Dell E2417H Monitor User's Guide

Model: E2417H

Regulatory model: E2417Hb



Notes, cautions, and warnings



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



 \bigwedge 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

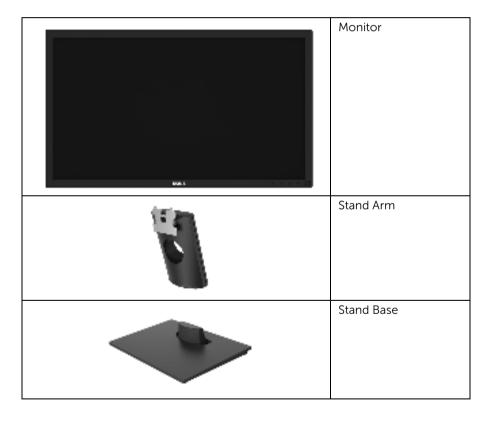
Your monitor ships with the components shown below. Ensure that you have received all the components and Contact Dell if something is missing.



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.



Deal	VESA™ Screw Cover
	Power Cable (Varies by Countries)
	DP Cable
	VGA Cable (except North & South America)
The second secon	 Drivers and Documentation Media Quick Setup Guide Safety, Environmental, and Regulatory Information

Product Features

The **Dell E2417H** flat panel display has an active matrix, Thin-Film Transistor (TFT), Liquid Crystal Display (LCD) and LED backlight. The monitor features include:

- **E2417H**: 60.5 cm (23.8-inch) viewable area (measured diagonally). Resolution: Up to 1920 x 1080 through VGA and DisplayPort with full-screen support or lower resolutions.
- Tilt adjustment capability.
- Removable stand and Video Electronics Standards Association (VESA™) 100 mm mounting holes for flexible mounting solutions.
- Digital connectivity with DisplayPort.
- 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.
- Asset Management Capability.
- Energy Gauge shows the energy level being consumed by the monitor in real time.
- Optimize eye comfort with a flicker-free screen and ComfortView feature which minimizes blue light emission.

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

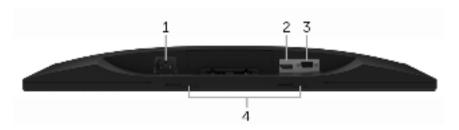
Label	Description	Use
1	VESA mounting holes (100 mm x 100 mm - behind attached VESA Cover)	Wall mount monitor using VESA-compatible wall mount kit (100 mm x 100 mm).
2	Regulatory label	Lists the regulatory approvals.
3	Security lock slot	Secures monitor with security lock (security lock not included).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

Side View



Right Side

Bottom View



Bottom view without monitor stand

Label	Description	Use
1	Power cable connector	Connect the power cable.
2	DisplayPort	Connect your computer with DP cable.
3	VGA connector	Connect your computer with VGA cable (cable included, except North & South America).
4	Dell Soundbar mounting slots	Attaches the optional Dell Soundbar. NOTE: Please remove the plastic strip covering the mounting slots before affixing the Dell Soundbar.

Monitor Specifications

Model	E2417H	
Screen type	Active matrix - TFT LCD	
Panel technology	In-Plane Switching Technology	
Aspect ratio	16:9	
Viewable image		
Diagonal	604.70 mm (23.8 inches)	
Horizontal, Active Area	527.04 mm (20.75 inches)	
Vertical, Active Area	296.46 mm (11.67 inches)	
Area	156246.27 mm ² (242.18 inch ²)	
Pixel pitch	0.275 mm x 0.275 mm	
Pixel per inch (PPI)	93	
Viewing angle	178° (vertical) typical	
	178° (horizontal) typical	
Brightness	250 cd/m² (typical)	
Contrast ratio	1000 to 1 (typical)	
Display screen coating	Anti-Glare with 3H hardness	
Backlight	White LED edgelight system	
Response time (typical)	8 ms (gray to gray)	
Color depth	16.7 million colors	
Color gamut	CIE1976 (87%)*	
Built-in devices	N/A	
Connectivity	• 1 x DP 1.2	
	• 1 x VGA	
Border width (edge of	17 mm (Top/Left/Right)	
monitor to active area)	18 mm (Bottom)	
Adjustability		
Height adjustable stand	N/A	
Tilt	-5° to 21°	
Swivel	N/A	
Pivot	N/A	
Dell Display Manager Compatibility	Yes	
Security	Security lock slot (cable lock sold separately)	

* Color gamut (typical) is based on CIE1976 (87% NTSC) and CIE1931 (72% NTSC) test standards.

Resolution Specifications

Model	E2417H
Horizontal scan range	30 kHz to 83 kHz (automatic)
Vertical scan range	50 Hz to 76 Hz (automatic)
Maximum preset resolution	1920 x 1080 at 60 Hz

Supported Video Modes

Model	E2417H
Video display capabilities (VGA & 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	E2417H
Video input signals	 Analog RGB, 0.7 Volts +/- 5%, positive polarity at 75 ohm input impedance DisplayPort 1.2, 600 mV for each differential line, 100
	ohm input impedance per differential pair
Synchronization input signals	Separate horizontal and vertical synchronization, polarity-free TTL level, SOG (Composite SYNC on green)
AC input voltage/frequency/ current	100 VAC to 240 VAC / 50 Hz or 60 Hz \pm 3 Hz / 1 A (typical)
Inrush current	• 120 V: 30 A (Max.) at 0 °C (cold start)
	• 220 V: 60 A (Max.) at 0 °C (cold start)

Physical Characteristics

Model	E2417H	
Signal cable type	Analog: D-Sub, 15 pins (cable included, except North & South America)	
	Digital: DisplayPort, 20 pins	
Dimensions (with stand)		
Height	425.1 mm (16.73 inches)	
Width	562.6 mm (22.15 inches)	
Depth	179.9 mm (7.83 inches)	
Dimensions (without stand)		
Height	333.1 mm (13.11 inches)	
Width	562.6 mm (22.15 inches)	
Depth	53.5 mm (2.11 inches)	
Stand dimensions		
Height	176.7 mm (6.95 inches)	
Width	250.0 mm (9.84 inches)	
Depth	179.9 mm (7.83 inches)	
Weight		
Weight with packaging	5.77 kg (12.72 lb)	
Weight with stand assembly and cables	4.23 kg (9.33 lb)	

Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	3.28 kg (7.23 lb)
Weight of stand assembly	0.69 kg (1.52 lb)
Front frame gloss	Black Frame - 35 gloss unit (max.)

Environmental Characteristics

Model	E2417H	
Compliant Standards		
ENERGY STAR certified Monitor	1	
 EPEAT Gold registered in the U www.epeat.net for registration 	S. EPEAT registration varies by country. See status by country	
 RoHS-compliant 		
 TCO-Certified Displays 		
 BFR/PVC-Reduced 		
 Arsenic-Free glass and Mercury 	r-Free for the panel only	
Temperature		
Operating	0 °C to 40 °C (32 °F to 104 °F)	
Non-operating	 Storage: -20 °C to 60 °C (-4 °F to 140 °F) 	
	 Shipping: -20 °C to 60 °C (-4 °F to 140 °F) 	
Humidity		
Operating	10% to 80% (non-condensing)	
Non-operating	Storage: 5% to 90% (non-condensing)	
	 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	85.3 BTU/hour (maximum)	
	• 75.1 BTU/hour (typical)	

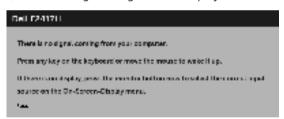
Power Management Modes

If you have VESA's DPMTM 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	25 W (maximum)** 22 W (typical)
Active-off mode	Inactive	Inactive	Blanked	White (blinking)	Less than 0.3 W
Switch off	-	1	-	Off	Less than 0.3 W

Energy Star	Power Consumption
Pon	16.4 W
E _{TEC}	51.0 kWh

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





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



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



NOTE:

P_{on}: Power consumption of on mode as defined in Energy Star 7.0 version. **E**_{TEC}: Total energy consumption in kWh as defined in Energy Star 7.0 version.

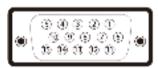
^{*} Zero power consumption in OFF mode can only be achieved by disconnecting the main cable from the monitor.

^{**} Maximum power consumption with max luminance.

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.

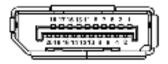
Pin Assignments

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	MLO(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

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.

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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

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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 antistatic coating. Do not use benzene, thinner, ammonia, abrasive cleaners, or
 compressed air.
- Use a lightly-dampened, warm cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a cloth.
- Handle your monitor with care as 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

4

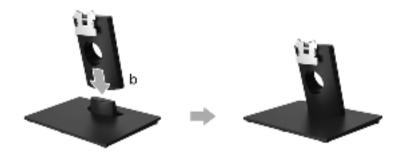
NOTE: The stand is detached when the monitor is shipped from the factory.

Ø.

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** Assemble the stand arm to stand base.
 - a Place the monitor stand base on a stable table top.
 - **b** Slide the monitor stand body in the correct direction down onto the stand base until it clicks into place.



- **2** Attach the stand assembly to the monitor.
 - a Place the monitor on a soft cloth or cushion near the edge of desk.
 - **b** Align the stand assembly bracket to the monitor groove.
 - **c** Insert the bracket towards monitor until it locks into place.



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:

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

Connecting the DisplayPort (DP to DP) cable



Connecting the VGA cable (optional)



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

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.

- 1 Remove the VESA screw cover.
 - **a** Place the monitor on a soft cloth or cushion.
 - **b** Lift from both side simultaneously to remove the VESA screw cover away from the monitor.



- 2 Remove the stand assembly from the monitor.
 - **a** Use a long and thin screwdriver to push the release latch.
 - **b** After the latch is released, remove the stand away from 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 13.12 kg.

Operating the Monitor

Power On the Monitor

Press the **b**utton 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/ Brightness/Contrast	Use this button to directly access the Brightness/Contrast menu.	

3	Menu	Use the MENU button to launch the On-Screen Display (OSD) and select the OSD Menu. See Accessing the Menu System.
4	X Exit	Use this button to go back to the main menu or exit the OSD main menu.
5	4	Use the Power button to turn the monitor On and Off .
	Power (with power light indicator)	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	^	Use the Up button to adjust (increase ranges) items in the OSD menu.
	Up	
2	~	Use the Down button to adjust (decrease ranges) items in the OSD menu.
	Down	
3	~	Use the OK button to confirm your selection in the OSD menu.
	ОК	
4	5	Use the Back button to go back to the previous menu.
	Back	

Using the On-Screen Display (OSD) Menu

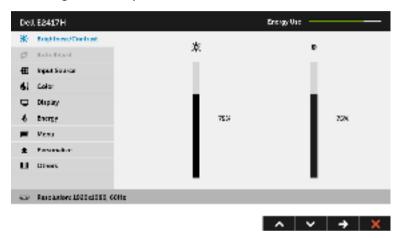
Accessing the Menu System



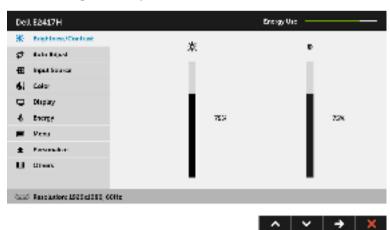
NOTE: If you change the settings and then either proceed to another menu or exit the OSD menu, the monitor automatically saves those changes. The changes are also saved if you change the settings and then wait for the OSD menu to disappear.

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

Main Menu for digital (DP) input



Main Menu for analog (VGA) input



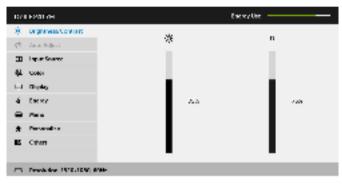
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NOTE: Auto Adjust is only available when you use the analog (VGA) connector.

- 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 \Rightarrow 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 **4** button to return to the main menu.

The table below provides a list of all the OSD menu options and their functions.

Icon Menu and Submenus Brightness/ Use this menu to activate Brightness/Contrast adjustment. Contrast



A V + X

Brightness	Brightness adjusts the luminance of the backlight.
	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.
	Press the button to increase the contrast and press the button to decrease the contrast (min. 0 / max. 100).
	The Contrast function adjusts the degree of difference between darkness and lightness on the monitor screen.



Auto Adjust

Even though your computer recognizes your monitor on startup, the **Auto Adjust** function optimizes the display settings for use with your particular setup.





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.

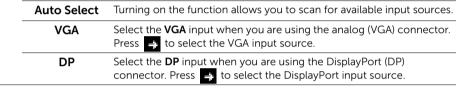
NOTE: Auto Adjust option is only available when you are using the analog (VGA) connector.



Input Source

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







Color

Use Color to adjust the color setting mode.





Input Color Format

Allows you to set the video input mode to:

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

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



Preset Modes

When you select **Preset Modes**, you can choose **Standard**, **ComfortView**, **Multimedia**, **Warm**, **Cool**, or **Custom Color** from the list.

- **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.
- Multimedia: Loads color settings ideal for multimedia 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.
- 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.



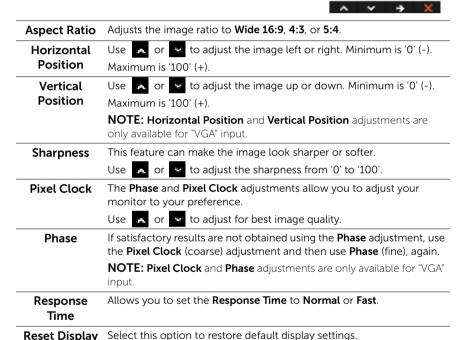
Reset Color Reset your monitor color settings to the factory settings.



Display

Use **Display** to adjust image.







Energy



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

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



Menu

LED

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

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

Transparency

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

Timer

Allows you to set the time for which the OSD remains active after you press a button on the monitor.

Use _ or • to adjust the slider in 1 second increments, from 5 to 60 seconds.

Lock

Controls user access to adjustments. When **Lock** is selected, no user adjustments are allowed. All buttons are locked.

NOTE:

Unlock function – Only hard unlock (press and hold the button beside the power button for 6 seconds).

Lock function – Either soft lock (through the OSD menu) or hard lock (press and hold the button beside the power button for 6 seconds).

Reset Menu

Reset all OSD settings to the factory preset values.

Personalize

Users can choose a feature from Preset Modes, Brightness/Contrast, Auto Adjust, Input Source, or Aspect Ratio and set it as a shortcut key.







Others

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



DDC/CI

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

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



LCD Conditioning

Helps reduce minor cases of image retention. Depending on the degree of image retention, the program may take some time to run. You can enable this feature by selecting **Enable**.



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

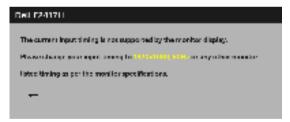
Factory Reset Reset all settings to the factory preset values.



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

OSD Warning Message

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 1920×1080 .

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

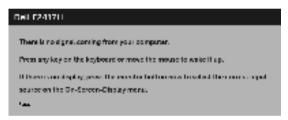


When the monitor goes into power-save mode, the following message appears:



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

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





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

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



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 $^{\circledR}$ 8 and Windows $^{\circledR}$ 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 1920×1080 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



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

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





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

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



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

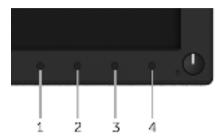
If your monitor screen remains blank after you use the previous procedure, check your video controller and computer, because your monitor is functioning properly.

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** for 5 seconds. A gray screen appears.
- 4 Carefully inspect the screen for abnormalities.
- **5** Press **Button 1** 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	 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	 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	 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	 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	 Cycle power On-Off. Pixel that is permanently Off is a natural defect that can occur in LCD technology. For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: http://www.dell.com/support/monitors.
Stuck-on Pixels	LCD screen has bright spots	 Cycle power On-Off. Pixel that is permanently off is a natural defect that can occur in LCD technology. For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: http://www.dell.com/support/monitors.
Brightness Problems	Picture too dim or too bright	 Reset the monitor to factory settings. Perform Auto Adjust via OSD. Adjust brightness & contrast controls via OSD.

Geometric Distortion	Screen not centered correctly	 Reset the monitor to factory settings. Perform Auto Adjust via OSD. Adjust horizontal & vertical controls via OSD. NOTE: When using DisplayPort input, the positioning adjustments are not available.
Horizontal/ Vertical Lines	Screen has one or more lines	 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. NOTE: When using DisplayPort input, the Pixel Clock and Phase adjustments are not available.
Synchronization Problems	Screen is scrambled or appears torn	 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	Do not perform any troubleshooting steps.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. Reset the monitor to factory settings. Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.
Missing Color	Picture missing color	 Perform monitor self-test 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	 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	from the static image displayed appears on the	 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.



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

Product Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	 Check the Aspect Ratio setting in the Display menu OSD. Reset the monitor to factory settings.
Cannot adjust the monitor with the buttons on the front panel	OSD does not appear on the screen	 Turn Off the monitor, unplug the power cord, plug it back, and then turn On the monitor. Check whether the OSD menu is locked. If yes, press and hold the button above the Power button for 6 seconds to unlock (for more information, see Lock).
No Input Signal when user controls are pressed	No picture, the LED light is white	 Check the signal source. Ensure the computer is not in the power saving mode by moving the mouse or pressing any key on the keyboard. Check whether the signal cable is plugged in properly. Replug the signal cable if necessary. Reset the computer or video player.
The picture does not fill the entire screen	The picture cannot fill the height or width of the screen	 Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. Run the built-in diagnostics.

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