DELLTechnologies

# Dell Pro 27 Monitor

# E2725HM

Simplified Service Manual

DELLTechnologies

# Notes, cautions, and warnings

(i) **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 in this document assumes that you have read the safety information that shipped with your monitor.

(i) **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 headphones (on a monitor that supports it) may cause damage to 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 pressed with a sharp object.
- Ensure that your monitor is electrically rated to operate with the AC power available in your location.
- Keep the monitor at 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 your monitor.

- Do not place or 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 stray or loose screws inside your monitor may severely damage your monitor.**

**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 E2725HM Monitor

## Front view
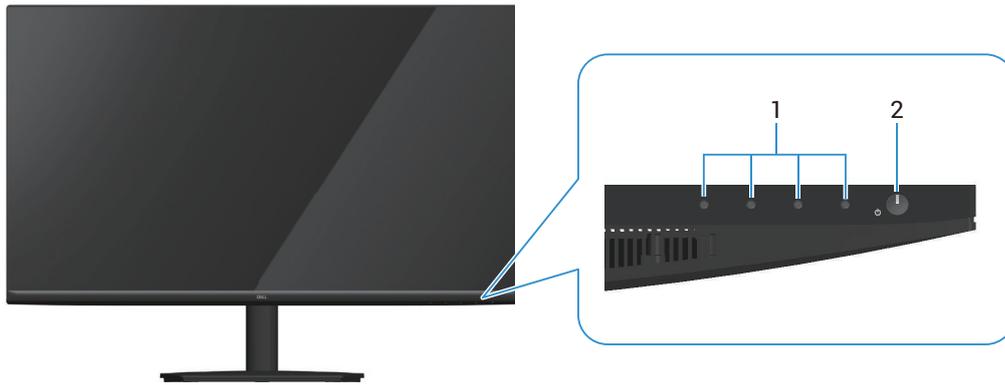


**Figure 1.    Front view**

**Table 1.    Components and descriptions.**

| Label | Description | Use |
|---|---|---|
| 1 | Function buttons | To access the on-screen display (OSD) menu. (For more information, see Using the control buttons) |
| 2 | Power button (with LED indicator) | To turn the monitor on or off.<br>1.  Solid white light indicates that the monitor is turned on and is functioning.<br>2.  Blinking white light indicates that the monitor is in Standby Mode. |

# Back view
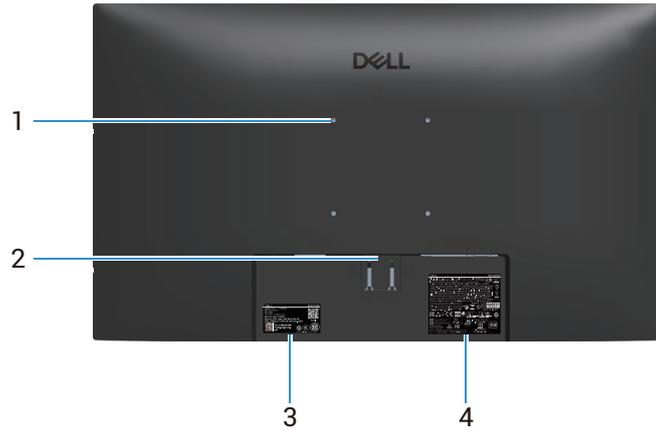


**Figure 2.** **Back view**

**Table 2.** **Components and descriptions.**

| Label | Description | Use |
|---|---|---|
| 1 | VESA mounting holes (100 mm x 100 mm) | Wall mount the monitor using a VESA compatible wall mounting kit (sold separately). For more information see VESA Wall mounting (optional). |
| 2 | Stand release button | Releases the stand from the 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 enables Dell service technicians to identify the hardware components in your monitor and access warranty information. |
| 4 | Regulatory information label | Lists the regulatory approvals. |

# Side view
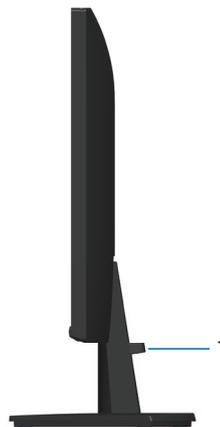


**Figure 3.** **Side view**

**Table 3.** **Components and descriptions.**

| Label | Description | Use |
|---|---|---|
| 1 | Cable-Management Clip | Use to organize cables by inserting them through the slot. |

# Bottom view



**Figure 4.** **Bottom view**

**Table 4.** Components and descriptions.

| Label | Description | Use |
|---|---|---|
| 1 | Security-lock slot (based on Kensington Security Slot) | Secure your monitor using a security lock (purchased separately) to prevent unauthorized movement of your monitor. |
| 2 | Power port | Connect the power cable. |
| 3 | HDMI port | Connect to your computer with HDMI cable. |
| 4 | DisplayPort 1.2 port | Connect to your computer with DP cable. |
| 5 | VGA port | Connect to your computer with VGA cable. |

# Major components of E2725HM monitor

1

2

3

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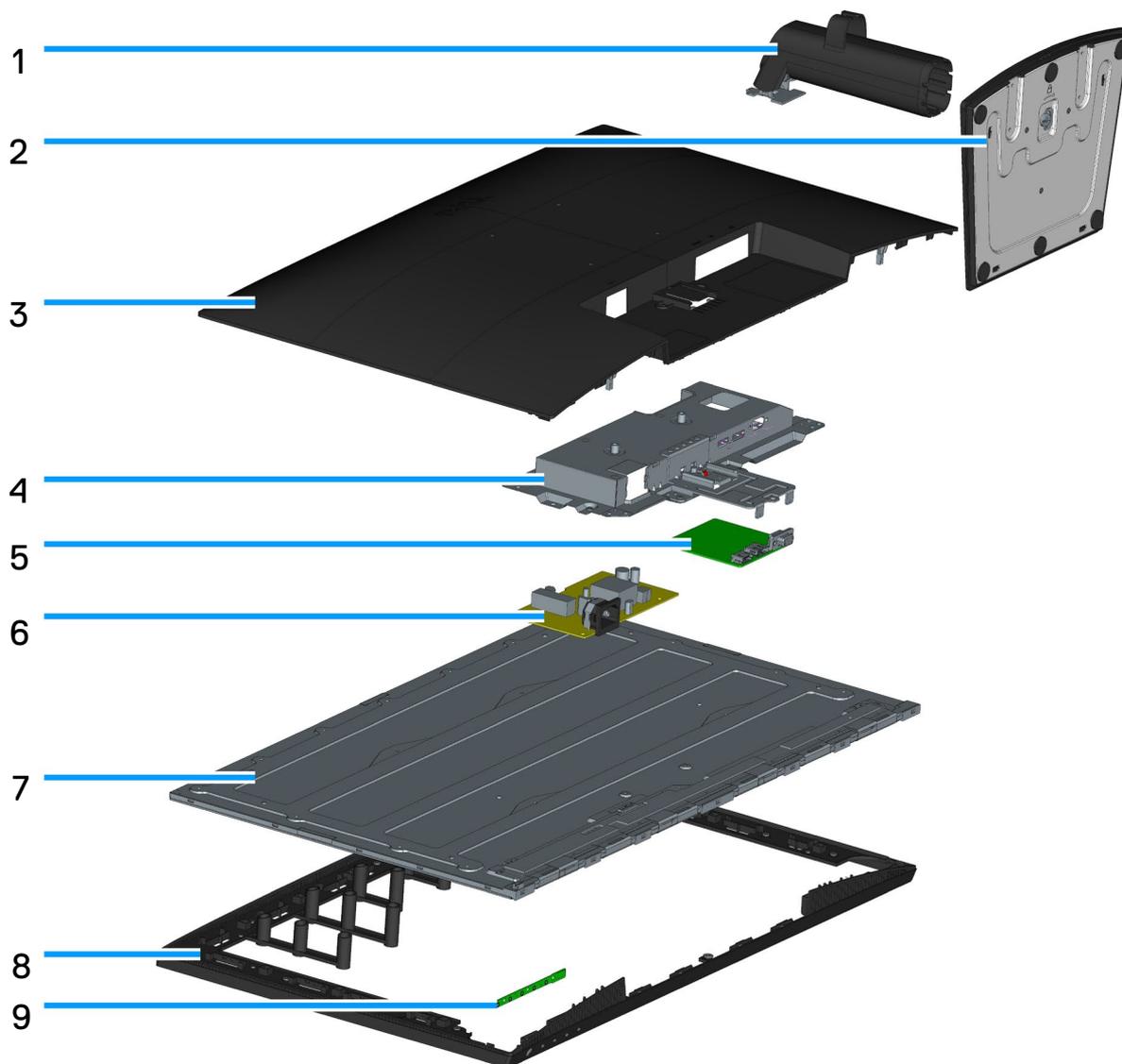
Figure 5.    Major components of E2725HM

**Table 5.    Major components of E2725HM.**

| No. | Description |
| --- | --- |
| 1 | Stand riser |
| 2 | Stand base |
| 3 | Back cover |
| 4 | Metal shield |
| 5 | System board |
| 6 | Power board |
| 7 | Panel |
| 8 | Middle frame |
| 9 | Keypad board |

**NOTE:**

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

1.  Go to https://www.dell.com/en-us.
2.  Verify your country or region in the **"Choose A Country/Region"** drop-down menu at the bottom-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
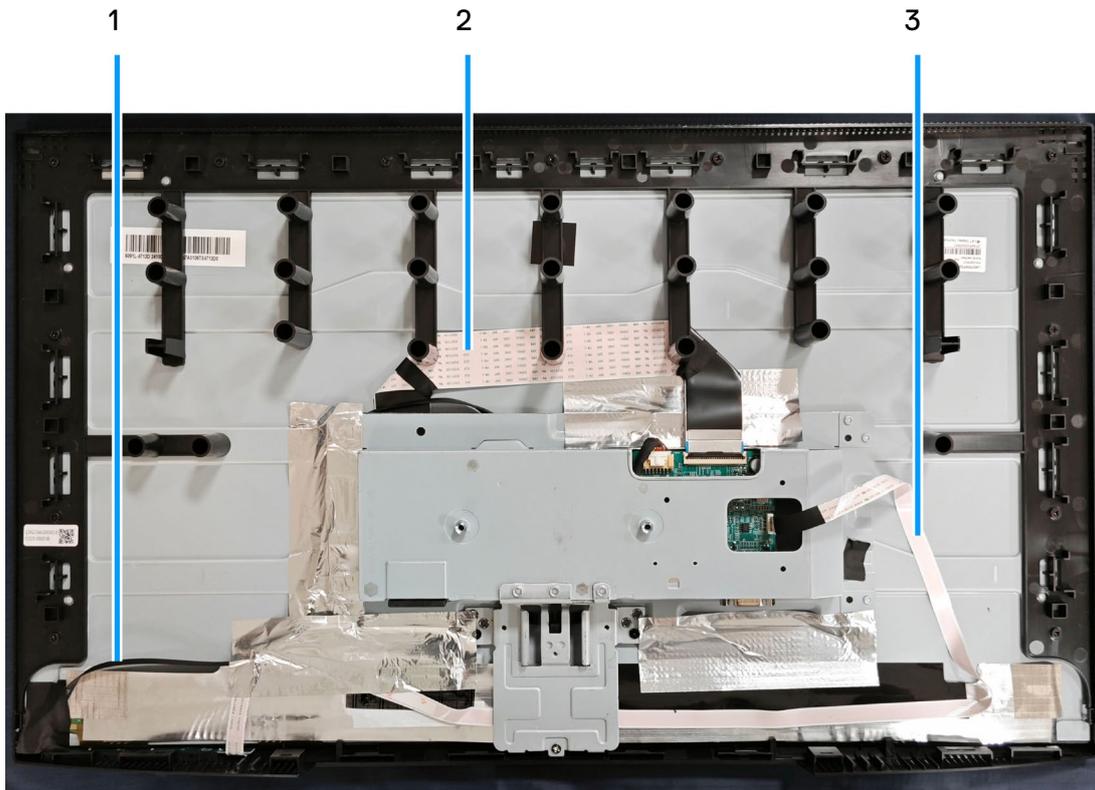


**Figure 6.** Wiring connectivity diagram

**Table 6.** Wiring connectivity description.

| Item | Description |
| --- | --- |
| 1 | Lightbar cable |
| 2 | LVDS cable |
| 3 | Keypad cable |

# Connecting your monitor

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

ⓘ **NOTE:** Dell monitors are designed to work optimally with the video cables that are shipped with your monitor. Dell cannot guarantee the video performance of cables that are not included with your Dell monitor, as it has no control over suppliers, materials, connectors, and manufacturing processes.

ⓘ **NOTE:** Route the cables through the cable-management slot before connecting them.

ⓘ **NOTE:** Do not connect all cables to the computer simultaneously.

ⓘ **NOTE:** The images are for 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. Connect the VGA cable or DP cable or HDMI cable from your monitor to the computer.

**Connecting the VGA Cable**
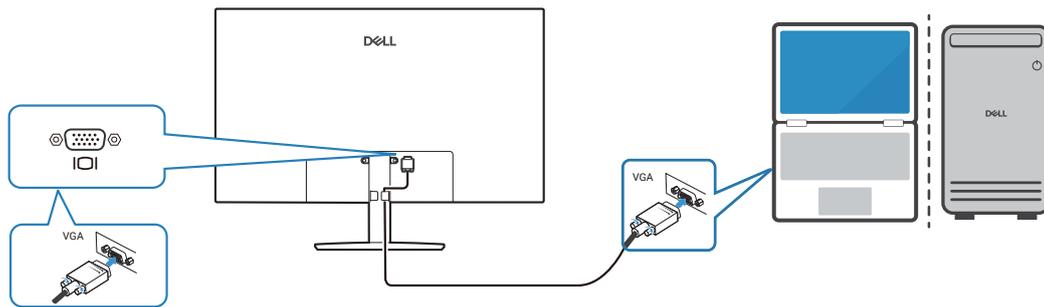


**Figure 7.**   Connecting the VGA Cable

**Connecting the HDMI Cable**
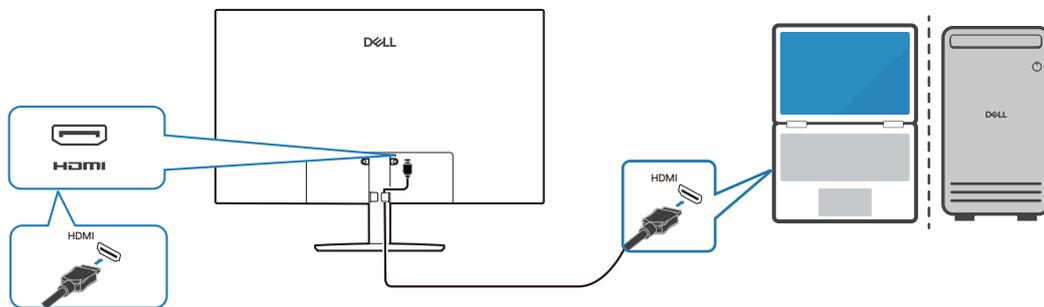


**Figure 8.**   Connecting the HDMI Cable

**Connecting the DisplayPort Cable**
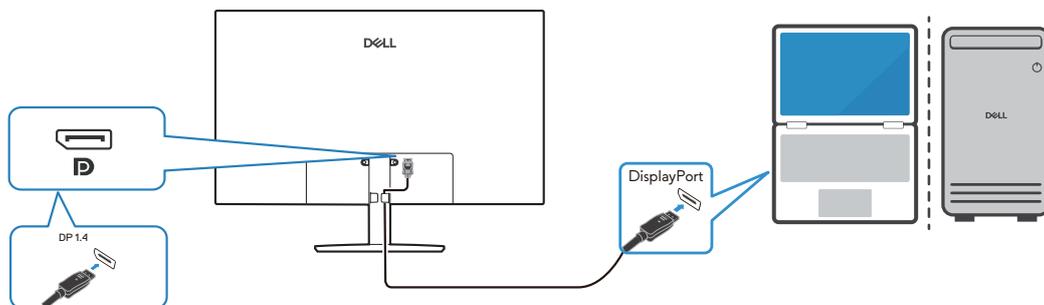


**Figure 9.**   Connecting the DisplayPort Cable

# 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 that is caused by unauthorized servicing will not be covered under the warranty.

## Recommended tools

1. Screwdriver (Phillips-head, Hexagonal head)
2. Penknife

## 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 7.   Screw list.**

| Component | Screw type | Quantity | Screw images |
|---|---|---|---|
| Back cover | M4x10 | 4 | |
| | M3x4 | 2 | |
| Metal shield | M3x4 | 2 | |
| | M3x2.5 | 2 | |
| | 4-40unc | 2 | |
| System board and Power board | M3x7 | 3 | |
| Power board | M4x8 | 1 | |
| Middle frame | M3x4 | 13 | |
| | M3x5 | 1 | |
| Keypad board | M2x2 | 3 | |

# Stand

## Removing the stand

### Prerequisites

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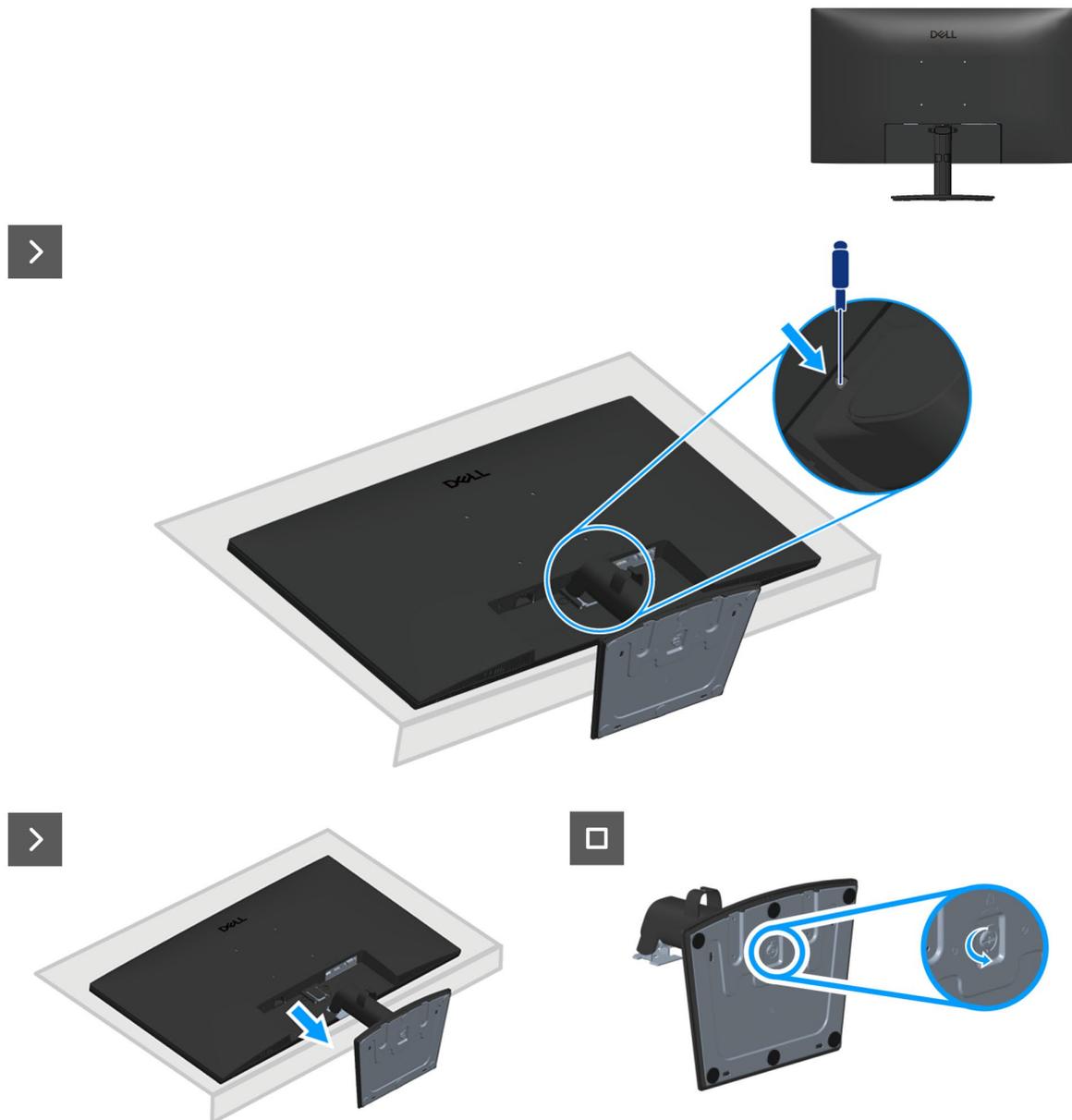


**Figure 10.** Removing the stand

### Steps

1. Place the monitor on a clean, flat surface on a soft cloth or cushion.
2. Using a long screwdriver, press the release button.
3. While keeping the release button pressed, pull the stand out.
4. Open the screw handle at the bottom of the stand base and turn it anticlockwise to disassemble the stand.

## Installing the stand
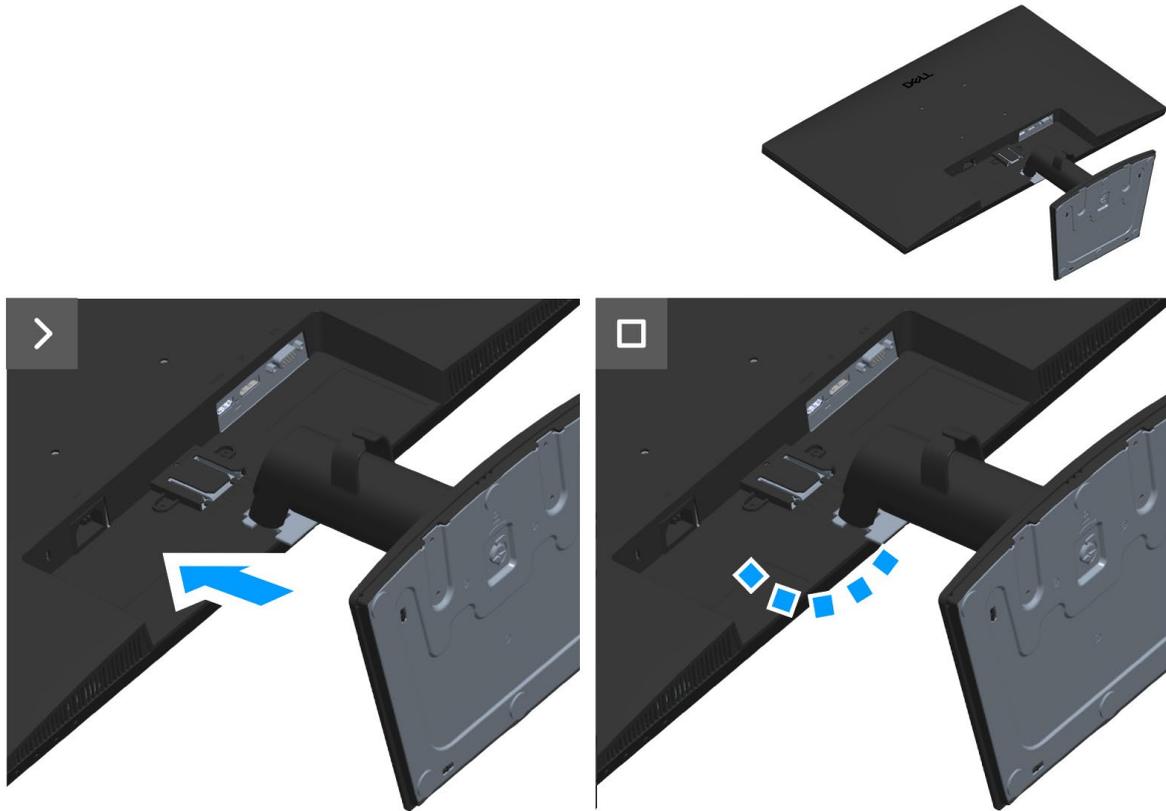


**Figure 11.   Installing the stand**

**Steps**

**1.**   Slide the tabs on the stand assembly into the slots on the monitor and press the stand assembly down to snap it into place.

**Next steps**

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.
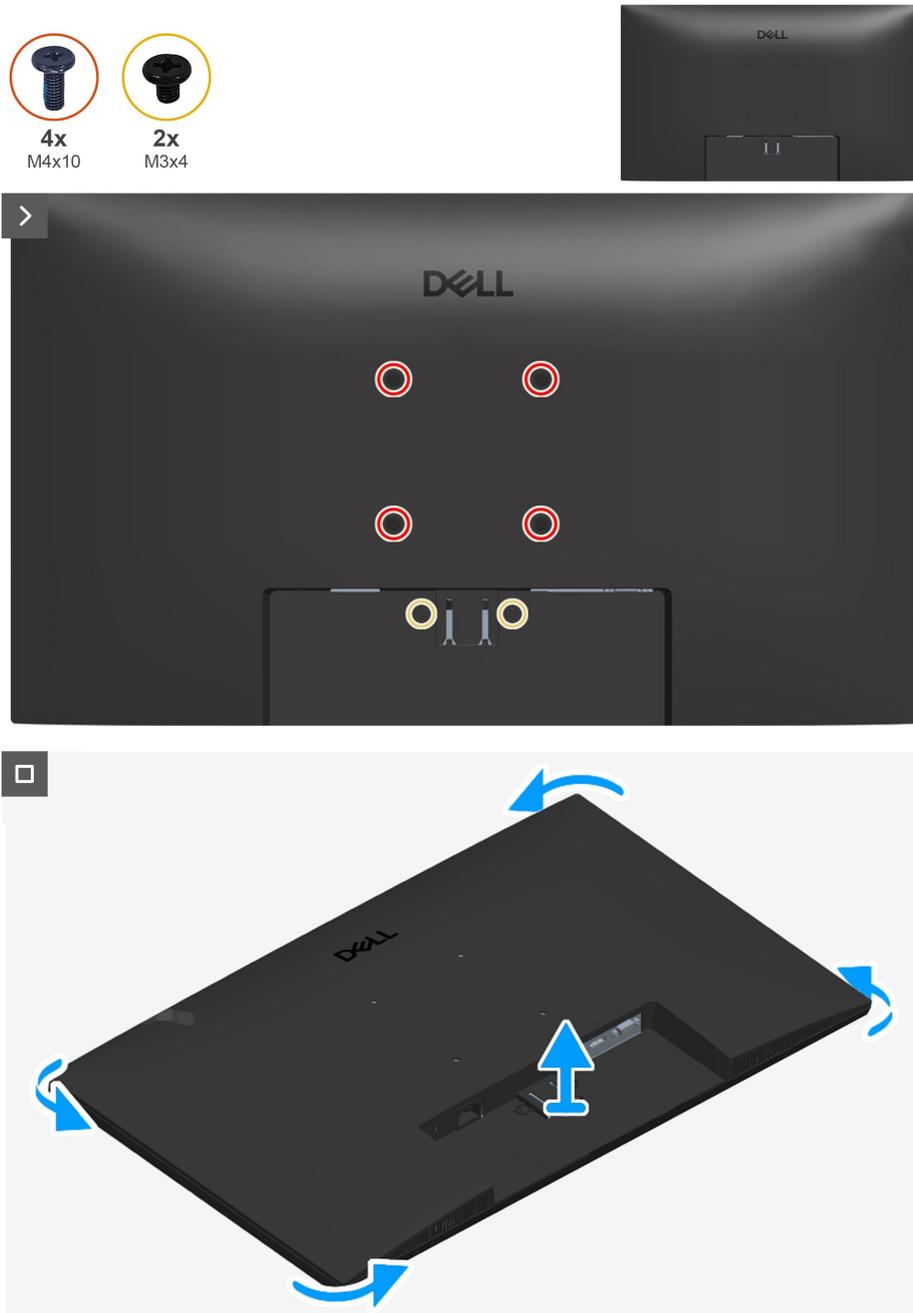


**Figure 12.   Removing the back cover**

### Steps

1. Remove the four screws (M4x10) and the two screws (M3x4) that secure the back cover to the chassis assembly.
2. Using the plastic scribe, pry the back cover starting from the bottom edge of the monitor.
3. Lift and remove the back cover  from the monitor.

## Installing the back cover
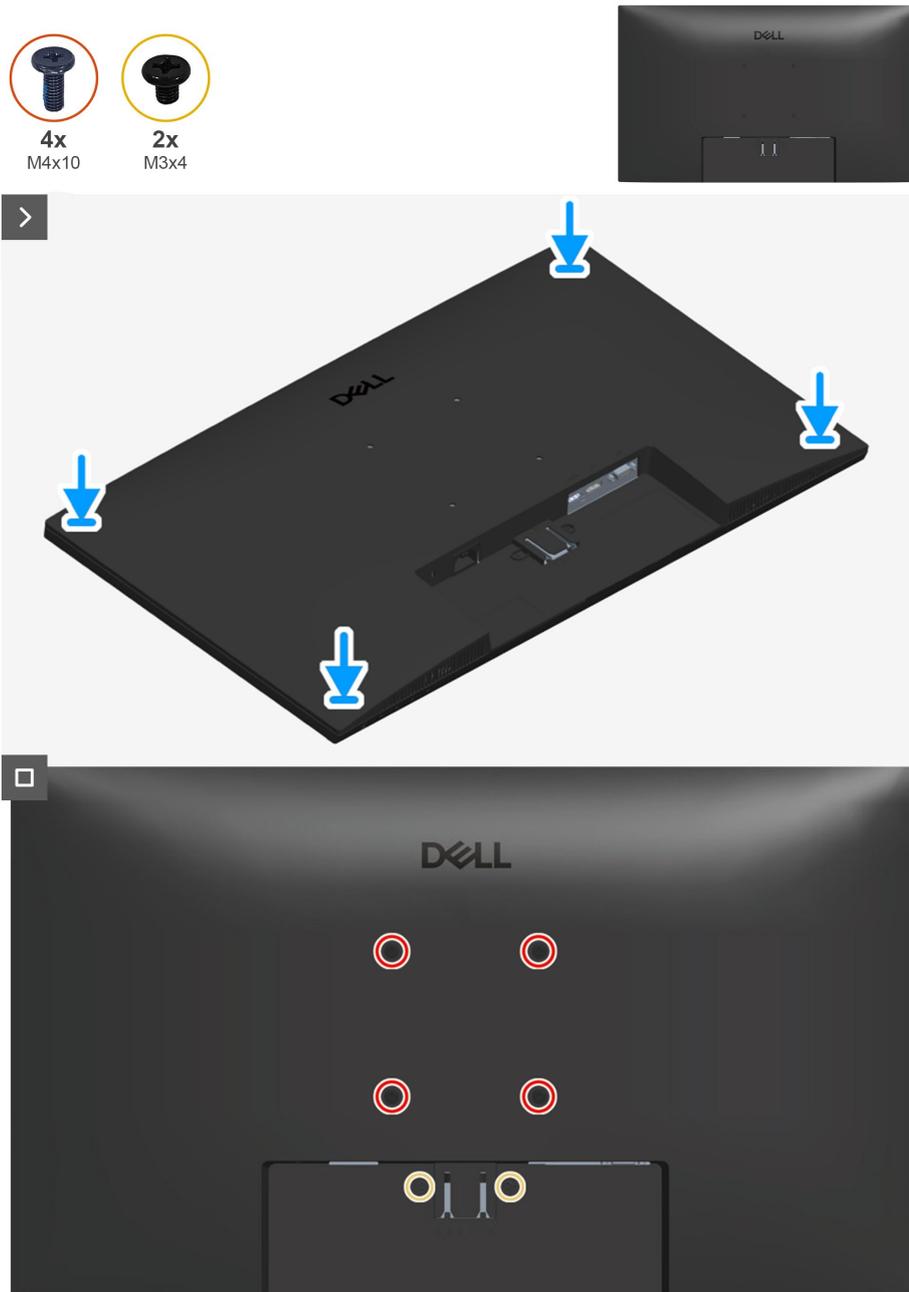


**Figure 13.  Installing the back cover**

**Steps**

1. Align the screw holes on the back cover with the screw holes on the monitor, and gently press along the sides to snap the back cover into place.
2. Replace the four screws (M4x10) and the two screws (M3x4) to secure the back cover to the monitor.

**Next steps**

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

# Middle frame

## Removing the middle frame

### Prerequisites

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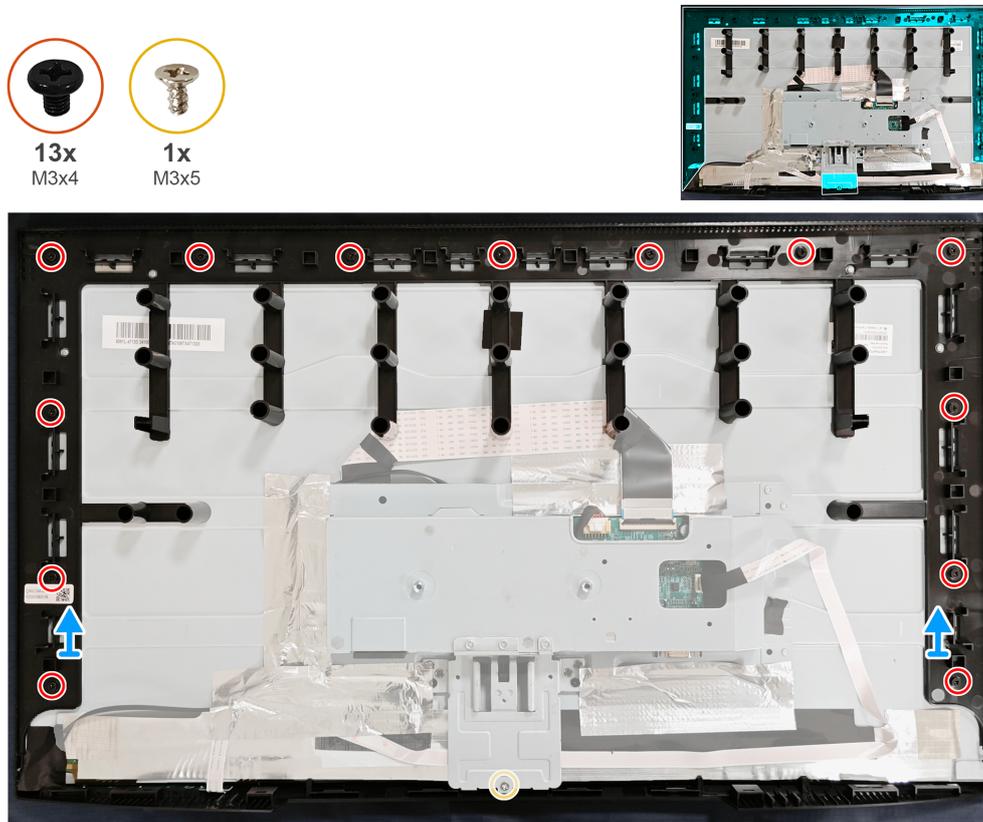




<p align="center"><b>Figure 14.   Removing the middle frame</b></p>

### Steps

1. Remove the thirteen screws (M3x4) on the middle frame.
2. Remove the screw (M3x5) on the underside of the middle frame.
3. Lift and remove the middle frame from the display panel.

## Installing the middle frame



**13x** M3x4    **1x** M3x5
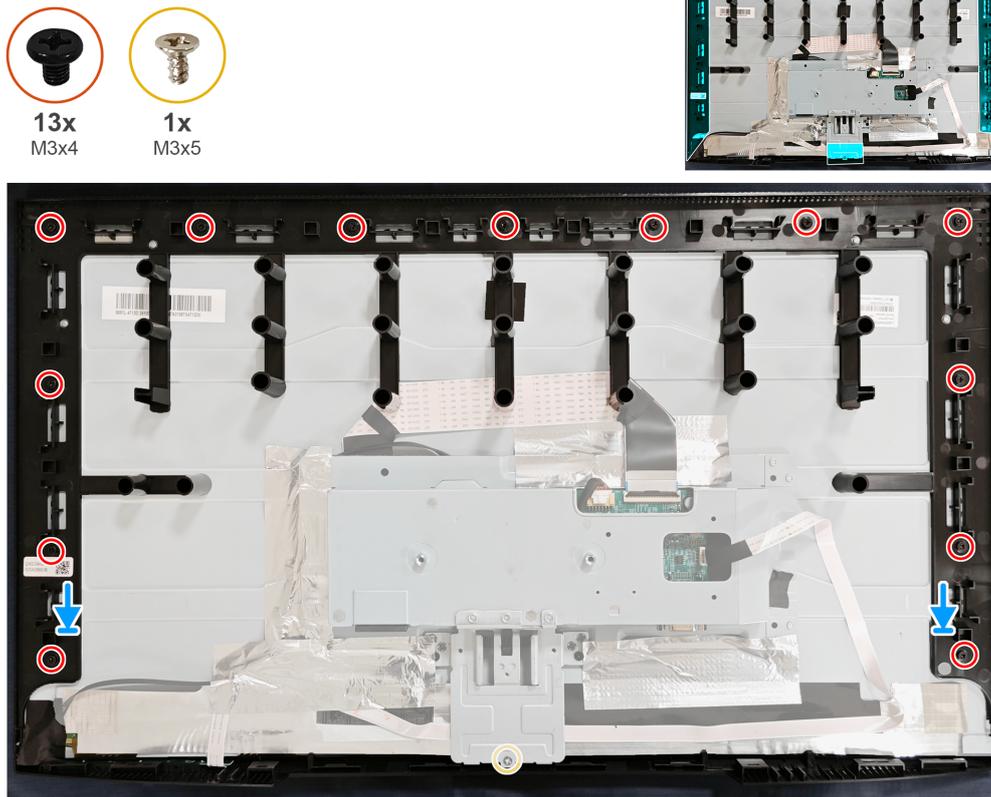
**Figure 15.    Installing the middle frame**

**Steps**

1.  Align the screw holes on the middle frame with the holes on the display panel and place it down.
2.  Replace the thirteen screws (M3x4) on the middle frame.
3.  Replace the screw (M3x5) on the underside of the middle frame.

**Next steps**

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

# Metal shield

## Removing the metal shield

**Prerequisites**

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

**Figure 16. Removing the metal shield**
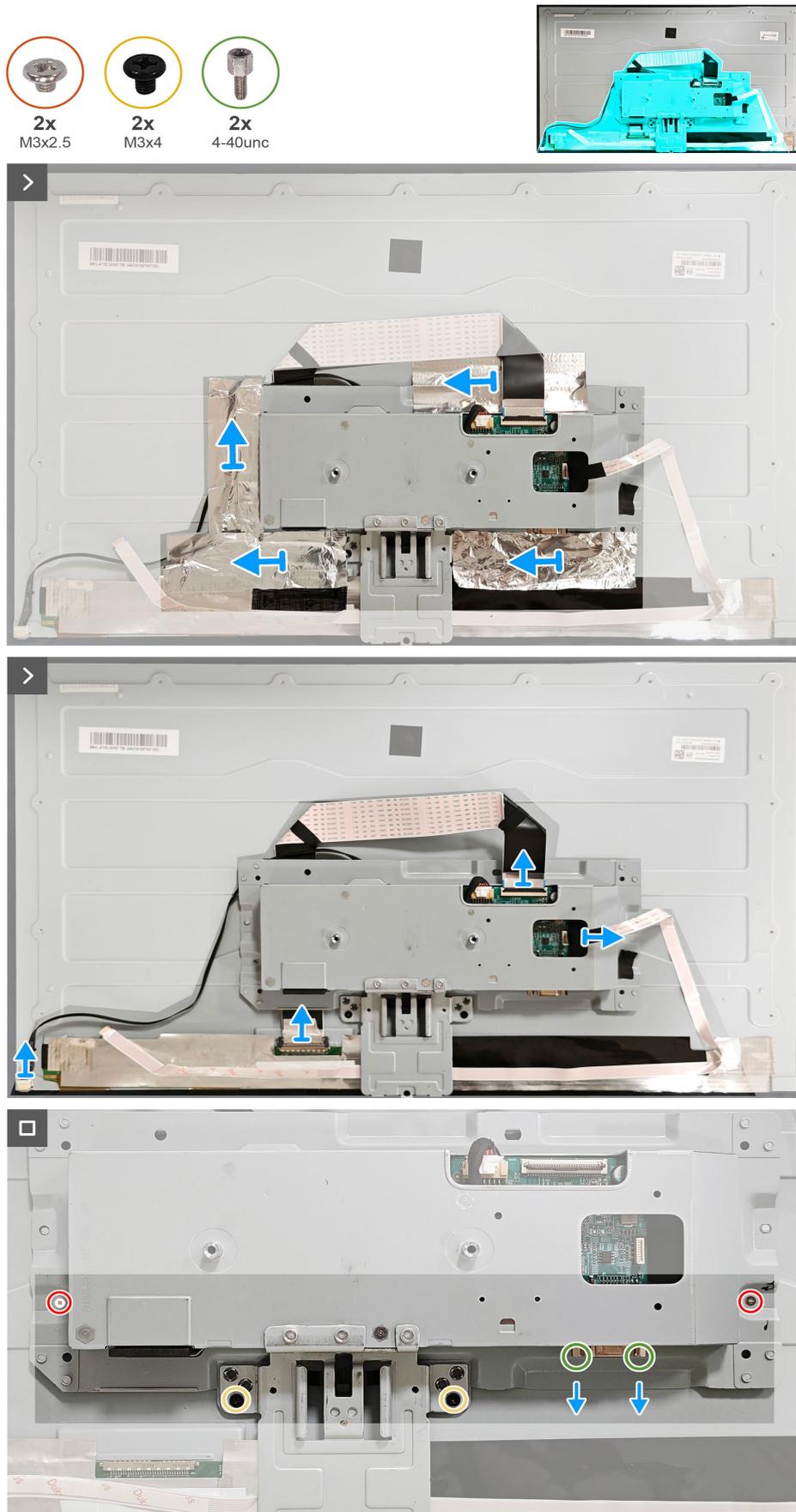
**Steps**

1. Remove the four tapes on the metal shield.
2. Disconnect lightbar cable, LVDS cable and keypad cable on the connector of the panel and main board.
3. Remove the two screws (M3x2.5) and two screws (M3x4) that secure the metal shield to the panel.
4. Remove the two screws (4-40unc) that secure the VGA port to the metal shield.

## Installing the metal shield
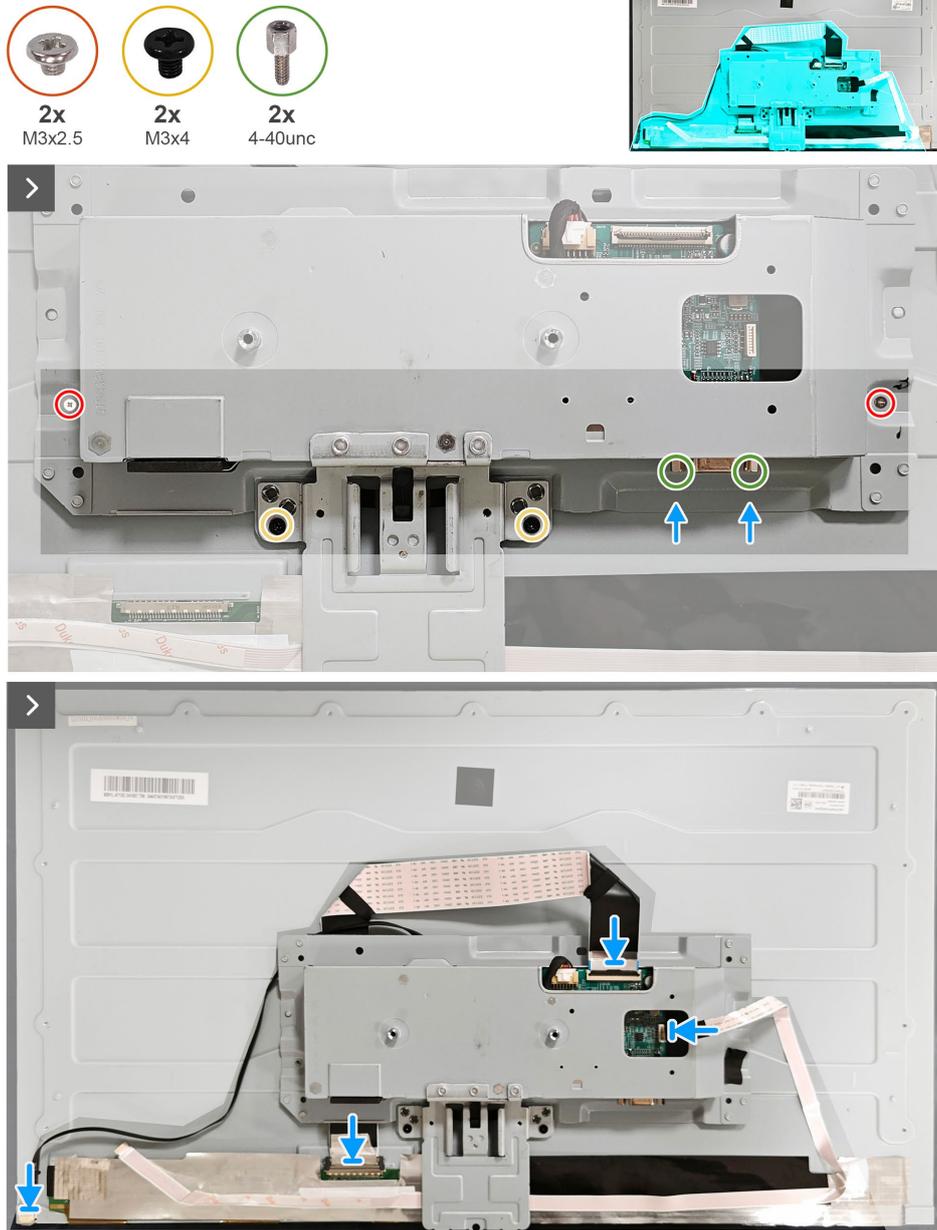


Figure 17.    Installing the metal shield
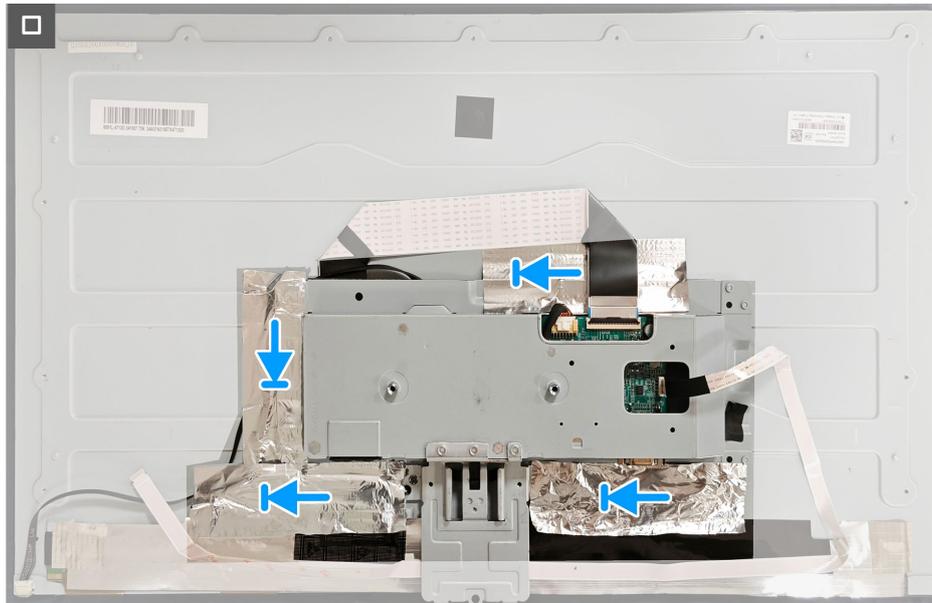
**Figure 18.   Installing the metal shield**

**Steps**

1. Replace the two screws (M3x2.5) and two screws (M3x4) on the metal shield.
2. Replace the two screws (4-40unc) on the VGA port.
3. Connect lightbar cable, LVDS cable and keypad cable to the connectors of the panel and main board.
4. Replace the four tapes on the metal frame.

**Next steps**

1. Install the middle frame.
2. Install the back cover.
3. Install the stand.
4. 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 middle frame.



**Figure 19.  Removing the keypad board**

**Steps**

1. Remove the three screws (M2x2) on the keypad board on the underside of middle frame.
2. Disconnect keypad board cable from the connector on the keypad board.

# Installing the keypad board
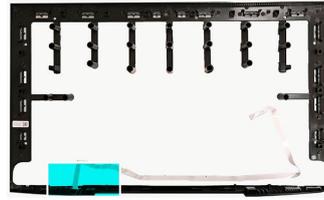


Figure 20.   Installing the keypad board

## Steps

1. Connect keypad board cable to the connector on the keypad board.
2. Replace the three screws (M2x2) to secure the keypad board to the middle frame.

## Next steps

1. Install the middle frame.
2. Install the back cover.
3. Install the stand.
4. Follow the procedure in After working inside your monitor.

# System board and power board

## Removing the system board and 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 middle frame.
5. Remove the metal shield.
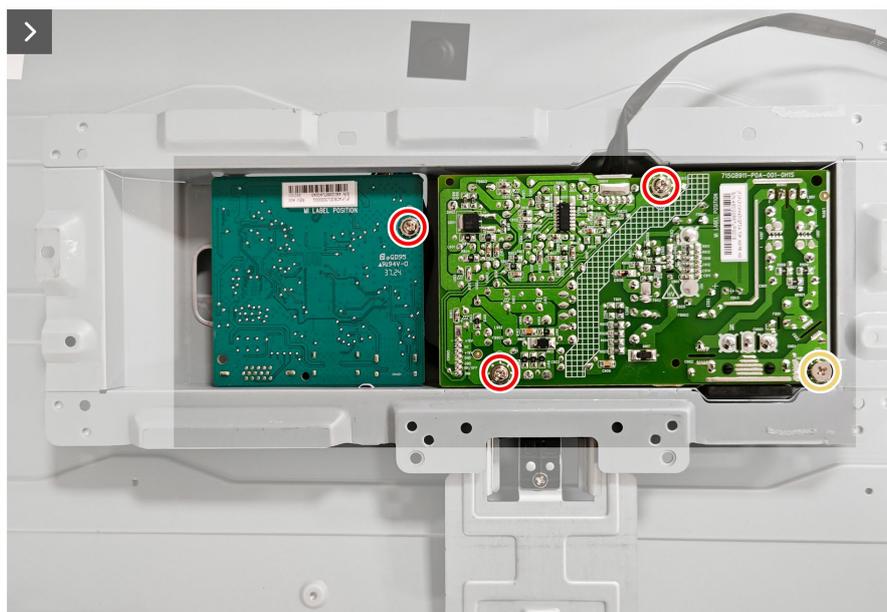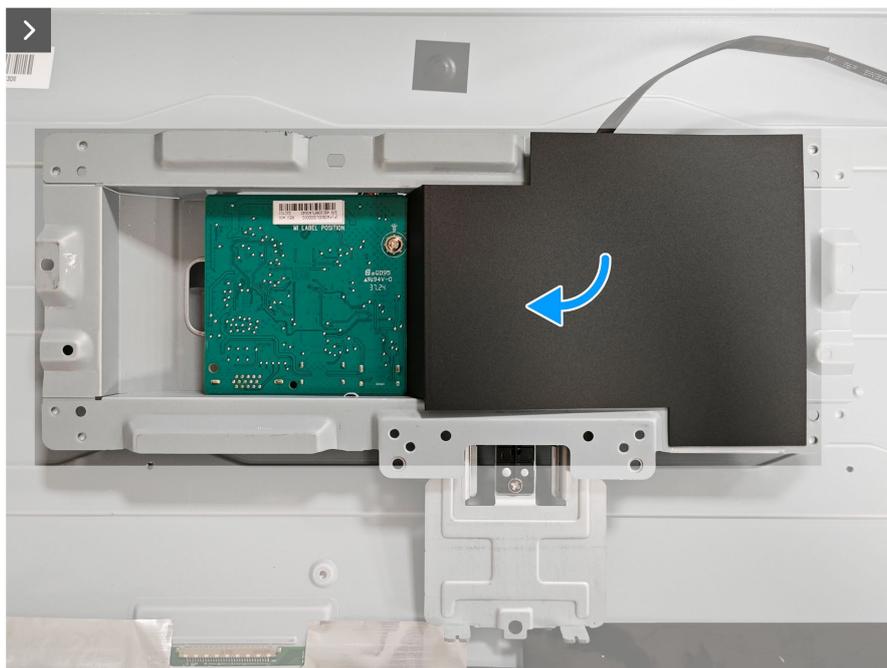




**Figure 21.    Removing the system board and power board**
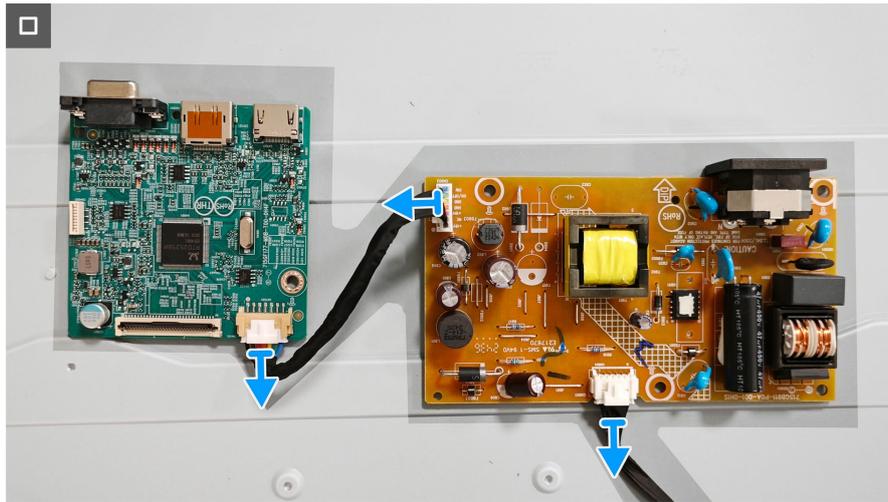
**Figure 22.    Removing the system board and power board**

**Steps**

1. Remove the mylar tape on the power board.
2. Remove the screw (M3x7) that secures the system board to the chassis.
3. Remove the two screws (M3x7) and the screw (M4x8) that secures the power board to the chassis.
4. Disconnect the two power cables from the connectors on the system board and the power board.

# Installing the system board and power board



**3x**
M3x7

**1x**
M4x8
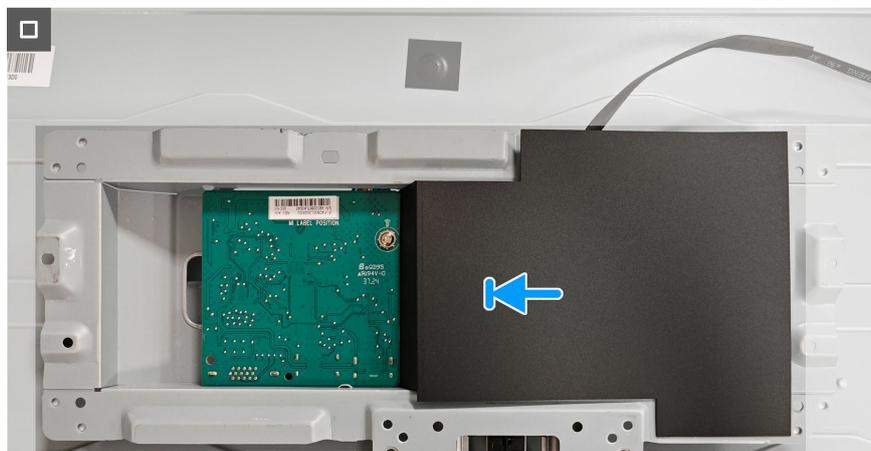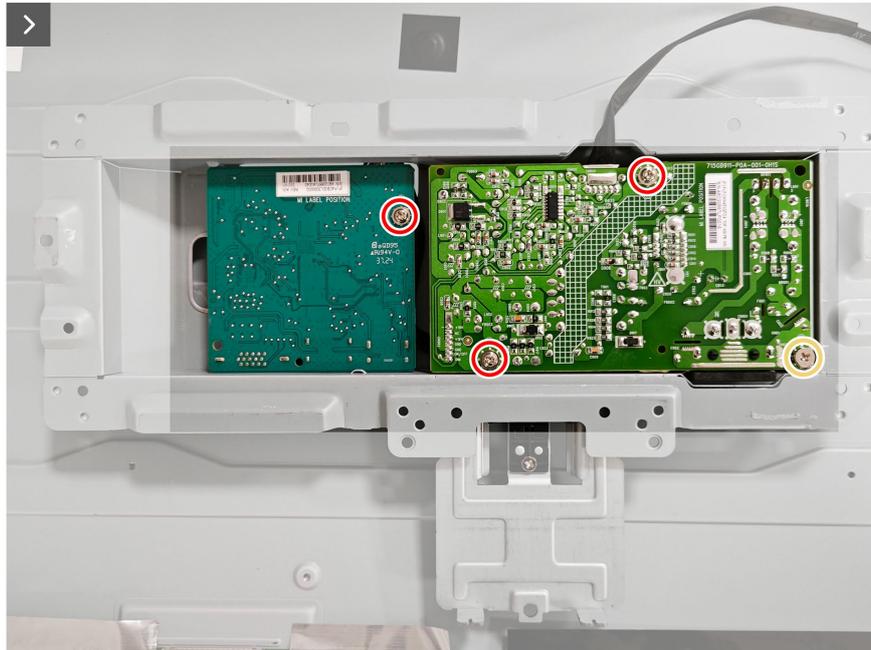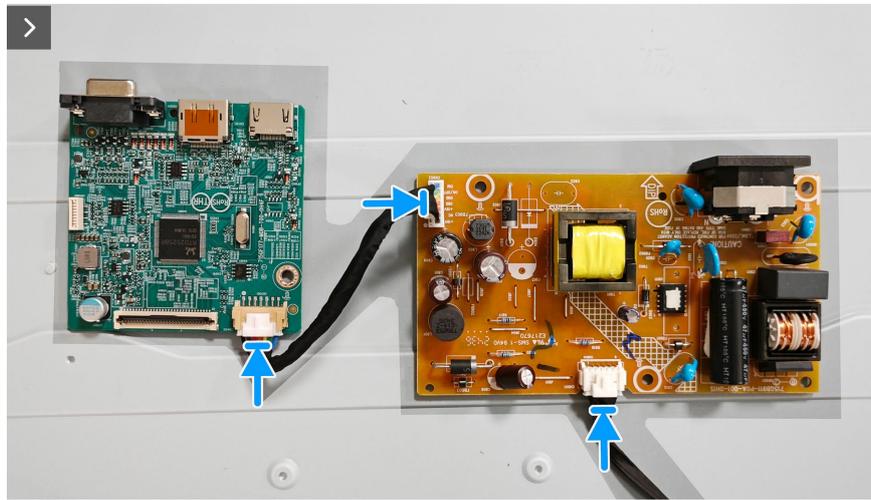
**Figure 23.** Installing the system board and power board

**Steps**

1. Replace the two power cables to the connectors on the system board and the power board.
2. Replace the screw (M3x7) on the power board to the chassis.
3. Replace the two screws (M3x7) and the screw (M4x8) on the system board to the chassis.
4. Adhere the mylar tape the power board.

**Next steps**

1. Install the metal shield.
1. Install the middle frame.
2. Install the back cover.
3. Install the stand.
4. 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.

If the monitor is working correctly, it detects that there is no signal and one of the following messages appears. While in self-test mode, the power LED remains white.

> Dell Pro 27 Monitor - E2725HM
>
>      ▢   ❓   No VGA Cable
>
> The display will go into Standby mode in 4 minutes.
>
> www.dell.com/support/E2725HM
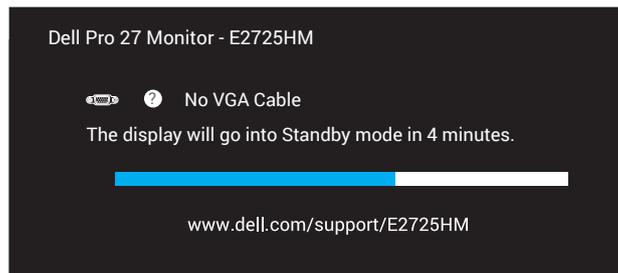
**Figure 24.** The message of no VGA cable

Or

> Dell Pro 27 Monitor - E2725HM
>
>      ▢   ❓   No HDMI Cable
>
> The display will go into Standby mode in 4 minutes.
>
> www.dell.com/support/E2725HM
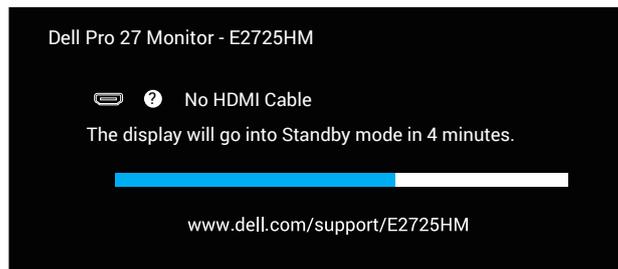
**Figure 25.** The message of no HDMI cable

Or

> Dell Pro 27 Monitor - E2725HM
>
>      ▢   ❓   No DP Cable
>
> The display will go into Standby mode in 4 minutes.
>
> www.dell.com/support/E2725HM
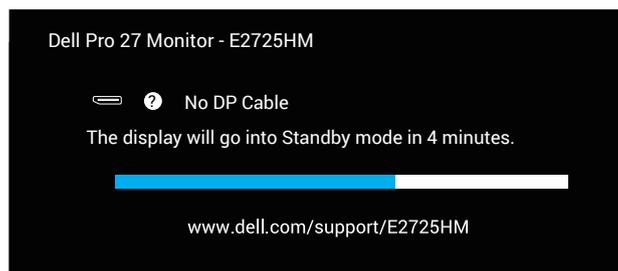
**Figure 26.** The message of no HDMI cable

ⓘ **NOTE:** This dialog box also appears on the monitor screen, if 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.

# Onboard diagnostics

Your monitor has a onboard 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.

ⓘ **NOTE:** You can run the onboard diagnostics only when the video cable is unplugged and the monitor is in self-test mode.
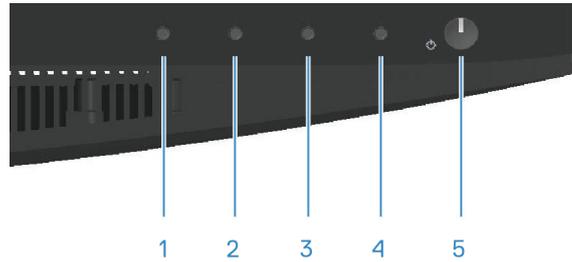


**Figure 27.** Control buttons

To run the onboard diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cables from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold the Exit button (button 4) for four seconds to enter the OSD lock/unlock menu.
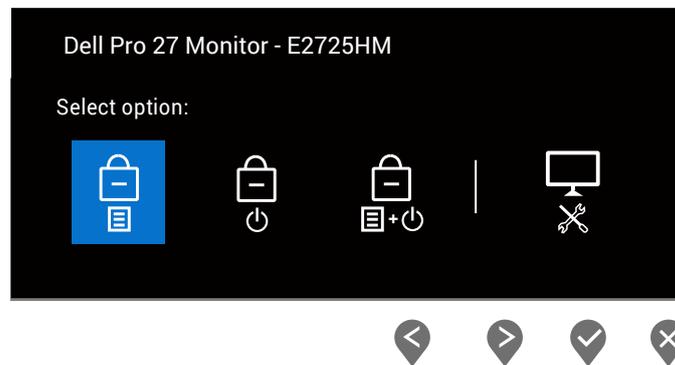


**Figure 28.** The message of locking the control buttons
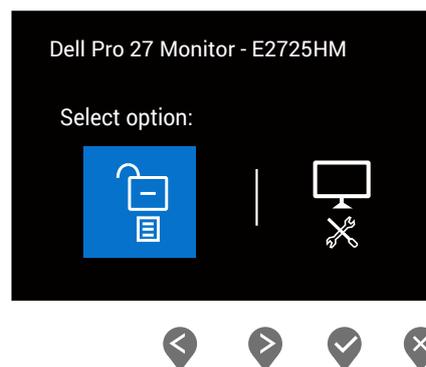


**Figure 29.** The message of unlock the buttons

4. Select the 🖥 icon to run the onboard diagnostics.
5. Carefully inspect the screen for abnormalities.
6. Press the Up button (button 1) on the back cover again. The color of the screen changes to gray.
7. Inspect the display for any abnormalities.
8. Repeat steps 6 and 7 to inspect the display in red, green, blue, black, white, and text pattern screens.

The test is completed when the text pattern screen appears. To exit, press the Up button (button 1) again.

If you do not detect any screen abnormalities upon using the onboard diagnostic tool, the monitor is functioning properly. Check the video card and computer.

# Common problems

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

**Table 8.  Common problems**

| 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 through 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 onboard diagnostics. |
| | Ensure that the correct input source is selected through the Input Source menu. |
| Poor focus | Eliminate video extension cables. |
| | Reset the monitor to factory settings (**Factory Reset).** |
| | Change the video resolution to the correct aspect ratio. |
| Shaky or jittery video | Reset the monitor to factory settings **(Factory Reset)**. |
| | Check environmental factors. |
| | Relocate the monitor and test in another room. |
| Missing pixels | 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: Dell Display Pixel Guidelines. |
| Stuck-on pixels | 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: Dell Display Pixel Guidelines. |
| Brightness problems | Reset the monitor to factory settings (**Factory Reset**). |
| | Adjust brightness and contrast controls through OSD. |
| Geometric distortion | Reset the monitor to factory settings (**Factory Reset**). |
| | Adjust horizontal and vertical controls through OSD. |
| Horizontal or 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 onboard 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 the safe mode. |

| Common Symptoms | Possible Solutions |
|---|---|
| Safety-related issues | Do not perform any troubleshooting steps.<br><br>Contact Dell immediately. |
| Intermittent problems | Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.<br><br>Reset the monitor to factory settings (**Factory Reset**).<br><br>Perform a monitor self-test feature check to determine if the intermittent problem occurs in self-test mode. |
| Missing color | Perform a monitor self-test feature check.<br><br>Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.<br><br>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.<br><br>Change the **Input Color Format** to **RGB** or **YCbCr/YPbPr** in the **Color settings** OSD.<br><br>Run the onboard diagnostics. |
| Image retention from a static image left on the monitor for a long 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.<br><br>Alternatively, use a dynamically changing screensaver. |
| Video ghosting or overshooting | Change the **Response Time** in the **Display** OSD to **Normal** or **Fast** depending on your application and usage. |
| The screen image is too small | Check the **Aspect Ratio** setting in the **Display** settings OSD.<br><br>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 b  ack, and then turn On the monitor.<br><br>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 Mode by moving the mouse or pressing any key on the keyboard.<br><br>Check if the video cable is plugged in properly. Disconnect and reconnect the video cable if necessary.<br><br>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.<br><br>Run the onboard diagnostics. |

# Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see Contact Support at Dell Support Site.

ⓘ **NOTE:** Availability varies by country, region, or 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.