User's Guide

Dell E5515H

Model No.: E5515H

Regulatory model: E5515Hc

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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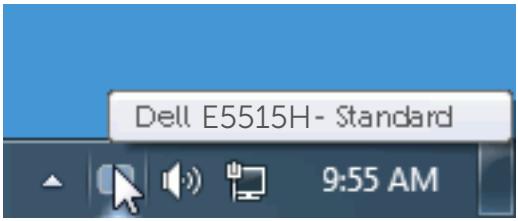
Dell Display Manager User's Guide

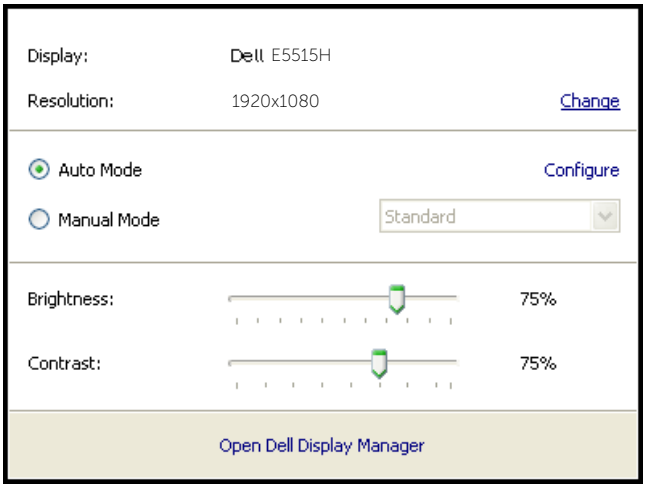
Overview

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.

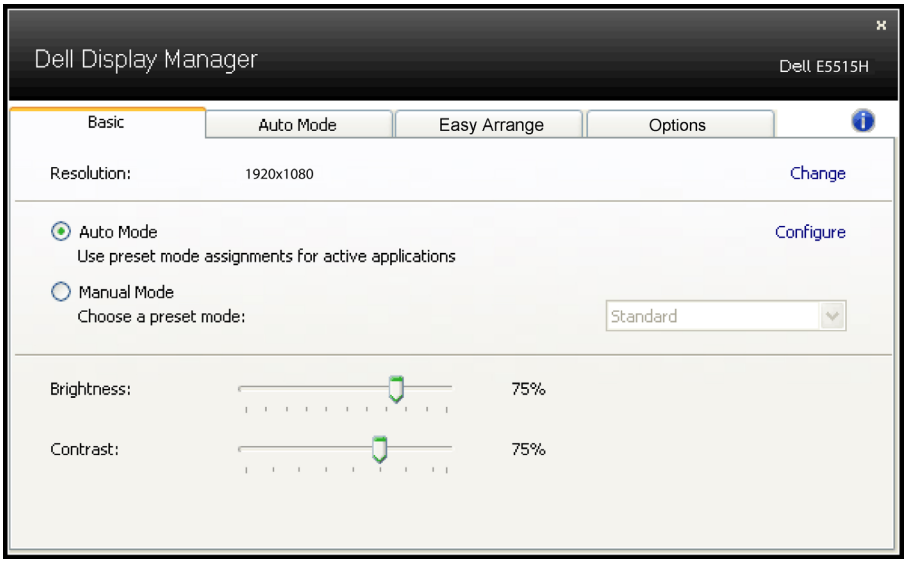


The Quick Settings dialog box also provides access to Dell Display Manager's advanced user interface which is used to adjust Basic functions, configure Auto Mode and access other features.

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.

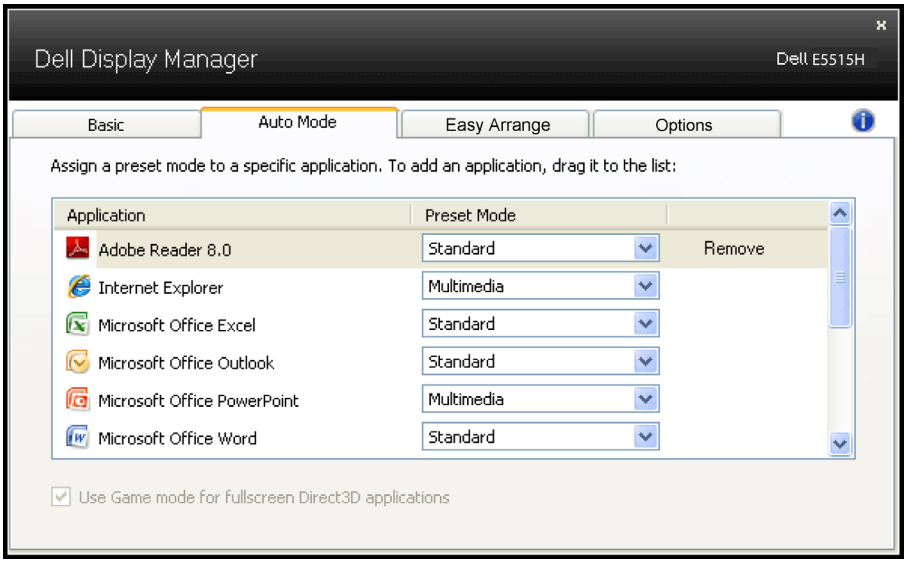


Assigning Preset Modes to Applications

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.

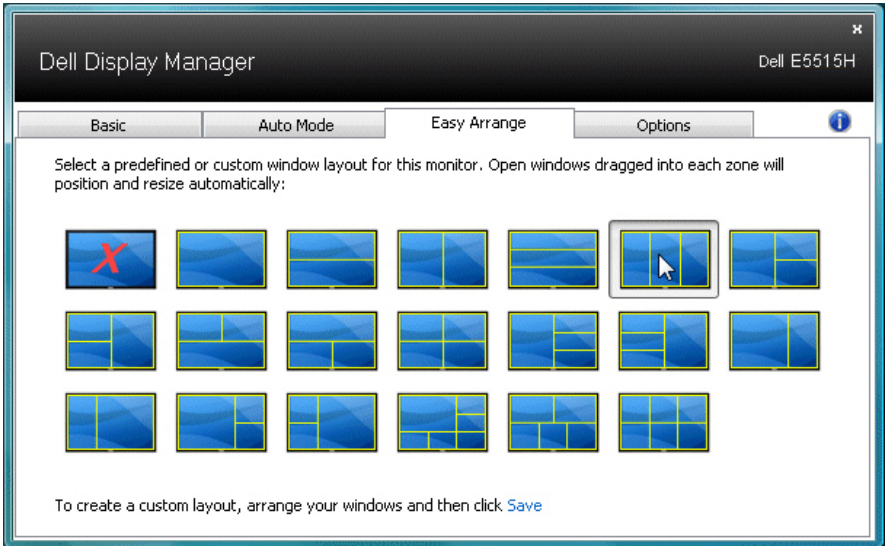
NOTE: Preset Mode assignments targeting batch files, scripts, and loaders, as well as non-executable files such as zip archives or packed files, are not supported and will be ineffective.



Organizing Windows with Easy Arrange

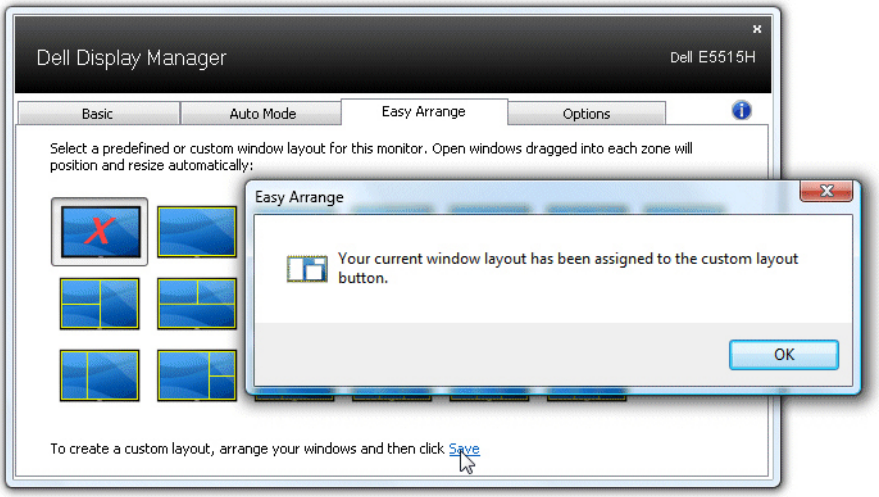
Some Dell models feature Easy Arrange, which allows the selected monitor's desktop to be organized into various predefined or custom window layouts. When Easy Arrange is enabled, windows can easily be made to reposition and resize automatically to fill specific regions within a window layout.

To get started with Easy Arrange, choose a target monitor and select one of the predefined layouts. The regions for that layout will be displayed momentarily on the monitor. Next, drag an open window across the monitor. While the window is being dragged, the current window layout will be displayed and an active region will be highlighted as the window passes over it. At any time, drop the window into the active region and it will automatically resize and reposition to fill that region.

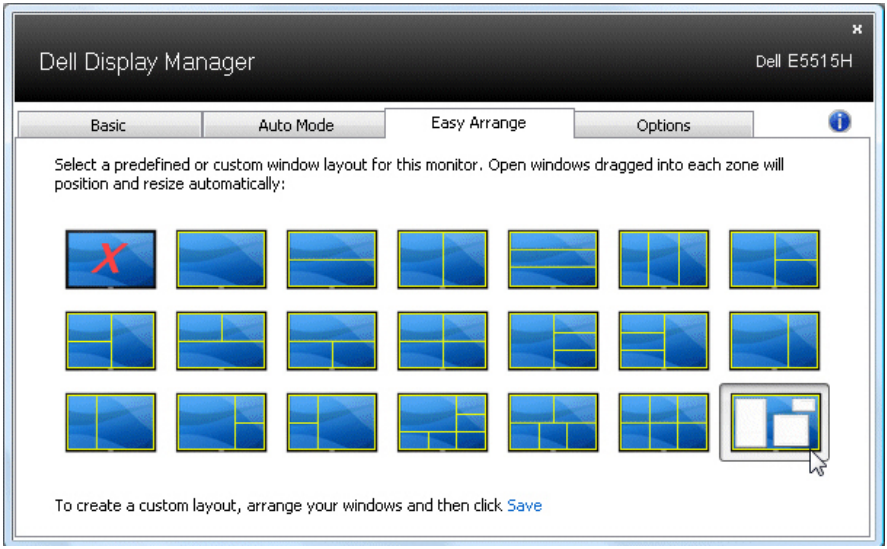


To create a custom window layout, first size and position up to 10 windows on the desktop and then click the Save link in Easy Arrange. The size and position of thewindows is saved as a custom layout and the custom layout icon is created.

NOTE: The application that owns each window is not saved in the custom layout. Only the size and position of the windows is saved.

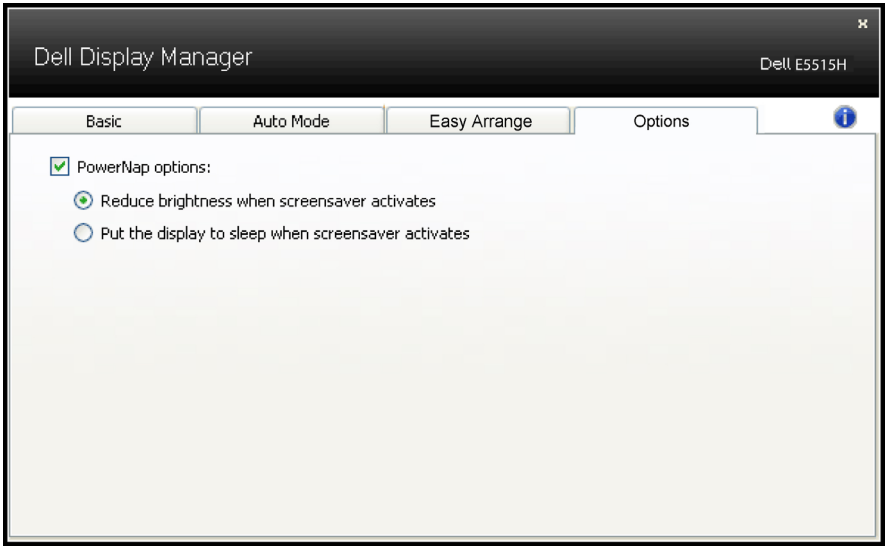


To use the currently saved custom layout, select the custom layout icon. To save a new custom layout, first postion and size up to 10 windows on the desktop andthen click the Save link in Easy Arrange. To delete the currently saved custom layout, close all windows on the desktop and then click the Save link in Easy Arrange.



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.

	• Monitor
	• Monitor Base
	• Screws: M4 (12mm) x 4
	• Remote Control & Batteries (AAA x 2)
	• Audio Cable
	• Power Cable (varies by countries)
	• VGA Cable

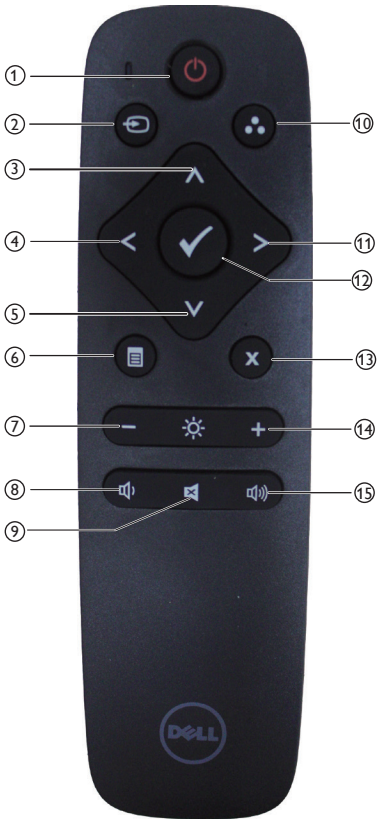
	• Mini HDMI to HDMI Cable
	• USB Upstream Cable (enable the USB ports on the monitor)
	• Drivers and Documentation media • Quick Setup Guide • Safety, Environment, and Regulatory Information (SERI)

Product Features

The Dell E5515H flat-panel display has an active matrix, Thin-Film Transistor, Liquid Crystal Display. The monitor's features include:

- E5515H: 1386.84 mm (54.6 inches) diagonal viewable image size, 1920 x 1080 resolution, plus full-screen support for lower resolutions.
- LED backlight.
- Removable pedestal and Video Electronics Standards Association (VESA) 400 mm x 400 mm mounting holes for flexible mounting solutions.
- Plug and play capability if supported by your system.
- Connectivity : VGA, HDMIx2
- 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 (comes in the CD shipped with the monitor).
- ENERGY STAR-compliant.
- Asset Management Capability.
- Build-in Speaker (5W)x2
- RoHS compliant.
- BFR/PVC Free (Halogen-Free) monitor excluding external cables.
- Arsenic-Free glass and Mercury-Free for panel only.
- 0.5W Standby power when in the sleep mode.

Remote Control



① **Power On/Off**
Switch this monitor on or off.

② **Input Source**
Select input source. Press [<] or [>] button to select from **HDMI1**, **HDMI2** or **VGA**. Press [√] button to confirm and exit.

③ **Up**
Press to move the selection up in OSD menu.

④ **Left**
Press to move the selection left in OSD menu.

⑤ **Down**
Press to move the selection down in OSD menu.

⑥ **Menu**
Press to turn on the OSD menu.

⑦ **Brightness -**
Press to decrease the Brightness.

⑧ **Volume -**
Press to decrease the Volume.

⑨ **MUTE**
Press to turn the mute function on/off.

⑩ **Preset Modes**
Display information about Preset Modes.

⑪ **Right**
Press to move the selection right in OSD menu.

⑫ **OK**
Confirm an entry or selection.

⑬ **Exit**
Press to exit the Menu.

⑭ **Brightness +**
Press to increase the Brightness.

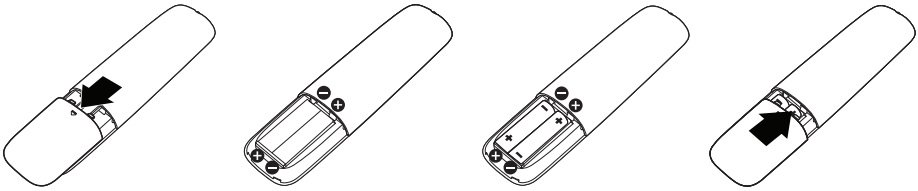
⑮ **Volume +**
Press to increase the Volume.

Inserting the batteries in the remote control

The remote control is powered by two 1.5V AAA batteries.

To install or replace batteries:

1. Press and then slide the cover to open it.
2. Align the batteries according to the (+) and (–) indications inside the battery compartment.
3. Replace the cover.



⚠ CAUTION:

The incorrect use of batteries can result in leaks or bursting. Be sure to follow these instructions:

- Place "AAA" batteries matching the (+) and (–) signs on each battery to the (+) and (–) signs of the battery compartment.
- Do not mix battery types.
- Do not combine new batteries with used ones. It causes shorter life or leakage of batteries.
- Remove the dead batteries immediately to prevent them from liquid leaking in the battery compartment. Don't touch exposed battery acid, as it can damage your skin.

NOTE: If you do not intend to use the remote control for a long period, remove the batteries.

Handling the remote control

- Do not subject to strong shock.
- Do not allow water or other liquid to splash the remote control. If the remote control gets wet, wipe it dry immediately.
- Avoid exposure to heat and steam.
- Other than to install the batteries, do not open the remote control.

Operating range of the remote control

Point the top of the remote control toward the LCD monitor's remote sensor during button operation.

Use the remote control within a distance of about 8 m from remote control sensor or at a horizontal and vertical angle of within 15° within a distance of about 5.6 m.

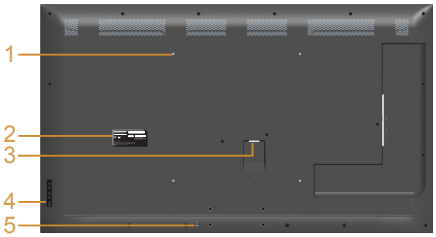
NOTE: The remote control may not function properly when the remote control sensor on the display is under direct sunlight or strong illumination, or when there is an obstacle in the path of signal transmission.

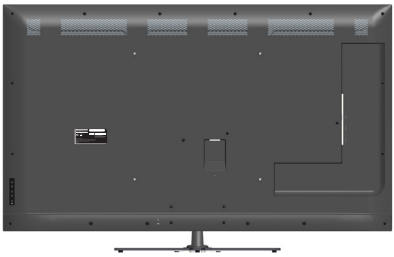
Identifying Parts and Controls

Front View

1	IR Lens (with LED indicator)

Back View

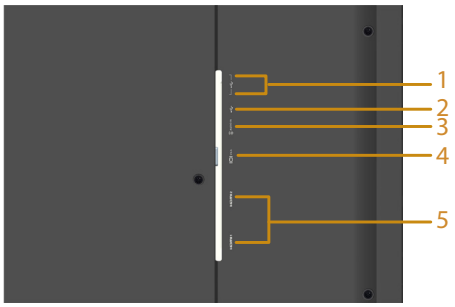




Back View with monitor stand

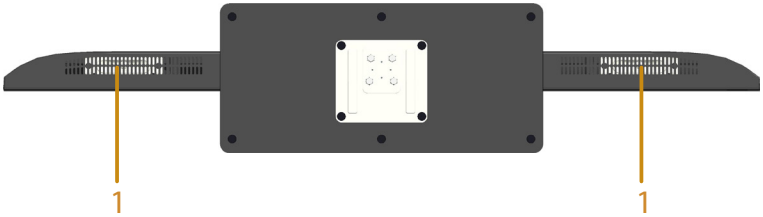
Label	Description	Use
1	VESA mounting holes (400 mm x 400 mm)	Wall mount monitor using VESA-compatible wall mount kit (400 mm x 400 mm).
2	Regulatory label	Lists the regulatory approvals.
3	AC power connector	To connect the monitor power cable.
4	Function buttons (For more information, see **Operating the Monitor**)	Use the buttons on the back of the monitor to adjust the image settings.
5	Security lock slot	Secures monitor with security lock.

Side View



Label	Description	Use
1	USB downstream port	Connect your USB device. You can only use this connector after you have connected the USB cable to the computer and USB upstream connector on the monitor.
2	USB upstream port	Connect the USB cable that comes with your monitor to the computer. Once this cable is connected, you can use the USB connectors on the monitor.
3	Audio-Line in	Connect your computer audio output with audio cable.
4	VGA connector	Connect your computer to the monitor using a VGA cable.
5	HDMI 1/HDMI 2	Connect your HDMI devices with HDMI cable.

Bottom View



1	Speakers

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:

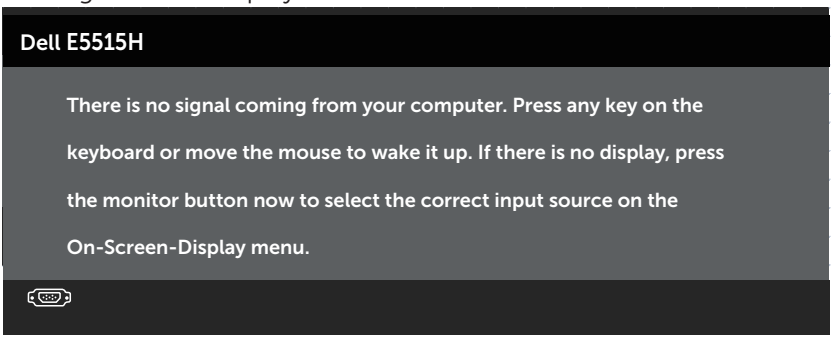
VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	135 W (Maximum)** 65 W (Typical)***
Active-off mode	Inactive	Inactive	Blank	Glowing white	Less than 0.5 W
Switch off	-	-		Off	Less than 0.5 W*

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

** Maximum power consumption with max luminance and contrast.

*** Typical power consumption with OSD default setting, audio and USB inactive.

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:

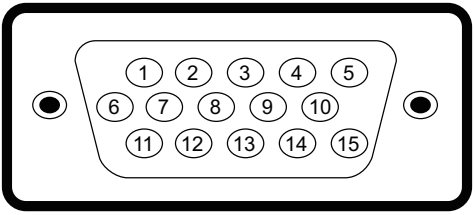


Activate the computer and monitor to gain access to the **Using the On-Screen Display (OSD) Menu**.

NOTE: The Dell E5515H monitor is ENERGY STAR®-compliant.

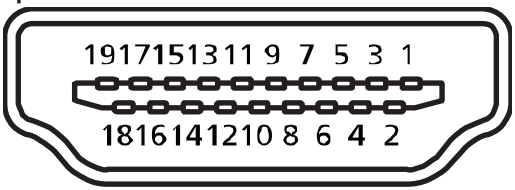
Pin Assignments

15-pin D-Sub connector



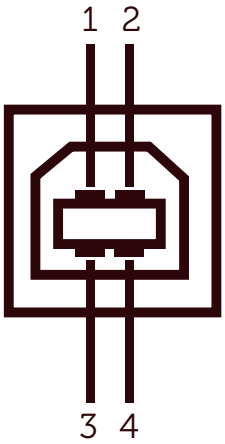
Pin Number	Monitor Side of the 15-pin Side Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	GND
5	Self-test
6	GND-R
7	GND-G
8	GND-B
9	DDC +5 V
10	GND-sync
11	GND
12	DDC data
13	H-sync
14	V-sync
15	DDC clock

19-pin HDMI connector



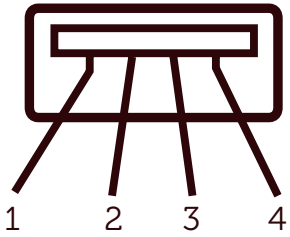
Pin Number	Monitor Side of the 19-pin Side Signal Cable
1	TMDS Data2+
2	TMDS Data2 Shield
3	TMDS Data2-
4	TMDS Data1+
5	TMDS Data1 Shield
6	TMDS Data1-
7	TMDS Data0+
8	TMDS Data0 Shield
9	TMDS Data0-
10	TMDS Clock+
11	TMDS Clock Shield
12	TMDS Clock-
13	CEC
14	Reserved (N.C. on device)
15	SCL
16	SDA
17	DDC/CEC Ground
18	+5V Power
19	Hot Plug Detect

USB Upstream Connector



Pin Number	4-pin Side of the Connector
1	DMU
2	VCC
3	DPU
4	GND

USB Downstream Connector



Pin Number	4-pin Side of the Connector
1	VCC
2	DMD
3	DPD
4	GND

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 E5515H monitor
Screen type	Active matrix - TFT LCD
Panel type	Vertical Alignment
Viewable image	
Diagonal Horizontal, Active Area Vertical, Active Area Area	1386.8 mm (54.6 inch) 1209.6 mm (47.6 inch) 680.4 mm (26.8 inch) 823011.8 mm^2 (1275.7 $inch^2$)
Pixel pitch (Sub pixel)	0.21 mm (W) * 0.63 mm(H)
Viewing angle:	
Horizontal Vertical	178° typical 178° typical
Luminance output	350 cd/m^2 (typical)
Contrast ratio	3000 : 1 (typical)
Faceplate coating	Antiglare with hard-coating 3H, 2% Haze
Backlight	LED light bar system
Response time	8ms Typical (G to G)
Color depth	16.7 mil colors
Color gamut	85 % (typical) **

** [E5515H] color gamut (typical) is based on CIE1976 (85 %) and CIE1931 (72 %) test standards.

Resolution Specifications

Model number	Dell E5515H monitor
Scan range	
• Horizontal	30 kHz to 83 kHz (automatic)
• Vertical	56 Hz to 76 Hz (automatic)
Maximum preset resolution	1920 x 1080 at 60 Hz

Support Video Mode

Model number	Dell E5515H monitor
Video display capability (HDMI playback)	480p, 480i, 576p, 576i, 720p, 1080p, 1080i

Electrical Specifications

Model number	Dell E5515H monitor
Video input signals	Analog RGB: 0.7 Volts +/- 5 %, 75 ohm input impedance Digital HDMI : 600 mV for each differential line, 100 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/2.5 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:

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/ Vertical)
VESA, 720 x 400	31.5	70.0	28.3	-/+
VESA, 640 x 480	31.5	60.0	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	+/+
VESA, 1600 x 900	55.5	60.0	97.8	+/-
VESA, 1920 x 1080	67.5	60.0	148.5	+/+

Physical Characteristics

The following table lists the monitor's physical characteristics:

Model Number	Dell E5515H monitor
Connector type	D-subminiature, blue connector; HDMI, black connector
Signal cable type	D-sub: Detachable, Analog, 15-pin. HDMI: Detachable, Digital, 19-pin.
Dimensions: (with stand) Height Width Depth	 786.0 mm (30.9 inches) 1241.0 mm (48.9 inches) 245.0 mm (9.4 inches)
Dimensions: (without stand) Height Width Depth	 721.5 mm (28.4 inches) 1241.0 mm (48.9 inches) 64.8 mm (2.6 inches)
Stand dimensions: Height Width Depth	 154.9 mm (6.1 inches) 530.0 mm (20.9 inches) 245.0 mm (9.6 inches)
Weight: Weight with packaging Weight with stand assembly and cables	 32.2 kg (70.8 lb) 24.4 kg (53.7 lb)
Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	20.3 kg (44.7 lb)
Weight of stand assembly	3.3 kg (7.3 lb)

Environmental Characteristics

The following table lists the environmental conditions for your monitor:

Model Number	Dell E5515H monitor
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 • Non-operating	20 % to 80 % (non-condensing) Storage: 10 % to 90 % (non-condensing) Shipping: 10 % to 90 % (non-condensing)
Altitude • Operating • Non-operating	5,000 m (16,387 ft) max 12,191 m (40,000 ft) max
Thermal dissipation	410 BTU/hour (maximum) 307 BTU/hour (typical)

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:

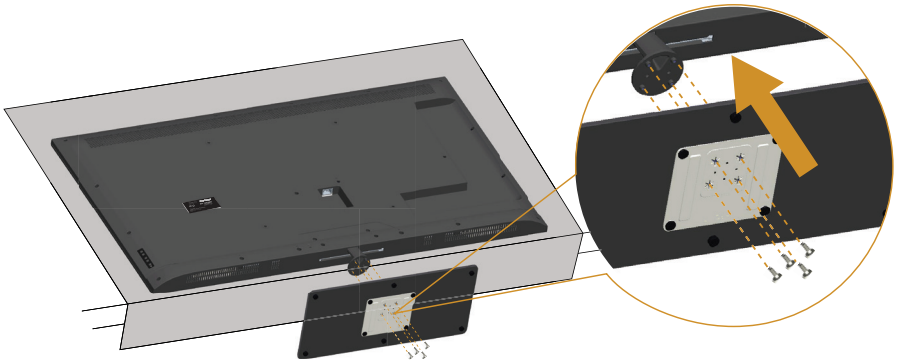
- To clean your antistatic screen, slightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the antistatic coating. Do not use benzene, thinner, ammonia, abrasive cleaners, or compressed air.
- Use a slightly dampened, warm cloth to clean 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.

Setting Up the Monitor

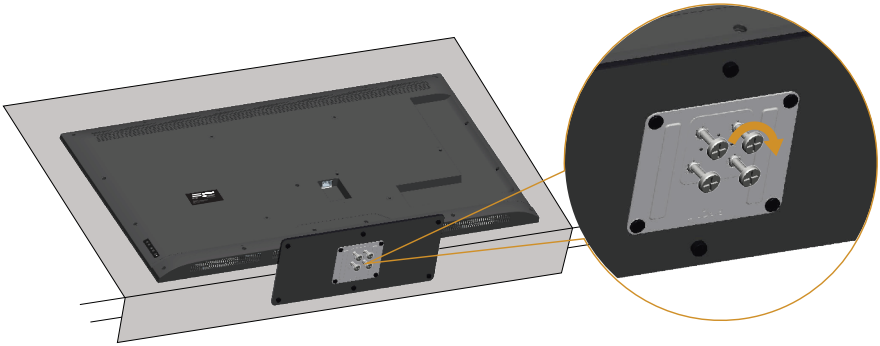
Attaching the Monitor

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

To attach the monitor base:



1. Place the monitor on a flat surface.
2. Inserting the screws to the base.
3. Tightening the screws.



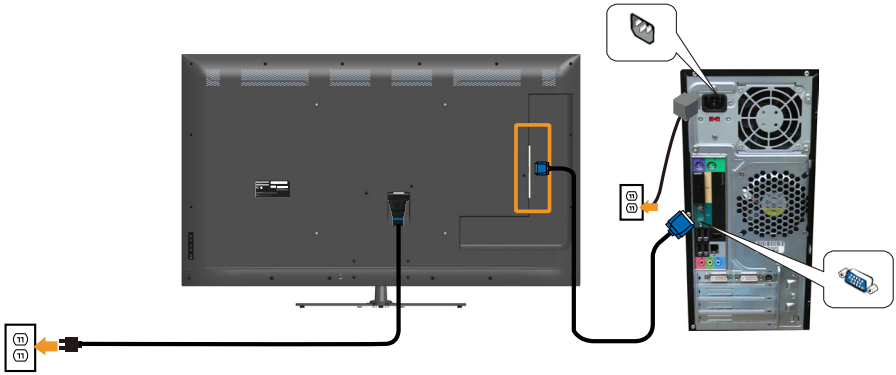
Connecting Your Monitor

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

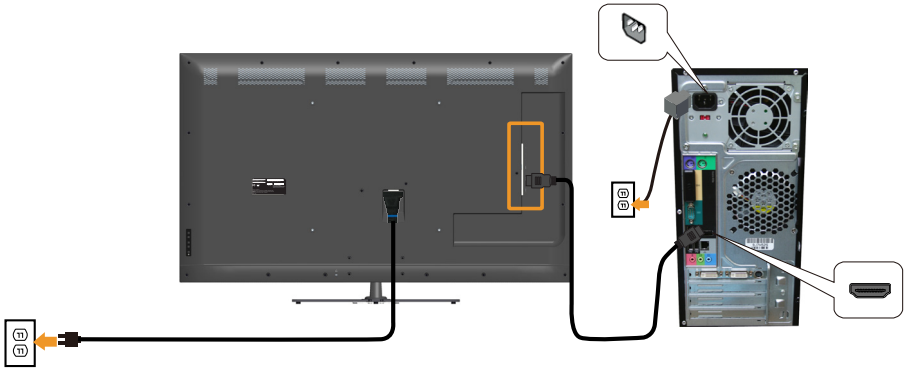
To connect your monitor to the computer:

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

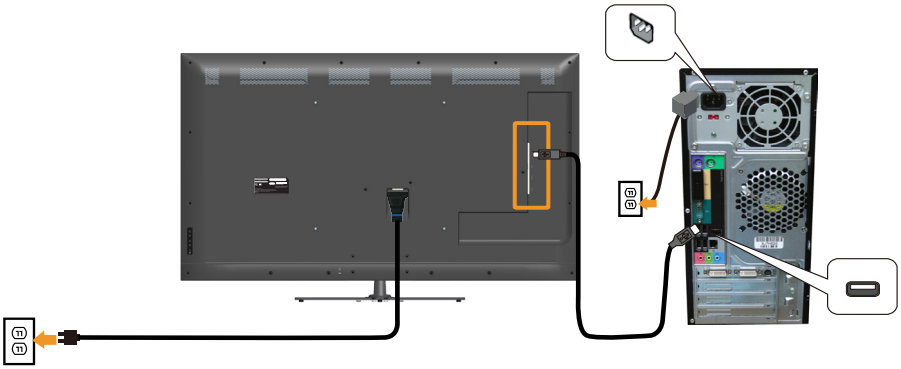
Connecting the blue VGA Cable



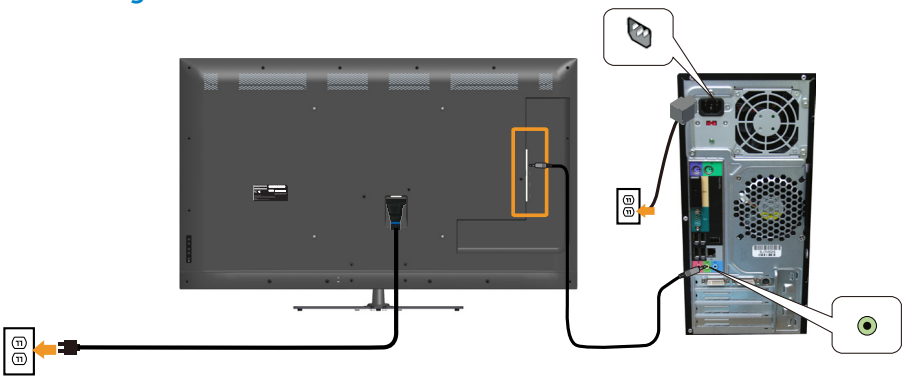
Connecting the black HDMI Cable



Connecting the USB cable



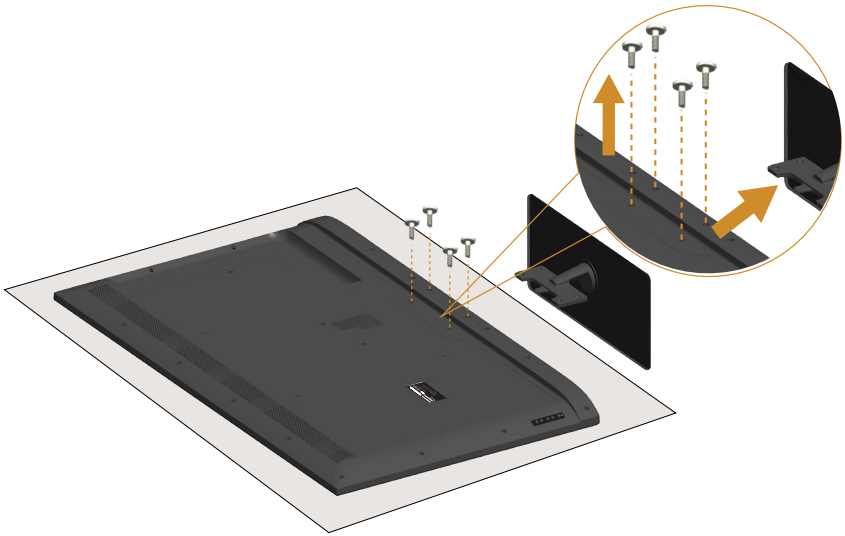
Connecting the Audio Cable



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

Removing the Monitor Stand

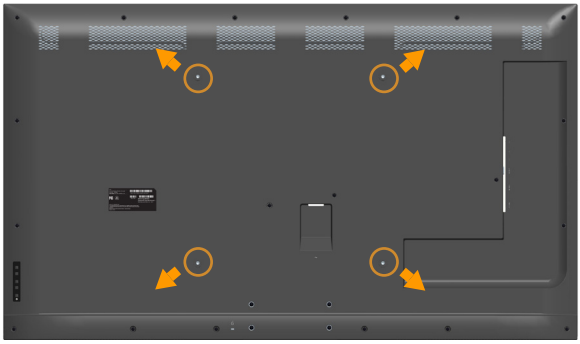
NOTE: To prevent scratches on the LCD screen while removing the stand, ensure that the monitor is placed on a soft, clean surface.



To remove the stand:

1. Place the monitor on a flat surface.
2. Release the screw located on the back cover.
3. Remove the stand from the monitor.

Wall Mounting (Optional)



(Screw dimension: M6 x 30 mm).*

*Depending on your mounting solution, you may need longer than 30mm screw.

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

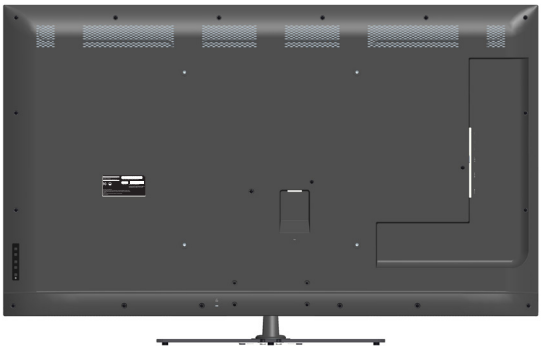
1. Place the monitor panel on a soft cloth or cushion on a stable, flat table.
2. Remove the stand.
3. Attach the mounting bracket from the wall mounting kit to the LCD.
4. Mount the LCD on the wall by following the instructions that came with the wall mounting kit.

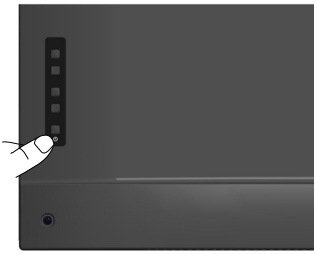
NOTE: For use only with UL-listed wall mount bracket with minimum weight/load bearing capacity of 81.2 kg.

Operating the Monitor

Power On the Monitor

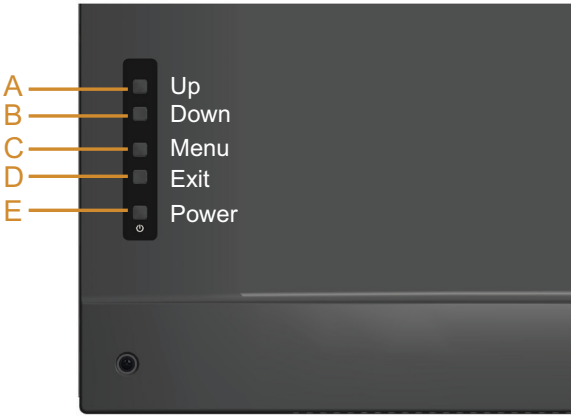
Press the ⏻ button to turn on the monitor.





Using the Function Controls

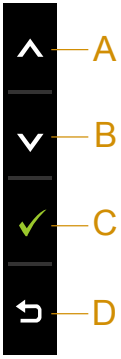
Use the keys on the back of the monitor to adjust the image settings.



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	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. Hold about 10 seconds will enable or disable OSD lock.
E	Power	Press the Power button to turn on/off the monitor.

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.

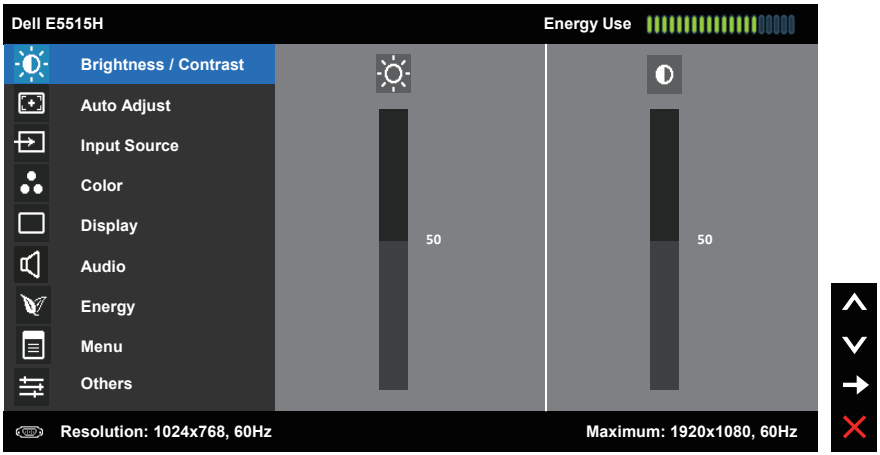
Using the On-Screen Display (OSD) Menu

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.

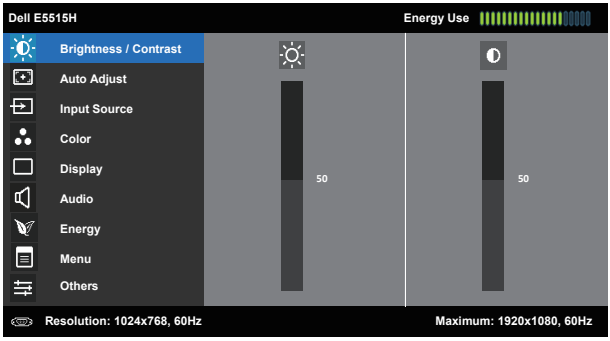
1. Press the button to open the OSD menu and display the main menu.

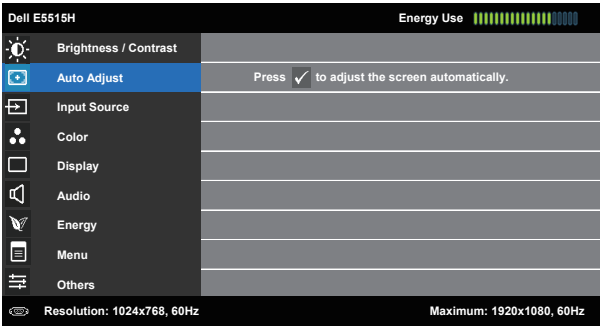
Main Menu

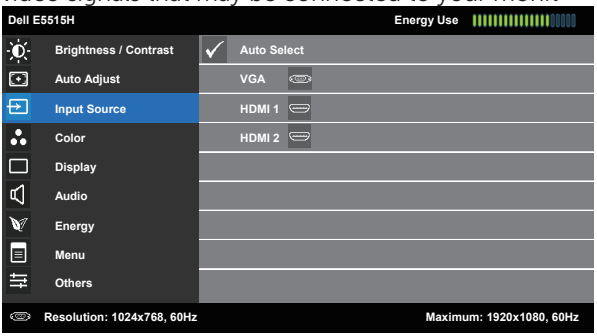


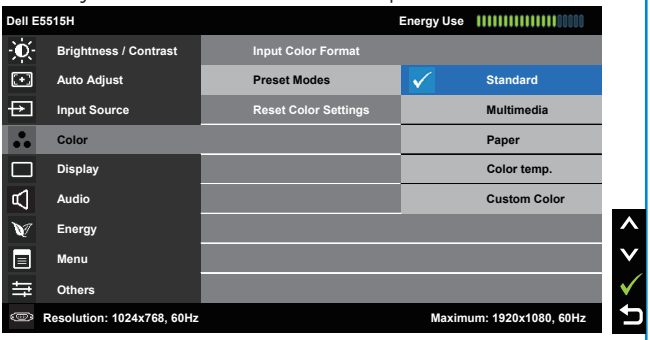
2. Press the and buttons to toggle between options in the Menu. As you move from one icon to another, the option name is highlighted.
3. To select the highlighted item on the menu press the button again.
4. Press the and buttons to select the desired parameter.
5. Press the button to enter the slide 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.

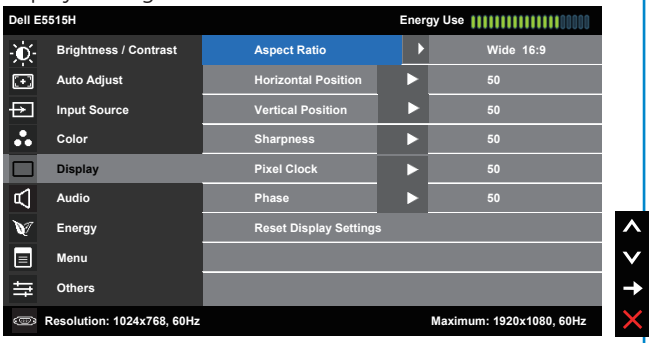
The table below provides a list of all the OSD menu options and their functions.

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	Allows you to adjust the brightness or luminance of the backlight. Press the ▲ key to increase brightness and press the ▼ key to decrease brightness (min 0 ~ max 100).
	Contrast	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. Press the ▲ key to increase contrast and press the ▼ key to decrease contrast (min 0 ~ max 100).

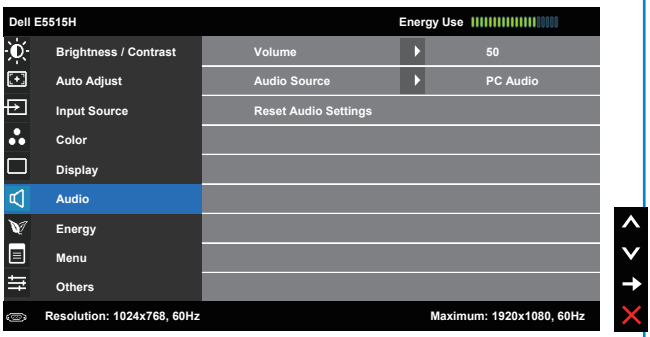
Icon	Menu and Submenus	Description
	Auto Adjust	Use this key to activate automatic setup and adjust menu.  The following dialog appears on a black screen as the monitor self-adjusts to the current input: **Auto Adjustment in Progress...** Auto Adjustment allows the monitor to self-adjust to the incoming 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.

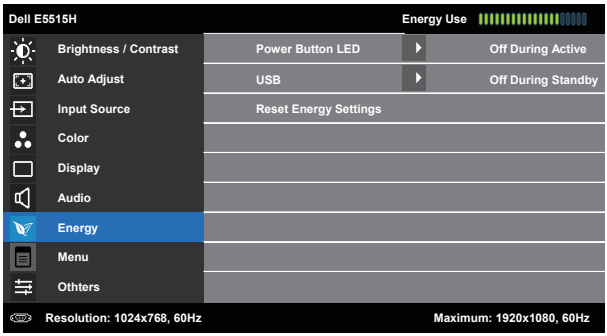
Icon	Menu and Submenus	Description
	Input Source	Use the **Input Source** menu to select between different video signals that may be connected to your monit 
	Auto Select	Select **Auto Select** to scan for available input signals.
	VGA	Select **VGA** input when you are using the analog (VGA) connector. Push ➔ to select the VGA input source.
	HDMI 1 **HDMI 2**	Select **HDMI 1** or **HDMI 2** input when you are using the HDMI connectors. Press ➔ to select the HDMI 1 or HDMI 2 input source.
	Color	Use the **Color** menu to adjust the monitor's color settings.

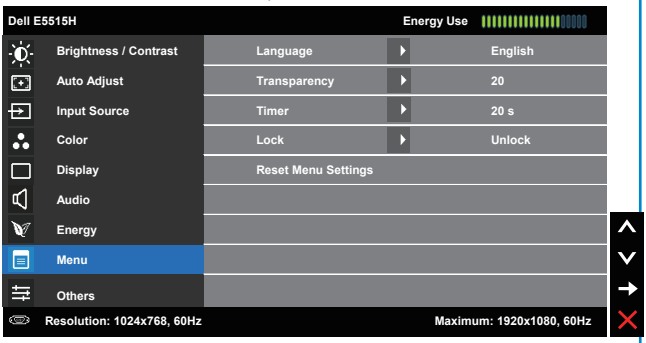
Icon	Menu and Submenus	Description
	Input Color Format	Allows you to set the video input mode to: • **RGB:** Select this option if your monitor is connected to a computer or DVD player using the HDMI cable (or DisplayPort cable). • **YPbPr:** Select this option if your DVD player supports only YPbPr 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. • **Paper:** Loads brightness and sharpness settings ideal for viewing text. Blend the text background to simulate paper media without affecting color images. Applies to RGB input format only. • **Color temp.**: Adjusts the Color temperature as 5700K, 6500K, 9300K. • **Custom Color**: Allows you to manually adjust the color settings. Press the ^ and v keys to adjust the Red, Green, and Blue values and create your own preset color mode.
	Reset Color Settings	Resets your monitor's color settings to the factory defaults.

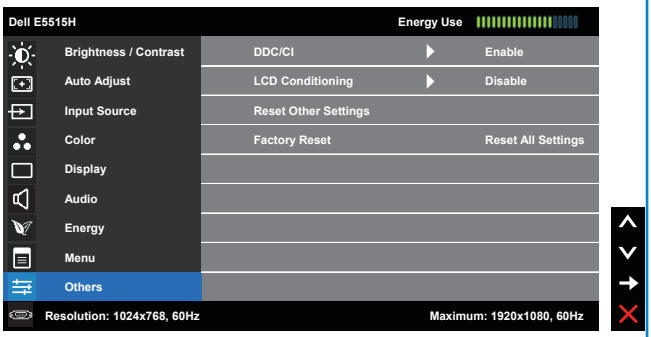
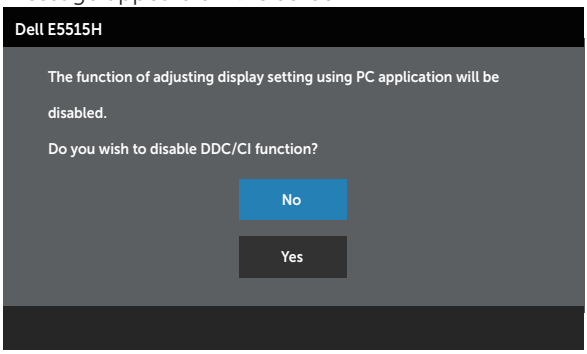
Icon	Menu and Submenus	Description
	Display	Use the **Displays Settings** menu to adjust the monitor's display settings. 
	Aspect Ratio	Adjusts the image ratio as Wide 16:9, 4:3, or 5:4. **NOTE:** Wide 16:9 adjustment is not required at maximum preset resolution 1920 x 1080.
	Horizontal Position	Use ▲ 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. Minimum is '0' (-). Maximum is '100' (+).
	Phase	If satisfactory results are not obtained using the Phase adjustment, use the Pixel Clock (coarse) adjustment and then use Phase (fine), again. Minimum is '0' (-). Maximum is '100' (+).
	Reset Display Settings	Select this option to restore default display settings.

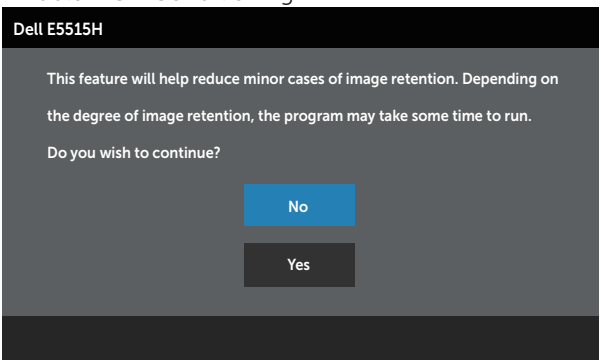
NOTE: Horizontal Position, Vertical Position, Pixel Clock and Phase adjustment are only available for VGA input.

Icon	Menu and Submenus	Description
	Audio	
	Volume	Use the buttons to adjust the volume. Minimum is '0' (-). Maximum is '100' (+).
	Audio Source	Allows you to set the Audio Source mode to: • PC Audio • HDMI 1 (or HDMI 2)
	Reset Audio Settings	Select this option to restore default display settings.

Icon	Menu and Submenus	Description
	Energy	
	Power Button LED	Allows you to set the power LED indicator on or off to save energy.
	USB	Allows you to enable or disable USB function during monitor standby mode. **NOTE:** USB ON/OFF under standby mode is only available when USB upstream cable unplugged. This option will be grey out when USB upstream cable plug in.
	Reset Energy Settings	Select this option to restore default Energy Settings.

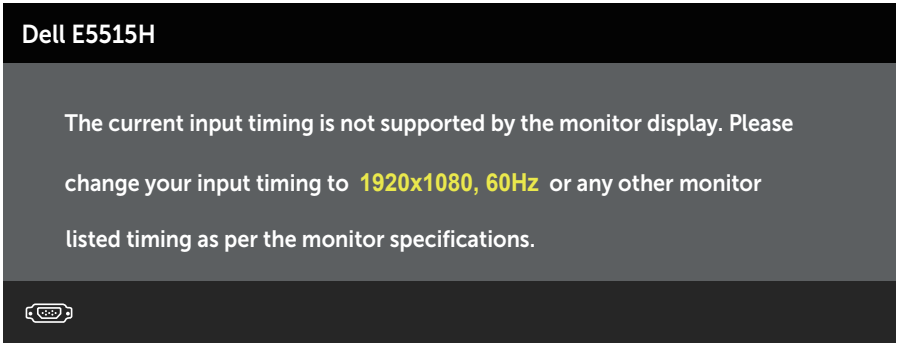
Icon	Menu and Submenus	Description
	Menu	Select this option to adjust the settings of the OSD such as, the languages of the OSD, the amount of time the menu remains on screen, and so on. 
	Language	Allows you to set the OSD display to one of eight languages: English, Spanish, French, German, Portuguese (Brazil), Russian, Simplified Chinese, or Japanese.
	Transparency	Allows you to adjust the OSD background from opaque to transparent. Press ▲ and ▼ to make the adjustment (min 0 ~ max 100, default 20).
	Timer	Allows you to set the time for which the OSD remains active after you press a key on the monitor. Use the ▲ and ▼ keys 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 keys are locked except ↩ key. **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.
	Reset Menu Settings	Select this option to restore default menu settings.

Icon	Menu and Submenus	Description
	Others	
	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. 

Icon	Menu and Submenus	Description
	LCD Conditioning	This feature will help reduce minor cases of image retention. 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. **NOTE**: Use LCD Conditioning only when you experience a problem with image retention. The below warning message appears once user selects "Enable" LCD Conditioning. 
	Reset Other Settings	Select this option to restore default other settings, such as DDC/CI.
	Factory Reset	Resets all OSD settings to the factory preset values.

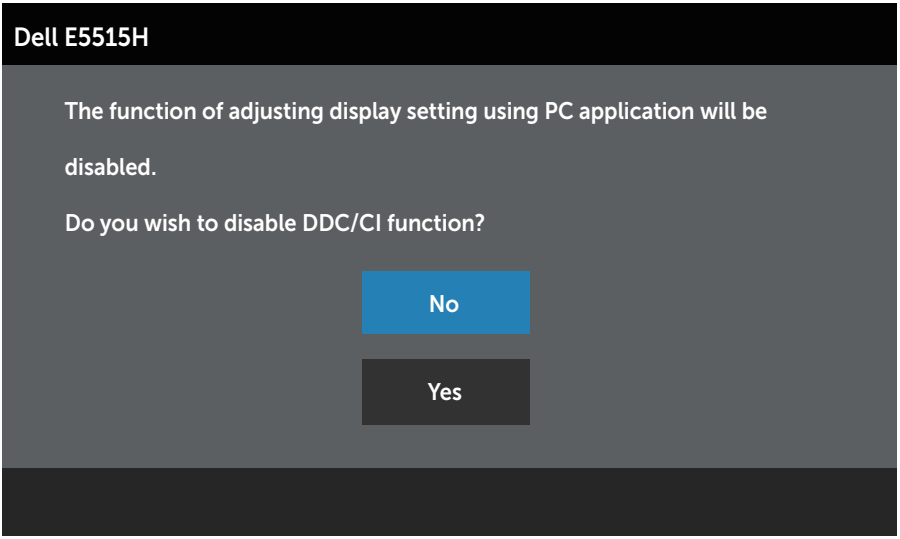
OSD Warning Messages

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

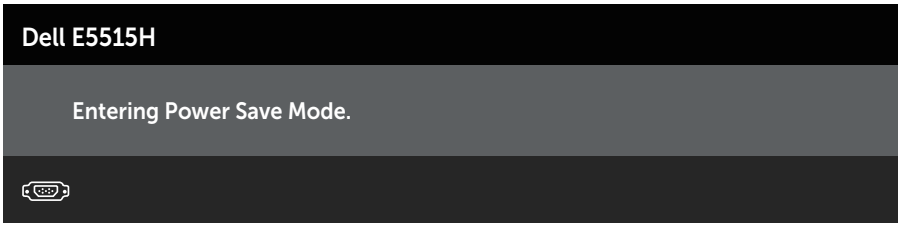


This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See **Monitor Specifications** for the horizontal and vertical frequency ranges addressable by this monitor. Recommended mode is 1920 x 1080.

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

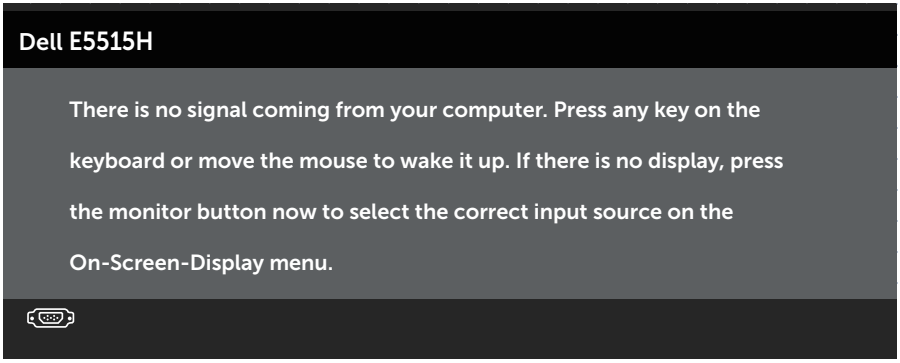


When the monitor enters the **Power Save** mode, the following message appears:

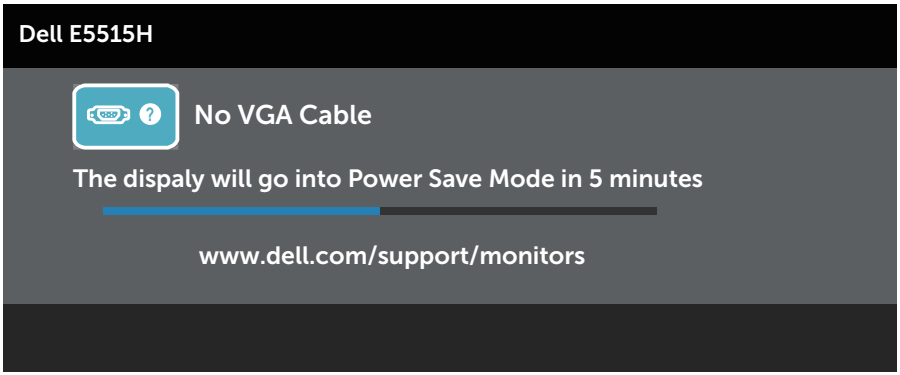


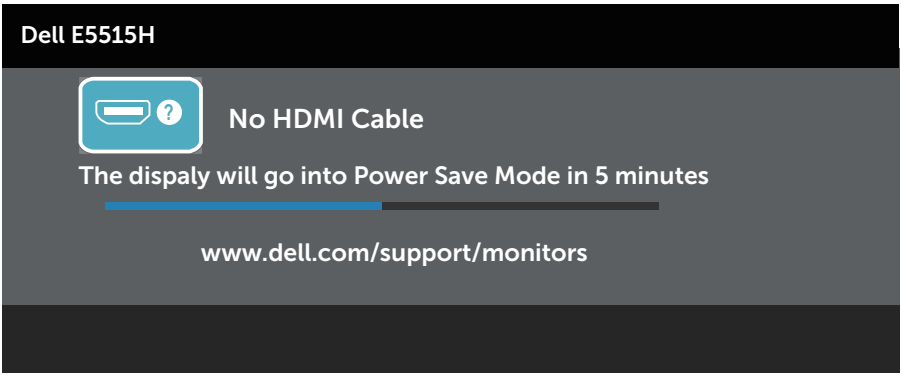
Activate the computer and wake up the monitor to gain access to the **Using the On-Screen Display (OSD) Menu**.

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



If VGA or HDMI 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 1920 x 1080.
4. Click OK.

If you do not see 1920x 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 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.

Troubleshooting

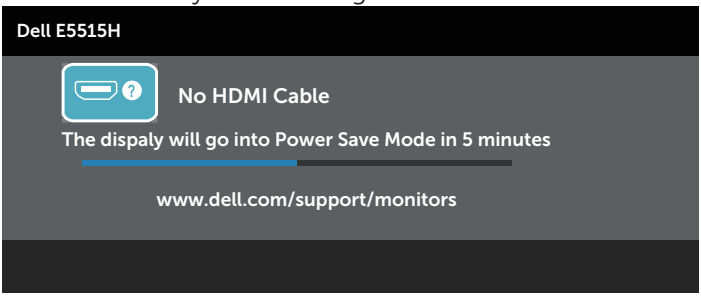
⚠ **WARNING: Before you begin any of the procedures in this section, follow the Safety Instruction**

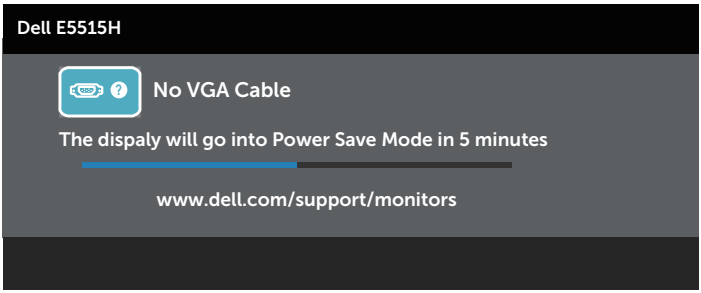
Self-Test

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 Digital (black connector), the Analog (blue connector) cables 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.





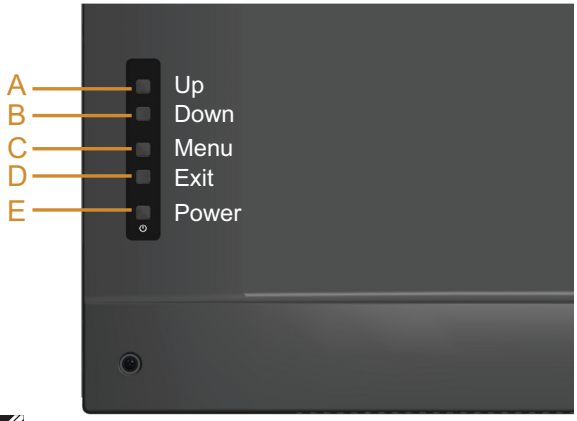
4. This box also appears during normal system operation, if the video cable becomes disconnected or damaged. The monitor will enter **Power Save Mode after 5 minutes** if left at this state.
5. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

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

NOTE: Self-test feature check is not available for S-Video, Composite, and Component video modes.

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 A** and **Button D** on the back cover simultaneously for 2 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press the **Button D** on the back cover 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 D** 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 depressed fully.
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. • 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	• Perform Auto Adjust via OSD. • Adjust the Phase and Pixel Clock controls via OSD. (For VGA source only) • Eliminate video extension cables. • Reset the monitor to **Factory Settings**. • Change the video resolution to the correct aspect ratio (16:9).
Shaky/Jittery Video	Wavy picture or fine movement	• Perform Auto Adjust via OSD. (For VGA source only) • Adjust the Phase and Pixel Clock controls via OSD. (For VGA source only) • Reset the monitor to **Factory Settings**. • Check environmental factors. • Relocate the monitor and test in another room.

Common Symptoms	What You Experience	Possible Solutions
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: **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: **www.dell.com/support/monitors**.
Brightness Problems	Picture too dim or too bright	• Reset the monitor to **Factory Settings**. • Auto Adjust via OSD. • Adjust brightness & contrast controls via OSD.
Geometric Distortion	Screen not centered correctly	• Reset the monitor to **Factory Settings**. • Auto Adjust via OSD. • Adjust brightness & contrast controls via OSD.
Horizontal/Vertical Lines	Screen has one or more lines	• 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.

Common Symptoms	What You Experience	Possible Solutions
Synchronization Problems	Screen is scrambled or appears torn	• Reset the monitor to **Factory Settings**. • Perform Auto Adjust via OSD. (For VGA source only) • Adjust Phase and Pixel Clock controls via OSD. (For VGA source only) • 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 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.

Common Symptoms	What You Experience	Possible Solutions
No sound or sound is low	Monitor has no sound or sound is low	• Make sure the audio cable is properly connected to the monitor. • Adjust the volume settings of both your monitor and computer. • Make sure the computer sound card driver is properly installed and activated. • Make sure the audio source is correct on the 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	• 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 using 'HDMI', the positioning adjustments are not 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	• 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 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.	• 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	• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • The option you select in Display Settings-Aspect Ratio might also influence the picture fitting on screen. • Run the built-in diagnostics.

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

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 *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 1920 x 1080 (Maximum)

For optimal display performance while using the Microsoft Windows operating systems, set the display resolution to 1920 x 1080 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 1920 x 1080.
4. Click OK.

If you do not see 1920 x 1080 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 1920 x 1080 again.

NOTE: If you are unable to set the resolution to 1920 x 1080, 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 1920 x 1080 again.

NOTE: If you are unable to set the resolution to 1920 x 1080, please contact the manufacturer of your computer or consider purchasing a graphics adapter that will support the video resolution of 1920 x 1080.

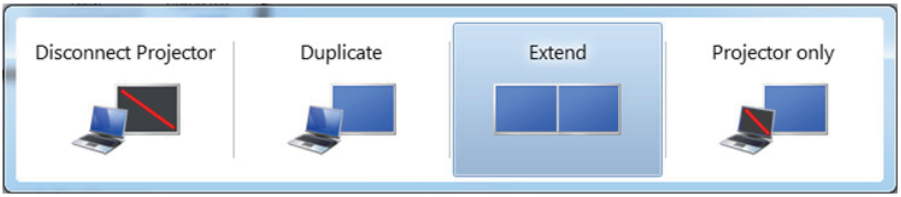
Procedures for setting up dual monitors in Windows® 7 or Windows® 8/Windows® 8.1

For Windows® 7

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

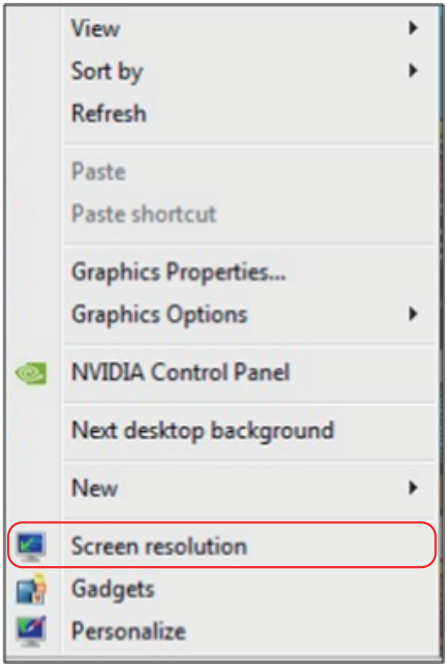
Method 1: Using keyboard shortcut "Win+P"

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.

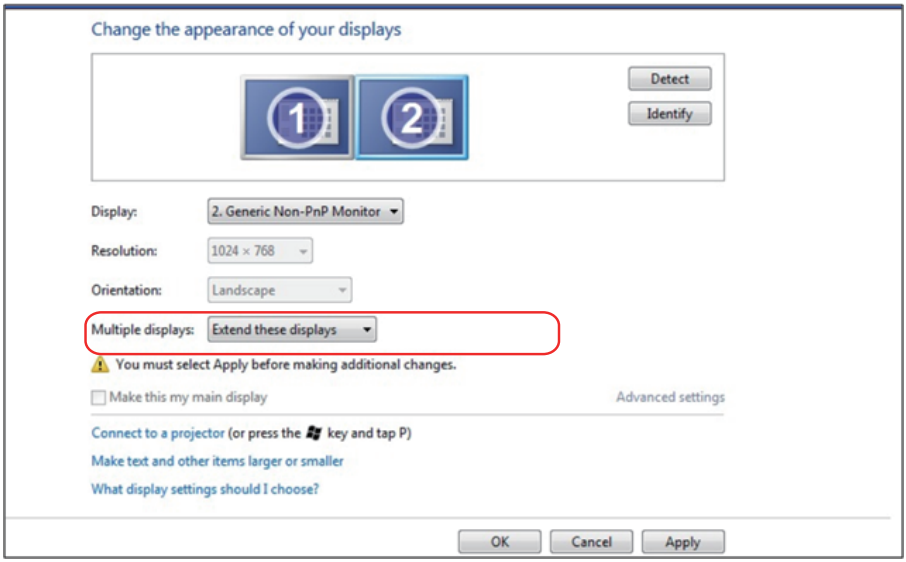


Method 2: Using the "Screen Resolution" menu

1. 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.

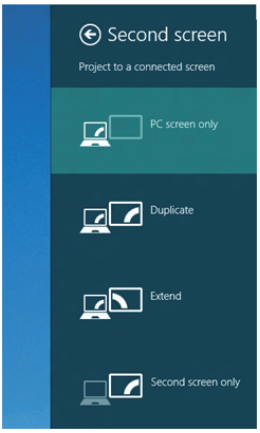


For Windows® 8/Windows® 8.1

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

Method 1: Using keyboard shortcut "Win+P"

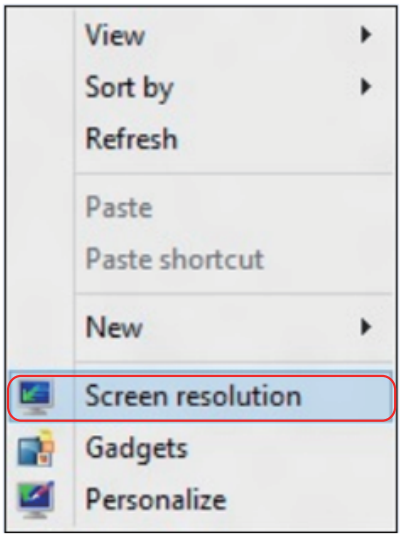
1. Press the **Windows logo key** + **P** on your keyboard.
2. While holding down the **Windows logo key**, press **P** to toggle between the display selections.



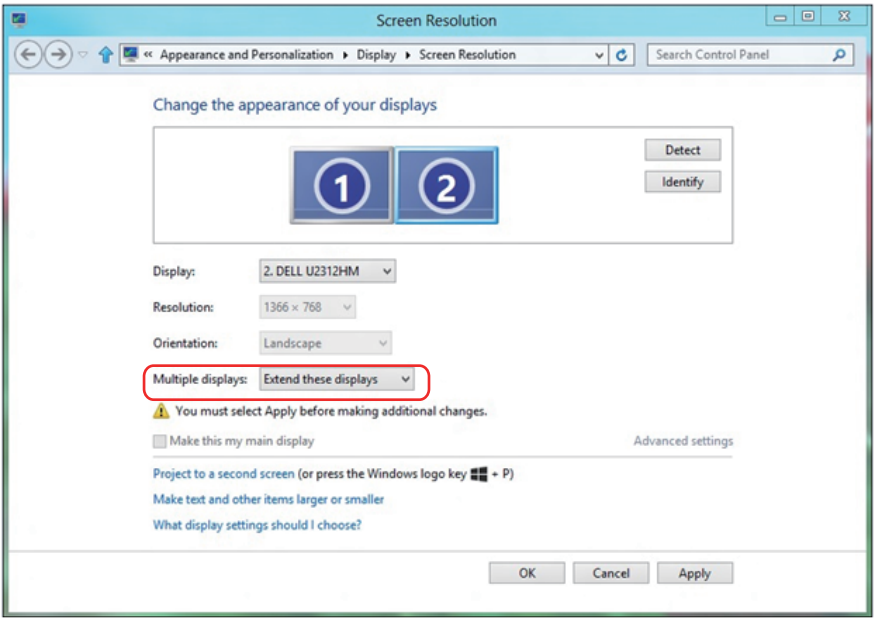
Method 2: Using the "Screen Resolution" menu

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.

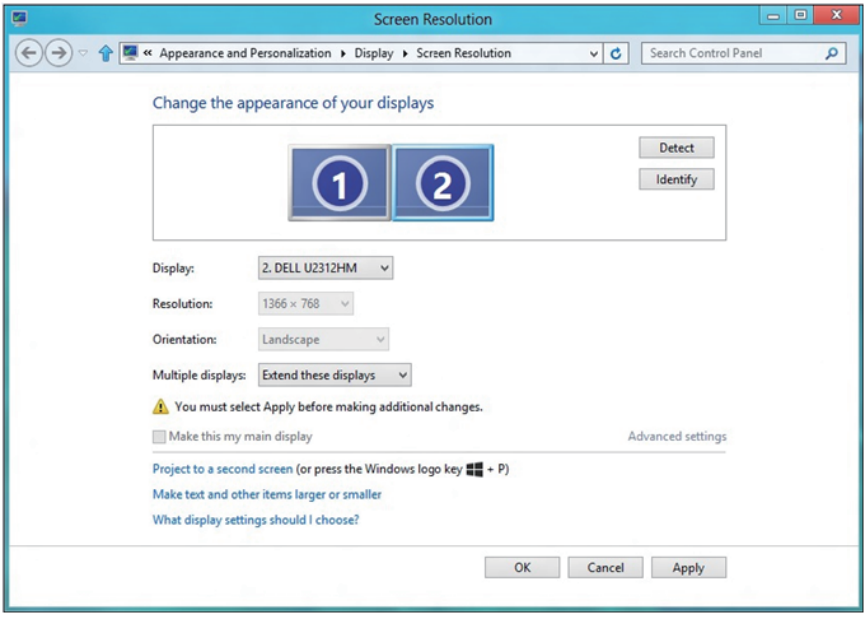


Setting Display Styles For Multiple Monitor

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.

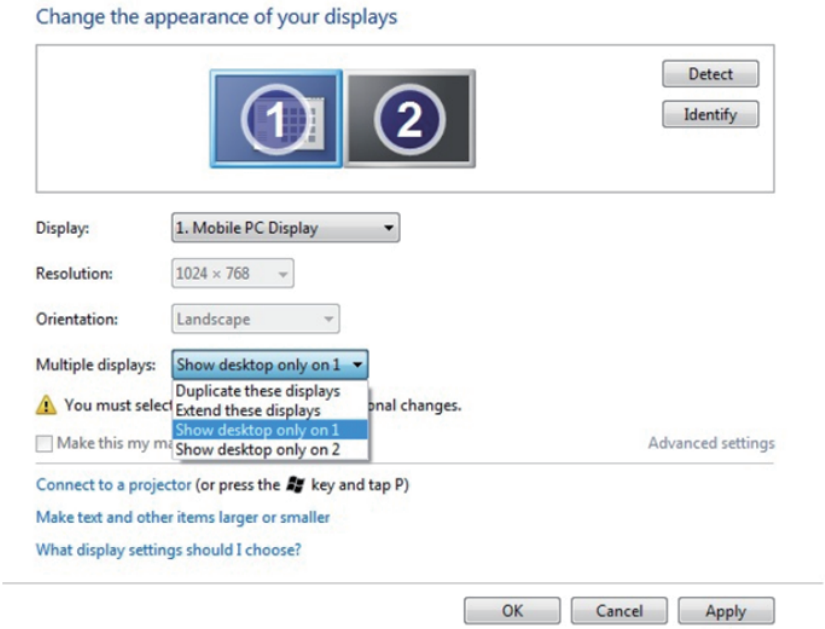
- **Duplicate these displays:** Duplicate the same screen on two monitors with the same resolution, chosen based on the monitor with a lower resolution.

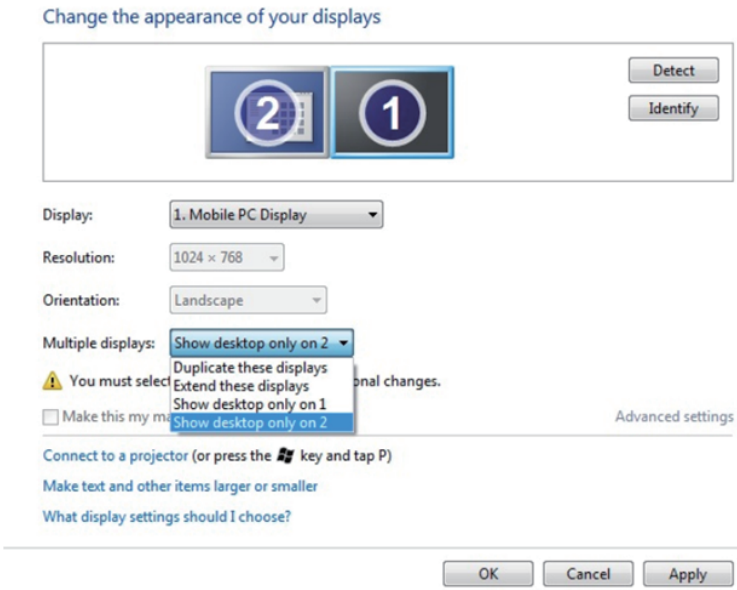
For Windows® 8/Windows® 8.1



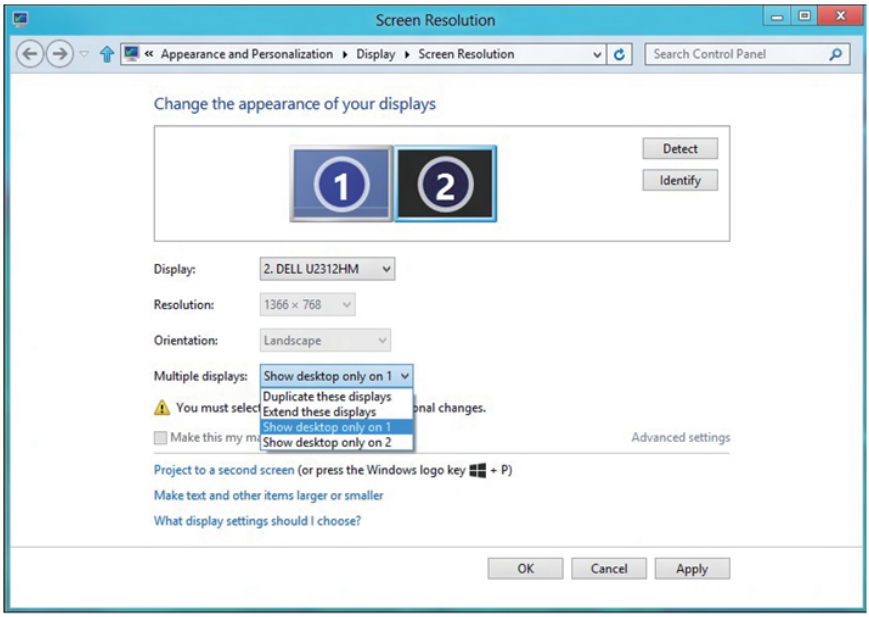
- **Show desktop only on:** Display the status of a particular monitor. This option is typically chosen when the laptop is used as a PC so the user can enjoy a large external monitor. Most current laptops support mainstream resolutions. As shown in the figure above, the resolution of the laptop monitor 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.

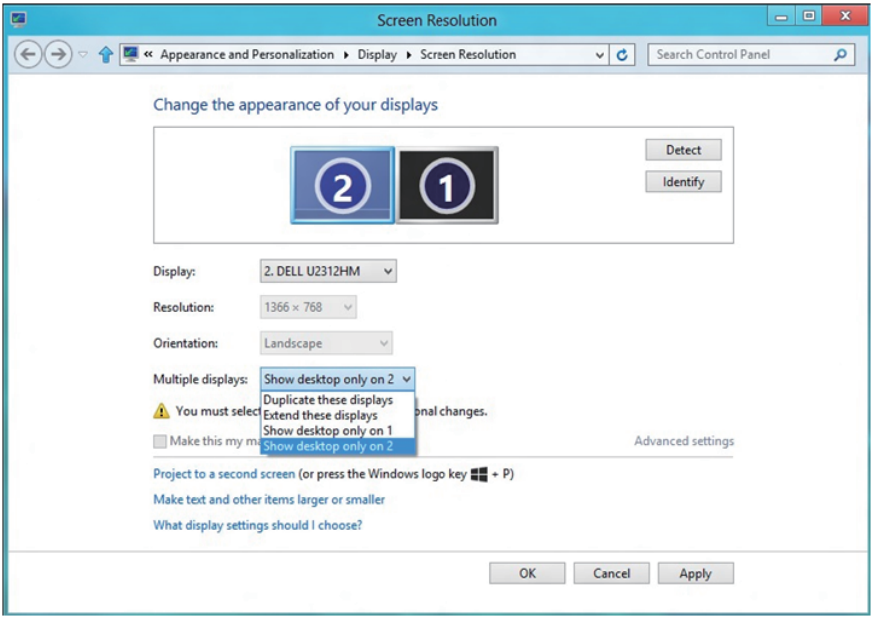
For Windows® 7





For Windows® 8/Windows® 8.1




Screen Resolution
« Appearance and Personalization ▸ Display ▸ Screen Resolution
Search Control Panel
Change the appearance of your displays
Detect
Identify
2
1
Display:
2. DELL U2312HM
Resolution:
1366 × 768
Orientation:
Landscape
Multiple displays:
Show desktop only on 2
Duplicate these displays
Extend these displays
Show desktop only on 1
Show desktop only on 2
You must select
onal changes.
Make this my ma
Advanced settings
Project to a second screen (or press the Windows logo key + P)
Make text and other items larger or smaller
What display settings should I choose?
OK
Cancel
Apply