# Dell S2716DG/S2716DGR Monitor User's Guide

Model: S2716DG/S2716DGR
Regulatory model: S2716DGb

# Notes, cautions, and warnings

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

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

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

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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.

| | |
|---|---|
| | Monitor |
| | Stand Riser |
| | Stand Base |

| | |
|---|---|
| | Power Cable (Varies by Countries) |
| | DP Cable |
| | USB 3.0 Upstream Cable (Enables the USB Ports on the Monitor) |
| | • Drivers and Documentation Media<br>• Quick Setup Guide<br>• Safety, Environmental, and Regulatory Information |

# Product Features

The **Dell S2716DG/S2716DGR** flat panel display has an active matrix, Thin-Film Transistor (TFT), Liquid Crystal Display (LCD) and LED backlight. The monitor features include:

- 68.47 cm (27-inch) viewable area (measured diagonally).
  Resolution: Up to 2560 x 1440 through DisplayPort and HDMI, with full-screen support or lower resolutions.
- Nvidia G-Sync-enabled monitor, with a extremely high refresh rate of 144 Hz and a rapid response time of 1 ms.
- Color gamut of 72% NTSC.
- Tilt, swivel, height, and rotate adjustment capabilities.
- Removable stand and Video Electronics Standards Association (VESA™) 100 mm mounting holes for flexible mounting solutions.
- Digital connectivity with DisplayPort and HDMI.
- Equipped with 1 USB upstream port and 4 USB downstream ports.
- Plug and play capability if supported by your system.
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.

- Software and documentation media includes an Information File (INF), Image Color Matching File (ICM), and product documentation.
- Security lock slot.
- Stand lock.
- TCO-Certified Displays.
- Arsenic-Free glass and Mercury-Free for the panel only.
- 0.5 W standby power when in sleep mode.
- Energy Gauge shows the energy level being consumed by the monitor in real time.
- Analog backlight dimming control for flicker-free display.

# 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) |

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

## Back View

**Back view 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** | Stand release button | Releases stand from monitor. |
| **4** | Security lock slot | Secures monitor with security lock (security lock not included). |
| **5** | Barcode serial number label | Refer to this label if you need to contact Dell for technical support. |
| **6** | Cable-management slot | Use to organize cables by placing them through the slot. |

## Side View

| Label | Description | Use |
|---|---|---|
| **1** | USB downstream port | Connect your USB device.<br>**NOTE:** To use this port, you must connect the USB cable (shipped with your monitor) to the USB-upstream port on the monitor and to your computer. |
| **2** | USB charging port | Connect your USB device (also supports fast charging). |
| **3** | Headphone-out jack | Connect the headphones. |

## Bottom View

**Bottom view without monitor stand**

| Label | Description | Use |
|---|---|---|
| **1** | Power cable connector | Connect the power cable (shipped with your monitor). |
| **2** | Stand lock feature | To lock the stand to the monitor using a M3 x 6 mm screw (screw not included). |
| **3** | Line-out port | Connect your speakers.<br>**NOTE:** This port does not support headphones. |
| **4** | DisplayPort | Connect your computer with DP cable (shipped with your monitor). |
| **5** | HDMI port | Connect your computer with HDMI cable. |
| **6** | USB upstream port | Connect the USB cable (shipped with your monitor) to this port and your computer to enable the USB ports on your monitor. |
| **7** | USB downstream port | Connect USB device.<br>**NOTE:** To use this port, you must connect the USB cable (shipped with your monitor) to the USB-upstream port on the monitor and to your computer. |

# Monitor Specifications

## Flat Panel Specifications

| Model | S2716DG/S2716DGR |
|---|---|
| Screen type | Active matrix - TFT LCD |
| Panel type | TN |
| Viewable image | |
| Diagonal<br>Horizontal, Active Area<br>Vertical, Active Area<br>Area | 684.67 mm (27 inches)<br>596.74 mm (23.49 inches)<br>335.66 mm (13.21 inches)<br>200301.74 $mm^2$ (310.30 $inch^2$) |
| Pixel pitch | 0.2331 mm x 0.2331 mm |
| Viewing angle | 160° (vertical) typical<br>170° (horizontal) typical |
| Luminance output | 350 $cd/m^2$ (typical) |
| Contrast ratio | 1000 to 1 (typical) |
| Faceplate coating | Anti-Glare with 3H hardness |
| Backlight | LED edgelight system |
| Response time | 3 ms (typical) for NORMAL mode<br>1 ms (typical) for FAST mode |
| Color depth | 16.7 million colors |
| Color gamut | 72%* (CIE1931) |

* Color gamut (typical) is based on CIE1976 (82%) and CIE1931 (72%) test standards.

## Resolution Specifications

| Model | S2716DG/S2716DGR |
|---|---|
| Horizontal scan range | 69.7 kHz to 250.6 kHz (automatic) |
| Vertical scan range | 30 Hz to 145 Hz (automatic) |
| Maximum preset resolution | 2560 x 1440 at 144 Hz |

## Supported Video Modes

| Model | S2716DG/S2716DGR |
|---|---|
| Video display capabilities (HDMI & DP playback) | 480p, 576p, 720p, 1080p, QHD |

## Preset Display Modes

### *HDMI Display Modes*

| Display Mode | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Pixel Clock (MHz) | Sync Polarity (Horizontal/ Vertical) |
|---|---|---|---|---|
| IBM VGA,640 x 480p | 31.5 | 60 | 25.2 | -/- |
| VESA, 720 x 480p | 29.83 | 60 | 26.25 | +/- |
| VESA, 720 x 576p | 29.55 | 50 | 26 | +/- |
| VESA, 800 x 600p | 37.88 | 60 | 40 | +/+ |
| VESA, 1024 x 768p | 48.36 | 60 | 65 | -/- |
| HDTV, 1280 x 720p | 37.5 | 50 | 74.25 | +/+ |
| HDTV, 1280 x 720p | 45 | 60 | 74.25 | +/+ |
| HDTV, 1920 x 1080p | 55.6 | 50 | 141.5 | -/+ |
| HDTV, 1920 x 1080p | 67.5 | 60 | 148.5 | +/+ |
| VESA, 2560 x 1440p | 88.8 | 60 | 241.5 | +/- |

### *DP Display Modes*

| Display Mode | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Pixel Clock (MHz) | Sync Polarity (Horizontal/ Vertical) |
|---|---|---|---|---|
| VESA, 640 x 480 | 31.5 | 60 | 25.2 | -/- |
| VESA, 800 x 600 | 37.88 | 60 | 40 | +/+ |
| VESA, 1024 x 768 | 48.36 | 60 | 65 | -/- |
| VESA, 2560 x 1440 | 88.8 | 60 | 241.5 | +/- |
| VESA, 2560 x 1440 | 127.4 | 85 | 346.5 | +/- |
| VESA, 2560 x 1440 | 150.9 | 100 | 410.5 | +/- |
| VESA, 2560 x 1440 | 182.9 | 120 | 497.75 | +/- |
| VESA, 2560 x 1440 | 209.5 | 144 | 569.75 | +/+ |
| VESA, 2560 x 1440 | 34.9 | 24 | 95 | +/- |

**NOTE:** This monitor supports NVIDIA G-Sync.
Please visit **http://www.geforce.com/hardware/technology/g-sync/supported-gpus?field_gpu_type_value=desktop-gpus&=Apply** to know whether your NVIDIA graphics card supports the G-SYNC feature.

## Electrical Specifications

| **Model** | **S2716DG/S2716DGR** |
|---|---|
| Video input signals | • HDMI 1.4, 600 mV for each differential line, 100 ohm input impedance per differential pair<br>• DisplayPort 1.2, 600 mV for each differential line, 100 ohm input impedance per differential pair |
| AC input voltage/frequency/current | 100 VAC to 240 VAC / 50 Hz or 60 Hz ± 3 Hz / 1.5 A (typical) |
| Inrush current | • 120 V: 42 A (Max.) at 0 °C (cold start)<br>• 220 V: 80 A (Max.) at 0 °C (cold start) |

## Physical Characteristics

| **Model** | **S2716DG/S2716DGR** |
|---|---|
| **Connector type** | DP; HDMI; USB 3.0 |
| **Signal cable type** | • Digital: HDMI, 19 pins (cable not included)<br>• Digital: DisplayPort, 20 pins<br>• Universal Serial Bus: USB, 9 pins |
| **Dimensions (with stand)** | |
| Height (extended) | 546.3 mm (21.51 inches) |
| Height (compressed) | 416.3 mm (16.39 inches) |
| Width | 612.5 mm (24.11 inches) |
| Depth | 200.3 mm (7.89 inches) |
| **Dimensions (without stand)** | |
| Height | 362.5 mm (14.27 inches) |
| Width | 612.5 mm (24.11 inches) |
| Depth | 55.6 mm (2.19 inches) |
| **Stand dimensions** | |
| Height (extended) | 433.4 mm (17.06 inches) |
| Height (compressed) | 387.2 mm (15.24 inches) |
| Width | 292.4 mm (11.51 inches) |

| | |
|---|---|
| Depth | 200.3 mm (7.89 inches) |
| **Weight** | |
| Weight with packaging | 10.10 kg (22.27 lb) |
| Weight with stand assembly and cables | 7.20 kg (15.87 lb) |
| Weight without stand assembly (For wall mount or VESA mount considerations - no cables) | 4.40 kg (9.70 lb) |
| Weight of stand assembly | 2.48 kg (5.47 lb) |
| Front frame gloss | 25+/-5 |

## Environmental Characteristics

| **Model** | **S2716DG/S2716DGR** |
|---|---|
| **Temperature** | |
| Operating | 0 °C to 40 °C (32 °F to 104 °F) |
| Non-operating | • Storage: -20 °C to 60 °C (-4 °F to 140 °F)<br>• Shipping: -20 °C to 60 °C (-4 °F to 140 °F) |
| **Humidity** | |
| Operating | 10% to 80% (non-condensing) |
| Non-operating | • Storage: 5% to 90% (non-condensing)<br>• Shipping: 5% to 90% (non-condensing) |
| **Altitude** | |
| Operating | 5,000 m (16,404 ft) (maximum) |
| Non-operating | 12,192 m (40,000 ft) (maximum) |
| **Thermal dissipation** | • 307.09 BTU/hour (maximum)<br>• 160.37 BTU/hour (typical) |

## Power Management Modes

If you have VESA's DPM™ compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. This is referred to as *Power Save Mode**. If the computer detects input from the keyboard, mouse, or other input devices, the monitor automatically resumes functioning. The following table shows the power consumption and signaling of this automatic power saving feature.

| VESA Modes | Horizontal Sync | Vertical Sync | Video | Power Indicator | Power Consumption |
|---|---|---|---|---|---|
| Normal operation | Active | Active | Active | White | 90 W (maximum)**<br>47 W (typical) |
| Active-off mode | Inactive | Inactive | Blanked | White (blinking) | Less than 0.5 W |
| Switch off | - | - | - | Off | Less than 0.3 W |

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

** Maximum power consumption with max luminance, and USB active.

## Pin Assignments

### *DisplayPort Connector*

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

## 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.

# Universal Serial Bus (USB) Interface

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

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

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

* Up to 2 A on USB downstream port (port with lightning icon) with BC1.2-compliant devices or normal USB devices.

## USB Upstream Connector

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

## USB Downstream Connector

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

## USB Ports

- 1 upstream - bottom
- 2 downstream - bottom
- 2 downstream - side
- Power Charging Port- the port with lightning icon; supports fast current charging capability if the device is BC1.2 compatible.

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

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

# 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

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

# Setting Up the Monitor

## Attaching the Stand

**NOTE:** The stand is detached when the monitor 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. Insert 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 place.

4. Hold the stand base with the triangle mark, ▲, facing upward. Then, align the stand base protruded blocks to the matching slot on the stand.

5 Insert the stand base blocks fully into the stand slot.

6 Lift the screw handle and turn the screw clockwise.

7 After fully tightening the screw, fold the screw handle flat within the recess.

# Connecting Your Monitor

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

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

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

To connect your monitor to the computer:

1. Turn Off your computer and disconnect the power cable.
2. Connect the DP or HDMI cable from your monitor to the computer.

## Connecting the DisplayPort (DP to DP) cable

## Connecting the HDMI cable (optional)

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

## Connecting the USB 3.0 cable

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

1. Connect the upstream USB 3.0 port (cable supplied) to an appropriate USB 3.0 port on your computer. (See Bottom View for details.)
2. Connect the USB 3.0 peripherals to the downstream USB 3.0 ports on the monitor.
3. Plug the power cables for your computer and monitor into a nearby outlet.
4. Turn On the monitor and the computer.
   If your monitor displays an image, installation is complete. If it does not display an image, see Universal Serial Bus (USB) Specific Problems.
5. Use the cable slot on the monitor stand to organize the cables.

# 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.

# Removing the Monitor Stand

**NOTE:** To prevent scratches on the LCD screen while removing the stand, ensure that the monitor is placed on a soft, 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 the set-up instructions.

.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.

# Wall Mounting (Optional)

(Screw dimension: M4 x 10 mm).

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

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

**NOTE:** For use only with UL-listed wall mount bracket with minimum weight/load bearing capacity of 4.40 kg.

# Operating the Monitor

## Power On the Monitor

Press the button to turn On the monitor.

## Using the Front-Panel Controls

Use the control buttons on the front of the monitor to adjust the 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/ Volume** | Use the buttons to adjust the volume. Minimum is 0 (-). Maximum is 100 (+). |

| | | |
|---|---|---|
| 3 | **Menu** | Use the **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. |
| 5 | **Power (with power light indicator)** | Use the **Power** button to turn the monitor **On** and **Off**.<br>The white light indicates the monitor is **On** and fully functional. A blinking white light indicates the power save mode. |

## 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 | **Select** | Use the **Select** 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 button to launch the OSD menu and display the main menu.

***Main Menu for digital (DP) input***

2 Press the and buttons to move between the setting options. As you move from one icon to another, the option name is highlighted. See the following table for a complete list of all the options available for the monitor.

3 Press the 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 and buttons, according to the indicators on the menu, to make your changes.

6 Select the button to return to the main menu.

| Icon | Menu and Submenus | Description |
|---|---|---|
| | **Brightness/ Contrast** | Use this menu to activate **Brightness/Contrast** adjustment.<br> <br> |
| | **Brightness** | **Brightness** adjusts the luminance of the backlight.<br>Press the button to increase the brightness and press the button to decrease the brightness (min. 0 / max. 100). |
| | **Contrast** | Adjust the **Brightness** first, and then adjust the **Contrast** only if further adjustment is necessary.<br>Press the button to increase the contrast and press the button to decrease the contrast (min. 0 / max. 100).<br>The **Contrast** function adjusts the degree of difference between darkness and lightness on the monitor screen. |
| | **Input Source** | Use the **Input Source** menu to select between the different video signals that may be connected to your monitor.<br> <br> |
| | **HDMI** | Select the **HDMI** input when you are using the HDMI connector. Press to select the HDMI input source. |
| | **DP** | Select the **DP** input when you are using the DisplayPort (DP) connector. Press to select the DisplayPort input source. |

| | | |
|---|---|---|
| | **Color** | Use **Color** to adjust the color setting mode.<br> <br> |
| | **Preset Modes** | When you select **Preset Modes**, you can choose **Standard**, **Warm**, **Cool**, or **Custom Color** from the list.<br>• **Standard**: Loads the monitor's default color settings. This is the default preset mode.<br>• **Warm**: Increases the color temperature. The screen appears warmer with a red/yellow tint.<br>• **Cool**: Decreases the color temperature. The screen appears cooler with a blue tint.<br>• **Custom Color**: Allows you to manually adjust the color settings.<br><br>Press the ⌃ and ⌄ buttons to adjust the three colors (R, G, B) values and create your own preset color mode. |
| | **Reset Color** | Reset your monitor color settings to the factory settings. |

| | | |
|---|---|---|
| | **Display** | Use **Display** to adjust image.<br> <br> |
| | **Response Time** | Allows you to set the **Response Time** to **Normal** or **Fast**. |
| | **ULMB** | **ULMB** (Ultra Low Motion Blur) helps have less of a motion blur effect while you are watching fast-moving images. When the graphics card supports G-SYNC, make sure that the Enable G-SYNC function is not selected in the NVIDIA Control Panel, **ULMB** will be automatically enabled.<br>**NOTE:** This function is available when the refresh rate is 85 Hz, 100 Hz or 120 Hz.<br>**NOTE:** When ULMB is enabled, the message of ULMB Mode is displayed on the lower-left corner of the OSD. When **G-SYNC** is enabled in the NVIDIA Control Panel, the message of G-SYNC Mode is displayed instead. If your system doesn't support G-SYNC, then the message of Normal Mode is displayed. |
| | **ULMB Pulse Width** | Allows you to adjust the panel's backlight a bit, so as to reduce motion blur. Use ^ or v to adjust the level from 10 to 100. Smaller values decrease motion blur and brightness. |
| | **Reset Display** | Select this option to restore default display settings. |

| | | |
|---|---|---|
| | **Audio** | |
| | **Volume** | Allows you to set the volume level of headphone output.<br>Use ^ or v to adjust the volume level from 0 to 100. |
| | **Reset Audio** | Select this option to restore default audio settings. |
| | **Menu** | Select this option to adjust the settings of the OSD, such as, the languages of the OSD, the amount of time the menu remains on screen, and so on.<br> |
| | **Language** | **Language** options set the OSD display to one of the eight languages (English, Spanish, French, German, Brazilian Portuguese, Russian, Simplified Chinese, or Japanese). |
| | **Transparency** | Select this option to change the menu transparency by pressing the ^ and v buttons (min. 0 / max. 100). |
| | **Timer** | Sets the length of time the OSD will remain active after the last time you pressed a button.<br>Use ^ or v to adjust the slider in 1 second increments, from 5 to 60 seconds. |
| | **Reset Menu** | Reset all OSD settings to the factory preset values. |

| | | |
|---|---|---|
| | **Personalize** | Users can choose a feature from **Brightness/Contrast**, **Input Source**, or **Volume** and set it as a shortcut key. |

| | | |
|---|---|---|
| | **Others** | |

| | |
|---|---|
| **Monitor Deep Sleep** | The default setting is **Enable**, letting the monitor go to sleep as the system sleeps. Selecting **Disable** may prevent the monitor from going into deep sleep and being unable to wake up.<br>**NOTE:** Pressing any button (except the ⏻ button) on the front panel of the monitor may also wake up the monitor after it goes into deep sleep. |
| **Factory Reset** | Reset all settings to the factory preset values. |

## OSD Warning Message

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

See Troubleshooting for more information.

## Setting the Maximum Resolution

To set the maximum resolution for the monitor:

In Windows® 7, Windows® 8, and Windows® 8.1:

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 **2560 x 1440**.
4. Click **OK**.

In Windows® 10:

1. Right-click on the desktop and click **Display settings**.
2. Click **Advanced display settings**.
3. Click the dropdown list of **Resolution** and select **2560 x 1440**.
4. Click **Apply**.

If you do not see 2560 x 1440 as an option, you may need to update your graphics driver. Depending on your computer, complete one of the following procedures:

If you have a Dell desktop or portable computer:

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

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

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

# Using 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.

## Tilt, Swivel

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

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

## Vertical Extension

**NOTE:** The stand extends vertically up to 130 mm. 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 up to avoid hitting the bottom edge of the monitor.

***Rotate clockwise***

*Rotate counterclockwise*

**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. To download 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 cables from the back of computer.
3. Turn on the monitor.

**NOTE:** A dialog box should appear on-screen (against a black background), if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED blinks white.

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

4. Turn Off your monitor and reconnect the video cable; then turn On both your computer and the monitor.

If your monitor 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 **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, and white screens.

The test is complete when the white 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.<br>• Verify that the power outlet is functioning properly using any other electrical equipment.<br>• Ensure that the power button is depressed fully.<br>• 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.<br>• Perform monitor self-test feature check.<br>• Check for bent or broken pins in the video cable connector.<br>• Run the built-in diagnostics.<br>• Ensure that the correct input source is selected in the Input Source menu. |
| Poor Focus | Picture is fuzzy, blurry, or ghosting | • Eliminate video extension cables.<br>• Reset the monitor to factory settings.<br>• Change the video resolution to the correct aspect ratio. |
| Shaky/Jittery Video | Wavy picture or fine movement | • Reset the monitor to factory settings.<br>• Check environmental factors.<br>• Relocate the monitor and test in another room. |
| Missing Pixels | LCD screen has spots | • Cycle power On-Off.<br>• Pixel that is permanently Off is a natural defect that can occur in LCD technology.<br>• For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **http://www.dell.com/support/monitors**. |
| Stuck-on Pixels | LCD screen has bright spots | • Cycle power On-Off.<br>• Pixel that is permanently off is a natural defect that can occur in LCD technology.<br>• For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **http://www.dell.com/support/monitors**. |
| Brightness Problems | Picture too dim or too bright | • Reset the monitor to factory settings.<br>• Adjust brightness & contrast controls via OSD. |
| Geometric Distortion | Screen not centered correctly | • Reset the monitor to factory settings. |

| | | |
|---|---|---|
| Horizontal/ Vertical Lines | Screen has one or more lines | • Reset the monitor to factory settings.<br>• Perform monitor self-test feature check and determine if these lines are also in self-test mode.<br>• Check for bent or broken pins in the video cable connector.<br>• Run the built-in diagnostics. |
| Synchronization Problems | Screen is scrambled or appears torn | • Reset the monitor to factory settings.<br>• Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode.<br>• Check for bent or broken pins in the video cable connector.<br>• Restart the computer in the *safe mode*. |
| Safety Related Issues | Visible signs of smoke or sparks | • Do not perform any troubleshooting steps.<br>• Contact Dell immediately. |
| Intermittent Problems | Monitor malfunctions on & off | • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.<br>• Reset the monitor to factory settings.<br>• 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 feature check.<br>• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.<br>• Check for bent or broken pins in the video cable connector. |
| Wrong Color | Picture color not good | • Change the settings of the **Preset Modes** in the **Color** menu OSD depending on the application.<br>• Adjust R/G/B value under **Custom Color** in **Color** menu OSD.<br>• 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).<br>• 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 | • 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 power cord, plug it back, and then turn On the monitor. |
| 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.<br>• Check whether the signal cable is plugged in properly. Re-plug the signal cable if necessary.<br>• 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.<br>• Run the built-in diagnostics. |

# Universal Serial Bus (USB) Specific Problems

| Specific Symptoms | What You Experience | Possible Solutions |
|---|---|---|
| USB interface is not working | USB peripherals are not working | • Check that your monitor is turned On.<br>• Reconnect the upstream cable to your computer.<br>• Reconnect the USB peripherals (downstream connector).<br>• Switch Off and then turn On the monitor again.<br>• Reboot the computer.<br>• Some USB devices like external portable HDD require higher electric current; connect the device directly to the computer system. |
| High Speed USB 3.0 interface is slow | High Speed USB 3.0 peripherals working slowly or not working at all | • Check that your computer is USB 3.0-capable.<br>• Some computers have USB 3.0, USB 2.0, and USB 1.1 ports. Ensure that the correct USB port is used.<br>• Reconnect the upstream cable to your computer.<br>• Reconnect the USB peripherals (downstream connector).<br>• Reboot the computer. |
| Wireless USB peripherals stop working when a USB 3.0 device is plugged in | Wireless USB peripherals responding slowly or only working as the distance between itself and its receiver decreases | • Increase the distance between the USB 3.0 peripherals and the wireless USB receiver.<br>• Position your wireless USB receiver as close as possible to the wireless USB peripherals.<br>• Use a USB-extender cable to position the wireless USB receiver as far away as possible from the USB 3.0 port. |

# 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 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.**

- Online technical assistance — www.dell.com/support/monitors
- Contacting Dell — www.dell.com/contactdell

# Setting Up Your Monitor

## Setting the display resolution

For maximum display performance with Microsoft® Windows® operating systems, set the display resolution to **2560 x 1440** pixels by performing the following steps:

In Windows® 7, Windows® 8, and Windows® 8.1:

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 **2560 x 1440**.
4. Click **OK**.

In Windows® 10:

1. Right-click on the desktop and click **Display settings**.
2. Click **Advanced display settings**.
3. Click the dropdown list of **Resolution** and select **2560 x 1440**.
4. Click **Apply**.

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.

## If you have a Dell™ desktop or a Dell™ portable computer with internet access

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 **2560 x 1440** again.

**NOTE:** If you are unable to set the resolution to 2560 x 1440, please contact Dell™ to inquire about a graphics adapter that supports these resolutions.

## If you have a non Dell™ desktop, portable computer, or graphics card

In Windows® 7, Windows® 8, and Windows® 8.1:

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 **2560 x 1440** again.

In Windows® 10:

1 Right-click on the desktop and click **Display settings**.

2 Click **Advanced display settings**.

3 Click the dropdown list of **Resolution** and select **2560 x 1440**.

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 **2560 x 1440** 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 will support the video resolution.