Dell™ S2240T Monitor
User's Guide

Model: S2240Tb

July 2013 Rev. A01

Notes, Cautions, and Warnings

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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1 About Your Monitor

Package Contents

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

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

NOTE: To set up with any other stand, please refer to the respective stand setup guide for setup instructions.

	• Monitor
	• Power Cable
	• Power Adapter
	• HDMI Cable

	• USB Cable (enables touch screen function on the monitor)
	• Cleaning Cloth
	• Velcro Strap
	• Drivers and Documentation Media • Quick Setup Guide • Product and Safety Information Guide

Product Features

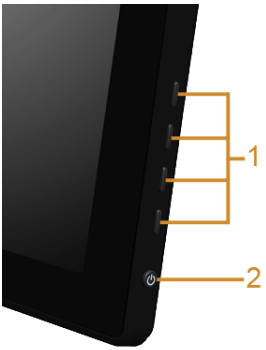
The **Dell S2240T** flat panel display has an active matrix, Thin-Film Transistor (TFT), Liquid Crystal Display (LCD) and LED backlight. The monitor features include:

- **S2240T**: 54.6 cm (21.5-inch) viewable area display (measured diagonally). 1920 x 1080 resolution, plus full-screen support for lower resolutions.
- Wide viewing angle to allow viewing from a sitting or standing position, or while moving from side-to-side.
- Tilt capability.
- Removable stand and Video Electronics Standards Association (VESA™) 100 mm mounting holes for flexible mounting solutions.
- Plug and play capability if supported by your system.
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.
- Software and documentation media includes an Information File (INF), Image Color Matching File (ICM), and product documentation.
- Dell Display Manager Software included (comes in the CD shipped with the monitor).

- Energy Saver feature for Energy Star compliance.
- Security lock slot.
- Capability to switch from wide aspect to standard aspect ratio while maintaining the image quality.
- EPEAT silver Rating.
- Arsenic-Free glass and Mercury-Free for the panel only.
- High Dynamic Contrast Ratio (8,000,000:1).
- 0.5 W standby power when in the sleep mode.
- Energy Gauge shows the energy level being consumed by the monitor in real time.

Identifying 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 LED indicator)

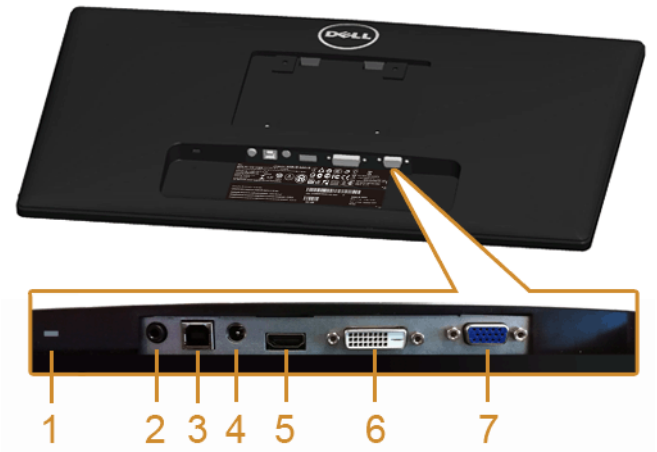
Back View

Back View with monitor stand

Label	Description	Use
1	VESA mounting holes (100 mm x 100 mm - behind attached VESA Plate)	Wall mount monitor using VESA-compatible wall mount kit (100 mm x 100 mm).
2	Security lock slot	Use a security lock with the slot to help secure your monitor.
3	Regulatory rating label	List the regulatory approvals.
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.

Side View

Bottom View



Bottom view without monitor stand

Label	Description	Use
1	Security lock slot	Secure the monitor with a security cable lock.
2	Audio Line-out	Connect your speakers.*
3	USB upstream port	Connect the USB cable that came with your monitor to the monitor and the computer. Once this cable is connected, you can use the touch screen function on the monitor.
4	DC power cord connector	Connect the power cable.
5	HDMI connector	Connect your computer HDMI cable.
6	DVI connector	Connect your computer DVI cable (optional purchase).
7	VGA connector	Connect your computer VGA cable (optional purchase).

*Headphone usage is not supported for the audio line out connector.

Monitor Specifications

Flat Panel Specifications

Model	S2240T
Screen type	Active matrix - TFT LCD
Panel type	VA
Viewable image	
Diagonal Horizontal, Active Area Vertical, Active Area Area	54.6 cm (21.5 inches) 476.64 mm (18.77 inches) 268.11 mm (10.56 inches) 127791.95 mm^2 (198.08 $inch^2$)
Pixel pitch	0.248 x 0.248 mm
Viewing angle	178° (vertical) typical 178° (horizontal) typical
Luminance output	Panel 280 cd/m^2 (Typ.) Monitor 250 cd/m^2 (Typ.)
Contrast ratio	3000 to 1 (typical) 8M to 1 (typical Dynamic Contrast On)
Faceplate coating	Anti-Glare with 3H hardness
Backlight	LED edgelight system
Response time	25 ms (typical) 12 ms (typical) with Overdrive
Color depth	16.7 million colors
Color gamut	CIE1931 (72%)*

*[S2240T] color gamut (typical) is based on CIE1976 (84%) and CIE1931 (72%) test standards.

Resolution Specifications

Model	S2240T
Horizontal scan range	30 kHz to 83 kHz (automatic)
Vertical scan range	56 Hz to 76 Hz (automatic)
Maximum preset resolution	1920 x 1080 at 60 Hz

Supported Video Modes

Model	S2240T
Video display capabilities (DVI & HDMI playback)	480p, 576p, 720p, 1080p

Preset Display Modes

S2240T

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/ Vertical)
VESA, 720 x 400	31.5	70.1	28.3	-/+
VESA, 640 x 480	31.5	60.0	25.2	-/-
VESA, 640 x 480	37.5	75.0	31.5	-/-
VESA, 800 x 600	37.9	60.3	40.0	+/+
VESA, 800 x 600	46.9	75.0	49.5	+/+
VESA, 1024 x 768	48.4	60.0	65.0	-/-
VESA, 1024 x 768	60.0	75.0	78.8	+/+
VESA, 1152 x 864	67.5	75.0	108.0	+/+
VESA, 1280 x 1024	64.0	60.0	108.0	+/+
VESA, 1280 x 1024	80.0	75.0	135.0	+/+
VESA, 1920 x 1080	67.5	60.0	148.5	+/+

Electrical Specifications

Model	S2240T
Video input signals	• Analog RGB, 0.7 Volts +/- 5%, positive polarity at 75 ohm input impedance • Digital DVI-D TMDS, 600 mV for each differential line, positive polarity at 50 ohm input impedance • HDMI, 600mV for each differential line, 100 ohm input impedance per differential pair
Synchronization input signals	Separate horizontal and vertical synchronizations, polarity-free TTL level, SOG

AC/DC adapter*	Input voltage/ frequency/current	100 VAC to 240 VAC / 50 Hz or 60 Hz ± 3 Hz / 1.2 A (typical)
	Output voltage/ current	Output: 12 VDC / 3.33 A
Inrush current		• 120 V: 30 A (Max) • 240 V: 60 A (Max)

*Qualified Compatible AC/DC adapters.

CAUTION: To avoid damage to the monitor, use only the adapter designed for this particular Dell monitor.

Manufacturer	Model	Polarity
Delta	ADP-40DD BA	
Lite-On	PA-1041-71TP-LF	

Physical Characteristics

Model	S2240T
Connector type	15-pin D-subminiature, blue connector; DVI-D, white connector; HDMI, black connector
Signal cable type	• High Definition Multimedia Interface: Detachable, HDMI, 19 pins • Universal Serial Bus: Detachable, USB, 4 pins
Dimensions (with stand)	
Height (extended)	195.4 mm (7.69 inches)
Height (compressed)	382.9 mm (15.07 inches)
Width	522.5 mm (20.57 inches)
Depth (extended)	420.9 mm (16.57 inches)
Depth (compressed)	77.4 mm (3.05 inches)
Dimensions (without stand)	
Height	319.0 mm (12.56 inches)
Width	522.5 mm (20.57 inches)
Depth	41.2 mm (1.62 inches)
Stand dimensions	
Height	298.4 mm (11.75 inches)

Width	352.0 mm (13.86 inches)
Depth	77.4 mm (3.05 inches)
Weight	
Weight with packaging	6.62 kg (14.56 lb)
Weight with stand assembly and cables	5.53 kg (12.17 lb)
Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	3.40 kg (7.48 lb)
Weight of stand assembly	1.46 kg (3.21 lb)

Environmental Characteristics

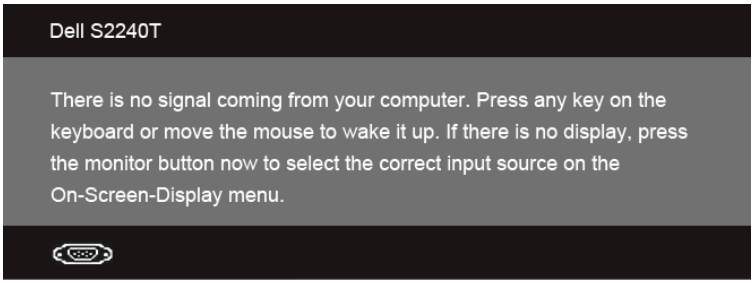
Model	S2240T
Temperature	
Operating	0 °C to 40 °C (32 °F to 104 °F)
Non-operating	• Storage: -20 °C to 60 °C (-4 °F to 140 °F) • Shipping: -20 °C to 60 °C (-4 °F to 140 °F)
Humidity	
Operating	10% to 80% (non-condensing)
Non-operating	• Storage: 5% to 90% (non-condensing) • Shipping: 5% to 90% (non-condensing)
Altitude	
Operating	5,000m (16,400 ft) (maximum)
Non-operating	12,192m (40,000 ft) (maximum)
Thermal dissipation	• 102.3 BTU/hour (maximum) • 62.8 BTU/hour (typical)

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 the keyboard, mouse, or other input devices, the monitor automatically resumes functioning. The following table shows the power consumption and signaling of this automatic power saving feature.

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	30 W (maximum) ** 20 W (typical)
Active-off mode	Inactive	Inactive	Blanked	White (Breathing)	Less than 0.5 W
Switch off	-	-	-	Off	Less than 0.5 W

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



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

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

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

** Maximum power consumption with max luminance, and USB active.

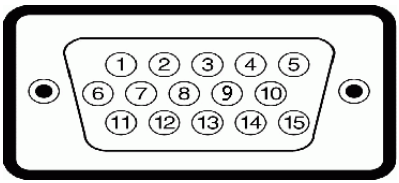
Touch Specifications

Item	Contents
Type	Projected Capacitive System
Panel diagonal	21.5 inch
Panel thickness	2.4 ± 0.2 mm
Active area	482.2 x 272.9 extended beyond viewing area
Sensor stack thickness	1.1 mm
Cover glass thickness	1.1 +/- 0.2 mm

Input method	Bare finger, thin gloves, conductive stylus
Touch point	10 touches with palm accommodation
Response time	25 ms
Output position resolution	25 PPI (minimum)
Touch method	Fingers and thin gloves
Support OS	Windows 8 Certified

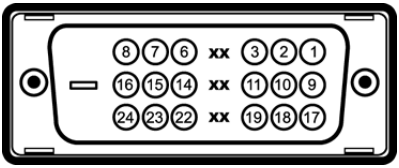
Pin Assignments

VGA Connector



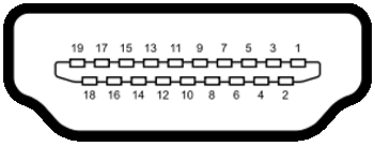
Pin Number	15-pin Side of the Connected Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	GND
5	Self-test
6	GND-R
7	GND-G
8	GND-B
9	Computer 5 V/3.3 V
10	GND-sync
11	GND
12	DDC data
13	H-sync
14	V-sync
15	DDC clock

DVI Connector



Pin Number	24-pin Side of the Connected Signal Cable
1	TMDS RX2-
2	TMDS RX2+
3	TMDS Ground
4	Floating
5	Floating
6	DDC Clock
7	DDC Data
8	Floating
9	TMDS RX1-
10	TMDS RX1+
11	TMDS Ground
12	Floating
13	Floating
14	+5 V/+3.3 V power
15	Self test
16	Hot Plug Detect
17	TMDS RX0-
18	TMDS RX0+
19	TMDS Ground
20	Floating
21	Floating
22	TMDS Ground
23	TMDS Clock+
24	TMDS Clock-

HDMI Connector



Pin Number	19-pin Side of the Connected Signal Cable
1	TMDS DATA 2+
2	TMDS DATA 2 SHIELD
3	TMDS DATA 2-
4	TMDS DATA 1+
5	TMDS DATA 1 SHIELD
6	TMDS DATA 1-
7	TMDS DATA 0+
8	TMDS DATA 0 SHIELD
9	TMDS DATA 0-
10	TMDS CLOCK+
11	TMDS CLOCK SHIELD
12	TMDS CLOCK-
13	CEC
14	Reserved (N.C. on device)
15	DDC CLOCK (SCL)
16	DDC DATA (SDA)
17	DDC/CEC Ground
18	+5V POWER
19	HOT PLUG DETECT

Plug and Play Capability

You can install the monitor in any Plug and Play-compatible system. The monitor automatically provides the computer system with its Extended Display Identification Data (EDID) using Display Data Channel (DDC) protocols so 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.

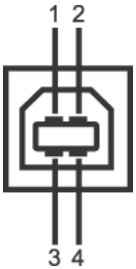
Universal Serial Bus (USB) Interface

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

NOTE: This monitor supports High-Speed Certified USB 2.0 interface.

Transfer Speed	Data Rate	Power Consumption
High speed	480 Mbps	2.5 W (Max, each port)
Full speed	12 Mbps	2.5 W (Max, each port)
Low speed	1.5 Mbps	2.5 W (Max, each port)

USB Upstream Connector



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

USB Ports

- 1 upstream - back

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

NOTE: The monitor's USB interface works only when the monitor is On or in the power save mode.

LCD Monitor Quality and Pixel Policy

During the LCD Monitor manufacturing process, it is not uncommon for one or more pixels to become fixed in an unchanging state which are hard to see and do not affect the display quality or usability. For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **support.dell.com**.

Maintenance Guidelines

Cleaning Your Monitor

CAUTION: Read and follow the Safety Instructions before cleaning the monitor.

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

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

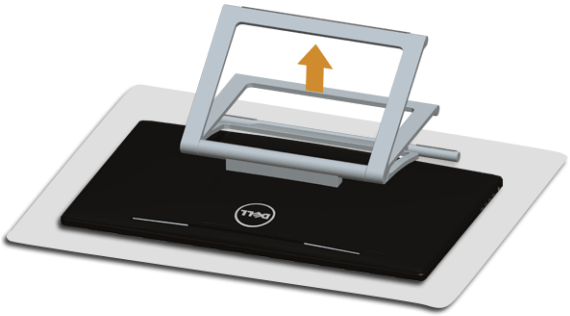
- To clean your touch screen, lightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the anti-static coating. Do not use benzene, thinner, ammonia, abrasive cleaners, or compressed air.
- Use a lightly-dampened, warm cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a cloth.
- Handle your monitor with care as a darker-colored monitor may get scratched and show white scuff marks more than a lighter-colored monitor.
- To help maintain the best image quality on your monitor, use a dynamically changing screen saver and turn off your monitor when not in use.

2 Setting Up the Monitor

Preparing the Stand

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

a. Place the monitor on a soft cloth or cushion.
b. Pull the monitor stand arm upwards clear of the monitor.
c. Place the monitor upright.



Connecting Your Monitor

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

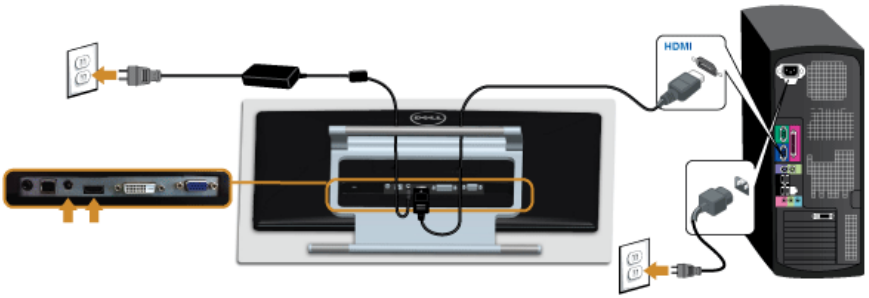
NOTE: The VGA/DVI cable can be purchased separately.

NOTE: Do not connect all cables to the computer at the same time.

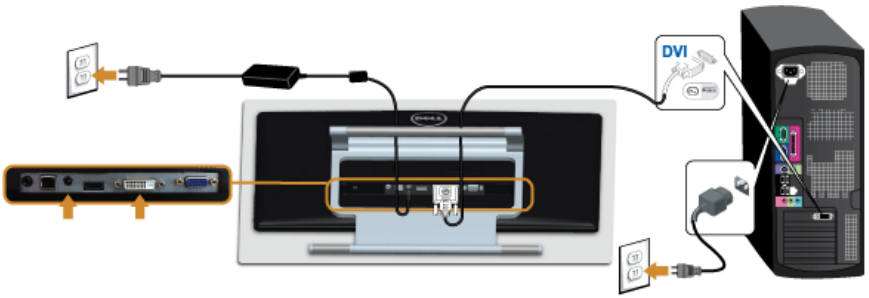
To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.
   Connect the HDMI/DVI/VGA cable from your monitor to the computer.

Connecting the HDMI cable

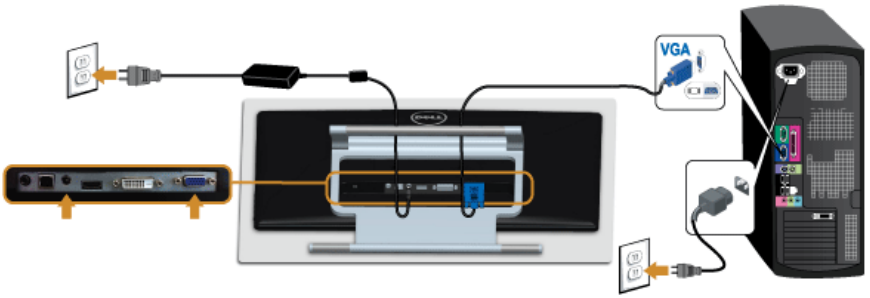


Connecting the white DVI cable



Connecting the blue VGA cable

Use a screwdriver to tighten the VGA cable.

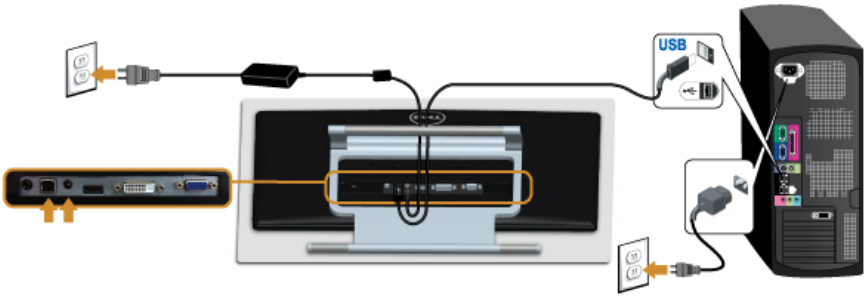


CAUTION: The graphics are used for the purpose of illustration only. Appearance of the computer may vary.

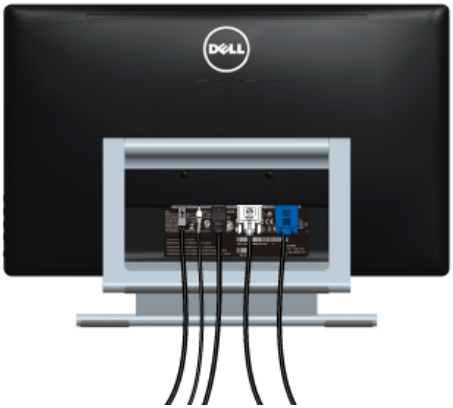
Connecting the USB cable

After you have completed connecting the DVI/VGA/HDMI cable, follow the procedures below to connect the USB cable to the computer and complete your monitor setup:

1. Connect the upstream USB port (cable supplied) to an appropriate USB port on your computer. (See Bottom View for details.)
2. Plug the power cables for your computer and monitor into a nearby outlet.
3. Turn on the Monitor and the computer.
   When your USB cable connection is complete, if the touch function does not functional, see Touch Problem.
4. Use the cable slot on the monitor stand to organize the cables.



Organizing Your Cables



After attaching all necessary cables to your monitor and computer, (See Connecting Your Monitor for cable attachment,) organize all cables as shown above.

Removing the Monitor Stand

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

NOTE: This is applicable for a monitor with a stand. When any other stand is bought, please refer to the respective stand setup guide for the set-up instructions.

To remove the stand:

1. Place the monitor on a soft cloth or cushion.
2. Loosen the two screws that secure the sand to the monitor.
3. Lift the stand up and away from the monitor.

Wall Mounting (Optional)

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

1. Place the monitor panel on a soft cloth or cushion on a stable, flat table.
2. Remove the stand.

.

(Screw dimension: M4 x 10 mm).

3. Attach the mounting bracket from the wall mounting kit to the monitor.

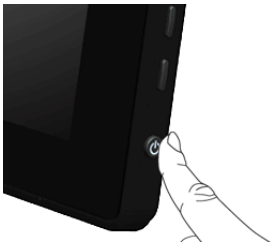
4. Mount the monitor on the wall by following the instructions that comes with the wall mounting kit.

NOTE: For use only with UL-listed wall mount bracket with minimum weight/load bearing capacity of 5.88 kg.

3 Operating the Monitor

Power On the Monitor

Press the button to turn on the monitor.



Using the Side Panel Controls

Use the control buttons on the side of the monitor to adjust the characteristics of the image being displayed. As you use these buttons to adjust the controls, an OSD shows the numeric values of the characteristics as they change.

The following table describes the side panel buttons:

	Side Panel Button	Description
1	**Shortcut key/ Preset Modes**	Use this button to choose from a list of preset color modes.
2	**Shortcut key/ Brightness/ Contrast**	Use this button to directly access the **Brightness/Contrast** menu.

3	**Menu**	Use the **MENU** button to launch the On-Screen Display (OSD) and select the OSD Menu. See Accessing the Menu System.
4	**Exit**	Use this button to go back to the main menu or exit the OSD main menu.
5	**Power (with power light indicator)**	Use the **Power** button to turn the monitor **On** and **Off**. The white light indicates the monitor is **On** and fully functional. A breathing white light indicates the power save mode.

Side Panel Button

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

Side Panel Button		Description
1	**Up**	Use the **Up** button to adjust (increase ranges) items in the OSD menu.
2	**Down**	Use the **Down** button to adjust (decrease ranges) items in the OSD menu.
3	**OK**	Use the **OK** button to confirm your selection.
4	**Back**	Use the **Back** button to go back to the previous menu.

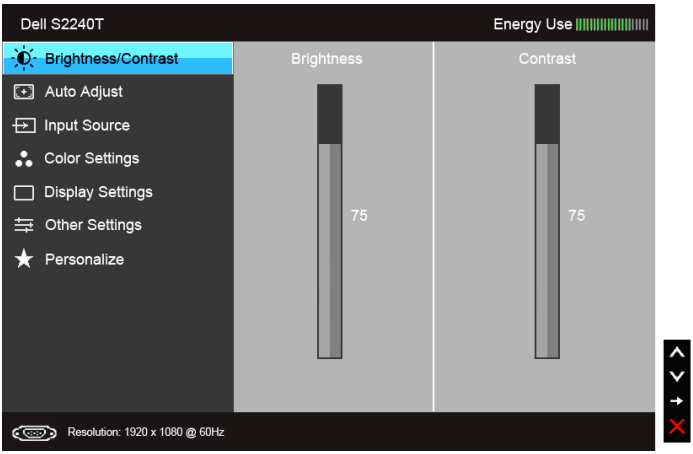
Using the On-Screen Display (OSD) Menu

Accessing the Menu System

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

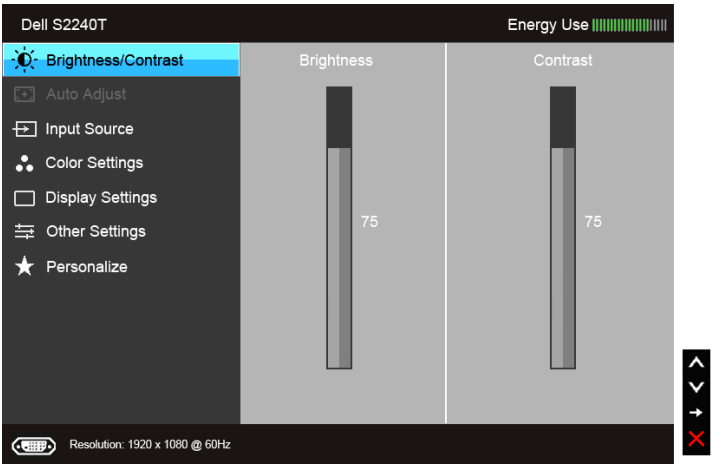
1. Press the button to launch the OSD menu and display the main menu.

Main Menu for analog (VGA) input



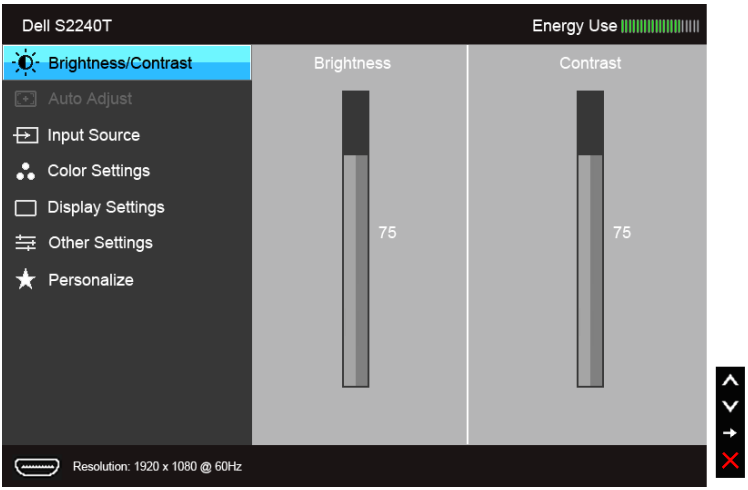
or

Main Menu for digital (DVI) input



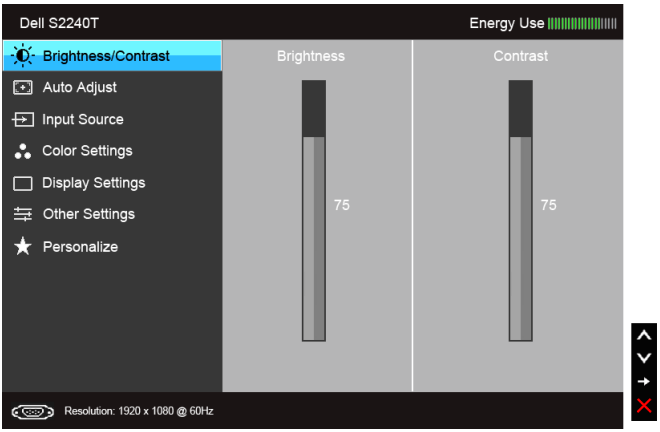
or

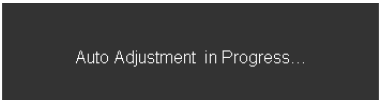
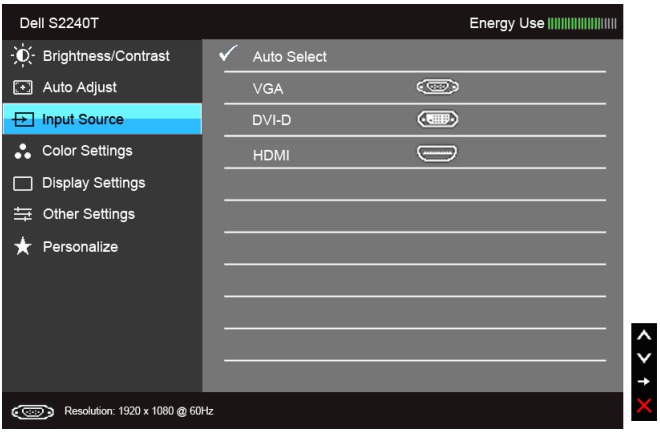
Main Menu for digital (HDMI) input



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

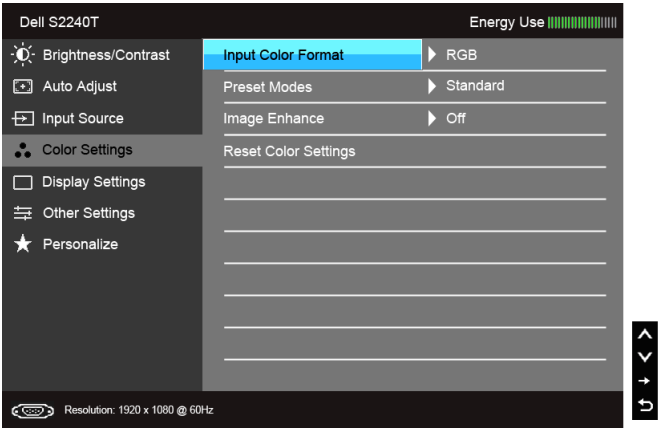
2. Press the ▲ and ▼ buttons to move between the setting options. As you move from one icon to another, the option name is highlighted. See the following table for a complete list of all the options available for the monitor.
3. Press the → button once to activate the highlighted option.
4. Press ▲ and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

Icon	Menu and Submenus	Description
	Brightness/ Contrast	Use this menu to activate **Brightness/Contrast** adjustment. 
	Brightness	**Brightness** adjusts the luminance of the backlight. Press the button to increase the brightness and press the button to decrease the brightness (min. 0 / max 100). **NOTE:** Manual adjustment of **Brightness** is disabled when **Energy Smart** or **Dynamic Contrast** is switched on.
	Contrast	Adjust the **Brightness** first, and then adjust the **Contrast** only if further adjustment is necessary. Press the button to increase the contrast and press the button to decrease the contrast (min. 0 / max 100). The **Contrast** function adjusts the degree of difference between darkness and lightness on the monitor screen.

	Auto Adjust	Even though your computer recognizes your monitor on startup, the **Auto Adjustment** function optimizes the display settings for use with your particular setup. **Auto Adjustment** allows the monitor to self-adjust to the incoming video signal. After using **Auto Adjustment**, you can further tune your monitor by using the **Pixel Clock** (Coarse) and **Phase** (Fine) controls under **Display** Settings.  **NOTE:** In most cases, **Auto Adjust** produces the best image for your configuration. **NOTE: Auto Adjust** option is only available when you are using the analog (VGA) connector.
	Input Source	Use the **Input Source** menu to select between the different video signals that may be connected to your monitor. 
	Auto Select	Press → to select **Auto Select**, the monitor scans for available input sources.
	VGA	Select the **VGA** input when you are using the analog (VGA) connector. Press → to select the VGA input source.
	DVI-D	Select the **DVI-D** input when you are using the Digital (DVI) connector. Press → to select the DVI input source.
	HDMI	Select the **HDMI** input when you are using the HDMI connector. Press → to select the HDMI input source.

Color Settings

Use **Color Settings** to adjust the color setting mode.

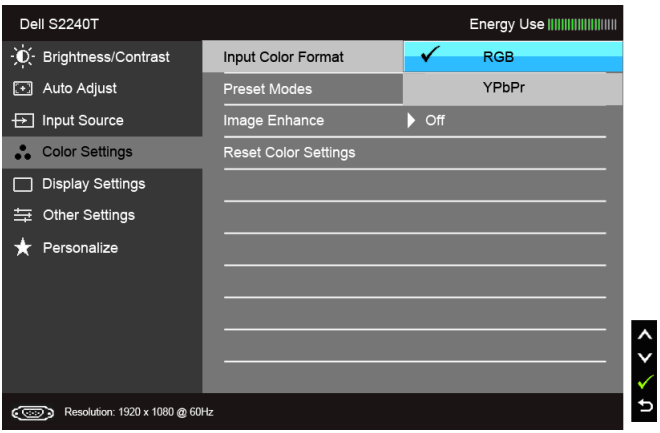


Input Color Format

Allows you to set the video input mode to:

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

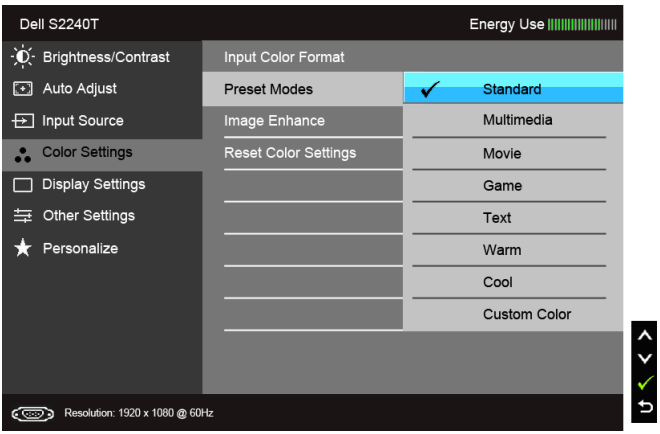
YPbPr: Select this option if your monitor is connected to a DVD player by YPbPr to VGA, or YPbPr to DVI cable; or if the DVD color output setting is not RGB.



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

- **Standard**: Loads the monitor's default color settings. This is the default preset mode.
- **Multimedia**: Loads color settings ideal for multimedia applications.
- **Movie**: Loads color settings ideal for movies.
- **Game**: Loads color settings ideal for most gaming applications.
- **Text**: Loads brightness and sharpness settings ideal for viewing texts.
- **Warm**: Increase 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 three colors (R, G, B) values and create your own preset color mode.

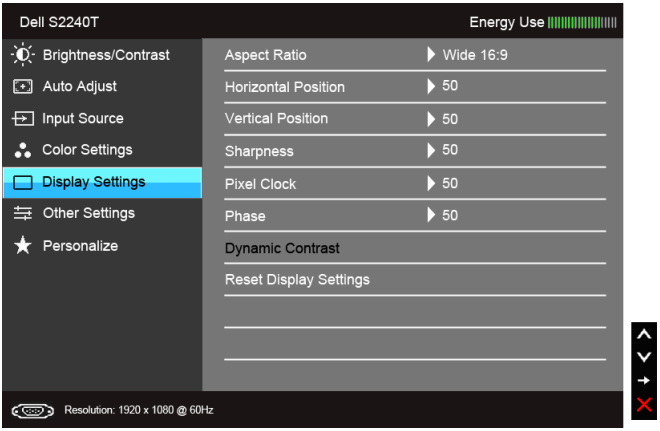


Hue This feature can shift the color of the video image to green or purple. This is used to adjust the desired flesh tone color. Use ▲ or ▼ to adjust the hue from '0' to '100'.

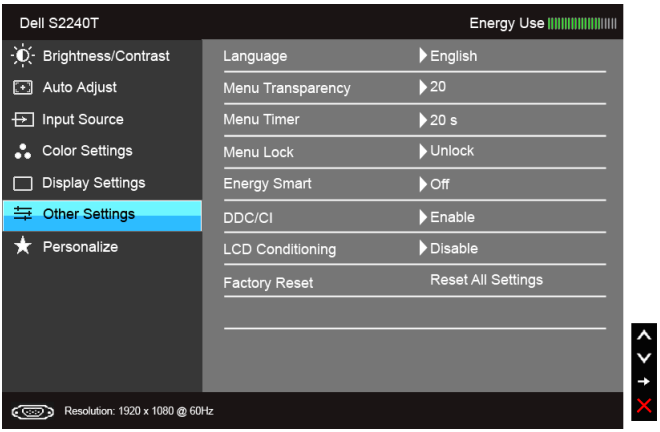
Press ▲ to increase the green shade of the video image.

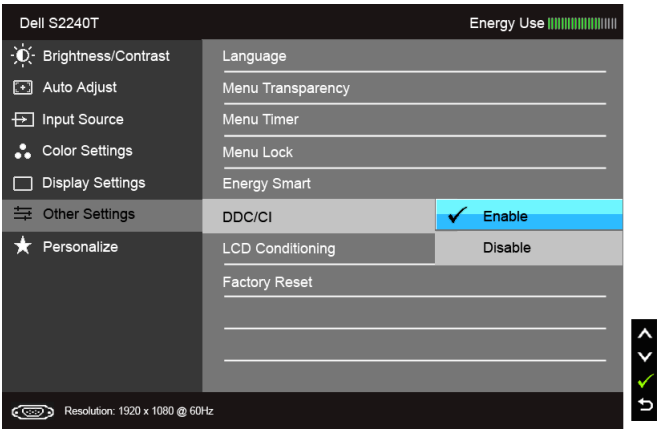
Press ▼ to increase the purple shade of the video image.

NOTE: Hue adjustment is available only when you select **Movie** or **Game** preset mode.

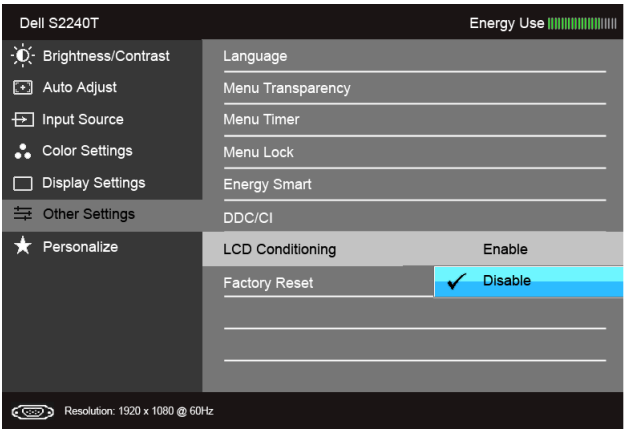
Saturation	This feature can adjust the color saturation of the video image. Use or to adjust the saturation from '0' to '100'. Press to increase the monochrome appearance of the video image. Press to increase the colorful appearance of the video image. **NOTE: Saturation** adjustment is available only when you select **Movie** or **Game** preset mode.
Demo Mode	Splits the screen into two for viewing the images under the normal and enhanced **Movie** preset mode side by side. You can also press and simultaneously to enable/disable this mode. **NOTE: Demo Mode** is available only when you select **Movie** preset mode.
Image Enhance	Makes upsized images higher quality by removing image fading and roughness of edge. **NOTE: Image Enhance** is available only when you select **Standard**, **Multimedia**, **Movie**, or **Game** preset mode.
Reset Color Settings	Reset your monitor color settings to the factory settings.
Display Settings	Use the **Display Settings** to adjust image. 
Aspect Ratio	Adjusts the image ratio to **Wide 16:9**, **4:3**, or **5:4**.
Horizontal Position	Use or to adjust the image left or right. Minimum is '0' (-). Maximum is '100' (+).
Vertical Position	Use or to adjust the image up or down. Minimum is '0' (-). Maximum is '100' (+). **NOTE: Horizontal Position** and **Vertical Position** adjustments are only available for "VGA" input.
Sharpness	This feature can make the image look sharper or softer. Use or to adjust the sharpness from '0' to '100'.

	Pixel Clock	The **Phase** and **Pixel Clock** adjustments allow you to adjust your monitor to your preference. Use ▲ or ▼ to adjust for best image quality.
	Phase	If satisfactory results are not obtained using the **Phase** adjustment, use the **Pixel Clock** (coarse) adjustment and then use **Phase** (fine), again. **NOTE: Pixel Clock** and **Phase** adjustments are only available for "VGA" input.
	Dynamic Contrast	Allows you to increase the level of contrast to provide sharper and more detailed image quality. Press the → button to select the **Dynamic Contrast** "**On**" or "**Off**". **NOTE: Dynamic Contrast** provides higher contrast if you select **Game** or **Movie** preset mode.
	Reset Display Settings	Select this option to restore default display settings.
	Other Settings	Select this option to adjust the settings of the OSD, such as, the languages of the OSD, the amount of time the menu remains on screen, and so on.
	Language	**Language** options set the OSD display to one of the six languages (English, Spanish, French, German, Simplified Chinese or Japanese).



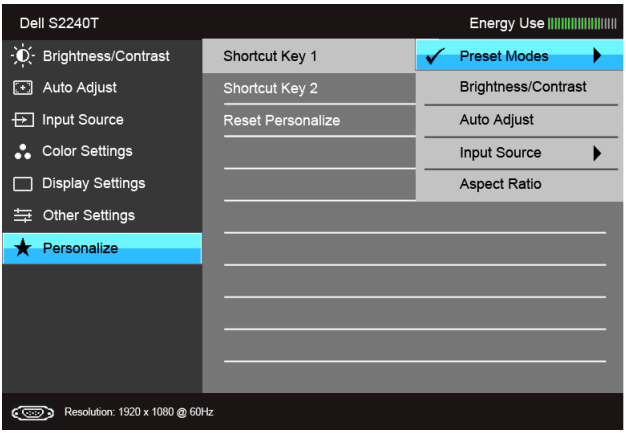
Menu Transparency	Select this option to change the menu transparency by pressing the and buttons (Minimum: 0 ~ Maximum: 100).
Menu Timer	**OSD Hold Time**: sets the length of time the OSD will remain active after the last time you pressed a button. Use or to adjust the slider in 1 second increments, from 5 to 60 seconds.
Menu 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 the OSD menu) or hard lock (press and hold the button above the power button for 10 seconds) **Unlock** function– Only hard unlock (press and hold the button above the power button for 10 seconds)
Energy Smart	To turn on or off dynamic dimming. The dynamic dimming feature automatically reduces the screen's brightness level when the displayed image contains a high proportion of bright areas.
DDC/CI	**DDC/CI** (Display Data Channel/Command Interface) allows your monitor parameters (brightness, color balance, and etc.) to be adjustable via the software on your computer. You can disable this feature by selecting **Disable**. Enable this feature for best user experience and optimum performance of your monitor. 

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



Factory Reset Reset all OSD settings to the factory preset values.

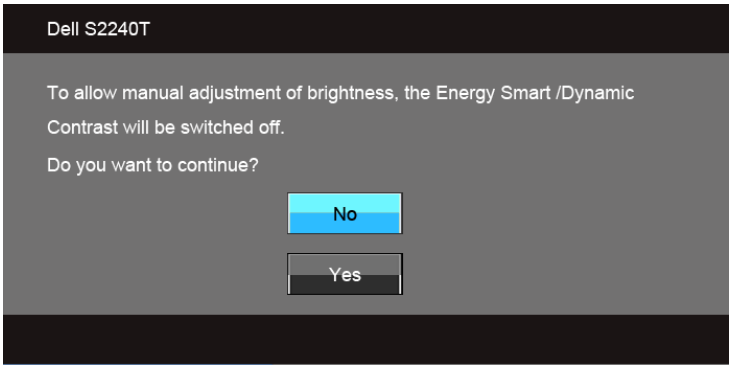
Personalize Users can choose a feature from **Preset Modes**, **Brightness/Contrast**, **Auto Adjust**, **Input Source**, or **Aspect Ratio** and set it as a shortcut key.



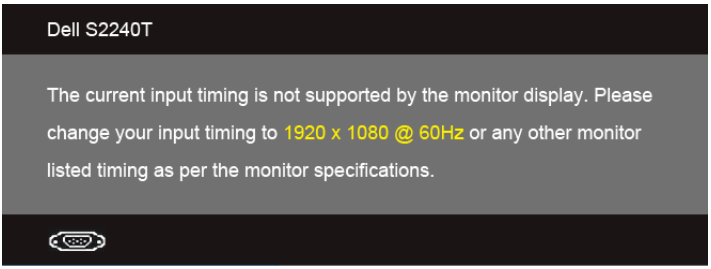
NOTE: This monitor has a built-in feature to automatically calibrate the brightness to compensate for LED aging.

OSD Warning Messages

When the **Energy Smart** or **Dynamic Contrast** feature is enabled (in these preset modes: **Game** or **Movie**), the manual brightness adjustment is disabled.

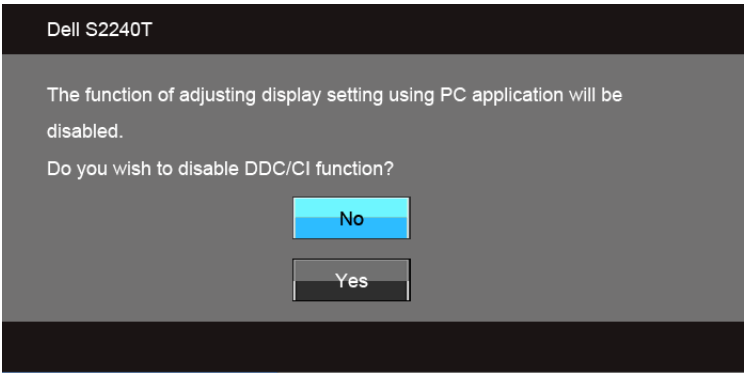


When the monitor does not support a particular resolution mode, you will see the following message:

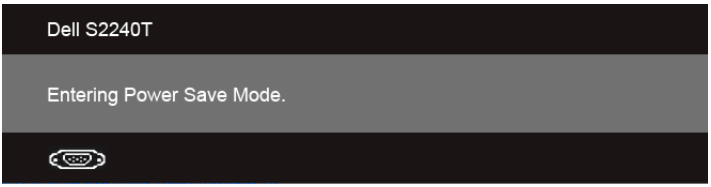


This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See Monitor Specifications for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 1920 x 1080.

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



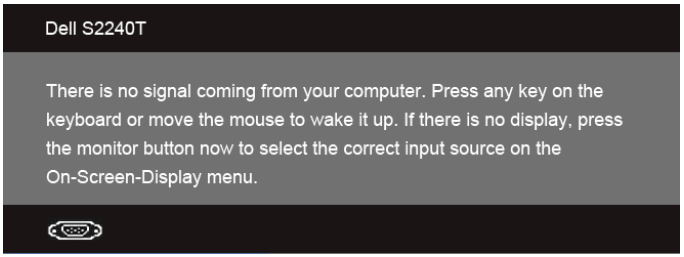
When the monitor enters the **Power Save** mode, the following message appears:



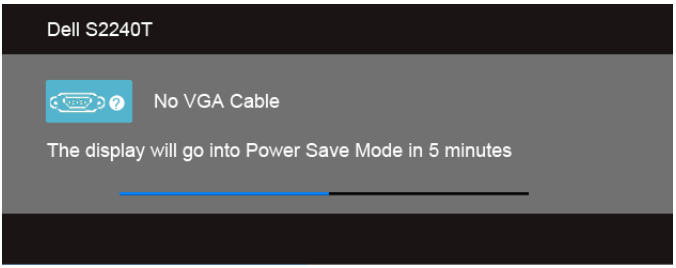
Activate the computer and wake up the monitor to gain access to the Using the On-Screen Display (OSD) Menu.

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

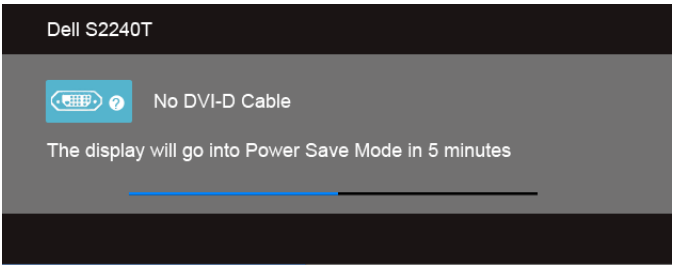
VGA/DVI-D/HDMI input



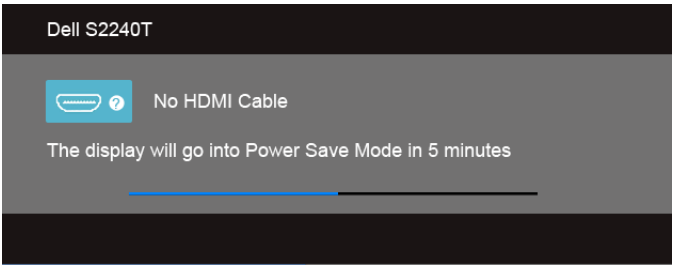
If either VGA, DVI-D, or HDMI input is selected and the corresponding cable is not connected, a floating dialog box as shown below appears.



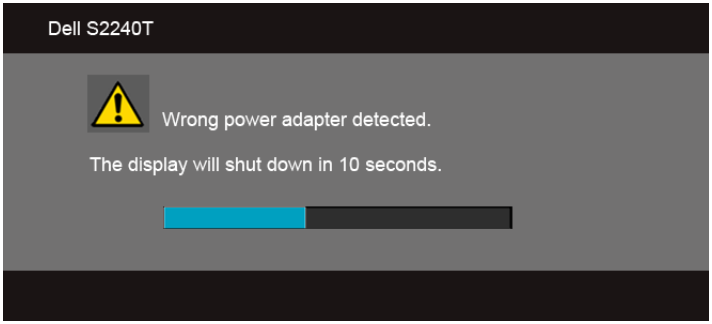
or



or



It is recommended that you use the supplied power adapter. If not, you will see the message as shown below.



See Troubleshooting for more information.

Setting the Maximum Resolution

To set the maximum resolution for the monitor:

In Windows® 7 and 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 Dropdown list of the Screen Resolution and select **1920 x 1080**.
4. Click **OK**.

If you do not see 1920 x 1080 as an option, you may need to update your graphics driver. Depending on your computer, complete one of the following procedures:

If you have a Dell desktop or portable computer:

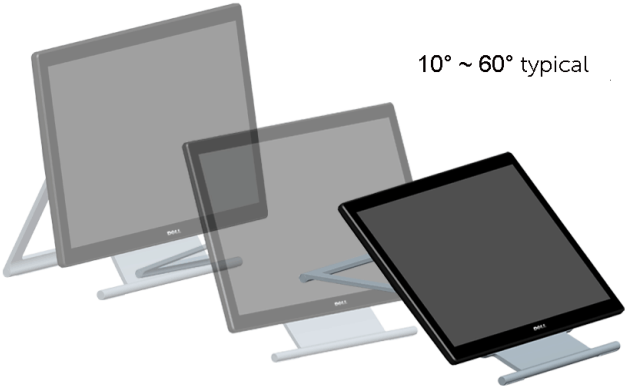
- Go to **support.dell.com**, enter your service tag, and download the latest driver for your graphics card.

If you are using a non-Dell computer (portable or desktop):

- Go to the support site for your computer and download the latest graphic drivers.
- Go to your graphics card website and download the latest graphic drivers.

Using the Tilt and Touch Usage Scenario

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



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

4 Troubleshooting

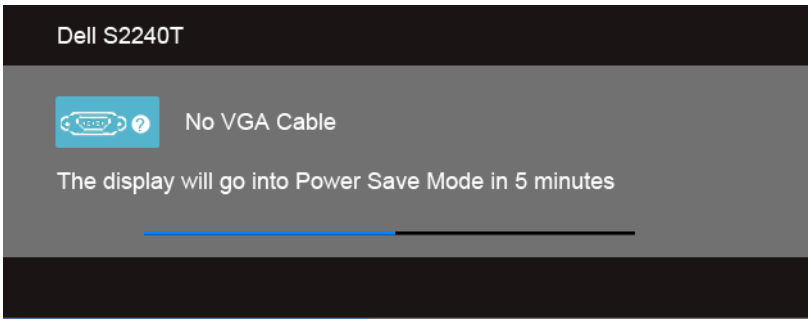
WARNING: Before you begin any of the procedures in this section, follow the Safety Instructions.

Self-Test

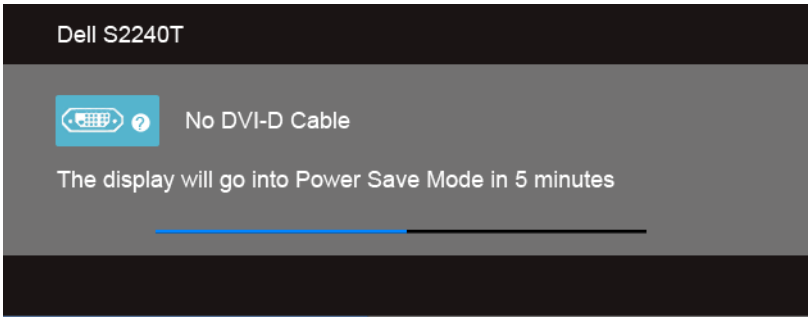
Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer. To ensure proper Self-Test operation, remove all Digital (white connector) and the Analog (blue connector) cables from the back of computer.
3. Turn on the monitor.

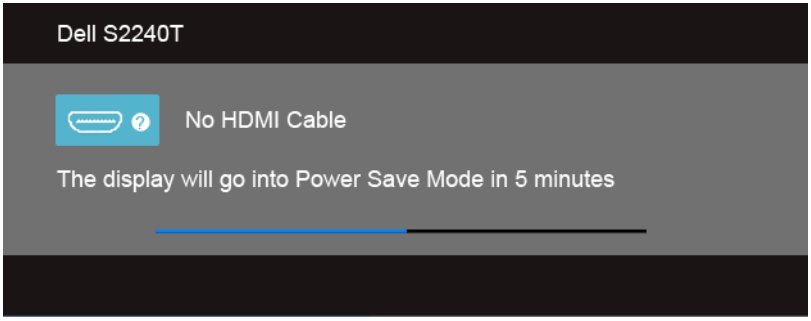
The floating dialog box should appear on-screen (against a black background), if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains white. Also, depending upon the selected input, one of the dialogs shown below will continuously scroll through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



or



or



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

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

Built-in Diagnostics

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

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

To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.

3. Press and hold **Button 1** and **Button 4** on the side panel simultaneously for 2 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press **Button 4** on the side panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, black, white and text screens.

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

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

In-Store Demo

To enter InStore OSD Mode

Detach/Disconnect all cables. Make sure the monitor is in "On" mode. Press and hold **Button 2** and **Button 4** for 5 seconds.

To exit InStore OSD Mode

Press and hold **Button 2** and **Button 4** for 5 seconds. If power is cut off during demo, resume the demo after power is restored.

Common Problems

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

Common Symptoms	What You Experience	Possible Solutions
No Video/ Power LED off	No picture	• Ensure that the video cable connecting the monitor and the computer is properly connected and secure. • Verify that the power outlet is functioning properly using any other electrical equipment. • Ensure that the power button is depressed fully. • Ensure that the correct input source is selected via the Input Source menu.
No Video/ Power LED on	No picture or no brightness	• Increase brightness & contrast controls via OSD. • Perform monitor self-test feature check. • Check for bent or broken pins in the video cable connector. • Run the built-in diagnostics. • Ensure that the correct input source is selected via the Input Source menu.

Poor Focus	Picture is fuzzy, blurry, or ghosting	• Perform **Auto Adjust** via OSD. • Adjust the **Phase** and **Pixel Clock** controls via OSD. • Eliminate video extension cables. • Reset the monitor to **Factory Settings**. • Change the video resolution to the correct aspect ratio (16:9).
Shaky/Jittery Video	Wavy picture or fine movement	• Perform **Auto Adjust** via OSD. • Adjust the **Phase** and **Pixel Clock** controls via OSD. • Reset the monitor to **Factory Settings**. • Check environmental factors. • Relocate the monitor and test in another room.
Missing Pixels	LCD screen has spots	• Cycle power on-off. • Pixel that is permanently off is a natural defect that can occur in LCD technology. • For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **support.dell.com**.
Stuck-on Pixels	LCD screen has bright spots	• Cycle power on-off. • Pixel that is permanently off is a natural defect that can occur in LCD technology. • For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: **support.dell.com**.
Brightness Problems	Picture too dim or too bright	• Reset the monitor to **Factory Settings**. • **Auto Adjust** via OSD. • Adjust brightness & contrast controls via OSD.
Geometric Distortion	Screen not centered correctly	• Reset the monitor to **Factory Settings**. • **Auto Adjust** via OSD. • Adjust horizontal & vertical controls via OSD. **NOTE:** When using DVI-D/HDMI input, the positioning adjustments are not available.
Horizontal/ Vertical Lines	Screen has one or more lines	• Reset the monitor to **Factory Settings**. • Perform **Auto Adjust** via OSD. • Adjust **Phase** and **Pixel Clock** controls via OSD. • Perform monitor self-test feature check and determine if these lines are also in self-test mode. • Check for bent or broken pins in the video cable connector. • Run the built-in diagnostics. **NOTE:** When using DVI-D/HDMI input, the **Pixel Clock** and **Phase** adjustments are not available.
Synchronization Problems	Screen is scrambled or appears torn	• Reset the monitor to **Factory Settings**. • Perform **Auto Adjust** via OSD. • Adjust **Phase** and **Pixel Clock** controls via OSD. • Perform monitor self-test feature check to determine if the scrambled screen appears in self-test mode. • Check for bent or broken pins in the video cable connector. • Restart the computer in the *safe mode*.

Safety Related Issues	Visible signs of smoke or sparks	• Do not perform any troubleshooting steps. • Contact Dell immediately.
Intermittent Problems	Monitor malfunctions on & off	• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Reset the monitor to **Factory Settings**. • Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.
Missing Color	Picture missing color	• Perform monitor self-test feature check. • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Check for bent or broken pins in the video cable connector.
Wrong Color	Picture color not good	• Change the **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	• Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see Power Management Modes). • Alternatively, use a dynamically changing screensaver.

Touch Problem

Specific Symptoms	What You Experience	Possible Solutions
Touch report error	Touch function miss alignment or no touch function	• Make sure power cord comes with ground pin. • Unplug and replug the DC cable from power adapter to allow touch module auto recalibration. • Make sure to use Dell provide USB cable, connect with computer. • Make sure computer support USB 2.0 cable. • If the device cannot be detected by system, power off/on the monitor or plug out/in the USB cable.
Touch screen no response in saving mode	Could not wake up monitor and computer by touching in saving mode	• Access to Device Manager and choose HID Interface Device under Human Device. • Select HID- compliant device Properties • Allow the device to wake the computer.

Win 7 and Win 8 Calibration	The cursor does not accurately follow your finger when you touch the screen	• Enter control panel to choose the Tablet PC settings. • Select Calibration. • Recalibrate your screen following the text on the screen • Save or give up the calibrate data.

Product Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	• Check the **Scaling Ratio** setting in the **Image Setting** OSD. • Reset the monitor to **Factory Settings**.
Cannot adjust the monitor with the buttons on the side panel	OSD does not appear on the screen	• Turn off the monitor, unplug the power cord, plug it back, and then turn on the monitor. • Check whether the OSD menu is locked. If yes, press and hold the button above the Power button for 10 seconds to unlock (for more information, see Menu Lock).
No Input Signal when user controls are pressed	No picture, the LED light is blue.	• Check the signal source. Ensure the computer is not in the power saving mode by moving the mouse or pressing any key on the keyboard. • Check whether the signal cable is plugged in properly. Re-plug the signal cable if necessary. • Reset the computer or video player.
The picture does not fill the entire screen.	The picture cannot fill the height or width of the screen	• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • Run the built-in diagnostics.

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

5 Appendix

WARNING: Safety Instructions

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

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

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

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

Contacting Dell

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

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

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

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

Setting Up Your Monitor

Setting the display resolution

For maximum display performance with Microsoft® Windows® operating systems, set the display resolution to **1920 x 1080** pixels by performing the following steps:

In Windows® 7 and 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 Dropdown list of the Screen Resolution and select **1920 x 1080**.
4. Click **OK**.

If you do not see the recommended resolution as an option, you may need to update your graphics driver. Please choose the scenario below that best describes the computer system you are using, and follow the given steps.

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

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

If you have a Dell™ desktop or a Dell™ portable computer with internet access

1. Go to **http://support.dell.com**, enter your service tag, and download the latest driver for your graphics card.
2. After installing the drivers for your graphics adapter, attempt to set the resolution to **1920 x 1080** again.

NOTE: If you are unable to set the resolution to 1920 x 1080, please contact Dell™ to inquire about a graphics adapter that supports these resolutions.

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

In Windows® 7 and Windows® 8:

1. For Windows® 8 only, select the Desktop tile to switch to classic desktop.
2. Right-click on the desktop and click **Personalization**.
3. Click **Change Display Settings**.
4. Click **Advanced Settings**.
5. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
6. Refer to the graphic card provider website for updated driver (for example, http://www.ATI.com OR http://www.NVIDIA.com).
7. After installing the drivers for your graphics adapter, attempt to set the resolution to **1920 x 1080** again.

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