

User's Guide

Dell P2314T

Dell P2714T

Regulatory model: P2314Tt / P2714Tt



 **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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Contents

About Your Monitor	5
Package Contents	5
Features	6
Parts and Controls	7
Specifications	9
Plug-and-Play	17
LCD Monitor Quality and Pixel Policy	17
Maintenance Guidelines	17
Setting Up the Monitor	18
Preparing the Stand	18
Connecting Your Monitor	18
Organizing Cables	20
Wall Mounting (Optional)	20
Operating the Monitor	21
Side-Panel Controls	21
Front-Panel Button	22
Using the On-Screen Display (OSD) Menu	23
Setting the Maximum Resolution	34
Tilt	34

Troubleshooting	35
Self-Test	35
Built-in Diagnostics	36
Common Problems	37
Touchscreen Problems	39
Product Specific Problems	40
Appendix	41
Safety Instructions	41
FCC Notices (U.S. only) and Other Regulatory Information	41
Contacting Dell.	41
Setting Display Resolution to 1920 X 1080 (maximum).	42
Downloading Latest Video Drivers	42
Setting up Dual Monitors	43
Display Styles For Multiple Monitors	48

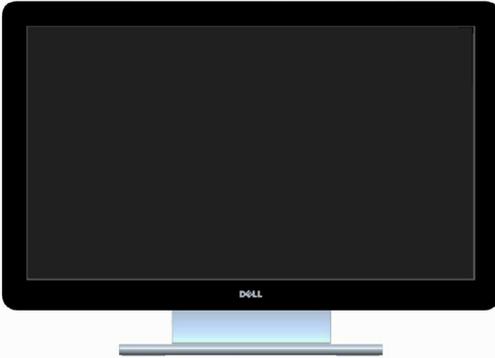
About Your Monitor

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 with stand



Power cable (varies by country)



Power adapter



HDMI cable



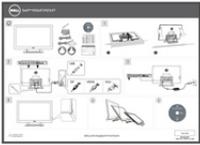
USB 3.0 upstream cable
(enables touch screen function on the monitor)



Screen cleaning cloth



Velcro strap



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

Features

The Dell P2314T and P2714T flat panel displays have an active matrix, thin-film transistor (TFT), liquid crystal display (LCD), and LED backlight. The monitor features include:

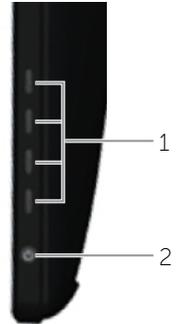
- P2314T: 58.42 cm (23-inch) active area display (measured diagonally) 1920 X 1080 resolution (with full-screen support for lower resolutions).
- P2714T: 68.58 cm (27-inch) active area display (measured diagonally) 1920 X 1080 resolution (with full-screen support for lower resolutions).
- Tilt adjustment capability (10°-60°, typical).
- Removable pedestal and Video Electronics Standards Association (VESA) 100 mm mounting holes for flexible mounting solutions.
- Plug and play capability if supported by your computer.
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.
- Software and documentation media includes an information file (INF), Image-Color Matching file (ICM), Dell Display Manager software application and product documentation. Dell Display Manager included (comes in the media shipped with the monitor).
- Security lock slot.
- Asset management capability.
- Energy Star compliant.
- EPEAT Gold compliant.
- BFR/PVC- reduced.
- Arsenic-Free glass. Mercury-free panel.
- Energy Gauge shows the energy level being consumed by the monitor in real time.
- TCO-certified displays.

Parts and Controls

Front view



Side-panel controls



Label	Description
1	Function buttons (For more information, see Operating the Monitor)
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	Service Tag label (P2714T only)	Refer to this label if you need to contact Dell for technical support.
4	Barcode serial number label	Refer to this label if you need to contact Dell for technical support.
5	Cable-management slot	Use to organize cables by placing them through the slot.

Bottom View



Label	Description	Use
1	Power-cable connector	Connect the power cable.
2	DisplayPort connector	Connect the DisplayPort cable.
3	HDMI (MHL) 1 port HDMI (MHL) 2 port	Connect the HDMI cable (cable sold separately).
4	VGA port	Connect a VGA cable.
5	Audio line-out port	Connect speakers to playback audio coming through HDMI or DisplayPort audio channels. Only supports 2-channel audio. NOTE: The audio line-out port does not support headphones.
6	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.
7	USB 2.0 downstream ports	Connect your USB device. You can only use this port after you connect the USB cable from your computer to the USB upstream port on the monitor.
8	Security-cable slot	Use a security cable to prevent unauthorized movement of your monitor.
9	USB 3.0 downstream ports	Connect your USB device. You can only use this port after you connect the USB cable from your computer to the USB upstream port on the monitor.

Specifications

Panel

	P2314T	P2714T
Screen type	Active matrix - TFT LCD	
Panel type	In-Plane Switching / Plane to Line Switching	Plane to Line Switching
Viewable image:		
Diagonal	58.42 cm (23 inches)	68.58 cm (27 inches)
Horizontal (active area)	509.18 mm (20.05 inches)	597.89 mm (23.54 inches)
Vertical (active area)	286.42 mm (11.28 inches)	336.31 mm (13.24 inches)
Area	145839.34 mm ² (226.05 inch ²)	201076.39 mm ² (311.67 inch ²)
Pixel pitch	0.265 mm	0.311 mm
Viewing angle:		
Horizontal	178 degrees typical	
Vertical	178 degrees typical	
Luminance:		
Panel	300 cd/m ² (typical)	
Monitor	270 cd/m ² (typical)	
Dynamic contrast ratio	8,000,000:1 (typical)	
Faceplate coating	Antiglare with hard-coating 3H	
Glass gloss	>30 gloss units.	
	NOTE: For displays with edge-to-edge design, consider the placement of the display as the reflection of surrounding light and bright surfaces from the glass may cause disturbances.	
Backlight	LED edgelight system	
Response Time	8 ms gray-to-gray (typical)	8 ms gray-to-gray (typical)
Color depth	16.77 million colors	
Color gamut (Typical)	83% (CIE1976)	
	NOTE: Color gamut (typical) is based on CIE1976 (83%) and CIE1931 (72%) test standards.	

Touch

	P2314T	P2714T
Type	Projected Capacitive System	
Panel Diagonal	23.1 inch	27.1 inch
Panel Thickness	2.4 mm	3.1 mm
Active Area	Extended beyond Viewing Area	
Sensor Stack thickness	0.5 mm	
Cover Glass Thickness	1.1 mm	1.8 mm
Input Method	Bare finger, thin gloves, conductive stylus	
Touch point	10 touch-points with palm accommodation	
Response time	<10 ms	
Output position resolution	32767 x 32767	
Touch method	Fingers and thin gloves	
Operating system	Windows 8 certified	

Resolution

Horizontal scan range	30 kHz – 83 kHz (automatic)
Vertical scan range	56 Hz – 75 Hz (automatic)
Maximum resolution	1920 X 1080 at 60 Hz
Supported video modes	480p, 576p, 720p, 1080p, and 1080i

Electrical

Video input signals	DisplayPort 1.2/HDMI/MHL 2.0/VGA
Synchronization input signals	<ul style="list-style-type: none">• Separate horizontal and vertical synchronization.• Polarity-free TTL level• SOG (composite SYNC on green)
AC/DC adapter input:	
Voltage	100 VAC–240 VAC
Frequency	50 Hz/60 Hz + 3 Hz
Current	1.5 A (maximum)
	 For use only with power supply DELL DA65NM111-00.
Inrush current	150 A at 115/230 VAC
Input voltage	19.5 VDC, 3.34 A

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:	
P2314T	88.7 BTU/hour (maximum)
	58.0 BTU/hour (typical)
P2714T	95.9 BTU/hour (maximum)
	64.8 BTU/hour (typical)

Preset Display Modes

P2314T

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	108.0	+/-
1920 X 1080	67.5	60.0	148.5	+/+

P2714T

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	108.0	+/-
1920 X 1080	67.5	60.0	148.5	+/+

Physical Characteristics

	P2314T	P2714T
Connector type	D-Sub DisplayPort HDMI (MHL) USB	D-Sub DisplayPort HDMI(MHL) USB
Signal cable type	D-Sub HDMI MHL DisplayPort USB 3.0	D-Sub HDMI MHL DisplayPort USB 3.0

Dimensions (with stand)

Height (extended)	216.40 mm (8.52 inches)	246.50 mm (9.70 inches)
Height (compressed)	412.70 mm (16.25 inches)	475.50 mm (18.72 inches)
Width	569.90 mm (22.44 inches)	665 mm (26.18 inches)
Depth (extended)	421.30 mm (16.59 inches)	421.30 mm (16.59 inches)
Depth(compressed)	80.90 mm (3.19 inches)	79.70 mm (3.14 inches)

Dimensions (without stand)

Height	348.10 mm (13.70 inches)	410.70 mm (16.17 inches)
Width	569.90 mm (22.44 inches)	665 mm (26.18 inches)
Depth	42.20 mm (1.66 inches)	44.30 mm (1.74 inches)

Stand dimensions

Height	298.4 mm (11.75 inches)	298.4 mm (11.75 inches)
Width	352.0 mm (13.86 inches)	352.0 mm (13.86 inches)
Depth	77.4 mm (3.05 inches)	77.4 mm (3.05 inches)

Weight

Weight with packaging	8.98 kg (19.76 lb)	11.49 kg (25.28 lb)
Weight with stand assembly and cables	7.10 kg (15.62 lb)	9.39 kg (20.66 lb)
Weight without stand without cables (For wall mount or VESA mount)	4.82 kg (10.60 lb)	7.11 kg (15.64 lb)
Weight of stand assembly	1.46 kg (3.21 lb)	1.46 kg (3.21 lb)

Power Management Modes

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

P2314T

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	17 W (typical) 26 W (maximum)
Active-off mode	Inactive	Inactive	Blank	Glowing white	<0.5 W
Switched off	-	-	-	Off	<0.5 W

P2714T

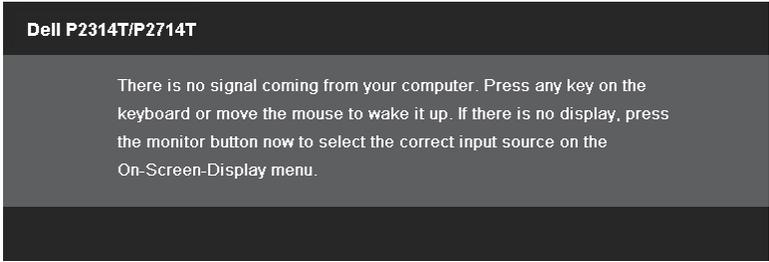
VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	19 W (typical) 28 W (maximum)
Active-off mode	Inactive	Inactive	Blanked	Glowing white	<0.5 W
Switch off	-	-	-	Off	<0.5 W

This monitor is ENERGY STAR-compliant.



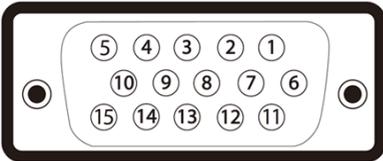
NOTE: Zero power consumption in OFF mode can only be achieved by disconnecting the power cable from the monitor.

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



Pin Assignments

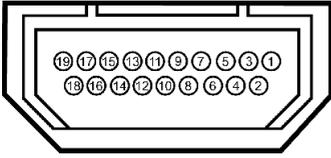
VGA



Pin number	15-pin side of the cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	GND
5	Self-test
6	GND-R
7	GND-G
8	GND-B

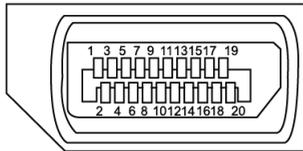
Pin number	15-pin side of the cable
9	Computer 5 V/3.3 V
10	GND-sync
11	GND
12	DDC data
13	H-sync
14	V-sync
15	DDC clock

HDMI



Pin number	19-pin side of the port	Pin number	19-pin side of the port
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 (DP)



Pin Number	20-pin side of the port	Pin Number	20-pin side of the port
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

USB

This section gives you information about the USB ports available on your monitor.

Your computer has the following USB ports:

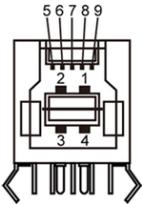
- One USB 3.0 upstream port – back
- Two USB 2.0 downstream ports – back
- Two USB 3.0 downstream ports – left side

 **NOTE:** USB 3.0 functionality requires a USB 3.0 compatible 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.

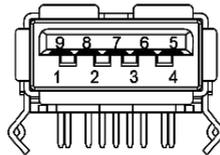
Transfer speed	Data rate	Power consumption
SuperSpeed	5 Gbps	4.5 W (Max., each port)
Hi-Speed	480 Mbps	2.5 W (Max., each port)
Full speed	12 Mbps	2.5 W (Max., each port)

USB upstream port



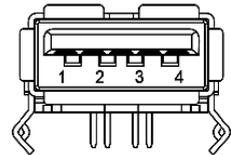
Pin number	Signal name
1	VBUS
2	D-
3	D+
4	GND
5	StdB_SSTX-
6	StdB_SSTX+
7	GND_DRAIN
8	StdB_SSRX-
9	StdB_SSRX+
Shell	Shield

USB 3.0 downstream port



Pin number	Signal name
1	VBUS
2	D-
3	D+
4	GND
5	StdA_SSRX-
6	StdA_SSRX+
7	GND_DRAIN
8	StdA_SSTX-
9	StdA_SSTX+
Shell	Shield

USB 2.0 downstream port



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

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 computer can configure itself and optimize the monitor settings. Most monitor installations are automatic; you can select different settings if desired. For Setting Up the Monitor 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.

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 anti-static 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.

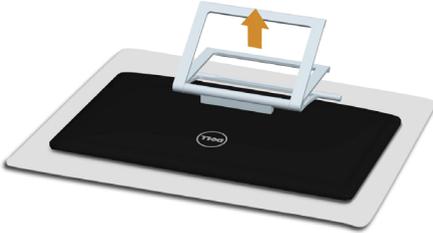
- Use a lightly-dampened, warm cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a soft and clean cloth.
- Handle your monitor with care to avoid scratches and 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

Preparing the Stand

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

1. Place the monitor on a soft cloth or cushion.
2. Pull the monitor stand arm upwards clear of the monitor.



3. Place the monitor upright.

Connecting Your Monitor

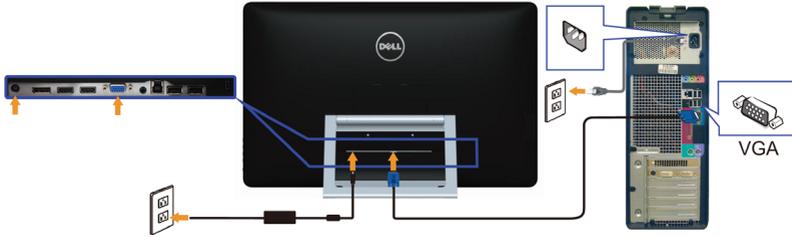
 **WARNING:** Follow the safety instructions before you perform any of the procedures in this section.

To connect your monitor to the computer:

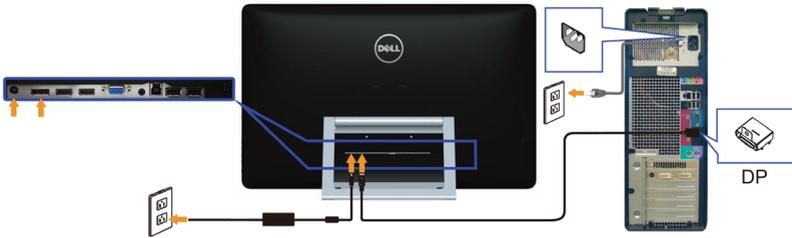
1. Turn off your computer and disconnect the power cable from the wall outlet.
2. Connect the USB cable and only one of the following display cables to your computer:
 - VGA cable
 - DisplayPort cable
 - HDMI cable

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

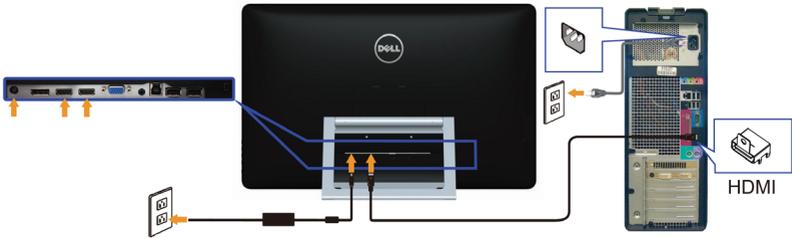
Connecting the VGA cable (cable sold separately)



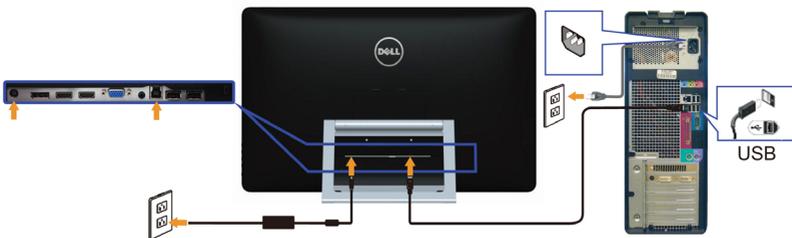
Connecting the DisplayPort (or miniDP) cable (cable sold separately)



Connecting the HDMI cable



Connecting the USB cable



NOTE: The graphics used are for illustration purpose 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.



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 7.11 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.

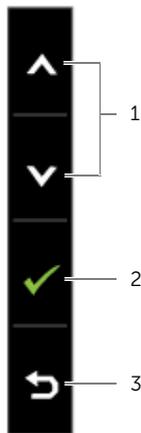


The following table describes the front panel buttons:

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 Accessing the Menu System.

Front-panel button	Description
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 light indicates DPMS power save mode.

Front-Panel Button



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

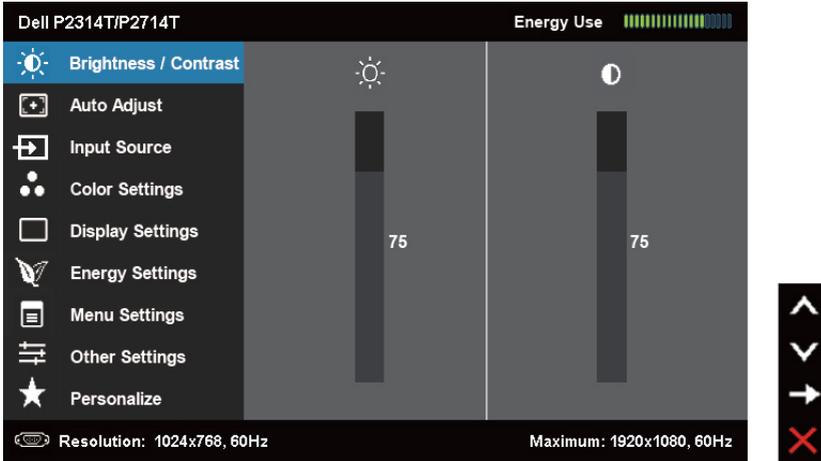
Button	Description
1  Up  Down	Use the Up (increase) and Down (decrease) keys to adjust items in the OSD menu.
2  OK	Use the OK key to confirm your selection.
3  Back	Use the Back key to go back to the previous menu.

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.

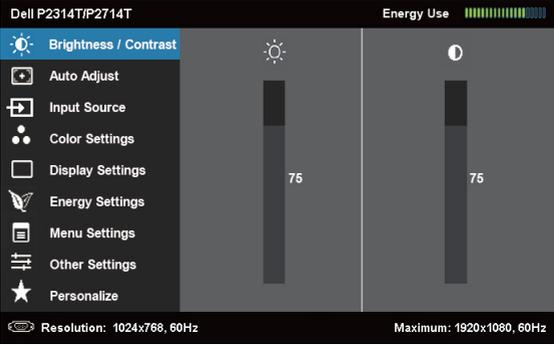
1. Press the  button to launch the OSD menu and display the main menu.



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

2. Press the  and  buttons to move between options. As you move from one icon to another, the option name is highlighted.
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.
 Brightness/Contrast	Use this menu to activate Brightness/Contrast adjustment.
Brightness	 <p>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.</p>
Contrast	<p>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.</p>

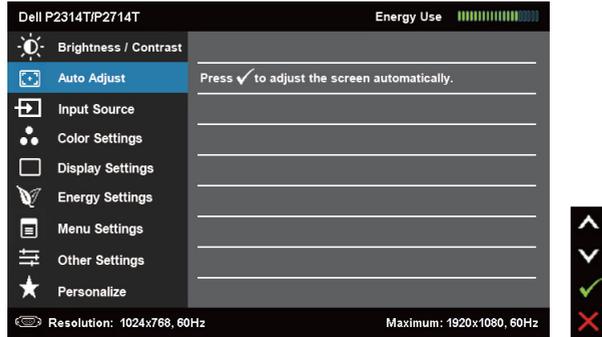
Menu and Submenus

Description

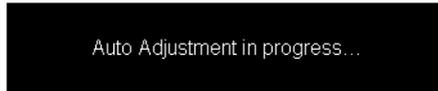
The Auto Adjust feature optimizes the display settings for use with your setup. Auto Adjust feature allows the monitor to automatically adjust to the incoming video signal. After using Auto Adjust feature, you can further tune your monitor by using the Pixel Clock and Phase controls under Displays Settings.



Auto Adjust



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



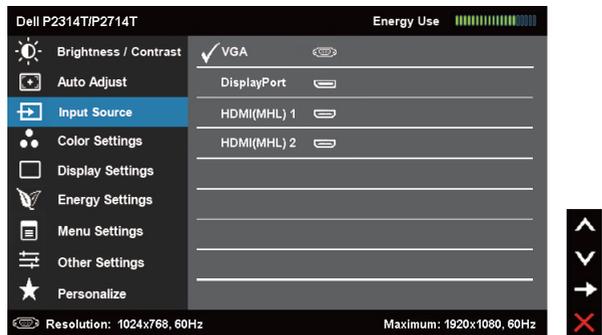
NOTE: In most cases, Auto Adjust produces the best image for your configuration.

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



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.

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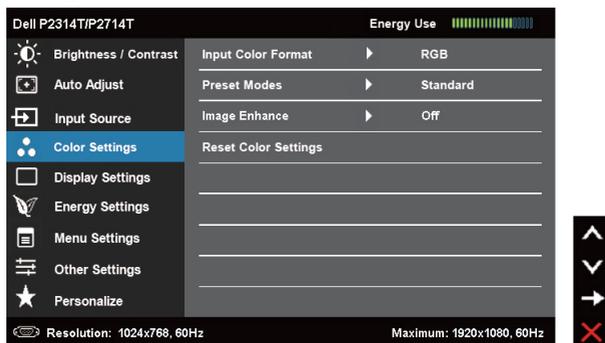
HDMI(MHL)1	Select HDMI(MHL)1 and press  when your computer and monitor are connecting using the HDMI(MHL)1 cable.
------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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



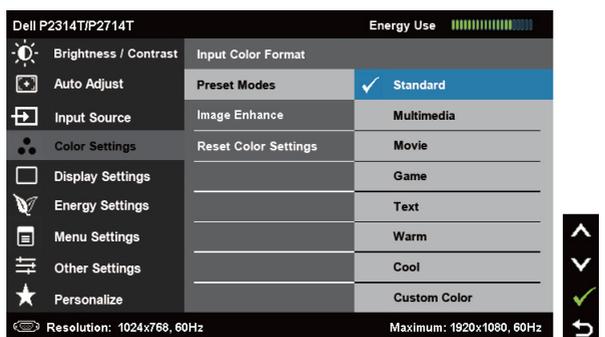
Allows you to set the video input mode to.

Input Color Format

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

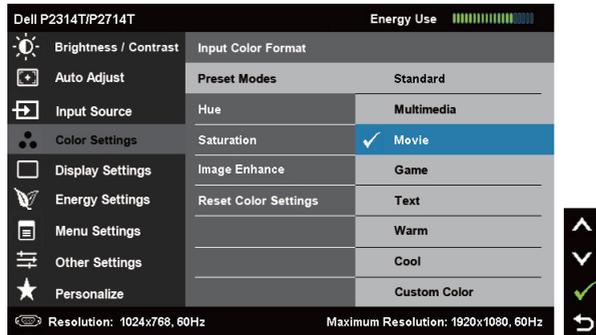
YPbPr: Select this option if your DVD player supports only YPbPr output.

Preset Mode



Menu and Submenus

Description



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.

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.

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.

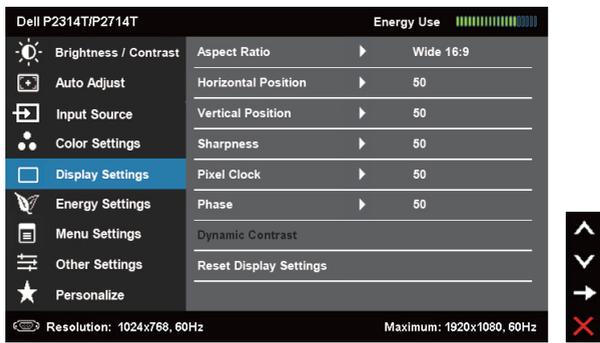
Press  to increase the purple shade.

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

Menu and Submenus	Description
Saturation	<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>NOTE: Saturation adjustment is available only for video input.</p>
Reset Color Settings	Resets your monitor's color settings to the factory defaults.



Display Settings

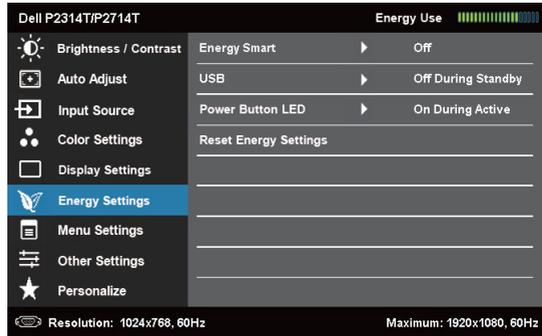


Aspect Ratio	Adjust the image ratio to Wide 16:9, 4:3, or 5:4.
Horizontal Position	Adjusts the horizontal position of the image. Use the  and  buttons to change the image position.
Vertical Position	Adjusts the vertical position of the image. Use the  and  buttons to change the image position.
Sharpness	Makes the image look sharper or softer. Use  or  to adjust the sharpness.
Pixel Clock	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.
Phase	<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>NOTE: Pixel Clock and Phase Adjustments are only available when your monitor is connected using the VGA cable.</p>
Dynamic Contrast	<p>Dynamic Contrast adjusts the contrast ratio to 8,000,000 : 1.</p> <p>Push the  button to select the Dynamic Contrast "On" or "Off".</p>
Reset Display Settings	Restores the display settings to factory defaults.

Menu and Submenus	Description
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Energy Settings



Turn-on or turn-off dynamic dimming.

Energy Smart

Turning on Energy Smart activates dynamic dimming. With Energy Smart turned on, the monitor consumes overall less power compared to when Energy Smart is turned off.

NOTE: Under Energy Smart mode and with dark scenes the monitor consumes less power and the Energy Use bar decreases. For bright scenes the monitor will consume more power and the energy level increases. This applies for both Energy smart on or Energy smart turned off.

USB

System				
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	

Power Button LED

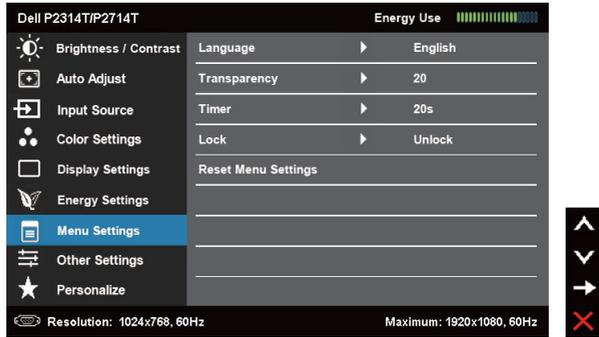
Allows you to set the state of the power light to save energy.

Reset Energy Settings

Restores the energy settings to factory defaults.

Menu and Submenus	Description
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 Menu Settings

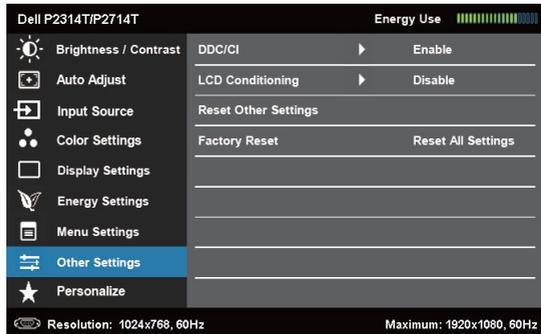


Language	Set the OSD display to one of eight languages. English, Espanol, Francais, Deutsch, Brazilian Portuguese, Russian, Simplified Chinese, or Japanese.
Transparency	This function is used to change the OSD background from opaque to transparent.
Timer	OSD Hold Time: Sets the length of time the OSD remains active after you press a button. Use the  and  buttons to adjust the slider in 1-second increments, from 5 to 60 seconds.
Lock	Controls user access to adjustments. When Lock is selected, no user adjustments are allowed. All buttons are locked. NOTE: 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)
Reset Menu Settings	Restore the menu settings to factory defaults.

Menu and Submenus	Description
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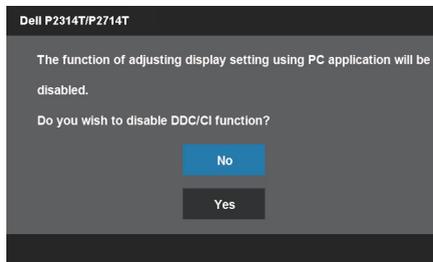


Other Settings



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

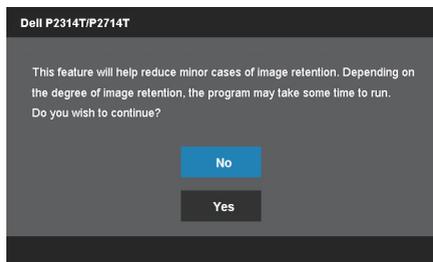
DDC/CI



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.

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.

Reset Other Settings

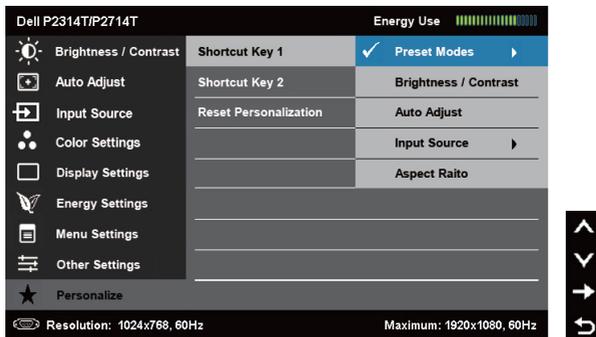
Restores other settings, such as such as DDC/CI, to factory defaults.

Menu and Submenus Description

Factory Reset Restores all OSD settings to the factory defaults.



Personalize

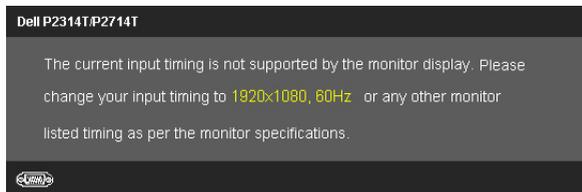


Select from Preset Modes, Brightness/Contrast, Auto Adjust, Input Source, Aspect Ratio and set as shortcut key.

Reset Personalization Restores shortcut keys to factory defaults.

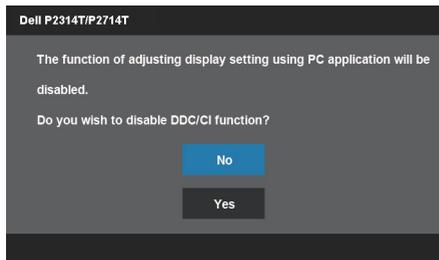
OSD Warning Messages

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

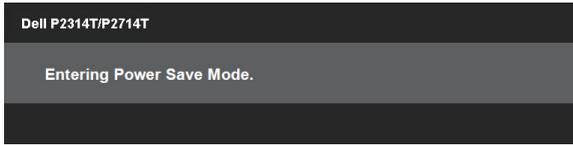


This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See Specifications for the frequency ranges addressable by this monitor. Recommended mode is 1920 X 1080.

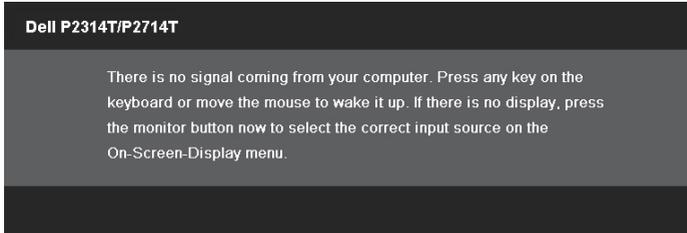
The following message before the DDC/CI function is disabled.



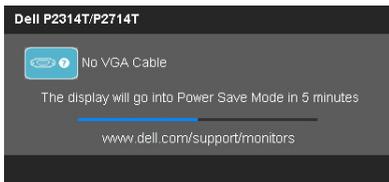
The following message is displayed when monitor enters Power Save mode.



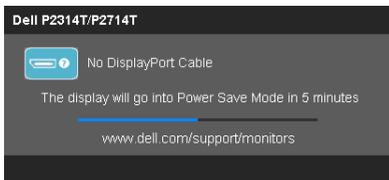
Activate the computer and wake up the monitor to gain access to the OSD
If you press any button other than the power button, the following message appears:



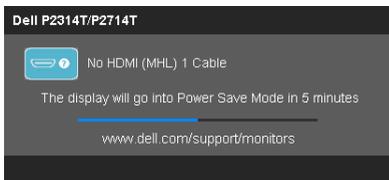
If you set the input to a particular mode but the cable for that mode (VGA, DP, or HDMI) is disconnected, one of the following messages appears, depending on the selected input.



OR



OR



For help on resolving errors, see Troubleshooting.

Setting the Maximum Resolution

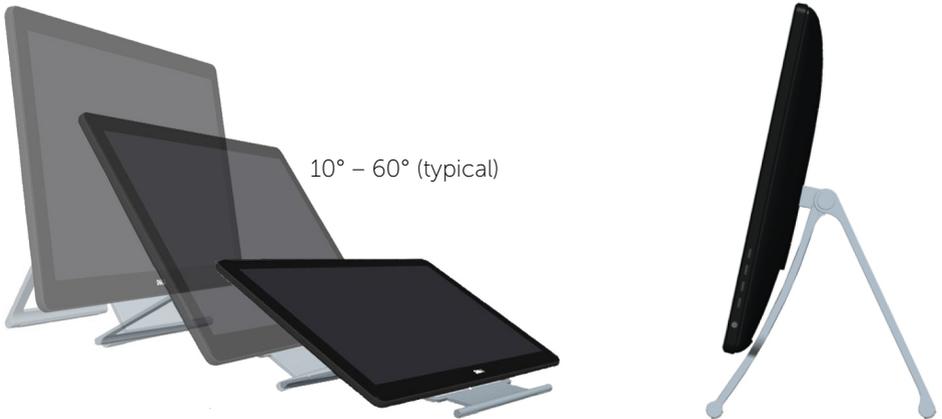
Windows Vista, Windows 7, or Windows 8

1. For Windows 8 only, select the **Desktop** tile to switch to classic desktop.
2. Right-click on the desktop and click **Screen resolution**.
3. Click the drop-down 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 video driver. For more information on updating video drivers, see Appendix.

Tilt

With the built-in stand, you can tilt the monitor for the most comfortable viewing angle. The monitor can be adjusted 10 degrees to 60 degrees.



△ **CAUTION:** Adjust the tilt by holding the edges of the monitor using both hands.

Troubleshooting

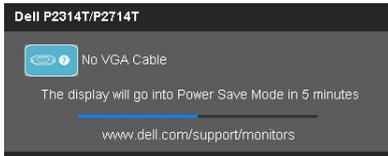
⚠ CAUTION: Follow the safety instructions before you perform any of the procedures in this section.

Self-Test

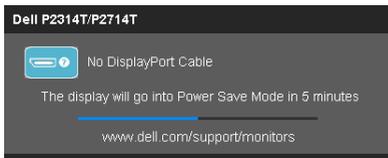
Your monitor features a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off your computer and the monitor.
2. Unplug the display cable from the back of the computer. To ensure proper self-test operation, remove both the digital (white connector) and the analog (blue connector) cables from the back of computer, if connected.
3. Turn on the monitor.

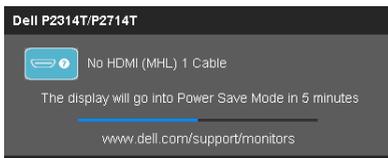
If the monitor is working correctly but cannot sense an incoming video signal, one of the following messages appear on the screen, depending on the selected input. The power light remains blue in self-test mode.



OR



OR



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

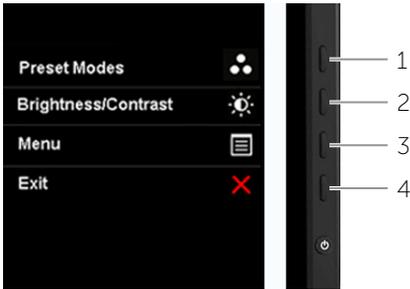
4. Turn off your monitor, disconnect and reconnect the display cable, then turn on your computer and the monitor.

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

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

Common Symptoms	What You Experience	Possible Solutions
Wrong Color	Picture color not good	<ul style="list-style-type: none"> • Change the Color Setting Mode in the Color Settings OSD to Graphics or Video depending on the application. • Try different Color Preset Settings in Color Settings OSD. Adjust R/G/B value in Color Settings OSD if the Color Management is turned off. • Change the Input Color Format to PC RGB or YPbPr in the Advance Setting OSD. • Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period of time	Faint shadow from the static image displayed appears on the screen	<ul style="list-style-type: none"> • Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power Management Modes). • Use a dynamically changing screen saver.
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"> • Use the Dell provided USB cable to connect your computer. • Make sure the power cable has a ground pin. • Unplug and replug the power cable from the power adapter to allow auto-recalibration of the touch module. • Make sure computer support USB 2.0 or later. • If the display cannot be detected by the computer, power off/on the monitor or unplug and replug the USB cable.
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"> 1. Access Device Manager, expand HID Interface Device under Human Device. 2. Right click HID- compliant device, click Properties and select the check-box to allow the device to wake the computer.

Specific Symptoms	What You Experience	Possible Solutions
Windows 7 and Windows 8 Calibration	Cursor does not accurately follow your finger when you touch the screen	<ol style="list-style-type: none"> 1. Open Control Panel, open Hardware and Sound, and then open Tablet PC Settings. 2. Select Calibration. 3. Follow the instructions to recalibrate your screen

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"> • Check the aspect ratio in Image Setting OSD menu • Reset the monitor to factory settings.
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"> • Check the signal source. • Make sure the computer is not in power saving mode, by moving the mouse or pressing a key on the keyboard. • Make sure your computer or other video-output device is powered on and playing video media. • Make sure the display cable connecting the monitor to the computer is connected properly and is secure. • Unplug and replug the display cable. • Restart the computer or video player.
The picture does not fill the entire screen.	The picture cannot fill the height or width of the screen	<ul style="list-style-type: none"> • Due to different video formats and aspect ratios of DVDs, the monitor may not display the video in full screen. • Run the built-in diagnostics.

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.

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.
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 1920 X 1080 (maximum)

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

Windows Vista, Windows 7, or Windows 8

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 1920 X 1080.
4. Click OK.

Downloading Latest Video Drivers

Dell computer

1. Go to 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 1920 X 1080 again.

If you are unable to set the resolution to 1920 X 1080 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

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 1920 X 1080 again. If you are unable to set the resolution to 1920 X 1080, contact the manufacturer of your computer or consider purchasing a graphics adapter that supports the resolution of 1920 X 1080.

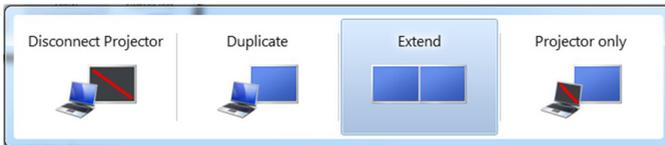
Setting up Dual Monitors

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

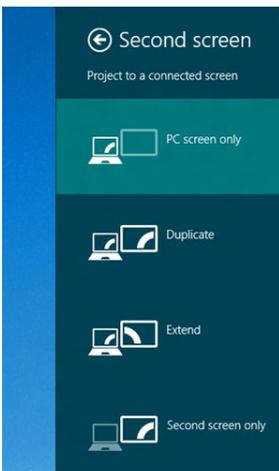
Using keyboard shortcut

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



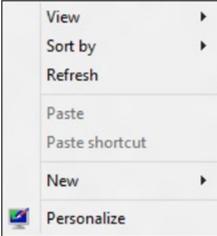
Windows 8



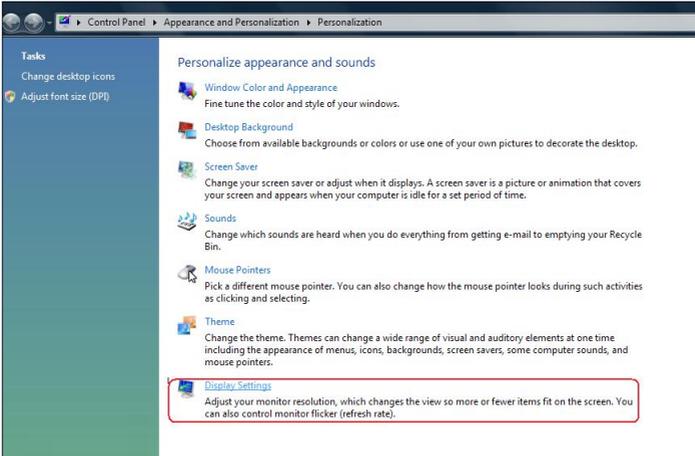
Using display settings

Windows Vista

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



2. Click **Display Settings**.



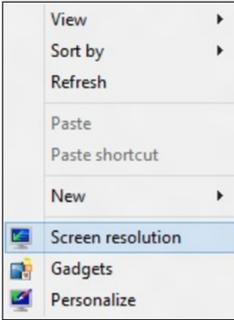
3. Click **Identify Monitors** and select the appropriate options.



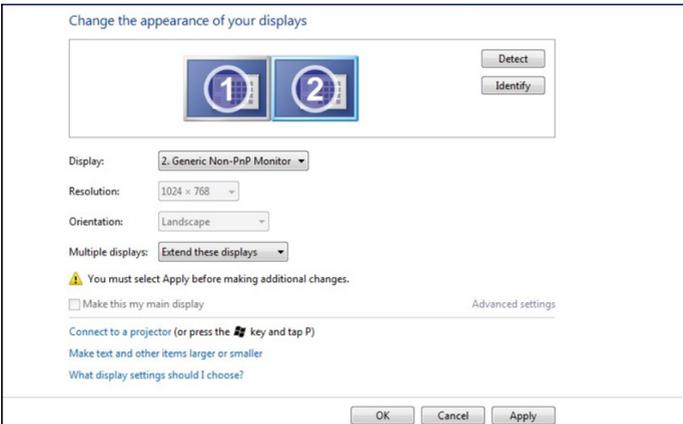
 **NOTE:** If your computer does not detect the second monitor, restart your computer and repeat step 1 to step 3.

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**.



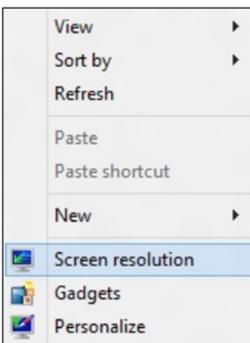
NOTE: If your computer does not detect the second monitor, restart your computer and repeat step 1 to step 3.

Windows 8

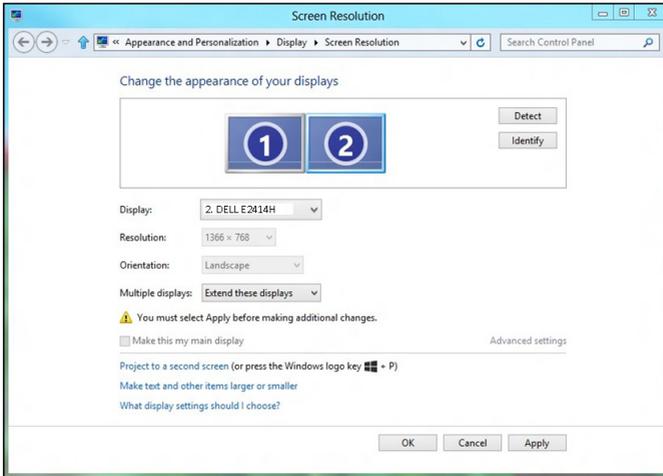
1. From the **Start** screen, select **Desktop** tile to switch to the classic Windows desktop.



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.

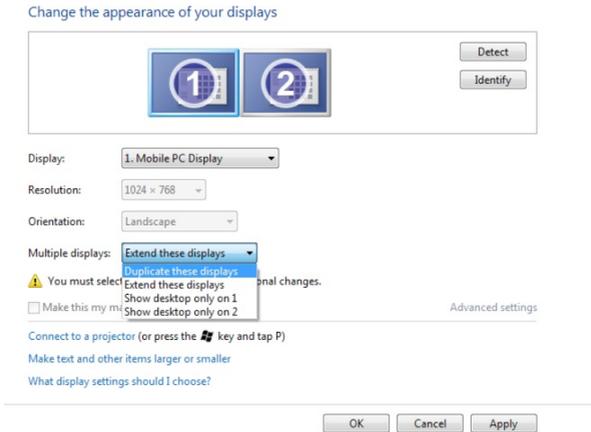
Duplicate displays

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

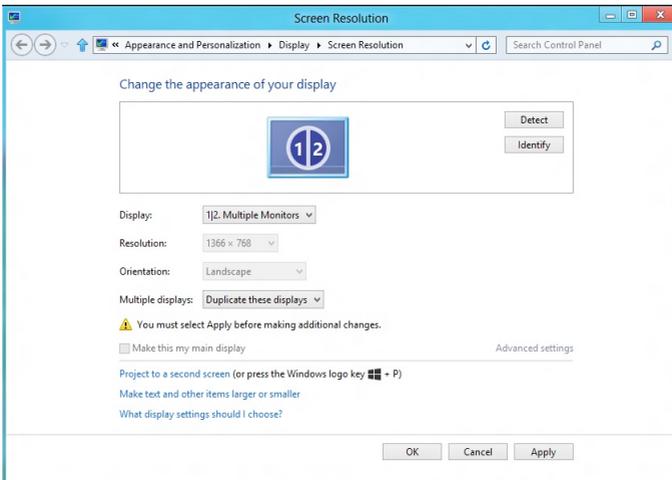
Windows Vista

[DUPLICATE NOT AVAILABLE]

Windows 7



Windows 8



Extend displays

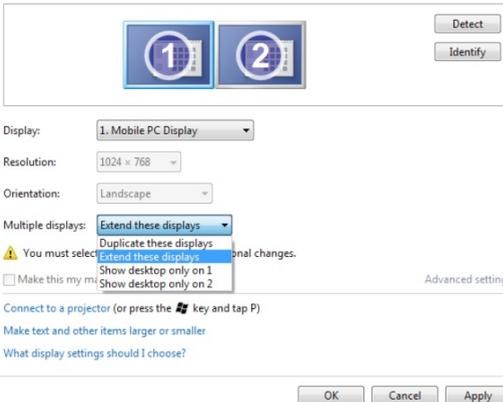
This option shows separate content on the selected monitors. The resolution of each monitor can be set independently. You can set the relative position of the displays, you can match the location of the screen relative to the physical placement of the monitors, such as left, right, top, bottom, and so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

Windows Vista

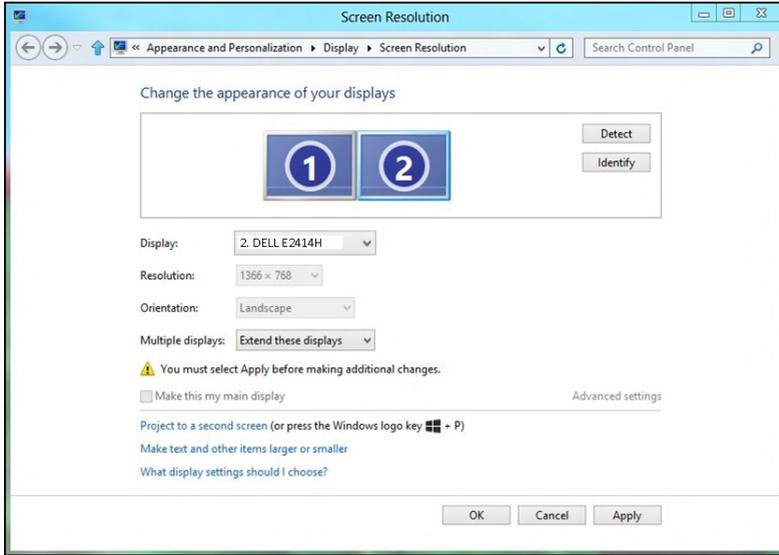


Windows 7

Change the appearance of your displays



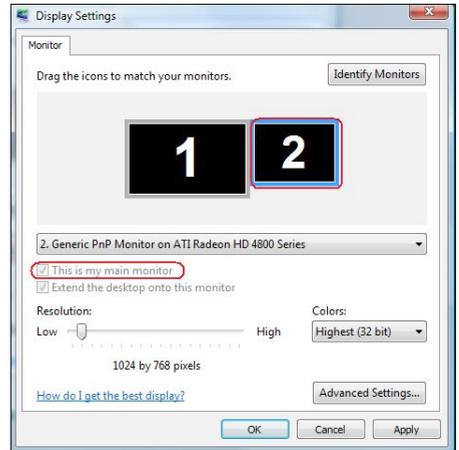
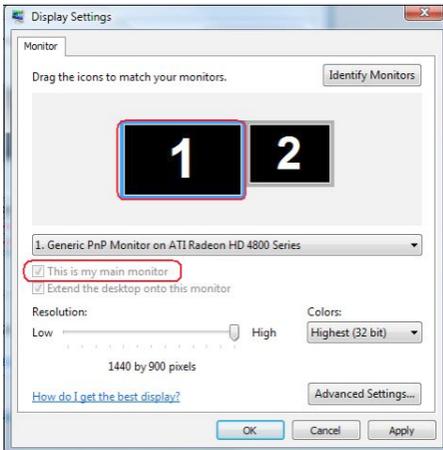
Windows 8



Show desktop only on...

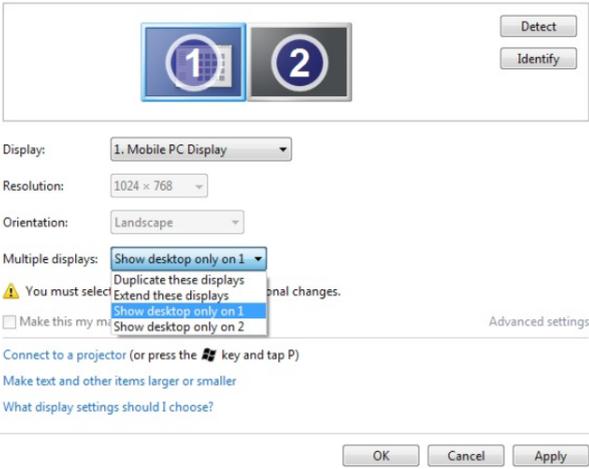
This option allows you to select the monitor to display content. You can choose to use any one of the monitors connected to your computer—or in case of laptop, the built-in display or the external display. This option is generally used when a laptop with a lower-resolution display is connected to a higher-resolution 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 × 768

Orientation: Landscape

Multiple displays: Show desktop only on 1

⚠ You must select one of these options to apply any changes.

Make this my main display

Advanced settings

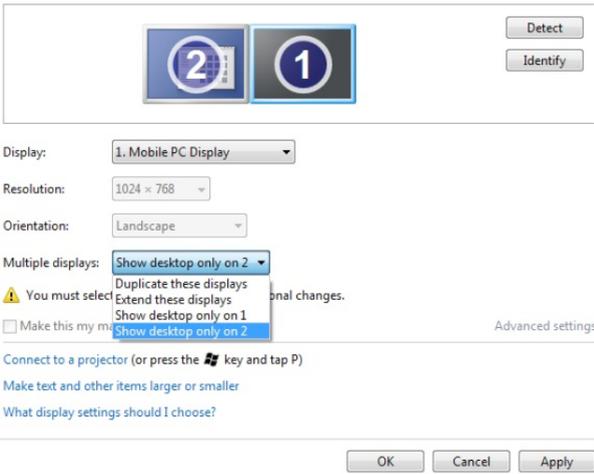
Connect to a projector (or press the **Fn** key and tap P)

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 × 768

Orientation: Landscape

Multiple displays: Show desktop only on 2

⚠ You must select one of these options to apply any changes.

Make this my main display

Advanced settings

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

Make text and other items larger or smaller

What display settings should I choose?

OK Cancel Apply

Windows 8

