

User's Guide

Dell E1715S

Model No.: E1715S

Regulatory model: E1715Sc





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



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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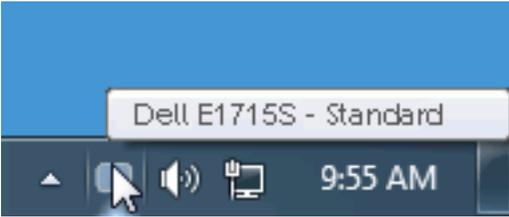
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Dell Display Manager User's Guide

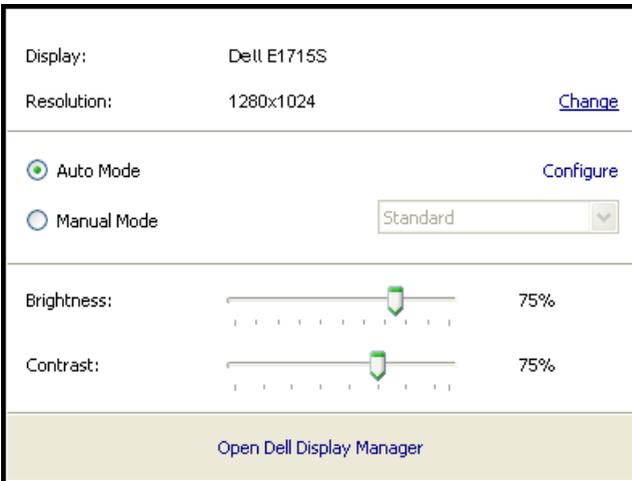
Overview

Dell Display Manager is a Windows application used to manage a monitor or a group of monitors. It allows manual adjustment of the displayed image, assignment of automatic settings, energy management, image rotation and other features on select Dell models. Once installed, Dell Display Manager will run each time the system starts and will place its icon in the notification tray. Information about monitors connected to the system is always available when hovering over the notification tray icon.



Using the Quick Settings Dialog

Clicking Dell Display Manager's notification tray icon opens the Quick Settings dialog box. When more than one supported Dell model is connected to the system, a specific target monitor can be selected using the menu provided. The Quick Settings dialog box allows convenient adjustment of the monitor's Brightness and Contrast levels, Preset Modes can be manually selected or set to Auto Mode, and the screen resolution can be changed.

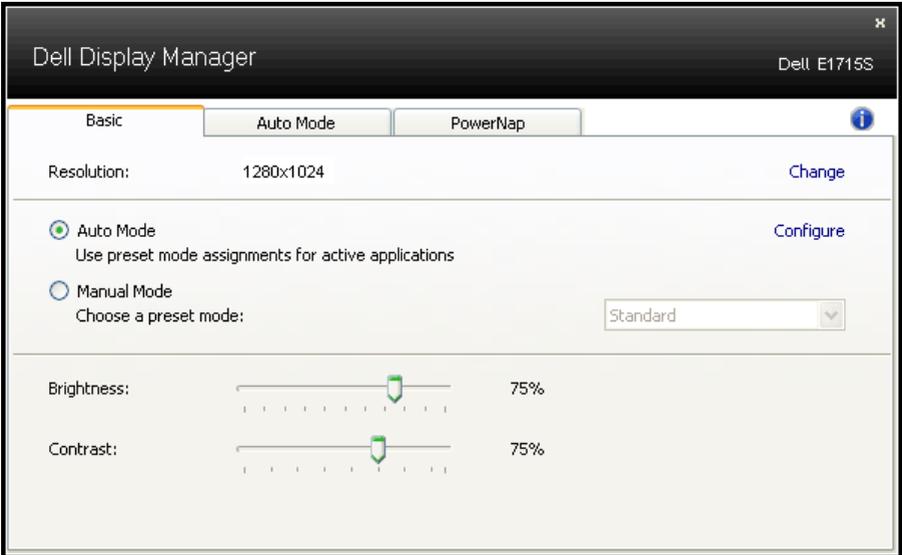


The Quick Settings dialog box also provides access to Dell Display Manager's advanced user interface which is used to adjust Basic functions, configure Auto Mode and access other features.

Setting Basic Display Functions

A Preset Mode for the selected monitor can be manually applied using the menu on the Basic tab. Alternatively, Auto Mode can be enabled. Auto Mode causes your preferred Preset Mode to be applied automatically when specific applications are active. An onscreen message momentarily displays the current Preset Mode whenever it changes.

The selected monitor's Brightness and Contrast can also be directly adjusted from the Basic tab.

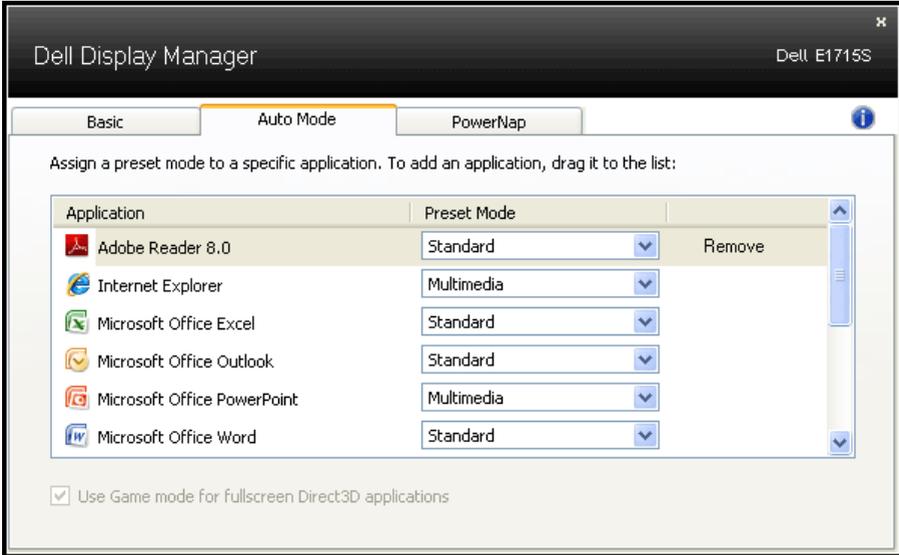


Assigning Preset Modes to Applications

The Auto Mode tab allows you to associate a specific Preset Mode with a specific application, and apply it automatically. When Auto Mode is enabled, Dell Display Manager will automatically switch to the corresponding Preset Mode whenever the associated application is activated. The Preset Mode assigned to a particular application may be the same on each connected monitor, or it can vary from one monitor to the next.

Dell Display Manager is pre-configured for many popular applications. To add a new application to the assignment list, simply drag the application from the desktop, Windows Start Menu or elsewhere, and drop it onto the current list.

NOTE: Preset Mode assignments targeting batch files, scripts, and loaders, as well as non-executable files such as zip archives or packed files, are not supported and will be ineffective.



Applying Energy Conservation Features

On supported Dell models the PowerNap tab will be available to provide energy conservation options. When the screensaver activates, the monitor's Brightness can automatically be set to minimum level or the monitor can be put to sleep in order to save additional power.



About Your Monitor

Package Contents

Your monitor ships with all the components shown below. Ensure that you have received all the components and **Contact Dell** if anything 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.

	<ul style="list-style-type: none">• Monitor
	<ul style="list-style-type: none">• Stand Riser
	<ul style="list-style-type: none">• Stand Base
	<ul style="list-style-type: none">• VESA™ Screw Cover
	<ul style="list-style-type: none">• Power Cable (varies with countries)
	<ul style="list-style-type: none">• VGA Cable
	<ul style="list-style-type: none">• Drivers and Documentation media• Quick Setup Guide• Product Information Guide

Product Features

The Dell E1715S flat-panel display has an active matrix, Thin-Film Transistor, Liquid Crystal Display. The monitor's features include:

- 43.2 cm (17 inches) diagonal viewable image size, 1280 x 1024 resolution, plus full-screen support for lower resolutions.
- LED backlit monitor
- Tilt adjustment capability.
- Removable pedestal and Video Electronics Standards Association (VESA) 100 mm mounting holes for flexible mounting solutions.
- Plug and play capability if supported by your system.
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.
- Software and documentation media which includes an information file (INF), Image Color Matching File (ICM), and product documentation.
- Dell Display Manager Software
- ENERGY STAR-compliant.
- Security lock slot.
- Asset Management Capability.
- CECP
- RoHS compliant.
- EPEAT Gold
- TCO compliant

Identifying Parts and Controls

Front View



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

Back View



Label	Description	Use
1	VESA mounting holes (100 mm)	To mount the monitor.
2	Regulatory rating label	Lists the regulatory approvals.
3	Regulatory rating label	Lists the regulatory approvals.
4	Security lock slot	Use a security lock with the slot to help secure your monitor.

Side View



Right Side

Bottom View

E1715S:



Label	Description	Use
1	AC power connector	To connect the monitor power cable.
2	DP connector	To connect your computer to the monitor using a DP cable (optional).
3	VGA connector	To connect your computer to the monitor using a VGA cable.

Monitor Specifications

The following sections give you information about the various power management modes and pin assignments for the various connectors of your monitor.

Power Management Modes

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

E1715S:

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	15 W (Maximum) ** 11 W (Typical)
Active-off mode	Inactive	Inactive	Blank	Glowing white	Less than 0.5 W
Switch off	-	-		Off	Less than 0.5 W *

The OSD will only function in the *normal operation* mode. When any button except power button is pressed in Active-off mode, the following messages will be displayed:

Dell E1715S

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

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



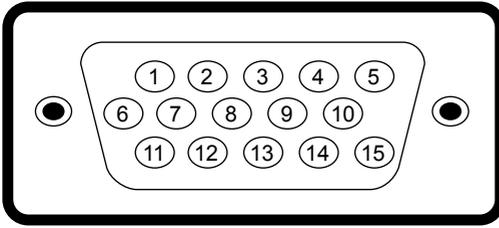
NOTE: The Dell E1715S monitor is ENERGY STAR®-compliant.



- * 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 contrast.

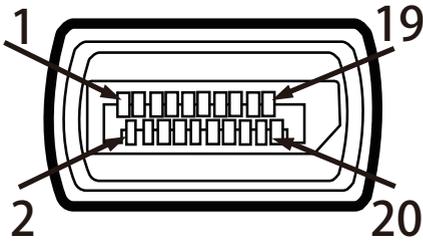
Pin Assignments

15-pin D-Sub connector



Pin Number	Monitor Side of the 15-pin Side 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	DDC +5 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	ML0 (p)-
2	GND
3	ML0 (n)
4	ML1 (p)
5	GND
6	ML1 (n)
7	ML2 (p)
8	GND
9	ML2 (n)
10	ML3 (p)
11	GND
12	ML3 (n)
13	GND
14	GND
15	AUX (p)
16	GND
17	AUX (n)
18	HPD
19	Re-PWR
20	PWR

Plug and Play Capability

You can install the monitor in any Plug and Play compatible system. The monitor automatically provides the computer 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 required.

Flat-Panel Specifications

Model number	Dell E1715S monitor
Screen type	Active matrix - TFT LCD
Panel Type	TN
Viewable image dimensions:	
Diagonal	43.20 cm (17 inches)
Horizontal	337.92 mm (13.30 inches)
Vertical	270.33 mm (10.64 inches)
Area	91349.91 mm ² (141.59 inch ²)
Pixel pitch	0.264 mm
Viewing angle:	
Horizontal	170° typical
Vertical	160° typical
Luminance output	250 cd/m ² (typical)
Contrast ratio	1000 to 1 (typical)
Faceplate coating	Antiglare with hard-coating 3H
Backlight	LED light bar system
Response Time	5 ms typical (black to white)
Color Depth	16.77 mil colors
Color Gamut	85 % (typical) **

** [E1715S] color gamut (typical) is based on CIE1976 (85 %) and CIE1931 (72 %) test standards.

Resolution Specifications

Model number	Dell E1715S monitor
Scan range <ul style="list-style-type: none">HorizontalVertical	30 kHz to 81 kHz (automatic) 56 Hz to 76 Hz (automatic)
Maximum preset resolution	1280 x 1024 at 60 Hz

Electrical Specifications

Model number	Dell E1715S monitor
Video input signals	Analog RGB: 0.7 Volts +/- 5 %, 75 ohm input impedance
Synchronization input signals	Separate horizontal and vertical synchronizations, polarity-free TTL level, SOG (Composite SYNC on green)
AC input voltage / frequency / current	100 VAC to 240 VAC/50 Hz or 60 Hz + 3 Hz/1.5 A (Max.)
Inrush current	120 V: 30 A (Max.) 240 V: 60 A (Max.)

Preset Display Modes

The following table lists the preset modes for which Dell guarantees image size and centering:

E1715S:

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/Vertical)
VESA, 720 x 400	31.5	70.1	28.3	-/+
VESA, 640 x 480	31.5	59.9	25.2	-/-
VESA, 640 x 480	37.5	75.0	31.5	-/-
VESA, 800 x 600	37.9	60.3	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	+/+

Physical Characteristics

The following table lists the monitor's physical characteristics:

Model Number	Dell E1715S monitor
Connector type	D-subminiature, blue connector, DisplayPort, black connector
Signal cable type	Analog: Detachable, D-Sub, 15-pin DP 1.2 signal input support, 20-pin, optional
Dimensions: (with stand)	
Height	389.5 mm (15.33 inches)
Width	374.5 mm (14.74 inches)
Depth	165.5 mm (6.52 inches)
Dimensions: (without stand)	
Height	306.9 mm (12.08 inches)
Width	374.5 mm (14.74 inches)
Depth	46.5 mm (1.83 inches)

Stand dimensions:	
<ul style="list-style-type: none"> • Height • Width • Depth 	<p>149.0 mm (5.87 inches)</p> <p>180.5 mm (7.11 inches)</p> <p>165.5 mm (6.52 inches)</p>
Weight:	
Weight with packaging	3.75 kg (8.24 lb)
Weight with stand assembly and cables	2.68 kg (5.90 lb)
Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	2.08 kg (4.85 lb)
Weight of stand assembly	0.34 kg (0.75 lb)

Environmental Characteristics

The following table lists the environmental conditions for your monitor:

Model Number	Dell E1715S monitor
Temperature	
<ul style="list-style-type: none"> • Operating • Non-operating 	<p>0 °C to 40 °C (32 °F to 104 °F)</p> <p>Storage: -20 °C to 60 °C (-4 °F to 140 °F)</p> <p>Shipping: -20 °C to 60 °C (-4 °F to 140 °F)</p>
Humidity	
<ul style="list-style-type: none"> • Operating • Non-operating 	<p>10 % to 80 % (non-condensing)</p> <p>Storage: 5 % to 90 % (non-condensing)</p> <p>Shipping: 5 % to 90 % (non-condensing)</p>
Altitude	
<ul style="list-style-type: none"> • Operating • Non-operating 	<p>5,000 m (16,387 ft) max</p> <p>12,191 m (40,000 ft) max</p>
Thermal dissipation	<p>75.09 BTU/hour (maximum)</p> <p>61.43 BTU/hour (typical)</p>

LCD Monitor Quality & Pixel Policy

During the LCD Monitor manufacturing process, it is not uncommon for one or more pixels to become fixed in an unchanging state. The visible result is a fixed pixel that appears as an extremely tiny dark or bright discolored spot. When the pixel remains permanently lit, it is known as a "bright dot." When the pixel remains black, it is known as a "dark dot."

In almost every case, these fixed pixels are hard to see and do not detract from display quality or usability. A display with 1 to 5 fixed pixels is considered normal and within competitive standards. For more information, see Dell Support site at:

<http://www.dell.com/support/monitors>.

Maintenance Guidelines

Caring for Your Monitor

 **CAUTION: Read and follow the safety instructions before cleaning the monitor.**

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

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

- To clean your antistatic screen, slightly 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 slightly dampened, warm cloth to clean the plastics. Avoid using detergent of any kind as some detergents leave a milky film on the plastics.
- If you notice a white powder when you unpack your monitor, wipe it off with a cloth. This white powder occurs during the shipping of the monitor.
- Handle your monitor with care as a darker-colored monitor may scratch 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 power off your monitor when not in use.

1. The socket-outlet should be installed near the equipment and should be easily accessible.
2. The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin.

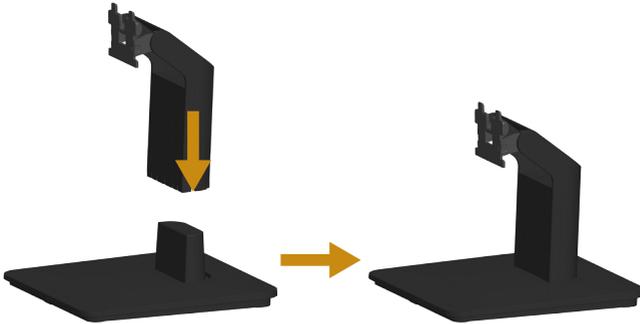
Setting Up the Monitor

Attaching the Stand



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

1. Assemble the stand riser 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 in place.

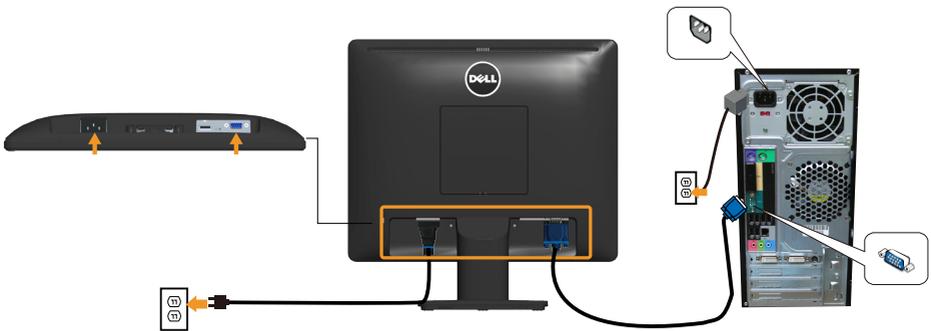
Connecting Your Monitor

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

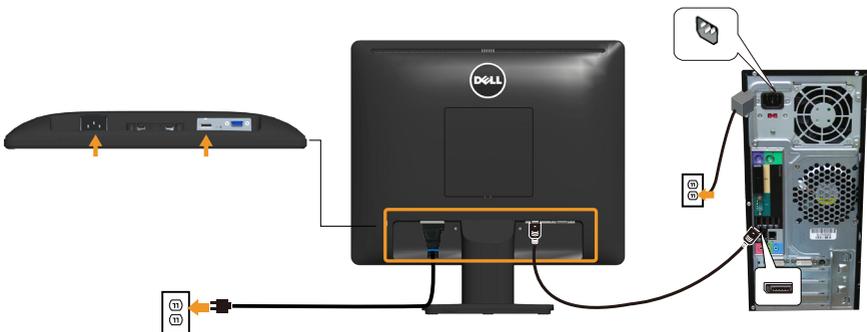
To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.
2. Connect either the black (digital DP) or the blue (analog VGA) display connector cable to the corresponding video port on the back of your computer. Do not use both cables at the same time. Use both the cables only when they are connected to two different computers with appropriate video systems.

Connecting the blue VGA Cable



Connecting the black DP cable



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

Removing the Monitor Stand



After placing the monitor panel on a soft cloth or cushion, complete the following steps to remove the stand:

1. Use a long screwdriver to press and hold the release latch located in a hole just above the stand.
2. While the release latch is pressed down, remove the stand from the monitor slowly.

Wall Mounting (Optional)

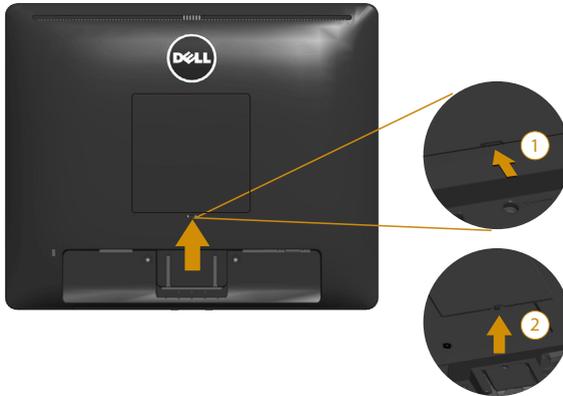


figure 1



figure 2

(Screw dimension: M4 x 10 mm).

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

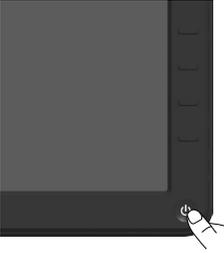
1. Place the monitor panel on a soft cloth or cushion on a stable flat table.
2. Remove the stand.
3. Remove the VESA™ Screw Cover (figure 1)
4. Use a screwdriver to remove the four screws securing the plastic cover. (figure 2)
5. Attach the mounting bracket from the wall mounting kit to the LCD.
6. Mount the LCD on the wall by following the instructions that came with the base-mounting kit.

 **NOTE:** For use only with UL-listed wall mount bracket with minimum weight/load bearing capacity of 9.00 kg.

Operating the Monitor

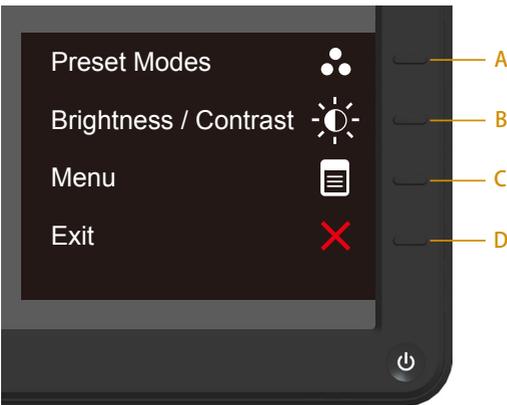
Power On the Monitor

Press the  button to turn on the monitor.



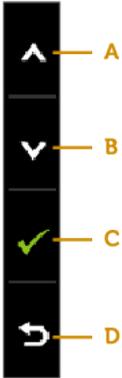
Using the Front-Panel Controls

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



Front-Panel Keys	Description
A  Preset modes	Use the Preset modes key to choose from a list of preset color modes. See Using the OSD Menu .
B  Brightness / Contrast	Use the Brightness / Contrast key to direct access to the "Brightness" and "Contrast" control menu.
C  Menu	Use the Menu key to open the on-screen display (OSD).
D  Exit	Use the Exit key to exit on-screen display (OSD) from menu and sub-menus.

Front-Panel Keys



Front-Panel Keys		Description
A	 Up	Use the Up key to adjust (increase ranges) items in the OSD menu.
B	 Down	Use the Down key to adjust (decrease ranges) items in the OSD menu.
C	 OK	Use the OK key to confirm your selection.
D	 Back	Use the Back key to go back to the previous menu.

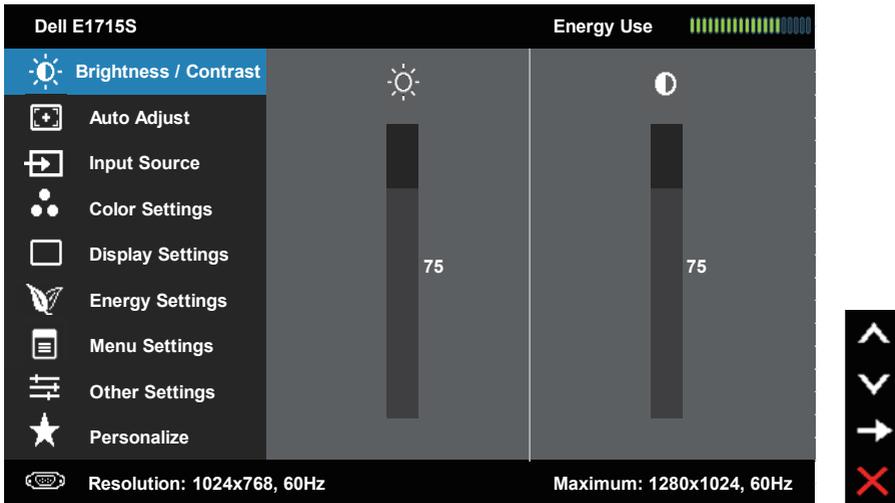
Using the On-Screen Display (OSD) Menu

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.

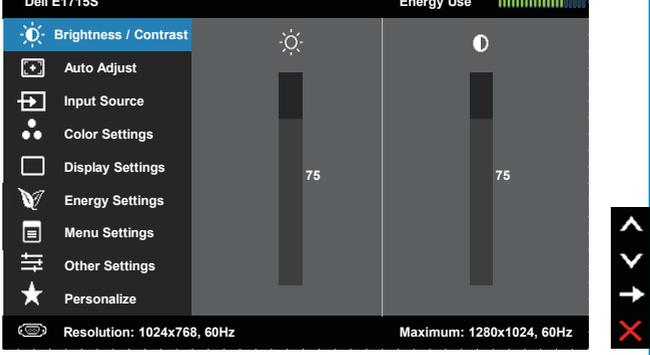
1. Press the  button to open the OSD menu and display the main menu.

Main Menu



2. Press the  and  buttons to toggle between options in the Menu. As you move from one icon to another, the option name is highlighted.
3. To select the highlighted item on the menu press the  button again.
4. Press the  and  buttons to select the desired parameter.
5. Press the  button to enter the slide bar and then use the  or  buttons, according to the indicators on the menu, to make your changes.
6. Select the  to return to previous menu without accepting current settings or  to accept and return to previous menu.

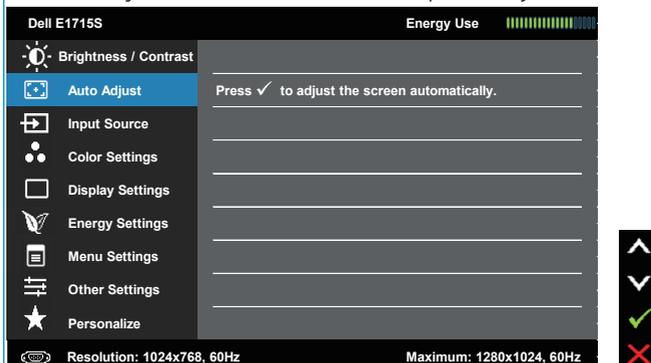
The table below provides a list of all the OSD menu options and their functions.

Icon	Menu and Submenus	Description
	Energy Use	This meter shows the energy level being consumed by the monitor in real time.
	Brightness/Contrast	Use the Brightness and Contrast menu to adjust the Brightness/Contrast.
		
Brightness		<p>Allows you to adjust the brightness or luminance of the backlight.</p> <p>Press the  key to increase brightness and press the  key to decrease brightness (min 0 ~ max 100).</p>
Contrast		<p>Allows you to adjust the contrast or the degree of difference between darkness and lightness on the monitor screen. Adjust brightness first, and adjust contrast only if you need further adjustment.</p> <p>Press the  key to increase contrast and press the  key to decrease contrast (min 0 ~ max 100).</p>



Auto Adjust

Use this key to activate automatic setup and adjust menu.



The following dialog appears on a black screen as the monitor self-adjusts to the current input:

Auto Adjustment in Progress...

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

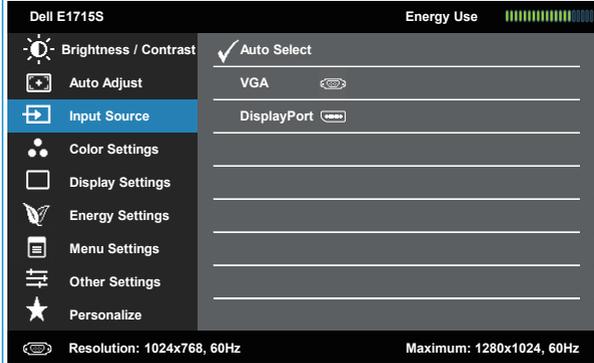
NOTE: Auto Adjust does not occur if you press the button while there are no active video input signals or attached cables.

This option is only available when you are using the analog (VGA) connector.



Input Source

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



Auto Select

Select **Auto Select** to scan for available input signals.

VGA

Select **VGA** input when you are using the analog (VGA) connector. Push to select the VGA input source.

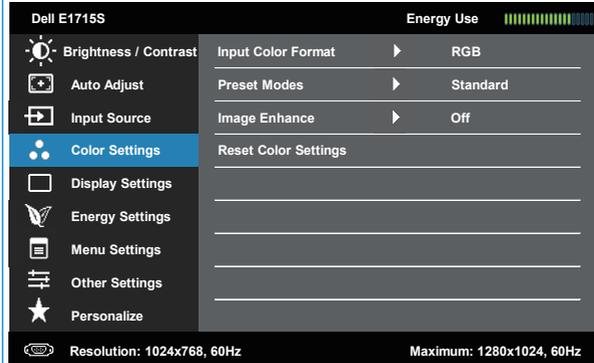
DisplayPort

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



Color Settings

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



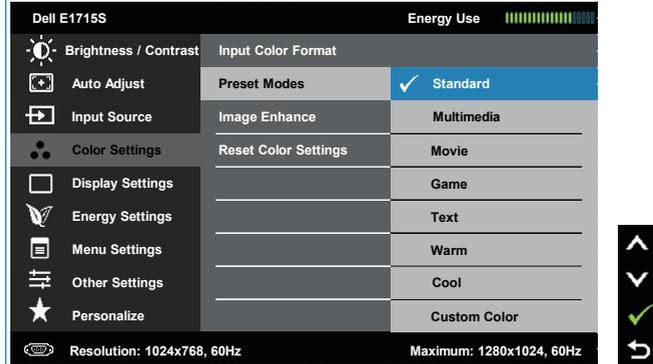
Input Color Format

Allows you to set the video input mode to:

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

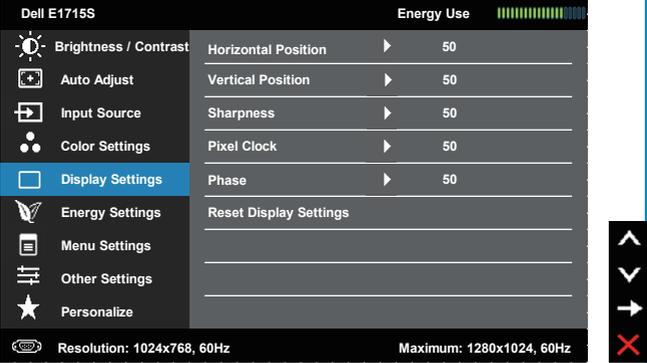
Preset Modes

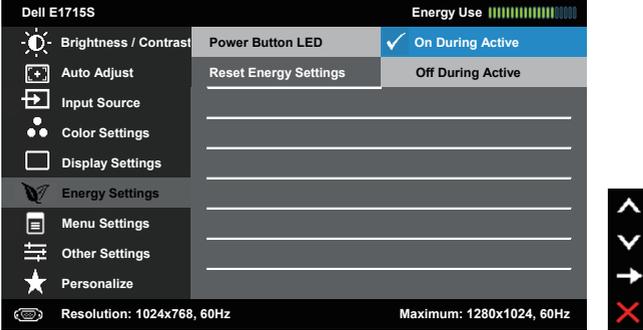
Allows you to choose from a list of preset color modes.

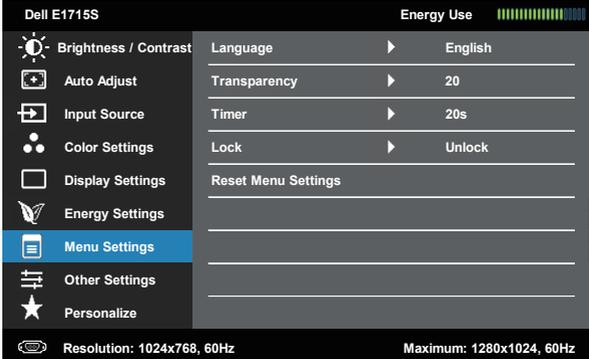


- **Standard:** Loads the monitor's default color settings. This is the default preset mode.
- **Multimedia:** Loads color settings ideal for multimedia applications.
- **Movie:** Loads color settings ideal for movie applications.
- **Game:** Loads color settings ideal for gaming applications.
- **Text:** Loads color settings ideal for office environment.
- **Warm:** Increases the color temperature. The screen appears warmer with a red/yellow tint.
- **Cool:** Decreases the color temperature. The screen appears cooler with a blue tint.
- **Custom Color:** Allows you to manually adjust the color settings. Press the  and  keys to adjust the Red, Green, and Blue values and create your own preset color mode.

Hue	<p>Allows you to shift the tint level of the video image to green or purple. This is used to adjust the desired flesh tone color. Use ▲ (to increase the green shade) or ▼ (to increase the purple shade) to make the adjustment (min 0 ~ max 100, default 50).</p> <p> NOTE: Only available in Movie or Game preset mode.</p>
Saturation	<p>Allows you to adjust the color saturation of the video image. Use ▲ (to increase the monochrome appearance) or ▼ (to increase the colorful appearance) to make the adjustment (min 0 ~ max 100, default 50).</p>
Image Enhance	<p>The function will enhance the contours of the image.</p> <p> NOTE: Only available in Standard, Multimedia, Movie or Game preset mode. This option will be grey out if the preset mode is not in one of the four.</p>
Reset Color Settings	<p>Resets your monitor's color settings to the factory defaults.</p>

	Display Settings	<p>Use the Displays Settings menu to adjust the monitor's display settings.</p> 
	Horizontal Position	Use  or  the buttons to adjust image left and right. Minimum is '0' (-). Maximum is '100' (+).
	Vertical Position	Use the  or  buttons to adjust image up and down. Minimum is '0' (-). Maximum is '100' (+).
	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  buttons 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 adjustment are only available for VGA input.
	Reset Display Settings	Select this option to restore default display settings.

<p>Energy Settings</p>	
<p>Power Button LED</p>	<p>Allows you to set the power LED indicator on or off during active to save energy.</p>
<p>Reset Energy Settings</p>	<p>Select this option to restore default Energy Settings.</p>

	Menu Settings	<p>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.</p> 
	Language	<p>Allows you to set the OSD display to one of eight languages: English, Spanish, French, German, Portuguese, Russian, Simplified Chinese, or Japanese.</p>
	Transparency	<p>Allows you to adjust the OSD background from opaque to transparent.</p>
	Timer	<p>Allows you to set the time for which the OSD remains active after you press a key on the monitor.</p> <p>Use the ▲ and ▼ keys to adjust the slider in 1 second increments, from 5 to 60 seconds.</p>
	Lock	<p>Controls user access to adjustments. When Lock is selected, no user adjustments are allowed. All keys are locked except ⏪ key.</p> <p> NOTE: When the OSD is locked, pressing the menu key takes you directly to the OSD settings menu, with 'OSD Lock' pre-selected on entry. Press and hold ⏪ key for 10 seconds to unlock and allow user access to all applicable settings.</p>
	Reset Menu Settings	<p>Select this option to restore default menu settings.</p>



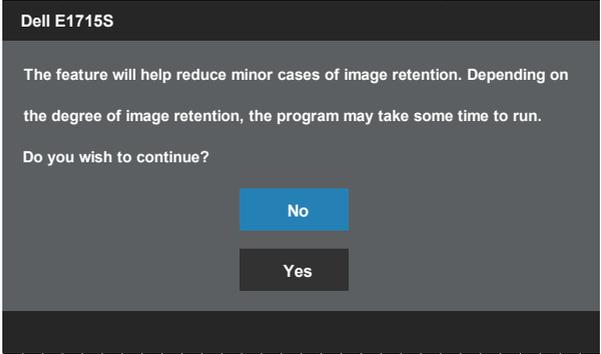
Other Settings

DDC/CI

DDC/CI (Display Data Channel/Command Interface) allows a software on your computer to adjust the monitor display settings like the brightness, color balance etc.

Enable (Default): Optimizes the performance of your monitor and provides a better customer experience.

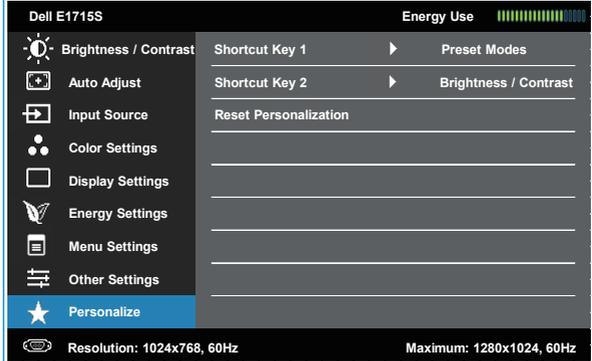
Disable: Disables the DDC/CI option and the following message appears on the screen.

<p>LCD Conditioning</p>	<p>This feature will help reduce minor cases of image retention.</p> <p>If an image appears to be stuck on the monitor, select LCD Conditioning to help eliminate any image retention. Using the LCD Conditioning feature may take some time. LCD Conditioning feature cannot remove severe cases of image retention or burn-in.</p> <p> NOTE: Use LCD Conditioning only when you experience a problem with image retention.</p> <p>The below warning message appears once user selects "Enable" LCD Conditioning.</p> 
<p>Reset Other Settings</p>	<p>Select this option to restore default other settings, such as DDC/CI.</p>
<p>Factory Reset</p>	<p>Resets all OSD settings to the factory preset values.</p>



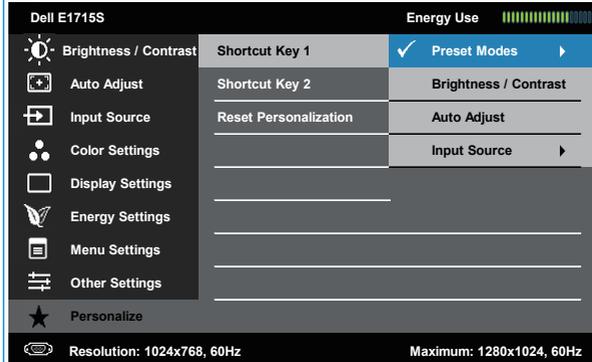
Personalize

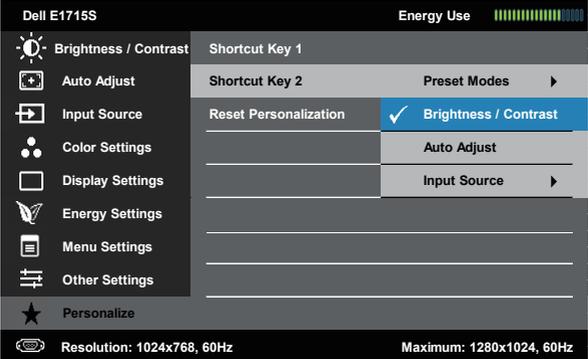
Selecting this option allows you to set two shortcut keys.



Shortcut Key 1

User can select from "Preset Modes", "Brightness/ Contrast", "Auto Adjust", "Input Source" and set as shortcut key.

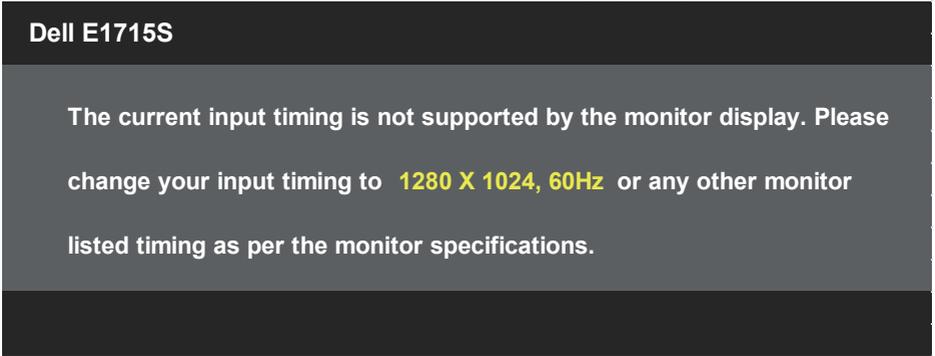


<p>Shortcut Key 2</p>	<p>User can select from "Preset Modes", "Brightness/ Contrast", "Auto Adjust", "Input Source" and set as shortcut key.</p> 
<p>Reset Personalization</p>	<p>Allows you to restore shortcut key to the default setting.</p>

OSD Messages

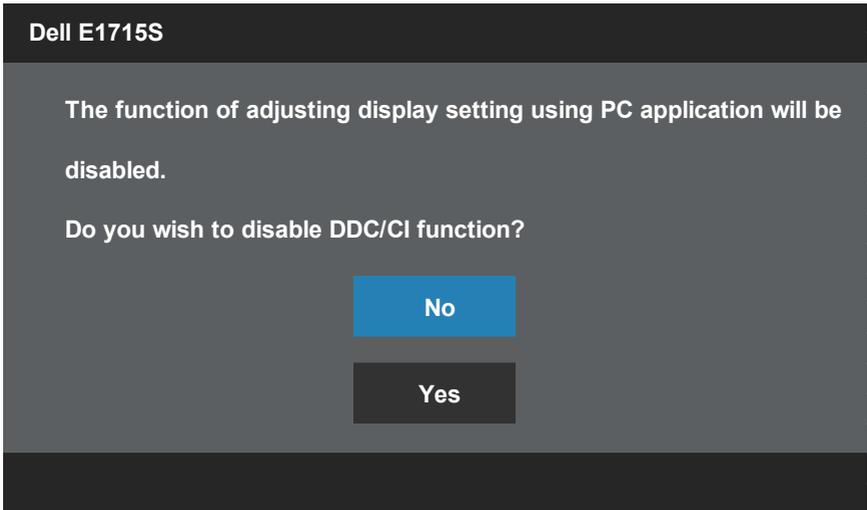
When the monitor does not support a particular resolution mode you will see the following message:

E1715S:

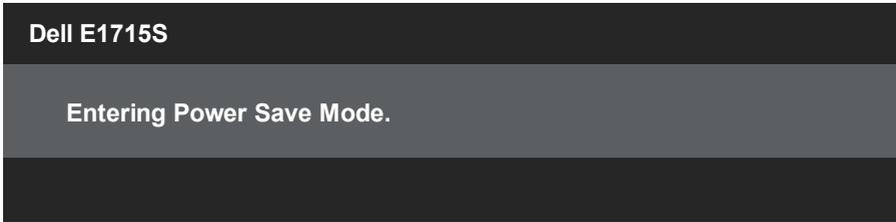


This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See _ for the horizontal and vertical frequency ranges addressable by this monitor. Recommended mode is 1280 x 1024.

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

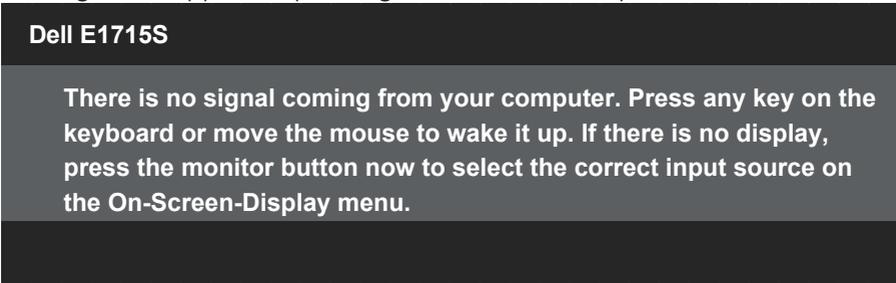


When the monitor enters the **Power Save** mode, the following message appears:

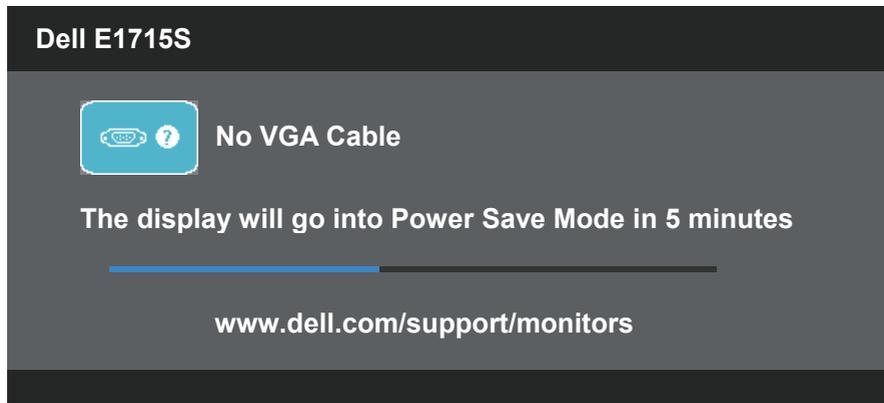


Activate the computer and wake up the monitor to gain access to the OSD.

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



If VGA or DP cable is not connected, a floating dialog box as shown below appears. The monitor will enter **Power Save Mode after 5 minutes** if left at this state.



See Solving Problems for more information.

Setting the Maximum Resolution

To set the maximum resolution for the monitor:

Windows 7, Windows 8/Windows 8.1:

1. For Windows 8/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 1280 x 1024.
4. Click OK.

If you do not see 1280 x 1024 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 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 feature

Tilt

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

21° typical (maximum 22°) 5° typical (maximum 5.5°)



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

Troubleshooting

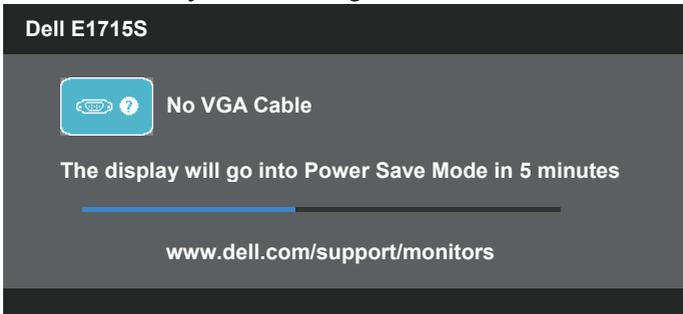
 **WARNING:** Before you begin any of the procedures in this section, follow the Safety Instructions.

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. To ensure proper Self-Test operation, remove any connected video cable from the back of computer.
3. Turn on the monitor.

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

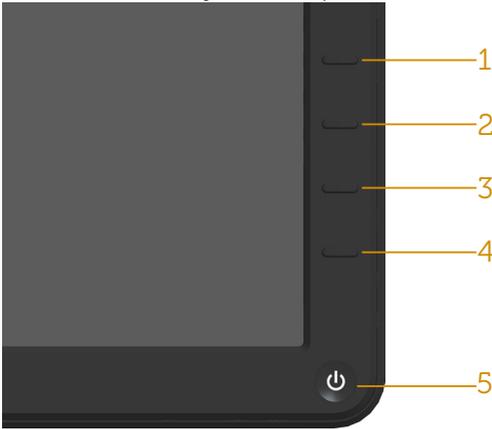


4. This box also appears during normal system operation, if the video cable becomes disconnected or damaged. The monitor will enter **Power Save Mode after 5 minutes** if left at this state.
5. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

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

Built-in Diagnostics

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



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

To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold the **Button 1** and **Button 4** on the front panel simultaneously for 2 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press the **Button 4** on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, black, white screens.

The test is complete when the white screen appears. To exit, press the **Button 4** again.

If you do not detect any screen abnormalities upon using the built-in diagnostic tool, the monitor is functioning properly. Check the video card and computer.

Common Problems

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

Common Symptoms	What You Experience	Possible Solutions
No Video/Power LED off	No picture	<ul style="list-style-type: none"> • Ensure that the video cable connecting the monitor and the computer is properly connected and secure. • Verify that the power outlet is functioning properly using any other electrical equipment. • Ensure that the power button is depressed fully. • Check the LED Button option under Energy Setting in OSD menu
No Video/Power LED on	No picture or no brightness	<ul style="list-style-type: none"> • Increase brightness & contrast controls via OSD. • Perform monitor self-test feature check. • Check for bent or broken pins in the video cable connector. • Ensure that the correct input source is selected via the Input Source Select menu. • Run the built-in diagnostics.
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.
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. <p>For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: www.dell.com/support/monitors.</p>

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. <p>For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: www.dell.com/support/monitors.</p>
Brightness Problems	Picture too dim or too bright	<ul style="list-style-type: none"> • Reset the monitor to Factory Settings. • 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. • Auto Adjust via OSD. • Adjust brightness & contrast controls via OSD. <p>NOTE: When using 'DP', the positioning adjustments are not available.</p>
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 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. <p>NOTE: When using 'DP', the Pixel Clock and Phase adjustments are not available.</p>
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 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 Color Setting Mode in the Color Settings OSD to Graphics or Video depending on the application. • Try different Color Preset Settings in Color Settings OSD. Adjust R/G/B value in Color Settings OSD if the Color Management is turned off. • Change the Input Color Format to PC RGB or YPbPr in the Advance Setting OSD.
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. • Use "LCD Conditioning" feature under "Other Settings" to eliminate image retention.

Product-Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	<ul style="list-style-type: none"> Reset the monitor to Factory Settings.
Cannot adjust the monitor with the buttons on the front panel	OSD does not appear on the screen	<ul style="list-style-type: none"> Turn off the monitor, unplug the power cord, plug back, and then turn on the monitor.
No Input Signal when user controls are pressed	No picture, the LED light is white. When you press "up", "down" or "Menu" key, the message " No input signal" will appear.	<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"> Run the built-in diagnostics.



NOTE: When choosing DP mode, the Auto Adjust function is not available.

Appendix

 **WARNING:** Use of controls, adjustments, or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards, and/or mechanical hazards.

For information on safety instructions, see the *Product Information Guide*.

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference
- (2) this device must accept any interference received including interference that may cause undesired operation

Contact Dell

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

 **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area.

To get online monitor support content:

1. Visit www.dell.com/support/monitors

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

1. Visit www.dell.com/support.
2. Verify your country or region in the **Choose A Country/Region** drop-down menu at the top left of the page.
3. Click **Contact Us** on the top left side of the page.
4. Select the appropriate service or support link based on your need.
5. Choose the method of contacting Dell that is convenient for you.

Setting Up Your Monitor

Setting the display resolution to 1280 x 1024 (Maximum)

For optimal display performance while using the Microsoft Windows operating systems, set the display resolution to 1280 x 1024 pixels by performing the following steps:

In Windows 7, Windows 8/Windows 8.1:

1. For Windows 8/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 1280 x 1024.
4. Click OK.

If you do not see 1280 x 1024 as an option, you may need to update your graphics driver. Please choose the scenario below that best describes the computer system you are using, and follow the provided

1: If you have a Dell desktop or a Dell portable computer with Internet access

2: If you have a non Dell desktop, portable computer, or graphics card

If you have a Dell desktop or a Dell portable computer with Internet access

1. Go to <http://www.dell.com/support>, enter your service tag, and download the latest driver for your graphics
 2. After installing the drivers for your graphics adapter, attempt to set the resolution to 1280 x 1024 again.
-  **NOTE:** If you are unable to set the resolution to 1280 x 1024, please contact Dell to inquire about a graphics adapter that supports these resolutions.

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

In Windows 7, Windows 8/Windows 8.1:

1. For Windows 8/Windows 8.1 only, select the Desktop tile to switch to classic desktop.
 2. Right-click on the desktop and click Personalization.
 3. Click Change Display Settings.
 4. Click Advanced Settings.
 5. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
 6. Please refer to the graphics card provider website for updated driver (for example, <http://www.ATI.com> OR <http://www.NVIDIA.com>).
 7. After installing the drivers for your graphics adapter, attempt to set the resolution to 1280 x 1024 again.
-  **NOTE:** If you are unable to set the resolution to 1280 x 1024, please contact the manufacturer of your computer or consider purchasing a graphics adapter that will support the video resolution of 1280 x 1024.

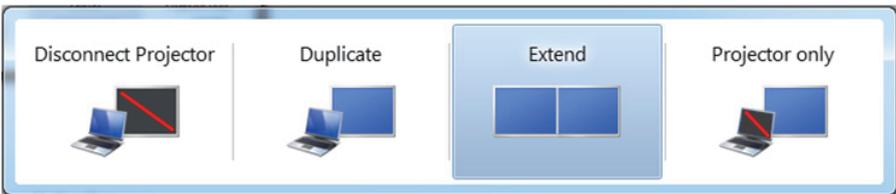
Procedures for setting up dual monitors in Windows 7 or Windows 8/Windows 8.1

For Windows 7

Connect the external monitor(s) to your laptop or desktop using a video cable (VGA, DVI, DP, HDMI etc.) and follow any of the below setup methods.

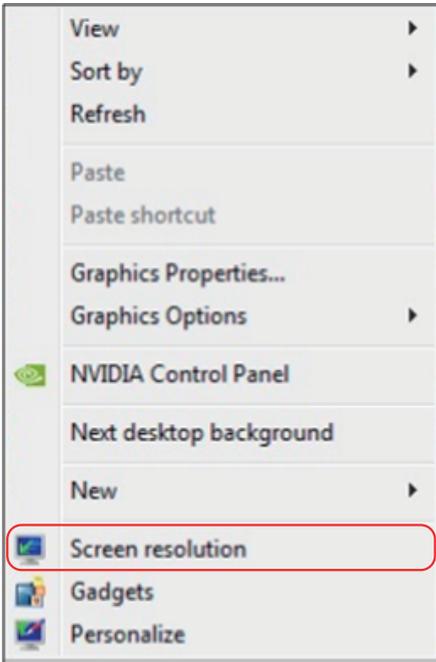
Method 1: Using keyboard shortcut “Win+P”

1. Press the **Windows logo key + P** on your keyboard.  + 
2. While holding down the **Windows logo key**, press **P** to toggle between the display selections.

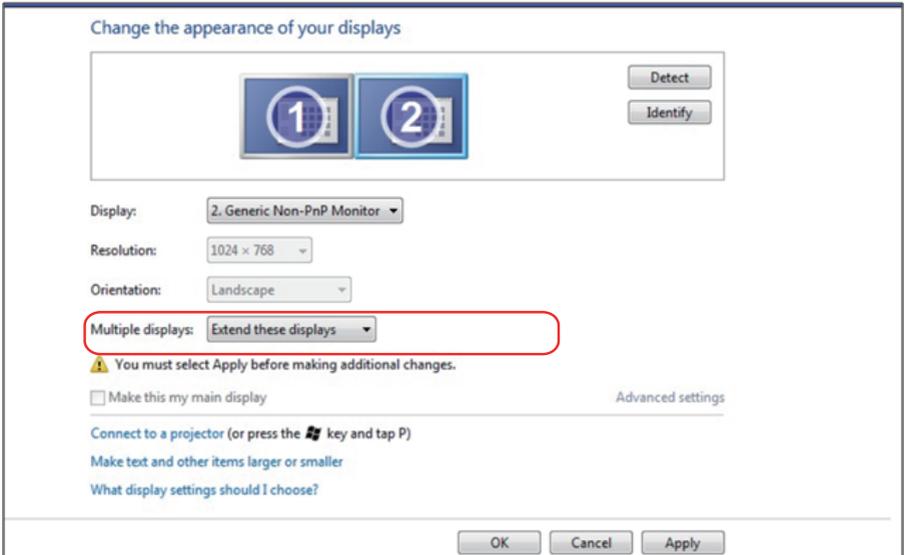


Method 2: Using the “Screen Resolution” menu

1. Right-click on the desktop and click **Screen resolution**.



2. Click **Multiple displays** to choose a display selection. If you do not see the additional monitor listed, click **Detect**.
- You may need to restart your system and repeat steps 1 to 3 if the system does not detect the added monitor.

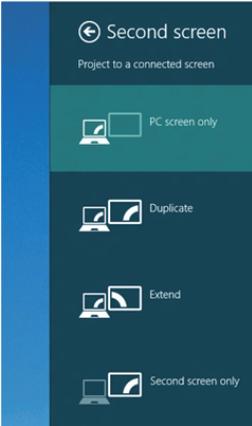


For Windows 8/Windows 8.1

Connect the external monitor(s) to your laptop or desktop using a video cable (VGA, DVI, DP, HDMI etc.) and follow any of the below setup method.

Method 1: Using keyboard shortcut “Win+P”

1. Press the **Windows logo key + P** on your keyboard.  + 
2. While holding down the **Windows logo key**, press **P** to toggle between the display selections.

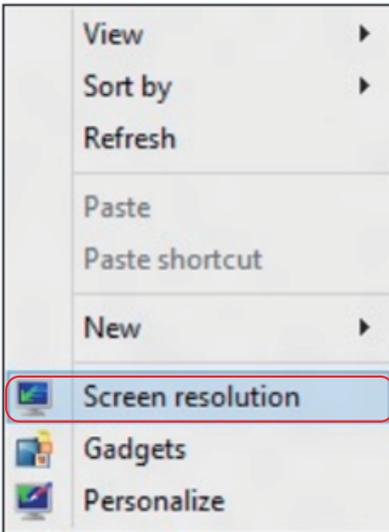


Method 2: Using the “Screen Resolution” menu

1. From the Start screen, select **Desktop** tile to switch to the Classic Windows desktop.

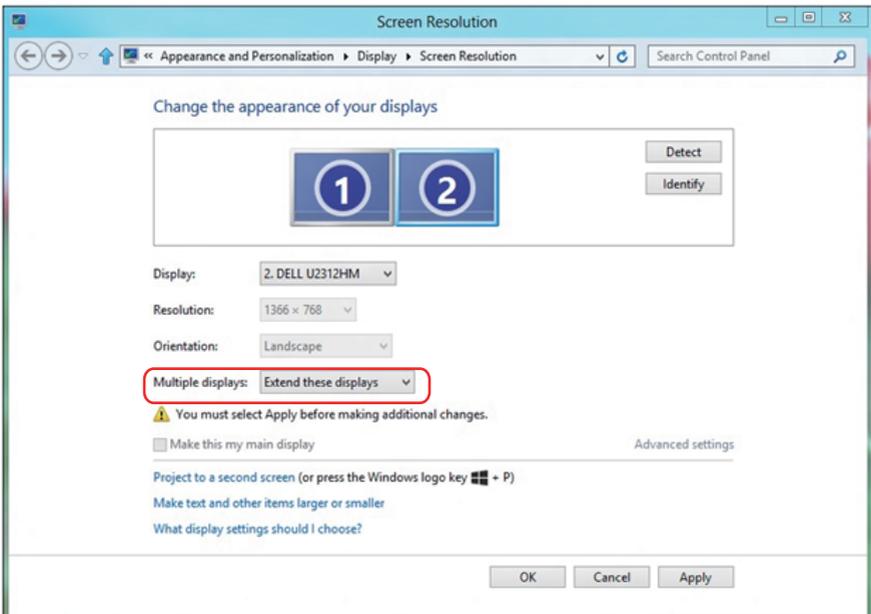


2. Right-click on the desktop and click **Screen resolution**.



3. Click **Multiple displays** to choose a display selection. If you do not see the additional monitor listed, click Detect.

- You may need to restart your system and repeat steps 1 to 3 if the system does not detect the added monitor.

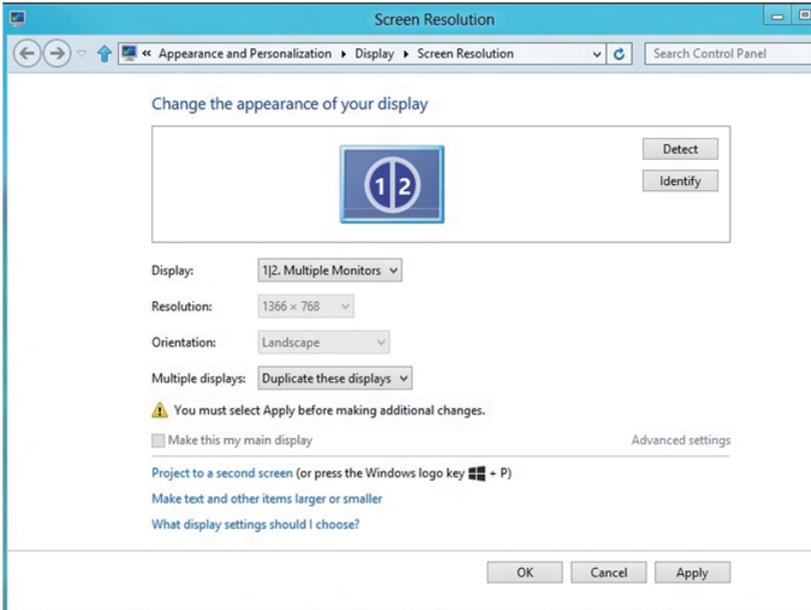


Setting Display Styles For Multiple Monitors

After the external monitor(s) have been set up, users can select the desired display style from **Multiple displays** menu: Duplicate, Extend, Show Desktop On.

- **Duplicate these displays:** Duplicate the same screen on two monitors with the same resolution, chosen based on the monitor with a lower resolution.

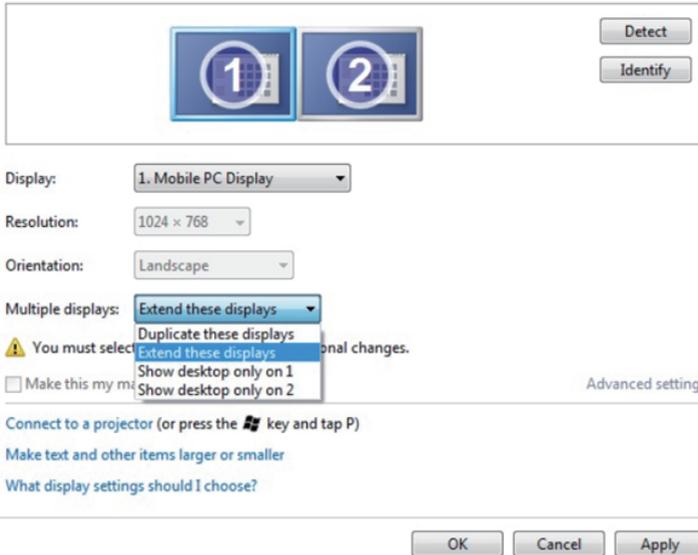
For Windows 8/Windows 8.1



- **Extend these displays:** This option is recommended when an external monitor is connected to a laptop, and each monitor can display different screen independently to improve user convenience. The relative position of the screens can be set up here, for example monitor 1 may be set up to be to the left of monitor 2 or vice versa. This depends on the physical position of the LCD monitor in relation to the laptop. The horizontal line displayed on both monitors can be based on the laptop or external monitor. These are all adjustable options, and all a user need do is drag the monitor of the main screen to the extended monitor.

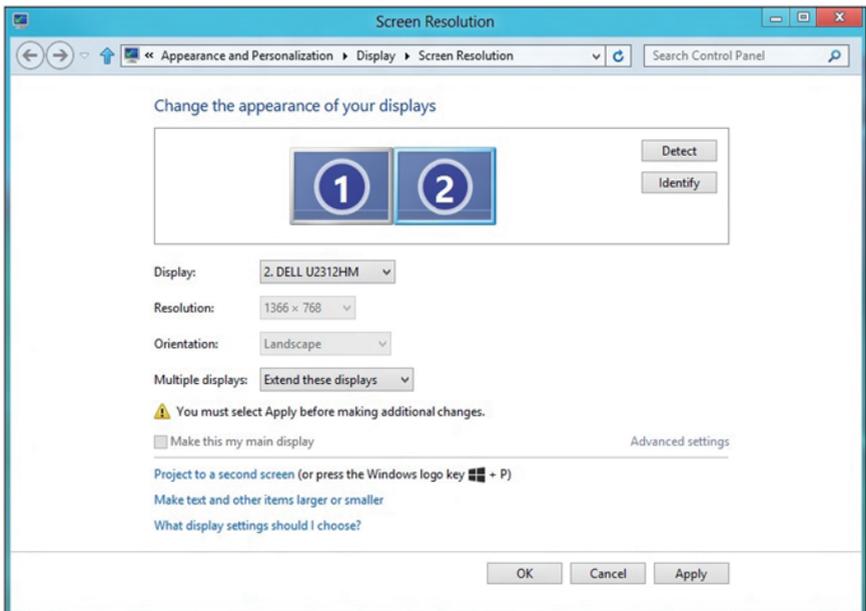
For Windows 7

Change the appearance of your displays



The screenshot shows the Windows 7 Display Settings window. At the top, there are two monitor icons labeled '1' and '2'. To the right of these icons are 'Detect' and 'Identify' buttons. Below the icons, the 'Display:' dropdown is set to '1. Mobile PC Display'. The 'Resolution:' dropdown is set to '1024 x 768'. The 'Orientation:' dropdown is set to 'Landscape'. The 'Multiple displays:' dropdown is open, showing options: 'Extend these displays' (selected), 'Duplicate these displays', 'Show desktop only on 1', and 'Show desktop only on 2'. A warning icon and text state: 'You must select a display mode before making additional changes.' Below this is a checkbox for 'Make this my main display' which is unchecked. To the right of the checkbox is a link for 'Advanced settings'. At the bottom of the window are 'OK', 'Cancel', and 'Apply' buttons.

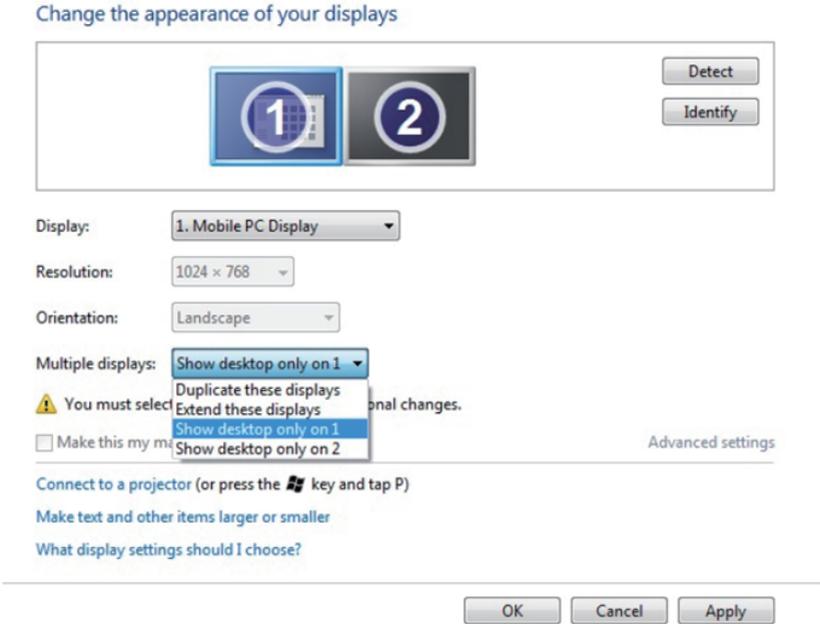
For Windows 8/Windows 8.1



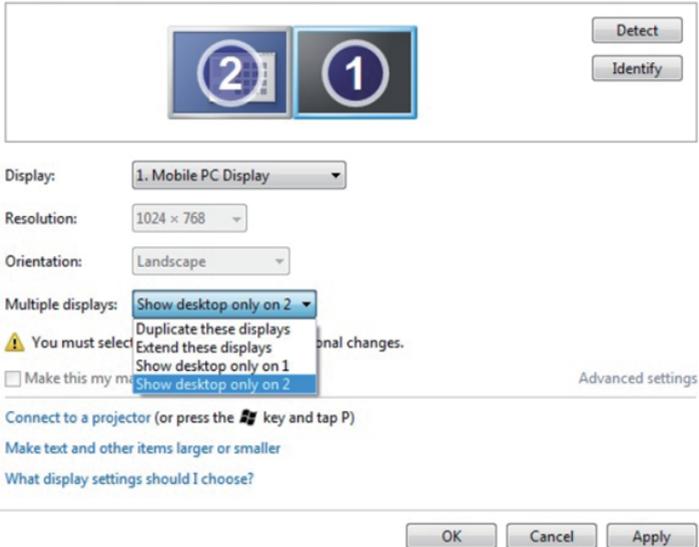
The screenshot shows the Windows 8/8.1 Screen Resolution window. The title bar reads 'Screen Resolution'. The breadcrumb navigation shows 'Appearance and Personalization > Display > Screen Resolution'. The main heading is 'Change the appearance of your displays'. Below this are two monitor icons labeled '1' and '2'. To the right are 'Detect' and 'Identify' buttons. The 'Display:' dropdown is set to '2. DELL U2312HM'. The 'Resolution:' dropdown is set to '1366 x 768'. The 'Orientation:' dropdown is set to 'Landscape'. The 'Multiple displays:' dropdown is set to 'Extend these displays'. A warning icon and text state: 'You must select Apply before making additional changes.' Below this is a checkbox for 'Make this my main display' which is unchecked. To the right is a link for 'Advanced settings'. Below the checkbox are links for 'Project to a second screen (or press the Windows logo key + P)', 'Make text and other items larger or smaller', and 'What display settings should I choose?'. At the bottom of the window are 'OK', 'Cancel', and 'Apply' buttons.

- **Show desktop only on...:** Display the status of a particular monitor. This option is typically chosen when the laptop is used as a PC so the user can enjoy a large external monitor. Most current laptops support mainstream resolutions. As shown in the figure above, the resolution of the laptop monitor is only 1280 x 800, but after connecting a 27" external LCD monitor, users can immediately improve their visual enjoyment to 1920 x 1080 Full HD quality.

For Windows 7

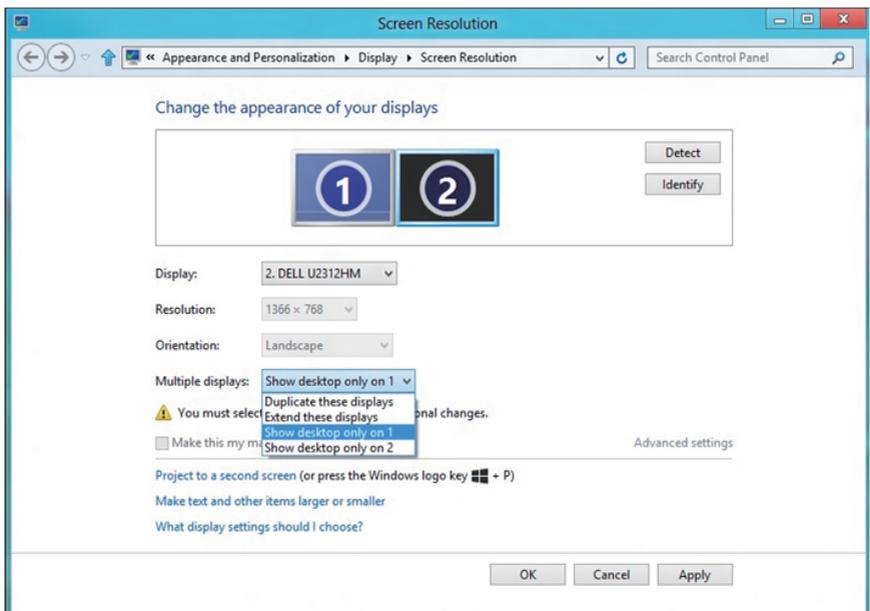


Change the appearance of your displays



The screenshot shows the Windows 8.1 display settings window. At the top, it says "Change the appearance of your displays". Below this is a visual representation of two displays, labeled 1 and 2. Display 1 is on the right and display 2 is on the left. To the right of the display icons are "Detect" and "Identify" buttons. Below the display icons, the "Display:" dropdown is set to "1. Mobile PC Display". The "Resolution:" dropdown is set to "1024 x 768". The "Orientation:" dropdown is set to "Landscape". The "Multiple displays:" dropdown is open, showing options: "Show desktop only on 2" (selected), "Duplicate these displays", "Extend these displays", "Show desktop only on 1", and "Show desktop only on 2". A warning icon and text "You must select a display mode for each display. Some changes may require a restart." are visible. There is a checkbox for "Make this my main display" which is unchecked. An "Advanced settings" link is on the right. Below the settings are links for "Connect to a projector (or press the Windows key and tap P)", "Make text and other items larger or smaller", and "What display settings should I choose?". At the bottom are "OK", "Cancel", and "Apply" buttons.

For Windows 8/Windows 8.1



The screenshot shows the Windows 8.1 "Screen Resolution" window. The title bar says "Screen Resolution". The breadcrumb navigation is "Appearance and Personalization > Display > Screen Resolution". There is a search bar for the Control Panel. The main heading is "Change the appearance of your displays". Below this is a visual representation of two displays, labeled 1 and 2. Display 1 is on the left and display 2 is on the right. To the right of the display icons are "Detect" and "Identify" buttons. Below the display icons, the "Display:" dropdown is set to "2. DELL U2312HM". The "Resolution:" dropdown is set to "1366 x 768". The "Orientation:" dropdown is set to "Landscape". The "Multiple displays:" dropdown is open, showing options: "Show desktop only on 1" (selected), "Duplicate these displays", "Extend these displays", "Show desktop only on 1", and "Show desktop only on 2". A warning icon and text "You must select a display mode for each display. Some changes may require a restart." are visible. There is a checkbox for "Make this my main display" which is unchecked. An "Advanced settings" link is on the right. Below the settings are links for "Project to a second screen (or press the Windows logo key + P)", "Make text and other items larger or smaller", and "What display settings should I choose?". At the bottom are "OK", "Cancel", and "Apply" buttons.

