

Dell UltraSharp 32 Monitor

User's Guide

Model No. : UP3216Q
Regulatory model: UP3216Qt





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.

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About Your Monitor





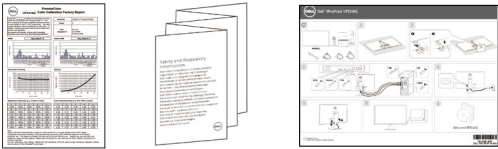
Package Contents

Your monitor ships with the components shown below. Ensure 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.

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

	<ul style="list-style-type: none">• Monitor
	<ul style="list-style-type: none">• Stand
	<ul style="list-style-type: none">• Cable Cover

	<ul style="list-style-type: none"> • Power cable (varies by countries)
	<ul style="list-style-type: none"> • HDMI (MHL) Cable
	<ul style="list-style-type: none"> • DisplayPort cable (Mini-DP to DP)
	<ul style="list-style-type: none"> • USB 3.0 upstream cable (enables the USB ports on the monitor)
	<ul style="list-style-type: none"> • Quick Setup Guide • Safety and Regulatory information Guide • Factory Calibration Report

Product Features

The Dell UltraSharp 32 Monitor (Model # UP3216Q) has an active matrix, thinfilm transistor (TFT), liquid crystal display (LCD), and LED backlight. The monitor features include:

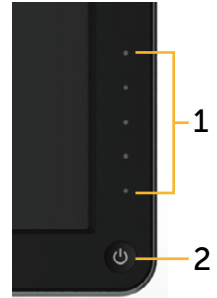
- 80.1 cm (31.5-inch) active area display (Measured diagonally) 3840 x 2160 resolution, plus full-screen support for lower resolutions.
- Tilt, swivel and vertical extension adjustment capabilities.
- Removable pedestal and Video Electronics Standards Association (VESA™) 100 mm mounting holes for flexible mounting solutions.
- Plug and play capability if supported by your system.
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.
- Security lock slot.
- Asset Management Capability.
- RoHS compliant.
- BFR/PVC Free monitor (excluding cables).
- Arsenic-Free glass and Mercury Free for Panel only.
- Energy Gauge shows the energy level being consumed by the monitor in real time.
- TCO Certified Displays.

Identifying Parts and Controls

Front View



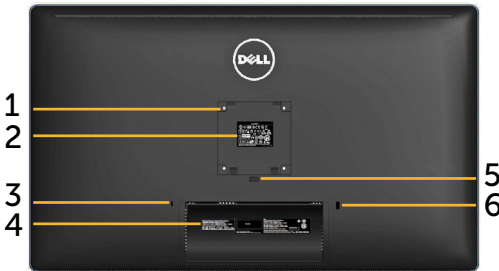
Front view



Front panel controls

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

Back View



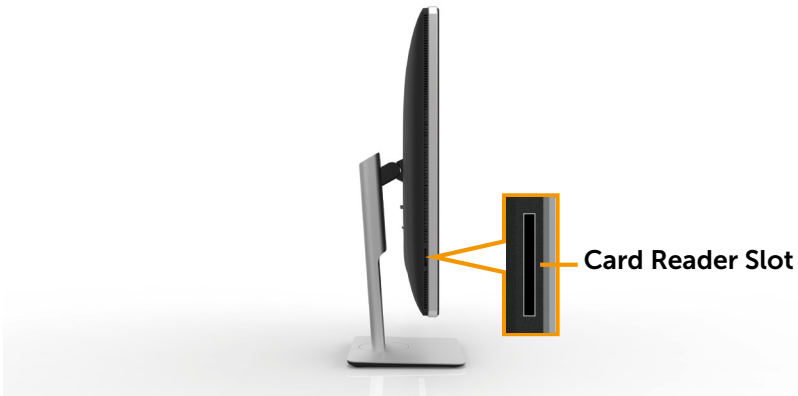
Back view



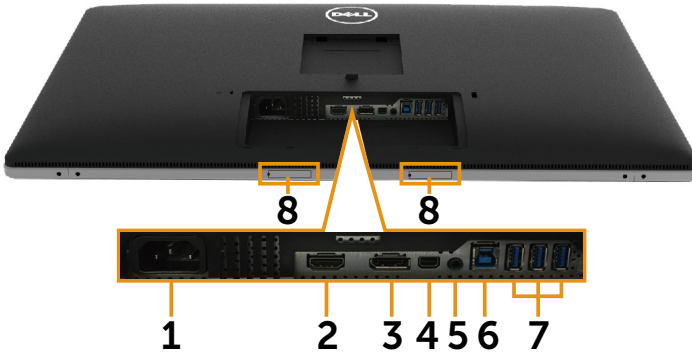
Back view with monitor stand

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	Security lock slot	Secures monitor with security cable lock.
4	Barcode serial number label	Refer to this label if you need to contact Dell for technical support.
5	Stand release button	Release stand from monitor.
6	USB downstream port with battery charging	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.
7	Cable management slot	Use to organize cables by placing them through the slot.

Side View



Bottom View



Label	Description	Use
1	AC power connector	To connect the monitor power cable.
2	HDMI (MHL) connector	Connect your computer with HDMI (MHL) cable.
3	DisplayPort in connector	Connect your computer with DP cable.
4	Mini DisplayPort in connector	Connect your computer with Mini DP to DP cable.
5	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.
6	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 downstream connectors on the monitor.
7	USB downstream ports	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.
8	Dell Soundbar mounting slots	Attaches the optional Dell Soundbar. NOTE: Please remove the plastic strip covering the mounting slots before affixing the Dell Soundbar.

Monitor Specifications

Flat panel Specifications

Screen type	Active matrix - TFT LCD
Panel type	In Plane Switching
Viewable image dimensions	
Diagonal	80.1 cm (31.5-inches viewable image size)
Horizontal	697.9 mm (27.5 inches)
Vertical	392.6 mm (15.5 inches)
Pixel pitch	0.182 mm
Viewing angle	178° (vertical) typ, 178° (horizontal) typ
Luminance output	300 cd/m ² (typ)
Contrast ratio	1000:1 (typ)
Dynamic contrast ratio	2,000,000:1
Faceplate coating	Antiglare with hard-coating 3H
Backlight	LED edge light system
Response Time	8 ms (typical), 6 ms (fast mode)
Color depth	1.0737 B (10 Bits)
Color gamut (Typical)	100% (sRGB) 99.5% (Adobe RGB)

Resolution Specifications

Horizontal scan range	30 kHz to 140 kHz (automatic)
Vertical scan range	24 Hz to 75 Hz (automatic)
Maximum resolution	3840x2160 at 60Hz

Video Supported Modes

Video display capabilities (HDMI playback)	480p, 576p, 720p, 1080p and 2160p
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Preset Display Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/Vertical)
720 x 400	31.5	70.0	28.3	-/+
640 x 480	31.5	60.0	25.2	-/-
640 x 480	37.5	75.0	31.5	-/-
800 x 600	37.9	60.0	40.0	+/+
800 x 600	46.9	75.0	49.5	+/+
1024 x 768	48.4	60.0	65.0	-/-
1024 x 768	60.0	75.0	78.8	+/+
1152 x 864	67.5	75.0	108.0	+/+
1280 x 800	49.3	60.0	71.0	+/+
1280 x 1024	64.0	60.0	108.0	+/+
1280 x 1024	80.0	75.0	135.0	+/+
1600 x 1200	75.0	60.0	162.0	-/+
1920 x 1080	67.5	60.0	193.5	+/+
2048 x 1152	71.6	60.0	197.0	+/-
2560 x 1440	88.8	60.0	241.5	+/-
3840 x 2160	65.68	30.0	262.75	+/+
3840 x 2160	133.313	60.0	533.25	+/+

Electrical Specifications

Video input signals	Digital video signal for each differential line, predifferential line at 100 ohm impedance. HDMI1.4/HDMI2.0(MHL2.0) signal input support.
AC input voltage/frequency/current	100 to 240 VAC/50 or 60 Hz \pm 3 Hz/1.7 A (Max.)
Inrush current	120 V:30 A (Max.) 240 V:60 A (Max.)

Physical Characteristics

Connector type	HDMI(MHL) connector. DisplayPort connector. Mini DisplayPort connector. USB 3.0 update stream port connector. USB 3.0 down stream port connector x 4. (Port with  lightning icon is for BC 1.2)
Signal cable type	HDMI 1.8 M cable. DisplayPort to Mini DisplayPort 1.8 M cable. USB 3.0 1.8 M cable.
Dimensions (with stand)	
Height (extended)	572.4 mm (22.5 inches)
Height (compressed)	482.6 mm (19.0 inches)
Width	749.9 mm (29.5 inches)
Depth	214.0 mm (8.4 inches)
Dimensions (without stand)	
Height	444.6 mm (17.5 inches)
Width	749.9 mm (29.5 inches)
Depth	51.5 mm (2.0 inches)
Stand dimensions	
Height (extended)	418.1 mm (16.5 inches)
Height (compressed)	381.8 mm (15.0 inches)
Width	250.0 mm (9.8 inches)
Depth	214.0 mm (8.4 inches)
Weight	
Weight with packaging	15.2 kg (33.44 lb)
Weight with stand assembly and cables	11.2 kg (24.64 lb)
Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	8.6 kg (18.92 lb)
Weight of stand assembly	2.6 kg (5.72 lb)
Front frame gloss	Black Frame - 13.0 gloss unit (max.)

Environmental Characteristics

Temperature	
Operating	0 °C to 35 °C
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) Shipping: 5% to 90% (non-condensing)
Altitude	
Operating	5,000 m (16,400 ft) max
Non-operating	12,191 m (40,000 ft) max
Thermal dissipation	443.80 BTU/hour (maximum) 204.80 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 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:

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	70 W (typical)/130 W (maximum)**
Active-Off mode	Inactive	Inactive	Off	Glowing White	Less than 0.3 W
Switch Off	-	-	-	Off	Less than 0.3 W

Power Consumption P _{on}	44.4 W
Total Energy Consumption(TEC)	137.7 kWh

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

There is no signal coming from your computer. Press any key on the keyboard or move the mouse to wake it up. If there is no display, press the monitor button now to select the correct input source on the On-Screen-Display menu.

- *Zero power consumption in OFF mode can only be achieved by disconnecting the power adapter from the monitor.
- **Maximum power consumption with maximum luminance, and USB active. This document is informational only and reflects laboratory performance. Your product may perform differently, depending on the software, components and peripherals you ordered and shall have no obligation to update such information. Accordingly, the customer should not rely upon this information in making decisions about electrical tolerances or otherwise. No warranty as to accuracy or completeness is expressed or implied.

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



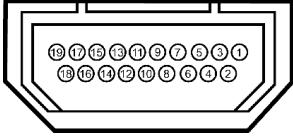
NOTE:

P_{on}: Power consumption of On Mode measured with reference to Energy Star test method.

TEC: Total energy consumption in kWh measured with reference to Energy Star test method.

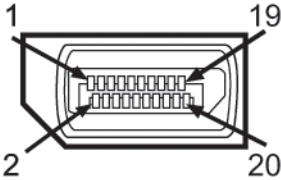
Pin Assignments

19-pin HDMI Connector



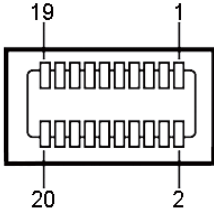
Pin Number	19-pin Side of the monitor connector	Pin Number	19-pin Side of the monitor connector
1	TMDS DATA 2+	11	TMDS CLOCK SHIELD
2	TMDS DATA 2 SHIELD	12	TMDS CLOCK-
3	TMDS DATA 2-	13	CEC
4	TMDS DATA 1+	14	NC
5	TMDS DATA 1 SHIELD	15	DDC CLOCK (SCL)
6	TMDS DATA 1-	16	DDC DATA (SDA)
7	TMDS DATA 0+	17	GROUND
8	TMDS DATA 0 SHIELD	18	+5 V POWER
9	TMDS DATA 0-	19	HOT PLUG DETECT
10	TMDS CLOCK+		

DisplayPort Connector (DP in and DP out)



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


Mini DisplayPort Connector





Pin Number	20-pin Side of the monitor connector	Pin Number	20-pin Side of the monitor connector
1	GND	11	ML2(p)
2	Hot Plug Detect	12	ML0(p)
3	ML3(n)	13	GND
4	CONFIG1	14	GND
5	ML3(p)	15	ML1(n)
6	CONFIG2	16	AUX(p)
7	GND	17	ML1(p)
8	GND	18	AUX(n)
9	ML2(n)	19	Return
10	ML0(n)	20	+3.3 V DP_PWR

Universal Serial Bus (USB) Interface

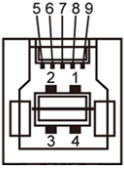
This section gives you information about the USB ports that are available on the back and bottom of your monitor.

 **NOTE:** The USB ports on this monitor are USB 3.0 compliant.

Transfer speed	Data rate	Power consumption
Super Speed	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)

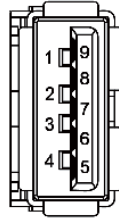
 **NOTE:** Up to 2 A on USB downstream port (port  with lightning icon) with BC 1.2 compliance devices; up to 0.9 A on the other 3 USB downstream ports.

USB Upstream Connector



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 Connector





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

USB ports

- 1 upstream - bottom
- 4 downstream - 1 at back, 3 at bottom

Power Charging Port - the one on the rear cover (Port with  lightning icon); supports fast current charging capability if the device is BC 1.2 compatible.


 **NOTE:** USB 3.0 functionality requires a USB 3.0 compatible computer and devices.

 **NOTE:** For computers running Windows® 7 must have Service Pack 1 (SP1) installed. The monitor's USB interface works only when the monitor is On or in 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.

Card Reader Specifications

Overview

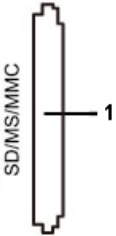
- The Flash Memory Card Reader is a USB storage device that allows users to read and write information from and into the memory card.
- The Flash Memory Card Reader is automatically recognized by Microsoft® Windows® 7 Service Pack (SP1) and Windows® 8/Windows® 8.1/Windows® 10.
- Once installed and recognized, memory card (slot) appears drive letter.
- All standard file operations (copy, delete, drag-and-drop, etc.) can be performed with this drive.

 **NOTE:** Install the Card Reader driver to ensure memory cards are detected properly when inserted into the card slot.

Features

The Flash Memory Card Reader has the following features:

- Supports Microsoft® Windows® 7 Service Pack (SP1) and Windows® 8/Windows® 8.1/Windows® 10 operating systems.
- Mass Storage Class device (No drivers are required under Microsoft® Windows® 7 Service Pack (SP1) and Windows® 8/Windows® 8.1/Windows® 10.
- Supports various memory card media.



The following table lists the memory cards supported:

Slot Number	Flash memory cards type
1	MS Pro HG, High Speed Memory Stick (HSMS), Memory Stick PRO (MSPRO), Memory Stick Duo (w Adapter), MS Duo Secure Digital (Mini-SD), Secure Digital Card, Mini Secure Digital (w Adaptor), TransFlash (SD, including SDHC), MultiMediaCard (MMC)

Maximum Card Capacity Supported by the UP3216Q card reader

Card type	Support Specification	Support Maximum Capacity by Spec.	UP3216Q
MS Pro HG	Memory Stick Pro-HG Support USB 3.0 speed	32 GB	Supported
MS Duo	Memory Stick Duo Specification	32 GB	Supported
SD	SD Memory Card support USB 3.0 speed	1 TB	Supported
MMC	Multi Media Card System Specification	32 GB	Supported

General

Connection type	USB 3.0 High Speed Device (USB High Speed Device compatible)
Supported OS	Microsoft® Windows® 7 Service Pack (SP1) and Windows® 8/Windows® 8.1/Windows® 10

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 that 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 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 Dell Monitor Quality and Pixel Policy, see Dell Support site at: <http://www.dell.com/support/monitors>.

Maintenance Guidelines

Cleaning Your Monitor

 **WARNING:** Read and follow the [Safety Instructions](#) before cleaning the monitor.


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


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

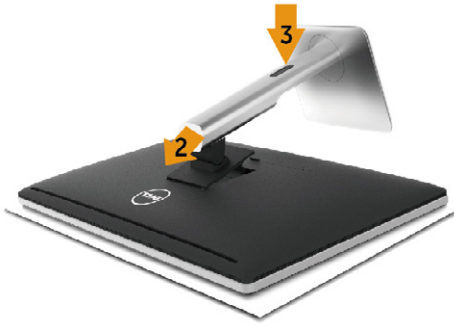
- To clean your antistatic screen, lightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the antistatic coating. Do not use benzene, thinner, ammonia, abrasive cleaners, or compressed air.
- Use a lightly-dampened, warm cloth to clean 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 dark-colored monitors may scratch and show white scuff marks more than light-colored monitors.
- 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:** The stand is detached from the monitor when it is shipped from the factory.


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



To attach the monitor stand:

1. Remove the cover and place the monitor on it.
2. Fit the two tabs on the upper part of the stand to the groove on the back of the monitor.
3. Press the stand till it snaps into its 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 black HDMI cable or the DP (DisplayPort) cable to the corresponding video port on the back of your computer.
Do not use all the cables on the same computer.
Use all of the cables only when they are connected to different computers with appropriate video systems.

Connecting the black HDMI Cable



Connecting the black DisplayPort (or miniDP) cable



Connecting the USB 3.0 cable

After you have completed connecting the HDMI/DP/mini DP cable, follow the procedure 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, installation is complete. If it does not display an image, see [Troubleshooting](#).
5. Use the cable slot on the monitor stand to organize the cables.



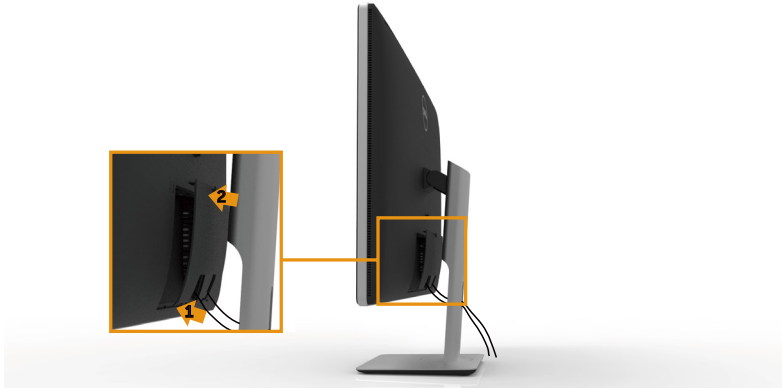
△ **CAUTION:** The graphics are used for the purpose of illustration only. Appearance of the computer may vary.

Organizing the Cables





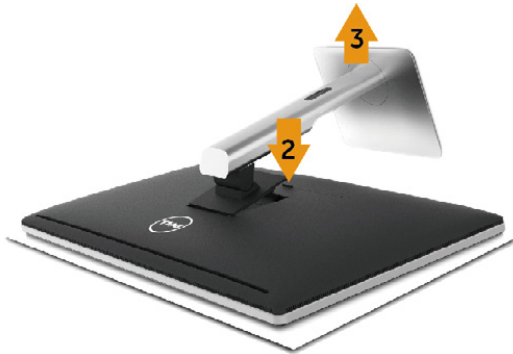
After attaching all necessary cables to your monitor and computer, (See [Connecting Your Monitor](#) for cable attachment,) use the cable management slot to organize all cables as shown above.

Attaching the Cable Cover



Removing the Stand

-  **NOTE:** To prevent scratches on the LCD screen while removing the stand, ensure that the monitor is placed on a clean surface.
-  **NOTE:** This is applicable for a monitor with a stand. When any other stand is bought, please refer to the respective stand setup guide for set up instructions.



To remove the stand:

1. Place the monitor on a flat surface.
2. Press and hold the stand release button.
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.

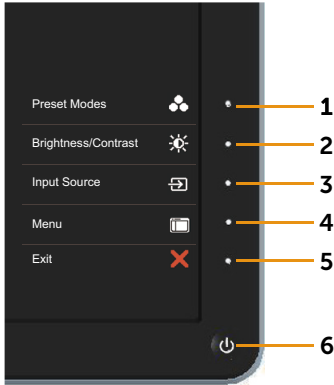
1. Place the monitor panel on a soft cloth or cushion on stable flat table.
2. Remove the stand.
3. Use a screwdriver to remove the four screws securing the plastic cover.
4. Attach the mounting bracket from the wall mounting kit to the monitor.
5. Mount the monitor on the wall by following the instructions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

 **NOTE:** For use only with UL or CSA or GS-listed wall mount bracket with minimum weight/load bearing capacity of 8.6 kg (18.92 lb).



Operating 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.



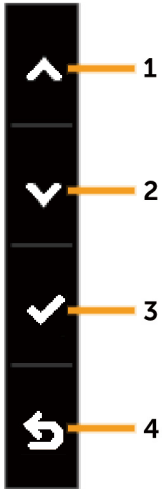
The following table describes the front panel buttons:





Front panel button		Description
1	 Shortcut key/ Preset Modes	Use this button to choose from a list of preset color modes.
2	 Shortcut key/ Brightness/ Contrast	Use this button to directly access the Brightness/Contrast menu.

3	 Input Source	<p>Use the Input Source button to select between different video signals that may be connected to your monitor.</p> <ul style="list-style-type: none"> • DisplayPort input • Mini DisplayPort input • HDMI(MHL) input <p>Displays the source selection bar. Press  and  buttons to move between the setting options and press  to select the input source you want.</p>
4	 Menu	<p>Use the Menu button to launch the on-screen display (OSD) and select the OSD Menu. See Accessing the Menu System.</p>
5	 Exit	<p>Use the Exit button to go back to the main menu or exit the OSD main menu.</p>
6	 Power (with power light indicator)	<p>Use the Power button to turn the monitor On and Off.</p> <p>The white LED indicates the monitor is On and fully functional.</p> <p>A glowing white LED indicates DPMS Power Save Mode.</p>

Front Panel Button


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



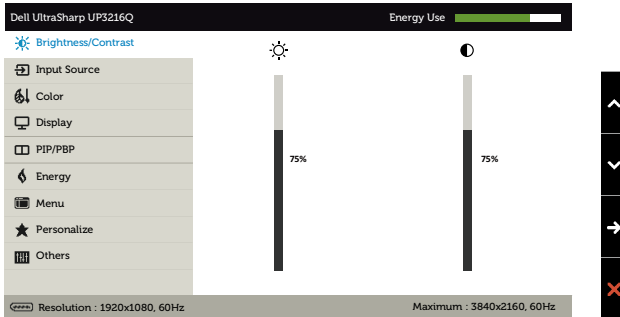
Front Panel Button		Description
1	 Up	Use the Up button to adjust (increase ranges) items in the OSD menu.
2	 Down	Use the Down button to adjust (decrease ranges) items in the OSD menu.
3	 OK	Use the OK button to confirm your selection.
4	 Back	Use the Back button to go back to the previous menu.












Using the On-Screen Display (OSD) Menu


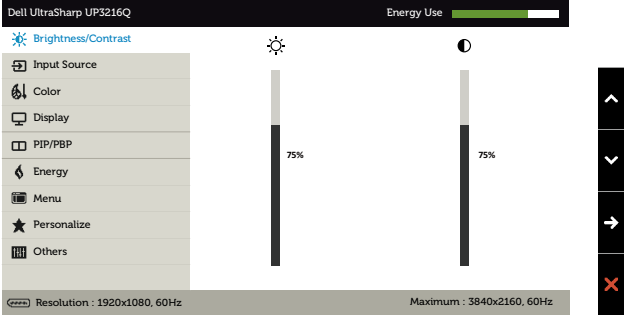




Accessing the Menu System

 **NOTE:** If you change the settings and then either proceed to another menu or exit the OSD menu, the monitor automatically saves those changes. The changes are also saved if you change the settings and then wait for the OSD menu to disappear.

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



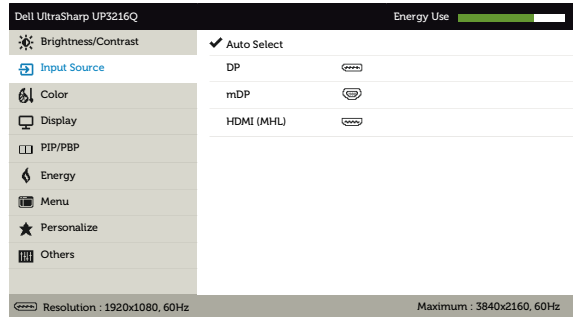
2. Press the  and  buttons to move between the setting options. As you move from one icon to another, the option name is highlighted. See the following table for a complete list of all the options available for the monitor.
3. Press the  or  button once to activate the highlighted option.
4. Press the  and  buttons to select the desired parameter.
5. Press the  button 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
	Energy Use	This meter shows the energy level being consumed by the monitor in real time.
	Brightness/Contrast	Use this menu to activate Brightness/Contrast adjustment.
		
Brightness	<p>Brightness adjusts the luminance of the backlight.</p> <p>Press the  button to increase brightness and press the  button to decrease brightness (min 0 ~ max 100).</p> <p>NOTE: Manual adjustment of Brightness is disabled when Dynamic Contrast is switched On and when Preset Modes is set to CAL1 or CAL2.</p>	
Contrast	<p>Adjust Brightness first, and then adjust Contrast only if further adjustment is necessary.</p> <p>Press the  button to increase contrast and press the  button to decrease contrast (min 0 ~ max 100).</p> <p>The Contrast function adjusts the degree of difference between darkness and lightness on the monitor screen.</p> <p>NOTE: Manual adjustment of Contrast is disabled when Preset Modes is set to CAL1 or CAL2.</p>	



Input Source

Use the **Input Source** menu to select between different video signals that may be connected to your monitor.



Auto Select

Use to select **Auto Select**, the monitor scans for available input sources.

DP

Select **DisplayPort** input when you are using the DisplayPort (DP) connector. Press the button to select the DisplayPort input source.

mDP

Select **Mini DisplayPort** input when you are using the Mini DisplayPort (DP) connector. Press the button to select the Mini DisplayPort input source.

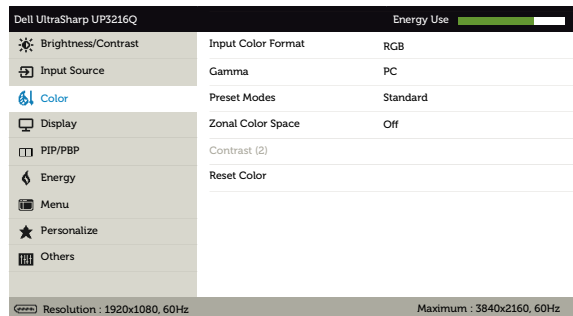
HDMI(MHL)

Select **HDMI(MHL)** input when you are using the HDMI(MHL) connector. Press the button to select the HDMI(MHL) input source.



Color

Use the **Color Settings** menu to adjust the monitor's color settings.



Input Color Format

Allows you to set the video input mode to:

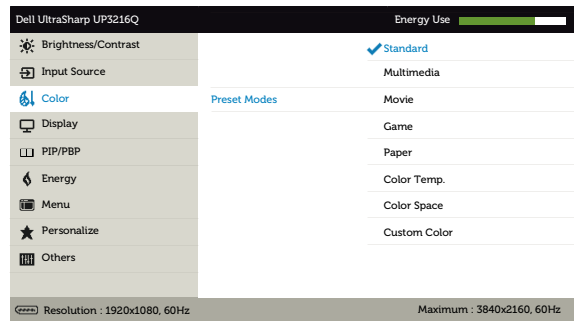
- **RGB:** Select this option if your monitor is connected to a computer or DVD player using the HDMI or DP/Mini DP cable.
- **YPbPr:** Select this option if your DVD player supports only YPbPr output.

Gamma

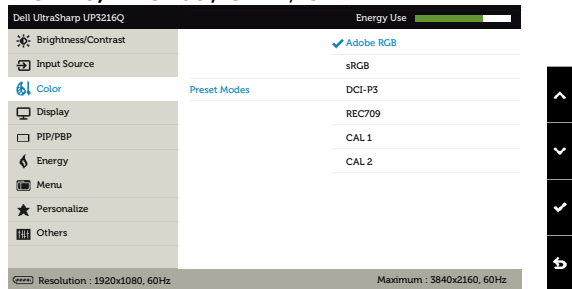
Allows you to set the Gamma to **PC** or **MAC**.

Preset Modes

Allows you to choose from a list of preset color modes.



- **Standard:** Loads the monitor's default color settings. This is the default preset mode.
- **Multimedia:** Loads color settings ideal for multimedia applications. Applies to HDMI input with CEA timing (YUV color domain) only.
- **Movie:** Loads color settings ideal for movies. Applies to HDMI input with CEA timing (YUV color domain) only.
- **Game:** Loads color settings 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.
- **Color Temp.:** The screen appears warmer with a red/yellow tint with slider set at 5,000K or cooler with blue tint with slider set at 10,000K.
- **Color Space:** Allows users to select the color space: **Adobe RGB, sRGB, DCI-P3, REC709, CAL1, CAL2.**






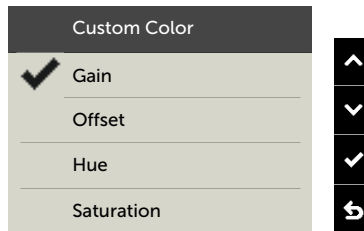
- **Adobe RGB:** This mode is compatible with Adobe RGB (99.5% coverage).
- **sRGB:** Emulates 100% sRGB.
- **DCI-P3:** This mode reproduces 87% of DCI-P3 digital cinema color standard.
- **REC709:** This mode matches 100% REC 709 standard.

- **CAL1/CAL2:** User calibrated preset mode using Dell Ultrasharp Color Calibration Software or other Dell approved software. Dell Ultrasharp Color Calibration Software works with the X-rite colorimeter i1Display Pro. The i1Display Pro can be purchased from the Dell Electronics, Software and Accessories website.

NOTE: Accuracy of **sRGB, Adobe RGB, DCI-P3, REC709, CAL1** and **CAL2** are optimized for RGB input color format. For optimal color accuracy of sRGB and Adobe RGB, turn **Uniformity Compensation** to **Off**.

NOTE: **Factory Reset** will remove all calibrated data in **CAL1** and **CAL2**.

- **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. Use the  and  buttons to select the Gain, Offset, Hue, Saturation.



- **Gain:** Select it to adjust input RGB signal gain level (default value are 100).
- **Offset:** Select it to adjust RGB black-level offset value (default value are 50) to control your monitor base color.
- **Hue:** Select it to adjust RGBCMY hue value individually (default value are 50).
- **Saturation:** Select it to adjust RGBCMY saturation value individually (default value are 50).

Zonal Color Space

Allows you to display different color spaces on the left and right half of the screen. When **Zonal Color Space** is On, the right half retains the current selected color space. You can select the color space of the left half with options on the list.

- **Off:** Disables zonal color space feature.
- **Adobe RGB:** This mode is compatible with Adobe RGB (99.5% coverage).
- **sRGB:** Emulates 100% sRGB.
- **DCI-P3:** This mode reproduces 87% of DCI-P3 digital cinema color standard.
- **REC709:** This mode matches 100% Rec 709 standard.
- **CAL1/CAL2:** User calibrated preset mode using Dell Ultrasharp Color Calibration Software or other Dell approved software. Dell Ultrasharp Color Calibration Software works with the X-rite colorimeter i1Display Pro. The i1Display Pro can be purchased from the Dell Electronics, Software and Accessories website.

NOTE: When **Zonal Color Space** is turned on, the left side of the screen will adopt the brightness setting of the right side. Furthermore the factory **Uniformity Compensation** and **Dynamic Contrast** will be disabled.

NOTE: To ensure optimal color accuracy it is not recommended to adjust the **Contrast** or **Brightness** settings after calibrating **CAL1** and **CAL2**. It is recommended to calibrate **CAL1** and **CAL2** to the same desired luminance level before turning on **Zonal Color Space**.

Contrast (2)

Allows you to adjust the contrast on the left side of the screen when **Zonal Color Space** or/and **PIP/PBP Mode** is turned on.

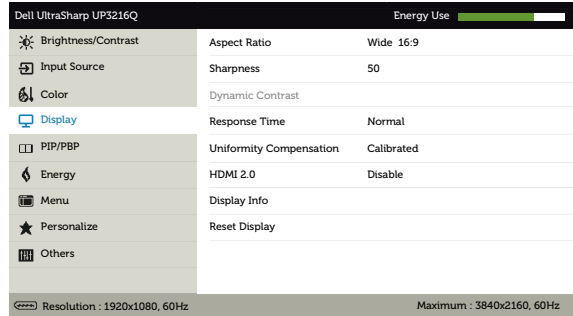
Reset Color

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



Display

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



Aspect Ratio Adjust the image ratio to **Wide 16:9**, **Auto Resize**, **4:3**, or **1:1**.

Sharpness This feature can make the image look sharper or softer. Use or to adjust the sharpness from '0' to '100'.

Dynamic Contrast **Dynamic Contrast** adjusts the contrast ratio to 2,000,000 : 1.

Press the button to select the **Dynamic Contrast** "On" or "Off".

Dynamic Contrast provides higher contrast if you choose Game mode and Movie 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.

HDMI2.0 For switch HDMI1.4/HDMI2.0.

NOTE: Ensure that your Graphics Card can support these features before selecting HDMI2.0.

Wrong settings may result in blank screen.

Display Info Displays the monitor's current settings.

Reset Display

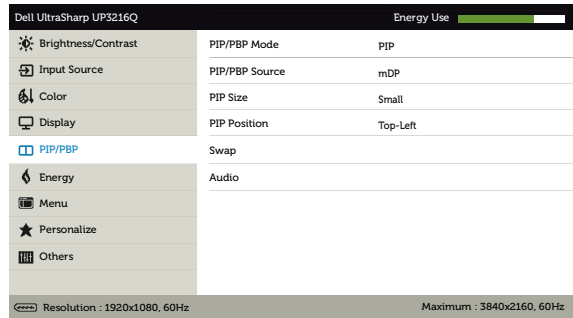
Select this option to restore default display settings.



PIP/PBP

This function brings up a window displaying image from another input source. Thus you can watch two images from different sources at the same time.

During DC/AC power cycle, the PIP/PBP setting will only be disabled if there is no “main source” signal.



Right-Window (select from input Source)	Left-window (select from PIP/ PBP source)		
	Mini DP	DP	HDMI(MHL)
Mini DP	X	X	√
DP	X	X	√
HDMI(MHL)	√	√	X

PIP/PBP Mode

Adjusts the PBP (Picture by Picture) model to PIP Small, PIP Large, PBP Aspect Ratio, or PBP Fill. You can disable this feature by selecting Off.

PIP/PBP Source

Select PIP or PBP function.

PIP Size

Select the PIP/PBP window size of Small or Large.

PIP Position

Select PIP sub-window position.
Use or to browse and or select Top-Left, Top-Right, Bottom-Right, or Bottom-left.

Swap

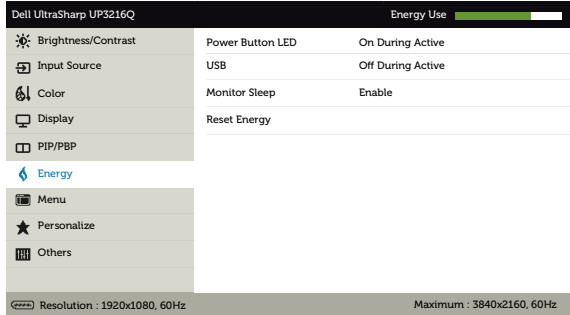
For PIP/PBP source swap.

Audio

For PIP/PBP Audio swap.



Energy



Power Button LED

Allows you to set the power LED indicator On or Off.

USB

Allows you to enable or disable USB function during monitor standby mode.

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.

Monitor Sleep

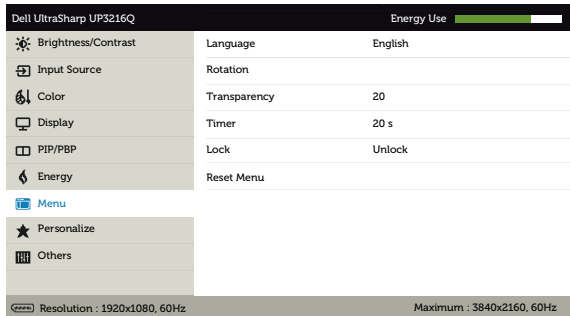
Allow you to set Monitor sleep On or Off.

Reset Energy

Select this option to restore default **Energy Settings**.



Menu





Language

Language option to 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 This function is used to change the OSD background from opaque to transparent.

Timer Sets the length of time the OSD will remain active after the last time you pressed a button.

Use the  and  buttons 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.

NOTE:

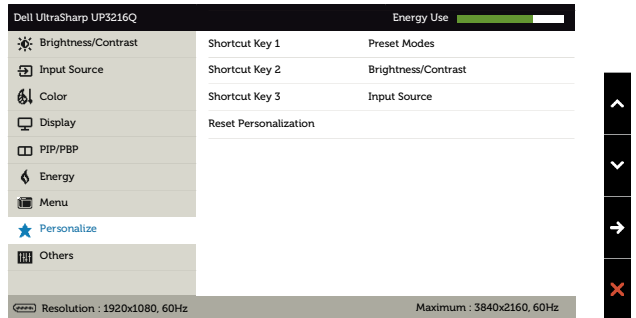
Lock function – Either soft lock (through OSD menu) or hard lock (Press and hold the button above power button for 10 sec)

Unlock function – Only hard unlock (Press and hold the button above power button for 10 sec)

Reset Menu Select this option to restore default **Menu** settings.



Personalize User can select from **Preset Modes, Brightness/Contrast, Input Source, Aspect Ratio, PIP/PBP Mode, Rotation** and set as shortcut key.

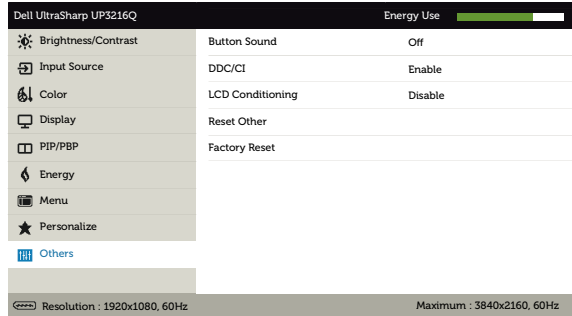


Reset Personalization Allows you to restore shortcut key to the default setting.



Other

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



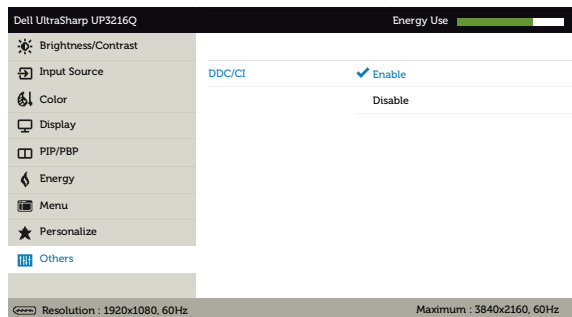
Button Sound

The monitor beeps every time a new option is selected in the menu. This button enables or disables the sound.

DDC/CI

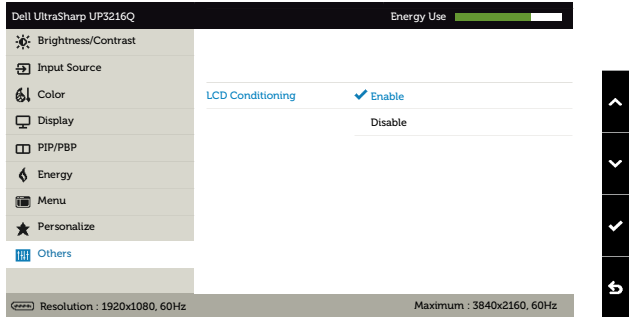
DDC/CI (Display Data Channel/Command Interface) allows your monitor parameters (brightness, color balance etc) to be adjustable via software on your computer. You can disable this feature by selecting **Disable**.

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. You can enable this feature by selecting **Enable**.



Reset Other

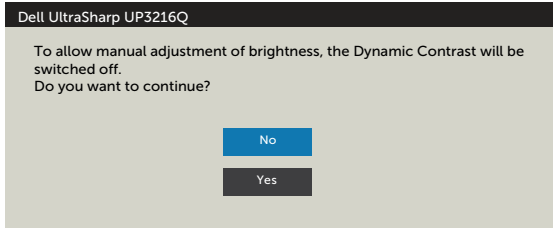
Select this option to restore default other settings, such as DDC/CI.

Factory Reset

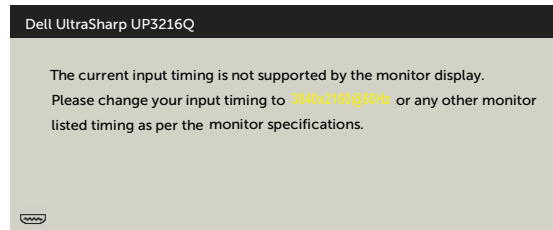
Reset all OSD settings to the factory preset values.

OSD Warning Messages

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

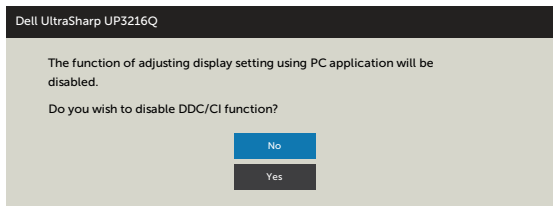


When the monitor does not support a particular resolution mode you will see the following message:

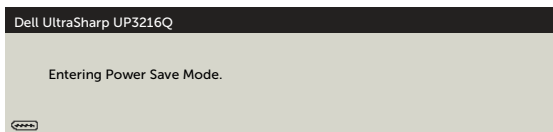


This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See [Monitor Specifications](#) for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 3840 x 2160.

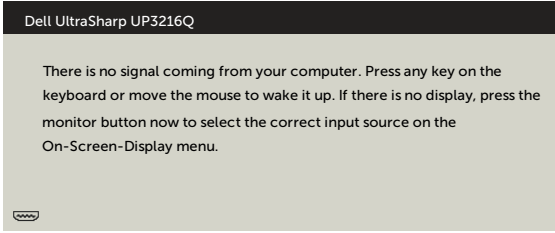
You will see the following message before the DDC/CI function is disabled.



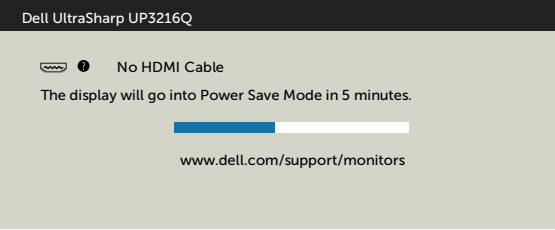
When monitor enters **Power Save Mode**, the following message appears:



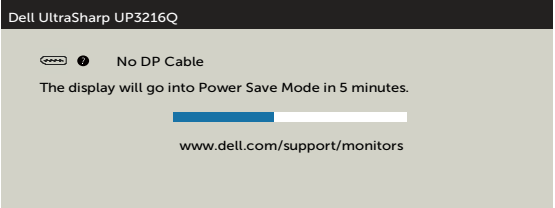
Activate the computer and wake up the monitor to gain access to the [OSD](#). If you press any button other than the power button, one of the following messages will appear depending on the selected input:



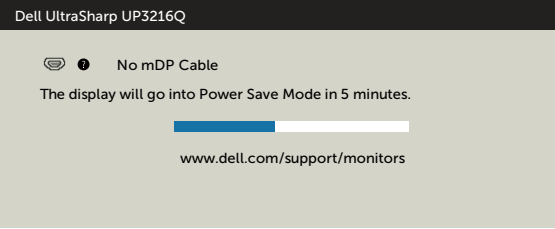
If either HDMI, DP or mini DP input is selected and the corresponding cable is not connected, a floating dialog box as shown below appears.



OR



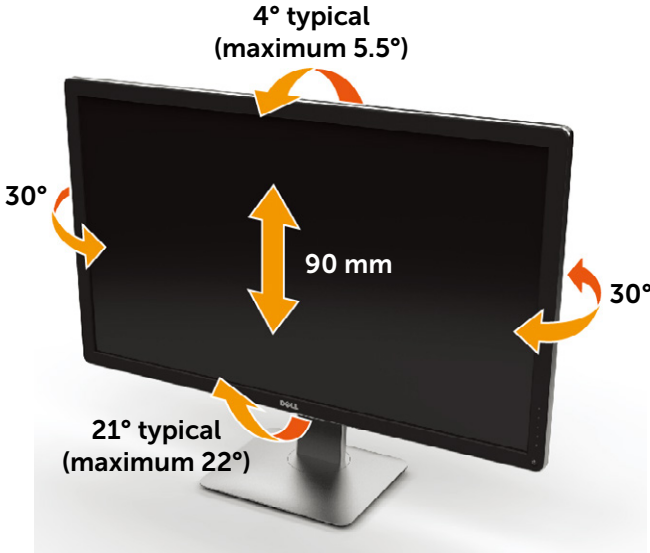
OR



See [Troubleshooting](#) for more information.

Using the Tilt, Swivel, and Vertical Extension

NOTE: This is applicable for a monitor with a stand. When any other stand is bought, please refer to the respective stand setup guide for set up instructions.



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

Troubleshooting

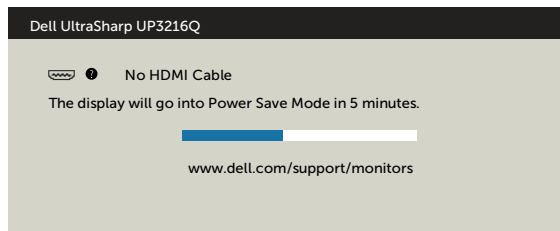
⚠ CAUTION: Before you begin any of the procedures in this section, follow the [Safety Instructions](#).

Self-Test

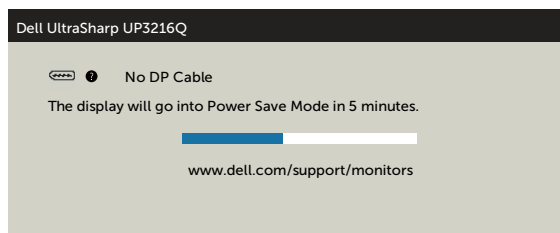
Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn Off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn On the monitor.

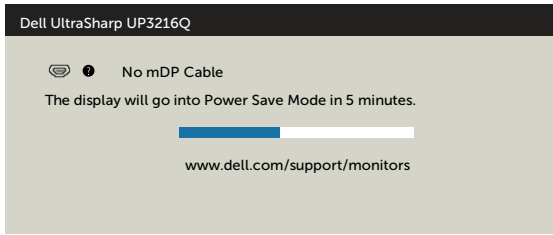
The floating dialog box should appear on-screen (against a black background) if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains white. Also, depending upon the selected input, one of the dialog boxes shown below will continuously scroll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



OR



OR




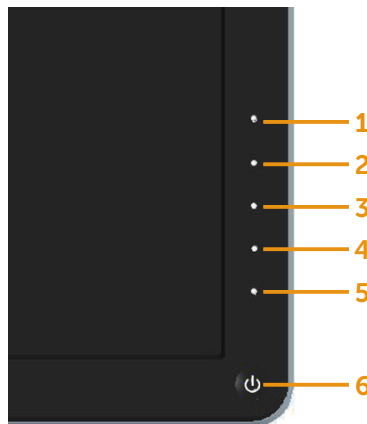
4. This box also appears during normal system operation, if the video cable becomes disconnected or damaged.
5. Turn Off your monitor and reconnect the video cable; then turn On both your computer and the monitor.

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. 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 the 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 the 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 screens.

The test is complete when the white screen appears. To exit, press the 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	<ul style="list-style-type: none">• Ensure that the video cable connecting the monitor and the computer is properly connected and secure.• Verify that the power outlet is functioning properly using any other electrical equipment.• Ensure that the power button is depressed fully.• Ensure that the correct input source is selected via the Input Source menu.• Check the Power Button LED option under Energy Settings in OSD Menu
No Video/Power LED On	No picture or no brightness	<ul style="list-style-type: none">• 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 via the Input Source menu.

Missing Pixels	LCD screen has spots	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Reset the monitor to Factory Settings. • Adjust brightness & contrast controls via OSD.
Safety Related Issues	Visible signs of smoke or sparks	<ul style="list-style-type: none"> • Do not perform any troubleshooting steps. • Contact Dell immediately.
Intermittent Problems	Monitor malfunctions on & off	<ul style="list-style-type: none"> • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Reset the monitor to Factory Settings. • Perform monitor self-test feature check to determine if the intermittent problem occurs in selftest mode.

Missing Color	Picture missing color	<ul style="list-style-type: none"> • Perform monitor self-test feature check. • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Check for bent or broken pins in the video cable connector.
Wrong Color	Picture color not good	<ul style="list-style-type: none"> • Try different color Preset Modes in Color Settings OSD. • Change the Input Color Format to RGB or YPbPr in the Color Settings OSD. • Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period of time	Faint shadow from the static image displayed appears on the screen	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Check the Aspect Ratio setting in Display Settings 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	<ul style="list-style-type: none"> • Turn Off the monitor, unplug the power cord, plug back, and then turn On the monitor.
No Input Signal when user controls are pressed	No picture, the LED light is white	<ul style="list-style-type: none"> • 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 to make sure Video Source to DisplayPort or Mini DisplayPort or HDMI is powered and playing video media. • 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	<ul style="list-style-type: none"> • Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • Run the built-in diagnostics.
Unable to see Post-screen or Vbios setting	May miss the post screen or Vbios setting during boot up	<ul style="list-style-type: none"> • Disable sleep mode in monitor and reboot PC. • Turn Off the Monitor Sleep in Energy settings OSD, then reboot PC to show the Post-screen or Vbios.

No image when using DP connection to the PC	Black screen	<ul style="list-style-type: none">• 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. Go to OSD menu, under Input Source selection, press and hold DP select √ key for 8 sec to change the monitor setting from DP1.2 to DP1.1a.
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Troubleshooting the Card Reader

△ **CAUTION:** Do not remove the device while reading or writing media. Doing so may cause loss of data or malfunction in the media.

Problem	Cause	Solution
Drive letter is not assigned. (Windows® XP only)	Conflict with network drive letter.	<ul style="list-style-type: none">• – Right-click the My Computer icon on the desktop.– Click on Manage.– In the Computer Management window that appears select Disk Management.– In the list of drives that appear in the right panel, right-click the removable drive and then click Change Drive Letter and Paths.– Select Change, and in the drop-down box that appears, specify a drive letter for the removable drive. <p>NOTE: While choosing the drive letter choose one that is not assigned to the mapped network drives.</p> <ul style="list-style-type: none">– Click OK, then click OK once again in the screen that appears.
Drive letter is assigned, but the media is not accessible	The media needs reformatting.	<ul style="list-style-type: none">• Right-click the drive in Explorer and choose Format from the resulting menu.

<p>The media has been ejected during writing or erasing.</p>	<p>Displays the error message, "Error copying file or folder."</p> <p>Displays the error message, "Cannot write folder (folder name) or file (file name)," during writing, or, "Cannot remove folder (folder name) or file (file name),". While erasing, you cannot write or erase in the same folder or file name.</p>	<ul style="list-style-type: none"> • Reinsert the media and write or erase again. • Format the media for writing or erasing the same folder or file name.
<p>Despite the disappearance of the pop-up window, the media has been ejected while the LED was blinking.</p>	<p>Although the pop-up window disappears during writing, if you eject your media while the LED is still blinking, then you cannot complete your action on the media.</p>	<ul style="list-style-type: none"> • Format the media for writing or erasing the same folder or file name.
<p>Cannot format or write on the media.</p>	<p>Write-protect switch is enabled.</p>	<ul style="list-style-type: none"> • Verify that the write-protect switch of the media is unlocked.
<p>Card reader is not working</p>	<p>USB interface is not working.</p>	<ul style="list-style-type: none"> • Check that your monitor is powered On. • Reconnect the upstream cable from your computer to the monitor. • Reinsert the media. • Switch Off and then turn On the monitor again. • Reboot the computer.

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 Safety, Environmental, and Regulatory Information (SERI).

FCC Notices (U.S. Only) and Other Regulatory Information

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

Contact Dell

For customers in the United States, call 800-WWW-DELL (800-999-3355).

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

1. Visit <http://www.dell.com/support/>.
2. Verify your country or region in the Choose A Country/Region dropdown menu at the bottom of the page.
3. Click Contact Us on the left side of the page.
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:


In Windows 7, Windows 8, Windows 8.1 and Windows 10

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

In Windows 7, Windows 8, Windows 8.1 and Windows 10

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 Change Display Settings.
3. Click Advanced Settings.
4. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
5. Refer to the graphic card provider website for updated driver (for example, <http://www.ATI.com> or <http://www.NVIDIA.com>).
6. 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.