

Dell

P2219H/P2319H/P2419H/P2719H

User's Guide

Model: P2219H/P2319H/P2419H/P2719H

Regulatory model: P2219Hb/P2319Ht/P2319Hc/P2419Hb/P2419Hc/P2719Ht



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

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

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

Copyright © 2018-2019 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Contents

| | |
|---|-----------|
| About your monitor | 15 |
| Package contents | 15 |
| Product features | 17 |
| Identifying parts and controls | 18 |
| Front view | 18 |
| Back view | 19 |
| Side view | 20 |
| Bottom view | 21 |
| Monitor specifications | 22 |
| Resolution specifications | 25 |
| Supported video modes | 25 |
| Preset display modes | 25 |
| Electrical specifications | 26 |
| Physical characteristics | 26 |
| Environmental characteristics | 29 |
| Power management modes | 30 |
| Pin assignments | 33 |
| Plug and play capability | 36 |
| Universal Serial Bus (USB) interface | 36 |
| USB 3.0 | 36 |
| USB 2.0 | 36 |
| USB 3.0 upstream connector | 37 |
| USB 3.0 downstream connector | 37 |
| USB 2.0 downstream connector | 38 |
| USB ports | 38 |
| LCD monitor quality and pixel policy | 38 |
| Maintenance guidelines | 39 |



| | |
|---|-----------|
| Cleaning your monitor | 39 |
| Setting up the monitor | 40 |
| Attaching the stand | 40 |
| Connecting your monitor | 42 |
| Connecting the DisplayPort (DisplayPort to DisplayPort) cable | 42 |
| Connecting the VGA cable (optional) | 42 |
| Connecting the HDMI cable (optional) | 43 |
| Connecting the USB 3.0 cable | 43 |
| Organizing your cables | 44 |
| Removing the monitor stand | 44 |
| VESA wall mounting (optional) | 45 |
| Operating the monitor | 46 |
| Power on the monitor | 46 |
| Using the front-panel controls | 46 |
| Front-panel button | 47 |
| Using the On-Screen Display (OSD) menu | 48 |
| Accessing the menu system | 48 |
| OSD warning message | 61 |
| Setting the maximum resolution | 63 |
| Using the tilt, swivel, and vertical extension | 64 |
| Tilt, swivel | 64 |
| Vertical extension | 65 |
| Rotating the monitor | 65 |
| Rotate clockwise | 66 |
| Rotate counterclockwise | 66 |
| Adjusting the rotation display settings of your system | 67 |
| Troubleshooting | 68 |
| Self-test | 68 |
| Built-in diagnostics | 69 |



| | |
|---|-----------|
| Common problems | 70 |
| Product specific problems | 74 |
| Universal Serial Bus (USB) specific problems | 75 |
| Appendix | 76 |
| FCC notices (U.S. only) and other regulatory information | 76 |
| Contact Dell | 76 |





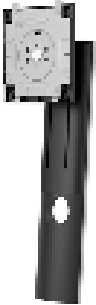
About your monitor

Package contents

Your monitor ships with the components shown in the table below. If any component is missing, contact Dell technical support. For more information, see [Contact Dell](#).

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

 **NOTE: If you are attaching a stand that you purchased from any other source, follow the set up instructions that were included with the stand.**

| | |
|--|-------------|
|  | Monitor |
|  | Stand riser |



| | |
|---|--|
|  | <p>Stand base</p> |
|  | <p>Power cable (varies by country)</p> |
|  | <p>DisplayPort cable</p> |
|  | <p>VGA cable (Japan only)</p> |
|  | <p>HDMI cable (shipped with P2219H/P2319H/P2719H, for Brazil only)</p> |
|  | <p>USB 3.0 upstream cable (enables the USB ports on the monitor)</p> |
|  | <ul style="list-style-type: none"> • Quick Setup Guide • Safety, Environmental, and Regulatory Information |



Product features

The **Dell P2219H/P2319H/P2419H/P2719H** flat panel display has an active matrix, Thin-Film Transistor (TFT), Liquid Crystal Display (LCD) and LED backlight. The monitor features include:

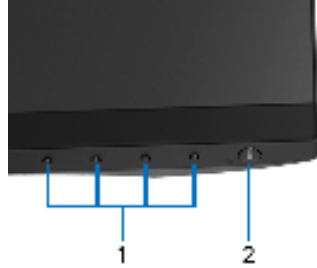
- **P2219H:** 54.6 cm (21.5-inch) viewable area (measured diagonally).
Resolution: Up to 1920 x 1080 through VGA, DisplayPort, and HDMI, with full-screen support or lower resolutions.
- **P2319H:** 58.4 cm (23.0-inch) viewable area (measured diagonally).
Resolution: Up to 1920 x 1080 through VGA, DisplayPort, and HDMI, with full-screen support or lower resolutions.
- **P2419H:** 60.5 cm (23.8-inch) viewable area (measured diagonally).
Resolution: Up to 1920 x 1080 through VGA, DisplayPort, and HDMI, with full-screen support or lower resolutions.
- **P2719H:** 68.6 cm (27.0-inch) viewable area (measured diagonally).
Resolution: Up to 1920 x 1080 through VGA, DisplayPort, and HDMI, with full-screen support or lower resolutions.
- 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.
- Security lock slot.
- Stand lock.
- 0.3 W standby power when in sleep mode.
- Optimize eye comfort with a flicker-free screen.

⚠ WARNING: The possible long-term effects of blue light emission from the monitor may cause damage to the eyes, including eye fatigue, digital eye strain, and so on. ComfortView feature is designed to reduce the amount of blue light emitted from the monitor to optimize eye comfort.



Identifying parts and controls

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

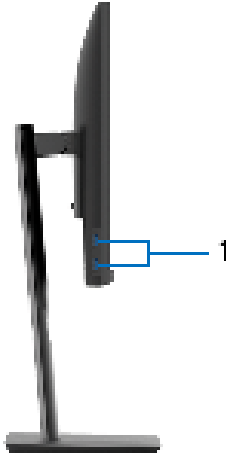


Back view with monitor stand

| 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 the monitor. |
| 4 | Security lock slot | Secures monitor with security lock (security lock not included). |
| 5 | Barcode, serial number, and Service Tag label | Refer to this label if you need to contact Dell for technical support. |
| 6 | Cable-management slot | Use to organize cables by inserting them through the slot. |



Side view



| Label | Description | Use |
|-------|--------------------------|---|
| 1 | USB downstream ports (2) | Connect your USB device. NOTE: To use these ports, you must connect the USB cable (shipped with your monitor) to the USB-upstream port on the monitor and to your computer. |



Bottom view



Bottom view without monitor stand

| Label | Description | Use |
|-------|--------------------------|---|
| 1 | Power connector | Connect the power cable (shipped with your monitor). |
| 2 | HDMI port | Connect your computer with HDMI cable (shipped with P2219H/P2319H/P2719H, for Brazil only). |
| 3 | Stand lock feature | To lock the stand to the monitor using a M3 x 6 mm screw (screw not included). |
| 4 | DisplayPort | Connect your computer with DisplayPort cable (shipped with your monitor). |
| 5 | VGA connector | Connect your computer with VGA cable (shipped with your monitor, for Japan only). |
| 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 ports (2) | Connect your USB device. 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

| Model | P2219H | P2319H |
|----------------------|--|--|
| Screen type | Active matrix - TFT LCD | |
| Panel technology | In-Plane Switching Technology | |
| Aspect ratio | 16:9 | |
| Viewable image | | |
| Diagonal | 546.10 mm (21.5 inches) | 584.20 mm (23.0 inches) |
| Width (active area) | 476.06 mm (18.74 inches) | 509.18 mm (20.05 inches) |
| Height (active area) | 267.79 mm (10.54 inches) | 286.42 mm (11.28 inches) |
| Total area | 127484.10 mm ² (197.60 inch ²) | 145839.33 mm ² (226.05 inch ²) |
| Pixel pitch | 0.248 mm x 0.248 mm | 0.265 mm x 0.265 mm |
| Pixel per inch (PPI) | 102 | 96 |
| Viewing angle | 178° (vertical) typical 178° (horizontal) typical | |
| Luminance output | 250 cd/m ² (typical) | |
| Contrast ratio | 1000 to 1 (typical) | |
| Faceplate coating | Anti-Glare with 3H hardness | |
| Backlight | LED edgelight system | |
| Response time | 8 ms (Normal) 5 ms (Fast) | |
| Color depth | 16.7 million colors | |
| Color gamut | 72% (CIE1931) NOTE: Color gamut (typical) is based on CIE1976 (82%) and CIE1931 (72%) test standards. | |
| Built-in devices | <ul style="list-style-type: none"> • USB 3.0 super-speed hub (with 1 x USB 3.0 upstream port) • 2 x USB 3.0 downstream ports • 2 x USB 2.0 downstream ports | |



| | | |
|---|--|---|
| Ports and connectors | <ul style="list-style-type: none"> · 1 x DisplayPort version 1.2 · 1 x HDMI port version 1.4 · 1 x VGA port · 1 x USB 3.0 upstream port (bottom) · 2 x USB 3.0 downstream ports (side) · 2 x USB 2.0 downstream ports (bottom) | |
| Border width (edge of monitor to active area) | 5.62 mm (Top/Left/Right) 19.99 mm (Bottom) | 5.40 mm (Top/Left/Right) 19.86 mm (Bottom) |
| Adjustability | | |
| Height adjustable stand | 130 mm | |
| Tilt | -5° to 21° | |
| Swivel | -45° to 45° | |
| Pivot | -90° to 90° | |
| Dell Display Manager compatibility | Yes | |
| Security | Security lock slot (cable lock sold separately) | |

| Model | P2419H | P2719H |
|----------------------|--|--|
| Screen type | Active matrix - TFT LCD | |
| Panel technology | In-Plane Switching Technology | |
| Aspect ratio | 16:9 | |
| Viewable image | | |
| Diagonal | 604.52 mm (23.8 inches) | 685.99 mm (27.0 inches) |
| Width (active area) | 527.04 mm (20.75 inches) | 597.88 mm (23.54 inches) |
| Height (active area) | 296.46 mm (11.67 inches) | 336.31 mm (13.24 inches) |
| Total area | 156246.27 mm ² (242.16 inch ²) | 201073.02 mm ² (311.67 inch ²) |
| Pixel pitch | 0.275 mm x 0.275 mm | 0.311 mm x 0.311 mm |
| Pixel per inch (PPI) | 92 | 82 |
| Viewing angle | 178° (vertical) typical 178° (horizontal) typical | |



| | | |
|---|--|---|
| Luminance output | 250 cd/m ² (typical) | 300 cd/m ² (typical) |
| Contrast ratio | 1000 to 1 (typical) | |
| Faceplate coating | Anti-Glare with 3H hardness | |
| Backlight | LED edgelight system | |
| Response time | 8 ms (Normal) 5 ms (Fast) | |
| Color depth | 16.7 million colors | |
| Color gamut | 72% (CIE1931) NOTE: Color gamut (typical) is based on CIE1976 (82%) and CIE1931 (72%) test standards. | |
| Built-in devices | <ul style="list-style-type: none"> • USB 3.0 super-speed hub (with 1 x USB 3.0 upstream port) • 2 x USB 3.0 downstream ports • 2 x USB 2.0 downstream ports | |
| Ports and connectors | <ul style="list-style-type: none"> • 1 x DisplayPort version 1.2 • 1 x HDMI port version 1.4 • 1 x VGA port • 1 x USB 3.0 upstream port (bottom) • 2 x USB 3.0 downstream ports (side) • 2 x USB 2.0 downstream ports (bottom) | |
| Border width (edge of monitor to active area) | 5.38 mm (Top/Left/Right) 20.31 mm (Bottom) | 6.00 mm (Top/Left/Right) 20.70 mm (Bottom) |
| Adjustability | | |
| Height adjustable stand | 130 mm | |
| Tilt | -5° to 21° | |
| Swivel | -45° to 45° | |
| Pivot | -90° to 90° | |
| Dell Display Manager compatibility | Yes | |
| Security | Security lock slot (cable lock sold separately) | |



Resolution specifications

| | |
|---------------------------|------------------------------------|
| Model | P2219H/P2319H/P2419H/P2719H |
| Horizontal scan range | 30 kHz to 83 kHz (automatic) |
| Vertical scan range | 56 Hz to 76 Hz (automatic) |
| Maximum preset resolution | 1920 x 1080 at 60 Hz |

Supported video modes

| | |
|--|--|
| Model | P2219H/P2319H/P2419H/P2719H |
| Video display capabilities (VGA, HDMI & DP playback) | 480i, 480p, 576i, 576p, 720p, 1080i, 1080p |

Preset display modes

| Display mode | Horizontal frequency (kHz) | Vertical frequency (Hz) | Pixel clock (MHz) | Sync polarity (Horizontal/Vertical) |
|-------------------|----------------------------|-------------------------|-------------------|-------------------------------------|
| VESA, 640 x 480 | 31.5 | 60.0 | 25.2 | -/- |
| VESA, 640 x 480 | 37.5 | 75.0 | 31.5 | -/- |
| IBM, 720 x 400 | 31.5 | 70.0 | 28.3 | -/+ |
| VESA, 800 x 600 | 37.9 | 60.0 | 40.0 | +/+ |
| VESA, 800 x 600 | 46.9 | 75.0 | 49.5 | +/+ |
| VESA, 1024 x 768 | 48.4 | 60.0 | 65.0 | -/- |
| VESA, 1024 x 768 | 60.0 | 75.0 | 78.8 | +/+ |
| VESA, 1152 x 864 | 67.5 | 75.0 | 108.0 | +/+ |
| VESA, 1280 x 1024 | 64.0 | 60.0 | 108.0 | +/+ |
| VESA, 1280 x 1024 | 80.0 | 75.0 | 135.0 | +/+ |
| VESA, 1600 x 900 | 60.0 | 60.0 | 108.0 | +/+ |
| VESA, 1920 x 1080 | 67.5 | 60.0 | 148.5 | +/+ |



Electrical specifications

| Model | P2219H/P2319H/P2419H/P2719H |
|------------------------------------|--|
| Video input signals | <ul style="list-style-type: none"> • Analog RGB, 0.7 Volts +/- 5%, positive polarity at 75 ohm input impedance • HDMI 1.4, 600 mV for each differential line, 100 ohm input impedance per differential pair • 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 \pm 3 Hz / 1.5 A (typical) |
| Inrush current | <ul style="list-style-type: none"> • 120 V: 30 A (Max.) at 0 °C (cold start) • 240 V: 60 A (Max.) at 0 °C (cold start) |

Physical characteristics

| Model | P2219H | P2319H |
|-----------------------------------|---|-------------------------|
| Signal cable type | <ul style="list-style-type: none"> • Digital: DisplayPort, 20 pins • Digital: HDMI, 19 pins (cable not included, except for Brazil) • Analog: D-Sub, 15 pins (cable not included, except for Japan) • Universal Serial Bus: USB, 9 pins | |
| Dimensions (with stand) | | |
| Height (extended) | 472.0 mm (18.58 inches) | 481.1 mm (18.94 inches) |
| Height (compressed) | 353.4 mm (13.91 inches) | 351.1 mm (13.82 inches) |
| Width | 487.3 mm (19.19 inches) | 520.0 mm (20.47 inches) |
| Depth | 166.0 mm (6.54 inches) | 166.0 mm (6.54 inches) |
| Dimensions (without stand) | | |
| Height | 293.4 mm (11.55 inches) | 311.7 mm (12.27 inches) |
| Width | 487.3 mm (19.19 inches) | 520.0 mm (20.47 inches) |
| Depth | 41.3 mm (1.63 inches) | 41.3 mm (1.63 inches) |



| Stand dimensions | | |
|---|--|--|
| Height (extended) | 400.8 mm (15.78 inches) | 400.8 mm (15.78 inches) |
| Height (compressed) | 353.4 mm (13.91 inches) | 353.4 mm (13.91 inches) |
| Width | 206.0 mm (8.11 inches) | 206.0 mm (8.11 inches) |
| Depth | 166.0 mm (6.54 inches) | 166.0 mm (6.54 inches) |
| Base | 206.0 mm x 166.0 mm (8.11 inches x 6.54 inches) | 206.0 mm x 166.0 mm (8.11 inches x 6.54 inches) |
| Weight | | |
| Weight with packaging | 6.26 kg (13.80 lb) | 7.00 kg (15.43 lb) |
| Weight with stand assembly and cables | 4.72 kg (10.41 lb) | 5.11 kg (11.27 lb) |
| Weight without stand assembly (For wall mount or VESA mount considerations - no cables) | 2.75 kg (6.06 lb) | 3.11 kg (6.86 lb) |
| Weight of stand assembly | 1.62 kg (3.57 lb) | 1.67 kg (3.68 lb) |
| Front frame gloss | 2-4 (only front chin) | |

| Model | P2419H | P2719H |
|--------------------------------|--|---|
| Signal cable type | <ul style="list-style-type: none"> • Digital: DisplayPort, 20 pins • Digital: HDMI, 19 pins (cable not included) • Analog: D-Sub, 15 pins (cable not included, except for Japan) • Universal Serial Bus: USB, 9 pins | <ul style="list-style-type: none"> • Digital: DisplayPort, 20 pins • Digital: HDMI, 19 pins (cable not included, except for Brazil) • Analog: D-Sub, 15 pins (cable not included, except for Japan) • Universal Serial Bus: USB, 9 pins |
| Dimensions (with stand) | | |
| Height (extended) | 486.1 mm (19.14 inches) | 524.3 mm (20.64 inches) |



| | | |
|---|--|--|
| Height (compressed) | 356.1 mm (14.02 inches) | 394.3 mm (15.52 inches) |
| Width | 537.8 mm (21.27 inches) | 609.9 mm (24.01 inches) |
| Depth | 166.0 mm (6.54 inches) | 185.0 mm (7.28 inches) |
| Dimensions (without stand) | | |
| Height | 322.2 mm (12.68 inches) | 363.0 mm (14.29 inches) |
| Width | 537.8 mm (21.17 inches) | 609.9 mm (24.01 inches) |
| Depth | 42.8 mm (1.69 inches) | 42.8 mm (1.69 inches) |
| Stand dimensions | | |
| Height (extended) | 400.8 mm (15.78 inches) | 418.4 mm (16.47 inches) |
| Height (compressed) | 353.4 mm (13.91 inches) | 371.0 mm (14.61 inches) |
| Width | 206.0 mm (8.11 inches) | 245.0 mm (9.65 inches) |
| Depth | 166.0 mm (6.54 inches) | 185.0 mm (7.28 inches) |
| Base | 206.0 mm x 166.0 mm (8.11 inches x 6.54 inches) | 245.0 mm x 185.0 mm (9.65 inches x 7.28 inches) |
| Weight | | |
| Weight with packaging | 7.10 kg (15.65 lb) | 9.05 kg (19.95 lb) |
| Weight with stand assembly and cables | 5.25 kg (11.57 lb) | 6.67 kg (14.70 lb) |
| Weight without stand assembly (For wall mount or VESA mount considerations - no cables) | 3.26 kg (7.19 lb) | 4.35 kg (9.59 lb) |
| Weight of stand assembly | 1.67 kg (3.68 lb) | 1.93 kg (4.25 lb) |
| Front frame gloss | 2-4 (only front chin) | |



Environmental characteristics

| | |
|--|---|
| Model | P2219H/P2319H/P2419H/P2719H |
| Compliant standards | |
| <ul style="list-style-type: none"> • ENERGY STAR certified monitor • EPEAT registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. • RoHS-compliant • TCO certified displays • BFR/PVC free monitor (excluding external cables) • Arsenic-free glass and Mercury-free for the panel only | |
| Temperature | |
| Operating | 0 °C to 40 °C (32 °F to 104 °F) |
| Non-operating | <ul style="list-style-type: none"> • Storage: -20 °C to 60 °C (-4 °F to 140 °F) • Shipping: -20 °C to 60 °C (-4 °F to 140 °F) |
| Humidity | |
| Operating | 20% to 80% (non-condensing) |
| Non-operating | <ul style="list-style-type: none"> • Storage: 10% to 90% (non-condensing) • Shipping: 10% to 90% (non-condensing) |
| Altitude | |
| Operating | 5000 m (16404 ft) (maximum) |
| Non-operating | 12192 m (40000 ft) (maximum) |
| Thermal dissipation | |
| P2219H | <ul style="list-style-type: none"> • 126.24 BTU/hour (maximum) • 58.00 BTU/hour (typical) |
| P2319H | <ul style="list-style-type: none"> • 136.58 BTU/hour (maximum) • 54.63 BTU/hour (typical) |
| P2419H | <ul style="list-style-type: none"> • 143.40 BTU/hour (maximum) • 61.46 BTU/hour (typical) |
| P2719H | <ul style="list-style-type: none"> • 197.95 BTU/hour (maximum) • 64.85 BTU/hour (typical) |



Power management modes

If you have VESA's DPM™ compliance display card or software installed on your computer, 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 to function. The following table shows the power consumption and signaling of this automatic power saving feature.

P2219H

| VESA modes | Horizontal sync | Vertical sync | Video | Power indicator | Power consumption |
|------------------|-----------------|---------------|---------|------------------|------------------------------------|
| Normal operation | Active | Active | Active | White | 36 W (maximum)** 14 W (typical) |
| Active-off mode | Inactive | Inactive | Blanked | White (blinking) | Less than 0.3 W |
| Switch off | - | - | - | Off | Less than 0.3 W |

| | |
|--------------------------------|-----------|
| Power Consumption P_{on} | 12.5 W |
| Total Energy Consumption (TEC) | 39.75 kWh |

P2319H

| VESA modes | Horizontal sync | Vertical sync | Video | Power indicator | Power consumption |
|------------------|-----------------|---------------|---------|------------------|--|
| Normal operation | Active | Active | Active | White | 38.5 W (maximum)** 15.2 W (typical) |
| Active-off mode | Inactive | Inactive | Blanked | White (blinking) | Less than 0.3 W |
| Switch off | - | - | - | Off | Less than 0.3 W |

| | |
|--------------------------------|-----------|
| Power Consumption P_{on} | 13.31 W |
| Total Energy Consumption (TEC) | 41.78 kWh |



P2419H

| VESA modes | Horizontal sync | Vertical sync | Video | Power indicator | Power consumption |
|------------------|-----------------|---------------|---------|------------------|------------------------------------|
| Normal operation | Active | Active | Active | White | 42 W (maximum)** 18 W (typical) |
| Active-off mode | Inactive | Inactive | Blanked | White (blinking) | Less than 0.3 W |
| Switch off | - | - | - | Off | Less than 0.3 W |

| | |
|-----------------------------------|-----------|
| Power Consumption P _{on} | 13.34 W |
| Total Energy Consumption (TEC) | 41.92 kWh |

P2719H

| VESA modes | Horizontal sync | Vertical sync | Video | Power indicator | Power consumption |
|------------------|-----------------|---------------|---------|------------------|--------------------------------------|
| Normal operation | Active | Active | Active | White | 54 W (maximum)** 16.3 W (typical) |
| Active-off mode | Inactive | Inactive | Blanked | White (blinking) | Less than 0.3 W |
| Switch off | - | - | - | Off | Less than 0.3 W |

| | |
|-----------------------------------|----------|
| Power Consumption P _{on} | 15 W |
| Total Energy Consumption (TEC) | 47.2 kWh |

* 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.



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.



NOTE: This monitor is ENERGY STAR certified.

This product qualifies for ENERGY STAR in the factory default settings which can be restored by “Factory Reset” function in the OSD menu. Changing the factory default settings or enabling other features may increase power consumption that could exceed the ENERGY STAR specified limit.



NOTE:

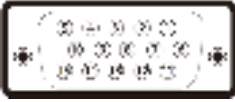
P_{on} : Power consumption of On mode as defined in Energy Star 8.0 version.

TEC: Total energy consumption in kWh as defined in Energy Star 8.0 version.



Pin assignments

VGA connector



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



DisplayPort connector



| Pin number | 20-pin side of the connected signal cable |
|------------|---|
| 1 | ML3 (n) |
| 2 | GND |
| 3 | ML3 (p) |
| 4 | ML2 (n) |
| 5 | GND |
| 6 | ML2 (p) |
| 7 | ML1 (n) |
| 8 | GND |
| 9 | ML1 (p) |
| 10 | ML0 (n) |
| 11 | GND |
| 12 | ML0 (p) |
| 13 | GND |
| 14 | GND |
| 15 | AUX (p) |
| 16 | GND |
| 17 | AUX (n) |
| 18 | Hot Plug Detect |
| 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 and High-Speed USB 2.0 compatible.**

USB 3.0

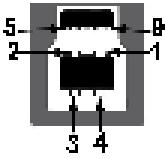
| Transfer speed | Data rate | Power consumption |
|----------------|-----------|------------------------|
| Super-speed | 5 Gbps | 4.5 W (Max, each port) |
| High speed | 480 Mbps | 4.5 W (Max, each port) |
| Full speed | 12 Mbps | 4.5 W (Max, each port) |

USB 2.0

| Transfer speed | Data rate | Power consumption |
|----------------|-----------|------------------------|
| High speed | 480 Mbps | 2.5 W (Max, each port) |
| Full speed | 12 Mbps | 2.5 W (Max, each port) |
| Low speed | 1.5 Mbps | 2.5 W (Max, each port) |



USB 3.0 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 3.0 downstream connector

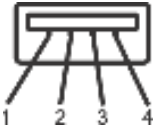


| Pin number | 9-pin side of the connector |
|------------|-----------------------------|
| 1 | VCC |
| 2 | D- |
| 3 | D+ |
| 4 | GND |
| 5 | SSRX- |



| | |
|---|-------|
| 6 | SSRX+ |
| 7 | GND |
| 8 | SSTX- |
| 9 | SSTX+ |

USB 2.0 downstream connector




| Pin number | 4-pin side of the connector |
|------------|-----------------------------|
| 1 | VCC |
| 2 | DMD |
| 3 | DPD |
| 4 | GND |

USB ports

- 1 upstream - bottom
- 2 downstream - bottom
- 2 downstream - side

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

 **NOTE: The USB ports on the monitor work only when the monitor is turned 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.**


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 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 when 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.



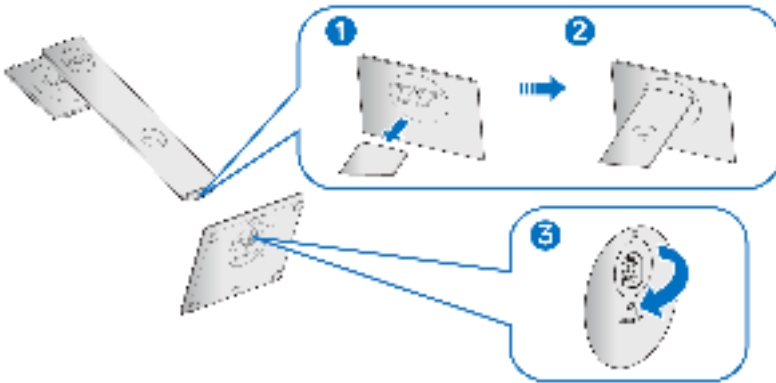
Setting up the monitor

Attaching the stand

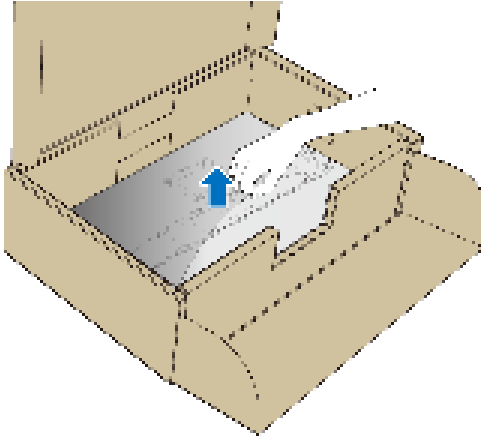
-  **NOTE: The stand is not installed at the factory when shipped.**
-  **NOTE: The following instructions are applicable only for attaching the stand that was shipped with your monitor. If you are attaching a stand that you purchased from any other source, follow the set up instructions that were included with the stand.**

To attach the monitor stand:

1. Follow the instructions on the flaps of carton to remove the stand from the top cushion that secures it.
2. Insert the stand base blocks fully into the stand slot.
3. Lift the screw handle and turn the screw clockwise.
4. After fully tightening the screw, fold the screw handle flat within the recess.

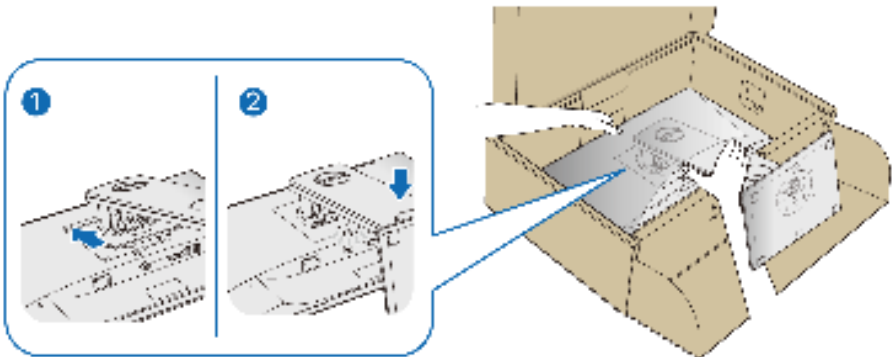


5. Lift the cover, as shown, to expose the VESA area for stand assembly.



6. Attach the stand assembly to the monitor.

- a. Fit the two tabs on the upper part of the stand to the groove on the back of the monitor.
- b. Press the stand down till it snaps into place.



7. Place the monitor upright.

 **NOTE: Lift the monitor carefully to prevent it from slipping or falling.**



Connecting your monitor

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

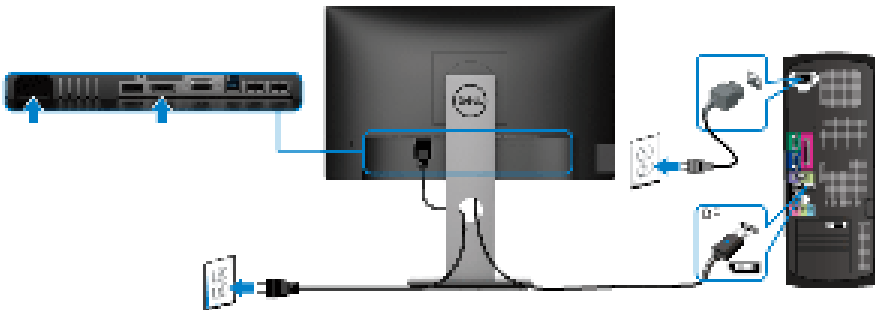
📌 NOTE: Route the cables through the cable-management slot before connecting them.

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

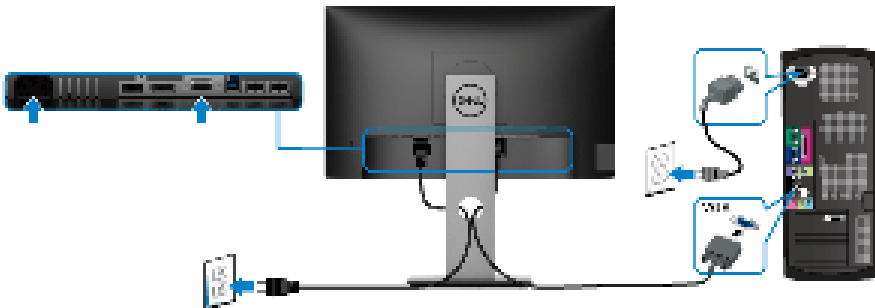
To connect your monitor to the computer:

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

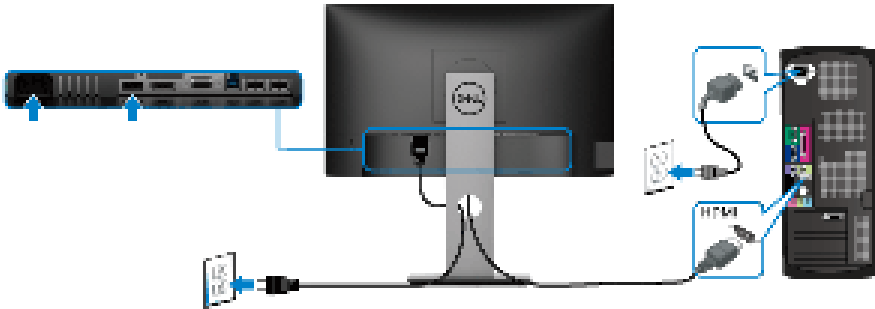
Connecting the DisplayPort (DisplayPort to DisplayPort) cable



Connecting the VGA cable (optional)



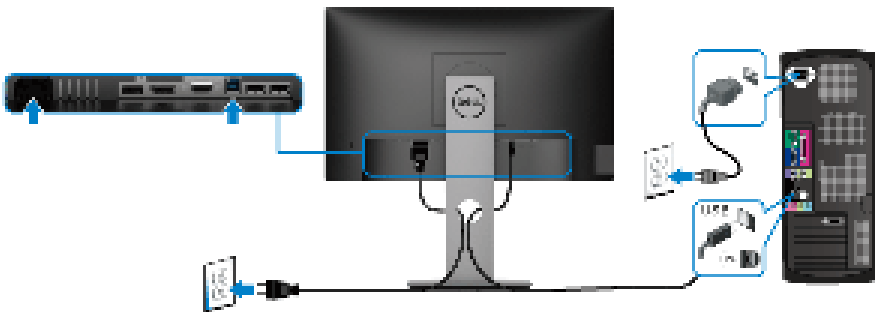
Connecting the HDMI cable (optional)



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 VGA/DisplayPort/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.

NOTE: Use the cable slot on the monitor stand to organize the cables.

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](#).





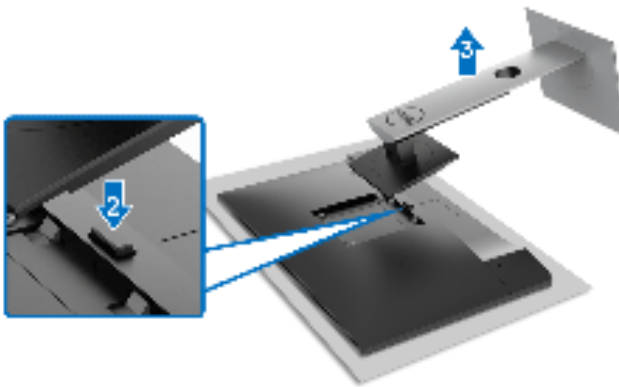
Organizing your cables



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 when removing the stand, ensure that the monitor is placed on a soft, clean surface.
-  **NOTE:** The following instructions are applicable only for attaching the stand that was shipped with your monitor. If you are attaching a stand that you purchased from any other source, follow the set up instructions that were included with the stand.



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.

VESA 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. (See [Removing the monitor 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. For more information, see the documentation that shipped with the wall mounting kit.

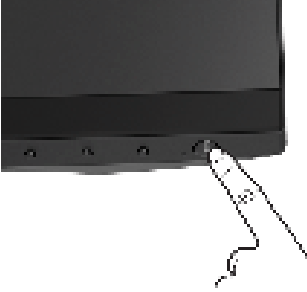
NOTE: For use only with with UL or CSA or GS-listed wall mount bracket with minimum weight or load bearing capacity of 11.00 kg (P2219H) / 12.44 kg (P2319H) / 13.04 kg (P2419H) / 17.40 kg (P2719H).



Operating the monitor

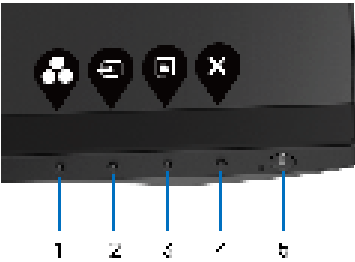
Power on the monitor

Press the Power button to turn On the monitor.





Using the front-panel controls




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



The following table describes the front-panel buttons:

| Front-panel button | Description |
|--|---|
| 1  Shortcut key/ Preset Modes | Use this button to choose from a list of preset color modes. |
| 2  Shortcut key/ Input Source | Use this button to choose from a list of video signals that may be connected to your monitor. |







| | | |
|---|--|--|
| 3 |  Menu | Use the MENU button to launch the On-Screen Display (OSD). See Accessing the menu system . |
| 4 |  Exit | Use this button to exit the OSD main menu. |
| 5 |  Power (with power light indicator) | Use the Power button to turn the monitor On and Off . 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  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  button to launch the OSD menu and display the main menu.



NOTE: Auto Adjust is only available when you use the analog (VGA) connector.

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  or  button once to activate the highlighted option.
4. Press the  and  buttons to select the desired parameter.
5. Press  to enter the submenu and then use the directional 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 | <p>Use this menu to activate Brightness/Contrast adjustment.</p>  |
| | Brightness | <p>Brightness adjusts the luminance of the backlight.</p> <p>Press the  button to increase the brightness and press the  button to decrease the brightness (min. 0 / max. 100).</p> <p>NOTE: Manual adjustment of Brightness is disabled when Dynamic Contrast is switched On.</p> |
| | Contrast | <p>Adjust the Brightness first, and then adjust the Contrast only if further adjustment is necessary.</p> <p>Press the  button to increase the contrast and press the  button to decrease the contrast (min. 0 / max. 100).</p> <p>The Contrast function adjusts the degree of difference between darkness and lightness on the monitor screen.</p> |





Auto Adjust

Use this menu to activate automatic setup and adjust menu.



Auto Adjust allows the monitor to self-adjust to the incoming video signal. After using **Auto Adjust**, you can further tune your monitor by using the **Pixel Clock** (Coarse) and **Phase** (Fine) controls under **Display** settings.



NOTE: In most cases, **Auto Adjust** produces the best image for your configuration.

NOTE: **Auto Adjust** option is only available when you are using the analog (VGA) connector.





Input Source

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



VGA

Select the **VGA** input when you are using the analog (VGA) connector.

DP

Select the **DP** input when you are using the DisplayPort (DP) connector.

HDMI

Select the **HDMI** input when you are using the HDMI connector.

Auto Select

Turning on the function allows you to scan for available input sources.

Reset Input Source

Reset your monitor input settings to the factory settings.



Color

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



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.
- **ComfortView:** Decreases the level of blue light emitted from the screen to make viewing more comfortable for your eyes.

WARNING: The possible long-term effects of blue light emission from the monitor may cause personal injury such as digital eye strain, eye fatigue and damage to the eyes. Using monitor for extended periods of time may also cause pain in parts of body such as neck, arm, back and shoulder.



To reduce the risk of eye strain and neck/arm/back/shoulder pain from using the monitor for long periods of time, we suggest you to:

1. Set the distance of the screen between 20 to 28 inches (50 - 70 cm) from your eyes.
 2. Blink frequently to moisten your eyes or wet your eyes with water after prolonged usage of the monitor.
 3. Take regular and frequent breaks for 20 minutes every two hours.
 4. Look away from your monitor and gaze at a distant object at 20 feet away for at least 20 seconds during the breaks.
 5. Perform stretches to relieve tension in the neck, arm, back, and shoulders during the breaks.
- **Movie:** Loads color settings ideal for movies.
 - **Game:** Loads color settings ideal for most gaming applications.
 - **Warm:** Increases the color temperature. The screen appears warmer with a red/yellow tint.
 - **Cool:** Decreases the color temperature. The screen appears cooler with a blue tint.
-



Preset Modes

- **Custom Color:** Allows you to manually adjust the color settings.

Use the  and  buttons to adjust the three colors (R, G, B) values and create your own preset color mode.

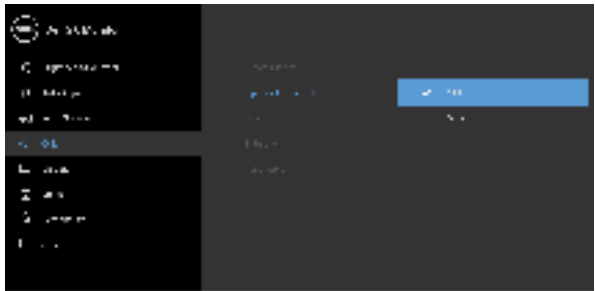


Input Color Format



Allows you to set the video input mode to:

RGB: Select this option if your monitor is connected to a computer (or DVD player) using the DisplayPort or HDMI cable.

YPbPr: Select this option if your DVD player supports only YPbPr output.





Hue

This feature can shift the color of the video image to green or purple. This is used to adjust the desired flesh tone color. Use  or  to adjust the hue from '0' to '100'.

NOTE: Hue adjustment is available only when you select **Movie** or **Game** preset mode.

Saturation

This feature can adjust the color saturation of the video image. Use  or  to adjust the saturation from '0' to '100'.

NOTE: Saturation adjustment is available only when you select **Movie** or **Game** preset mode.

Reset Color

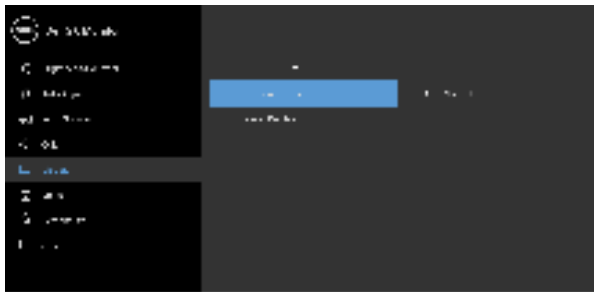
Reset your monitor's color settings to the factory settings.





Display



Use **Display** to adjust image.





Aspect Ratio

Adjusts the image ratio to **Wide 16:9**, **4:3**, or **5:4**.

Horizontal Position

Use  or  to adjust the image left or right.
Minimum is '0' (-).
Maximum is '100' (+).



Vertical Position

Use  or  to adjust the image up or down.
Minimum is '0' (-).
Maximum is '100' (+).



NOTE: Horizontal Position and **Vertical Position** adjustments are only available for VGA input.



Sharpness This feature can make the image look sharper or softer.

Use  or  to adjust the sharpness from '0' to '100'.

Pixel Clock The **Phase** and **Pixel Clock** adjustments allow you to adjust your monitor to your preference.

Use  or  to adjust for best image quality.

Phase If satisfactory results are not obtained using the **Phase** adjustment, use the **Pixel Clock** (coarse) adjustment and then use **Phase** (fine), again.

NOTE: Pixel Clock and **Phase** adjustments are only available for VGA input.

Dynamic Contrast Allows you to increase the level of contrast to provide sharper and more detailed image quality.

Use  to enter the submenu. Then use  to turn on or turn off the **Dynamic Contrast** function.

NOTE: Dynamic Contrast provides higher contrast if you select **Game** or **Movie** preset mode.

Response Time Allows you to set the **Response Time** to **Normal** or **Fast**.

Reset Display Select this option to restore default display settings.





Menu

Select this option to adjust the settings of the OSD, such as, the languages of the OSD, the amount of time the menu remains on screen, and so on.





Language

Sets the OSD display to one of the eight languages (English, Spanish, French, German, Brazilian Portuguese, Russian, Simplified Chinese, or Japanese).

Rotation



Rotates the OSD by 90 degrees counter-clockwise. You can adjust the menu according to your [Display Rotation](#).

Transparency

Select this option to change the menu transparency by pressing the  and  buttons (min. 0 / max. 100).

Timer

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

Use  or  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



| | |
|-----------------------|--|
| Shortcut Key 1 | Allows you to choose a feature from Preset Modes , |
| Shortcut Key 2 | Brightness/Contrast , Auto Adjust , Input Source , Aspect Ratio , or Rotation and set it as a shortcut key. |

| | |
|-------------------------|---|
| Power Button LED | Allows you to set the power LED indicator On or Off to save energy. |
|-------------------------|---|

| | |
|------------|---|
| 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.

| | |
|------------------------------|--|
| Reset Personalization | Reset all settings under the Personalize menu to the factory preset values. |
|------------------------------|--|



**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 **On**.



Service Tag

Displays the service tag of your monitor. This string is required when you look for phone support, check your warranty status, update drivers on Dell's website, etc.

Reset Others

Reset all settings under the **Others** menu to the factory preset values.

Factory Reset

Restore all preset values to the factory default settings. These are also the settings for ENERGY STAR® tests.

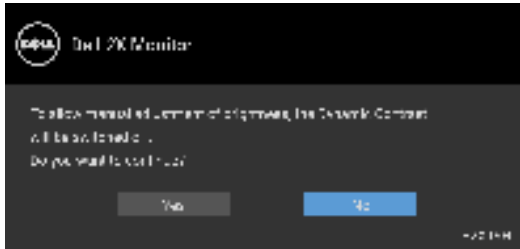


 **NOTE:** This monitor has a built-in feature to automatically calibrate the brightness to compensate for LED aging.



OSD warning message

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



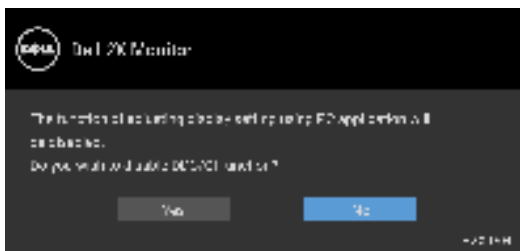
When the monitor does not support a particular resolution mode, you will see the following message:



This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See [Monitor specifications](#) for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 1920 x 1080.

NOTE: The message may be slightly different according to the connected input signal.

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



When the monitor goes into power-save mode, the following message appears:



NOTE: The message may be slightly different according to the connected input signal.

Activate the computer and wake up the monitor to gain access to the [OSD](#).

The OSD functions only in the normal operation mode. If you press any button other than the power button during the Active-off mode, the following message will appear depending on the selected input:



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

NOTE: The message may be slightly different according to the connected input signal.

If either VGA, HDMI, or DisplayPort 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.

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 **1920 x 1080**.
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 **1920 x 1080**.
4. Click **Apply**.

If you do not see 1920 x 1080 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: The following instructions are applicable only for attaching the stand that was shipped with your monitor. If you are attaching a stand that you purchased from any other source, follow the set up instructions that were included with the stand.

Tilt, swivel

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

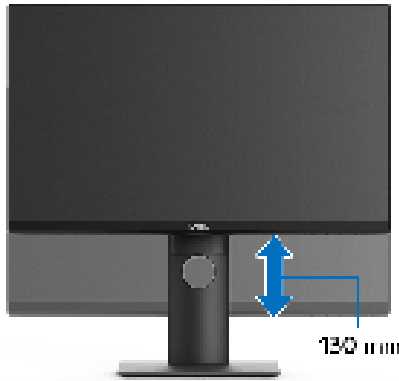


NOTE: The stand is not installed at the factory when shipped.



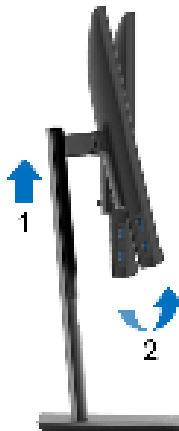
Vertical extension

 **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 to 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.
3. Turn on the monitor.

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



or



or





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

If your monitor screen remains blank after you use the previous procedure, check your video controller and computer, because your monitor is functioning properly.

Built-in diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if the screen abnormality you are experiencing is an inherent problem with your monitor, or with your computer and video card.

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



To run the built-in diagnostics:

1. 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** on the front panel for 5 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press **Button 1** on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, black, white, and text screens.

The test is complete when the text screen appears. To exit, press **Button 1** again. If you do not detect any screen abnormalities upon using the built-in diagnostic tool, the monitor is functioning properly. Check the video card and computer.

Common problems

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

| Common symptoms | 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 pressed fully. • Ensure that the correct input source is selected in the Input Source 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 in the Input Source menu. |
| Poor Focus | Picture is fuzzy, blurry, or ghosting | <ul style="list-style-type: none"> • Perform Auto Adjust via OSD. • Adjust the Phase and Pixel Clock controls via OSD. • Eliminate video extension cables. • Reset the monitor to factory settings. • Change the video resolution to the correct aspect ratio. |
| Shaky/Jittery Video | Wavy picture or fine movement | <ul style="list-style-type: none"> • Perform Auto Adjust via OSD. • Adjust the Phase and Pixel Clock controls via OSD. • Reset the monitor to factory settings. • Check environmental factors. • Relocate the monitor and test in another room. |
| 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. • Perform Auto Adjust via OSD. • Adjust brightness & contrast controls via OSD. |
| Geometric Distortion | Screen not centered correctly | <ul style="list-style-type: none"> • Reset the monitor to factory settings. • Perform Auto Adjust via OSD. • Adjust horizontal & vertical controls via OSD. • When using HDMI/DisplayPort input, the positioning adjustments are not available. |
| Horizontal/Vertical Lines | Screen has one or more lines | <ul style="list-style-type: none"> • Reset the monitor to factory settings. • Perform Auto Adjust via OSD. • Adjust the Phase and Pixel Clock controls via OSD. • Perform monitor self-test feature check and determine if these lines are also in self-test mode. • Check for bent or broken pins in the video cable connector. • Run the built-in diagnostics. • When using HDMI/DisplayPort input, the Pixel Clock and Phase adjustments are not available. |




| | | |
|--------------------------|-------------------------------------|---|
| Synchronization Problems | Screen is scrambled or appears torn | <ul style="list-style-type: none"> Reset the monitor to factory settings. Perform Auto Adjust via OSD. Adjust the Phase and Pixel Clock controls via OSD. Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode. Check for bent or broken pins in the video cable connector. Restart the computer in the safe mode. |
| 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 self-test 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"> Change the settings of the Preset Modes in the Color menu OSD depending on the application. Adjust R/G/B value under Custom Color in Color menu OSD. 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

| Common 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 the Display menu OSD. Reset the monitor to factory settings. |
| 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 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. |

 **NOTE: When choosing HDMI/DisplayPort mode, the Auto Adjust function will not be available.**



Universal Serial Bus (USB) specific problems

| Common symptoms | What you experience | Possible solutions |
|---|--|---|
| USB interface is not working | USB peripherals are not working | <ul style="list-style-type: none">• Check that your monitor is turned On.• Reconnect the upstream cable to your computer.• Reconnect the USB peripherals (downstream connector).• Switch Off and then turn On the monitor again.• Reboot the computer.• Some USB devices like external portable HDD require higher electric current; connect the device directly to the computer system. |
| Super Speed USB 3.0 interface is slow | Super Speed USB 3.0 peripherals working slowly or not working at all | <ul style="list-style-type: none">• Check that your computer is USB 3.0-capable.• Some computers have USB 3.0, USB 2.0, and USB 1.1 ports. Ensure that the correct USB port is used.• Reconnect the upstream cable to your computer.• Reconnect the USB peripherals (downstream connector).• 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 | <ul style="list-style-type: none">• Increase the distance between the USB 3.0 peripherals and the wireless USB receiver.• Position your wireless USB receiver as close as possible to the wireless USB peripherals.• 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

