# User's Guide
## Dell P4317Q

Model No.: P4317Q

Regulatory model: P4317Qc

# Notes, cautions, and warnings

**NOTE:** A NOTE indicates important information that helps you make better use of your computer.

**CAUTION:** A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

**WARNING: A WARNING indicates a potential for property damage, personal injury or death.**



**2016 - 03** **Rev. A00**

# Contents

# About your monitor

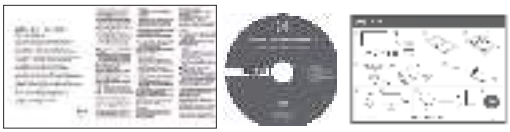
## Package contents

Your monitor ships with the components shown below. Ensure that you have received all the components and Contacting Dell if something is missing.

**NOTE:** Some items may be optional and may not ship with your monitor. Some features or media may not be available in certain countries.

**NOTE:** To set up with any other stand, please refer to the respective stand setup guide for setup instructions.

| | |
|---|---|
|  | • Monitor |
|  | • Stand riser |
|  | • Stand base |
|  | • VESA cover |
|  | • Power cable (varies by countries) |
|  | • HDMI cable |

| | |
|---|---|
|  | • mDP to DP cable |
|  | • DP to DP cable |
|  | • USB 3.0 upstream cable (enables the USB ports on the monitor) |
|  | • Drivers and Documentation Guide<br>• Quick Setup Guide<br>• Safety and Regulatory Information |

## Product features

The **Dell P4317Q** flat panel display has an active matrix, Thin-Film Transistor (TFT), Liquid Crystal Display (LCD), and LED backlight. The monitor features include:

- 107.98 cm (42.51 inch) viewable area display (measured diagonally). 3840 x 2160 resolution, plus full-screen support for lower resolutions.
- Plug and play capability if supported by your system.
- VGA and HDMI (MHL) and DP and mDP connectivity makes it simple and easy to connect with legacy and new system.
- Build-in Speaker (8W x 2).
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.
- Software and documentation media includes an Information File (INF), Image Color Matching File (ICM), and product documentation.
- Dell Display Manager Software included (in the CD shipped with the monitor).
- Support PIP and PBP Function.

## Monitor specifications

| Model | P4317Q |
|---|---|
| Screen type | Active matrix - TFT LCD |
| Panel type | In-plane Switching |
| Viewable image | |
| Bezel width | 566.40 mm (22.30 in) |
| Diagonal | 107.98 cm (42.51 in) |
| Horizontal, Active Area | 941.18 mm (37.05 in) |
| Vertical, Active Area | 529.42 mm (20.84 in) |
| Area | 1274.79 $cm^2$ (197.59 $inch^2$) |
| Pixel pitch | 0.2451 x 0.2451 mm |
| Viewing angle (vertical / horizontal) | 178° / 178° (typical) |
| Brightness | 350 $cd/m^2$ (typical) |
| Contrast ratio | 1000 to 1 (typical) |
| Aspect Ratio | 16:9 |
| Display screen coating | Anti-Glare with 2H hardness |
| Backlight Technology | white LED edgelight system |
| Response time | 8 ms |
| Color depth | 1.06 Billion colors |
| PIP / PBP | Yes |
| Connectivity | 1 x DP 1.2<br>1 x mDP 1.2<br>2 x HDMI 1.4 (MHL)<br>1 x VGA<br>1 x USB 3.0 port - Upstream<br>4 x USB 3.0 port<br>1 x Audio Input<br>1 x Headphone Output<br>1 x RS232 |
| Audio output | 8W x 2 |
| Built in device - usb | Upstream x 1<br>Downstream x 4 (including one Charging Port) |

| | |
|---|---|
| DDM compatibility | Yes |
| Adjustability | |
| Tilt | -5° to 10° |
| Security | Security lock slot (cable lock sold separately) |

* 72% (CIE 1931), 82%(CIE 1976)

## Resolution specifications

| **Model** | **P4317Q** |
|---|---|
| Horizontal scan range | 30 kHz to 83 kHz (automatic) |
| Vertical scan range | 56 Hz to 76 Hz (automatic) |
| Maximum preset resolution | 3840 x 2160 at 60 Hz (DP only) |

## Preset display modes

| Display Mode | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Pixel Clock (MHz) | Sync Polarity (Horizontal / Vertical) |
|---|---|---|---|---|
| VESA, 720 x 400 | 31.5 | 70.1 | 28.3 | -/+ |
| VESA, 640 x 480 | 31.5 | 60.0 | 25.2 | -/- |
| VESA, 640 x 480 | 37.5 | 75.0 | 31.5 | -/- |
| VESA, 800 x 600 | 37.9 | 60.3 | 40.0 | +/+ |
| VESA, 800 x 600 | 46.9 | 75.0 | 49.5 | +/+ |
| VESA, 1024 x 768 | 48.4 | 60.0 | 65.0 | -/- |
| VESA, 1024 x 768 | 60.0 | 75.0 | 78.8 | +/+ |
| VESA, 1280 x 1024 | 64.0 | 60.0 | 108.0 | +/+ |
| VESA, 1280 x 1024 | 80.0 | 75.0 | 135.0 | +/+ |
| VESA, 1440 x 900 | 55.5 | 60.0 | 88.8 | +/- |
| VESA, 1440 x 900 | 70.1 | 75.0 | 136.8 | -/+ |
| **VESA, 1920 x 1080 | 67.5 | 60.0 | 148.5 | +/+ |
| VESA, 3840 x 2160 | 67.5 | 30.0 | 297.0 | +/+ |
| *VESA, 3840 x 2160 | 135.0 | 60.0 | 594.0 | +/+ |

* Requires a graphics card that supports DisplayPort 1.2

** PBP mode maximum resolution support 1920x1080@60Hz

## Electrical specifications

| Model | P4317Q |
|---|---|
| Video input signals | • Analog RGB, 0.7 Volts +/-5%, positive polarity at 75 ohm input impedance<br>• HDMI1.4, 600 mV for each differential line, positive polarity at 100 ohm input impedance |
| Synchronization input signals | Separate horizontal and vertical synchronizations, polarity-free TTL level, SOG (Composite SYNC on green) |
| AC input voltage/frequency/ current | 100 VAC to 240 VAC/50 Hz or 60 Hz ± 3 Hz/<br>2 A |
| Inrush current | 120 V:30 A (Max.)<br>240 V:60 A (Max.) |

## Physical characteristics

| Model | P4317Q |
|---|---|
| **Signal cable type** | • Analog: detachable, D-Sub, 15 pins<br>• Digital: detachable, HDMI, 19 pins<br>• Digital: detachable, mDP, 20 pins<br>• Digital: detachable, DP, 20 pins |
| **Dimensions (with stand)** | |
| Height | 658.0 mm (25.90 in) |
| Width | 973.1 mm (38.31 in) |
| Depth | 250.0 mm (9.84 in) |
| **Dimensions (without stand)** | |
| Height | 566.4 mm (22.29 in) |
| Width | 973.1 mm (38.31 in) |
| Depth | 83.0 mm (3.27 in) |
| **Stand dimensions** | |
| Height | 488.6 mm (19.24 in) |
| Width | 320.0 mm (12.60 in) |
| Depth | 250.0 mm (9.84 in) |
| **Weight** | |
| Weight with packaging | 24.4 kg (53.78 lb) |
| Weight with stand assembly and cables | 17.93 kg (39.51 lb) |

| | |
|---|---|
| Weight without stand assembly | 14.11 kg (31.09 lb) |
| Weight of stand assembly | 3.3 kg (7.26 lb) |

Caution: Any third-party arm or pole purchased separately should support the weight of the monitor as well as any external brackets and interface plates.

## Environmental characteristics

| **Model** | | **P4317Q** |
|---|---|---|
| **Temperature** | | |
| Operating | | 0°C to 40°C (32°F to 104°F) |
| Non-operating | Storage | • -20°C to 60°C (-4°F to 140°F) |
| | Shipping | • -20°C to 60°C (-4°F to 140°F) |
| **Humidity** | | |
| Operating | | 10% to 80% (non-condensing) |
| Non-operating | | • Storage: 5% to 90% (non-condensing)<br>• Shipping: 5% to 90% (non-condensing) |
| **Altitude** | | |
| Operating (maximum) | | 5,000 m (16,400 ft) |
| Non-operating (maximum) | | 12,192 m (40,000 ft) |
| Thermal dissipation | | • 494.9 BTU/hour (maximum)<br>• 238.9 BTU/hour (typical) |

## Power management modes

If you have VESA's DPM™ compliance display card or software installed in your PC,

the monitor can automatically reduce its power consumption when not in use. This is referred to as Power Save Mode*. If the computer detects input from the keyboard, mouse or other input devices, the monitor automatically resumes functioning. The following table shows the power consumption and signaling of this automatic power saving feature.

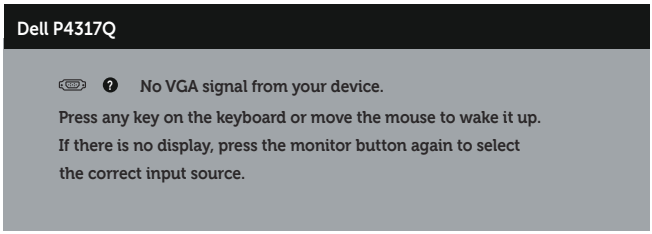
* Zero power consumption in off mode can only be achieved by disconnecting the main cable from the monitor.

| VESA Modes | Horizontal Sync | Vertical Sync | Video | Power Indicator | Power Consumption |
|---|---|---|---|---|---|
| Normal operation | Active | Active | Active | White | < 160 W (maximum)**<br>< 70 W (typical) |
| Active-off mode | Inactive | Inactive | Blanked | White (Glowing ) | Less than 0.3 W |
| Switch off | - | - | - | Off | Less than 0.3 W |

## Speaker specifications

| Model | P4317Q |
|---|---|
| Speaker rated power | 2 x 8 W |
| Frequency Response | 200 Hz - 16 kHz |
| Impedance | 6 ohm |

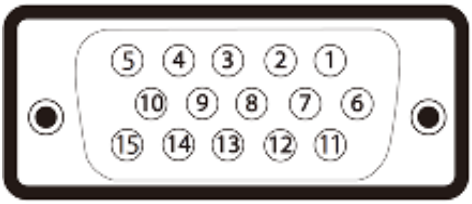
The OSD functions only in the normal operation mode. When any button is pressed in the Active-off mode, the following message will be displayed:




Activate the computer and the monitor to gain access to the OSD.

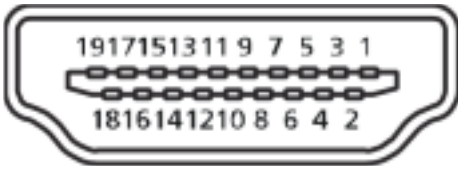
## Pin assignments

## VGA connector



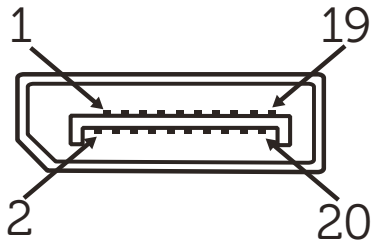

| Pin Number | 15-pin Side of the Connected Signal Cable |
|---|---|
| 1 | Video-Red |
| 2 | Video-Green |
| 3 | Video-Blue |
| 4 | GND |
| 5 | Self-test |
| 6 | GND-R |
| 7 | GND-G |
| 8 | GND-B |
| 9 | Computer 5V/3.3V |
| 10 | GND-sync |
| 11 | GND |
| 12 | DDC data |
| 13 | H-sync |
| 14 | V-sync |
| 15 | DDC clock |

## HDMI connector



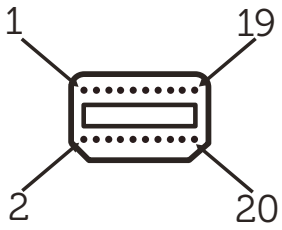

| Pin Number | 19-pin Side of the Connected Signal Cable |
|---|---|
| 1 | T.M.D.S. Data 2- |
| 2 | T.M.D.S. Data 2 Shield |
| 3 | T.M.D.S. Data 2+ |
| 4 | T.M.D.S. Data 1+ |
| 5 | T.M.D.S. Data 1 Shield |
| 6 | T.M.D.S. Data 1 - |
| 7 | T.M.D.S. Data 0+ |
| 8 | T.M.D.S. Data 0 Shield |
| 9 | T.M.D.S. Data 0- |
| 10 | T.M.D.S. Clock + |
| 11 | T.M.D.S. Clock Shield |
| 12 | T.M.D.S. Clock - |
| 13 | CEC |
| 14 | Reserved (N.C. on device) |
| 15 | SCL |
| 16 | SDA |
| 17 | DDC/CEC Ground |
| 18 | +5V Power |
| 19 | Hot Plug Detect |

## DP connector




| Pin Number | 20-pin Side of the Connected Signal Cable |
|---|---|
| 1 | ML0(p) |
| 2 | GND |
| 3 | ML0(n) |
| 4 | ML1(p) |
| 5 | GND |
| 6 | ML1(n) |
| 7 | ML2(p) |
| 8 | GND |
| 9 | ML2(n) |
| 10 | ML3(p) |
| 11 | GND |
| 12 | ML3(n) |
| 13 | GND |
| 14 | GND |
| 15 | AUX(p) |
| 16 | GND |
| 17 | AUX(n) |
| 18 | GND |
| 19 | Re-PWR |
| 20 | +3.3V DP_PWR |

## Mini DP connector




| Pin Number | 20-pin Side of the Connected Signal Cable |
|---|---|
| 1 | GND |
| 2 | Hot Plug Detect |
| 3 | ML3(n) |
| 4 | GND |
| 5 | ML3(n) |
| 6 | GND |
| 7 | GND |
| 8 | GND |
| 9 | ML2(n) |
| 10 | ML0(n) |
| 11 | ML2(p) |
| 12 | ML0(p) |
| 13 | GND |
| 14 | GND |
| 15 | ML1(n) |
| 16 | AUX(P) |
| 17 | ML1(p) |
| 18 | AUX(N) |
| 19 | GND |
| 20 | +3.3V DP_PWR |

# Universal Serial Bus (USB) Interface

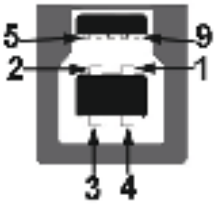
This section gives you information about the USB ports that are available on the monitor.

**NOTE:** This monitor is Super-Speed USB 3.0 compatible.

| Transfer Speed | Data Rate | Power Consumption* |
|---|---|---|
| Super-speed | 5 Gbps | 4.5 W (Max, each port) |
| High speed | 480 Mbps | 4.5 W (Max, each port) |
| Full speed | 12 Mbps | 4.5 W (Max, each port) |

* Up to 1.5A on USB downstream port (port with SS battery icon) with BC1.2 compliance devices or normal USB devices.

## USB Upstream Connector




| Pin Number | 9-pin Side of the Connector |
|---|---|
| 1 | VCC |
| 2 | D- |
| 3 | D+ |
| 4 | GND |
| 5 | SSTX- |
| 6 | SSTX+ |
| 7 | GND |
| 8 | SSRX- |
| 9 | SSRX+ |

## USB Downstream Connector


| Pin Number | 9-pin Side of the Connector |
|---|---|
| 1 | VCC |
| 2 | D- |
| 3 | D+ |
| 4 | GND |
| 5 | SSTX- |
| 6 | SSTX+ |
| 7 | GND |
| 8 | SSRX- |
| 9 | SSRX+ |

## USB Ports

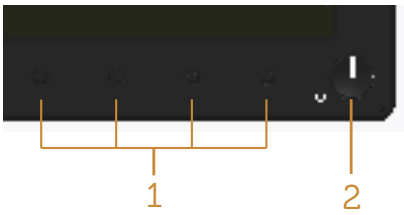
- 1 upstream - blue
- 4 downstream - blue
- Power Charging Port- the port with SS battery icon; supports current charging capability if the device is BC1.2 compatible.

**NOTE:** USB 3.0 functionality requires a USB 3.0-capable computer.

**NOTE:** The monitor's USB interface works only when the monitor is on or in the power save mode. If you turn off the monitor and then turn it on, the attached peripherals may take a few seconds to resume normal functionality.

# Identifying parts and controls

## Front View




**Front panel controls**

| Label | Description |
|---|---|
| 1 | Function buttons (For more information, see Operating your monitor) |
| 2 | Power on/off button (with LED indicator) |

**NOTE:** For displays with glossy bezels the user should consider the placement of the display as the bezel may cause disturbing reflections from surrounding light and bright surfaces.

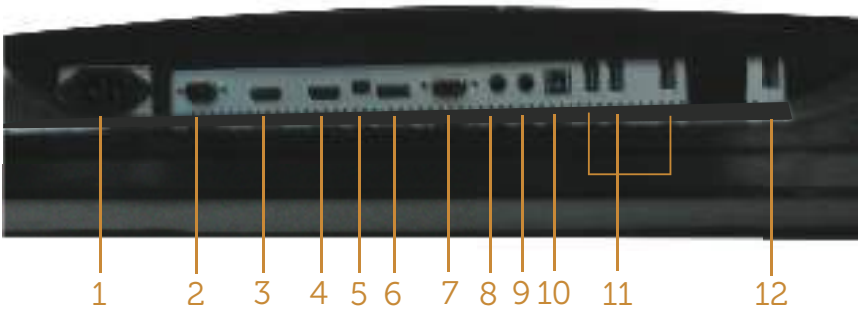
## Back view


**Back View without monitor stand** **Back View with monitor stand**

| Label | Description | Use |
|---|---|---|
| 1 | VESA mounting holes behind attached VESA Cover:<br>1) 100 mm x 100 mm<br>2) 200 mm x 200 mm | Wall mount monitor using the compatible wall-mount kits for the specific VESA mounting holes. |
| 2 | Regulatory label | Lists the regulatory approvals. |
| 3 | Security - lock slot | Secures monitor with security lock (security lock not included). |
| 4 | Barcode serial number label | Refer to this label if you need to contact Dell for technical support. |
| 5 | Cable management slot | Use to organize cables by placing them through the slot. |

## Side view

## Bottom view




**Bottom view without monitor stand**

| Label | Description | Use |
|---|---|---|
| 1 | AC power cord connector | To connect the monitor power cable. |
| 2 | RS232 port | To connect your computer to the monitor using a RS232 cable. |
| 3 | HDMI/MHL 1 port connector | Connect your computer with HDMI/MHL cable. |
| 4 | HDMI/MHL 2 port connector | |
| 5 | mini DisplayPort | To connect your computer to the monitor using a mDP to DP cable. |
| 6 | DisplayPort | To connect your computer to the monitor using a DP to DP cable. |
| 7 | VGA port | To connect your computer to the monitor using a VGA cable. |
| 8 | Audio Line In port | Connects the audio cable (optional purchase) from the source device to the monitor. |
| 9 | Headphone Out port | Connect to external headphone (optional purchase) |
| 10 | USB upstream port | Connect the USB cable that comes with your monitor to the computer. Once this cable is connected, you can use the USB connectors on the monitor. |
| 11<br>12 | USB downstream port | Connect your USB device. You can only use this connector after you have connected the USB cable to the computer and USB upstream connector on the monitor. * |

* It is use the port (12) support battery charging.

# Plug and play capability

You can install the monitor in any Plug and Play-compatible system. The monitor automatically provides the computer system with its Extended Display Identification Data (EDID) using Display Data Channel (DDC) protocols so the system can configure itself and optimize the monitor settings. Most monitor installations are automatic, you can select different settings if desired. For more information about changing the monitor settings, see Operating your monitor.

# LCD monitor quality and pixel policy

During the LCD Monitor manufacturing process, it is not uncommon for one or more pixels to become fixed in an unchanging state which are hard to see and do not affect the display quality or usability. For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **www.dell.com/support/monitors**.

# Maintenance guidelines

## Cleaning your monitor

⚠ **WARNING: Before cleaning the monitor, unplug the monitor power cable from the electrical outlet.**

⚠ **CAUTION: Read and follow the** Safety instructions **before cleaning the monitor.**

For best practices, follow the instructions in the list below while unpacking, cleaning or handling your monitor:

- To clean your anti-static screen, lightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the anti-static coating. Do not use benzene, thinner, ammonia, abrasive cleaners or compressed air.
- Use a lightly-dampened, warm cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a cloth.
- Handle your monitor with care as a darker-colored monitor may get scratched and show white scuff marks more than a lighter-colored monitor.
- To help maintain the best image quality on your monitor, use a dynamically changing screen saver and turn Off your monitor when not in use.

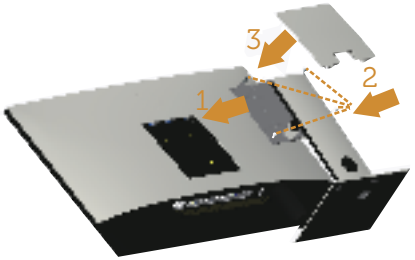
# Setting up the monitor

## Attaching the stand

**NOTE:** To set up with any other stand, please refer to the respective stand setup guide for setup instructions.

**NOTE:** The stand is detached when the monitor is shipped from the factory.

**NOTE:** The following steps are applicable for a monitor with a stand.




To attach the monitor stand:

1. Attach the monitor stand.
2. To tighten the four screws.
3. Attach the VESA cover.

# Connecting your monitor

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

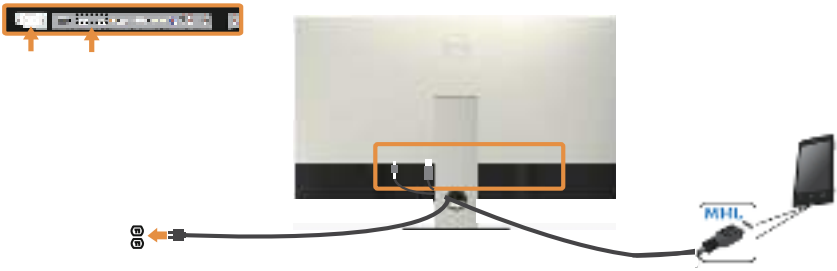
**NOTE:** Do not connect all cables to the computer at the same time.

To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.
2. Connect the HDMI/MHL/mDP/DP/VGA/audio/USB 3.0 cable from your monitor to the computer.

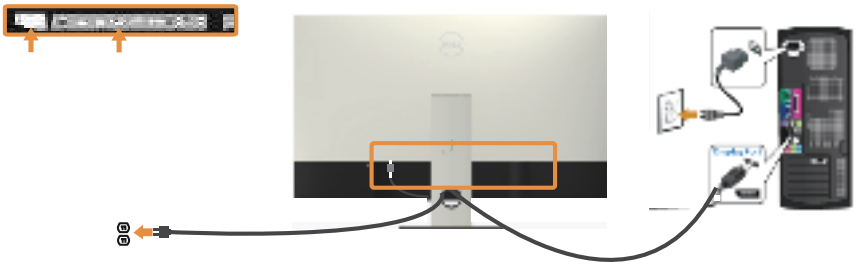
## Connecting the HDMI cable


## Connecting the MHL cable (sold separately)



## Connecting the black DP (mDP to DP) cable

## Connecting the black DP (DP to DP) cable



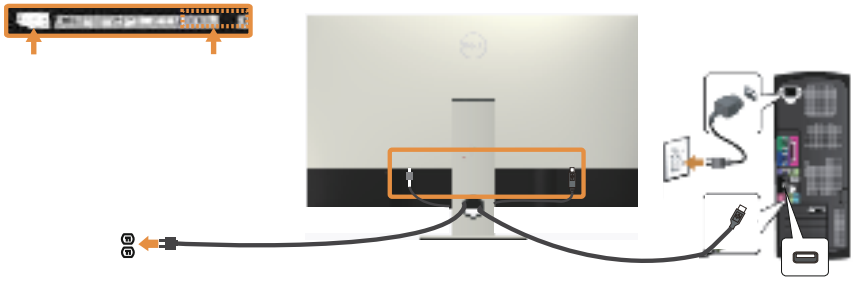
## Connecting the VGA cable (sold separately)

## Connecting the audio cable (sold separately)

## Connecting the USB 3.0 cable

After you have completed connecting the HDMI/MHL/mDP/DP cable, follow the procedures below to connect the USB 3.0 cable to the computer and complete your monitor setup:

1. Connect the upstream USB 3.0 port (cable supplied) to an appropriate USB 3.0 port on your computer. (See Bottom view for details.).
2. Connect the USB 3.0 peripherals to the downstream USB 3.0 ports on the monitor.
3. Plug the power cables for your computer and monitor into a nearby outlet.
4. Turn on the monitor and the computer. If your monitor displays an image, see Universal serial bus (USB) specific problems.
5. Use the cable slot on the monitor stand to organize the cables.



## Using the (MHL) mobile-high definition link

**NOTE:** This monitor is MHL certified.

**NOTE:** To use the MHL function, use only MHL-certified cable and source devices that support MHL output.

**NOTE:** Some MHL source devices may take more than a few seconds or longer to output an image, depending on MHL source devices.

**NOTE:** When the connected MHL source device enters Standby mode, the monitor will display black screen or show the massage below, depending on MHL source device's output.


To enable MHL connection, please perform the below steps:Setting Up the Monitor

1. Plug the power cable of your monitor into an AC outlet.
2. Connect the (micro) USB port on your MHL source device to HDMI/MHL 1 or HDMI/MHL 2 port on the monitor with a MHL-certified cable (See Bottom view for details.)
3. Turn on the monitor and the MHL source device.
4. Select input source on monitor to HDMI/MHL 1 or HDMI/MHL 2 by using OSD Menu (See Using the on-screen display (OSD) menu for details.).
5. If it does not display an image, see Mobile high-definition link (MHL) specific problems.

## Organizing cables

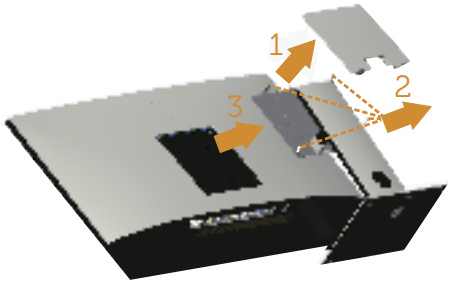
After you connect all necessary cables to your monitor and computer, organize all cables as shown above.

**NOTE:** After the cables are connected, they will have to be disconnected again to route them through the hole.

## Removing the monitor stand

**NOTE:** To prevent scratches on the LCD screen while removing the stand, ensure that the monitor is placed on a soft and clean surface.

**NOTE:** The following steps are applicable for a monitor with a stand.




To remove the stand:

1. Unpack the VESA cover.
2. Use a screwdriver to release the four screws.
3. Lift the stand up and away from the monitor.

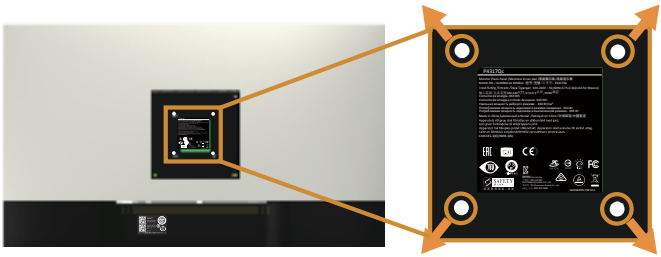
## Wall Mounting (Optional)

(Screw dimension: M4 x 10 mm).

Refer to the instructions that come with the VESA-compatible wall mounting kit.

1. Place the monitor panel on a soft cloth or cushion on a stable, flat table.
2. Remove the stand.
3. Use a Phillips crosshead screwdriver to remove the four screws securing the plastic cover.
4. Attach the mounting bracket from the wall mounting kit to the monitor.
5. Mount the monitor on the wall by following the instructions that comes with the wall mounting kit.

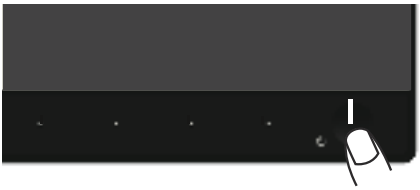
**NOTE:** For use only with UL-listed wall mount bracket with minimum weight/load bearing capacity of 54 kg.



# Operating your monitor

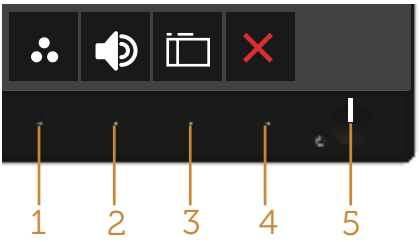
## Power on the monitor

Press the button to turn on the monitor.



## Using the front panel controls

Use the control buttons on the front of the monitor to adjust the image being displayed.



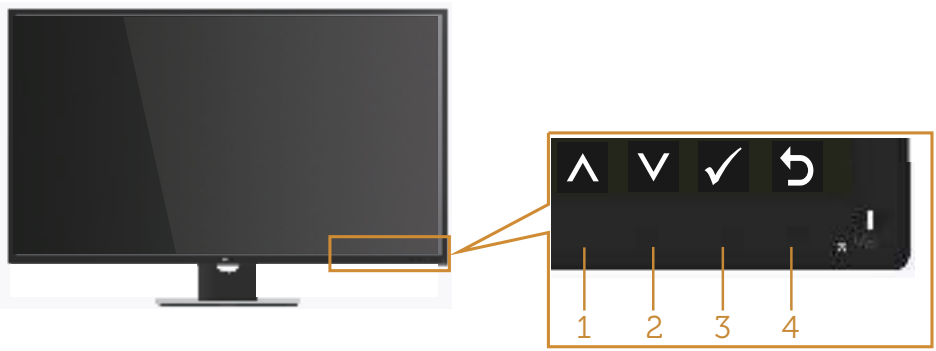

The following table describes the front panel buttons:

| | Front Panel Button | Description |
|---|---|---|
| 1 | Shortcut key/Preset modes | Use this button to choose from a list of preset modes. |
| | Shortcut key/Volume | Use the buttons to adjust the volume.Minimum is '0' (-). Maximum is '100' (+). |
| | Menu | Use the menu button to launch the on-screen display (OSD) and select the OSD menu. See Accessing the OSD menu. |
| | Exit | Use this button to go back to the main menu or exit the OSD main menu. |

| | | |
|---|---|---|
| 2&3 | Power on/off button (with LED indicator) | Use the power button to turn the monitor on and off.<br>Solid white light indicates the monitor is turned on. Blinking white light indicates it is in power-save mode. |

## OSD controls

Use the buttons on the front of the monitor to adjust the image settings.




| | Front Panel Button | Description |
|---|---|---|
| 1 | Up | Use the up button to increase values or move up in a menu. |
| 2 | Down | Use the down button to decrease values or move down in a menu. |
| 3 | OK | Use the OK button to confirm your selection in a menu. |
| 4 | Back | Use the back button to go back to the previous menu. |

# Using the on-screen display (OSD) menu

## Accessing the OSD menu

**NOTE:** Any changes you make are automatically saved when you move to another menu, exit the OSD menu, or wait for the OSD menu to automatically close.

1. Press the button to display the OSD main menu.

### Main menu for analog (VGA) input


or

### Main Menu for digital (HDMI/MHL 1 / HDMI/MHL 2) input

or

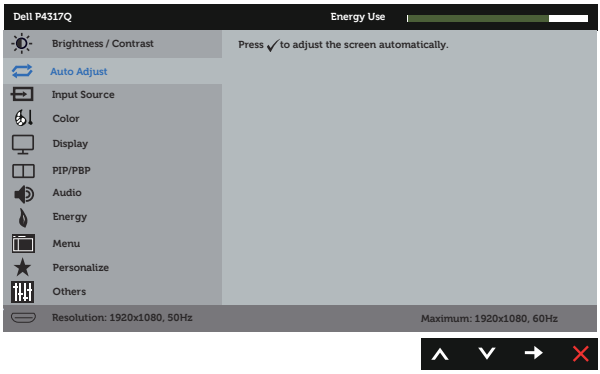
### Main Menu for digital (mDP) input

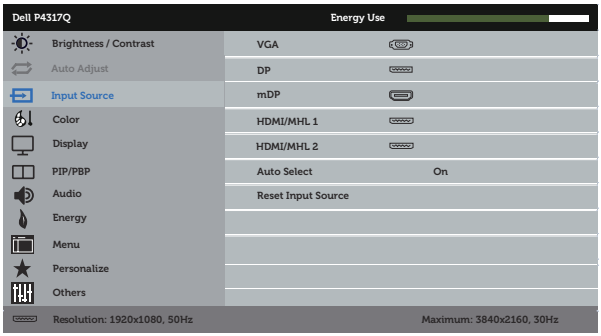
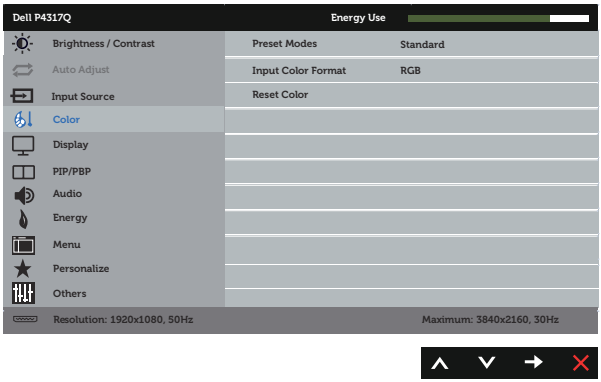

or

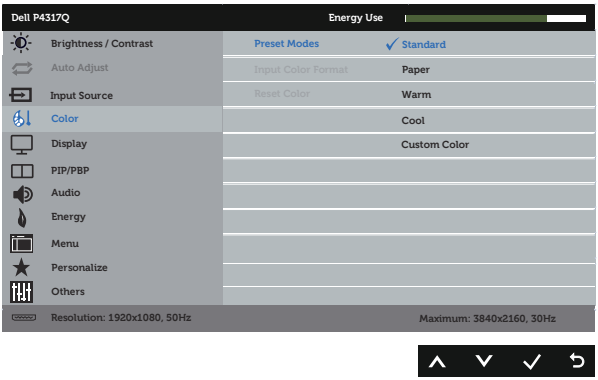
### Main Menu for digital (DP) input

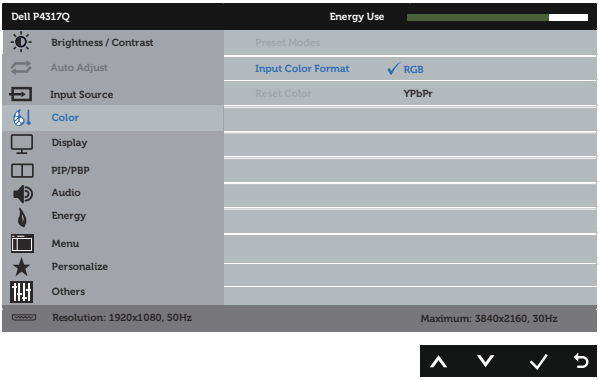

2. Press the and buttons to move between the setting options. As you move from one icon to another, the option name is highlighted.
3. Press the button once to activate the highlighted option.
4. Press and button to select the desired parameter.
5. Press and then use the and buttons, according to the indicators on the menu, to make your changes.
6. Select the button to return to the main menu.

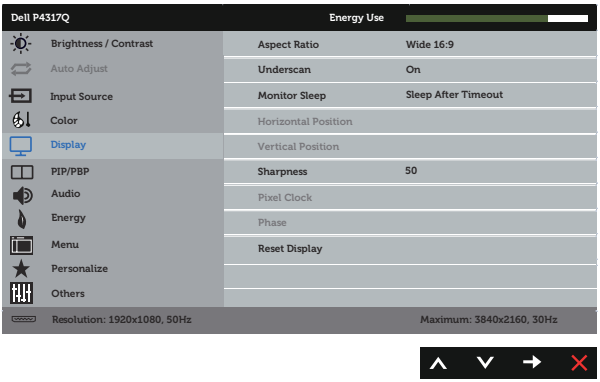
| Icon | Menu and Submenus | Description |
|---|---|---|
|  | **Brightness/ Contrast** | Use this menu to activate brightness/contrast adjustment.<br>  |
| | | Adjust the brightness first, and then adjust the contrast only if further adjustment is necessary.<br>Press the ^ button to increase the contrast and press the v button to decrease the contrast (min. 0 / max. 100).<br>The contrast function adjusts the degree of difference between darkness and lightness on the monitor screen.<br>**NOTE**: Manual adjustment of brightness is disabled when dynamic contrast is switched on. |

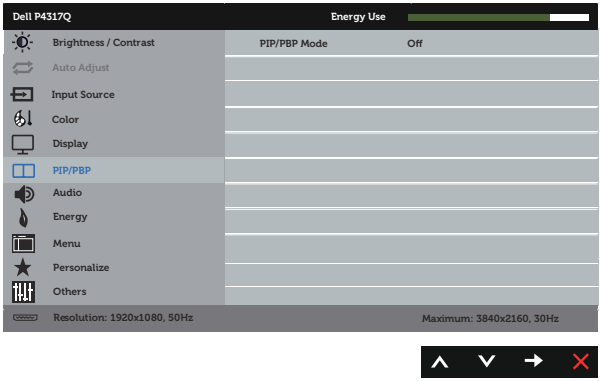
| | | |
|---|---|---|
| | Auto Adjust | Use this key to activate automatic setup and adjust menu.<br>  <br><br>The following dialog appears on a black screen as the monitor self-adjusts to the current input:<br>**Auto Adjustment in Progress...**<br>Auto adjustment allows the monitor to self-adjust to the incoming video signal. After using auto adjustment, you can further tune your monitor by using the pixel clock (coarse) and phase (fine) controls under display settings.<br>**NOTE**: Auto adjust does not occur if you press the button while there are no active video input signals or attached cables.<br>This option is only available when you are using the analog (VGA) connector. |

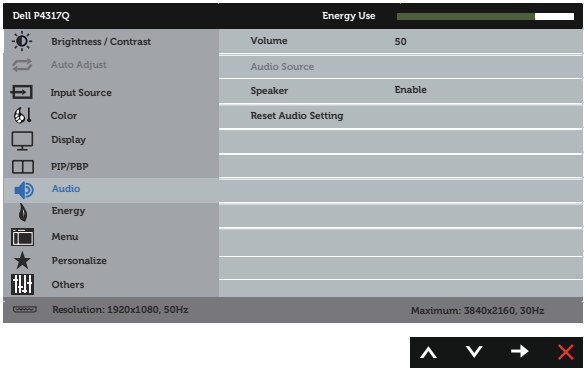
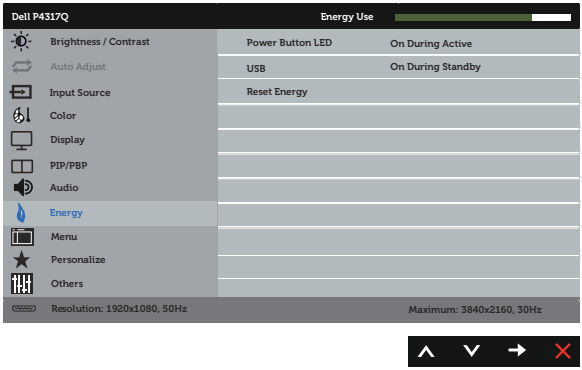
| | | |
|---|---|---|
| | **Input Source** | Use the input source menu to select between the different video signals that may be connected to your monitor.<br>  |
| | **VGA** | Select VGA input when you are using the analog (VGA) connector. Press to select the VGA input source.<br>**NOTE**: VGA support max resolution to 1920x1080@60Hz. |
| | **DP** | Select the DP input when you are using the DP connector. Press to select the DP input source. |
| | **mDP** | Select the mDP input when you are using the mDP connector. Press to select the mDP input source. |
| | **HDMI/MHL 1**<br>**HDMI/MHL 2** | Select the HDM/MHL 1 or HDMI/MHL 2 input when you are using the HDMI connectors. Press to select the HDMI/MHL 1 or HDMI/MHL 2 input source. |
| | **Auto Select** | Select auto select to scan for available input signals. |
| | **Reset Input Source** | Reset your monitor input source settings to the factory settings. |
| | **Color** | Use color to adjust the color setting mode.<br>  |

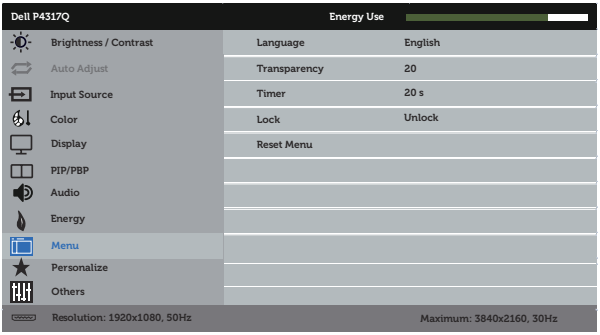
| | | |
|---|---|---|
| | **Preset Modes** | When you select preset modes, you can choose standard, multimedia, movie, game, paper, warm, cool, or custom color from the list.<br>• Standard: Loads the monitor's default color settings. This is the default preset mode.<br>• Paper: Loads brightness and sharpness settings ideal for viewing text. Blend the text background to simulate paper media without affecting color images. Applies to RGB input format only.<br>• Warm: Increases the color temperature. The screen appears warmer with a red/yellow tint.<br>• Cool: Decreases the color temperature. The screen appears cooler with a blue tint.<br>• Custom Color: Allows you to manually adjust the color settings.<br>Press the ∧ and ∨ buttons to adjust the three colors (R, G, B) values and create your own preset color mode.<br>  |

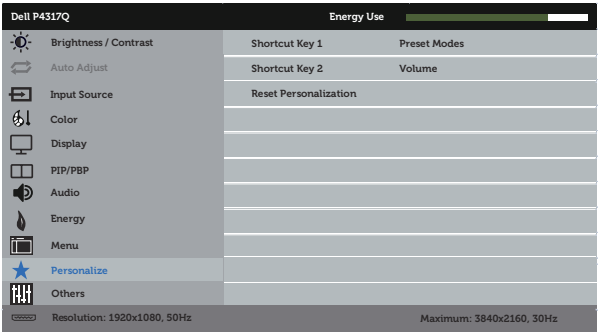
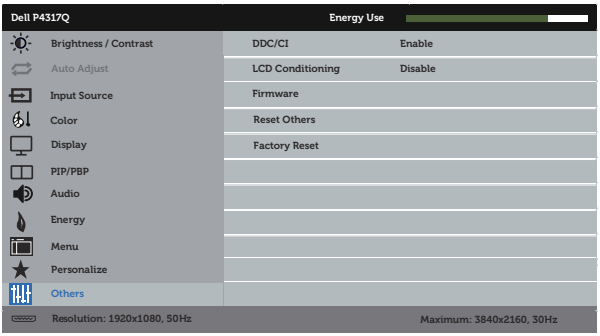
| | | |
|---|---|---|
| | **Input Color Format** | Allows you to set the video input mode to:<br>• RGB: Select this option if your monitor is connected to a computer or DVD player using the HDMI cable.<br>• YPbPr: Select this option if your DVD player supports only YPbPr output.<br>  |
| | **Reset Color** | Allows your monitor color settings to the factory settings. |

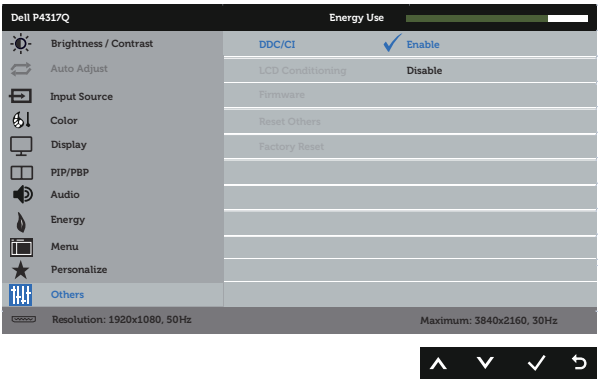
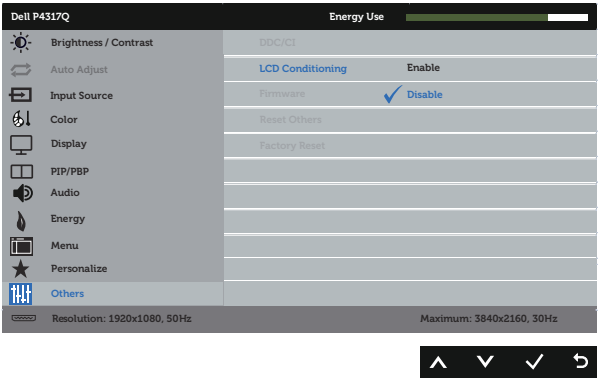
| | | |
|---|---|---|
| | **Display** | Use the display to adjust image.<br>  <br> |
| | **Aspect Ratio** | Adjusts the image ratio to Wide 16:9, 4:3 or 5:4. |
| | **Underscan** | Underscan is to describe the display function which will reduce the display area. |
| | **Monitor Sleep** | Monitor sleep is to define the action after the source has no signal. It will go to sleep or never go to sleep. |
| | **Horizontal Position** | Use ^ or v the buttons to adjust image left and right. Minimum is 0 (-). Maximum is 100 (+).<br>**NOTE**: Only applicable for VGA source. |
| | **Vertical Position** | Use the ^ or v buttons to adjust image up and down. Minimum is 0 (-). Maximum is 100 (+).<br>**NOTE**: Only applicable for VGA source. |
| | **Sharpness** | This feature can make the image look sharper or softer. Use ^ or v to adjust the sharpness from '0' to '100'. |
| | **Pixel Clock** | The phase and pixel clock adjustments allow you to adjust your monitor to your preference. Use ^ or v buttons to adjust for best image quality. Minimum is 0 (-). Maximum is 100 (+).<br>**NOTE**: Only applicable for VGA source. |
| | **Phase** | If satisfactory results are not obtained using the phase adjustment, use the pixel clock (coarse) adjustment and then use phase (fine), again. Minimum is 0 (-). Maximum is 100 (+).<br>**NOTE**: Only applicable for VGA source. |
| | **Reset Display** | Select this option to restore default display settings. |

| | | |
|---|---|---|
| | **PIP/PBP** |  |
| | **PIP/PBP Mode** | There are five modes: Picture in Picture (PIP) and Picture by Picture (PBP) with 2/3/4 widnows.<br>**Off:** Normal display mode<br>**PIP:** PIP 2 window<br>**PBP** : PBP 2 window<br>**PBP** : PBP 3 window mode1<br>**PBP** : PBP 3 window mode2<br>**PBP** : PBP 4 window |
| | **PIP/PBP Source** | Select PIP or PBP source. |
| | **PIP Size** | Select the PIP window of small or large. |
| | **PIP Position** | Select PIP sub-window position.<br>Use or to browse and or select top-left, top-right, bottom-right or bottom-left. |
| | **PBP Size** | Select the PBP window of aspect ratio or fill. |

| | | |
|---|---|---|
| | **Audio** |  |
| | **Volume** | Use the buttons to adjust the volume.Minimum is 0 (-). Maximum is 100 (+). |
| | **Audio Source** | Allows you to set the audio source mode to:<br>• Window 1<br>• Window 2<br>• Window 3<br>• Window 4 |
| | **Speaker** | Allows you to enable or disable speaker function. |
| | **Reset Audio** | Select this option to restore default audio settings. |
| | **Energy** |  |
| | **Power Button LED** | Allows you to set the power LED indicator on during active or off during active to save energy. |
| | **USB** | Allows you to enable or disable USB function during monitor standby mode.<br>**NOTE**: USB on/off under standby mode is only available when the USB upstream cable is unplugged. This option will be greyed out when the USB upstream cable plugs in. |
| | **Reset Energy** | Select this option to restore default energy settings. |

| | | |
|---|---|---|
| | **Menu** | Select this option to adjust the settings of the OSD, such as, the languages of the OSD, the amount of time the menu remains on screen and so on.<br>  |
| | **Language** | Language options set the OSD display to one of the eight languages (English, Spanish, French, German, Brazilian Portuguese, Russian, Simplified Chinese, or Japanese). |
| | **Transparency** | Select this option to change the menu transparency by pressing the ∧ and ∨ buttons from 0 to 100. |
| | **Timer** | OSD hold time: sets the length of time the OSD will remain active after the last time you pressed a button.<br>Use ∧ or ∨ to adjust the slider in 1 second increments, from 5 to 60 seconds. |
| | **Lock** | Controls user access to adjustments. When Lock is selected, no user adjustments are allowed. All buttons are locked.<br>**NOTE:** When the OSD is locked, pressing the menu key takes you directly to the OSD settings menu, with 'OSD Lock' pre-selected on entry. Press and hold ↩ key for 10 seconds to unlock and allow user access to all applicable settings. |
| | **Reset Menu** | Reset all OSD settings to the factory preset values. |

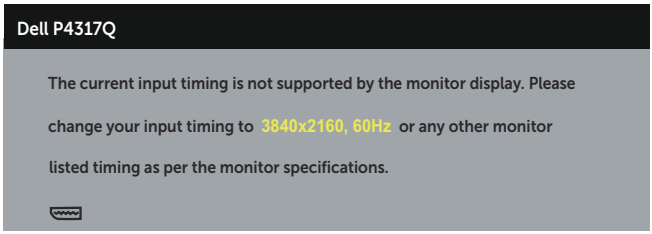
| | | |
|---|---|---|
| ★ | **Personalize** | Users can choose a feature from shortcut key 1, shortcut key 2, reset personalization, preset modes or volume and set it as a shortcut key.<br>  |
| | **Shortcut Key 1** | User can select one of the following: preset modes, brightness/contrast, auto adjust, input source, aspect ratio, PIP/PBP mode, volume to set the shortcut key 1. |
| | **Shortcut Key 2** | User can select one of the following: preset modes, brightness/contrast, auto adjust, input source, aspect ratio, PIP/PBP mode, volume to set the shortcut key 2. |
| | **Reset Personalization** | Allows you to restore shortcut key to the default setting. |
| | **Others** |  |

| | | |
|---|---|---|
| | **DDC/CI** | DDC/CI (display data channel/command interface) allows your monitor parameters (brightness, color balance and etc.) to be adjustable via the software on your computer.<br>You can disable this feature by selecting disable.<br>Enable this feature for best user experience and optimum performance of your monitor.<br>  |
| | **LCD Conditioning** | Helps reduce minor cases of image retention. Depending on the degree of image retention, the program may take some time to run. To start LCD conditioning, select **Enable**.<br>  |
| | **Firmware** | Firmware version. |
| | **Reset Others** | Reset all settings under the **Others** setting menu to the factory preset values. |
| | **Factory Reset** | Reset all settings to the factory preset values. |

**NOTE:** Your monitor has a built-in feature to automatically calibrate the brightness to compensate for LED aging.

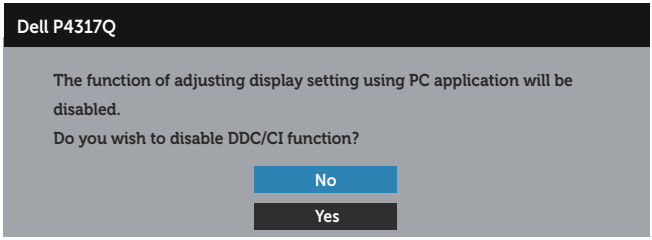
### OSD warning messages

When the monitor does not support a particular resolution mode, the following message is displayed:




This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See Monitor specifications for the horizontal and vertical frequency ranges addressable by this monitor. Recommended mode is 3840 x 2160.

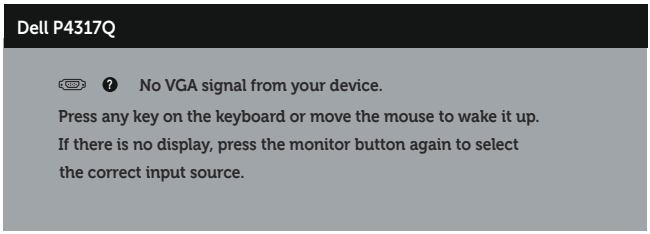
Before the **DDC/CI** function is disabled, the following message is displayed:



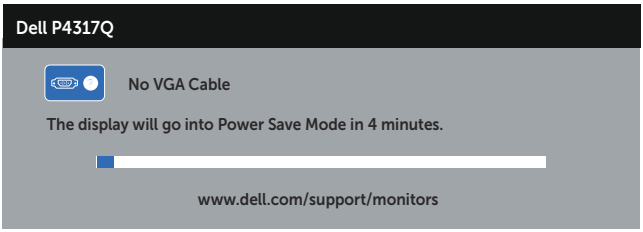

When the monitor enters the **Power Save Mode**, the following message appears:

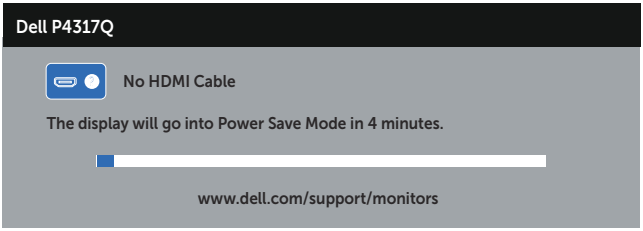

Activate the computer and wake up the monitor to gain access to the OSD.

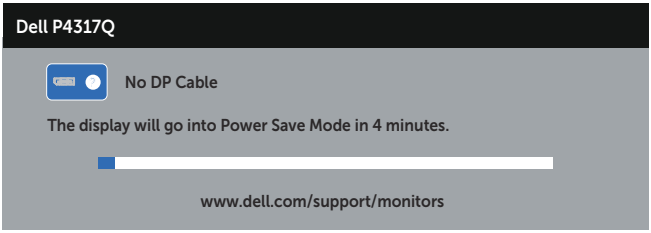
If you press any button other than the power button, the following messages will appear depending on the selected input:

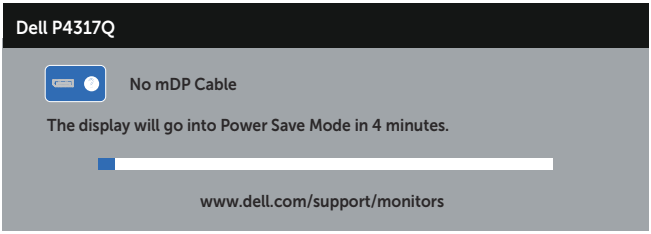


If VGA, HDMI, DP or mDP cable is not connected, a floating dialog box as shown below appears. The monitor will enter Power Save Mode after 4 minutes if left at this state.




See Troubleshooting for more information.

# Setting up your monitor

## Setting the maximum resolution

**In Windows 8/8.1:**

1. For Windows 8, and Windows 8.1, select the Desktop tile to switch to classic desktop.
2. Right-click on the desktop and click **Screen Resolution**.
3. Click the Dropdown list of the Screen Resolution and select **3840 x 2160**.
4. Click **OK**.

**In Windows 10:**

1. Right-click on the desktop and click **display settings**.
2. Click Advanced **display settings**.
3. Click the Dropdown list of the **Resolution** and select **3840 x 2160**.
4. Click **Apply**.

If you do not see **3840 x 2160** as an option, you may need to update your graphics driver. Depending on your computer, complete one of the following procedures:

If you have a Dell desktop or portable computer:

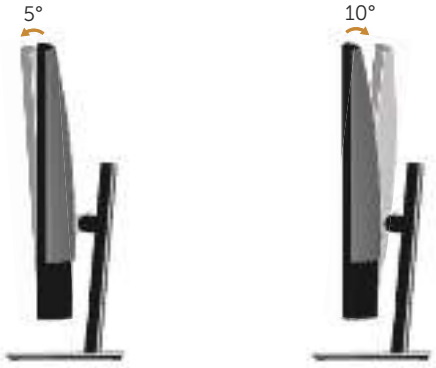
- Go to **www.dell.com/support**, enter your service tag, and download the latest driver for your graphics card.

If you are using a non-Dell computer (portable or desktop):

- Go to the support site for your computer and download the latest graphic drivers.
- Go to your graphics card website and download the latest graphic drivers.

## Using tilt

The stand shipped with your monitor supports tilt upto 5 degrees forward and 10 degrees backward.



# Troubleshooting

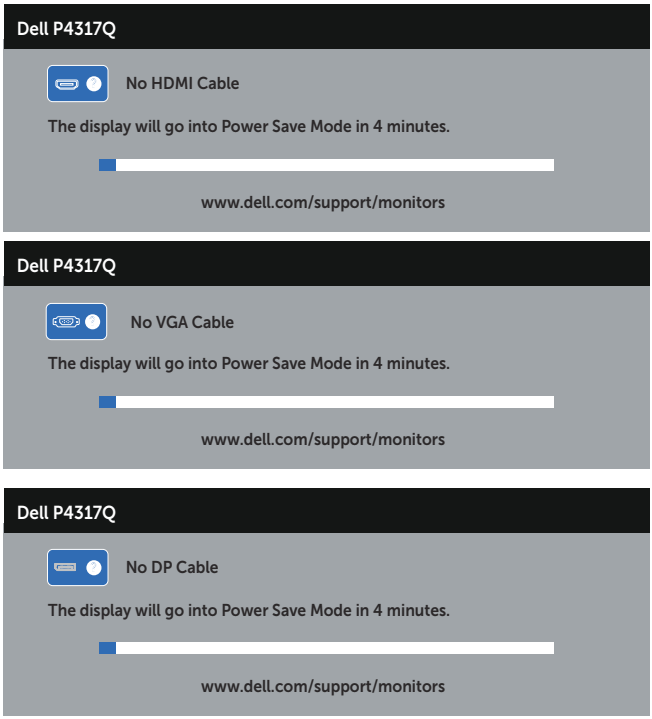
⚠ **WARNING:** Before you begin any of the procedures in this section, follow the Safety instructions.

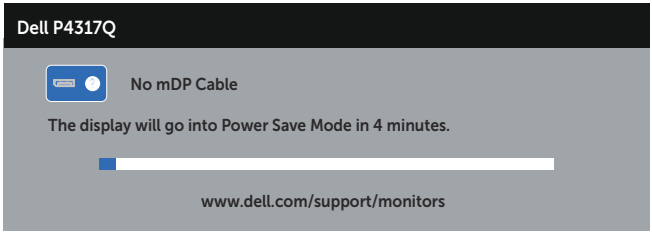
## Self-test

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 the video cable from the back of the computer. To ensure proper Self-Test operation, remove all digital and analog cables from the back of monitor.
3. Turn on the monitor.

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






**NOTE:** This box also appears during normal system operation, if the video cable is disconnected or damaged.

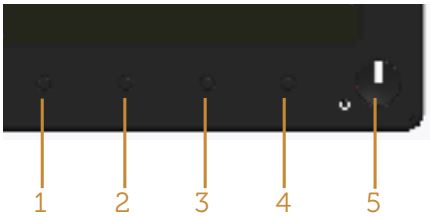
4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor remains dark after you reconnect the cables, 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.

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




To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold **button 1** for 5 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press **button 1** on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, black, white and text screens.

The test is complete when the text screen appears. To exit, press **button 1** again.

If you do not detect any screen abnormalities upon using the built-in 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 you might encounter and the possible 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.<br>• Verify that the power outlet is functioning properly using any other electrical equipment.<br>• Ensure that the correct input source is selected via the Input source menu. |
| No video/power LED on | • Increase brightness and contrast controls using the OSD.<br>• Perform monitor self-test feature check.<br>• Check for bent or broken pins in the video cable connector.<br>• Run the built-in diagnostics.<br>• Ensure that the correct input source is selected via the Input source menu. |
| Poor focus | • Eliminate video extension cables.<br>• Reset the monitor to Factory Settings (**Factory Reset**).<br>• Change the video resolution to the correct aspect ratio. |
| Shaky/jittery video | • Reset the monitor to Factory Settings (**Factory Reset**).<br>• Check environmental factors.<br>• Relocate the monitor and test in another room. |
| Missing pixels | • Cycle power on-off.<br>• Pixel that is permanently Off is a natural defect that can occur in LCD technology.<br>• For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at **www.dell.com/support/monitors**. |
| Stuck-on pixels | • Cycle power on-off.<br>• Pixel that is permanently off is a natural defect that can occur in LCD technology.<br>• For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at **www.dell.com/support/monitors**. |
| Brightness problems | • Reset the monitor to Factory Settings (**Factory Reset**).<br>• Adjust brightness & contrast controls via OSD. |
| Geometric distortion | • Reset the monitor to Factory Settings (**Factory Reset**).<br>• Adjust horizontal & vertical controls via OSD. |
| Horizontal/vertical lines | • Reset the monitor to Factory Settings (**Factory Reset**).<br>• Perform monitor self-test feature check and determine if these lines are also in self-test mode.<br>• Check for bent or broken pins in the video cable connector.<br>• Run the built-in diagnostics. |

| | |
|---|---|
| Synchronization problems | • Reset the monitor to Factory Settings (**Factory Reset**).<br>• Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode.<br>• Check for bent or broken pins in the video cable connector.<br>• Restart the computer in the *safe mode*. |
| Safety related issues | • Do not perform any troubleshooting steps.<br>• Contact Dell immediately. |
| Intermittent problems | • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.<br>• Reset the monitor to Factory Settings (**Factory Reset**).<br>• Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode. |
| Missing color | • Perform monitor self-test feature check.<br>• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.<br>• Check for bent or broken pins in the video cable connector. |
| Wrong color | • Change the **Color Setting Mode** in the **Color Settings** OSD to **Graphics** or **Video** depending on the application.<br>• Try different **Preset Modes** in **Color** settings OSD. Adjust **R**/**G**/**B** value in **Custom Color** in **Color** settings OSD.<br>• Change the **Input Color Format** to **RGB** or **YPbPr** in the **Color** settings OSD.<br>• Run the built-in diagnostics. |
| Image retention from a static image left on the monitor for a long period of time | • Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power management modes).<br>• 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

| Specific Symptoms | Possible Solutions |
|---|---|
| Screen image is too small | • Check the **Aspect Ratio** setting in the **Display** settings OSD.<br>• Reset the monitor to Factory Settings (**Factory Reset**) . |
| Cannot adjust the monitor with the buttons on the side panel | • Turn off the monitor, unplug the power cord, plug it back, and then turn on the monitor.<br>• Check if the OSD menu is locked. If yes, press and hold the button above the power button for 10 seconds to unlock. (For more information, see Lock). |
| No input signal when user controls are pressed | • Check the signal source. Ensure the computer is not in standby or sleep mode by moving the mouse or pressing any key on the keyboard.<br>• Check if the video cable is plugged in properly. Disconnect and reconnect the video cable if necessary.<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>• Run the built-in diagnostics. |

## Universal Serial Bus (USB) specific problems

| Specific Symptoms | What You Experience | Possible Solutions |
|---|---|---|
| USB interface is not working | USB peripherals are not working | • Check that your monitor is turned On.<br>• Reconnect the upstream cable to your computer.<br>• Reconnect the USB peripherals (downstream connector).<br>• Switch Off and then turn On the monitor again.<br>• Reboot the computer.<br>• Some USB devices like external portable HDD require higher electric current; connect the device directly to the computer system. |
| High Speed USB 3.0 interface is slow | High Speed USB 3.0 peripherals working slowly or not working at all | • Check that your computer is USB 3.0-capable.<br>• Some computers have USB 3.0, USB 2.0 and USB 1.1 ports. Ensure that the correct USB port is used.<br>• Reconnect the upstream cable to your computer.<br>• Reconnect the USB peripherals (downstream connector).<br>• Reboot the computer. |

## Mobile high-definition link (MHL) specific problems

| Specific Symptoms | What You Experience | Possible Solutions |
|---|---|---|
| MHL interface is not working | Cannot see MHL device image shown on monitor | • Ensure your MHL cable and MHL device are MHL certified.<br>• Check your MHL device is turned On.<br>• Check your MHL device is not in Standby mode.<br>• Check physical MHL cable connection is corresponding to input source selected on OSD Menu i.e., **HDMI (MHL) 1** or **HDMI (MHL) 2**.<br>• Wait for 30 seconds after connecting MHL cable as some MHL devices require longer recovery time. |

# Appendix

**WARNING: Safety Instructions**

**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.**

For information on safety instructions, see the *Product Information Guide*.

## FCC notices (U.S. Only) and other regulatory information

For FCC notices and other regulatory information, see the regulatory compliance website located at www.dell.com/regulatory_compliance.

## Contacting Dell

**To contact Dell for sales, technical assistance, or customer service issues:**

1. Go to **www.dell.com/contactdell**.
2. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
3. Select the appropriate service or support link based on your requirement or choose the method of contacting Dell that is convenient for you. Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area.

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