

# User's Guide

Dell E2014T

Regulatory model: E2014Tt





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



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



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

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# About Your Monitor

## Package Contents

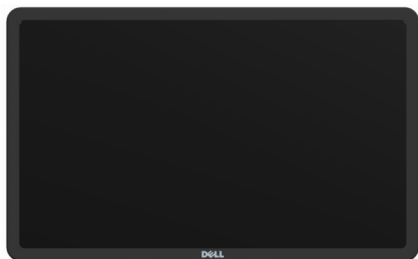
Your monitor ships with the components shown below. Make sure that you have received all the components and [contact Dell](#) if something is missing.



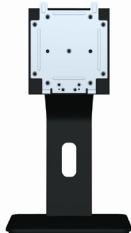
**NOTE:** Some items may be optional and may not ship with your monitor. Some features or media may not be available in certain countries.



**NOTE:** To set up with any other stand, see the documentation for the stand.



Monitor



Stand



Power cable (varies by country)



HDMI cable



USB cable (enables touch screen function on the monitor)



Screen cleaning cloth



Velcro strap



- Quick Setup Guide
- Drivers and Documentation Media
- Product and Safety Information Guide

# Features

Your monitor features the following:

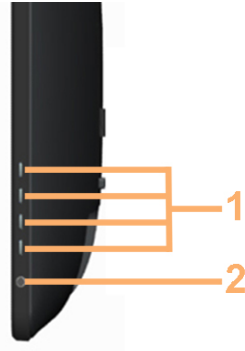
- 49.41 cm (19.5 inch) diagonal display area.
- Resolution of 1600 x 900.
- Tilt adjustment (5.5 degrees up and 31 degrees down).
- Removable stand.
- 100 mm x 100 mm Video Electronics Standards Association (VESA) compliant mounting holes.
- Plug-and-play support.
- On-Screen Display (OSD) controls for easy setup and screen optimization.
- Security cable slot.
- Stand lock.
- INF file, Image and color matching (ICM) file, Dell Display Manager software, and product documentation included in the media shipped with your monitor.
- Asset management capability.
- Energy Star compliant.
- EPEAT Gold compliant.
- BFR/PVC-reduced.
- Arsenic-free glass and mercury-free panel.
- Real-time energy gauge to check the energy being used by the monitor.
- TCO certified.

# Parts and Controls

## Front View



## Side-panel controls



Label	Description
1	Function buttons (For more information, see <a href="#">Operating the Monitor</a> )
2	Power On/Off button (with indicator light)

## Back View



Label	Description	Use
1	100 mm x 100 mm VESA mounting holes (under VESA cover)	Wall mount monitor using 100 mm x 100 mm VESA-compatible wall-mount kit.
2	Regulatory label	Lists the regulatory approvals.
3	Stand release button	Releases the stand from the monitor.

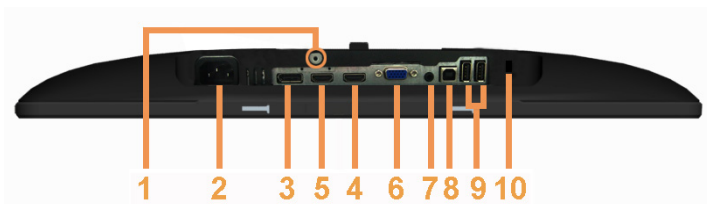


4	Barcode serial number label	Refer to this label if you need to contact Dell for technical support.
5	Dell soundbar mounting slots	Attaches the Dell Soundbar (optional).
6	Cable management slot	Organize cables by placing them through the slot.

## Side View



## Bottom View



Label	Description	Use
1	Stand lock	Use a M3 x 6 mm screw to lock the stand to the monitor. (screw not included)
2	AC power cord port	Connect the power cable.
3	DisplayPort port	Connect a DisplayPort cable from your computer to the monitor.
4	HDMI (MHL)1 port	Connect your computer with HDMI cable or portable device with MHL cable (optional).
5	HDMI (MHL)2 port	Connect your computer with HDMI cable or portable device with MHL cable (optional).
6	VGA port	To connect your computer to the monitor using a VGA cable (optional).

7	Audio line-out port	Connect speakers to playback audio coming through HDMI or DisplayPort audio channels. Only supports 2-channel audio. <b>NOTE:</b> The audio line-out port does not support headphones.
8	USB upstream port	Connect the USB cable from the monitor to the computer to allow you to use the USB ports and touch screen function on the monitor.
9	USB 2.0 downstream ports	Connect your USB device. You must connect the USB upstream cable to your monitor and computer before you can use these ports.
10	Security cable slot	Use a security cable to prevent unauthorized removal of the monitor. (security cable sold separately)

## Specifications


### Panel

Screen type	Active matrix - TFT LCD
Panel type	TN
Viewable image	
Diagonal	49.41 cm (19.5 inches)
Horizontal Active Area	432.00 mm (17.01 inches)
Vertical Active Area	239.76 mm (9.44 inches)
Area	103576.32 mm <sup>2</sup> (160.54 inch <sup>2</sup> )
Pixel pitch	0.27 mm (H) x 0.27 mm (W)
Viewing angle	
Horizontal	170 degrees (typical)
Vertical	160 degrees (typical)
Luminance	
Panel	250 cd/m <sup>2</sup> (typical)
Monitor	225 cd/m <sup>2</sup> (typical)
Contrast ratio	1000:1 (typical)
Dynamic contrast ratio	8,000,000 : 1
Faceplate coating	Anti-glare with hard coating 3H
Bezel gloss	3~5 gloss units
Touch glass gloss	>30 gloss units
	<b>NOTE:</b> The user should consider the placement of the display as the reflection of surrounding light and bright surfaces from the glass may cause disturbances to users.
Backlight	LED edgelight system

Response time	2 ms (with overdrive)
Color depth	16.77 million colors
Color gamut (typical)	72% (CIE1976) <b>NOTE:</b> Color gamut (typical) is based on CIE1976 (72%) and CIE1931 (72%) test standards.

## Touch

Type	Infrared Optical System
Panel diagonal	19.5"
Panel thickness	6.5 ± 0.3 mm
Active area	Extended beyond viewing area
Cover glass thickness	3.0 +0.0/-0.3 mm
Input method	Bare finger, thin gloves, conductive stylus
Touch point	5 touch-points
Output position resolution	32767 x 32767
Touch method	Fingers and thin gloves
Operating system	Windows 8 certified

 **NOTE:** When the monitor is in Sleep mode, move the mouse, press any key on the keyboard, or double-tap firmly on the screen to wake up the monitor.

## Resolution

Horizontal scan range	30 kHz to 83 kHz (automatic)
Vertical scan range	56 Hz to 75 Hz (automatic)
Maximum resolution	1600 x 900 at 60 Hz
Video display capabilities	480p, 576p, 720p, 1080p, and 1080i

## Electrical

Video input signals	DisplayPort 1.2 / HDMI / MHL / VGA
Synchronization input signals	<ul style="list-style-type: none"> <li>• Separate horizontal and vertical synchronizations.</li> <li>• Polarity-free TTL level</li> <li>• SOG (composite SYNC on green)</li> </ul>
AC input voltage	100 VAC to 240 VAC
Frequency	50 Hz or 60 Hz + 3 Hz
Current	1.5 A (Max.)
Inrush current	120 V:70 A (Max.) 240 V:150 A (Max.)

## Environmental Characteristics

Temperature	
Operating	0 °C to 40 °C (32 °F to 104 °F)
Non-operating	-20 °C to 60 °C (-4 °F to 140 °F)
Humidity	
Operating	10% to 80% (non-condensing)
Non-operating	5% to 90% (non-condensing)
Altitude	
Operating	5,000 m (16,400 ft) max
Non-operating	12,191 m (40,000 ft) max
Thermal dissipation	136.49 BTU/hour (maximum) 54.59 BTU/hour (typical)

## Preset Display Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/Vertical)
720 x 400	31.5	70.0	28.3	-/+
640 x 480	31.5	60.0	25.2	-/-
640 x 480	37.5	75.0	31.5	-/-
800 x 600	37.9	60.0	40.0	+/+
800 x 600	46.9	75.0	49.5	+/+
1024 x 768	48.4	60.0	65.0	-/-
1024 x 768	60.0	75.0	78.8	+/+
1152 x 864	67.5	75.0	108.0	+/+
1280 x 1024	64.0	60.0	108.0	+/+
1280 x 1024	80.0	75.0	135.0	+/+
1600 x 900	60.0	60.0	97.8	+/-

## Physical Characteristics

<b>Connector type</b>	
DisplayPort	One DisplayPort 1.2 port Maximum resolution: 1600 x 900
HDMI	Two HDMI/MHL ports Maximum resolution: 1600 x 900
VGA	One VGA port Maximum resolution: 1600 x 900

USB	One USB 2.0 upstream port Two USB 2.0 downstream ports
Audio	One audio-out port
Signal cable type	<ul style="list-style-type: none"> <li>• D-Sub</li> <li>• HDMI</li> <li>• MHL</li> <li>• DisplayPort</li> <li>• USB 2.0</li> </ul>
<b>Dimensions (with stand)</b>	
Height	376.0 mm (14.80 inches)
Width	505.9 mm (19.92 inches)
Depth	165.0 mm (6.50 inches)
<b>Dimensions (without stand)</b>	
Height	311.2 mm (12.25 inches)
Width	505.9 mm (19.92 inches)
Depth	51.7 mm (2.04 inches)
Stand dimensions	
Height	289.8 mm (11.41 inches)
Width	180.0 mm (7.09 inches)
Depth	165.0 mm (6.50 inches)
<b>Weight</b>	
Weight with packaging	6.07 kg (13.35 lb)
Weight with stand assembly and cables	4.89 kg (10.76 lb)
Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	3.43 kg (7.55 lb)
Weight of stand assembly	1.08 kg (2.38 lb)

## Power Management Modes

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

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	16 W (typical) 40 W (maximum)
Active-off mode	Inactive	Inactive	Blank	Breathing white	Less than 0.5 W
Switch off	-	-	-	Off	Less than 0.5 W



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



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

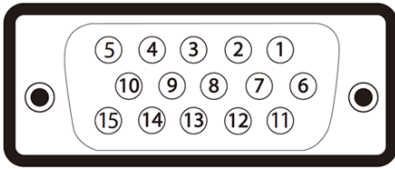
The OSD functions only in the normal operation mode. If you press any button is pressed in Active-off mode, the following message is displayed:

Dell E2014T

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.

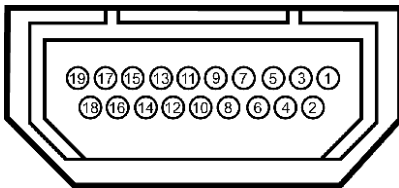
# Pin Assignments

## VGA



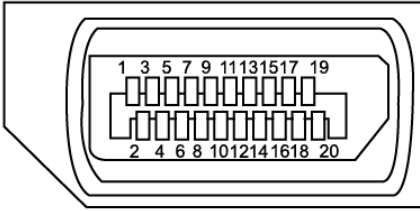
Pin Number	15-pin Side of the Connected Signal Cable	Pin Number	15-pin Side of the Connected Signal Cable
1	Video-Red	9	Computer 5 V/3.3 V
2	Video-Green	10	GND-sync
3	Video-Blue	11	GND
4	GND	12	DDC data
5	Self-test	13	H-sync
6	GND-R	14	V-sync
7	GND-G	15	DDC clock
8	GND-B		

## HDMI



Pin Number	19-pin Side of the monitor connector	Pin Number	19-pin Side of the monitor connector
1	TMDS Data 2+	11	TMDS Clock Shield
2	TMDS Data 2 Shield	12	TMDS Clock-
3	TMDS Data 2-	13	Floating
4	TMDS Data 1+	14	Floating
5	TMDS Data 1 Shield	15	DDC Clock (SDA)
6	TMDS Data 1-	16	DDC Data (SDA)
7	TMDS Data 0+	17	Ground
8	TMDS Data 0 Shield	18	+5 V Power
9	TMDS Data 0-	19	Hot plug detect
10	TMDS Clock		

# DisplayPort



Pin Number	20-pin Side of the monitor connector	Pin Number	20-pin Side of the monitor connector
1	ML0 (p)	11	GND
2	GND	12	ML3 (n)
3	ML0 (n)	13	GND
4	ML1 (p)	14	GND
5	GND	15	AUX (p)
6	ML1 (n)	16	GND
7	ML2 (p)	17	AUX (n)
8	GND	18	HPD
9	ML2 (n)	19	DP_PWR Return
10	ML3 (p)	20	+3.3 V DP_PWR

## Universal Serial Bus (USB)

This section gives you information about the USB ports available on your monitor. Your computer has the following USB ports:

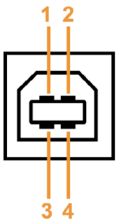
- 1 upstream
- 2 downstream



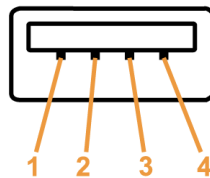
**NOTE:** The USB ports on this monitor are USB 2.0 compliant.

Transfer speed	Data Rate	Power Consumption
Hi-Speed	480 Mbps	2.5 W each port (maximum)
Full speed	12 Mbps	2.5 W each port (maximum)

### USB Upstream port




### USB Downstream port






Pin Number	Signal name
1	DMU
2	VCC
3	DPU
4	GND

Pin Number	Signal name
1	VCC
2	DMD
3	DPD
4	GND

 **NOTE:** USB 2.0 functionality requires a USB 2.0-capable computer.

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

## Plug-and-Play

You can install the monitor in any Plug-and-Play-compatible computer. The monitor automatically provides its Extended Display Identification Data (EDID) to the computer using Display Data Channel (DDC) protocols so the system can configure itself and optimize the monitor settings. Most monitor installations are automatic; you can select different settings if desired. For more information about changing the monitor settings, see [Operating the Monitor](#).

## LCD Monitor Quality and Pixel Policy

During the LCD Monitor manufacturing process, it is not uncommon for one or more pixels to become fixed in an unchanging state. These are hard to see and do not affect the display quality or usability. For more information on Dell Monitor Quality and Pixel Policy, see [dell.com/support/monitors](http://dell.com/support/monitors).

## Maintenance Guidelines

### Cleaning Your Monitor

 **WARNING:** Read and follow the [safety instructions](#) before cleaning the monitor.

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

For best practices, follow these instructions while unpacking, cleaning, or handling your monitor:

- To clean your screen, use a soft, clean cloth lightly dampened with water. You can also use special screen-cleaning tissue or solution suitable for the antistatic coating. To avoid using detergent of any kind as some detergents leave a milky film on the monitor, use a lightly-dampened, warm cloth to clean the monitor.

**△ CAUTION: Do not use benzene, thinner, ammonia, abrasive cleaners, or compressed air.**

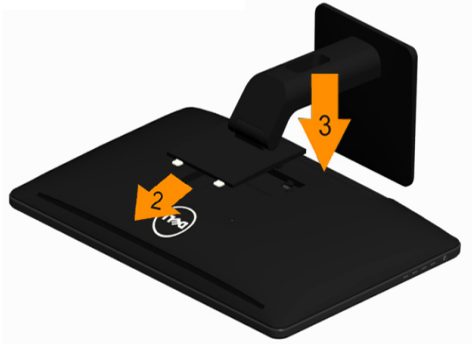
- Use a lightly-dampened, warm cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a soft and clean cloth.
- Handle your monitor with care to avoid scratches and scuff marks.
- To help maintain the best image quality on your monitor, use a dynamically changing screen saver and turn off your monitor when not in use.

## Setting Up the Monitor

### Attaching the Stand

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

**🔪 NOTE:** If you purchased a different stand for your monitor, see the documentation for that stand for setup instructions.



To attach the monitor stand:

1. Place the monitor on a flat surface.
2. Insert the two tabs on the upper part of the stand to the groove in the back of the monitor.
3. Press-down on the stand till it snaps into its place.

# Connecting Your Monitor

**⚠ WARNING:** Follow the [Safety Instructions](#) before you perform any of the procedures in this section,

To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable from the wall outlet.
2. Connect the USB cable and only one of the following display cables to your computer:

computer:

- VGA cable,
- DisplayPort cable, or
- HDMI cable

**📌 NOTE:** Do not connect multiple display cables to the same computer.

## Connecting the VGA Cable



## Connecting the DisplayPort Cable




## Connecting the HDMI Cable



## Connecting the USB Cable




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


## Organizing Cables

After you connect all necessary cables to your monitor and computer, use the cable-management slot to organize the cables.



## Removing the Stand

 **NOTE:** To avoid scratching on the LCD screen while removing the stand, make sure that the monitor is placed on a clean surface.

 **NOTE:** If you purchased a different stand for your monitor, see the documentation for that stand for setup instructions.



To remove the stand:

1. Place the monitor on a flat surface.
2. Press and hold the Stand release button.
3. Lift the stand up and away from the monitor.

## Wall Mounting (Optional)



**NOTE:** Use M4 x 10 mm screws to mount your display. For more details, see the instructions that came with the VESA-compatible wall-mounting kit.

1. Place the monitor on a soft cloth or cushion on a stable flat table.
2. Remove the stand.
3. Use a screwdriver to remove the four screws that secure the back cover.
4. Attach the mounting bracket from the wall-mounting kit to the monitor.
5. Mount the monitor on the wall by following the instructions that came with the wall mounting kit.



**NOTE:** For use only with UL-listed wall-mount bracket with minimum weight/load bearing capacity of 3.43 kg.






# Operating the Monitor

## Side-Panel Controls

Use the control buttons on the front of the monitor to adjust monitor and image settings. Pressing these buttons displays the OSD with the details of the settings that you can change.







The following table describes the front panel buttons:

Front-panel button	Description
1  Shortcut key: Preset Modes	Use this button to choose from a list of preset color modes.
2  Shortcut key: Brightness/Contrast	Use this button to directly access the Brightness/Contrast menu.
3  Menu	Use this button to launch the On-Screen Display (OSD) and select options in the OSD. See <a href="#">Accessing the Menu System</a> .
4  Exit	Use this button to go back to the main menu or exit the OSD main menu.
5  Power (with power light indicator)	Use this button to turn the monitor turn-on or turn-off the monitor. A solid white light on this button indicates the monitor is On and fully functional. A blinking/breathing white LED indicates DPMS power save mode.

## Front-Panel Button


Use the buttons on the right side of the monitor to adjust the image settings.




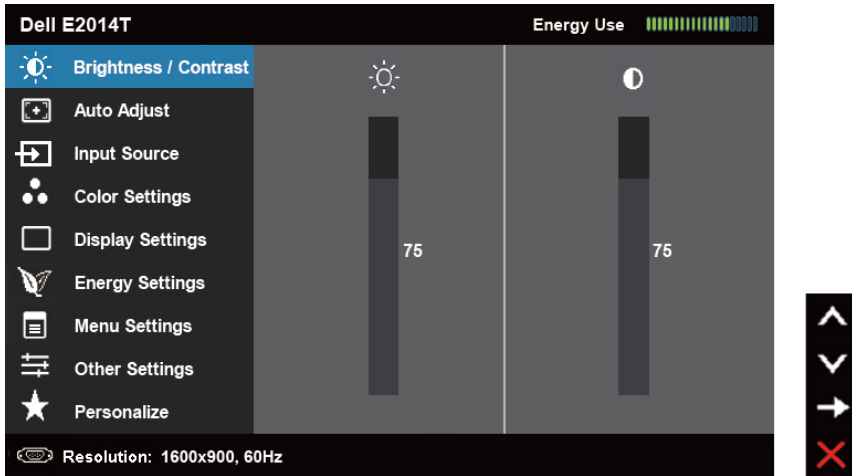
Button	Description
1  Up  Down	Use the Up (increase) and Down (decrease) keys to adjust items in the OSD menu.
2  OK	Use the OK key to confirm your selection.
3  Back	Use the Back key to go back to the previous menu.


# Using the On-Screen Display (OSD) Menu












## Accessing the Menu System

 **NOTE:** Any changes you make using the OSD menu are automatically saved if you move to another OSD menu, exit the OSD menu, or wait for the OSD menu to disappear.

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



 **NOTE:** Auto Adjust feature is only available when you use the VGA connector.

2. Press the  and  buttons to move between the OSD menu options. As you move from one icon to another, the option name is highlighted. See the following table for a complete list of all the options available for the monitor.
3. Press the  or  button once to activate the highlighted option.
4. Press the  and  buttons to select the desired parameter.
5. Press  to enter the slide bar and then use the  or  button, according to the indicators on the menu, to make your changes.
6. Press the  button once to return to the main menu to select another option or press the  button two or three times to exit from the OSD menu.



# OSD Options

## Menu and Submenus

## Description

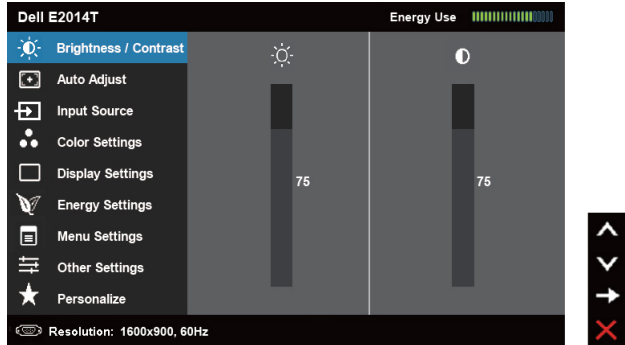
### Energy Use

This meter shows, in real time, the energy level being consumed by the monitor.

Use this menu to activate Brightness/Contrast adjustment.





### Brightness/Contrast



### Brightness



Brightness adjusts the luminance of the backlight (minimum 0; maximum 100).

Press the  button to increase brightness.

Press the  button to decrease brightness.

**NOTE:** Brightness control is disabled during "Screen dim" in PowerNap option when screen saver is activated.

### Contrast

Press the  button to increase contrast and Press the  button to decrease contrast (between 0 and 100).

Adjust Brightness first, and then adjust Contrast only if further adjustment is necessary.

Contrast adjusts the difference between darkness and lightness on the monitor.

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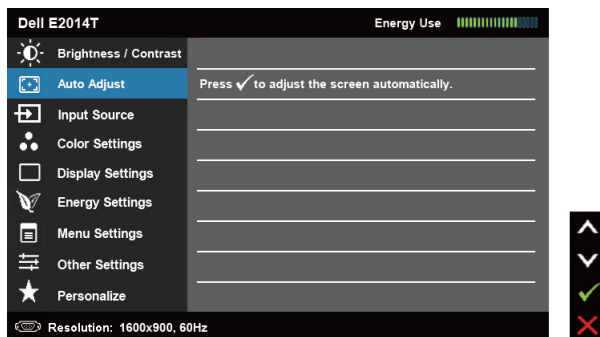
Menu and Submenus	Description
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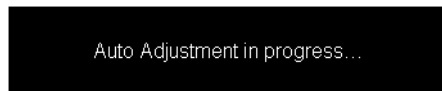
The Auto Adjust feature optimizes the display settings for use with your setup. Auto Adjust feature allows the monitor to automatically adjust to the incoming video signal. After using Auto Adjust feature, you can further tune your monitor by using the Pixel Clock and Phase controls under Displays Settings.



### Auto Adjust



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



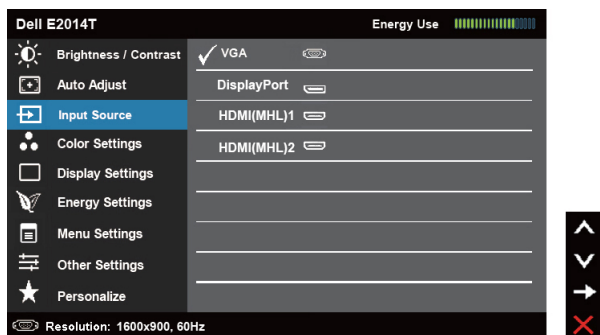
**NOTE:** In most cases, Auto Adjust produces the best image for your configuration.

**NOTE:** Auto Adjust feature option is only available when your monitor is connected using the VGA cable.

Use the Input Source menu to select between different video inputs that are be connected to your monitor.




### Input Source




**Menu and Submenus**

**Description**


VGA

Select VGA and press  when your computer and monitor are connecting using the VGA cable.

DisplayPort

Select DisplayPort and press  when your computer and monitor are connecting using the DisplayPort cable.

HDMI(MHL)1

Select HDMI(MHL)1 and press  when your computer and monitor are connecting using the HDMI(MHL)1 cable.

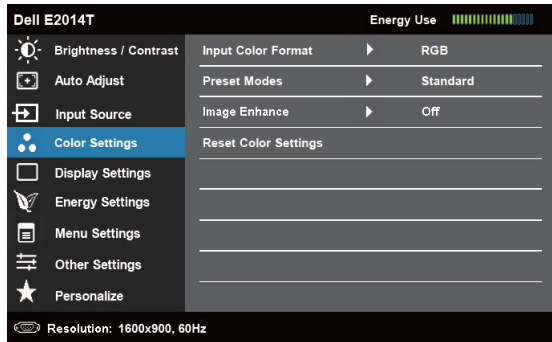
HDMI(MHL)2

Select HDMI(MHL)2 and press  when your computer and monitor are connecting using the HDMI(MHL)2 cable.

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



**Color Settings**



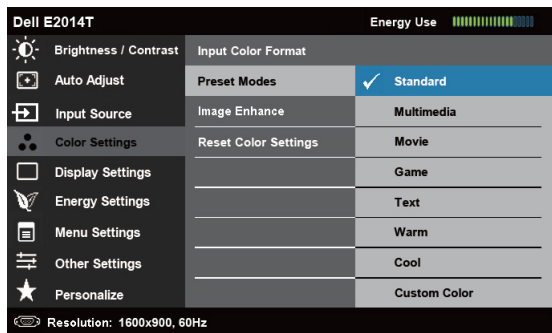
**Input Color Format**

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 VGA and HDMI cable.

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

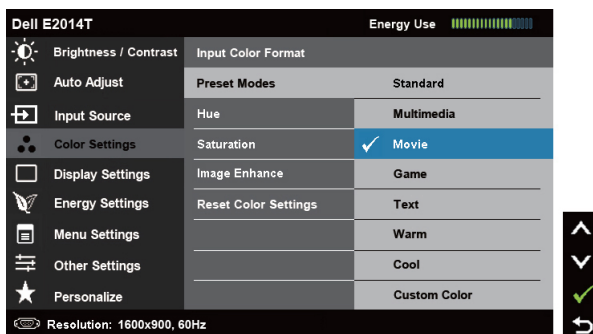
**Preset Mode**



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<b>Menu and Submenus</b>	<b>Description</b>
--------------------------	--------------------

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**Preset Mode**

Standard: Default color settings. This is the default preset mode.

Multimedia: Ideal for multimedia applications.



Movie: Ideal for movies.

Game: Ideal for most gaming applications.

Text: Ideal for office

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  buttons to adjust the Red, Green, and Blue values and create your own preset color mode.

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**Image Enhance**

Automatically sharpen images, enhance hues, and boost color contrast to enhance image clarity.



**NOTE:** Image Enhance is only available for Standard, Multimedia, Movie, and Game modes.


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**Hue**

Shift color of video image to green or purple.

Use this setting to achieve the desired flesh tone.





Use  or  to adjust the hue from 0 to 100.

Press  to increase the green shade.

Press  to increase the purple shade.

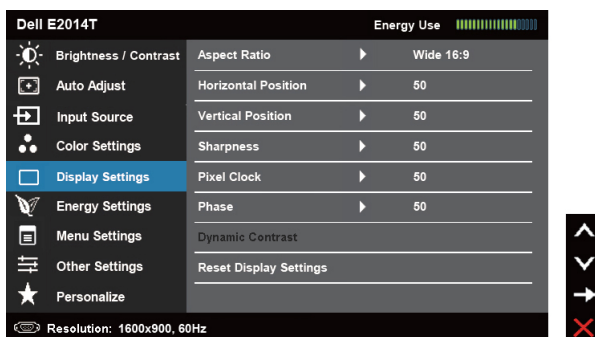
**NOTE:** Hue adjustment is available only for Movie and Game mode.









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Menu and Submenus	Description
<b>Saturation</b>	<p>This feature adjusts the color saturation of the video image. Use  or  to adjust the saturation from 0 to 100.</p> <p>Press  to increase the monochrome appearance. Press  to increase the colorful appearance.</p> <p><b>NOTE:</b> Saturation adjustment is available only for video input.</p>
<b>Reset Color Settings</b>	Resets your monitor's color settings to the factory defaults.



## Display Settings

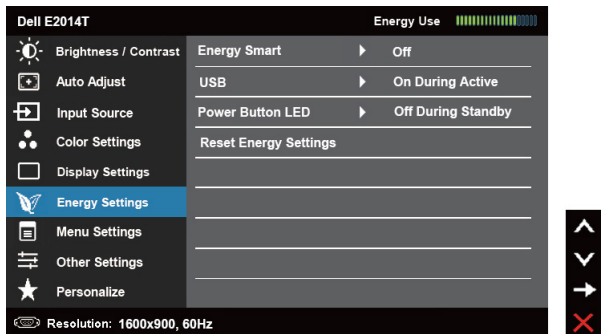


<b>Aspect Ratio</b>	Adjust the image ratio to Wide 16:9, 4:3, or 5:4.
<b>Horizontal Position</b>	Adjusts the horizontal position of the image. Use the  and  buttons to change the image position.
<b>Vertical Position</b>	Adjusts the vertical position of the image. Use the  and  buttons to change the image position.
<b>Sharpness</b>	Makes the image look sharper or softer. Use  or  to adjust the sharpness.
<b>Pixel Clock</b>	<p>The Phase and Pixel Clock adjustments allow you to adjust your monitor to your preference. Use the  and  buttons to adjust for best image quality.</p>
<b>Phase</b>	<p>If satisfactory results are not obtained using the Phase adjustment, use the Pixel Clock (coarse) adjustment and then use Phase (fine), again.</p> <p><b>NOTE:</b> Pixel Clock and Phase Adjustments are only available when your monitor is connected using the VGA cable.</p>

Menu and Submenus	Description
<b>Dynamic Contrast</b>	Dynamic Contrast adjusts the contrast ratio to 8,000,000 : 1. Push the  button to select the Dynamic Contrast "On" or "Off".
<b>Reset Display Settings</b>	Restores the display settings to factory defaults.



**Energy Settings**



<b>Energy Smart</b>	Turn-on or turn-off dynamic dimming. Energy Smart turned "on" will activate the dynamic dimming. With Energy Smart turned on, the monitor will consume overall less power compared to when Energy Smart is turned "off". <b>NOTE:</b> Under Energy Smart mode, the energy usage bar will decrease when transitioning from bright scenes to darker scenes. The energy usage bar will increase when transitioning from dark scenes to bright scenes.
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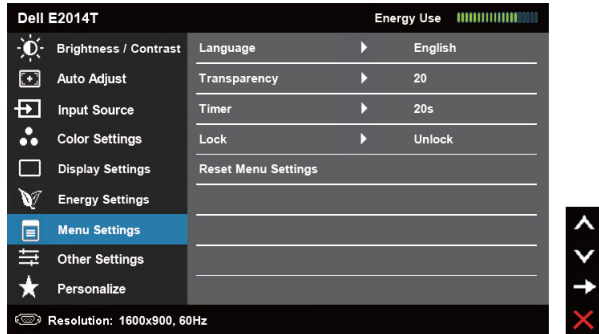
	System			
<b>USB</b>	Monitor status	On	Standby	Off
	Monitor with upstream connected	On (Disabled)	On (Disabled)	Off (Disabled)
	Monitor without upstream connected	On	Off/On* (depends on OSD selections)	Off

<b>Power Button LED</b>	Allows you to set the state of the power light to save energy.
<b>Reset Energy Settings</b>	Restores the energy settings to factory defaults.

Menu and Submenus	Description
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### Menu Settings



<b>Language</b>	Set the OSD display to one of eight languages. English, Espanol, Francais, Deutsch, Brazilian Portuguese, Russian, Simplified Chinese, or Japanese.
<b>Transparency</b>	This function is used to change the OSD background from opaque to transparent.
<b>Timer</b>	OSD Hold Time: Sets the length of time the OSD remains active after you press a button. Use the  and  buttons to adjust the slider in 1-second increments, from 5 to 60 seconds.
<b>Lock</b>	Controls user access to adjustments. When Lock is selected, no user adjustments are allowed. All buttons are locked. <b>NOTE:</b> Lock function – Either soft lock (through OSD menu) or hard lock (Press and hold the button above power button for 10 sec) Unlock function – Only hard unlock (Press and hold the button above power button for 10 sec)
<b>Reset Menu Settings</b>	Restore the menu settings to factory defaults.

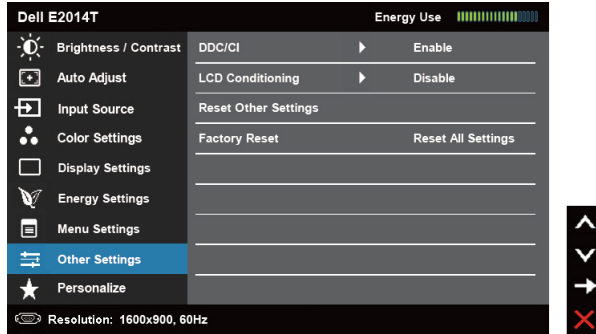
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Menu and Submenus	Description
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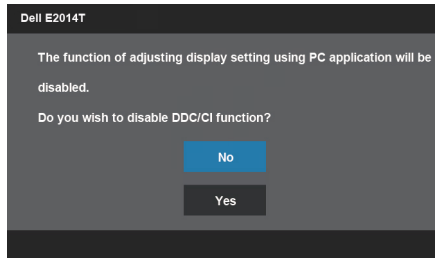
## Other Settings



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

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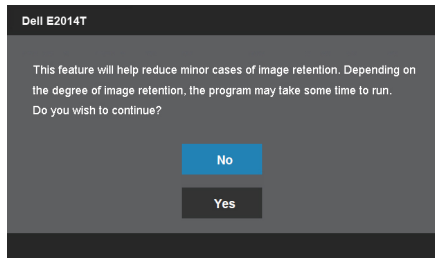
## DDC/CI



DDC/CI (Display Data Channel/Command Interface) allows you to adjust the monitor settings using software on your computer. Enable this feature for best user experience and optimum performance of your monitor. Select Disable to turn off this feature.

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## LCD Conditioning



Helps reduce minor cases of image retention. Depending on the degree of image retention, the program may take some time to run. Select Enable to start the process.

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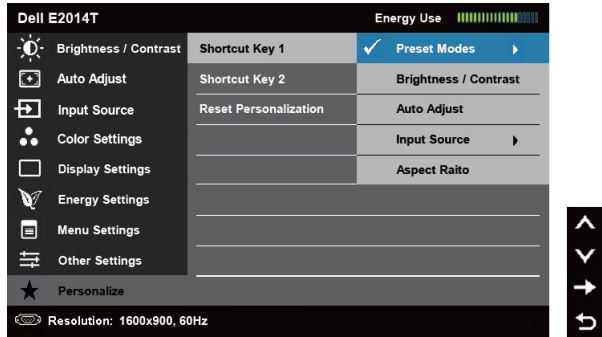
**Menu and Submenus****Description****Reset Other Settings**

Restores other settings, such as such as DDC/CI, to factory defaults.

**Factory Reset**

Restores all OSD settings to the factory defaults.

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**Personalize**

Select from Preset Modes, Brightness/Contrast, Auto Adjust, Input Source, Aspect Ratio and set as shortcut key.

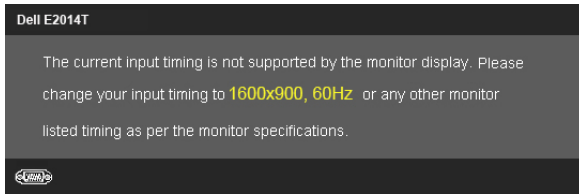
**Reset Personalization**

Restores shortcut keys to factory defaults.

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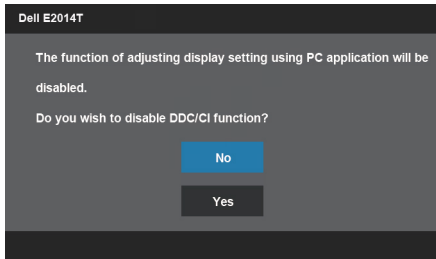
## OSD Warning Messages

When the monitor does not support a display resolution, the following message appears:

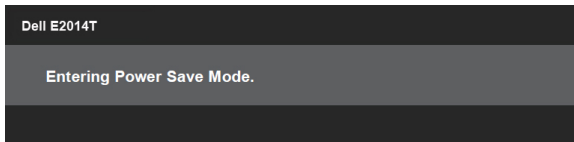


This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See Specifications for the frequency ranges addressable by this monitor. Recommended mode is 1600 x 900.

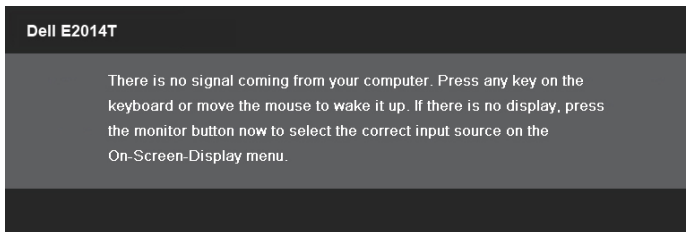
The following message before the DDC/CI function is disabled.



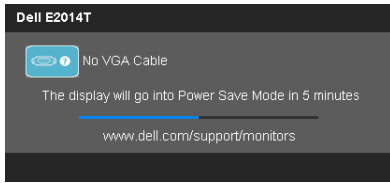
The following message is displayed when monitor enters Power Save mode.



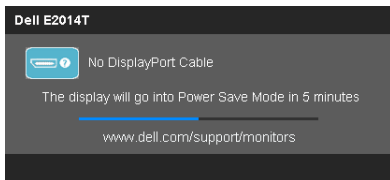
Activate the computer and wake up the monitor to gain access to the OSD. If you press any button other than the power button, the following message appears:



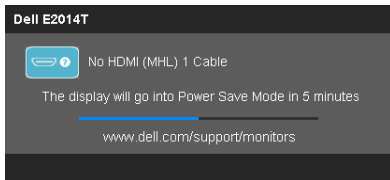
If you set the input to a particular mode but the cable for that mode (VGA, DP, or HDMI) is disconnected, one of the following messages appears, depending on the selected input.



or



or



For help on resolving errors, see Troubleshooting.

## Setting the Maximum Resolution

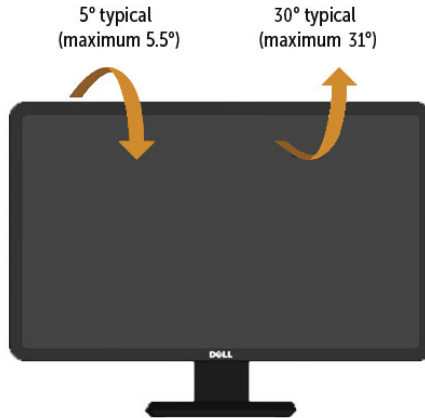
In Windows Vista®, Windows® 7 or Windows® 8 / Windows® 8.1 :


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 1600 x 900.
4. Click OK.

If you do not see 1600 x 900 as an option, you may need to update your graphics driver. See [Appendix](#).

# Tilt

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



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

# Troubleshooting

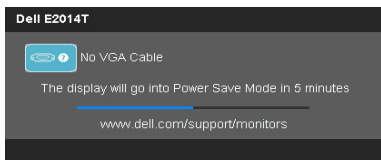
 **CAUTION:** Follow the [Safety Instructions](#) before you perform any of the procedures in this section,

## Self-Test

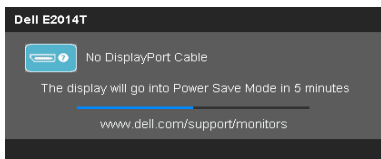
Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off both your computer and the monitor.
2. Unplug all video cables from the back of computer.
3. Turn on the monitor.

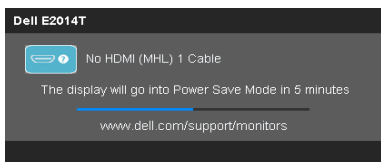
The floating dialog box appears on the screen (against a black background) if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains blue. depending upon the selected input, one of the following messages continuously scroll through the screen.




or



or



 **NOTE:** This message also appears during normal operation if the display cable gets disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after you use the self test, check your video controller and computer, it shows monitor has a problem.

# Built-in Diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if the problems with your monitor, or with your computer and video card.



**NOTE:** You can run the built-in diagnostics only when no display cables are connected and the monitor is in self-test mode.



To run the built-in diagnostics:

1. Make sure that the screen is clean
2. Unplug the video cable(s) from the computer or monitor.  
The monitor enters the self-test mode.
3. Press and hold button 1 and Button 4 simultaneously for 2 seconds.  
A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press button 4 again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat step 5 and step 6 to inspect the display in green, blue, black, white, and text screens.

The test is complete when the text-screen appears. To exit, press button 4 again. If you do not see any screen abnormalities while running the built-in diagnostic, the monitor is functioning properly. Check the computer and video card for problems.

# Common Problems

The following table contains information about resolving common monitor problems.

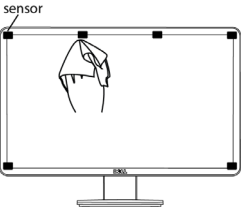
Common Symptoms	What You Experience	Possible Solutions
No Video (Power light off)	No picture	<ul style="list-style-type: none"> <li>• Make sure the display cable connecting the monitor and the computer is properly connected and secure.</li> <li>• Make sure the power outlet is functioning properly using any other electrical equipment.</li> <li>• Make sure the power button is not pressed-in.</li> <li>• Make sure the correct input source is selected using the Input Source Select button.</li> <li>• Check the <b>Power Button LED</b> option under <b>Energy Settings</b> in OSD Menu.</li> </ul>
No Video (Power light on)	No picture or no brightness	<ul style="list-style-type: none"> <li>• Increase brightness and contrast using OSD.</li> <li>• Perform monitor self-test.</li> <li>• Check for bent or broken pins on the display cable and the ports.</li> <li>• Run the built-in diagnostics.</li> <li>• Make sure the correct input source is selected using the Input Source Select button.</li> </ul>
Poor Focus	Picture is fuzzy, blurry, or ghosting	<ul style="list-style-type: none"> <li>• Perform Auto Adjust using OSD.</li> <li>• Adjust the Phase and Pixel Clock using OSD.</li> <li>• Eliminate video extension cables.</li> <li>• Reset the monitor to factory settings.</li> <li>• Change the video resolution to the correct aspect ratio (16:9).</li> </ul>
Shaky/Jittery Video	Wavy picture or fine movement	<ul style="list-style-type: none"> <li>• Perform Auto Adjust using OSD.</li> <li>• Adjust the Phase and Pixel Clock using OSD.</li> <li>• Reset the monitor to factory settings.</li> <li>• Check environmental factors.</li> <li>• Relocate the monitor and test in another room.</li> </ul>
Missing Pixels Stuck-on Pixels	LCD screen has spots	<ul style="list-style-type: none"> <li>• Turn off the monitor, disconnect and reconnect the power cable, and turn on the monitor.</li> <li>• Pixel that is permanently off is a natural defect that can occur in LCD technology.</li> </ul> <p>For more information on Dell Monitor Quality and Pixel Policy, see Dell support site at <a href="http://dell.com/support/monitors">dell.com/support/monitors</a>.</p>

<b>Common Symptoms</b>	<b>What You Experience</b>	<b>Possible Solutions</b>
Brightness Problems	Picture too dim or too bright	<ul style="list-style-type: none"> <li>• Reset the monitor to factory settings.</li> <li>• Auto Adjust using OSD.</li> <li>• Adjust brightness and contrast using the OSD</li> </ul>
Geometric Distortion	Screen not centered correctly	<ul style="list-style-type: none"> <li>• Reset the monitor to factory settings.</li> <li>• Auto Adjust using OSD.</li> <li>• Adjust horizontal and vertical positions using OSD.</li> </ul>
Horizontal/ Vertical Lines	Screen has one or more lines	<ul style="list-style-type: none"> <li>• Reset the monitor to factory settings.</li> <li>• Perform Auto Adjust using OSD.</li> <li>• Adjust Phase and Pixel Clock using OSD.</li> <li>• Perform monitor self-test and determine if the lines appear in the self-test mode.</li> <li>• Check for bent or broken pins on the display cable and the ports.</li> <li>• Run the built-in diagnostics.</li> </ul>
Synchronization Problems	Screen is scrambled or appears torn	<ul style="list-style-type: none"> <li>• Reset the monitor to factory settings.</li> <li>• Perform Auto Adjust using OSD.</li> <li>• Adjust Phase and Pixel Clock using OSD.</li> <li>• Perform monitor self-test check to determine if the problem appears in self-test mode.</li> <li>• Check for bent or broken pins on the display cable and the ports.</li> <li>• Restart the computer in safe mode.</li> </ul>
Intermittent Problems	Monitor malfunctions on and off	<ul style="list-style-type: none"> <li>• Make sure the display cable connecting the monitor to the computer is connected properly and is secure.</li> <li>• Reset the monitor to factory settings.</li> <li>• Perform monitor self-test to determine if the intermittent problem occurs in self-test mode.</li> </ul>
Missing Color	Picture missing color	<ul style="list-style-type: none"> <li>• Perform monitor self-test.</li> <li>• Make sure the display cable connecting the monitor to the computer is connected properly and is secure.</li> <li>• Check for bent or broken pins on the display cable and the ports.</li> </ul>



Common Symptoms	What You Experience	Possible Solutions
Wrong Color	Picture color not good	<ul style="list-style-type: none"> <li>• Change the Color Setting Mode in the Color Settings OSD to Graphics or Video depending on the application.</li> <li>• 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.</li> <li>• Change the Input Color Format to PC RGB or YPbPr in the Advance Setting OSD.</li> <li>• Run the built-in diagnostics.</li> </ul>
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"> <li>• Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power Management Modes).</li> <li>• Use a dynamically changing screen saver.</li> </ul>
Safety Related Issues	Visible signs of smoke or sparks	Do not perform any troubleshooting steps. Contact Dell immediately.

# Touchscreen Problems

Specific Symptoms	What You Experience	Possible Solutions
Touch report error	Touch function miss alignment or no touch function	<ul style="list-style-type: none"> <li>• Use the Dell provided USB cable to connect your computer.</li> <li>• Make sure the power cable has a ground pin.</li> <li>• Unplug and replug the power cable from the power adapter to allow auto-recalibration of the touch module.</li> <li>• Make sure computer support USB 2.0 or later.</li> <li>• If the display cannot be detected by the computer, power off/on the monitor or unplug and replug the USB cable.</li> <li>• Please do not cover the surface or surroundings of the screen with your hands or any other objects every time the monitor is turned on;and please wait until the USB driver installation at the bottom-right corner of the screen is completed after the monitor is turned on before performing any touch screen operations.</li> <li>• Please avoid covering the beam with other objects (such as sleeves) besides performing touch screen operations with your finger during operation, as doing so may affect the transmitting and receiving by the sensor lens.</li> <li>• Wipe softly to clean the dust on the six sensor lens with soft and clean cloth when touch function miss alignment or no touch function.</li> </ul>
		
Touch screen non-responsive in power-save mode	Cannot wake up monitor and computer by using touch in power-save mode	<ol style="list-style-type: none"> <li>1. Access Device Manager, expand HID Interface Device under Human Device.</li> <li>2. Right click HID- compliant device, click Properties and select the check-box to allow the device to wake the computer.</li> </ol>
Windows 7 and Windows 8 / Windows 8.1 Calibration	Cursor does not accurately follow your finger when you touch the screen	<ol style="list-style-type: none"> <li>1. Open Control Panel, open Hardware and Sound, and then open Tablet PC Settings.</li> <li>2. Select Calibration.</li> <li>3. Follow the instructions to recalibrate your screen</li> </ol>

**NOTE:** When the monitor is in Sleep mode, move the mouse, press any key on the keyboard, or double-tap firmly on the screen to wake up the monitor.

## 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"> <li>• Check the aspect ratio in Image Setting OSD menu</li> <li>• Reset the monitor to factory settings.</li> </ul>
Cannot adjust the monitor settings using the buttons on the front panel	OSD does not appear on the screen	Turn off the monitor, disconnect and reconnect the power cable, and turn on the monitor.
No input signal when controls are pressed	No picture, the light is white.	<ul style="list-style-type: none"> <li>• Check the signal source.</li> <li>• Make sure the computer is not in power saving mode, by moving the mouse or pressing a key on the keyboard.</li> <li>• Make sure your computer or other video-output device is powered on and playing video media.</li> <li>• Make sure the display cable connecting the monitor to the computer is connected properly and is secure.</li> <li>• Unplug and replug the display cable.</li> <li>• Restart the computer or video player.</li> </ul>
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"> <li>• Due to different video formats and aspect ratios of DVDs, the monitor may not display the video in full screen.</li> <li>• Run the built-in diagnostics.</li> </ul>

# Universal Serial Bus (USB) Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
USB interface is not working	USB peripherals are not working	<ul style="list-style-type: none"><li>• Make sure your monitor is turned on.</li><li>• Disconnect and reconnect the upstream cable to your computer.</li><li>• Disconnect and reconnect the USB peripherals (downstream connector).</li><li>• Turn off and turn on the monitor.</li><li>• Reboot the computer.</li><li>• Some USB devices require higher electric current; connect the device directly to the computer system.</li></ul>
High Speed USB 2.0 interface is slow.	High Speed USB 2.0 peripherals working slowly or not working at all	<ul style="list-style-type: none"><li>• Check that your computer is USB 2.0-compliant.</li><li>• Some computers have USB 2.0 ports. Ensure that the correct USB port is used.</li><li>• Disconnect and reconnect the upstream cable to your computer.</li><li>• Reconnect the USB peripherals (downstream connector).</li><li>• Restart the computer.</li></ul>

# Appendix

## 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 [dell.com/regulatory\\_compliance](http://dell.com/regulatory_compliance).

## Contacting Dell

 **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 contact Dell for sales, technical support, or customer service issues.

1. Go to [dell.com/support](http://dell.com/support).
2. Verify your country or region on the top-left of the page.
3. Click **Contact Us**.
4. **Click the appropriate service or support link based on your need.**

# Setting Display Resolution to 1600 x 900 (maximum)

For maximum display performance while using the Microsoft Windows operating systems, set the display resolution to 1600 x 900 pixels by performing the following steps:

## Windows XP

1. Right-click on the desktop and click Properties.
2. Select the Settings tab.
3. Move the slider-bar to the right by pressing and holding the left-mouse button and adjust the screen resolution to 1600 x 900.
4. Click OK.

## Windows Vista, Windows 7, or Windows 8 / Windows 8.1

1. Right-click on the desktop and click Personalization.
2. Click Change Display Settings.
3. Move the slider-bar to the right by pressing and holding the left-mouse button and adjust the screen resolution to 1600 x 900.
4. Click OK.

# Downloading Latest Video Drivers

## Dell computer

1. Go to [dell.com/support](http://dell.com/support), enter the Service Tag of your computer, and download the latest driver for your video card.
2. After installing the drivers, try setting the resolution to 1600 x 900 again.

If you are unable to set the resolution to 1600 x 900 even after updating the video drivers, contact Dell technical support.

## Non-Dell computer or video card

### Windows XP

1. Right-click on the desktop and click Properties.
2. Select the Settings tab.
3. Select Advanced.
4. Identify your video card manufacturer (such as NVIDIA, ATI, Intel, and so on) from the description at the top of the window.
5. See the computer or video-card manufacturer's website for updated drivers.

### Windows Vista, Windows 7, or Windows 8 / Windows 8.1

1. Right-click on the desktop and click Personalization.
2. Click Change Display Settings.
3. Click Advanced Settings.

4. Identify your video card manufacturer (such as NVIDIA, ATI, Intel, and so on) from the description at the top of the window.
  5. See the computer or video-card manufacturer's website for updated drivers.
- After installing the updated drivers for your video card, try setting the resolution to 1600 x 900 again. If you are unable to set the resolution to 1600 x 900, contact the manufacturer of your computer or consider purchasing a graphics adapter that supports the resolution of 1600 x 900.

## Setting up Dual Monitors

Connect the external monitor(s) to your computer and follow any of the below setup method.

### Using keyboard shortcut

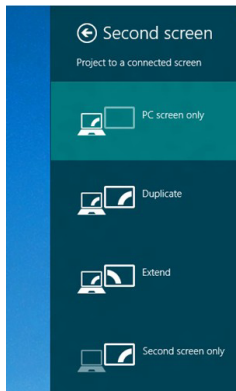


1. Press the Windows key + <P> on your keyboard.
2. While holding down the Windows logo key, press <P> to toggle between the display selections.

#### Windows Vista and Windows 7



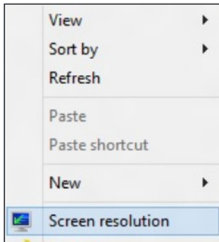
#### Windows 8 / Windows 8.1



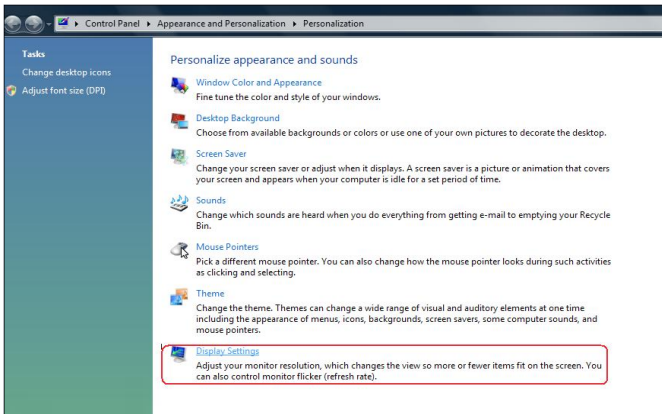
# Using display settings

## Windows Vista

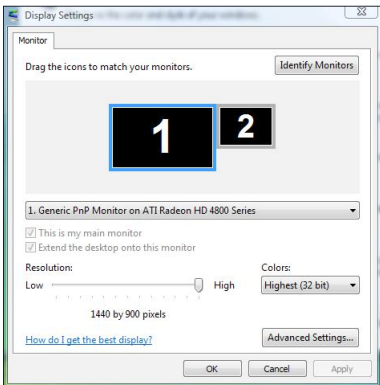
1. Right-click on the desktop and click **Personalize**.



2. Click **Display Settings**.



3. Click Identify Monitors and select the appropriate options.

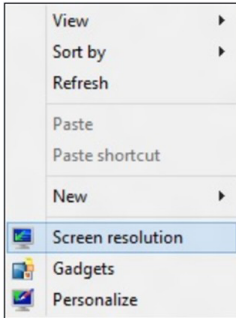


**NOTE:** If your computer does not detect the second monitor, restart your computer and repeat step 1 to step 3.

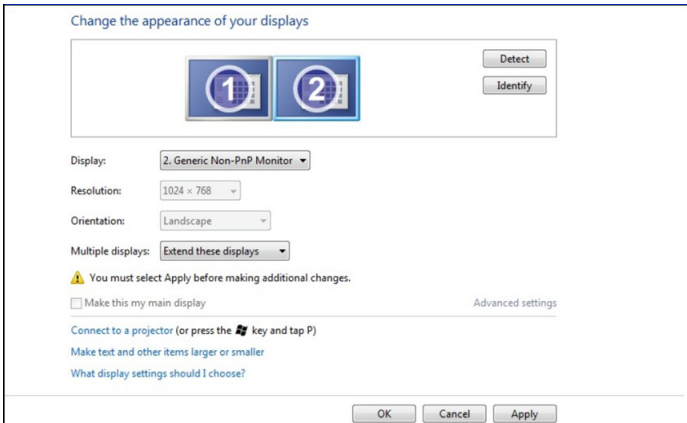


## Windows 7

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**.



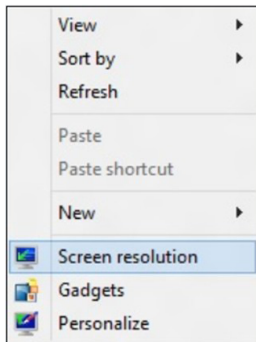
**NOTE:** If your computer does not detect the second monitor, restart your computer and repeat step 1 to step 3.

## Windows 8 / Windows 8.1

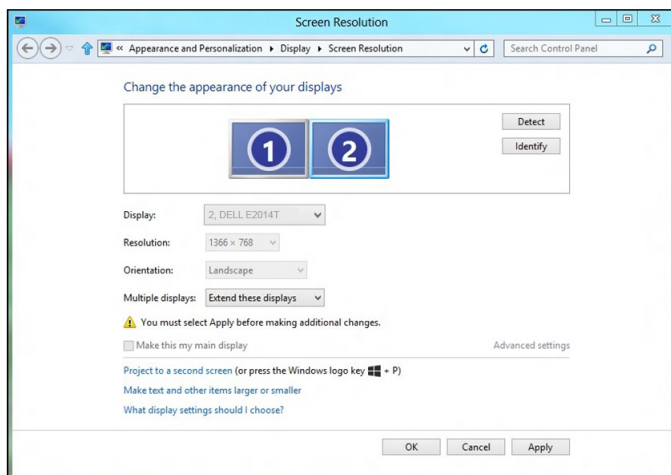
1. From the **Start** screen, select **Desktop** tile to switch to the classic Windows desktop.




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**.



 **NOTE:** If your computer does not detect the second monitor, restart your computer and repeat step 1 to step 3.

# Display Styles For Multiple Monitors

After connecting external monitors, you can choose to duplicate, extend, or use only one of the monitors.

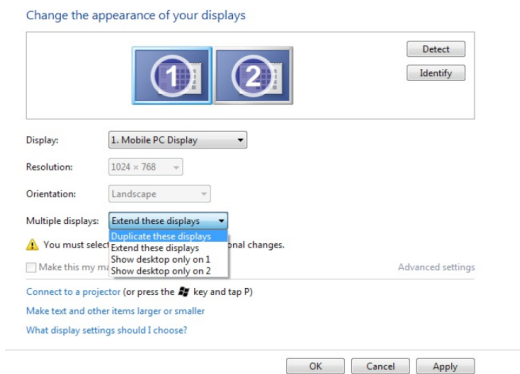
## Duplicate displays

This option shows the same content on all monitors. The resolution of all monitors is set to match the monitor with the minimum resolution.

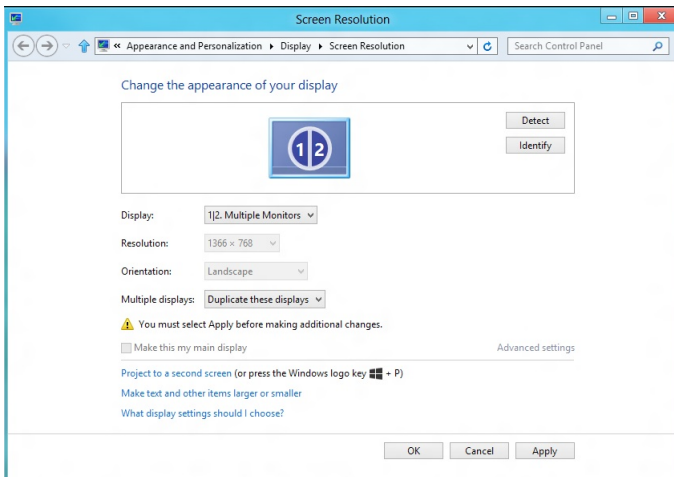
## Windows Vista

[DUPLICATE NOT AVAILABLE]

## Windows 7



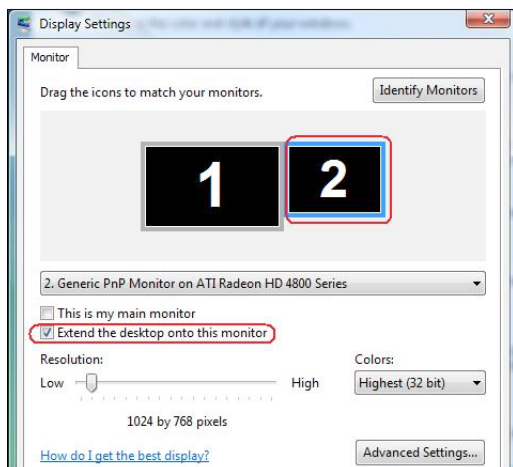
## Windows 8 / Windows 8.1



## Extend displays

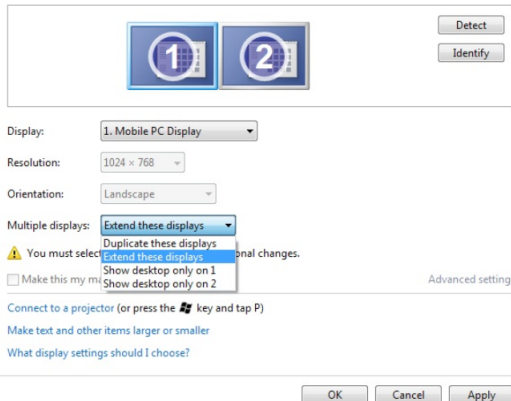
This option shows separate content on the selected monitors. The resolution of each monitor can be set independently. You can set the relative position of the displays. you can match the location of the screen relative to the physical placement of the monitors, such as left, right, top, bottom, and so on. To set the position, drag the monitor icons to the desired position.

## Windows Vista

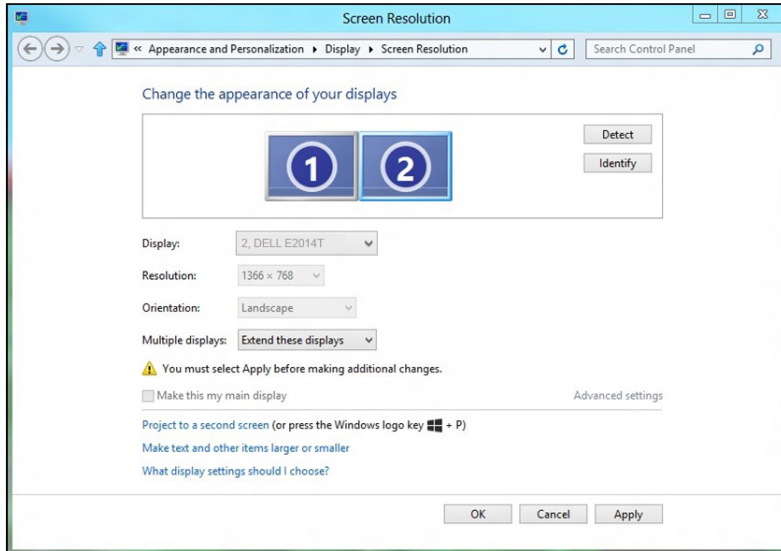


## Windows 7

Change the appearance of your displays



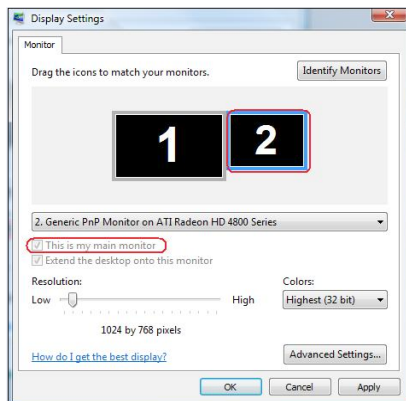
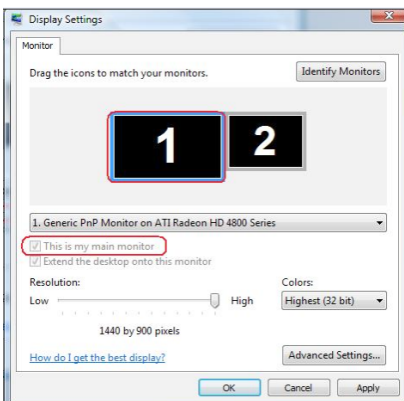
## Windows 8 / Windows 8.1



### Show desktop only on...

This option allows you to select the monitor to display content. You can choose to use any one of the monitors connected to your computer—or in case of laptop, the built-in display or the external display. This option is generally used when a laptop with a lower-resolution display is connected to a higher-resolution external display and you want to see the content only on the external monitor.

### Windows Vista



# Windows 7

Change the appearance of your displays



Display: 1. Mobile PC Display

Resolution: 1024 x 768

Orientation: Landscape

Multiple displays: Show desktop only on 1

⚠ You must select an option to apply these changes.

Make this my main display

Advanced settings

Connect to a projector (or press the key and tap P)

Make text and other items larger or smaller

What display settings should I choose?

OK Cancel Apply

Change the appearance of your displays



Display: 1. Mobile PC Display

Resolution: 1024 x 768

Orientation: Landscape

Multiple displays: Show desktop only on 2

⚠ You must select an option to apply these changes.

Make this my main display

Advanced settings

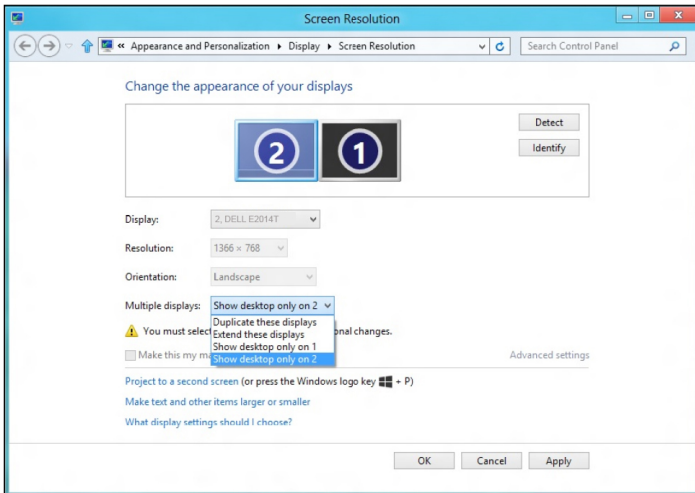
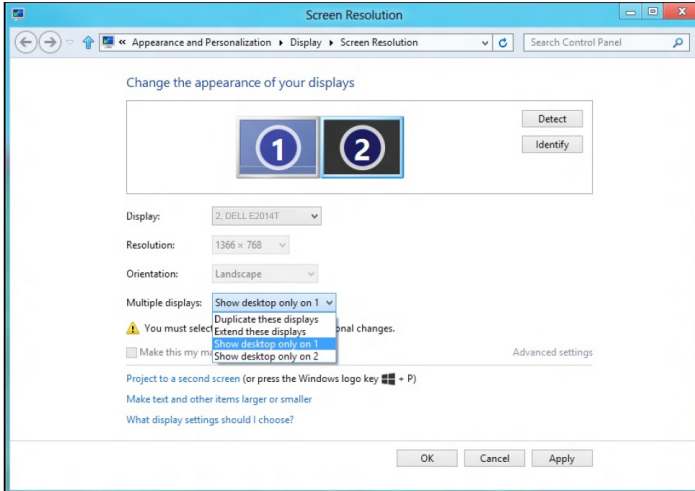
Connect to a projector (or press the key and tap P)

Make text and other items larger or smaller

What display settings should I choose?

OK Cancel Apply

# Windows 8 / Windows 8.1





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