

# Dell™ P170S/P190S Flat Panel Monitor User's Guide

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## 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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Model P170Sb/P190Sb/P170St/P190St/P170Sf/P190Sf/P190Sc

January 2010 Rev. A02

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# Setting Up Your Monitor

Dell™ P170S/P190S Flat Panel Monitor

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## 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 **1280x1024** again.

 **NOTE:** If you are unable to set the resolution to 1280x1024 , please contact Dell™ to inquire about a Graphics Adapter that supports these resolutions.

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# Setting Up Your Monitor

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

1. Right-click on the desktop and click **Properties**.
2. Select the **Settings** tab.
3. Select **Advanced**.
4. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
5. Please refer to the graphics card provider website for updated driver (for example, <http://www.ATI.com> OR <http://www.NVIDIA.com> ).
6. After installing the drivers for your Graphics Adapter, attempt to set the resolution to **1280x1024** again.

 **NOTE:** If you are unable to set the resolution to 1280x1024 , please contact the manufacturer of your computer or consider purchasing a graphics adapter that will support the video resolution of 1280x1024 .

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# Operating the Monitor

## Dell™ P170S/P190S Flat Panel Monitor User's Guide

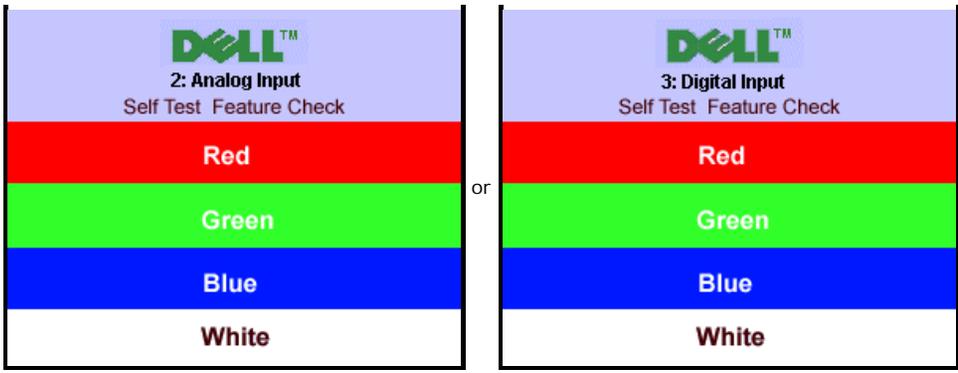
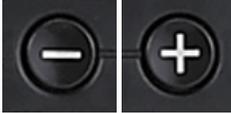
- [Using the Front Panel Controls](#)
- [Using the On-Screen Display \(OSD\) Menu](#)
- [Setting the Maximum Resolution](#)
- [Using the Dell Soundbar \(Optional\)](#)
- [Using the Tilt, Swivel, and Vertical Extension](#)
- [Changing the Rotation of Your Monitor](#)

## Using the Front Panel Controls

Use the control buttons on the front 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.



Front panel Button	Description
 <p data-bbox="174 1078 306 1101">Input select</p>	<p data-bbox="373 950 1461 972">Use the Input Select button to select between two different video signals that may be connected to your monitor.</p> <p data-bbox="373 987 1818 1055">If both VGA and DVI cables are connected to one PC, this monitor will display an image automatically just as long as a video signal is present in either VGA or DVI outputs. When connecting one display to two PCs, if using screen savers, best to set both to the exact times. Whichever mouse is moved first will activate that video input first.</p> <p data-bbox="373 1078 1524 1166"><b>NOTE:</b> The floating 'Dell Self-test Feature Check' dialog appears on a black background if the monitor cannot sense a video signal. Using the input select button, select the desired input to be tested either Analog Input or Digital Input. Disconnect the video cable from the video card and the Dell Self-test Feature Check dialogue box will appear if the display is operating correctly.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="627 1175 1087 1539"> </div> <div data-bbox="1094 1349 1115 1365" style="font-size: small;">or</div> <div data-bbox="1121 1175 1581 1539"> </div> </div>

	
 <p><b>OSD menu / select</b></p>	<p>The Menu button is used to open and exit the on-screen display (OSD), and exit from menus and sub-menus. See <a href="#">Using the OSD Menu</a>.</p>
 <p><b>Down (-) and Up (+)</b></p>	<p>Use these buttons to adjust (decrease/increase ranges) items in the OSD menu.</p>
 <p><b>Brightness/Contrast</b></p>	<p>Use this button to launch Brightness/Contrast Menu.</p>
 <p><b>Auto Adjust</b></p>	<p>Use this button to activate automatic setup and adjustment. The following dialog appears on a black screen as the monitor self-adjusts to the current input:</p>  <p>Auto Adjustment button 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), Phase (Fine) controls in the OSD.</p> <p><b>NOTE:</b> Auto Adjust does not occur if you press the button while there are no active video input signals or attached cables.</p>
 <p><b>Power Button and Indicator</b></p>	<p>Use the power button to turn the monitor on and off.</p> <p>The green light indicates the monitor is on and fully functional. An amber light indicates power save mode.</p>

## Using the On-Screen Display (OSD) Menu

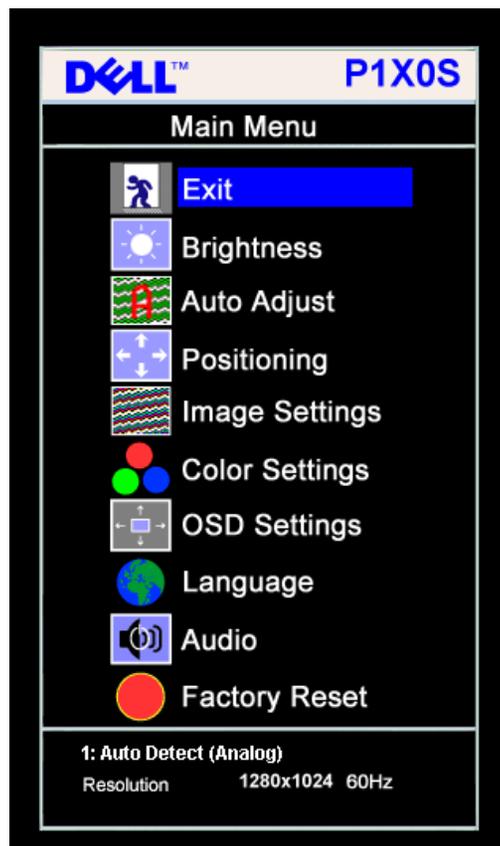
## Accessing the Menu System

**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.

Push the MENU button to open the OSD menu and display the main menu.

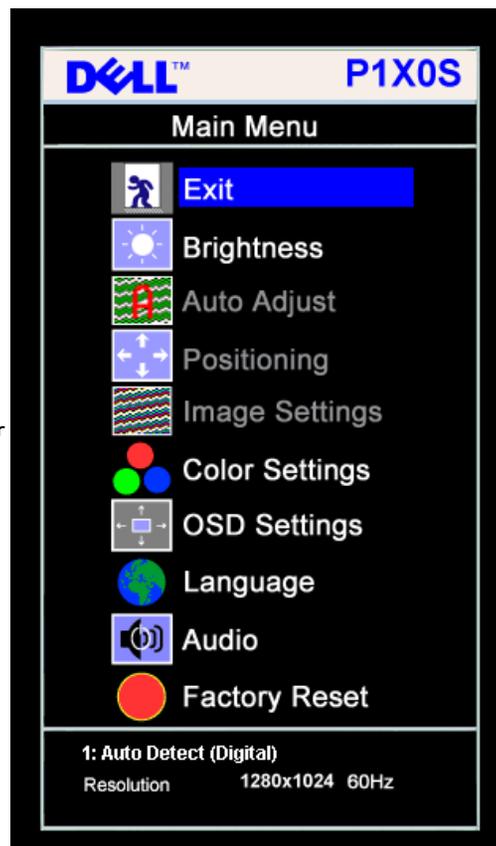
1. Push the MENU button to launch the OSD menu and display the main menu.

Main Menu for Auto Detect Analog (VGA) Input



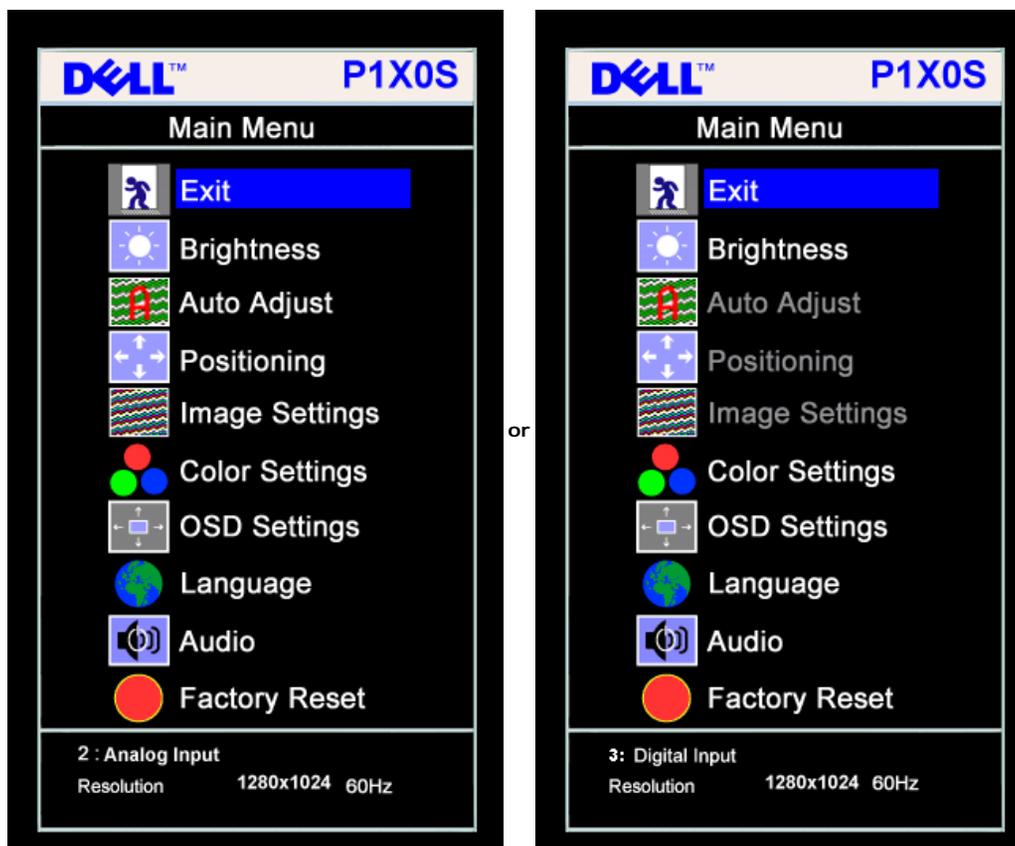
Main Menu for Analog (VGA) Input

Main Menu for Auto Detect Digital (DVI) Input



Main Menu for Digital (DVI) Input

or

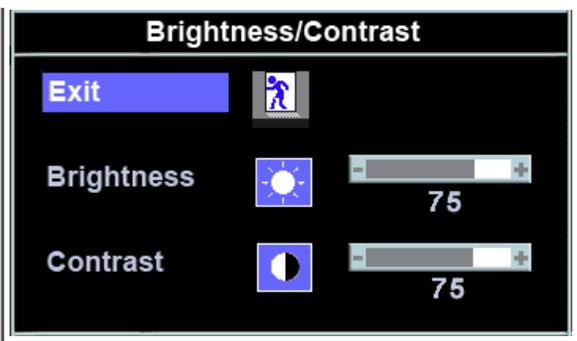


or

**NOTE:** Auto Adjust, Positioning and Image Settings are only available when you are using the analog (VGA) connector.

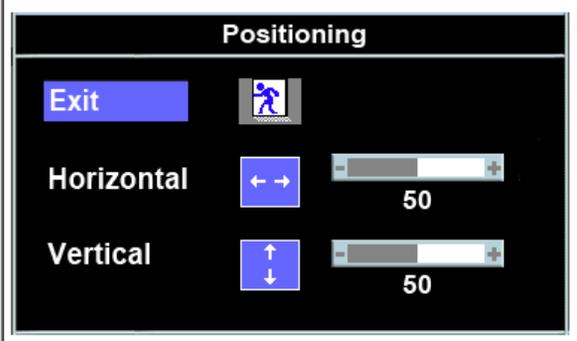
2. Push the - and + buttons to move between the setting options. As you move from one icon to another, the option name is highlighted. See the table below for a complete list of all the options available for the monitor.
3. Push the MENU button once to activate the highlighted option.
4. Push - and +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

Icon	Menu and Submenus	Description
	Exit	Select to exit the Main menu.
	Brightness/ Contrast	<p>Brightness adjusts the luminance of the backlight.</p> <p>Adjust <b>Brightness</b> first, then adjust <b>Contrast</b> only if further adjustment is necessary.</p> <p>Push the + button to increase luminance and push the - button to decrease luminance (min 0 ~ max 100).</p> <p>Contrast adjusts the degree of difference between darkness and lightness on the monitor screen.</p> <p>Push the + button to increase the contrast and push the - button to decrease the contrast (min 0 ~ max 100).</p>



**Positioning:**  
Horizontal  
Vertical

Positioning moves the viewing area around on the monitor screen. When making changes to either the Horizontal or Vertical settings, no changes occur to the size of the viewing area. The image shifts in response to your selection.



Minimum is 0 (-) and maximum is 100 (+).

**NOTE:** When using DVI source, the Positioning option is not available.



**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. Select to activate automatic setup and adjustment. The following dialog appears on a black screen as the monitor self-adjusts to the current input:



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 Image Settings.

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



**Image settings:**

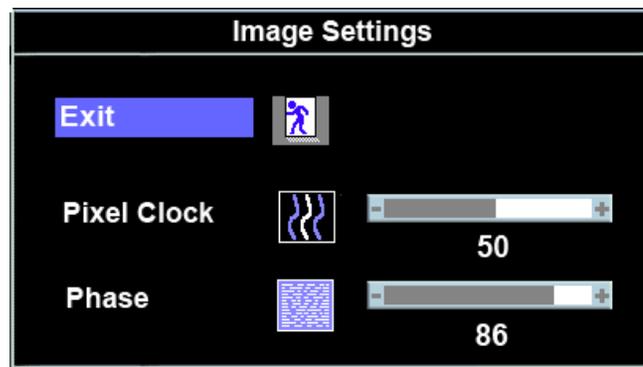
The Phase and Pixel Clock adjustments allow you to more closely adjust your monitor to your preference. These settings are accessed through the main OSD menu, by selecting Image Settings.

**Pixel Clock**

Use the - and + buttons to make adjustments. (Minimum: 0 ~ Maximum: 100)  
If satisfactory results are not obtained using the Phase adjustment, use Pixel Clock (Coarse) and then use Phase (fine), again.

**Phase**

**NOTE:** This function may change the width of the display image. Use the Horizontal function of the Position menu to center the display image on the screen.

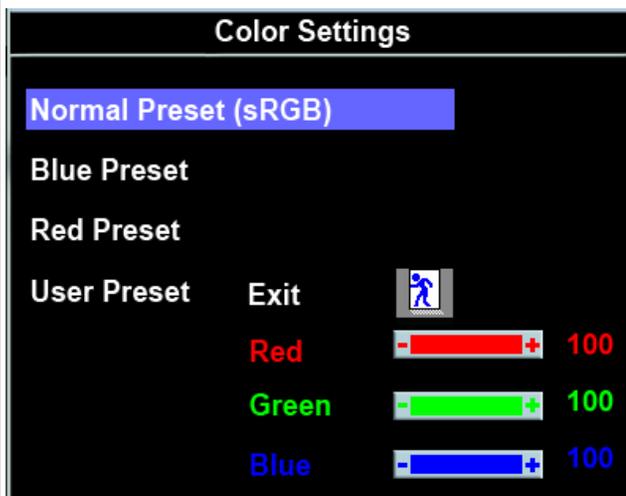


 **NOTE:**When using DVI source, the Image Settings option is not available.



**Color Settings**

Color Settings adjusts the color temperature, color hue, and saturation. The color hue is most noticeable in areas of white.



**Normal Preset**

- Normal Preset is selected to obtain the default (factory) color settings. This setting is also the “sRGB” standard default color space.

**Blue Preset**

- Blue Preset is selected to obtain a bluish tint. This color setting is typically used for text based applications (spreadsheets, programming, text editors, etc.).

**Red Preset**

- Red Preset is selected to obtain a redder tint. This color setting is typically used for color-intensive applications (photograph image editing, multimedia, movies, etc.).

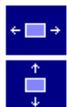
**User Preset**

- User Preset: Use the plus and minus buttons to increase or decrease each of the three colors (R, G, B) independently, in single digit increments, from 0 to 100.



**OSD Settings:**

Adjust the settings for the OSD, including the location, the amount of time the menu remains on-screen, and the rotation of the OSD.



**Horizontal Position**

Position of the OSD:

- To adjust the horizontal position of the OSD, use the - and + buttons, and move OSD to the left and right.



**Vertical Position**

- To adjust the vertical position of the OSD, use the - and + buttons, and move OSD down and up.



**OSD Hold Time**

OSD Hold Time:

The OSD stays active for as long as it is in use. Adjusting the hold time, sets the length of time the OSD remains active after the last time you pressed a button. Use the - and + buttons to adjust the slider in 5 second increments, from 5 to 60 seconds.



**OSD Rotation**

OSD Rotation:

Rotates the OSD by 90 ° counter-clockwise. Adjust according to [Rotating Your Monitor](#) section



**OSD Lock**

OSD Lock:

Controls user access to adjustments. When Yes (+) is selected, no user adjustments are allowed. All buttons are locked except the menu button.

**NOTE:** When the OSD is locked, pressing the menu button takes the user directly to the OSD settings menu, with OSD Lock selected. Select No (-) to unlock and allow user access to all applicable settings.

The screenshot shows the 'On Screen Display (OSD)' menu with the following options and settings:

- Exit:** Represented by a person icon.
- Horizontal Position:** Represented by a left-right arrow icon, with a slider set to 50.
- Vertical Position:** Represented by an up-down arrow icon, with a slider set to 50.
- OSD Hold Time:** Represented by a clock icon, with a slider set to 20 Sec.
- OSD Rotation:** Represented by a rotation icon, with options '- No' and 'Yes +'.
- OSD Lock:** Represented by a lock icon, with options '- No' and 'Yes +'.

**NOTE:** You can also lock or unlock the OSD by pushing and holding the Menu button for 15 seconds.



**Language**

Select to have the OSD display in one of 8 languages (English, French, Spanish, German, Japanese, Brazilian Portuguese, Russian and Simplified Chinese).



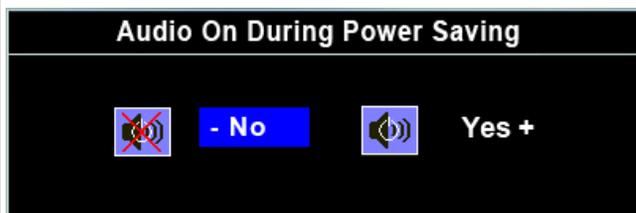
 **NOTE:** The change only affects the OSD. It has no effect on any software running on the computer.



**Audio (optional)**

You can select to have the audio on or off when the monitor is in power saving mode.

- Yes** — enables audio
- No** — disables audio (default)

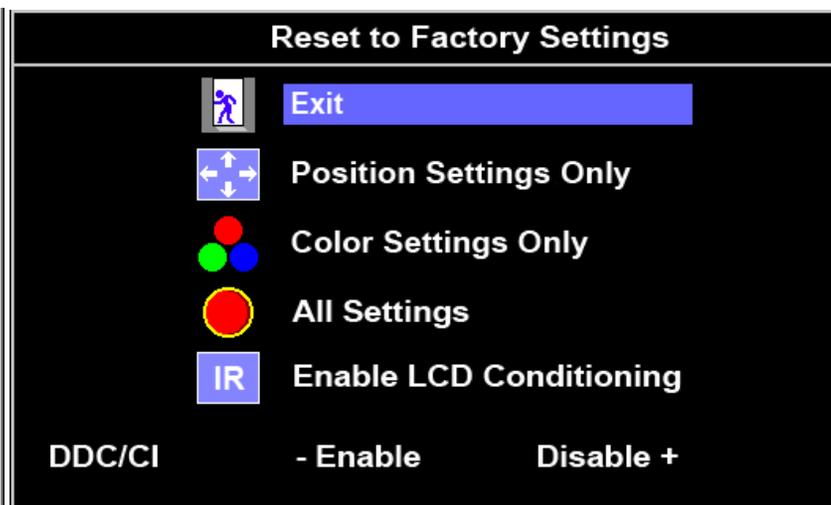


 **NOTE:** When the Dell Soundbar is not properly connected to the monitor, the audio menu is not available.



**Factory Reset:**

Reset the OSD menu options to the factory preset values.



**Exit** — Select to exit out of Reset to Factory Settings menu without resetting any OSD options.

**Position settings only** — Change the settings for Image Position back to original factory settings.

**Color settings only** — Change the Red, Green, and Blue settings back to their original factory settings and set the default setting for Normal Preset.

**All settings** — Change all the user-adjustable settings including color, position, brightness, contrast and OSD hold time to the factory defaults. The language of the OSD does not change.

**IR** — This feature will help reduce minor cases of image retention.

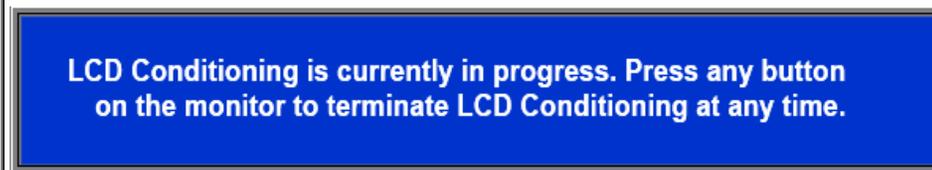
**Enable LCD Conditioning:** If an image appears to be stuck on the monitor, select **LCD Conditioning** to help eliminate any image retention. Using the LCD Conditioning feature may take several hours. Severe cases of image retention are known as burn-in, the LCD Conditioning feature does not remove burn-in.

 **NOTE:** Use LCD Conditioning only when you experience a problem with image retention.

Below warning message appears once user select "Enable LCD Conditioning":



 **NOTE:** Press any button on the monitor to terminate LCD Conditioning at any time.



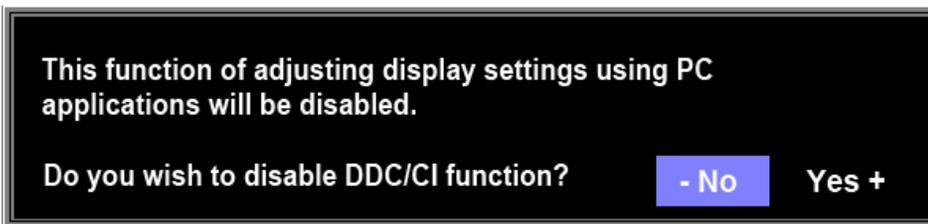
**DDC/CI** — Enable the DDC/CI control function.

DDC/CI (Display Data Channel/Command Interface) allows you to adjust the monitor parameters (brightness, color balance, etc) via software applications on your PC.

Default is "Enable". You can disable this feature by selecting "Disable".

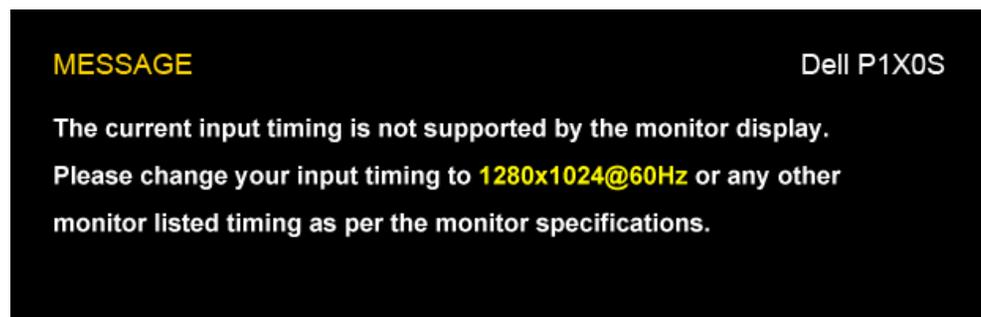
For best user experience and optimum performance of your monitor, keep this feature enabled.

**NOTE:** If user select "Disable", display Warning message box as below. Select "Yes" disable DDC/CI and return to "Factory Reset" menu. Warning message time-out in 20 sec.



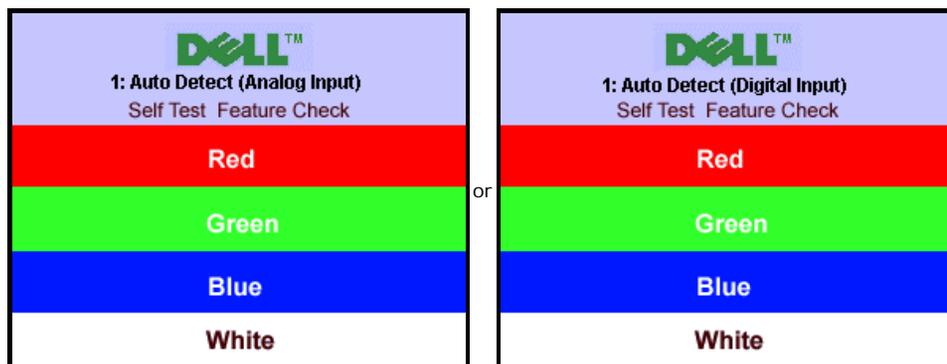
## OSD Warning Messages

The following warning messages may appear on the screen indicating that the monitor is out of synchronization.



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 1280 X 1024.

**NOTE:** The floating Dell Self-test Feature Check dialog appears on-screen if the monitor cannot sense a video signal.





Occasionally, no warning message appears, but the screen is blank. This could also indicate that the monitor is not synchronizing with the computer.

See [Solving Problems](#)

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## Setting the Maximum Resolution

To set the maximum resolution for the monitor:

1. Right-click on the desktop and select **Properties**.
2. Select the **Settings** tab.
3. Set the screen resolution to **1280 X 1024**.
4. Click **OK**.

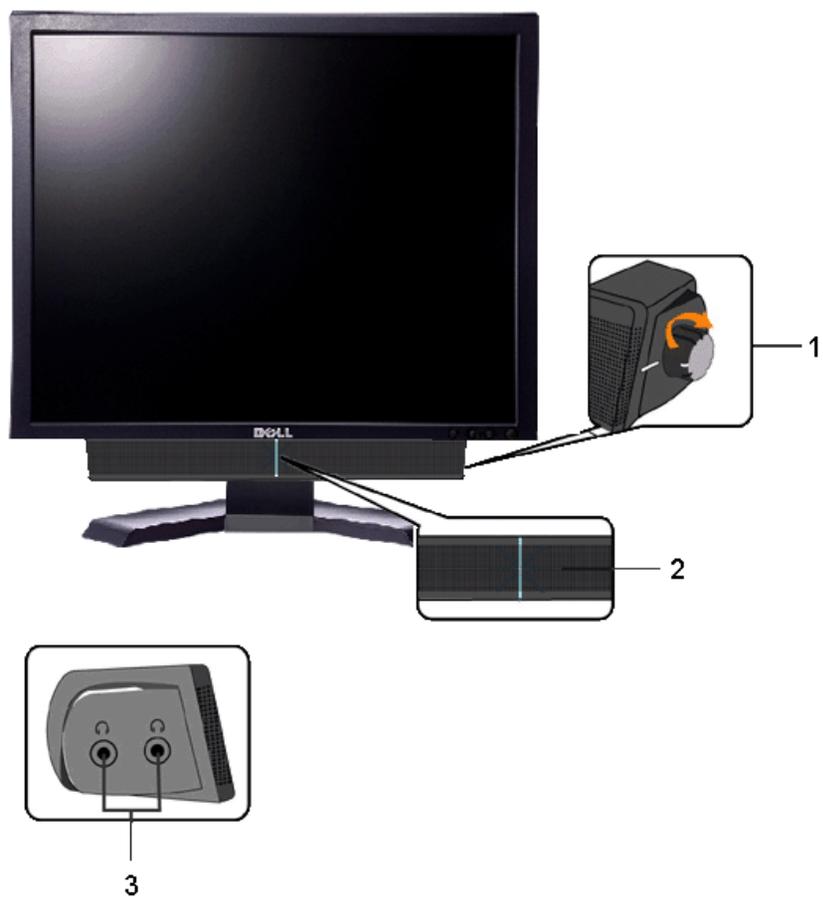
If you do not see 1280 X 1024 as an option, you may need to update your graphics driver. Depending on your computer, complete one of the following procedures:

- If you have a Dell desktop or portable computer:
  - Go to **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.

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## Using the Dell Soundbar (Optional)

The Dell Soundbar is a stereo two channel system adaptable to mount on Dell flat panel displays. The Soundbar has a rotary volume and on/off control to adjust the overall system level, a blue LED for power indication, and two audio headset jacks.



1. Power/volume control
2. Power indicator
3. Headphone connectors

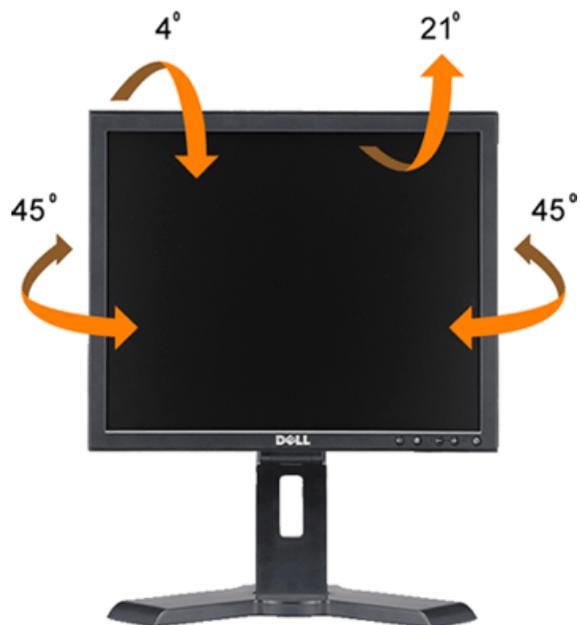
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## Using the Tilt, Swivel, and Vertical Extension

 **NOTE:** This is applicable for a monitor with a stand. When the OptiPlex™ USFF 780/OptiPlex™ SFF 980 AIO Stand is bought, please refer to the respective AIO stand setup guide for set up instructions.

### Tilt/Swivel

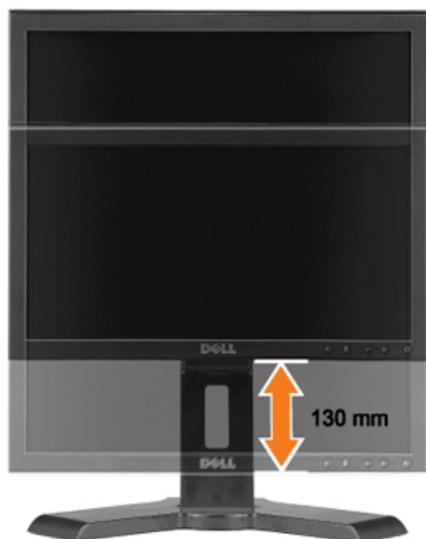
With the built-in stand, you can tilt and/or swivel the monitor for the most comfortable viewing angle.



**NOTE:** Stand is detached and extended when the monitor is shipped from the factory.

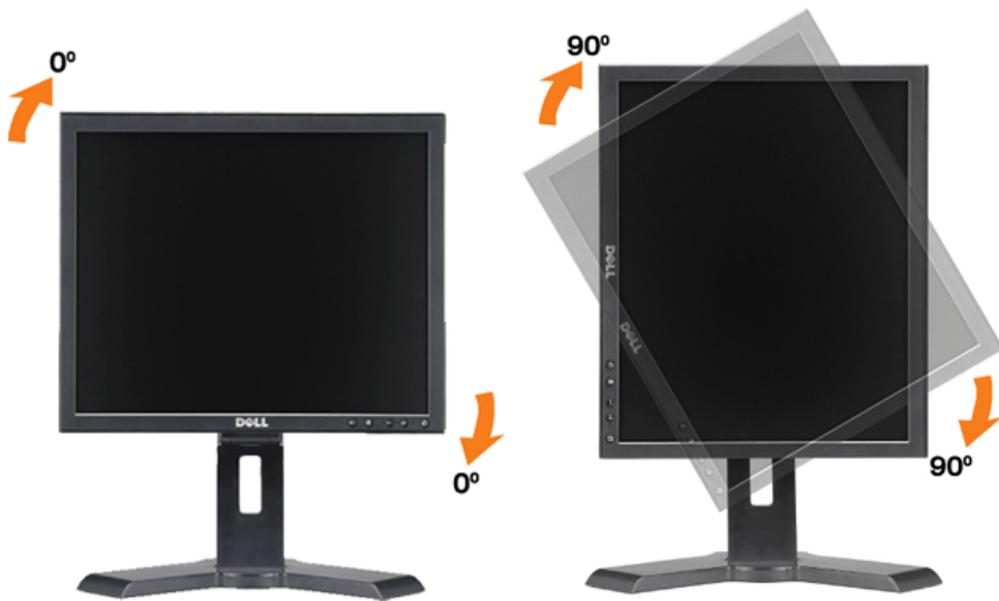
## Vertical Extension

Stand extends vertically up to 130mm.



## Changing the Rotation of Your Monitor

Before you rotate the monitor, your monitor should either be vertically extended ([Vertical Extension](#)) or tilted ([Tilt](#)) to avoid hitting the bottom edge of the monitor.



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## Important instructions to set the display resolution to 1280x1024 (Maximum Resolution)

For optimal display performance while using the Microsoft Windows® operating systems, set the display resolution to 1280x1024 pixels by performing the following steps:

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 **1280x1024**.
4. Click **OK**.

If you do not see **1280x1024** as an option, you may need to update your graphics driver. Please choose the scenario below that best describes the computer system you are using, and follow the provided directions:

**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.](#)**

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## Setting Up the Monitor

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  - [Connecting the Monitor](#)
  - [Organizing Your Cables](#)
  - [Attaching the Soundbar \(Optional\)](#)
  - [Removing the Stand](#)
- 

### Attaching the Stand

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

 **NOTE:** This is applicable for a monitor with a stand. When the OptiPlex™ USFF 780/OptiPlex™ SFF 980 AIO Stand is bought, please refer to the respective AIO stand setup guide for set up instructions.



Remove the monitor cover and place the monitor on it.

1. Fit the two tabs on the upper part of the stand to the groove on the back of the monitor.
  2. Lower the stand so that the monitor mounting area snaps onto the stand.
- 

### Connecting the Monitor

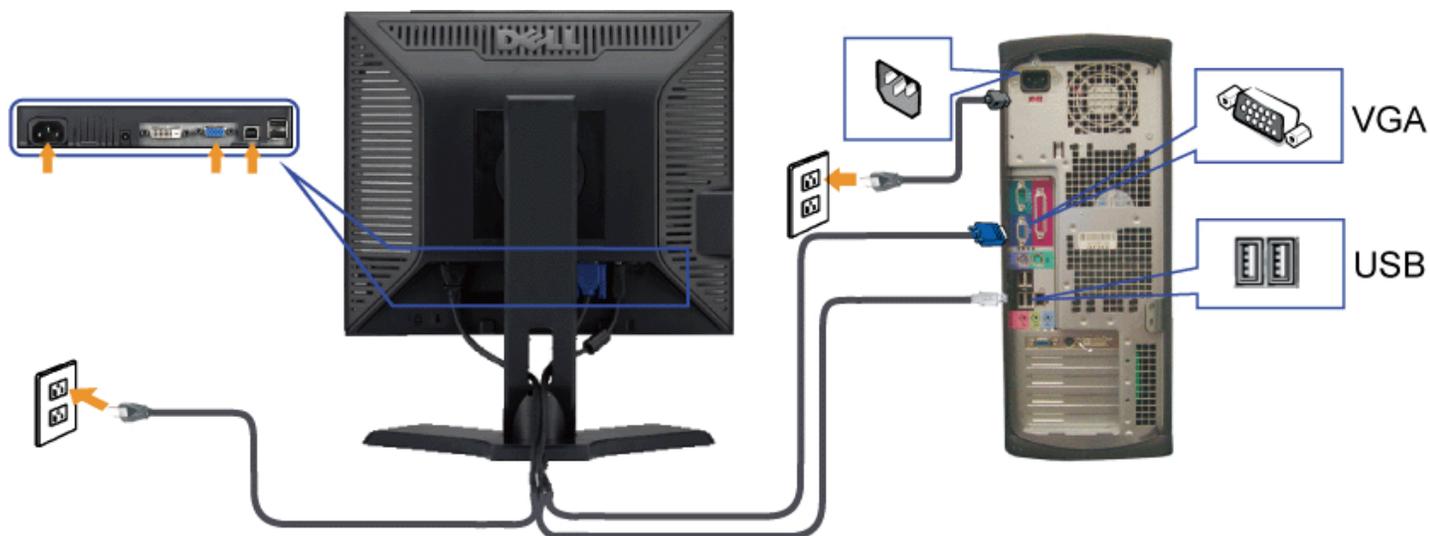
 **WARNING:** Before you begin any of the procedures in this section, follow the [safety instructions](#).

To connect your monitor to the computer perform the following steps/instructions:

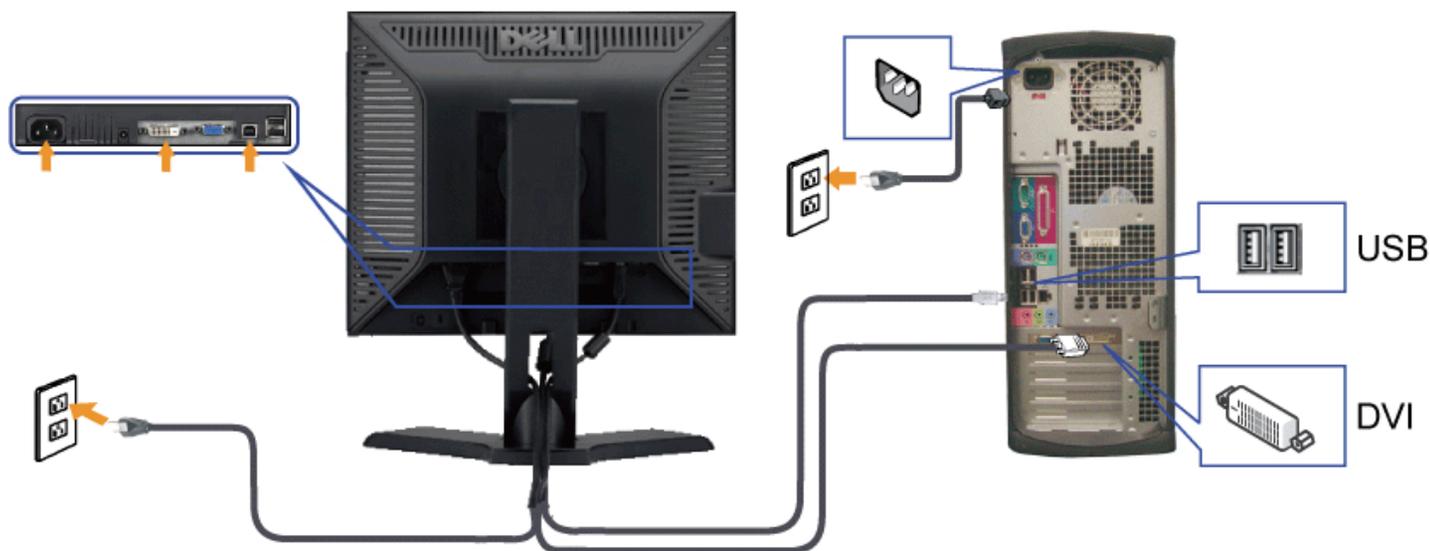
1. Turn off your computer and disconnect the power cable.
2. Connect either the white (digital DVI-D) or the blue (analog VGA) display connector cable to the corresponding video port on the back of your computer. Do not connect both

cables on the same computer. Use both the cables only when they are connected to two different computers with appropriate video systems.

## Connecting the Blue VGA Cable



## Connecting the White DVI Cable



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

After you have completed connecting the VGA/DVI cable, follow the procedure below to complete your monitor setup:

1. Plug the power cables for your computer and monitor into a nearby outlet.
  2. Turn on the monitor and the computer.  
If your monitor displays an image, installation is complete. If it does not display an image, see [Solving Problems](#).
- 

## Organizing Your Cables



After attaching all necessary cables to your monitor and computer (see [Connecting Your Monitor](#)), use the cable management slot to organize all cables as shown above.

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## Attaching the Soundbar (Optional)



1. Working from the rear of the monitor, attach the Soundbar by aligning the two slots with the two tabs along the bottom rear of the monitor.
2. Slide the Soundbar to the left until it snaps into place.
3. Connect the Soundbar with the DC power connector.
4. Insert the mini stereo plug from the rear of the Soundbar into the computer's audio output jack.

**⚠ CAUTION: Do not use with any device other than the Dell Soundbar**

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## Removing the Stand

After placing the monitor panel on a soft cloth or cushion, press and hold the stand removal button, and then remove the stand.



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

 **NOTE:** This is applicable for a monitor with a stand. When the OptiPlex™ USFF 780/OptiPlex™ SFF 980 AIO Stand is bought, please refer to the respective AIO stand setup guide for set up instructions.

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## Solving Problems

### Dell™ P170S/P190S Flat Panel Monitor User's Guide

- [Self-Test](#)
- [Built-in Diagnostics](#)
- [Common Problems](#)
- [Product-Specific Problems](#)
- [USB Problems](#)
- [Troubleshooting the Dell™ Soundbar \(Optional\)](#)

**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 the Analog (blue connector) cables from the back of computer.
3. Turn on the monitor.

The floating 'Dell™ - Self Test Feature Check' 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 green. Also, depending upon the selected input, one of the dialogs shown below will continuously scroll through the screen.



4. This box also appears during normal system operation if the video cable becomes disconnected or damaged.
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 system; 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. On the front panel, press and hold the **Menu (button 2)** and **+ (button 4)** keys on the front panel, simultaneously for 2 seconds. A gray screen appears.



4. Carefully inspect the screen for abnormalities.
5. Press the + (**button 4**) key on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, and white colored screens.

The test is complete when the white screen appears. To exit, press the + (**button 4**) again.

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

## OSD Warning Messages

For OSD-related issues, see [OSD Warning Messages](#).

## Common Problems

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

Common Symptoms	What You Experience	Possible Solutions
No Video/Power LED off	No picture	<ul style="list-style-type: none"> <li>Ensure that the video cable connecting the monitor and the computer is properly connected and secure.</li> <li>Verify that the power outlet is functioning properly using any other electrical equipment.</li> <li>Ensure that the power button is depressed fully.</li> <li>Ensure that the correct input source is selected via the <a href="#">Input Source Select</a> button.</li> </ul>
No Video/Power LED on	No picture or no brightness	<ul style="list-style-type: none"> <li>Increase brightness &amp; contrast controls via OSD.</li> <li>Perform monitor Self Test Feature Check.</li> <li>Check for bent or broken pins in the video cable connector.</li> <li>Run the built-in diagnostics.</li> </ul>
Poor Focus	Picture is fuzzy, blurry, or ghosting	<ul style="list-style-type: none"> <li>Perform Auto Adjust via OSD.</li> <li>Adjust the Phase and Pixel Clock controls via OSD.</li> <li>Eliminate video extension cables.</li> <li>Reset the monitor to Factory Settings.</li> </ul>
Shaky/Jittery Video	Wavy picture or fine movement	<ul style="list-style-type: none"> <li>Perform Auto Adjust via OSD.</li> <li>Adjust the Phase and Pixel Clock controls via OSD.</li> <li>Reset the monitor to Factory Settings.</li> <li>Check environmental factors.</li> <li>Relocate the monitor and test in another room.</li> </ul>
Missing Pixels	LCD screen has spots	<ul style="list-style-type: none"> <li>Cycle power on-off.</li> <li>Pixel that is permanently off is a natural defect that can occur in LCD technology.</li> <li>Run the built-in diagnostics.</li> </ul>
Stuck-on Pixels	LCD screen has bright spots	<ul style="list-style-type: none"> <li>Cycle power on-off.</li> <li>Pixel that is permanently off is a natural defect that can occur in LCD technology.</li> <li>Run the built-in diagnostics.</li> </ul>
Brightness Problems	Picture too dim or too bright	<ul style="list-style-type: none"> <li>Reset the monitor to Factory Settings.</li> <li>Auto Adjust via OSD.</li> <li>Adjust brightness &amp; contrast controls via OSD.</li> </ul>
Geometric Distortion	Screen not centered correctly	<ul style="list-style-type: none"> <li>Reset the monitor to Factory Settings.</li> <li>Auto Adjust via OSD.</li> <li>Adjust brightness &amp; contrast controls via OSD.</li> </ul>
Horizontal/Vertical Lines	Screen has one or more lines	<ul style="list-style-type: none"> <li>Reset the monitor to Factory Settings.</li> <li>Perform Auto Adjust via OSD.</li> <li>Adjust Phase and Pixel Clock controls via OSD.</li> <li>Perform monitor Self Test Feature Check and determine if these lines are also in self-test mode.</li> <li>Check for bent or broken pins in the video cable connector.</li> </ul>

Synchronization Problems	Screen is scrambled or appears torn	<p>Reset the monitor to Factory Settings.</p> <ul style="list-style-type: none"> <li>Perform Auto Adjust via OSD.</li> <li>Adjust Phase and Pixel Clock controls via OSD.</li> <li>Perform monitor Self Test Feature Check to determine if scrambled screen appears in self-test mode.</li> <li>Check for bent or broken pins in the video cable connector.</li> <li>Restart the computer in the <i>safe mode</i>.</li> </ul>
Safety Related Issues	Visible signs of smoke or sparks	<ul style="list-style-type: none"> <li>Do not perform any troubleshooting steps.</li> <li>Contact Dell immediately.</li> </ul>
Intermittent Problems	Monitor turns on & off	<ul style="list-style-type: none"> <li>Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.</li> <li>Reset the monitor to Factory Settings.</li> <li>Perform monitor Self Test Feature Check to determine if the intermittent problem occurs in self-test mode.</li> </ul>
Missing Color	Picture lacks color	<ul style="list-style-type: none"> <li>Perform monitor Self Test Feature Check.</li> <li>Ensure that the video cable connecting the monitor to the computer is connected properly and is secure.</li> <li>Check for bent or broken pins in the video cable connector.</li> </ul>
Wrong Color	Picture color is not good	<ul style="list-style-type: none"> <li>Change the color to "User Preset"</li> <li>Adjust R/G/B value of "User Preset"</li> </ul>
Image retention from a static image left on the monitor for a long period of time	Faint shadow from the static image displayed appears on the screen	<ul style="list-style-type: none"> <li>Use the Power Management feature to turn off the monitor at all times when not in use (for more information, see <a href="#">Power Management Modes</a>).</li> <li>Alternatively, use a dynamically changing screensaver.</li> </ul>

## Product-Specific Problems

SPECIFIC SYMPTOMS	WHAT YOU EXPERIENCE	POSSIBLE SOLUTIONS
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	<ul style="list-style-type: none"> <li>Perform monitor reset on "Factory Reset"</li> </ul>
Cannot adjust the monitor with the buttons on the front panel	OSD does not appear on the screen	<ul style="list-style-type: none"> <li>Turn the monitor off and unplug the power cord and then plug back and power on</li> </ul>
No Input Signal when user controls pressed	No picture, the LED light is green. When press "+", "-", or "Menu" key, the message " No input signal " will appear.	<ul style="list-style-type: none"> <li>Check the signal source. Ensure that the computer is not in power saving by moving the mouse or pressing any key on the keyboard.</li> <li>Check whether the signal cable is plugged in and seated properly. Re-plug the signal cable if necessary.</li> <li>Re-boot the computer or video player.</li> </ul>
The monitor will not fill the entire screen.	The picture does not fill the height or width of the screen.	<ul style="list-style-type: none"> <li>Due to the non-standard formats of DVDs, the monitor may not show the full screen pictures.</li> </ul>

## USB Problems

Specific Symptoms	What You Experience	Possible Solutions
USB interface is not working	USB peripherals are not working.	<ul style="list-style-type: none"> <li>Check that your monitor is turned ON.</li> <li>Reconnect the upstream cable to your computer.</li> <li>Reconnect the USB peripherals (downstream connector).</li> <li>Switch off and then turn on the monitor again.</li> </ul>
High Speed USB 2.0 interface is slow	High Speed USB 2.0 peripherals working slowly or not at all.	<ul style="list-style-type: none"> <li>Check that your computer is USB 2.0 capable.</li> <li>Verify USB 2.0 source on your computer.</li> <li>Reconnect the upstream cable to your computer.</li> <li>Reconnect the USB peripherals (downstream connector).</li> </ul>

## Troubleshooting the Dell™ Soundbar (Optional)

COMMON SYMPTOMS	WHAT YOU EXPERIENCE	POSSIBLE SOLUTIONS
No Sound	Soundbar has power - power indicator is on.	<ul style="list-style-type: none"> <li>Plug the audio line-in cable into the computer's audio out jack.</li> <li>Set all Windows volume controls to their maximum.</li> <li>Play some audio content on the computer (i.e., audio CD, or MP3).</li> <li>Turn the Power/Volume knob on the Soundbar clockwise to a higher volume setting.</li> <li>Clean and reseat the audio line-in plug.</li> </ul>

		<ul style="list-style-type: none"> <li>• Test the Soundbar using another audio source (i.e., portable CD player).</li> </ul>
Distorted Sound	Computer's sound card is used as the audio source.	<ul style="list-style-type: none"> <li>• Clear any obstructions between the Soundbar and the user.</li> <li>• Confirm that the audio line-in plug is completely inserted into the jack of the sound card.</li> <li>• Set all Windows volume controls to their midpoints.</li> <li>• Decrease the volume of the audio application.</li> <li>• Turn the Power/Volume knob on the Soundbar counter-clockwise to a lower volume setting.</li> <li>• Clean and reseal the audio line-in plug.</li> <li>• Troubleshoot the computer's sound card.</li> <li>• Test the Soundbar using another audio source (i.e., portable CD player).</li> </ul>
Distorted Sound	Other audio source is used.	<ul style="list-style-type: none"> <li>• Clear any obstructions between the Soundbar and the user.</li> <li>• Confirm that the audio line-in plug is completely inserted into the jack of the audio source.</li> <li>• Decrease the volume of the audio source.</li> <li>• Turn the Power/Volume knob on the Soundbar counter-clockwise to a lower volume setting.</li> <li>• Clean and reseal the audio line-in plug.</li> </ul>
Unbalanced Sound Output	Sound from only one side of Soundbar	<ul style="list-style-type: none"> <li>• Clear any obstructions between the Soundbar and the user.</li> <li>• Confirm that the audio line-in plug is completely inserted into the jack of the sound card or audio source.</li> <li>• Set all Windows audio balance controls (L-R) to their midpoints.</li> <li>• Clean and reseal the audio line-in plug.</li> <li>• Troubleshoot the computer's sound card.</li> <li>• Test the Soundbar using another audio source (i.e., portable CD player).</li> </ul>
Low Volume	Volume is too low	<ul style="list-style-type: none"> <li>• Clear any obstructions between the Soundbar and the user.</li> <li>• Turn the Power/Volume knob on the Soundbar clockwise to the maximum volume setting.</li> <li>• Set all Windows volume controls to their maximum.</li> <li>• Increase the volume of the audio application.</li> <li>• Test the Soundbar using another audio source (i.e., portable CD player).</li> </ul>

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## About Your Monitor

Dell™ P170S/P190S Flat Panel Monitor User's Guide

- [Package Contents](#)
- [Product Features](#)
- [Identifying Parts and Controls](#)
- [Monitor Specifications](#)
- [Plug and Play Capability](#)
- [LCD Monitor Quality & Pixel Policy](#)
- [Maintenance Guidelines](#)

## Package Contents

Your monitor ships with the components shown below. Ensure 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:** Stand and cables are not included, when purchased with OptiPlex™ USFF 780/OptiPlex™ SFF 980 AIO Stands.
-  **NOTE:** To set up with the respective AIO stand, please refer to the respective stand setup guide for setup instructions.

	<ul style="list-style-type: none"><li>• Monitor with stand</li></ul>
	<ul style="list-style-type: none"><li>• Power Cable</li></ul>
	<ul style="list-style-type: none"><li>• VGA Cable</li></ul>

	
	<ul style="list-style-type: none"> <li>• DVI Cable</li> </ul>
	<ul style="list-style-type: none"> <li>• USB upstream cable</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Drivers and Documentation</i> media</li> <li>• <i>Quick Setup Guide</i></li> <li>• <i>Safety Information</i></li> </ul>

## Product Features

The **P170S/P190S** flat panel display has an active matrix, thin-film transistor (TFT), and liquid crystal display (LCD). The monitor features include:

- **P170S:** 17-inch (432 mm) viewable area display (measured diagonally). 1280 x 1024 resolution, plus full-screen support for lower resolutions.
- **P190S:** 19-inch (481.9 mm) viewable area display (measured diagonally). 1280 x 1024 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, swivel, vertical extension and rotate adjustment capabilities.
- Removable stand and Video Electronics Standards Association (VESA)<sup>®</sup> 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 CD which includes an information file (INF), Image Color Matching File (ICM), and product documentation.
- Energy Saver feature for Energy Star compliance.
- Security lock slot.
- EPEAT Gold Rating.
- Halogen Reduced.
- Asset Management.

## Identifying Parts and Features

### Front View



Front View

Front panel controls

Label	Description
1	Video input select
2	OSD menu / select button
3	Brightness & Contrast / Down (-) button
4	Auto-Adjust / Up (+) button
5	Power button (with power light indicator)

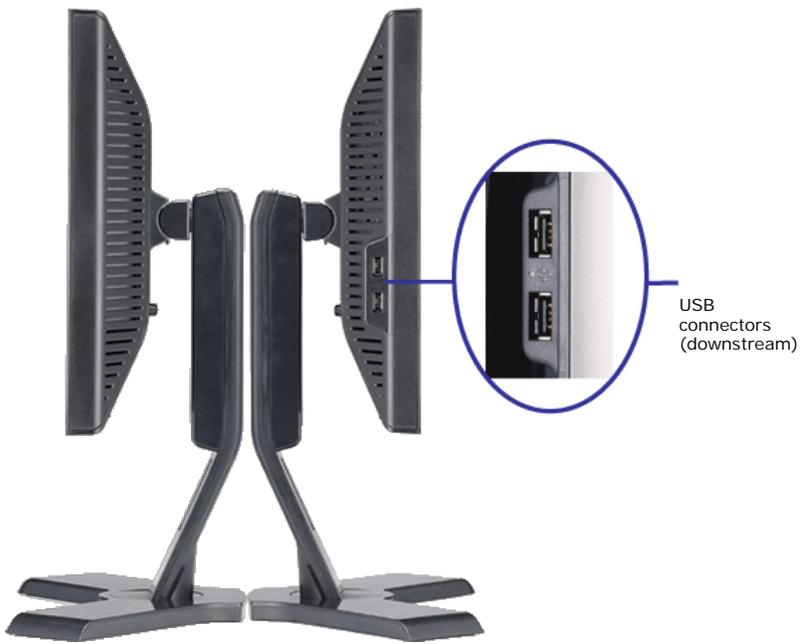
## Back View



Back view

Label	Description/Use
1	VESA mounting holes (100mm) (behind attached VESA Plate) Use to mount the monitor.
2	Barcode serial number label Refer to this label if you need to contact Dell for technical support.
3	Security lock slot Use a security lock with the slot to help secure your monitor.
4	Dell Soundbar mounting brackets Attach the optional Dell Soundbar.
5	Regulatory rating label Lists the regulatory approvals.
6	Stand removal button Press to release the stand.
7	Cable management slot Help organize cables by placing them through the slot.

## Side View



Right side

Left side

## Bottom View



Bottom view

Label	Description
1 Power connector	Insert the power cable.
2 Dell Soundbar power connector	Connect the power cord for the Soundbar (optional).
3 DVI connector	Connect your computer DVI cable.
4 VGA connector	Connect your computer VGA cable.

- 5 USB upstream connector      Connect the USB cable that came with your monitor to the monitor and the computer. Once this cable is connected you can use the USB connectors on the side and bottom of the monitor.
- 6 USB connector              Connect your USB devices.

## Monitor Specifications

### Power Management Modes

If you have VESA's DPMS™ compliance 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. If input from a keyboard, mouse or other input devices is detected by the computer, the monitor will automatically "wake up". The following table shows the power consumption and signaling of this automatic power-saving feature:

#### P170S

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	Green	50 W (maximum) 22 W (typical)
Active-off mode	Inactive	Inactive	Blanked	Amber	Less than 1 W
Switch off	-	-	-	Off	Less than 1 W

#### P190S

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	Green	53 W (maximum) 25 W (typical)
Active-off mode	Inactive	Inactive	Blanked	Amber	Less than 1 W
Switch off	-	-	-	Off	Less than 1 W

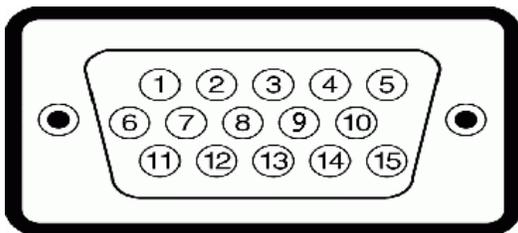
 **NOTE:** This monitor is ENERGY STAR®-compliant as well as TCO '03 power management compatible.



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

## Pin Assignments

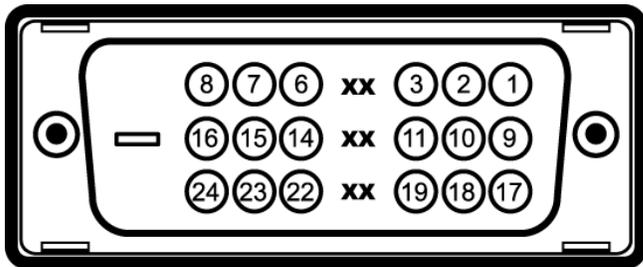
### VGA Connector



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 5V/3.3V
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	+5V/ + 3.3V 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-

### Universal Serial Bus (USB) Interface

This monitor supports High-Speed Certified USB 2.0 interface.



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

**USB ports:**

- 1 upstream - rear
- 4 downstream - 2 on rear; 2 on left side

**NOTE:** USB 2.0 capability requires 2.0-capable computer.

**NOTE:** The USB interface of the monitor works ONLY when monitor is powered ON (or in Power Save Mode). Switching your monitor OFF and then ON would re-enumerate its USB interface; attached peripherals may take a few seconds to resume normal functionality.

## Flat Panel Specifications

Model	P170S	P190S
Screen type	Active matrix - TFT LCD	Active matrix - TFT LCD
Panel type	TN	TN
Screen dimensions	17 inches (17-inch diagonal viewable image size)	19 inches (19-inch diagonal viewable image size)
Preset display area:		
Horizontal	337.9 mm (13.3 inches)	376.3 mm (14.8 inches)
Vertical	270.3 mm (10.6 inches)	301.1 mm (11.8 inches)
Pixel pitch	0.264 mm	0.294 mm
Viewing angle	160° (vertical) typical, 170° (horizontal) typical	160° (vertical) typical, 170° (horizontal) typical
Luminance output	250 CD/m <sup>2</sup> (typical)	250 CD/m <sup>2</sup> (typical)
Contrast ratio	800 to 1 (typical)	800 to 1 (typical)
Faceplate coating	Antiglare with hard-coating 3H	Antiglare with hard-coating 3H
Backlight	2 CCFLs backlight	2 CCFLs backlight
Response Time	5 ms typical	5 ms typical
Color Depth	16.7 mil colors	16.7 mil colors
Color Gamut	72 %*	72 %*

\* P170S/P190S Color Gamut (Typical) is based on CIE1976 (85%) and CIE1931 (72%).

## Resolution

Model	P170S/P190S
Horizontal scan range	30 kHz to 81 kHz (automatic)
Vertical scan range	56 Hz to 76 Hz (automatic)
Maximum preset resolution	1280 x 1024 at 60 Hz

## Preset Display Modes

### P170S/P190S

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/Vertical)
VGA, 720 x 400	31.5	70.1	28.3	-/+
VGA, 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	+/+

## Electrical

Model	P170S/P190S

Video input signals	Analog RGB, 0.7 Volts +/- 5%, 75 ohm input impedance Digital DVI-D TMDS, 600mV for each differential line, positive polarity at 50 ohm input impedance
Synchronization input signals	separate horizontal and vertical, 3.3V Cmos or 5V TTL level, positive or negative sync.
AC input voltage/frequency/current	100 to 240 VAC / 50-60 Hz $\pm$ 3 Hz / 1.5 A Max.
Inrush iso surge current	120 V: 30 A (Max.) 240 V: 60 A (Max.)

## Physical Characteristics

Model	P170S	P190S
<b>Connector type</b>	<ul style="list-style-type: none"> <li>D-sub: blue connector</li> <li>DVI-D: white connector</li> </ul>	<ul style="list-style-type: none"> <li>D-sub: blue connector</li> <li>DVI-D: white connector</li> </ul>
<b>Signal cable type</b>	<ul style="list-style-type: none"> <li>D-sub: Detachable, Analog, 15 pin, shipped attached to the monitor</li> <li>Digital: Detachable, DVI-D, Solid pins, shipped detached from the monitor</li> </ul>	<ul style="list-style-type: none"> <li>D-sub: Detachable, Analog, 15 pin, shipped attached to the monitor</li> <li>Digital: Detachable, DVI-D, Solid pins, shipped detached from the monitor</li> </ul>
<b>Dimensions (with stand)</b>		
Height (Compressed)	332.16 mm (13.08 inches)	362.6 mm (14.26 inches)
Height (Extended)	462.16 mm (18.20 inches)	492.6 mm (19.39 inches)
Width	372.10 mm (14.65 inches)	410.1 mm (16.15 inches)
Depth	182.25 mm (7.18 inches)	182.0 mm (7.17 inches)
<b>Dimensions (without stand)</b>		
Height	309.25 mm (12.18 inches)	338.1 mm (13.31 inches)
Width	372.10 mm (14.65 inches)	410.1 mm (16.15 inches)
Depth	59.20 mm (2.33 inches)	65.9 mm (2.59 inches)
<b>Stand dimensions</b>		
Height (Compressed)	331.70 mm (13.06 inches)	347.7 mm (13.69 inches)
Height (Extended)	381.57 mm (15.02 inches)	396.7 mm (15.62 inches)
Width	337.20 mm (13.28 inches)	337.6 mm (13.29 inches)
Depth	182.30 mm (7.18 inches)	182.0 mm (7.17 inches)
<b>Weight</b>		
Weight with packaging	6.50 kg (14.30 lb)	7.6 kg (16.70 lb)
Weight with stand assembly and cables	5.10 kg (11.22 lb)	6.4 kg (14.08 lb)
Weight without stand assembly (for wall mount or VESA mount considerations - no cables)	3.65 kg (8.03 lb)	4.3 kg (9.46 lb)
Weight of stand assembly	1.55 kg (3.42 lb)	1.6 kg (3.52 lb)

## Environmental

Model	P170S	P190S
<b>Temperature</b>		
Operating	0° to 40° C (32° to 104°F)	0° to 40° C (30° to 104°F)
Non-operating	Storage: -20° to 60° C (-4° to 140° F) Shipping: -20° to 60° C (-4° to 140° F)	Storage: -20° to 60° C (-4° to 140° F) Shipping: -20° to 60° C (-4° to 140° F)

<b>Humidity</b>		
Operating	10% to 80% (non-condensing)	10% to 80% (non-condensing)
Non-operating	Storage: 5% to 90% (non-condensing) Shipping: 5% to 90% (non-condensing)	Storage: 5% to 90% (non-condensing) Shipping: 5% to 90% (non-condensing)
<b>Altitude</b>		
Operating	3,048 m (12,000 ft) max	3,048 m (12,000 ft) max
Non-operating	9,144 m (40,000 ft) max	9,144 m (40,000 ft) max
<b>Thermal dissipation</b>		
	171.00 BTU/hour (maximum) 75.24 BTU/hour (typical)	181.26 BTU/hour (maximum) 85.50 BTU/hour (typical)

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## 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 that the system can configure itself and optimize the monitor settings. If required, the user can select different settings, but in most cases monitor installation is automatic.

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## LCD Monitor Quality & Pixel Policy

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

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## Maintenance Guidelines

### Caring for Your Monitor

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

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

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

- To clean your antistatic screen, lightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the antistatic coating. Do not use benzene, thinner, ammonia, abrasive cleaners, or compressed air.
- Use a 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 a white powder when you unpack your monitor, wipe it off with a cloth.
- Handle your monitor with care as dark-colored monitors may scratch and show white scuff marks more than lighter-colored monitors.
- 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.

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## Appendix

### Dell™ P170S/P190S Flat Panel Monitor User's Guide

- [Safety Instructions](#)
- [FCC Notice \(U.S. Only\) and Other Regulatory Information](#)
- [Contacting Dell](#)

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## CAUTION: 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 *Safety Information* that ships with your monitor.

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## FCC Notice (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](http://www.dell.com/regulatory_compliance).

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## 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.

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