Notes, Notices, and Cautions

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

**NOTICE:** A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

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

Information in this document is subject to change without notice.

© 2008 Dell Inc. All rights reserved.

Reproduction in any manner whatsoever without the written permission of Dell Inc. is strictly forbidden.

Trademarks used in this text: DELL and the DELL logo are trademarks of Dell Inc.; Microsoft, Windows, and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries; ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. As an ENERGY STAR partner, Dell Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell Inc. disclaims any proprietary interest in trademarks and trade names other than its own.

Model SP2009Wc

May 2008 Rev. A00
About Your Monitor
Dell™ SP2009W Flat Panel Monitor User's Guide

Package Contents

Your monitor comes with all the items shown below. Ensure that you have all the items. If something is missing, contact Dell.

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

| Monitor with stand |
| Power cable |
| VGA cable |
| DVI cable |
| USB up stream cable (enables the USB ports on the monitor) |
| USB down stream cable (optional) |
**Product Features**

The SP2009W flat panel display has an active matrix, thin-film transistor (TFT), liquid crystal display (LCD). The monitor features include:

- 20 inches (511mm) diagonal.
- 1680x1050 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 adjustment capabilities.
- Removable pedestal 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 which includes an information file (INF), Image color Matching File (ICM), and product documentation.
- Security lock slot.
- Asset management capable.
- 2.0 Mega pixel internal webcam with integrated microphone.

**Identifying Parts and Controls**

**Front View**

<table>
<thead>
<tr>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power button</td>
</tr>
<tr>
<td>2</td>
<td>Capacitive touch buttons (For more information, see Operating the Monitor)</td>
</tr>
<tr>
<td>3</td>
<td>Webcam</td>
</tr>
<tr>
<td>4</td>
<td>Microphone</td>
</tr>
</tbody>
</table>

**Back View**
<table>
<thead>
<tr>
<th>Label</th>
<th>Description</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VESA mounting holes (100mm) (Behind attached VESA plate)</td>
<td>To mount the monitor.</td>
</tr>
<tr>
<td>2</td>
<td>Barcode serial number label</td>
<td>To contact Dell for technical support.</td>
</tr>
<tr>
<td>3</td>
<td>Security lock slot</td>
<td>To help secure your monitor.</td>
</tr>
<tr>
<td>4</td>
<td>Dell soundbar mounting brackets</td>
<td>To attach the optional Dell Soundbar.</td>
</tr>
<tr>
<td>5</td>
<td>Regulatory rating label</td>
<td>Lists the regulatory approvals.</td>
</tr>
<tr>
<td>6</td>
<td>Cable management slot</td>
<td>To organize cables by placing them through the slot.</td>
</tr>
</tbody>
</table>

---

**Side View**

<table>
<thead>
<tr>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USB downstream port</td>
</tr>
</tbody>
</table>

---

**Bottom View**
Monitor Specifications

The following sections give you information about the various power management modes and pin assignments for various connectors of your monitor.

Power Management Modes

If you have VESA's compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. If the computer detects input from keyboard, mouse, or other input devices, the monitor automatically resumes functioning. The following table shows the automatic power saving feature:

<table>
<thead>
<tr>
<th>VESA Modes</th>
<th>Horizontal Sync</th>
<th>Vertical Sync</th>
<th>Video</th>
<th>Power Indicator</th>
<th>Power (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal operation (with Dell Soundbar and USB active)</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
<td>White</td>
<td>75 (max)</td>
</tr>
<tr>
<td>Normal operation</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
<td>White</td>
<td>45 (typ)</td>
</tr>
<tr>
<td>Active-off mode</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Blanked</td>
<td>Amber</td>
<td>Less than</td>
</tr>
<tr>
<td>Switch off</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Off</td>
<td>Less than</td>
</tr>
</tbody>
</table>

NOTE: The OSD only functions in the 'normal operation' mode. One of the following messages appears when the menu button is pressed in Active mode.

Activate the computer and 'wake up' 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.
Pin Assignments

VGA Connector

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

DVI Connector

<table>
<thead>
<tr>
<th>Pin Number</th>
<th>24-pin Side of the Connected Signal Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TMDS RX2-</td>
</tr>
<tr>
<td>2</td>
<td>TMDS RX2+</td>
</tr>
<tr>
<td>3</td>
<td>TMDS Ground</td>
</tr>
<tr>
<td>4</td>
<td>Floating</td>
</tr>
<tr>
<td>5</td>
<td>Floating</td>
</tr>
<tr>
<td>6</td>
<td>DDC Clock</td>
</tr>
<tr>
<td>Port</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>----------------------</td>
</tr>
<tr>
<td>7</td>
<td>DDC Data</td>
</tr>
<tr>
<td>8</td>
<td>Floating</td>
</tr>
<tr>
<td>9</td>
<td>TMDS RX1-</td>
</tr>
<tr>
<td>10</td>
<td>TMDS RX1+</td>
</tr>
<tr>
<td>11</td>
<td>TMDS Ground</td>
</tr>
<tr>
<td>12</td>
<td>Floating</td>
</tr>
<tr>
<td>13</td>
<td>Floating</td>
</tr>
<tr>
<td>14</td>
<td>+5V power</td>
</tr>
<tr>
<td>15</td>
<td>Self test</td>
</tr>
<tr>
<td>16</td>
<td>Hot Plug Detect</td>
</tr>
<tr>
<td>17</td>
<td>TMDS RX0-</td>
</tr>
<tr>
<td>18</td>
<td>TMDS RX0+</td>
</tr>
<tr>
<td>19</td>
<td>TMDS Ground</td>
</tr>
<tr>
<td>20</td>
<td>Floating</td>
</tr>
<tr>
<td>21</td>
<td>Floating</td>
</tr>
<tr>
<td>22</td>
<td>TMDS Ground</td>
</tr>
<tr>
<td>23</td>
<td>TMDS Clock+</td>
</tr>
<tr>
<td>24</td>
<td>TMDS Clock-</td>
</tr>
</tbody>
</table>
Appendix
Dell™ SP2009W Flat Panel Monitor User’s Guide

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

---

**CAUTION: Safety Instructions**

⚠️ **CAUTION:** 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 shipped with your monitor.

---

**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](http://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](http://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.

---

Back to Contents Page
Setting Up Your Monitor
Dell™ SP2009W Flat Panel Monitor

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

1. Go to [http://support.dell.com](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 **1680x1050** again.

**NOTE:** If you are unable to set the resolution to 1680x1050, please contact Dell™ to inquire about a graphics Adapter that supports these resolutions.
If you have non Dell™ desktop, portable computer, or graphic 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. Refer to the graphic card provider website for updated driver (for example, [http://www.ATI.com](http://www.ATI.com) OR [http://www.NVIDIA.com](http://www.NVIDIA.com)).
6. After installing the drivers for your graphics Adapter, attempt to set the resolution to 1680x1050 again.

**NOTE:** If you are unable to set the resolution to 1680x1050, please contact the manufacturer of your computer or consider purchasing a graphics adapter that will support the video resolution of 1680x1050.
## Using the Front Panel Controls

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

<table>
<thead>
<tr>
<th>Front panel Button</th>
<th>Description</th>
</tr>
</thead>
</table>
| A                  | Preset modes  
Use the Preset modes button to choose from a list of preset color modes. See Using the OSD Menu. |
| B                  | Brightness / Contrast  
Use the Brightness / Contrast button to direct access to the "Brightness" and "Contrast" control menu. |
| C                  | Input source  
Use the Input source button to select different video signals that may be connected to your monitor. |
| D                  | Menu  
Use the Menu button to open the on-screen display(OSD). |
| E                  | Exit  
Use the Exit button to exit on-screen display(OSD) from menu and sub-menus. |

**Front panel Button**

*Use the buttons* on the front of the monitor to adjust the image settings.
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 the changes. The changes are also saved if you change the settings and then wait for the OSD menu to disappear.

1. Press the \( \text{\textbullet} \) button to open the OSD menu and display the main menu.
2. Press the \( \text{\textbullet} \) and \( \text{\textbullet} \) buttons to toggle between options in the Menu. As you move from one item to another, the option name is highlighted.
3. To select the highlighted item on the menu press the \( \text{\textbullet} \) again.
4. Press the \( \text{\textbullet} \) and \( \text{\textbullet} \) buttons to select the desired parameter.
5. Press the \( \text{\textbullet} \) button to enter the slide bar and then use the \( \text{\textbullet} \) or \( \text{\textbullet} \) button, according to the indicators on the menu, to make your changes.
6. Select the \( \text{\textbullet} \) to return to previous menu without accepting current settings or \( \text{\textbullet} \) to accept and return to previous menu.

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

<table>
<thead>
<tr>
<th>Front panel Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Up</td>
<td>Use the Up button to adjust (increase ranges) items in the OSD menu.</td>
</tr>
<tr>
<td>B Down</td>
<td>Use the Down button to adjust (decrease ranges) items in the OSD menu.</td>
</tr>
<tr>
<td>C OK</td>
<td>Use the OK button to confirm your selection.</td>
</tr>
<tr>
<td>D Back</td>
<td>Use the back button to back main menu.</td>
</tr>
</tbody>
</table>
### BRIGHTNESS/CONTRAST

Use the Brightness and Contrast menu to adjust the Brightness/Contrast.

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the Brightness and Contrast menu to adjust the Brightness/Contrast.</td>
</tr>
</tbody>
</table>

**Brightness**

- Allows you to adjust the brightness or luminance of the backlight.
- Press the **↑** button to increase brightness and press the **↓** button to decrease brightness (min 0 ~ max 100).

**Contrast**

- Allows you to adjust the contrast or the degree of difference between darkness and lightness on the monitor screen. Adjust brightness first, and adjust contrast only if you need further adjustment.
- Press the **↑** button to increase contrast and press the **↓** button to decrease contrast (min 0 ~ max 100).

### Auto Adjust

Use this button to activate automatic setup and adjust menu. The following dialog appears on a black screen as the monitor self-adjusts to the current input:

- **Auto Adjustment in Progress...**

Auto Adjustment allows the monitor to self-adjust to the incoming video signal. After using Auto Adjustment, you can fine-tune your monitor by using the Pixel Clock (Coarse) and Phase (Fine) controls under Image Settings.

**NOTE:** Auto Adjust does not occur if you press the button while there are no active video input signals or attached cables.

### Input Source

Use the Input Source menu to select different video signals that may be connected to your monitor.

- **Push** to go back to the main menu

Select VGA input when you are using the analog (VGA) connector. Push **↑** to select the VGA input source.

Select DVI-D input when you are using the digital (DVI) connector. Push **↑** to select the DVI input source.

Select Auto select to let the monitor search for available input signals.

### COLOR SETTINGS

Use the Color Setting menu to adjust the monitor’s color settings.

- **Push** to go back to the main menu

Select VGA input when you are using the analog (VGA) connector. Push **↑** to select the VGA input source.

Select DVI-D input when you are using the digital (DVI) connector. Push **↑** to select the DVI input source.

Select Auto select to let the monitor search for available input signals.
Input Color Format

Allows you to set the video input mode to:

- **RGB**: Select this option if your monitor is connected to a computer or DVD player using the HDMI cable or the HDMI to DVI adapter.
- **YPbPr**: Select this option if your DVD player supports only YPbPr output.

Mode Selection

Allows you to set the display mode to:

- **Graphics**: Select this mode if your monitor is connected to your computer.
- **Video**: Select this mode if you monitor is connected to a DVD player.

**NOTE:** Depending upon the Display Mode you select the Preset Modes available for your monitor change.

Preset Mode

Allows you to choose from a list of preset color modes.

In the **Graphics** mode, you can set the color to the following preset values:

- **Standard**: Loads the monitor’s default color settings. This is the default preset mode.
- **Multimedia**: Loads color settings ideal for multimedia applications.
- **Game**: Loads color settings ideal for most gaming applications.
- **Cool**: Decreases the color temperature. The screen appears cooler with a blue tint.
- **Custom (RGB)**: Allows you to manually adjust the color settings. Press the \( \Delta \) and \( \nabla \) buttons to adjust the Red, Green, and Blue values and create your own preset color mode.

In the **Video** mode, you can set the color to the following preset values:

- **Movie**: Loads color settings ideal for movies. This is the default preset mode.
- **Game**: Loads color settings ideal for most gaming applications.
- **Sports**: Loads color settings ideal for sports.
- **Nature**: Loads color settings ideal for nature.

**Hue**

Allows you to adjust the skin tone of the image. Use \( \Delta \) or \( \nabla \) to adjust the hue from '0' to '100'.

**NOTE:** Hue adjustment is available only in the **Video** mode.

**Saturation**

Allows you to adjust the color saturation of the image. Use \( \Delta \) or \( \nabla \) to adjust the saturation from '0' to '100'.

**NOTE:** Saturation adjustment is available only in the **Video** mode.

**Color Reset**

Resets your monitor’s color settings to the factory defaults.

**DISPLAY SETTINGS**

Use the **Displays Settings** menu to adjust the sharpness, dynamic contrast, response time, and zoom.
Back
Press to go back to the main menu.

Wide Mode
Allows you to change the image scale with various default settings.

**NOTE:** Wide Mode is not available at video resolutions greater than 1680x1050. However, 16:9 and Fill will be available.

Horizontal position
Use the and buttons to adjust image left and right (min 0 ~ max 100).

**NOTE:** When using DVI source, the Horizontal Position setting is not available.

Vertical Position
Use the and buttons to adjust image up and down (min 0 ~ max 100).

**NOTE:** When using DVI source, the Vertical Position setting is not available.

Zoom
Allows you to zoom in to specific area of interest on your monitor.

Use and buttons to adjust the zoom from '0' to '100'.

**NOTE:** Zoom will reset to default after power cycling or after power save recovery.

Phase
If satisfactory results are not obtained using the phase adjust menu, use the Pixel Clock (coarse) adjust menu and then fine.

**NOTE:** Pixel Clock and Phase Adjustments are only available for "VGA" input.

Sharpness
Allows you to increase or decrease the sharpness of the image.

Use and buttons to adjust the sharpness from '0' to '100'.

Dynamic Contrast
The dynamic contrast helps get a higher contrast if you choose Game preset, Movie Preset, Sports Preset and Nature I

Use the button to enable the Dynamic Contrast adjustment.

Use the button to disable the Dynamic Contrast adjustment.

**NOTE:** Brightness control is disabled in Dynamic Contrast mode.

Response Time
Response time is the time required for an LCD pixel to change from fully active (black) to fully inactive (white), then back active again.

You can set the response time to:

- Normal
- Overdrive (default).

Display Reset
Resets the monitor's display settings to the factory defaults.

---

**AUDIO SETTINGS**

Use the Audio Settings to adjust the audio settings.

---

**Audio Setting mode submenu**

Use the Audio Settings to adjust the audio settings.
**Power Save Audio**
Allows you to turn on or off the power to the audio during the audio power save mode.
- **Default is** *On*.
- **On** — Allows you to turn off the power to the sound bar during monitor standby.
- **Off** — Allows you to turn on the power to the sound bar during monitor standby.

**Reset Audio Setting**
Resets your monitor audio settings to the factory defaults.

**Exit Menu**
Press to exit the OSD main menu and press to accept changes.

**OTHER SETTINGS**

- **Back**
  Press to go back to the main menu.

- **Language**
  Allows you to set the OSD display to one of five languages: English, Español, Français, Deutsch, or Japanese.

- **Menu Transparency**
  Allows you to adjust the OSD background from opaque to transparent.

- **Menu Timer**
  Allows you to set the time for which the OSD remains active after you press a button on the monitor.
  Use the and buttons 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 except button.
  **NOTE:** When the OSD is locked, pressing the menu button takes you directly to the OSD settings menu, with 'OSD Lock' pre selected on entry. Press and hold button for 15 seconds to unlock and allow user access to all applicable settings.

- **Button Sound**
  Turns on or off the button sound.

- **DDC/CI**
  DDC/CI (Display Data Channel/Command Interface) allows a software on your computer to adjust the monitor display settings:
  - **Enable** (Default): Optimizes the performance of your monitor and provides a better customer experience.
  - **Disable**: Disables the DDC/CI option and the following message appears on the screen.
    
    **WARNING MESSAGE**
    The function of adjusting display setting using PC application will be disabled.
    Do you want to disable DDC/CI function?
    
    Select **Yes** to disable DDC/CI or **No** to return.

- **LCD Conditioning**
  LCD conditioning helps eliminate any image retention and may take several hours.
  **NOTE:** Severe cases of image retention are known as burn-in. LCD Conditioning does not remove burn-in.
  **Enable**: Enables LCD conditioning and the following message appears on the screen. Select Yes to proceed and No to
OSD Warning Messages

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

WARNING MESSAGE
Cannot display this video mode.
please change the screen resolution to 1680 x 1050 @ 60 Hz (optimum).

WARNING MESSAGE
Cannot display this video mode.
please change the screen resolution to 1680 x 1050 @ 60 Hz (optimum).

This means that the monitor cannot synchronize with the signal that it is receiving from the computer. Either the signal is too high or too low for the monitor to use. See Specifications for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 1680 X 1050 at 60Hz.

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

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

WARNING MESSAGE
Entering Power Save Mode

See Solving Problems for more information.
Setting the Optimal Resolution

To set the optimal resolution for the monitor:

1. Right-click on the desktop and select Properties.
2. Select the Settings tab.
3. Set the screen resolution to 1680 x 1050.
4. Click OK.

If you do not see 1680 x 1050 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 Dell Soundbar (Optional)

The Dell Soundbar is a stereo two channel system, mountable on Dell Flat Panel Displays. The Soundbar has a rotary volume and on/off control to adjust the overall system level, a LED for power indication, and two audio headset jacks.

<table>
<thead>
<tr>
<th>1. Power/volume control</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Power indicator</td>
</tr>
<tr>
<td>3. Headphone connectors</td>
</tr>
</tbody>
</table>

Using the Tilt, Swivel, and Vertical Extension

Tilt/Swivel

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

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

Rotating the Monitor
Before you rotate the monitor, your monitor should be fully vertically extended (Vertical Extension) and fully tilted (Tilt) up to avoid hitting the bottom edge of the monitor.

**NOTE:** To use the Display Rotation function (Landscape versus Portrait view) with your Dell computer, you require an updated graphics driver that is not included with this monitor. To download the graphics driver, go to support.dell.com and see the Download section for Video Drivers for latest driver updates.

---

### Using the Camera

#### Installing the Dell Webcam Software (Microsoft® Windows® Operating Systems)

The Dell SP2009W webcam application media that ships with your monitor, allows you to install the software and drivers for the integrated webcam.

To install the Dell Webcam Software:

1. Insert the Dell SP2009W Webcam Resource CD into the drive.

   **NOTE:** Ensure that the USB cable is connected between the monitor and the computer.

2. The Install Shield Wizard automatically launches the setup application. Select the Language and click Next to continue.

3. Read Software License Agreement and click Yes to continue.

4. Click Browse to change Destination Folder where the software will be installed to and then click Next to continue.

5. Choose Full Installation than click Next and follow the instructions to complete the installation. Alternatively, choose Custom Installation to select the components to install.

6. Click Finish to restart the computer after installation completes.

You are now ready to use the Webcam. The Webcam application provides the following functions

**Dell Webcam Center**

Dell Webcam Central enables convenient access to all exciting applications to enhance your Dell Webcam experience.

**Creative Live! Cam Avatar Creator**

Creative Live! Cam Avatar Creator lets you personalize an animated avatar from any digital photo you want. Using advanced speech technology, your personalized avatar even lip syncs with you. Share creation with friends using Live! Cam Avatar, via email or even YouTube(TM).

**Accessing the Camera Help File**

To access the camera's help file, right-click the Dell Webcam Central icon in the notification area and click. Click Help from the menu and select Contents.
Manually Adjusting the Camera Settings

If you do not want the camera to use automatic settings, you can manually adjust the camera settings.

Setting the Contrast, Brightness, and Volume

To set the contrast, brightness and volume:

1. Right-click the Webcam Central icon in the system tray located in the lower right corner of the screen. Click Open Webcam Central.
2. In the Webcam Console window:
   - Click the Settings icon and navigate to Settings - Picture Control. Adjust video settings, such as contrast and brightness.
   - Click the Effects icon and navigate to Effects - Avatars. Adjust audio settings, such as volume level.

For more information about camera settings and other camera-related topics, see the camera's Help file (see "Accessing the Camera's Help File").

Setting the Resolution

To set the camera resolution using the Dell Webcam Central:

1. Right-click the Dell Webcam Central icon in the system tray located in the lower right corner of the screen. Click Launch Webcam Center.
   The Dell Webcam Center window appears.
2. Click the Record Video tab.
3. Configure settings by clicking the More Options button located at bottom center of the preview window. Click the Video Size box and select the size that you want.
4. Click the Snap Photo tab.
5. Configure settings by clicking the More Options button located at bottom center of the preview window. Click the Photo Size box and select the size that you want.

Resetting the Camera Defaults

To reset the Camera settings using the Dell Webcam Central:

1. Right-click the Dell Webcam Central icon in the system tray located in the lower right corner of the screen. Click Open Webcam Central.
2. In the Webcam Central window:
   - Click the Settings icon and navigate to Settings - Picture Control. Click Restore Default.
Setting Up Your Monitor

Dell™ SP2009W Flat Panel Monitor

Setting the display resolution to 1680X1050 (Optimal)

For optimal display performance while using the Microsoft Windows operating systems, set the display resolution to 1680 x 1050 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 left-mouse button and adjust the screen resolution to 1680X1050.
4. Click OK.

If you do not see 1680X1050 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 non Dell™ desktop, portable computer, or graphic card.
Setting the display resolution to 1680x1050 (optimal)
Attaching the Stand

Connecting the Monitor

Organizing Your Cables

Connecting the Monitor

Attaching the Soundbar (optional)

Removing the Stand

Wall Mounting (Optional)

Attaching the Base

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

To attach the base of the stand:

1. Place the monitor on a flat surface.
2. Turn the screw to tighten the base.

Connecting Your Monitor

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

To connect your monitor to the computer:

1. Turn off your computer and disconnect the power cable.
2. Connect either the 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 use both cables on the same computer. Use both the cables only when they are connected to two different computers with appropriate video systems.

Connecting the Blue VGA Cable
Connecting the White DVI Cable

Connecting the USB Cable

After you have completed connecting the DVI/VGA cable, follow the procedure 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.
2. Connect USB peripherals to the downstream USB ports (side or bottom) on the monitor. (See side or bottom view for details.)
3. Plug the power cables for your computer and monitor into a nearby outlet.
4. Turn on the monitor and the computer.
5. If your monitor displays an image, installation is complete. If it does not display an image, see Solving Problems.
6. Use the cable holder on the monitor stand to organize the cables.

Organizing Your Cables

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

### Attaching the Soundbar (optional)

![Attaching the Soundbar](image)

- **NOTICE:** Do not use with any device other than Dell Soundbar.
- **NOTE:** The soundbar power connector (+12 V DC output) is for the optional Dell Soundbar only.

To attach the soundbar:

1. Working from the back of the monitor, attach Soundbar by aligning the two slots with the two tabs along the bottom 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 back of the Soundbar into the computer's audio output jack.

### Removing the Base

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

![Removing the Base](image)

To remove the base of the stand:

1. Place the monitor panel on soft cloth or cushion on a stable flat table.
2. Turn the thumb screw counterclockwise to loosen the base.
3. Remove the base away from the monitor stand.

### Wall Mounting (Optional)

Refer to the instructions that come with the base mounting kit. To convert your LCD display from a desk-mounted to a wall-mounted display, do the following:

1. Verify that the Power button is turned Off, then disconnect the power cord.
2. Lay the LCD display face down on a towel or blanket.
3. Remove the Plastic Covers from the back of the LCD display.
4. Remove the four screws attaching the base (Screw dimension: M4 x 10mm).
5. Remove the Rubber Plugs from inside the four VESA screw holes.
6. Attach the mounting bracket from the VESA compatible wall mounting kit (100 mm x 100 mm distance).
7. Attach the LCD display to the wall, following the instructions in the wall-mounting kit.

NOTE: For use only with UL Listed Wall Mount Bracket with minimum weight/load: 4.44kg.
Troubleshooting

Dell™ SP2009W Flat Panel Monitor

- Self-Test
- Common Problems
- Product Specific Problems
- Universal Serial Bus Specific Problems
- Dell Soundbar Problems
- Camera Problems

⚠️ **CAUTION:** 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 or monitor. To ensure proper Self-Test operation, remove both Digital (white connector) and the Analog (blue connector) cables from the back of the computer or monitor.
3. Turn on the monitor.

   This box also appears during normal system operation, if the video cable becomes disconnected or damaged.

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

If your monitor screen remains blank after you use the 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 system and graphic 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 first and forth buttons on the front panel, simultaneously for 2 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press the forth button 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 forth button again.

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

Common Problems

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

<table>
<thead>
<tr>
<th>Common Symptoms</th>
<th>What You Experience</th>
<th>Possible Solutions</th>
</tr>
</thead>
</table>
| 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. |
| 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. |
| 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.  
|                      |                     | - Check environmental factors.  
|                      |                     | - Change the video resolution to the correct aspect ration (16:10). |
| 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.  
|                      |                     | - Run the built-in diagnostics. |
| 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.  
|                      |                     | - Run the built-in diagnostics. |
| Brightness Problems  | Picture too dim or too bright | - Reset the monitor to Factory Settings.  
|                      |                     | - Auto Adjust via OSD.  
|                      |                     | - Adjust brightness & contrast controls via OSD. |
| Geometric Distortion | Screen not centered correctly | - Reset the monitor to Factory Settings.  
|                      |                     | - Auto Adjust via OSD.  
|                      |                     | - Adjust brightness & contrast controls via OSD.  

NOTE: When using 'DVI-D', the positioning adjustments are not available.

<table>
<thead>
<tr>
<th>Common Problems</th>
<th>What You Experience</th>
<th>Possible Solutions</th>
</tr>
</thead>
</table>
| 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', the Pixel Clock and Phase adjustments are not available.

<table>
<thead>
<tr>
<th>Common Problems</th>
<th>What You Experience</th>
<th>Possible Solutions</th>
</tr>
</thead>
</table>
| 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.  
|                      |                     | - Run the built-in diagnostics. |

| 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

Paint 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.

### Product Specific Problems

<table>
<thead>
<tr>
<th>Specific Symptoms</th>
<th>What You Experience</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen image is too small</td>
<td>Image is centered on screen, but does not fill entire viewing area</td>
<td>Check the Display settings in Zoom Setting OSD&lt;br&gt;Reset the monitor to Factory Settings.</td>
</tr>
<tr>
<td>Cannot adjust the monitor with the buttons on the front panel</td>
<td>OSD does not appear on the screen</td>
<td>Turn off the monitor, unplug the power cord, plug back, and then turn on the monitor.</td>
</tr>
<tr>
<td>No Input Signal when user controls are pressed</td>
<td>No picture, the LED light is white. When you press &quot;up&quot;, &quot;down&quot; or &quot;Menu&quot; key, the message appears</td>
<td>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.&lt;br&gt;Check whether the signal cable is plugged in properly. Re-plug the signal cable if necessary.&lt;br&gt;Reset the computer or video player.</td>
</tr>
<tr>
<td>The picture does not fill the entire screen.</td>
<td>The picture cannot fill the height or width of the screen</td>
<td>Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen.&lt;br&gt;Run the built-in diagnostics</td>
</tr>
</tbody>
</table>

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

### Universal Serial Bus (USB) Specific Problems

<table>
<thead>
<tr>
<th>Specific Symptoms</th>
<th>What You Experience</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB interface is not working</td>
<td>USB peripherals are not working</td>
<td>Check that your monitor is turned ON.&lt;br&gt;Reconnect the upstream cable to your computer.&lt;br&gt;Reconnect the USB peripherals (downstream connector).&lt;br&gt;Switch off and then turn on the monitor again.&lt;br&gt;Reboot the computer.&lt;br&gt;Some USB devices like external portable HDD require higher electric current; connect the device directly to the computer system.</td>
</tr>
<tr>
<td>High Speed USB 2.0 interface is slow.</td>
<td>High Speed USB 2.0 peripherals working slowly or not working at all</td>
<td>Check that your computer is USB 2.0-capable.&lt;br&gt;Some computers have both USB 2.0 and USB 1.1 ports. Ensure that the correct USB port is used.&lt;br&gt;Reconnect the upstream cable to your computer.&lt;br&gt;Reconnect the USB peripherals (downstream connector).&lt;br&gt;Reboot the computer.</td>
</tr>
</tbody>
</table>

### Dell™ Soundbar Problems

<table>
<thead>
<tr>
<th>Common Symptoms</th>
<th>What You Experience</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Sound</td>
<td>No power to Soundbar – the power indicator is off (built-in DC power supply, i.e. SP2009W)</td>
<td>Turn the Power/Volume knob on the Soundbar clockwise to the middle position; check if the power indicator on the front of the Soundbar is illuminated.&lt;br&gt;Ensure that the power cable from the Soundbar is plugged into the monitor.&lt;br&gt;Ensure that the monitor has power.&lt;br&gt;If the monitor has no power, see common problems, No Video/ Power LED off</td>
</tr>
<tr>
<td>No Sound</td>
<td>Soundbar has power - power indicator is on</td>
<td>Plug the audio line-in cable into the computer’s audio out jack.&lt;br&gt;Set all volume controls to their maximum and ensure that the mute option is not enabled.&lt;br&gt;Play some audio content on the computer (example, audio CD, or MP3).&lt;br&gt;Turn the Power/Volume knob on the Soundbar clockwise to a higher volume setting.&lt;br&gt;Clean and reseat the audio line-in plug.&lt;br&gt;Test the Soundbar using another audio source (For example: portable CD player, MP3 player).</td>
</tr>
<tr>
<td>Distorted Sound</td>
<td>Computer’s sound card is used as the audio source</td>
<td>Clear any obstructions between the Soundbar and the user.&lt;br&gt;Confirm that the audio line-in plug is completely inserted into the jack of the sound card.&lt;br&gt;Set all Windows volume controls to their midpoints.&lt;br&gt;Decrease the volume of the audio application.&lt;br&gt;Turn the Power/Volume knob on the Soundbar counter-clockwise to a lower volume setting.&lt;br&gt;Clean and reseat the audio line-in plug.&lt;br&gt;Troubleshoot the computer’s sound card.&lt;br&gt;Test the Soundbar using another audio source (For example: portable CD player, MP3 player).&lt;br&gt;Avoid using an audio cable extension or audio jack converter.</td>
</tr>
</tbody>
</table>
### Camera Problems

<table>
<thead>
<tr>
<th>COMMON SYMPTOMS</th>
<th>WHAT YOU EXPERIENCE</th>
<th>POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Power</td>
<td>The camera is not working and the LED is off</td>
<td>1. If the monitor has no power, see Troubleshooting Your Monitor. Verifying if the camera is detected by Windows. Reinstall the camera drivers using the Dell SP2009W Webcam Resource CD. For more information, see Using the Camera.</td>
</tr>
<tr>
<td>Camera is not detected</td>
<td>The camera is not working and the LED is off</td>
<td>Remove and insert the USB cable. Reinstall the Dell Webcam Software and drivers. For more information, see installing your Dell Webcam Software.</td>
</tr>
<tr>
<td>Poor Focus</td>
<td>The camera captures fuzzy or unclear videos and pictures</td>
<td>Verify that the protective film has been removed from the camera and the camera lens is clean. Clean the camera surface using a damp, soft lint-free cloth. Increase the available ambient light or change the source of light. Reset the camera defaults through the Dell Webcam Central. For more information, see Using the Camera. Ensure that the Color Depth settings in Display Properties is set to 16-bit color or higher. Note: Lower color depth settings result in poor-quality images. NOTE: The integrated webcam operates at a lower resolution than most commercially available digital cameras. Most commercial digital cameras are 4 mega pixel or higher. The integrated webcam operates up to 2.0 mega pixel.</td>
</tr>
<tr>
<td>Poor quality video on the Internet</td>
<td>The camera captures grainy images while using it on the Internet</td>
<td>Check your internet connection speed. A slow Internet connection could cause similar problems with the video. It is recommended to use a broadband connection with good throughput.</td>
</tr>
<tr>
<td>Color Problem</td>
<td>The images are tinted red, blue, or green</td>
<td>Reset the camera defaults through the Dell Webcam Central. See Using the Camera for more information. Adjust the camera color settings through Dell Webcam Central. See Using the Camera for more information.</td>
</tr>
<tr>
<td>No Image</td>
<td>Blank screen</td>
<td>Increase the available ambient light, change the direction of the camera, or change the source of light. Reset the camera defaults through the Dell Webcam Central. See Using the Camera for more information. Adjust the contrast levels using the Dell Webcam Central. See Using the Camera for more information. Ensure that the camera is detected correctly by the Windows operating system.</td>
</tr>
<tr>
<td>Slow frame rate in video capture mode</td>
<td>The video capture is not smooth</td>
<td>The video capture, especially in high resolution is a resource intensive task. Reduce the video recording resolution. Select No Compression for video in the Video Recording settings. Install the latest DirectX and the latest webcam driver.</td>
</tr>
<tr>
<td>Audio and video are not synchronized</td>
<td>The captured audio and video are not synchronized</td>
<td>The video capture, especially in high resolution is a resource intensive task. Reduce the video recording resolution. Select No Compression for video in the Video Recording settings.</td>
</tr>
<tr>
<td>Microphone is not working</td>
<td>The webcam does not capture video audio but sound</td>
<td>Speak closer to the microphone. The integrated microphone is designed to have a wider reception area for recording, it still has its limits. Try moving closer to the microphone or ensure that you are within the recording area for the microphone. Check if the volume is muted. To enable sound: 1. Click Start -&gt; Control Panel -&gt; Sound and Audio Devices. 2. Click to uncheck the box next to Mute.</td>
</tr>
<tr>
<td>Distorted Sound</td>
<td>Other audio source is used</td>
<td>Clear any obstructions between the Soundbar and the user. Confirm that the audio line-in plug is completely inserted into the jack of the audio source. Decrease the volume of the audio source. Turn the Power/Volume knob on the Soundbar counter-clockwise to a lower volume setting. Clean and reseat the audio line-in plug.</td>
</tr>
<tr>
<td>Unbalanced Sound Output</td>
<td>Sound from only one side of Soundbar</td>
<td>Clear any obstructions between the Soundbar and the user. Confirm that the audio line-in plug is completely inserted into the jack of the sound card or audio source. Set all Windows audio balance controls (L-R) to their midpoints. Clean and reseat the audio line-in plug. Troubleshoot the computer's sound card. Test the Soundbar using another audio source (For example: portable CD player, MP3 player).</td>
</tr>
<tr>
<td>Low Volume</td>
<td>Volume is too low</td>
<td>Clear any obstructions between the Soundbar and the user. Turn the Power/Volume knob on the Soundbar clockwise to the maximum volume setting. Set all Windows volume controls to their maximum. Increase the volume of the audio application. Test the Soundbar using another audio source (For example: portable CD player, MP3 player).</td>
</tr>
</tbody>
</table>
3. Adjust the **Volume** slider to obtain the desired audio level.

Test the microphone. Try testing the microphone using an application other than the **Dell Webcam Central**. To test the microphone,

1. Click **Start** → **Control Panel** → **Sound and Audio Devices**.
2. Click the **Voice tab**.
3. Click the **Test Hardware** button and follow the instructions.

If the recording is successful, reset the camera defaults or reinstall the **Dell Webcam Software**. See **Using the Camera** for more information.