

Dell P2715Q/P2415Q

User's Guide

Model: P2715Q/P2415Q
Regulatory model: P2715Qt/P2415Qb



 **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.

Copyright © 2014 Dell Inc. All rights reserved. This product is protected by U.S. and international copyright and intellectual property laws.

Dell™ and the Dell logo are trademarks of Dell Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

Contents

- About Your Monitor 5
 - Package Contents 5
 - Product Features 6
 - Identifying Parts and Controls 7
 - Monitor Specifications. 10
 - Plug-and-Play21
 - LCD Monitor Quality and Pixel Policy.21
- Setting Up the Monitor..... 22
 - Attaching the Stand 22
 - Connecting Your Monitor. 22
 - Organizing Your Cables 25
 - Attaching the Cable Cover 26
 - Removing the Monitor Stand. 26
 - Removing the Cable Cover 27
 - Wall Mounting (Optional) 27
- Operating the Monitor..... 28
 - Turning on the Monitor 28
 - Using the Front Panel Controls 28
 - Using the On-Screen Display (OSD) Menu 30
 - Using the Tilt, Swivel, and Vertical Extension 41
 - Adjusting the Rotation Display Settings of Your System 42

Troubleshooting 43

 Self-Test 43

 Built-in Diagnostics 44

 Common Problems. 45

 Product Specific Problems 47

 Mobile High-Definition Link (MHL) Specific Problems. 48

Appendix 49

 Safety Instructions 49

 FCC Notices (U.S. only) and Other Regulatory Information 49

 Contacting Dell 49

 Setting Up Your Monitor 50

 Maintenance Guidelines. 51

About Your Monitor

Package Contents

Your monitor ships with the components shown below. Make sure that you have received all the components and [contact 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.



Monitor



Stand



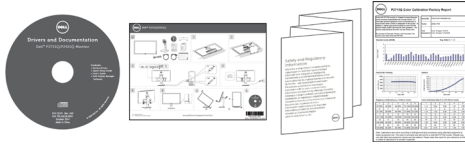
Cable cover



Power cable (varies by country)



USB 3.0 upstream cable (enables the USB ports on the monitor)



- Drivers and documentation media
- Quick Setup Guide
- Safety and Regulatory Information
- Factory Calibration Report

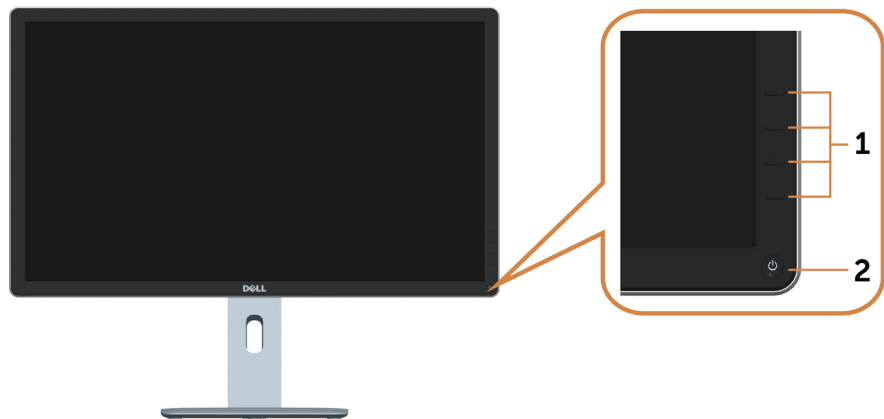
Product Features

The **Dell P2715Q/P2415Q** flat panel monitor has an active matrix, thin-film transistor (TFT), liquid crystal display (LCD), and light emitting diode (LED) backlight. The monitor features include:

- **P2715Q:** 68.47 cm (27-inch) viewable area display (measured diagonally). 3840 x 2160 resolution with full-screen support for lower resolutions.
- **P2415Q:** 60.47 cm (23.80-inch) viewable area display (measured diagonally). 3840 x 2160 resolution with full-screen support for lower resolutions.
- Wide viewing angle to allow viewing from a sitting or standing position, or while moving from side-to-side.
- Tilt, swivel, vertical extension, and rotate adjustment capabilities.
- Extensive digital connectivity with DP, HDMI (MHL), and USB 3.0.
- Removable stand and video electronics standards association (VESA) 100 mm mounting holes for flexible mounting solutions.
- Plug and play capable.
- On-screen display (OSD) adjustments for easy setup and screen optimization.
- Software and documentation media includes an information file (INF), Image-color matching file (ICM), and product documentation.
- Dell display manager software (available on the disc shipped with the monitor).
- Energy saver feature for energy star compliance.
- Security-lock slot.
- Stand lock.
- Capability of switching from wide aspect to standard aspect ratio while maintaining image quality.
- EPEAT Gold rating.
- BFR/PVC- reduced.
- TCO-certified displays.
- Arsenic-free glass and mercury-free for the panel only.
- 0.5 W standby power when in the sleep mode.
- Energy gauge shows the energy level being consumed by the monitor in real time.

Identifying Parts and Controls

Front view



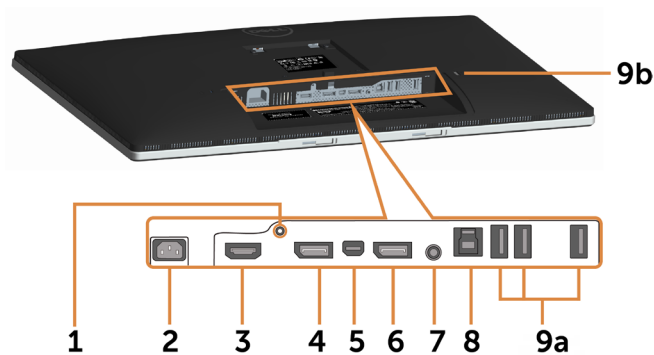
Label	Description
1	Function buttons (For more information, see Operating the Monitor)
2	Power on/off button (with LED indicator)

Back View



Label	Description	Use
1	VESA mounting holes (100 mm x 100 mm - behind attached VESA cover)	Wall mount monitor using VESA-compatible wall mount kit (100 mm x 100 mm).
2	Regulatory label	Lists the regulatory approvals.
3	Stand-release button	Release stand from monitor.
4	Security-lock slot	Secures monitor with security lock (sold separately).
5	Service Tag label (P2715Q only)	Refer to this label if you need to contact Dell for technical support.
6	Barcode, serial number label	Refer to this label if you need to contact Dell for technical support. NOTE: P2415Q have service tag printing for EMEA only.
7	Dell soundbar mounting slots	Attaches the optional Dell soundbar.
8	Cable-management slot	Use to organize cables by placing them through the slot.

Bottom View



Label	Description	Use
1	Stand lock	Lock the stand to the monitor using a M3 x 6 mm screw (screw not included).
2	AC power connector	To connect the monitor power cable.
3	HDMI (MHL) port	Connect your computer with HDMI cable or MHL devices with MHL cable (optional).
4	DP connector (in)	Connect your computer with DP cable.
5	mDP connector (in)	Connect your computer with mDP to DP cable.
6	DP connector (out)	DP output for MST (multi-stream transport) capable monitor. DP 1.1 monitor can only be connected as the last monitor in the MST chain. To enable MST, refer to instruction on section “Connecting the Monitor for DP MST Function” .
7	Audio line-out port	Connect speakers to playback audio coming through HDMI or DP audio channels. Only supports 2-channel audio. NOTE: The audio line-out port does not support headphones.
8	USB upstream port	Connect the USB cable to your computer and the monitor to enable the USB ports on the monitor.
9a, 9b	USB downstream ports (4)	Connect USB devices. NOTE: You must connect the USB upstream cable to the monitor and your computer to be able to use these ports.

Monitor Specifications

Flat Panel Specifications

Model	P2715Q	P2415Q
Screen type	Active matrix - TFT LCD	Active matrix - TFT LCD
Panel type	In-plane switching (IPS)	In-plane switching (IPS)
Viewable image:		
Diagonal	68.47 cm (27 inches)	60.47 cm (23.80 inches)
Active Area:		
Horizontal	596.74 mm (23.49 inches)	527.04 mm (20.75 inches)
Vertical	335.66 mm (13.21 inches)	296.46 mm (11.67 inches)
Area	200301.75 mm ² (310.47 inch ²)	156246.27 mm ² (242.18 inch ²)
Pixel pitch	0.1554 mm x 0.1554 mm	0.13725 mm x 0.13725 mm
Viewing angle:		
Horizontal	178° (typical)	178° (typical)
Vertical	178° (typical)	178° (typical)
Luminance output	350 cd/m ² (typical)	300 cd/m ² (typical)
Contrast ratio	1000 to 1 (typical)	1000 to 1 (typical)
	2,000,000 to 1 (mega dynamic contrast on)	2,000,000 to 1 (mega dynamic contrast on)
Faceplate coating	Anti-glare treatment of the front polarizer (3H)	Anti-glare treatment of the front polarizer (3H)
Backlight	LED edgelight system	LED edgelight system
Response time	8.6 ms (typical), 6ms (fast mode)	8 ms (typical), 6 ms (fast mode)
Color depth	1.07 Billion colors	1.07 Billion colors
Color gamut*	99% sRGB	99% sRGB

* **P2715Q:** Color gamut (typical) is based on CIE1976 (103.961%) and CIE1931 (77.6%) test standards.

P2415Q: Color gamut (typical) is based on CIE1976 (102.28%) and CIE1931 (82.09%) test standards.

Resolution Specifications

Horizontal scan range	31 kHz to 140 kHz (automatic)
Vertical scan range	29 Hz to 76 Hz (automatic)
Maximum preset resolution	3840 x 2160 at 60 Hz
Video display capabilities (DP & HDMI & MHL playback)	480i, 480p, 576i, 576p, 720p, 1080i, 1080p , QHD, UHD

Preset Display Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/ Vertical)
VESA, 720 x 400	31.5	70.0	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	60.0	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, 1152 x 864	67.5	75.0	108.0	+/+
VESA, 1600 x 900	60.0	60.0	108.0	+/+
VESA, 1920 x 1080	67.5	60.0	148.5	+/+
VESA, 2560 x 1440	88.8	60.0	241.5	+/-
VESA, 3840 x 2160	65.7	30.0	262.75	+/-
VESA, 3840 x 2160	133.3	60.0	533.25	+/-

MHL Source Display Modes

Display Mode	Frequency (Hz)
640 x 480p	60
720 x 480p	60
720 x 576p	50
1280 x 720p	60
1280 x 720p	50
1920 x 1080i	60
1920 x 1080i	50
1920 x 1080p	30
720 (1440) x 480i	60
720 (1440) x 576i	50

Electrical Specifications

Video input signals	• Digital video signal for each differential line. Per differential line at 100 ohm impedance. • DP 1.2/HDMI 1.4/MHL 2.0 signal input support
Synchronization input signals	Separate horizontal and vertical synchronization, polarity-free TTL level, SOG (Composite SYNC on green)
Input voltage/ frequency/ current	100-240 VAC / 50 or 60 Hz $\pm$ 3 Hz / 1.8 A (maximum)
Inrush current	120 V: 30 A (Max.) 240 V: 60 A (Max.)

Physical Characteristics

Model	P2715Q	P2415Q
Connector type	• DP connector (include DP in and DP out) • mDP • HDMI (MHL) • Audio line-out • USB 3.0	• DP connector (include DP in and DP out) • mDP • HDMI (MHL) • Audio line-out • USB 3.0
Signal cable type	• mDP to DP 1.8 M cable. • USB 3.0 1.8 M cable.	• mDP to DP 1.8 M cable. • USB 3.0 1.8 M cable.
Dimensions (with stand):		
Height (extended)	538.86 mm (21.22 inches)	499.53 mm (19.67 inches)
Height (compressed)	423.86 mm (16.69 inches)	369.53 mm (14.55 inches)
Width	640.74 mm (25.23 inches)	566.64 mm (22.31 inches)
Depth	203.86 mm (8.03 inches)	205 mm (8.07 inches)
Dimensions (without stand):		
Height	379.66 mm (14.95 inches)	336.06mm (13.23 inches)
Width	640.74 mm (25.23 inches)	566.64 mm (22.31 inches)
Depth	51.50 mm (2.03 inches)	46.93 mm (1.85 inches)
Stand dimensions:		
Height (extended)	417.31 mm (16.41 inches)	400.50 mm (15.77 inches)
Height (compressed)	302.31 mm (11.90 inches)	270.50 mm (10.65 inches)
Width	245 mm (9.65 inches)	245 mm (9.65 inches)
Depth	203.86 mm (8.03 inches)	205 mm (8.07 inches)
Weight:		
With packaging	10.66 kg (23.50 lb)	8.68 kg (19.14 lb)

With stand assembly and cables	7.53 kg (16.60 lb)	5.68 kg (12.52 lb)
Without stand assembly (for wall mount or VESA mount considerations - no cables)	5.03 kg (11.10 lb)	3.34 kg (7.36 lb)
Stand assembly	2.15 kg (4.74 lb)	2.06 kg (4.54 lb)
Front frame gloss	5% (maximum)	5% (maximum)

Environmental Characteristics

Model	P2715Q	P2415Q
Temperature:		
Operating	0°C to 35°C (32°F to 95°F)	0°C to 35°C (32°F to 95°F)
Non-operating	–20°C to 60°C (–4°F to 140°F)	–20°C to 60°C (–4°F to 140°F)
Humidity:		
Operating	10% to 80% (non-condensing)	10% to 80% (non-condensing)
Non-operating	5% to 90% (non-condensing)	5% to 90% (non-condensing)
Altitude:		
Operating	5,000 m (16,404 ft) (maximum)	5,000 m (16,404 ft) (maximum)
Non-operating	12,192 m (40,000 ft) (maximum)	12,192 m (40,000 ft) (maximum)
Thermal dissipation	324.15 BTU/hour (maximum)	307.09 BTU/hour (maximum)
	170.61 BTU/hour (typical)	153.55 BTU/hour (typical)

Power Management Modes

If you have VESA’s DPM-compliant video 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.

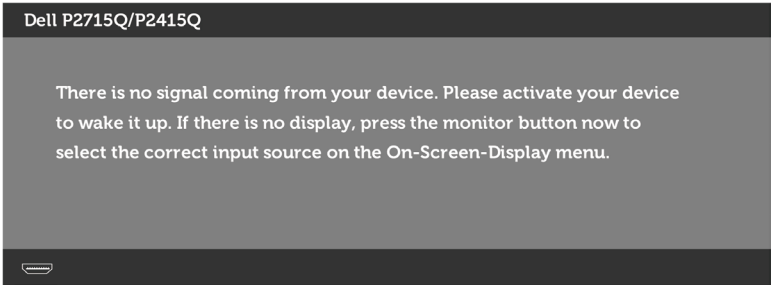
P2715Q

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	95 W (maximum)** 50 W (typical)
Active-off mode	Inactive	Inactive	Off	White (blinking slowly)	Less than 0.5 W
Switch off	-	-	-	Off	Less than 0.5 W

P2415Q

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	90 W (maximum)** 45 W (typical)
Active-off mode	Inactive	Inactive	Off	White (blinking slowly)	Less than 0.5 W
Switch off	-	-	-	Off	Less than 0.5 W

The OSD operates only in the normal operation mode. If you press any button in the active-off mode, one of the following message is displayed:



*Zero power consumption in OFF mode can only be achieved by disconnecting the power adapter from the monitor.

**Maximum power consumption with maximum luminance.

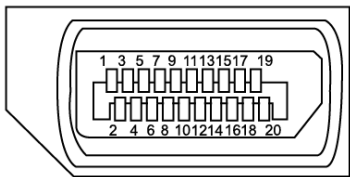
Activate the computer and the monitor to gain access to the OSD.

 **NOTE:** This monitor is **ENERGY STAR** -compliant.



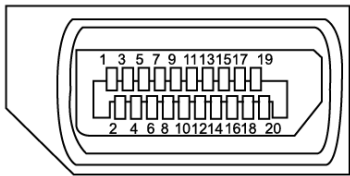
Pin Assignments

DP connector (in)



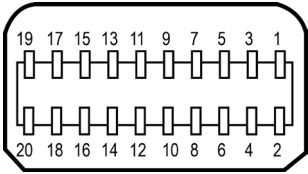
Pin number	20-pin side of the connected signal cable
1	ML3(n)
2	GND
3	ML3(p)
4	ML2(n)
5	GND
6	ML2(p)
7	ML1(u)
8	GND
9	ML1(p)
10	ML0(n)
11	GND
12	ML0(p)
13	CONFIG1
14	CONFIG2
15	AUX CH (p)
16	GND
17	AUX CH (n)
18	Hot Plug Detect
19	Return
20	DP_PWR

DP connector (out)



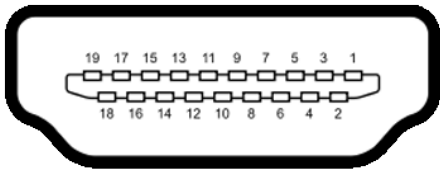
Pin number	20-pin side of the connected signal cable
1	ML0(p)
2	GND
3	ML0(n)
4	ML1(p)
5	GND
6	ML1(n)
7	ML2(p)
8	GND
9	ML2(n)
10	ML3(p)
11	GND
12	ML3(n)
13	CONFIG1
14	CONFIG1
15	AUX CH(p)
16	GND
17	AUX CH(n)
18	Hot Plug Detect
19	Return
20	DP_PWR

mDP connector



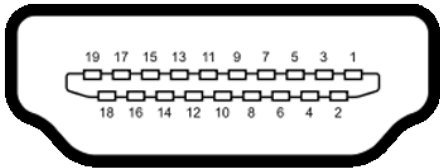
Pin number	20-pin side of the connected signal cable
1	GND
2	Hot Plug Detect
3	ML3 (n)
4	GND
5	ML3 (n)
6	GND
7	GND
8	GND
9	ML2 (n)
10	ML0 (p)
11	ML2 (p)
12	ML0 (p)
13	GND
14	GND
15	ML1 (n)
16	AUX (p)
17	ML1 (p)
18	AUX (n)
19	GND
20	+3.3 V DP_PWR

HDMI connector



Pin number	19-pin side of the connected signal cable
1	TMDS DATA 2+
2	TMDS DATA 2 SHIELD
3	TMDS DATA 2-
4	TMDS DATA 1+
5	TMDS DATA 1 SHIELD
6	TMDS DATA 1-
7	TMDS DATA 0+
8	TMDS DATA 0 SHIELD
9	TMDS DATA 0-
10	TMDS CLOCK+
11	TMDS CLOCK SHIELD
12	TMDS CLOCK-
13	CEC
14	Reserved (N.C. on device)
15	DDC CLOCK (SCL)
16	DDC DATA (SDA)
17	DDC/CEC Ground
18	+5 V POWER
19	HOT PLUG DETECT

MHL connector



Pin number	19-pin side of the connected signal cable
1	N/C
2	CD_SENSE
3	N/C
4	N/C
5	TMDS_GND
6	N/C
7	MHL+
8	MHL_Shield
9	MHL-
10	N/C
11	TMDS_GND
12	N/C
13	N/C
14	N/C
15	CD_PULLUP
16	N/C
17	VBUS_CBUS_GND
18	VBUS
19	CBUS
2Shell	Shield

Universal Serial Bus (USB)

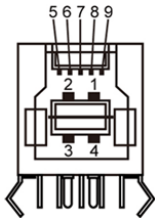
This section gives you information about the USB ports available on your monitor. Your computer has the following USB ports:

- One USB 3.0 upstream port
- Four USB 3.0 downstream ports

 **NOTE:** The monitor's USB ports work 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.

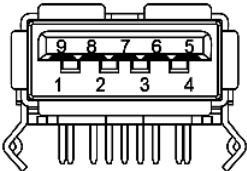
Transfer speed	Data rate	Power consumption
SuperSpeed	5 Gbps	4.5 W (Max., each port)
Hi-Speed	480 Mbps	2.5 W (Max., each port)
Full speed	12 Mbps	2.5 W (Max., each port)

USB upstream port



Pin number	Signal name
1	VBUS
2	D-
3	D+
4	GND
5	StdB_SSTX-
6	StdB_SSTX+
7	GND_DRAIN
8	StdB_SSRX-
9	StdB_SSRX+
Shell	Shield

USB downstream port



Pin number	Signal name
1	VBUS
2	D-
3	D+
4	GND
5	StdA_SSRX-
6	StdA_SSRX+
7	GND_DRAIN
8	StdA_SSTX-
9	StdA_SSTX+
Shell	Shield

Plug-and-Play

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 computer 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 the 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 LCD Monitor Pixel Policy, see Dell support site at: <http://www.dell.com/support/monitors>.

Setting Up the Monitor

Attaching the Stand



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



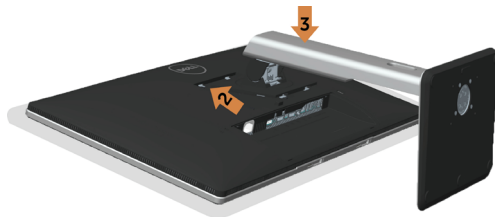
NOTE: The procedure below is applicable for the default stand. If you purchased any other stand, see the documentation shipped with the stand to set it up.



CAUTION: Place monitor of a flat, clean, and soft surface to avoid scratching the display panel.

To attach the monitor stand:

- 1 Place the monitor on a flat surface.
- 2 Insert the two tabs on the upper part of the stand in the slots on the back of the monitor.
- 3 Press the stand down till it snaps into place.



Connecting Your Monitor



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

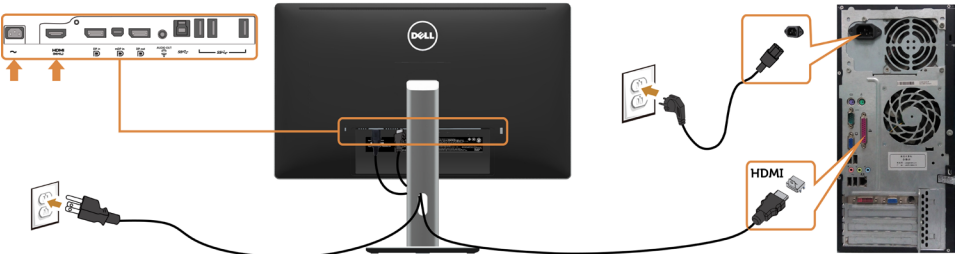
To connect your monitor to the computer:

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

Connecting the DP (or mDP) cable



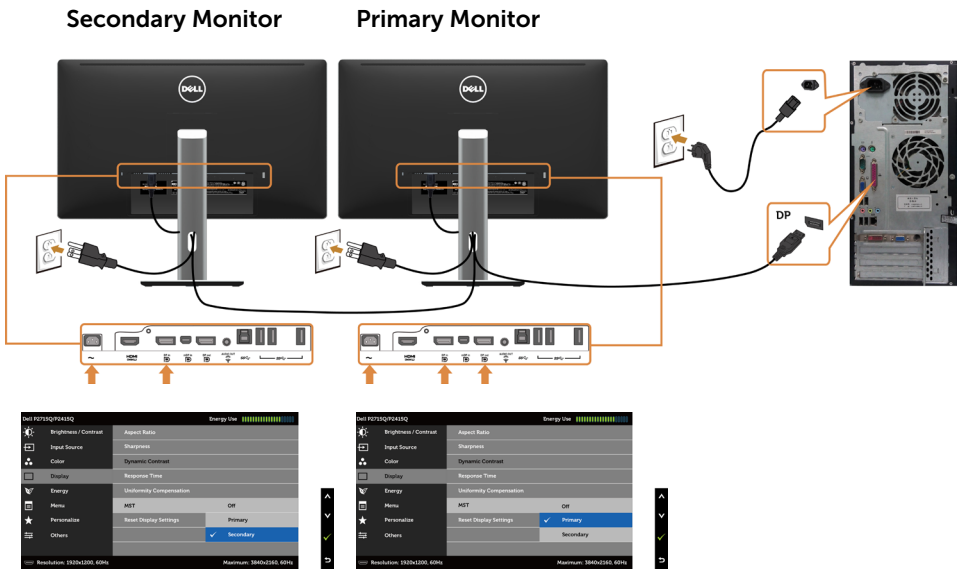
Connecting the HDMI cable(Optional)



Connecting the USB cable



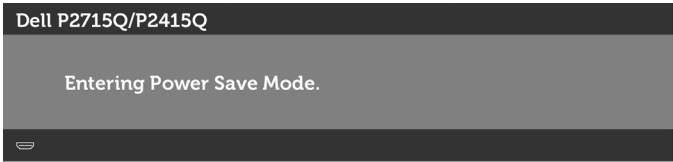
Connecting the Monitor for DP Multi-Stream Transport (MST) function



NOTE: Supports the DP MST feature. To make use of this feature, your PC Graphics Card must be certified to DP1.2 with MST option.

Using the Mobile-High Definition Link (MHL)

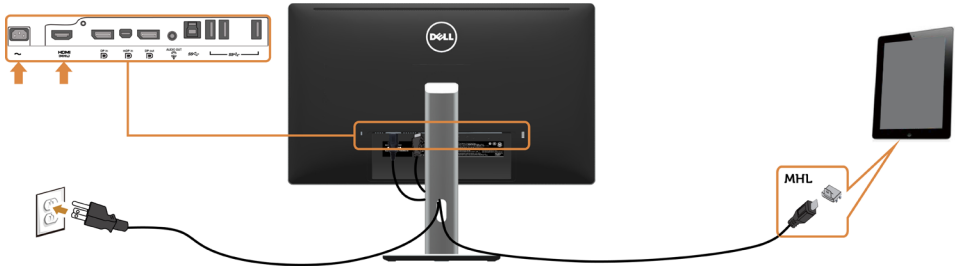
- NOTE:** This monitor is MHL ready.
- NOTE:** To use the MHL function, use only MHL certified cable and source devices that support MHL output.
- NOTE:** Some MHL source devices may take more than a few seconds or longer to output an image, depending on MHL source devices.
- NOTE:** When the connected MHL source device enters standby mode, the monitor displays a black screen or the message below, depending on MHL source device's output.



To enable MHL connection, please perform the below steps:

- 1 Plug the power adapter to your monitor and to a power outlet.
- 2 Connect the (micro) USB port on your MHL source device to HDMI (MHL) 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) by using OSD menu (see [Using the On-Screen Display \(OSD\) Menu](#) for details).
- 5 If the monitor does not display an image, see [Mobile High-Definition Link \(MHL\) Specific Problems](#).

Organizing Your Cables



After attaching all necessary cables to your monitor and computer, (see [Connecting Your Monitor](#) for cable attachment) organize all cables as shown above.

Attaching the Cable Cover

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

- 1 Insert the two tabs on the bottom part of the cable cover in the slots on the back of the monitor.
- 2 Press the cable cover till it snaps into place.



Removing the Monitor Stand



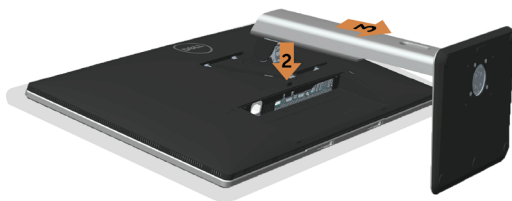
CAUTION: To prevent scratches on the LCD screen while removing the stand, make sure that the monitor is placed on a soft, clean surface.



NOTE: The procedure below is applicable for the default stand. If you purchased any other stand, see the documentation shipped with the stand to set it up.

To remove the stand:

- 1 Place the monitor on a soft cloth or cushion.
- 2 Press and hold the stand-release button.
- 3 Lift the stand up and away from the monitor.

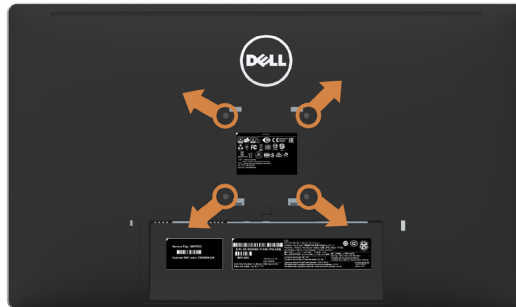


Removing the Cable Cover

- 1 Press the tab on the cable cover.
- 2 Remove the two tabs on the bottom part of the cable cover from the slots on the back of the monitor.



Wall Mounting (Optional)



 **NOTE:** Use M4 x 10 mm screws to connect the monitor to the wall-mounting kit.

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

- 1 Place the monitor 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 10.66 kg (**P2715Q**)/8.68 Kg (**P2415Q**).

Operating the Monitor

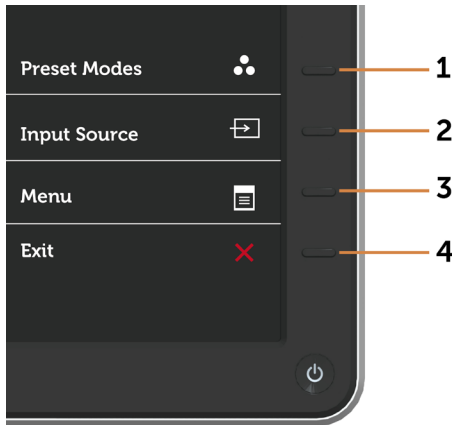
Turning on the Monitor

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 characteristics of the image being displayed. As you use these buttons to adjust the controls, an OSD shows the numeric values of the characteristics as they change.

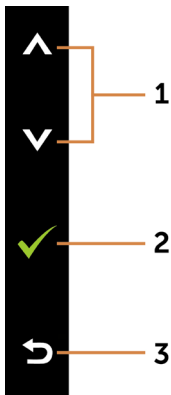


The following table describes the front panel buttons:

Front-Panel Button		Description
1	 Shortcut key: Preset Modes	Use this button to choose from a list of preset color modes.
2	 Shortcut key: Input Source	Use this button to choose from a list of Input Source.
3	 Menu	Use this menu button to launch the on-screen display (OSD) and select the OSD menu. See Accessing the Menu System .
4	 Exit	Use this button to go back to the main menu or exit the OSD main menu.

Front-Panel Button

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



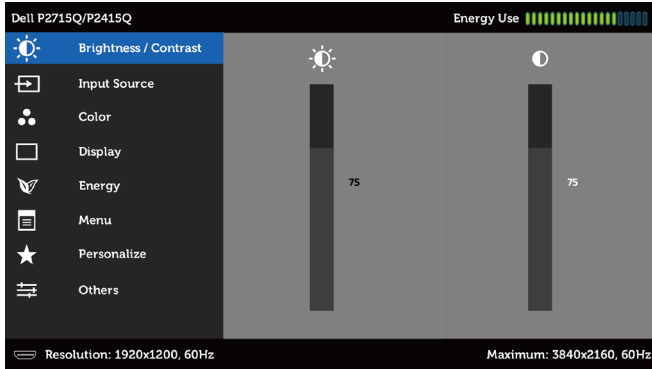
Front Panel Button		Description
1	 Up  Down	Use the Up (increase) and Down (decrease) keys to adjust items in the OSD menu.
2	 OK	Use the OK button to confirm your selection.
3	 Back	Use the Back button to go back to the previous menu.

Using the On-Screen Display (OSD) Menu

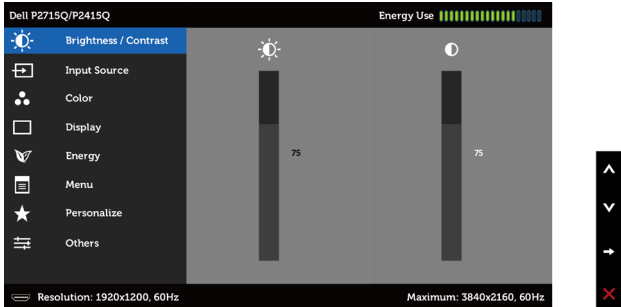
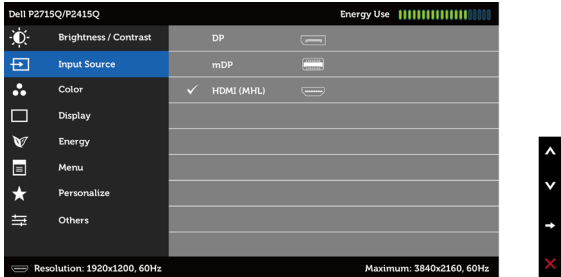
Accessing the Menu System

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

- 1 Press the  button to launch the OSD menu and display the main menu.



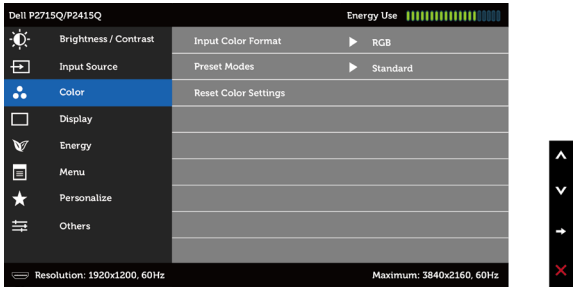
- 2 Press the  and  buttons to move between options. As you move from one icon to another, the option name is highlighted.
- 3 Press the  or  button once to activate the highlighted option.
- 4 Press the  and  buttons to select the desired parameter.
- 5 Press  to enter the slide bar and then use the  or  button, according to the indicators on the menu, to make your changes.
- 6 Press the  button once to return to the main menu to select another option or press the  button two or three times to exit from the OSD menu.

Icon	Menu and Submenus	Description
	Brightness/Contrast	Use this menu to activate Brightness/Contrast adjustment.
		
	Brightness	Brightness adjusts the luminance of the backlight (minimum 0; maximum 100). Press the  button to increase brightness. Press the  button to decrease brightness. NOTE: Manual adjustment of Brightness is disabled when Dynamic Contrast is switched on.
	Contrast	Adjust the Brightness first, and then adjust Contrast only if further adjustment is necessary. Press the  button to increase contrast and press the  button to decrease contrast (between 0 and 100). Contrast adjusts the difference between darkness and lightness on the monitor.
	Input Source	Use the Input Source menu to select between different video inputs that are be connected to your monitor.
		
	DP	Select DP input when you are using the DP (DisplayPort) connector. Use  to select the DP input source.
	mDP	Select mDP input when you are using the mDP (mini DisplayPort) connector. Use  to select the mDP input source.

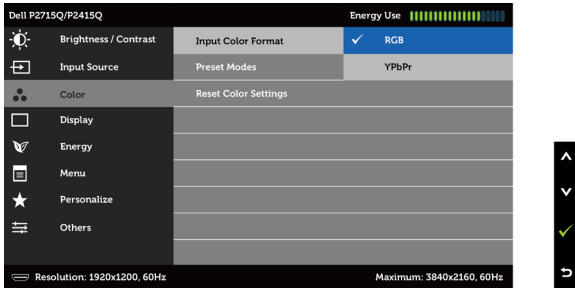
Icon	Menu and Submenus	Description
	HDMI (MHL)	Select the HDMI (MHL) input when you are using the HDMI connector. Use  to select the HDMI (MHL) input source.



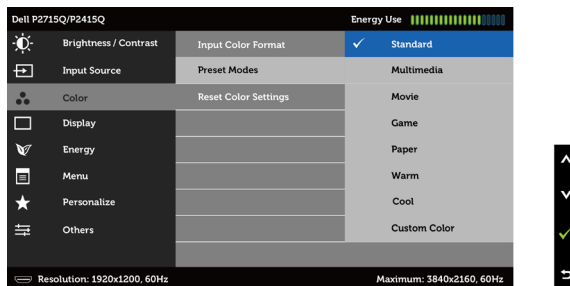
Color Use the **Color** menu to adjust the color setting mode.



Input Color Format Allows you to set the video input mode to:
RGB: Select this option if your monitor is connected to a computer (or DVD player) using the HDMI, mDP-DP cable or MHL devices using the MHL cable.
YPbPr: Select this option if your DVD player supports only YPbPr output.



Icon	Menu and Submenus	Description
	Preset Mode	When you select Preset Modes, you can choose Standard, Multimedia, Movie, Game, Paper, Warm, Cool, or Custom Color from the list. • Standard: Default color settings. This is the default preset mode. • Multimedia: Ideal for multimedia applications. • Movie: Ideal for movies. • Game: Ideal for most gaming applications. • 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. • Warm: Increases the color temperature. The screen appears warmer with a red/yellow tint. • Cool: Decreases the color temperature. The screen appears cooler with a blue tint. • Custom Color: Allows you to manually adjust the color settings. Press the  and  buttons to adjust the Red, Green, and Blue values and create your own preset color mode.



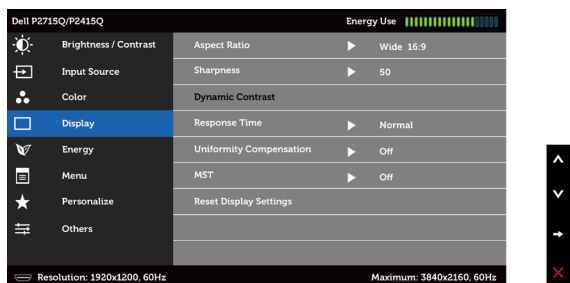
Reset Color Settings

Resets your monitor's color settings to the factory defaults.



Display

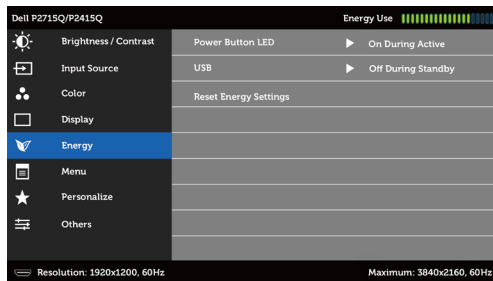
Use the **Display** menu to adjust image.



Icon	Menu and Submenus	Description
	Aspect Ratio	Adjust the image ratio to Wide 16:9, 4:3, or 1:1 .
	Sharpness	Makes the image look sharper or softer. Use  or  to adjust the sharpness from '0' to '100'.
	Dynamic Contrast	Allows you to increase the level of contrast to provide sharper and more detailed image quality. Push the  button to select the Dynamic Contrast "On" or "Off". NOTE: Dynamic Contrast provides higher contrast if you select Game or Movie preset mode.
	Response Time	Allows you to set the Response Time to Normal or Fast .
	Uniformity Compensation	Select screen brightness and color uniformity compensation settings. Calibrated is factory calibrated setting by default. Uniformity Compensation adjusts different areas of the screen with respect to the center to achieve uniform brightness and color over the entire screen. For optimal screen performance, Brightness and Contrast for some preset modes (Standard...) will be disabled when Uniformity Compensation is turned On.
	MST	"Off" : Default mode - 4k2k 60Hz with MST function Disabled. "Primary" : Set as primary mode at 4K2K 30Hz with MST (DP out) enabled. "Secondary" : Set as secondary mode at 4K2K 30Hz with MST (DP out) disabled. NOTE: Secondary mode can be set using hot key to switch to DP 1.1 when there is no display. See Troubleshooting .
	Reset Display Settings	Restores the display settings to factory defaults.

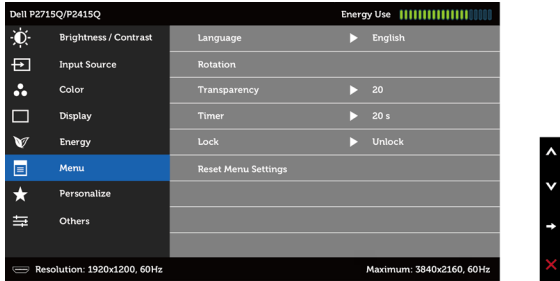


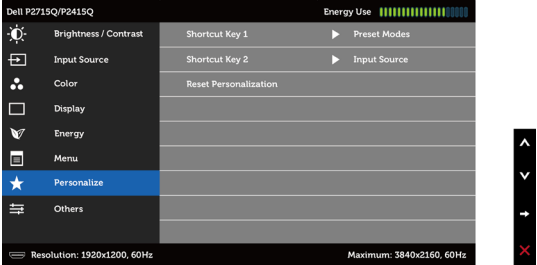
Energy

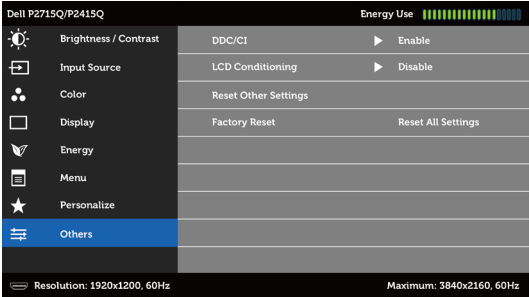


Power Button LED

Allows you to set the state of the power light to save energy.

Icon	Menu and Submenus	Description			
	USB	System			
		Monitor status	On	Standby	Off
		Monitor with upstream connected	On (Disabled)	On (Disabled)	Off (Disabled)
		Monitor without upstream connected	On	Off/On* (depends on OSD selections)	Off
	Reset Energy Settings	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.			
					
	Language	Set the OSD display to one of eight languages. (English, Spanish, French, German, Brazilian Portuguese, Russian, Simplified Chinese, or Japanese).			
	Rotation	Rotates the OSD by 90 degrees counter-clockwise. You can adjust the menu according to your display rotation.			
	Transparency	Select this option to change the menu transparency by using  and  (min. 0 / max. 100).			
	Timer	OSD Hold Time: Sets the length of time the OSD remains active after you press a button. Use the  and  buttons to adjust the slider in 1-second increments, from 5 to 60 seconds.			

Icon	Menu and Submenus	Description
	Lock	Controls user access to adjustments. When Lock is selected, no user adjustments are allowed. All buttons are locked. NOTE: Lock function – Either soft lock (through OSD menu) or hard lock (Press and hold the button above power button for 10 sec) Unlock function – Only hard unlock (Press and hold the button above power button for 10 sec)
	Reset Menu Settings	Restore the menu settings to factory defaults.
	Personalize	Select from Preset Modes , Brightness/Contrast , Auto Adjust , Input Source , Aspect Ratio , or Rotation and set as shortcut key. 
	Reset Personalization	Restores shortcut keys to factory defaults.

Icon	Menu and Submenus	Description
	Other	

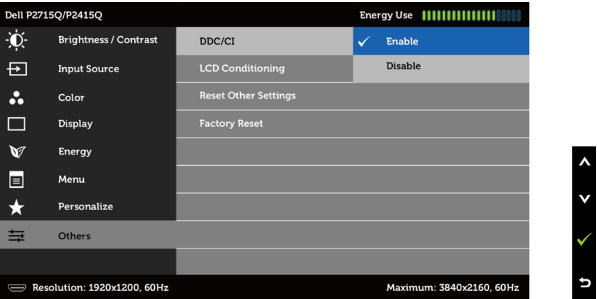
Select this option to adjust the OSD settings, such as the **DDC/CI**, **LCD conditioning**, and so on.

DDC/CI

DDC/CI (Display Data Channel/Command Interface) allows you to adjust the monitor settings using software on your computer.

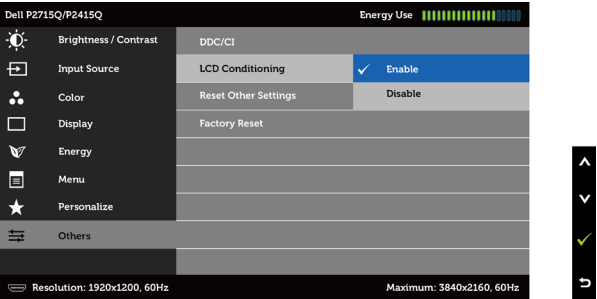
Select **Disable** to turn off this feature.

Enable this feature for best user experience and optimum performance of your monitor.



LCD Conditioning

Helps reduce minor cases of image retention. Depending on the degree of image retention, the program may take some time to run. Select **Enable** to start the process.



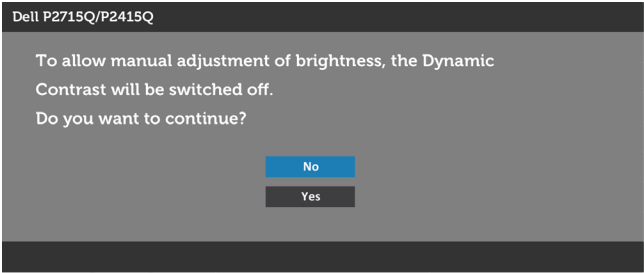
Icon	Menu and Submenus	Description
	Reset Other Settings	Restores other settings, such as DDC/CI , to factory defaults.
	Factory Reset	Restores all OSD settings to the factory defaults.



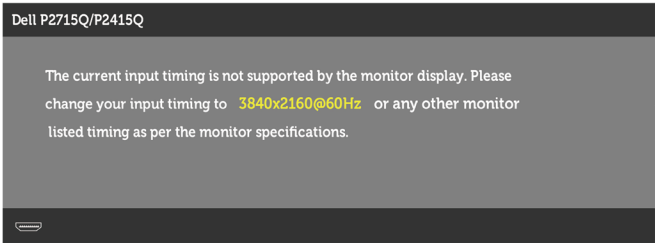
NOTE: This monitor has a built-in feature to automatically calibrate the brightness to compensate for LED aging.

OSD Warning Messages

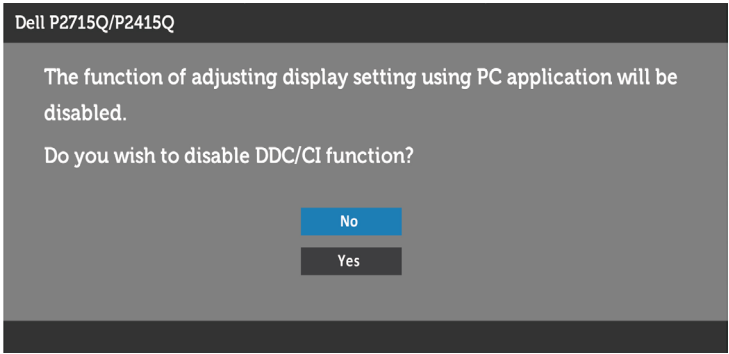
When the **Dynamic Contrast** feature is enabled (in these preset modes: **Game** or **Movie**), manual brightness adjustment is disabled.



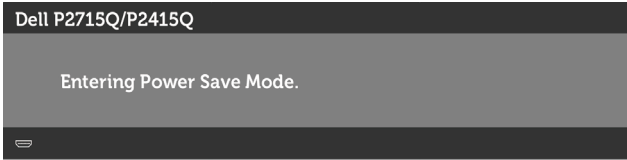
When the monitor does not support a particular resolution mode, you will see the following message:



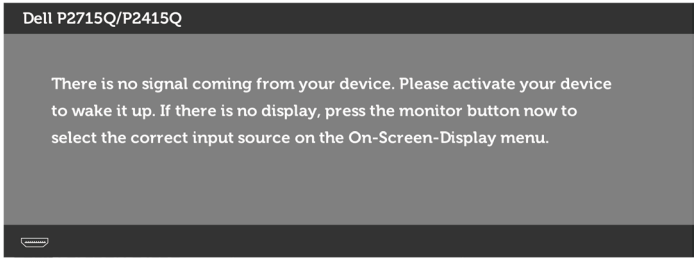
This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See [Monitor Specifications](#) for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 3840 x 2160.
You will see the following message before the DDC/CI function is disabled:



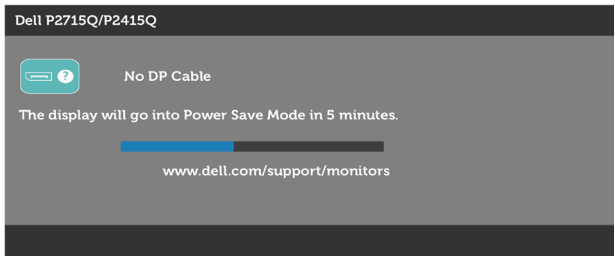
When the monitor enters the **Power Save** mode, the following message appears:



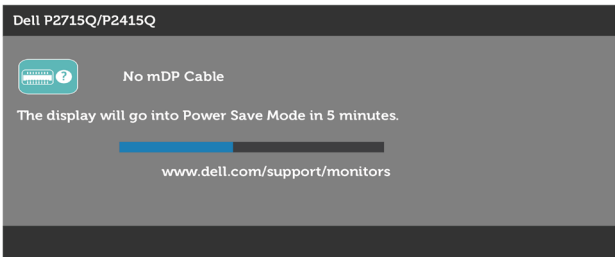
Activate the computer and wake up the monitor to gain access to the [OSD](#).
If you press any button other than the power button, the following messages will appear depending on the selected input:



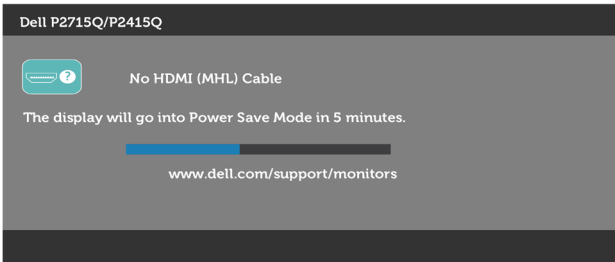
If either DP, mDP or HDMI (MHL) input is selected and the corresponding cable is not connected, a floating dialog box as shown below appears.



or



or



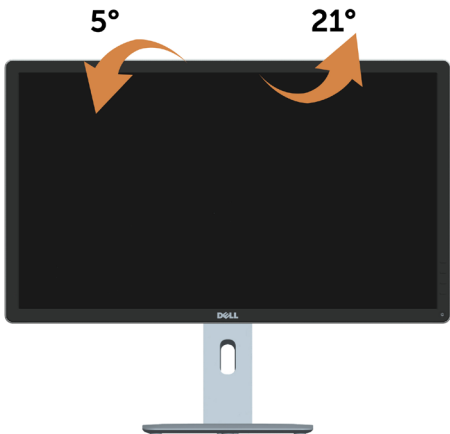
See [Troubleshooting](#) for more information.

Using the Tilt, Swivel, and Vertical Extension

 **NOTE:** This is applicable for a monitor with a stand. If you purchased any other stand, refer to the respective stand setup guide for set up instructions.

Tilt, Swivel

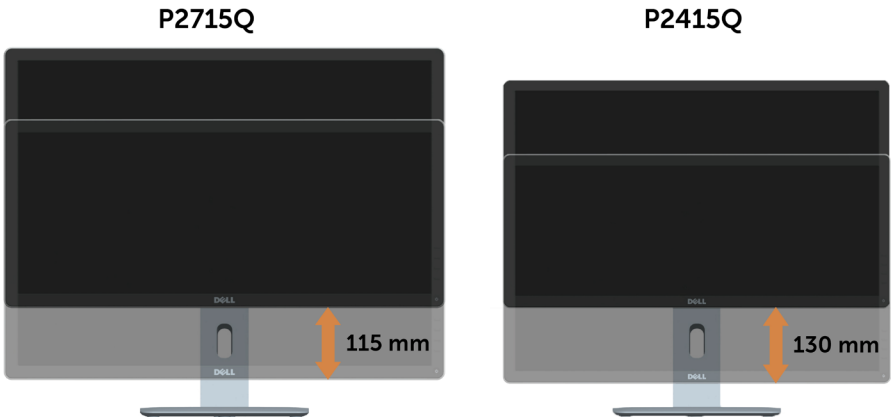
With the stand attached to the monitor, you can tilt the monitor for the most comfortable viewing angle.



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

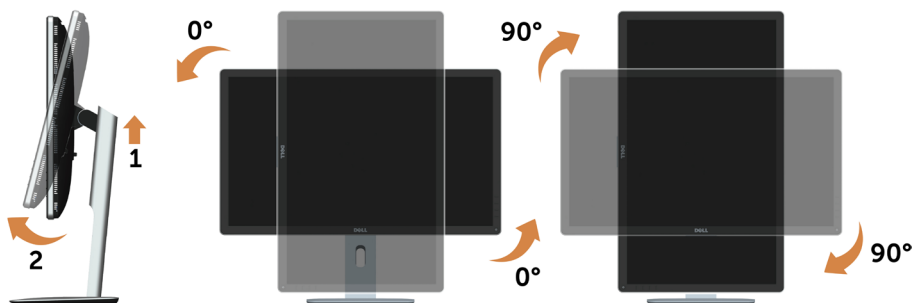
Vertical Extension

The stand extends vertically up to 115 mm (**P2715Q**) / 130 mm (**P2415Q**). The figure below illustrates how to extend the stand vertically.



Rotating the Monitor

Before you rotate the monitor, your monitor should be fully vertically extended ([Vertical Extension](#)) and fully tilted ([Tilt](#)) up to avoid hitting the bottom edge of the monitor.



NOTE: To use the Display Rotation function (Landscape versus Portrait view) with your Dell computer, you require an updated graphics driver that is not included with this monitor. Todownload the graphics driver, go to www.dell.com/support and see the Download section for Video Drivers for latest driver updates.

NOTE: When in the Portrait View Mode, you may experience performance degradation in graphic-intensive applications (3D Gaming and etc.).

Adjusting the Rotation Display Settings of Your System

After you have rotated your monitor, you need to complete the procedure below to adjust the Rotation Display Settings of your System.

NOTE: If you are using the monitor with a non-Dell computer, you need to go the graphics driver website or your computer manufacturer website for information on rotating the 'contents' on your display.

To adjust the Rotation Display Settings:

- 1 Right-click on the desktop and click Properties.
- 2 Select the Settings tab and click Advanced.
- 3 If you have an ATI graphics card, select the Rotation tab and set the preferred rotation.
- 4 If you have an nVidia graphics card, click the nVidia tab, in the left-hand column select NVRotate, and then select the preferred rotation.
- 5 If you have an Intel® graphics card, select the Intel graphics tab, click Graphic Properties, select the Rotation tab, and then set the preferred rotation.

NOTE: If you do not see the rotation option or it is not working correctly, go to www.dell.com/support and download the latest driver for your graphics card.

Troubleshooting

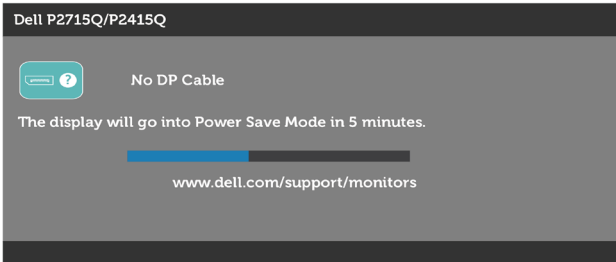
 **WARNING:** Before you begin any of the procedures in this section, follow the [Safety Instructions](#).

Self-Test

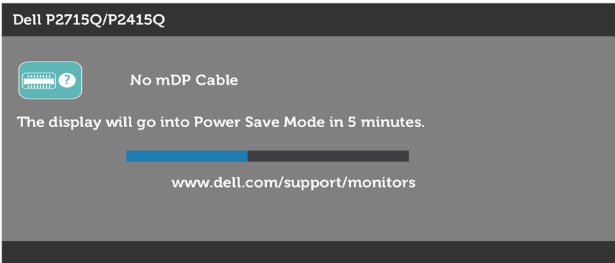
Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

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

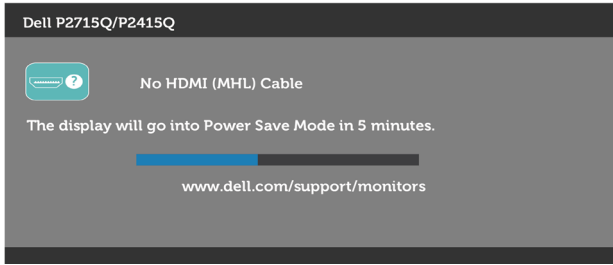
The floating dialog box should appear on-screen (against a black background), if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains white. Also, depending upon the selected input, one of the dialogs shown below will continuously scroll through the screen.



or



or



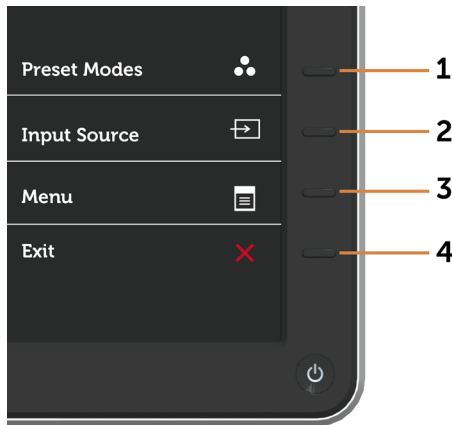
- 4 This box also appears during normal system operation, if the video cable becomes disconnected or damaged.
- 5 Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after you use 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 the screen abnormality you are experiencing 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 Make sure 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** and **Button 4** on the front panel simultaneously for 2 seconds. A gray screen appears.

- 4 Carefully inspect the screen for abnormalities.
- 5 Press **Button 4** 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 4** 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.

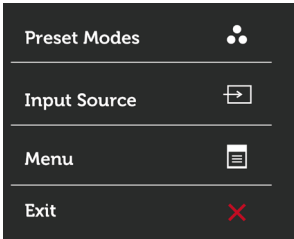
Common Problems

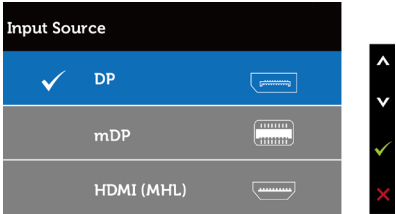
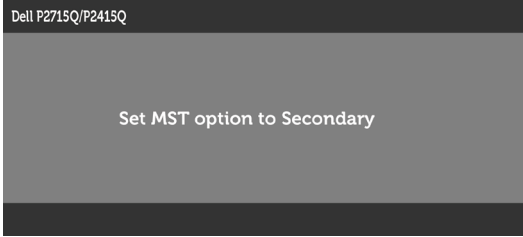
The following table contains general information about common monitor problems you might encounter and the possible solutions:

Common Symptoms	What You Experience	Possible Solutions
No Video/Power LED off	No picture	• 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 depressed fully. • Ensure that the correct input source is selected in the Input Source menu.
No Video/Power LED on	No picture or no brightness	• Increase brightness & contrast controls via 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 in the Input Source menu.
Missing Pixels	LCD screen has spots	• Cycle power on-off. • Pixel that is permanently off is a natural defect that can occur in LCD technology. • For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: http://www.dell.com/support/monitors.
Stuck-on Pixels	LCD screen has bright spots	• Cycle power On-Off. • Pixel that is permanently off is a natural defect that can occur in LCD technology. • For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: http://www.dell.com/support/monitors.
Brightness Problems	Picture too dim or too bright	• Reset the monitor to factory settings. • Adjust brightness & contrast controls via OSD.
Safety Related Issues	Visible signs of smoke or sparks	• Do not perform any troubleshooting steps. • Contact Dell immediately.

Common Symptoms	What You Experience	Possible Solutions
Intermittent Problems	Monitor malfunctions on & off	• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Reset the monitor to factory settings. • Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.
Missing Color	Picture missing color	• Perform monitor self-test. • 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	Picture color not good	• Change the settings of the Preset Modes in the Color menu OSD depending on the application. • Adjust R/G/B value under Custom. Color in Color menu OSD. • Change the Input Color Format to PC RGB or YPbPr in the Color menu OSD. • Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period of time	Faint shadow from the static image displayed appears on the screen	• Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power Management Modes). • Alternatively, use a dynamically changing screensaver.

Product Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	• Check the Aspect Ratio setting in the Display menu OSD. • Reset the monitor to factory settings.
Cannot adjust the monitor with the buttons on the front panel	OSD does not appear on the screen	• Turn off the monitor, unplug the monitor power cable, plug it back, and then turn on the monitor. • Check whether the OSD menu is locked. If yes, press and hold the button beside the power button for 10 seconds to unlock (for more information, see Lock).
No Input Signal when user controls are pressed	No picture, the LED light is white	• Check the signal source. Ensure the computer is not in the power saving mode by moving the mouse or pressing any key on the keyboard. • Check whether the signal cable is plugged in properly. Re-plug the signal cable if necessary. • Reset the computer or video player.
The picture does not fill the entire screen	The picture cannot fill the height or width of the screen	• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • Run the built-in diagnostics.
No image when using DP connection to the PC	Black screen	• Verify which DP standard (DP 1.1a or DP 1.2) is your Graphics Card certified to. Download and install the latest graphics card driver. • Some DP1.1a graphics card cannot support DP 1.2 monitors. Change the monitor to secondary mode under MST option.
No image when using DP connection to the Secondary monitor	Black screen	1 Press OSD button to invoke the Input Source OSD menu  The screenshot shows a dark grey OSD menu with four options: 'Preset Modes' with a three-dot icon, 'Input Source' with a square icon containing an arrow, 'Menu' with a list icon, and 'Exit' with a red 'X' icon. Each option is separated by a horizontal line.

Specific Symptoms	What You Experience	Possible Solutions
		2 Use the  or  button to highlight "DP" or "mDP"  3 Press and hold the  key for approximately 8 sec. 4 The DP configuration message will appear:  5 Using the  button to set to monitor to Secondary or  to exit without making changes. ⚠ CAUTION: The Graphics are used for the purpose of illustration only. Appearance of the computer may vary.

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 the monitor	• Ensure your MHL cable and MHL device are MHL certified. • Check your MHL device is turned on. • Check your MHL device is not in standby mode. • Check physical MHL cable connection is corresponding to input source selected on OSD Menu: HDMI (MHL). • Wait for 30 seconds after connecting MHL cable as some MHL devices require longer recovery time.

Appendix

Safety Instructions

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.

 **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

 **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.

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.

To get online Monitor support content:

See www.dell.com/support/monitors.

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

- 1 Go to www.dell.com/support.
- 2 Verify your country or region in the Choose A Country/Region drop-down menu at the top-left 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.

Setting Up Your Monitor

Setting Display Resolution to 3840 x 2160 (maximum)

For best performance, set the display resolution to 3840 x 2160 pixels by performing the following steps:

- 1 For Windows 8 and Windows 8.1 only, 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**.

If you do not see the recommended resolution as an option, you may need to update your graphics driver. Please choose the scenario below that best describes the computer system you are using, and follow the given steps.

Dell computer

- 1 Go to www.dell.com/support, enter your service tag, and download the latest driver for your graphics card.
- 2 After installing the drivers for your graphics adapter, attempt to set the resolution to 3840 x 2160 again.

 **NOTE:** If you are unable to set the resolution to 3840 x 2160, please contact Dell to inquire about a graphics adapter that supports these resolutions.

Non-Dell computer

- 1 For Windows 8 and Windows 8.1 only, select the desktop tile to switch to classic desktop.
- 2 Right-click on the desktop and click **Personalization**.
- 3 Click **Change Display Settings**.
- 4 Click **Advanced Settings**.
- 5 Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
- 6 Refer to the graphic card provider website for updated driver (for example, <http://www.ATI.com> or <http://www.NVIDIA.com>).
- 7 After installing the drivers for your graphics adapter, attempt to set the resolution to 3840 x 2160 again.

 **NOTE:** If you are unable to set the recommended resolution, please contact the manufacturer of your computer or consider purchasing a graphics adapter that supports the video resolution.

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 these 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, soft 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.