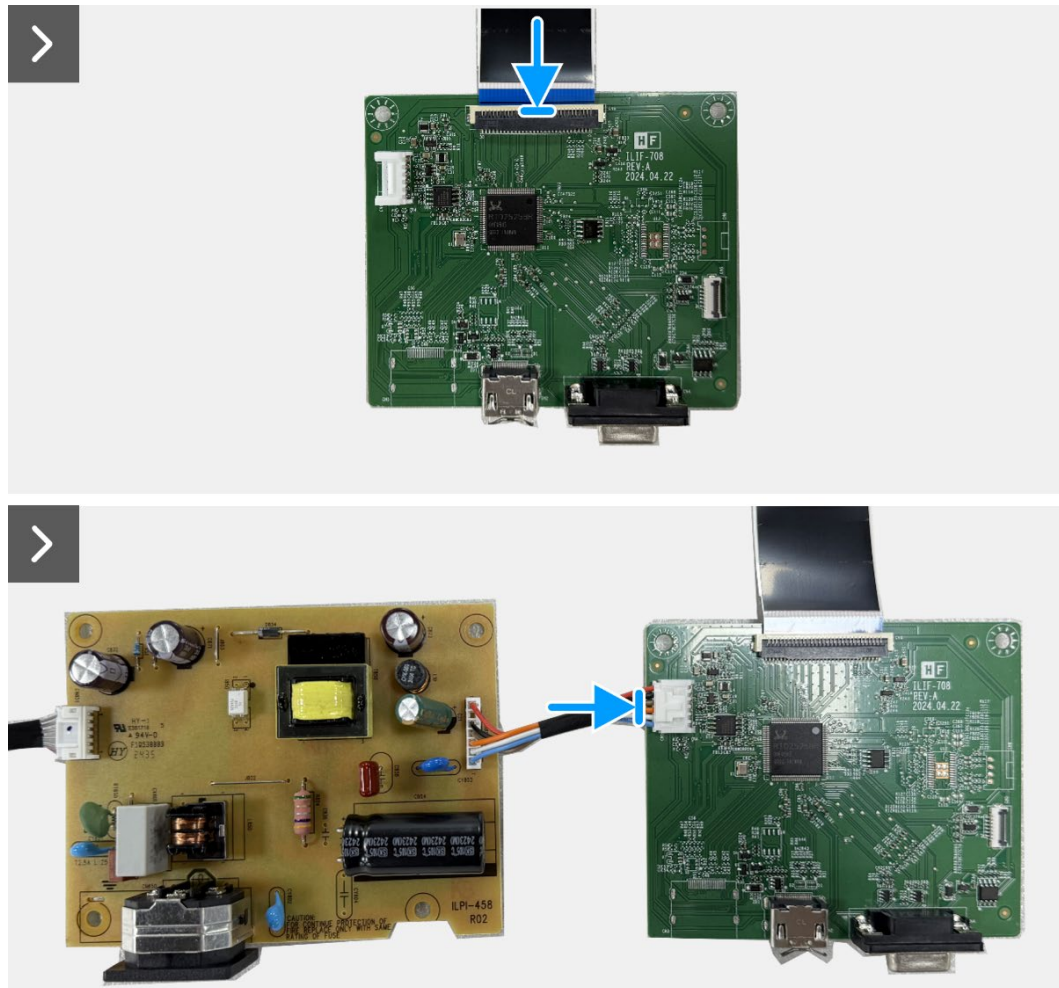7. Replace the two hex screws to secure the VGA port.

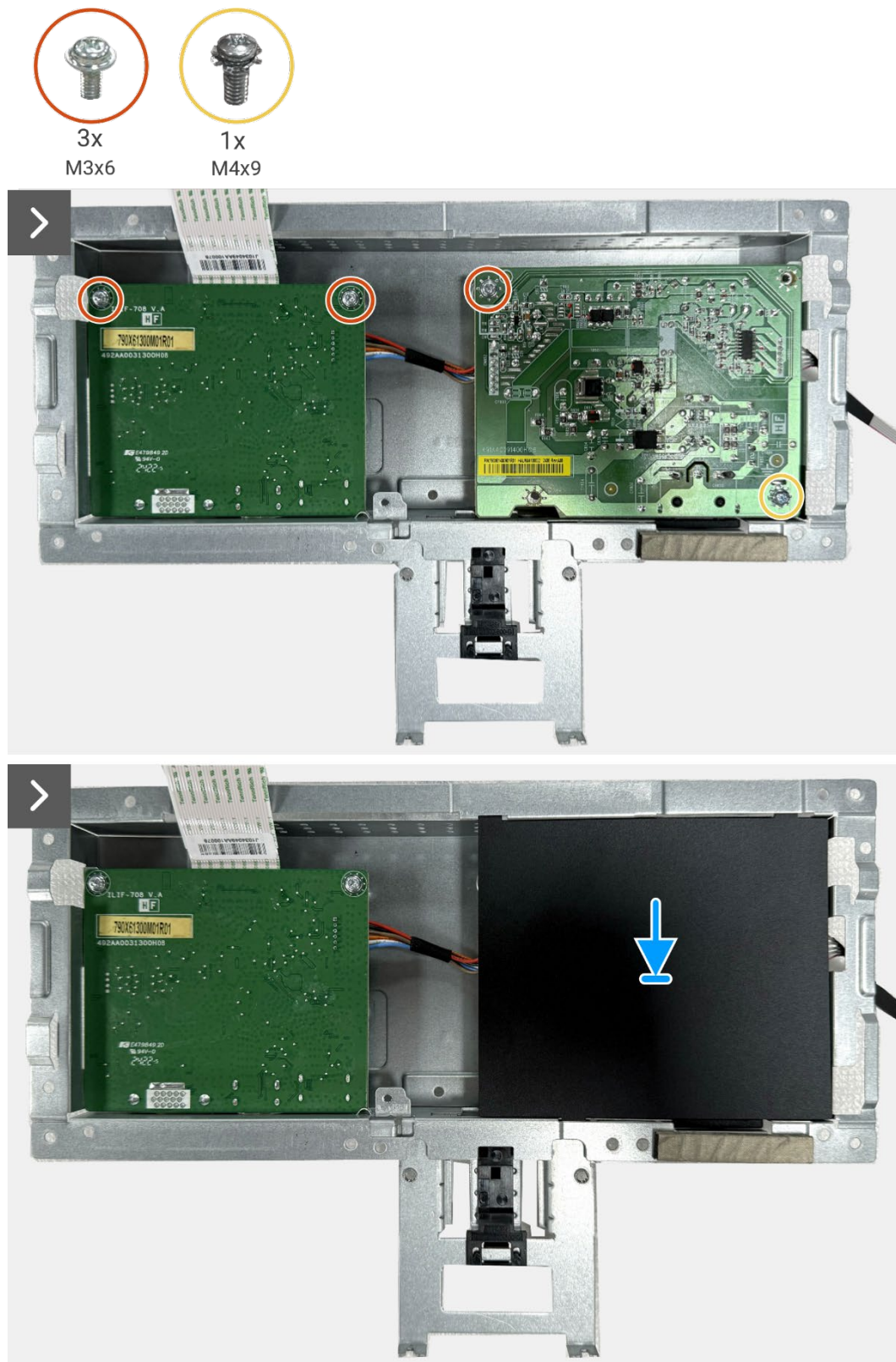**Figure 24. Installing the interface board**

Figure 25. Installing the interface board

Figure 26. Installing the interface board

Next steps

1. Install the keypad board.
2. Install the chassis assembly.
3. Install the back cover.
4. Install the stand.
5. Follow the procedure in After working inside your monitor.

Power board

Removing the power board

Prerequisites

1. Follow the procedure in Before working inside your monitor.
2. Remove the stand.
3. Remove the back cover.
4. Remove the chassis assembly.
5. Remove the keypad board.
6. Remove the interface board.

Steps

1. Disconnect the lightbar cable from the connector on the power board.

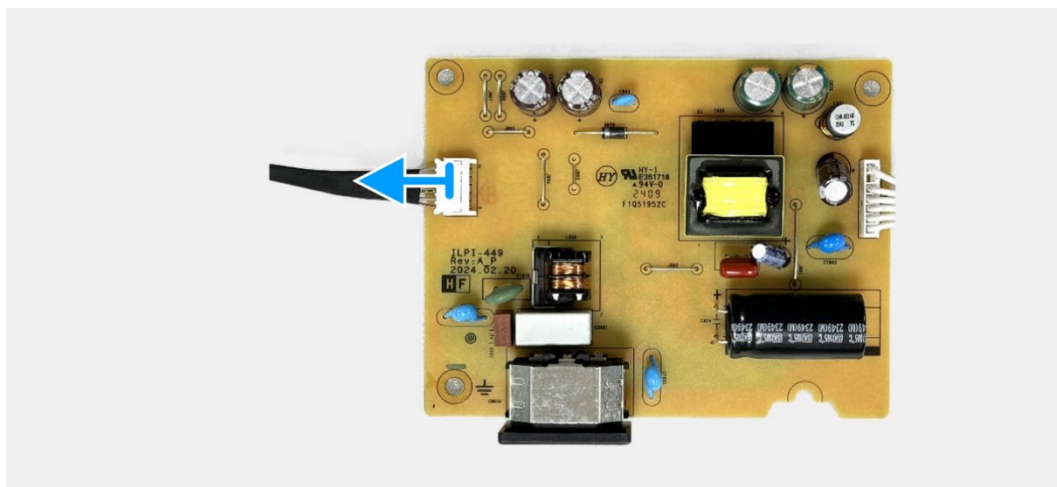**Figure 27. Removing the power board**

Installing the power board

Steps

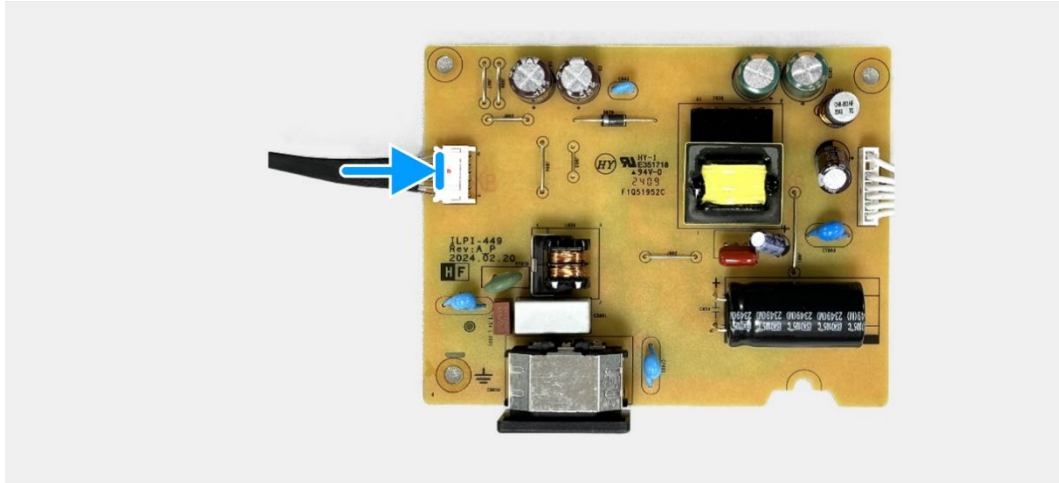1. Connect the lightbar cable to the connector on the power board.

Figure 28. Installing the power board

Next steps

1. Install the interface board.
2. Install the keypad board.
3. Install the chassis assembly.
4. Install the back cover.
5. Install the stand.
6. 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. To ensure proper self-test operation, remove all digital cables from the back of the computer.

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 white.

Figure 29. VGA cable disconnected warning message

Figure 30. HDMI cable disconnected warning message

ⓘ **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 screen remains blank after you perform the previous procedure, check your video controller and computer, because your monitor is functioning properly.

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.
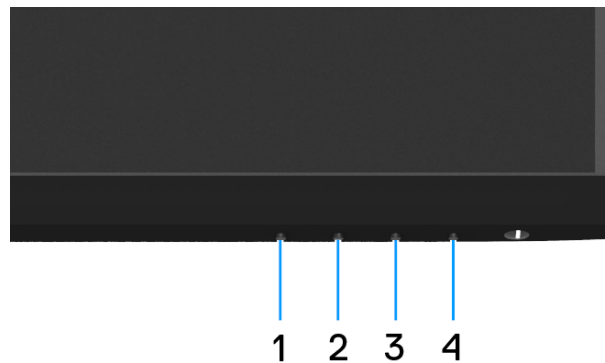

Figure 31. **Built-in diagnostics function buttons**

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 **Button 4** for about 4 seconds and wait for a pop-up menu.
3. Use **Button 1** or **2** to select the and press to confirm.

   A gray test pattern appears at the beginning of the diagnostic program.
4. Carefully inspect the screen for abnormalities.
5. Press **Button 1** 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 a White color test screen, check for white color uniformity and if there white color appears greenish/reddish, so on.
8. Press **Button 1** 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 7.   Common problems and solutions.

Common symptoms	Possible solutions
No video/Power LED off	• 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 Source menu.
No video/Power LED on	• Increase brightness and contrast controls using the OSD. • Perform 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 Source menu.
Poor focus	• Disconnect video extension cables. • Reset the monitor to factory settings (**Factory Reset**). • Change the video resolution to the correct aspect ratio.
Shaky/Jittery video	• Reset the monitor to factory settings (**Factory Reset**). • Check environmental factors. • Relocate the monitor and test in another room.
Missing pixels	• Turn off the monitor and turn it on again. • 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	• Turn off the monitor and turn it on again. • 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	• Reset the monitor to factory settings (**Factory Reset**). • Adjust brightness and contrast controls using OSD.
Geometric distortion	• Reset the monitor to factory settings (**Factory Reset**). • Adjust horizontal and vertical using OSD.
Horizontal/Vertical lines	• 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	• Reset the monitor to factory settings (**Factory Reset**). • Perform a 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	• Do not perform any troubleshooting step. • Contact Dell immediately.
Intermittent problems	• Try different **Preset Modes** in **Color** settings OSD. Adjust **R/G/B** value in **Custom Color** in **Color** settings OSD. • Change the **Input Color Format** to **RGB** or **YCbCr/YPbPr** in the **Color** settings OSD. • Run the built-in diagnostics.

Common symptoms	Possible solutions
Missing color	• 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	• Try different **Preset Modes** in **Color** settings OSD. Adjust **R/G/B** value in **Custom Color** in **Color** settings OSD. • Change the **Input Color Format** to **RGB** or **YCbCr/YPbPr** in the **Color** settings OSD. • Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period of time	• 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	• Change the **Response Time** in the **Display** OSD to **Fast** or **Normal** depending on your application and usage.

Product-specific problems

Table 8. **Product-specific problems and solutions.**

Specific symptoms	Possible solutions
Screen image is too small	• Check the **Aspect Ratio** setting in the **Display** settings OSD. • Reset the monitor to factory settings (**Factory Reset**).
Cannot adjust the monitor with the buttons on the bottom of the panel	• Turn off the monitor, unplug the power cable, plug it back, and then turn on the monitor. • Check if the OSD menu is locked. If yes, press and hold the Exit button (button 4) for four seconds to unlock.
No input signal when user controls are pressed	• 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	• 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.

ⓘ **NOTE:** Availability varies by country and product, and some services may not be available in your country.

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