

# CHAPTER 4

## Troubleshooting the CTS 500

---

Revised: November, 2011, OL-21845-01

### Contents

You may want to periodically test system components using the hardware and software tests available in the Cisco TelePresence System (CTS) Administration Troubleshooting window. This chapter contains information about troubleshooting CTS 500 hardware and software.

#### Before You Begin

1. Obtain your IP address in one of the following ways:
  - From the CTS Cisco Unified IP phone touch the following softkeys:  
**Manual > more > Info**



---

**Tip** If you have more options on your phone, touch the **more** softkey until you reach the end of the selections.

---

- From the Cisco TelePresence Touch 12 tap the following:  
**More > Status > System Status**

2. Make a note of the IP address.
3. Enter the IP address in your laptop's browser window.
4. Click **Yes** to accept all security connection messages.



#### Note

---

You cannot perform diagnostics during an active Cisco TelePresence system call.

---

Proceed to the following sections to troubleshoot system components:

- [Managing CTS 500 Hardware Setup, page 4-2](#)
- [Managing Log Files, page 4-39](#)
- [Testing Audio, page 4-44](#)
- [Testing the Network Connection, page 4-45](#)
- [Managing Configuration Issues, page 4-45](#)

- [Initiating System Restart](#), page 4-47
- [Troubleshooting Video Quality Settings](#), page 4-47
- [Troubleshooting Network Cabling](#), page 4-48
- [CTS 500 32” Troubleshooting](#), page 4-49
- [Where to Go Next](#), page 4-49

## Managing CTS 500 Hardware Setup

You can manage and test the following Cisco TelePresence System components:

- [Managing Displays](#), page 4-3
- [Testing Cameras](#), page 4-6
- [Testing Speakers](#), page 4-20
- [Testing Microphones](#), page 4-21
- [Testing Presentation Devices](#), page 4-24
- [Testing Other Devices](#), page 4-33

### Before You Begin

Before you begin testing and troubleshooting your system, check the system displays. All of the Cisco TelePresence System Administration interface Hardware Setup features require the use of the displays in the meeting room. Therefore, we recommend the following:

1. Verify that the displays work by using the **Hardware Setup > Displays** tests in this section.
2. If the displays are showing the correct images, you can proceed to testing the cameras, speakers, and microphones, as needed.

**Note**

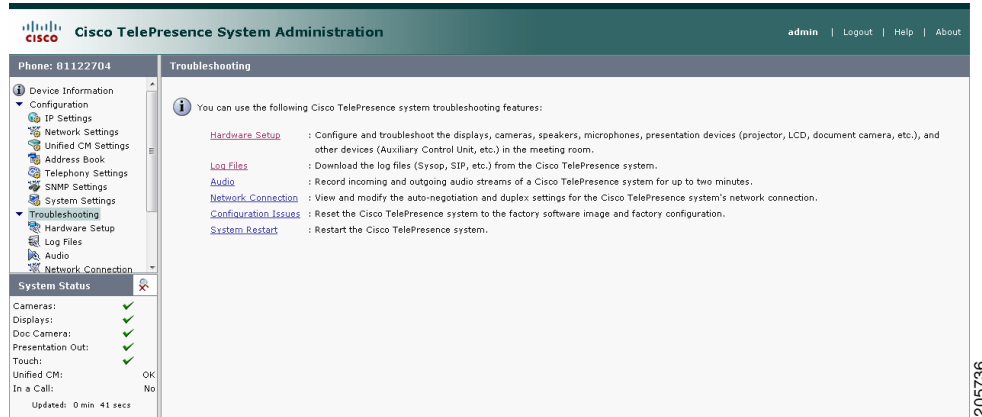
---

You must test the speakers before testing the microphones because the microphone test depends on speakers that are functioning properly. See the [“Testing Speakers” section on page 4-20](#).

---

Figure 4-1 shows the Cisco TelePresence System administration tools available to assist you with troubleshooting tasks.

**Figure 4-1 Troubleshooting Window**



## Managing Displays

A display is set up successfully when the color on the display has been adjusted for the lighting in the meeting room.



### Note

Each display must be adjusted individually.

Use the information in the following sections to adjust the display for your system:

- [Selecting the Light Level, page 4-3](#)
- [Adjusting Your Display, page 4-4](#)
- [Troubleshooting Displays, page 4-6](#)
- [Related Information, page 4-6](#)

## Selecting the Light Level

When adjusting the images on the CTS display screens, you must take the color temperature of the ambient light in the room into consideration.

Sources of light in most rooms are produced by fluorescent fixtures or incandescent light bulbs that use tungsten filaments. Each of these light sources, and the amount of light in terms of lumens or watts, produces a different color temperature. This color temperature is sometimes expressed using terms such *cool*, *warm*, or *daylight*, but can be expressed more precisely in kelvins (K) as a numeric value.

The following temperatures can be selected for adjusting the image on the Cisco TelePresence display screens:

- 3500 K
- 4000/4100 K (recommended)
- 5000 K

- 6500 K
- 7500 K

**Tip**

In many cases, the color temperature is printed on the light bulb. If you are unable to ascertain the type and color temperature of light bulbs in the meeting room, experiment with color temperature settings until the color and images on the display screen look lifelike.

**Tip**

It is OK to try a few different color temperatures to see what looks best in the room. Remember, the Color Temperature setting only effects how the local participants see the display, it does not effect the way the room looks to remote participants.

## Adjusting Your Display

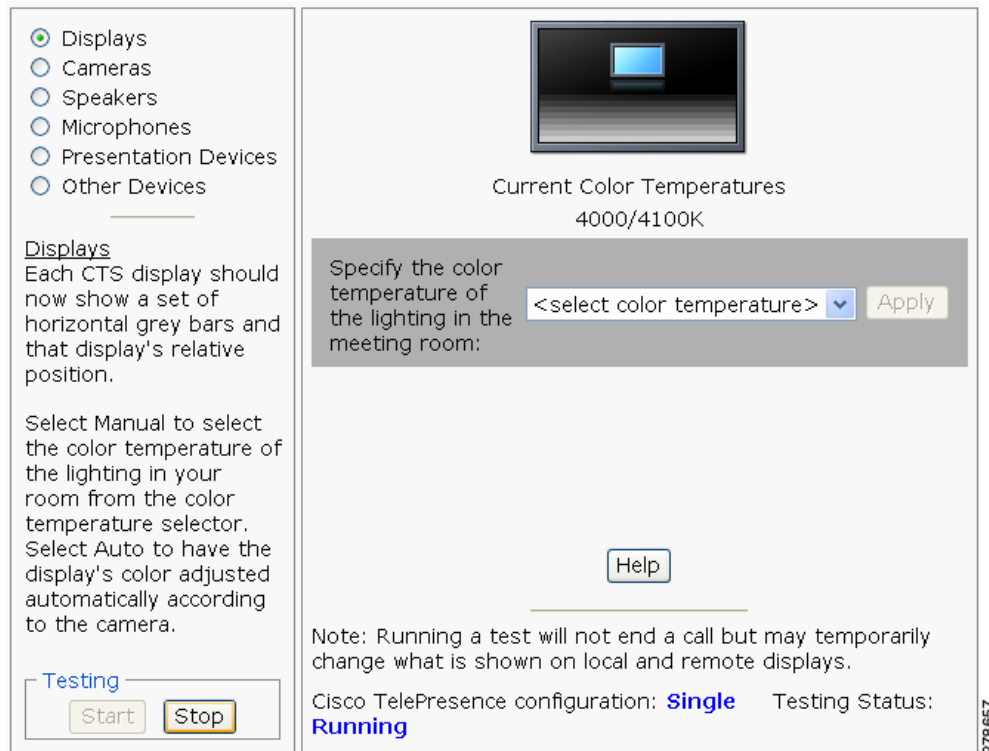
To adjust a display:

- Step 1** Log in to the Cisco TelePresence System Administration interface.
- Step 2** Choose **Troubleshooting > Hardware Setup**.
- Step 3** Click the **Displays** radio button. A test image appears.
- Step 4** Click **Start** in the Testing box to start the adjustment process. The Current Color Temperature test screen appears, as shown in [Figure 4-2](#).

**Note**

Each display in the meeting room should be showing a set of horizontal grey bars and that display's relative position. The current color temperature setting is displayed.

**Figure 4-2** Color Temperature Test Screen



- Step 5** Select the color temperature of the lighting in the meeting room from the drop-down menu. The Apply button is activated.
- Step 6** Click **Apply**.
- Step 7** Click **Stop** to stop the test.

## Troubleshooting Displays

Use the information in [Table 4-1](#) to troubleshoot images on the displays.

**Table 4-1** Troubleshooting Displays

Problem	Possible Cause	Action
No image.	<ul style="list-style-type: none"> <li>Power cable is not plugged in.</li> <li>Power switch on the back of the display is off.</li> </ul>	Check power connections and switches on each display.
	The display has no image when you are between calls.	No image expected. Enable a display test from the Web user interface to place the displays in test mode.
	Cable is not connected or is connected to the wrong HDMI port in the display	<p>Confirm that the HDMI cable is plugged into the Main input (white) and not the Auxiliary input (orange).</p> <p>Contact Cisco technical support if you are certain that the cabling is correct and power is applied to the system, but no image is seen on the display.</p> <p>See the Routing Power and Signal Cables section in the <a href="#">Cisco TelePresence System 500 Assembly, Use &amp; Care, and Field Replacement Unit Guide</a>.</p>

### Related Information

- For more information about setting up and testing displays, see the [Cisco TelePresence System 500 Assembly, Use & Care, and Field Replacement Unit Guide](#).
- For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

## Testing Cameras

The cameras are set up successfully when images are centered and in focus on the display screens and the white balance has been configured. The hardware setup software provides a camera Auto Adjust feature and a way to use targets to fine-tune the camera's focus.



#### Note

You must use the camera Auto Adjust feature before you can auto focus the camera. See the [“Auto Adjusting the Camera”](#) section on page 4-13.

Use the information in the following sections to test and troubleshoot the camera for your system:

- [Testing the CTS 500 Camera, page 4-7](#)
- [Troubleshooting Cameras, page 4-19](#)
- [Related Information, page 4-19](#)

**Note**

The camera hood comes off. It should be removed and left off until these procedures are complete.

## Testing the CTS 500 Camera

The following sections describe how to set up the CTS 500 camera for testing:

- [Removing the Camera Hood, page 4-7](#)
- [Setting up the Camera Targets, page 4-7](#)
- [Testing the Camera, page 4-7](#)
- [Auto Adjusting the Camera, page 4-13](#)
- [Focusing the Camera, page 4-14](#)
- [Saving Your Settings](#)
- [Reattaching the Camera Haze and Replacing the Hood, page 4-18](#)

### Removing the Camera Hood

Removing the camera hood provides access to the zoom and focus rings for the camera. The entire camera hood and speaker cover attachment comes off in one piece. To remove the camera hood.

- 
- Step 1** Pull the top of the hood towards you until that portion of the hood snaps open.
- Step 2** Pull the bottom of the hood until the entire unit snaps off of the camera.
- 

### Setting up the Camera Targets

To set up the camera target:

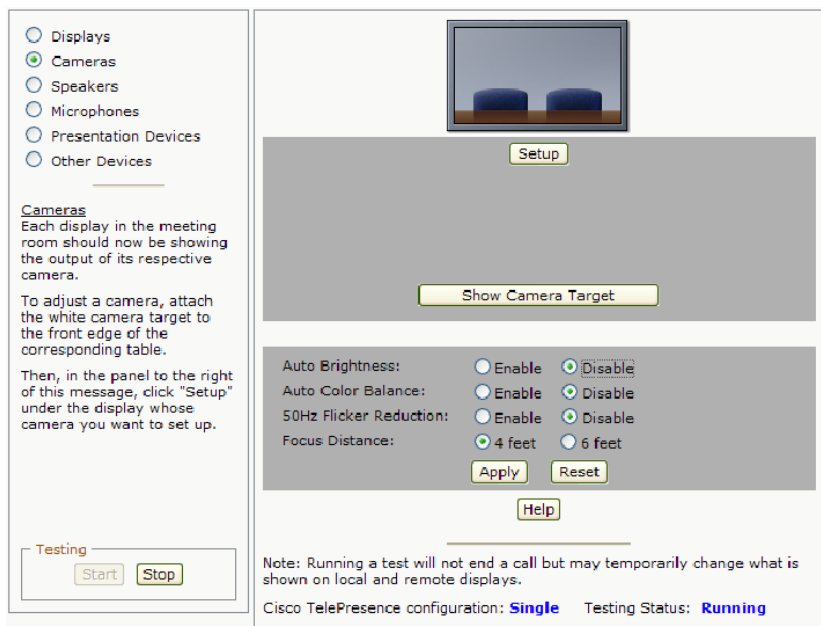
- 
- Step 1** Prepare the large camera target and place it on the easel.
- Step 2** Set the easel and large target in the position that the user will occupy. Use the distance measured from the camera to the head of the user to position the target. If the distance is unknown, use 1.5 meters (5 feet).
- 

### Testing the Camera

To set up the camera for testing.

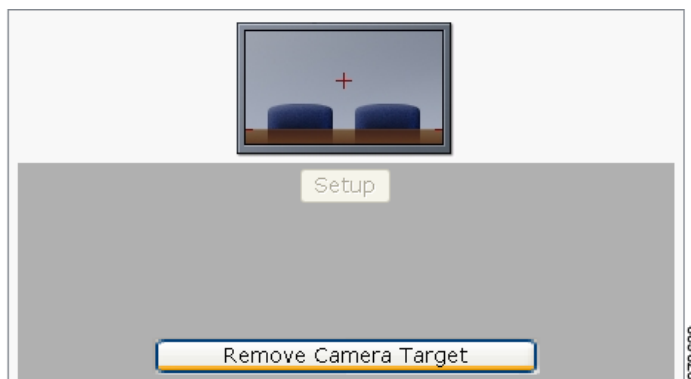
- 
- Step 1** Log in to the Cisco TelePresence System Administration interface.
- Step 2** Choose **Troubleshooting > Hardware Setup**.
- Step 3** Click the **Cameras** radio button.
- Step 4** Click **Start**. The display enters loopback mode. In loopback mode, the display shows images from the camera. The Camera Target testing options appear, as shown in [Figure 4-3](#).

**Figure 4-3** Cameras Screen



**Step 5** Click **Show Camera Target**. A red + appears on the test screen, as shown in [Figure 4-4](#).

**Figure 4-4** Show Camera Target



**Step 6** Prepare the large camera target and place it on the easel.

**Step 7** Set the easel and large target in the position that the user will occupy. Use the distance measured from the camera to the head of the user to position the target. If the distance is unknown, use 1.5 meters (5 feet).

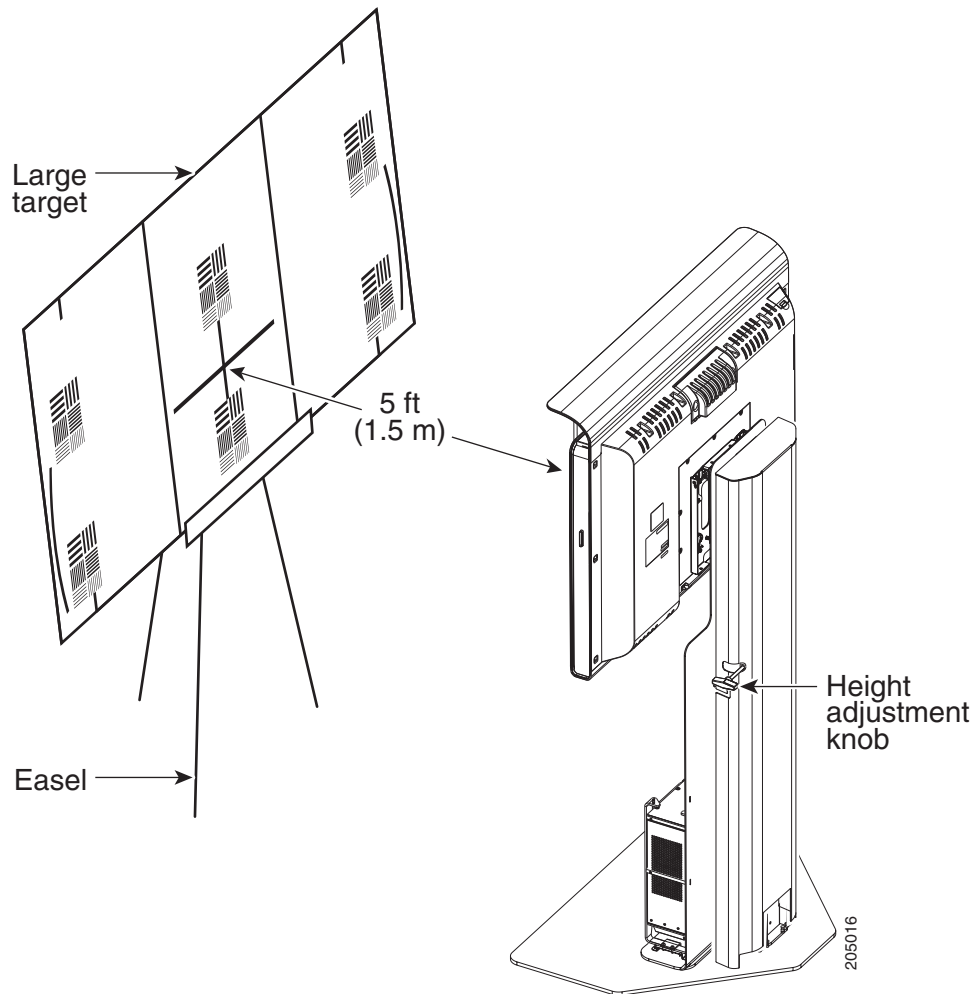


**Note** The user must be at least 4 feet (1.2 meters) away from the display for all CTS 500 installations.

[Figure 4-5](#) shows a pedestal stand-mounted CTS 500. Use the same method for all types of CTS 500 installations.



Figure 4-5 Camera Target Placement



**Step 8** Raise or lower the CTS 500 so that the green rectangle that displays on the screen is at the approximate eye level of the CTS 500 user.

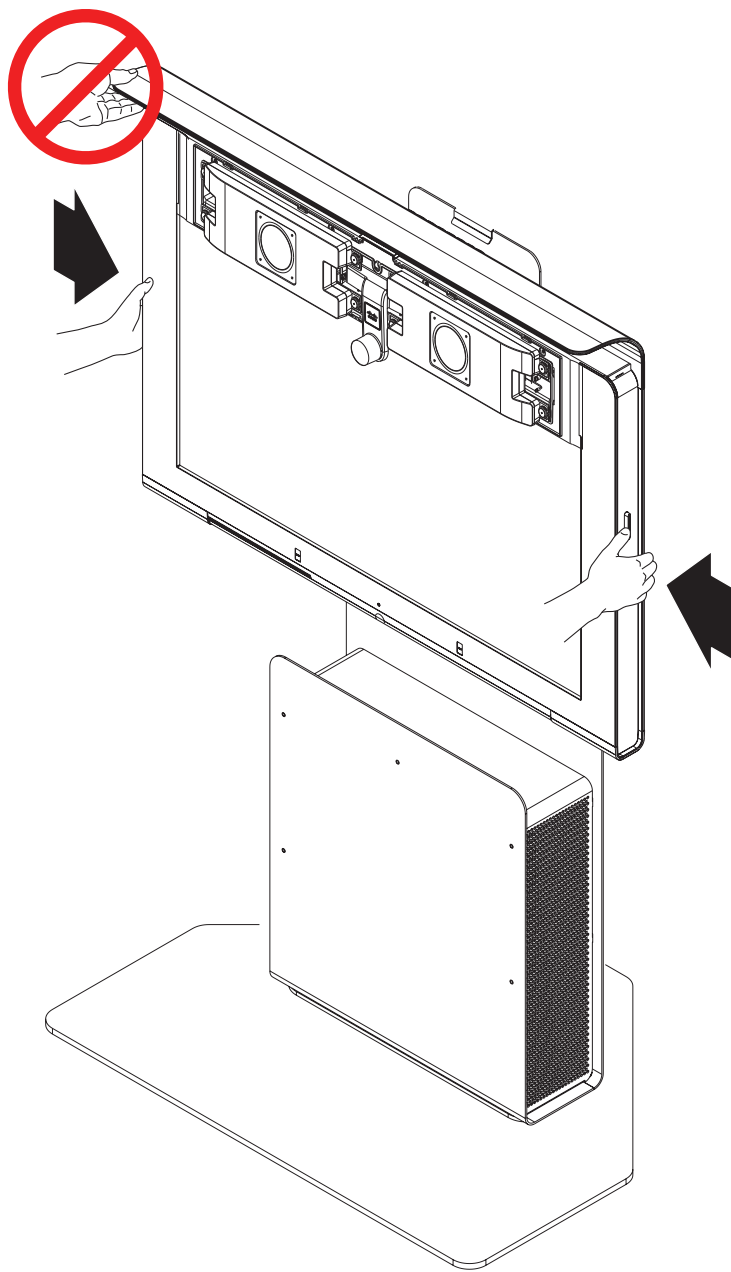


**Note** If you have a wall-mounted CTS 500, skip this step.

Use the following guidelines when raising and lowering the stand (see [Figure 4-6](#) and [Figure 4-7](#)):

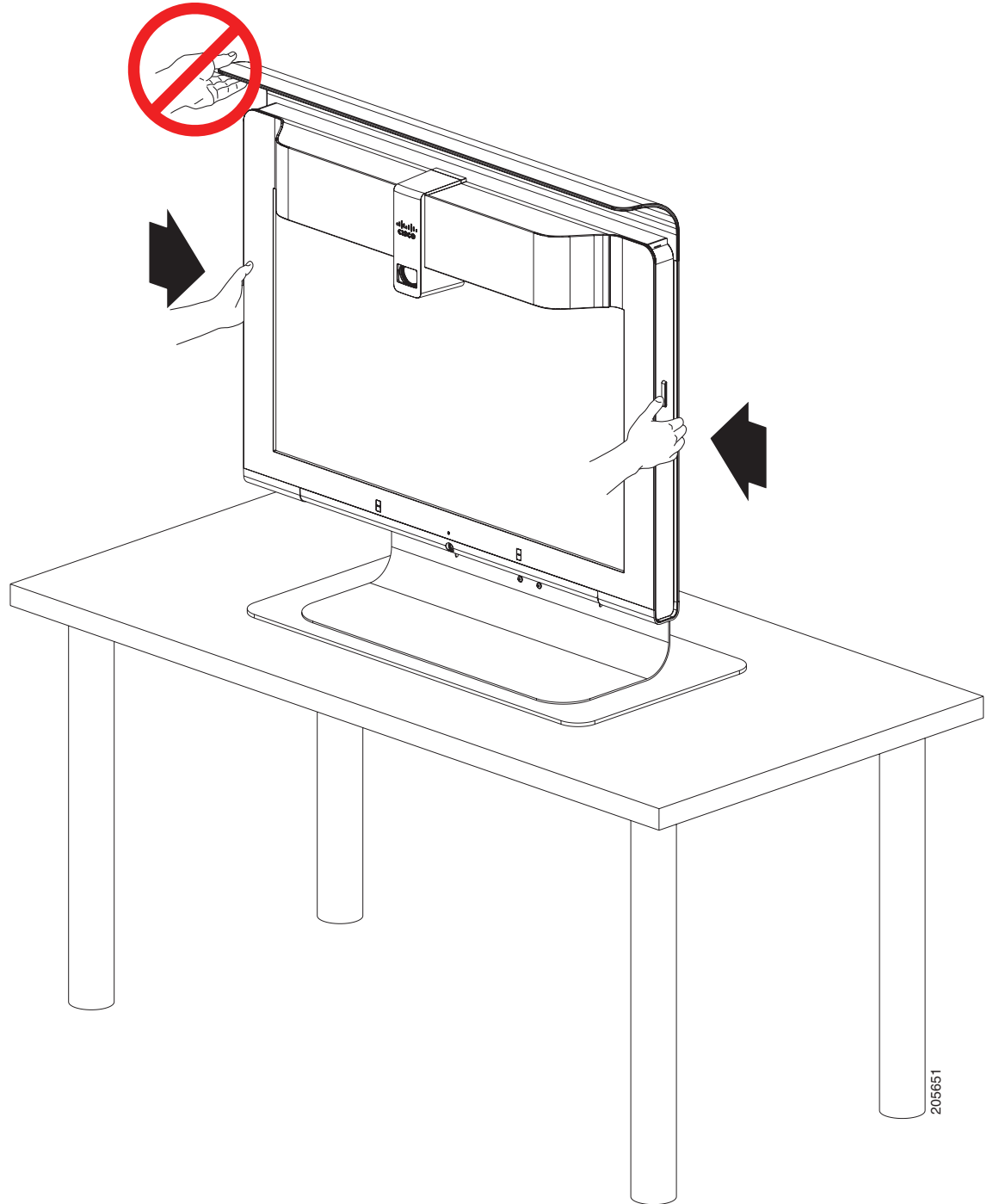
- Do not grasp the light reflector, or any part of the CTS 500 but the monitor.
- Use two hands.
- Do not lift using only one side.
- Apply equal pressure from each side.

Figure 4-6 Height Adjustment Guidelines—Pedestal Stand-Mounted CTS-500



2056650

**Figure 4-7** Height Adjustment Guidelines—Table Stand-Mounted CTS 500



**Note**

If the user is available, use them to position the CTS 500. If the user is not available, or if the CTS 500 will be used by multiple people, use an average eye level height.

**Tip**

If you have a pedestal stand-mounted CTS 500 and applied the height sticker, you can use it to choose an approximate height. For more information about the height sticker, see the “Assembling a Pedestal Stand-Mounted CTS 500” chapter in the *Cisco TelePresence System 500 Assembly, Use & Care, and Field Replaceable Unit Guide*.

**Step 9** Position the easel so the black plus sign (+) of the target is in the same position as the red plus sign (+) on the display.

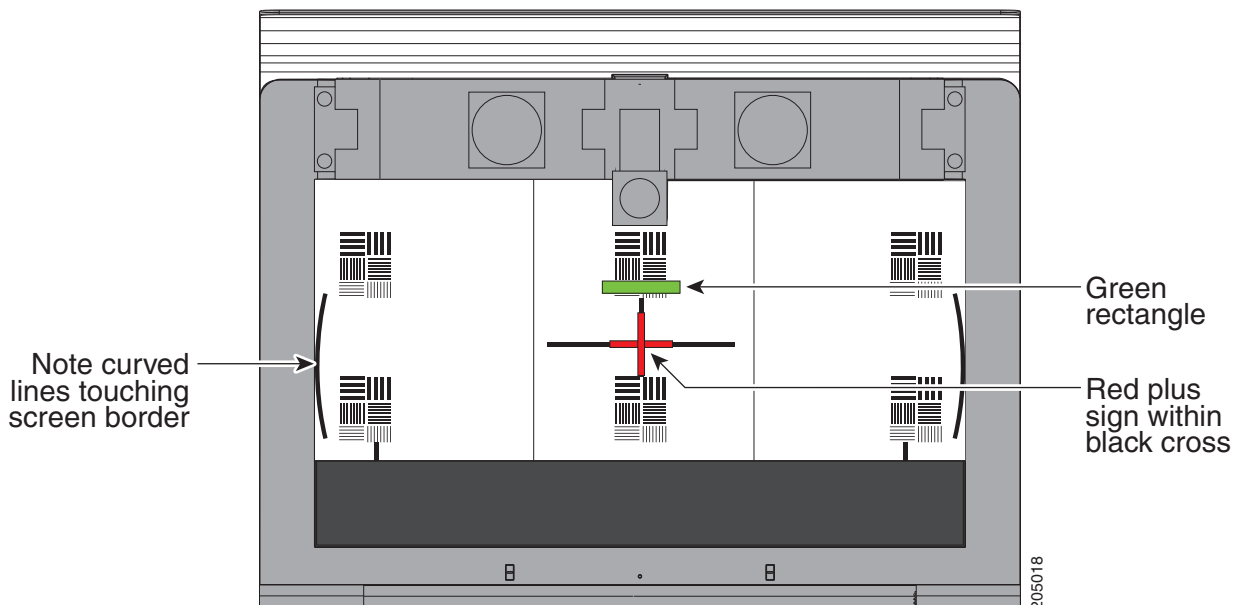
**Step 10** Adjust the camera so that the red + is centered on the white target and the hash marks at each side are aligned to the top of the table.

**Tip**

You can raise and lower the large target by adjusting the legs of the easel or move the target slightly from side to side. However, do not move the easel from the position that the user will occupy. If possible, move the camera to accommodate the position of the easel.

Figure 4-8 shows a camera correctly adjusted.

**Figure 4-8** Camera Adjustment



**Step 11** Loosen the thumbscrew on the camera and twist the zoom ring on the lens until the curved lines on the left and right are just touching the left and right borders of the screen. Make sure the black plus sign (+) is still in the same position as the red plus sign (+). Tighten the thumbscrew when the adjustment is complete.

See Figure 4-8 for an example of correct zoom adjustment.

**Step 12** Click **Remove Camera Target** to stop the test.

## Auto Adjusting the Camera

To tune the camera for brightness, color balance, and distance complete the steps in the following sections:

- [Fixed Artificial Lighting, page 4-13](#)
- [Outside Lighting, page 4-13](#)
- [Understanding Camera Setup Choices for Room Lighting, page 4-14](#)



**Note** For more information about room lighting, see the “[Testing the CTS 500 Camera](#)” section on [page 4-7](#).

### Fixed Artificial Lighting

If the room uses fixed artificial lighting:

- 
- Step 1** Click the **Disable** radio button for the following:
- Camera Auto Brightness
  - Camera Auto Color Balance
- Step 2** Click **Setup**. A selection of options appear.
- Step 3** Click **Auto Adjust** to automatically adjust the lighting and color balance.



**Note** Make sure that the large target is still in place and that nothing is between the large target and the camera.

The camera calibrates and saves the settings. This process takes approximately 20 seconds.



**Note** If the test fails, you may need to add more light to the room.

- Step 4** Click **Show Focus Target**. Red and green targets appear on the test screen.



**Note** To remove the targets, click **Hide Focus Target**.

- Step 5** With both white targets set up, adjust the camera focus so that the long red and green line are the same length.
- Step 6** Click **Done** when you are finished making adjustments.
- Step 7** If you require further adjustments to the room brightness, click the **Enable** radio button for the Camera Auto Brightness and Camera Auto Color Balance choices, then select a choice from the Luminance drop-down list until the brightness and contrast are at acceptable levels.
- 

### Outside Lighting

If the room uses outside lighting, or has any other conditions that could cause variable room lighting:

**Step 1** Click the **Enable** radio button for the following:

- Camera Auto Brightness
- Camera Auto Color Balance



**Note** Auto Color Balance can produce undesirable results if the colors of the walls in your room are not white or gray.

**Step 2** To make additional adjustments to the camera brightness and contrast levels, select a choice from the **Luminance** drop-down list.

**Step 3** In the **50 Hz Flicker Reduction** field, click the **Disable** radio button.



**Note** If you are in country that uses a 50 Hertz (Hz) power frequency (a country other than the USA, Canada or Mexico) and there is a noticeable flicker on the screen, click the **Enable** radio button in this field. If you enable the flicker reduction feature, the flicker is reduced or eliminated, but the image quality is reduced. To eliminate the flicker at its source, you can use an electronic ballast instead of a magnet ballast for the fluorescent lights at your installation. After you change the ballast for the fluorescent lights, you can click the **Disable** radio button in the **50 Hz Flicker Reduction** field.

### Understanding Camera Setup Choices for Room Lighting

If your room has windows that contribute a significant amount of natural light, you can set your CTS to automatically compensate for variable lighting conditions. This compensation is an average adjustment and will not be as accurate as the color settings you select for a room that uses fixed, artificial room lighting.

[Table 4-2](#) contains recommendations for desirable display and camera settings when you set up the display and camera. See the “[Testing the CTS 500 Camera](#)” section on page 4-7 for more information.

**Table 4-2** Room Configuration and Camera Setup Choices

Physical Room Configuration	Camera Auto Brightness and Camera Auto Color Balance Setup Choices
No windows	Disable
<ul style="list-style-type: none"> <li>• One window</li> <li>• Two adjacent windows (corner office configuration)</li> <li>• Two opposing windows</li> <li>• Windows on three sides</li> <li>• Windows on four sides</li> </ul>	Enable

### Focusing the Camera

The CTS 500 camera has vertical height, zoom, and focus adjustments. Adjust the camera using the following guidelines:

- Using the camera test images that display on the screen, adjust the camera vertical height to set the eye level of the user at 70 percent of the total vertical height of the screen.
- Using the large and small (far and near) targets that you set up in [Setting up the Camera Targets](#), adjust the camera focus.

To focus the camera:

---

**Step 1** Adjust the Focus Distance using these guidelines:

- If the user is 1.2 meters to 1.5 meters (4 to 5 feet) away from the display, click **4 feet**.
- If the user is farther than 1.5 meters (5 feet) away, click **6 feet**.

**Step 2** Click **Apply**.

**Step 3** Click **Show Focus Targets**.

**Step 4** Reposition the targets by completing the following steps:

- a. Lean the large target against a chair or other surface so that it is taller than it is wide.
- b. Move the large target 6 to 8 feet (1.8288 to 2.4384 meters) from the camera so that the red box encloses some of the patterns on the large target when you view the display, as shown in [Figure 4-9](#).
- c. Use the easel to support the small target, as shown in [Figure 4-9](#).
- d. Place the small target approximately 0.9 meters (3 feet) in front of the camera so that the green box encloses some of the patterns on the small target when you view the display, as shown in [Figure 4-10](#).



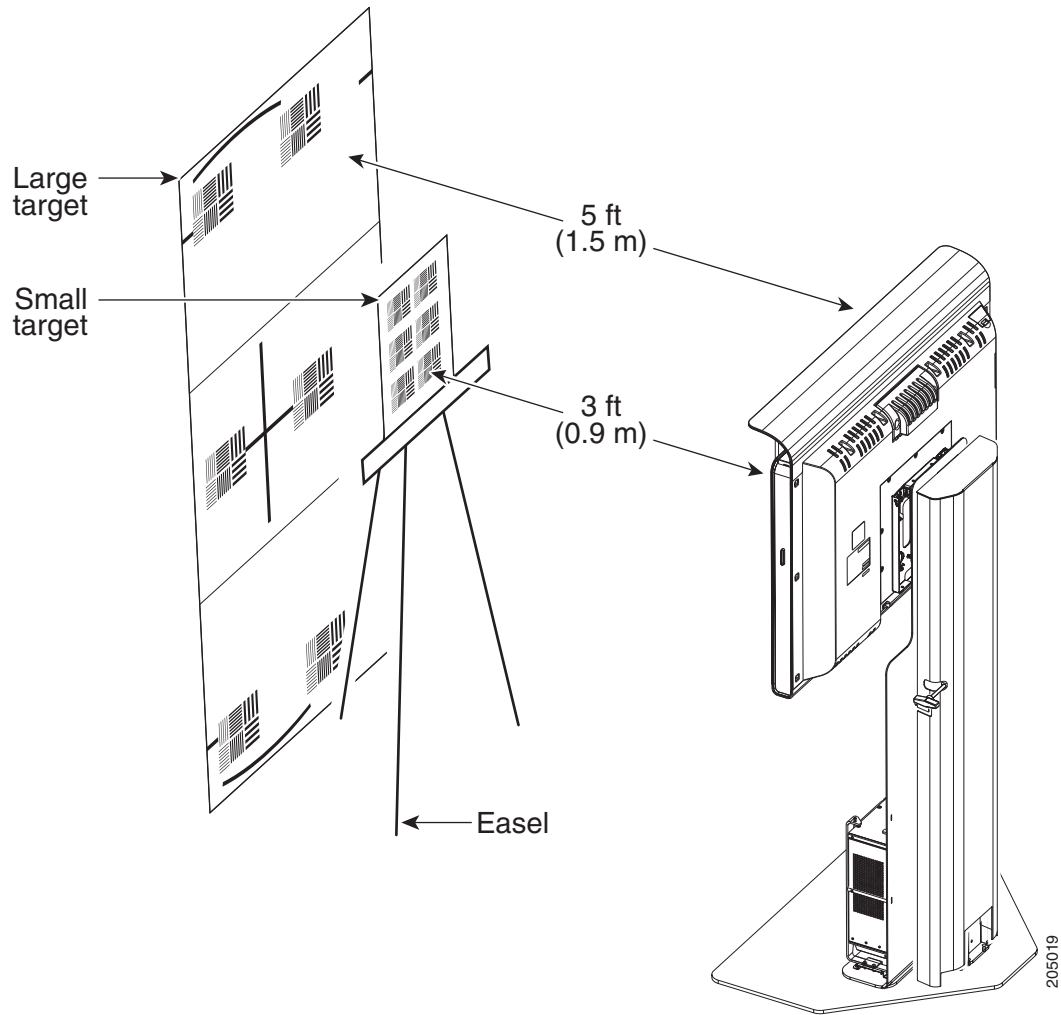
**Note**

---

Make that there are no objects between the targets and the camera.

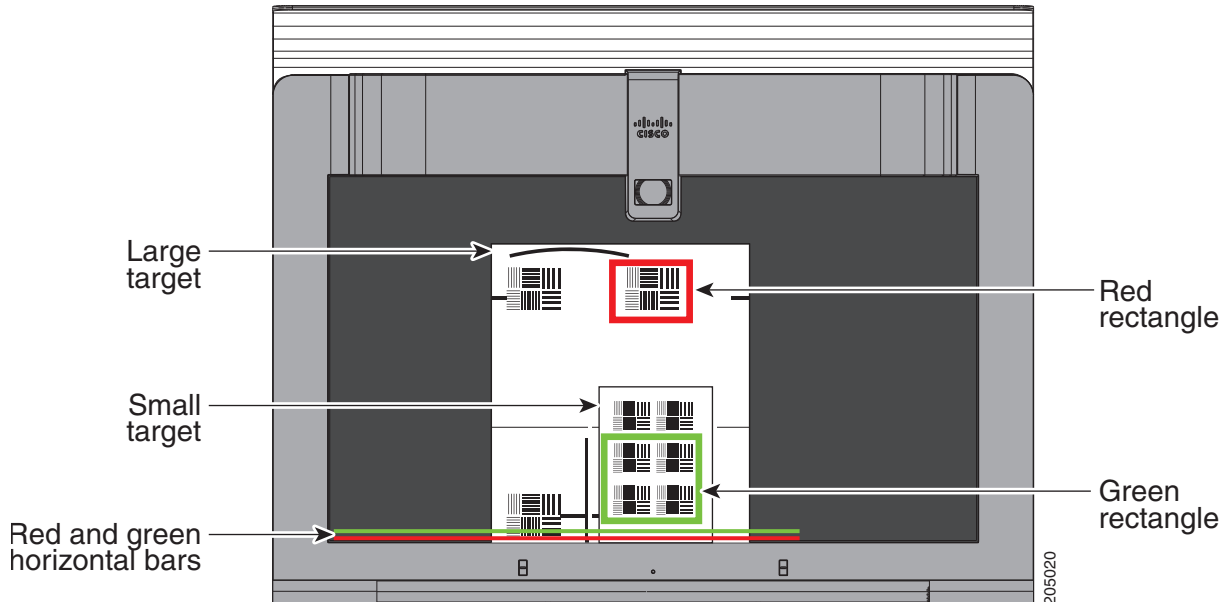
---

**Figure 4-9** *Setting Up Focus Targets*





**Figure 4-10** Setting Up Focus Targets and Aligning Horizontal Bars



- Step 5** Loosen the thumbscrew on the lens focus ring.
- Step 6** Twist the focus ring clockwise until the red and green horizontal bars on the bottom of the screen are reduced to very short lengths on the left.
- Step 7** Twist the focus ring counter-clockwise until the red and green bars extend all the way to the right.
- Step 8** Continue to twist the focus ring until the red and green bars are approximately the same length. See [Figure 4-10](#) to view the approximate horizontal bar alignment. When the bars are roughly the same length, the camera is focused.



**Note** The red and green bars do not have to be exactly the same length. Get them as close as you can.

- Step 9** Without moving the focus ring, tighten its thumbscrew.
- Step 10** Click **Done**.
- Step 11** Click **Stop** to stop the test.



## Troubleshooting Cameras

Use the information in [Table 4-3](#) to troubleshoot cameras.

**Table 4-3** Troubleshooting Cameras

Problem	Possible Cause	Action
Image not positioned correctly.	Camera is not aligned correctly.	Adjust and focus the camera using the targets.
Image colors are incorrect.	<ul style="list-style-type: none"> <li>Video cable is only partially connected.</li> <li>Color settings are not correct.</li> </ul>	<ul style="list-style-type: none"> <li>Tug on the plug to see if it is fully plugged in.</li> <li>See the <a href="#">Routing Power and Signal Cables</a> section in the <i>Cisco TelePresence System 500 Assembly, Use &amp; Care, and Field Replacement Unit Guide</i>.</li> </ul>
No image.	<ul style="list-style-type: none"> <li>Lens cap is in place.</li> <li>Camera is not plugged in or is plugged in incorrectly.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the lens cap.</li> <li>Check power connections and switches on each display.</li> <li>Verify that the video and Ethernet cables from each camera are plugged into the correct connectors on their respective codecs.</li> </ul>
	Camera or display is broken.	Contact Cisco technical support if you are certain that the cabling is correct, power is applied, and a display and camera test has been run, but no image is seen on the display.
Camera top-to-bottom switching discontinuity.	Image may take up to 1 second to normalize when the camera switches to the active speaker.	This is normal DSP behavior. Can also occur during audio addin. Contact Cisco technical support.

### Related Information

For more information about setting up and testing cameras, see the [Cisco TelePresence System 500 Assembly, Use & Care, and Field Replacement Unit Guide](#).

For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

# Testing Speakers

The speakers are set up successfully when sound can be heard clearly from each one. When running a test, you can choose whether to cycle through the speakers automatically or manually.

Use the information in the following sections to test the speakers for your system:

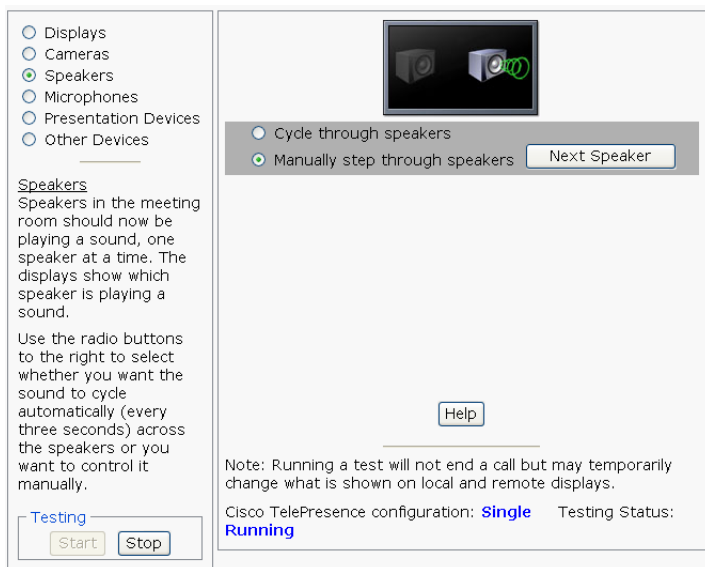
- [Testing the Speakers, page 4-20](#)
- [Troubleshooting Speakers, page 4-21](#)
- [Related Information, page 4-21](#)

## Testing the Speakers

To test the speakers:

- 
- Step 1** Log in to the Cisco TelePresence System Administration interface.
  - Step 2** Choose **Troubleshooting > Hardware Setup**
  - Step 3** Click the **Speakers** radio button.
  - Step 4** Click **Start** to begin the speaker test. The speaker test screen appears, as shown in [Figure 4-12](#)

**Figure 4-12 Speaker Test Screen**



- Step 5** Click **Cycle Through Speakers** to have sound cycled automatically for 5 seconds on each speaker.
  - Step 6** Click **Manually Step Through Speakers** to test sound on each speaker. The **Next Speaker** button is activated.
  - Step 7** Click **Next Speaker** to progress to the next speaker.
  - Step 8** Click **Stop** to end testing.
-

## Troubleshooting Speakers

Use the information in [Table 4-4](#) to troubleshoot speakers.

**Table 4-4** Troubleshooting Speakers

Problem	Possible Cause	Possible Solution
No sound is heard.	Speaker cable is not connected or is only partially connected.	<ul style="list-style-type: none"> <li>• Check that the red and black pronged ends of the speaker cable are securely fastened under their corresponding connectors on the speaker.</li> <li>• Check that the speaker cable is plugged into the correct receptor on the primary codec.</li> <li>• Tug on the plug to see if it is fully plugged in. Push the plug in firmly until a click is heard.</li> </ul>
Sound is not synchronized with video.	—	Contact Cisco technical support.
Choppy audio during double-talk (when both sides are talking simultaneously).	<p>Audio Echo Canceller (AEC) very briefly mistakes one of the speech patterns for noise and cancels it, resulting in choppy audio.</p> <ul style="list-style-type: none"> <li>• The audio from the remote side is slightly attenuated before it is played out the of the speaker.</li> <li>• The echo cancellation feature removes some of the sound from the talkers during the double talk.</li> </ul>	<p>Check whether there has been a change in the echo path (someone has moved the speaker or microphone, or maybe a laptop directly in front of a mic). Otherwise, this is expected behavior. The existing filter parameters should be enough to cancel out the sound from the speaker. However, during double-talk, echo cancellation will always remove some sound from the talker.</p>

### Related Information

For more information about setting up and testing speakers, see the [Cisco TelePresence System 500 Assembly, Use & Care, and Field Replacement Unit Guide](#).

For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

## Testing Microphones

The microphones are set up successfully when each microphone registers sound. You must supply sound at each microphone to complete this test.



### Note

The number of audio meters that are shown on the test screen is determined by the number of microphones that have been configured in Unified CM and the version of Unified CM that you are running.

The Microphone Troubleshooting screen displays the number of microphones available for testing:

- CTS 500—1 microphone with a single audio meter displayed on a single test screen.

### Testing Microphones

Go to the following sections to test microphones:

- [Testing Microphones on the CTS 500, page 4-22](#)
- [Troubleshooting Microphones, page 4-23](#)
- [Related Information, page 4-24](#)

## Testing Microphones on the CTS 500


To test microphones on the CTS 500:

- 
- Step 1** Log in to the Cisco TelePresence System Administration interface.
  - Step 2** Choose **Troubleshooting > Hardware Setup**.
  - Step 3** Click the **Microphones** radio button.
  - Step 4** Click **Start** in the Testing box to begin the test.
  - Step 5** Lightly tap each microphone and watch the audio meter on the corresponding display screen to see that sound registers.
  - Step 6** Click **Stop** to end the test.
-

## Troubleshooting Microphones

Use the information in [Table 4-5](#) to troubleshoot microphones.

**Table 4-5** Troubleshooting Microphones

Problem	Possible Cause	Possible Solution
Sound is muffled.	Something near or on the microphone is distorting the sound.	<ul style="list-style-type: none"> <li>• Move objects away from the microphone.</li> <li>• Confirm the laptop is not open and in-between the user and the microphone</li> </ul>
No sound registers.	Microphone cable is not connected or is only partially connected.	<ul style="list-style-type: none"> <li>• Check that the system is plugged in and power is on.</li> <li>• Check that the microphone plug is firmly seated in the correct connector on the primary codec.</li> <li>• Check that the mute light on each microphone is lit. An unlit light indicates that the microphone is not plugged in.</li> <li>• Lightly tap the microphone to see if sound registers.</li> <li>• Contact Cisco technical support if you are certain that the cabling is correct and power is applied to the system, but no sound registers on the microphone.</li> </ul>
Microphone icon with red pipe displays.  	<ul style="list-style-type: none"> <li>• Microphone is not connected.</li> <li>• One of the microphones is unplugged.</li> </ul>	Check that the microphone is properly plugged in.

**Table 4-5** Troubleshooting Microphones (continued)

Problem	Possible Cause	Possible Solution
Sound is hollow and echoes.	Room is not acoustically treated or has many hard surfaces.	<ul style="list-style-type: none"> <li>Adjust the position of the CTS 500.</li> <li>Add acoustic treatment to the walls and windows in the room</li> </ul>
Choppy audio during double-talk (when both sides are talking simultaneously).	<p>Audio Echo Canceller (AEC) very briefly mistakes one of the speech patterns for noise and cancels it, resulting in choppy audio.</p> <ul style="list-style-type: none"> <li>The audio from the remote side is slightly attenuated before it is played out the of the speaker.</li> <li>The echo cancellation feature removes some of the sound from the talkers during the double talk.</li> </ul>	Check whether there has been a change in the echo path (someone has moved the speaker or microphone, or maybe a laptop directly in front of a mic). Otherwise, this is expected behavior. The existing filter parameters should be enough to cancel out the sound from the speaker. However, during double-talk, echo cancellation will always remove some sound from the talker.

## Related Information

For more information about setting up and testing displays, see the [Cisco TelePresence System 500 Assembly, Use & Care, and Field Replacement Unit Guide](#).

For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

## Testing Presentation Devices

The output for presentations is handled by alternate displays, projectors, alternate devices, or LCDs. Input one of these devices can be delivered through a Video Graphics Array (VGA) input device (such as a laptop computer) or through a document camera.



### Note

You should run this test only if you have presentation display devices installed.

[Table 4-6](#) contains supported presentation devices listed by system.

**Table 4-6** Supported Presentation Devices

Presentation Device	Included in Cisco TelePresence System	Optional in Cisco TelePresence System
Alternate Display	—	<ul style="list-style-type: none"> <li>CTS 500</li> </ul>
Document Camera	—	<ul style="list-style-type: none"> <li>CTS 500</li> </ul>

This section contains the following information:

- [Checking External Presentation Devices, page 4-25](#)



- [Checking the Test Pattern](#), page 4-26
- [Checking the VGA](#), page 4-27
- [Checking the Document Camera](#), page 4-28
- [Resetting the Projector](#), page 4-29
- [Troubleshooting Presentation Devices](#), page 4-29
- [Related Information](#), page 4-33

## Checking External Presentation Devices

The alternate display is set up successfully when the test pattern is displayed on the projection surface in the meeting room while running the test.



### Tip

When troubleshooting presentation devices, start with the alternate display test pattern to see if it is set up correctly and then proceed through VGA and document camera input tests as necessary.

By default, presentations are displayed as presentation-in-picture (PiP) on the main display screen. You can optionally add an external presentation display screen that displays the presentation instead of displaying it as PiP. This external display is attached to the External Presentation Display HD video connection on the codec. See the *Cisco TelePresence System 500 Assembly, Use & Care, and Field-Replaceable Unit Guide* for more information.



### Note

If the video works for a few minutes and then stops working, your presentation device might use an unsupported video protocol. To see the list of displays that the CTS 500 supports, see the release notes for your CTS software version on Cisco.com.

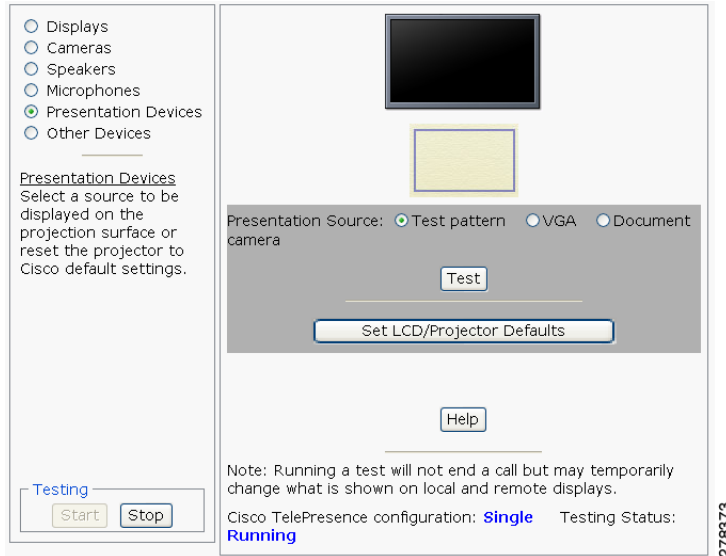
A PiP softkey will be displayed on the phone only if a PiP is active. PiP is not available for audio-only calls.

### Procedure

To test an external presentation device:

- Step 1** Log in to the Cisco TelePresence System Administration interface.
- Step 2** Choose **Troubleshooting > Hardware Setup**.
- Step 3** Click **Presentation Devices**. The presentation devices test screen appears, as shown in [Figure 4-13](#).

**Figure 4-13** Presentation Devices Test Screen



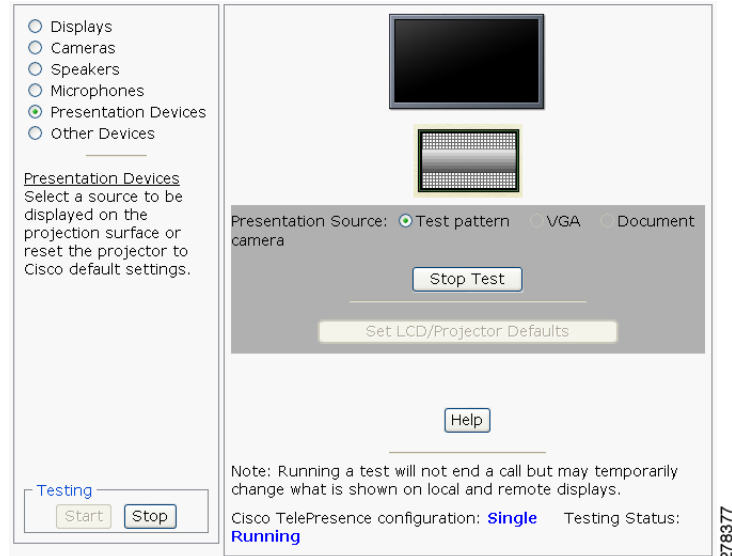
Proceed to the following sections to test presentation devices:

- [Checking the Test Pattern, page 4-26](#)
- [Checking the VGA, page 4-27](#)
- [Checking the Document Camera, page 4-28.](#)

## Checking the Test Pattern

To check the test pattern:

- Step 1** Choose **Troubleshooting > Hardware Setup**.
- Step 2** Click **Start** to begin the test. In Presentation Source window, the **Test Pattern** radio button is selected by default.
- Step 3** Click **Test**. The test pattern displays, as shown in [Figure 4-14](#).

**Figure 4-14** Presentation Devices Test Pattern

It may take up to 15 seconds before you begin to see an image on the projection surface. The image should be fully formed after approximately 45 seconds.

If the test pattern is displaying correctly, you should see a grid projected on the projection surface. In the center of the grid, you should see a series of horizontal grey bars. You should also see a one-pixel wide green border around the outside of the grid.

If the green border is not visible, for systems with an Auxiliary Control Unit, do the following:

- a. Click **Set LCD/Projector Defaults**. A dialog box opens alerting you that setting projector defaults may take up to 45 seconds. A menu will appear from the projector to select settings.

For systems without the Auxiliary Control Unit, use the projector remote control to change the following settings on the projector:

- b. **Picture adj: Overscan** should be set to **0**
- c. **Screen: Normal**

**Step 4** Click **Stop Test** to end the test pattern testing.

**Step 5** Click **Set Projector Defaults** to reset the projector to the default settings, if necessary.

**Step 6** Click **Stop** in the Testing box to end all testing.

**Step 7** Proceed to [Checking the VGA](#).

## Checking the VGA

To check the [VGA](#):

**Step 1** Choose **Troubleshooting > Hardware Setup**.

**Step 2** Click the **Presentation Devices** radio button.

**Step 3** Click **Start** in the Testing box. The Presentation Source buttons are activated.

- Step 4** Select **VGA** and click **Test**. It may take up to 15 seconds before you begin to see an image on the projection surface. The image should be fully formed after approximately 45 seconds.
- If the input image is displaying correctly, you should see an image projected on the projection surface. If the image is out of focus, use the projector focus ring to focus the image.
- Step 5** Click **Stop Test** to end the test.
- Step 6** Click **Set Projector Defaults** to reset the projector to the default settings, if necessary.
- Step 7** Click **Stop** in the Testing box to end all testing.
- 

## Checking the Document Camera

To test input from the document camera:

- 
- Step 1** Choose **Troubleshooting > Hardware Setup**.
- Step 2** Click the **Presentation Devices** radio button.
- Step 3** Click **Start** in the Testing box. The Presentation Source buttons are activated.
- Step 4** Select **Document Camera** and click **Test**. It may take up to 15 seconds before you begin to see an image on the projection surface. The image should be fully formed after approximately 45 seconds.
- If the input image is displaying correctly, you should see an image projected on the projection surface. If the image is out of focus, use the projector focus ring to focus the image.
- Step 5** Click **Stop Test** to end the test.
- Step 6** Click **Set Projector Defaults** to reset the projector to the default settings, if necessary.
- Step 7** Click **Stop** in the Testing box to end all testing.
-

## Resetting the Projector

To reset the projector:

- 
- Step 1** Choose **Troubleshooting > Hardware Setup**.
- Step 2** Click the **Presentation Devices** radio button.
- Step 3** Click **Start** in the Testing box. The Presentation Source buttons are activated.
- Step 4** Click **Set Projector Defaults** to reset the projector to the default settings.
- Step 5** Click **Stop** in the Testing box to complete the task.
- 

## Troubleshooting Presentation Devices

Use the information in the following sections to troubleshoot presentation devices:

- [Multiple Input Devices, page 4-29](#)
- [Presentation Devices, page 4-29](#)

### Multiple Input Devices

The Cisco TelePresence System can display information from multiple input devices during a meeting. If multiple input devices are sending information, the alternate display shows the input from the last presentation device that sent information. If an input device image is not being seen on the projector screen, try the following:

- VGA devices—Unplug the device from the VGA cable, wait 5 seconds, and then plug the device back in.
- Document cameras—Turn the camera off, wait 5 seconds, and restart the device.

### Presentation Devices

Use the information in [Table 4-6](#) to troubleshoot presentation devices.


**Table 4-7** Troubleshooting Presentation Devices

Problem	Possible Cause	Possible Solution
Test pattern is not displayed.	Projector or alternate display power switch is off.	<ul style="list-style-type: none"> <li>• Check projector or alternate display power switch.</li> <li>• Switch the projector on/off rocker switch to the ON position.</li> </ul>
	Power cable is not connected.	<ul style="list-style-type: none"> <li>• Check to see if the <b>LED</b> on the top of the projector is illuminated. It can be either green or yellow.</li> <li>• If the LED light is not illuminated, make sure that the power cable is plugged in.</li> </ul>
	Video cable is not connected to the projector, alternate display, or to the CTS primary unit.	<ul style="list-style-type: none"> <li>• Check that the video cable is plugged into the projector or alternate display and into the correct connector on the CTS primary unit.</li> <li>• Contact Cisco technical support if you are certain that the cabling is correct and power is applied to the system but no image is displayed.</li> </ul>

Table 4-7 Troubleshooting Presentation Devices

Problem	Possible Cause	Possible Solution
	Projector or alternate display is set up to receive PC input instead of input from its video cable connector.	<ul style="list-style-type: none"> <li>Use the projector remote control to configure the projector for HD Video input.</li> <li>If your system includes an Auxiliary Control Unit, click <b>Set Projector Defaults</b>.</li> </ul>
	Object is blocking the path of the projector or alternate display.	Remove any objects blocking the projector or alternate display lens.
	HD Video connector is not securely seated in the projector or alternate display.	Seat the HD Video connector securely.
	HD Video connector is not securely seated in the CTS primary codec.	Seat the HD Video connector securely.
	HD Video connector is not inserted in the correct port on the CTS primary codec.	<p>The HD Video cable connector should be connected to auxiliary video out. Check the cabling diagrams in the Routing Power and Signal Cables section in the Cisco TelePresence System Assembly, Use &amp; Care, and Field Replacement Unit Guide for your system on Cisco.com:</p> <ul style="list-style-type: none"> <li><b>Product Support &gt; TelePresence &gt; TelePresence Immersive Endpoints</b> <ul style="list-style-type: none"> <li>Cisco TelePresence System 3200 Series</li> <li>Cisco TelePresence System 3000 Series</li> <li>Cisco TelePresence System 1300 Series</li> <li>Cisco TelePresence System T Series</li> </ul> </li> <li><b>Products &gt; TelePresence &gt; TelePresence Personal Endpoints &gt; TelePresence Office</b> <ul style="list-style-type: none"> <li>Cisco TelePresence System 1100</li> <li>Cisco TelePresence System 1000</li> <li>Cisco TelePresence System 500 Series</li> </ul> </li> </ul>
Caution pop-up: No VGA (DVI) input received.	<ul style="list-style-type: none"> <li>VGA cable is not plugged into your laptop.</li> <li>XGA output settings are not optimized.</li> </ul>	<p>Verify the following:</p> <ol style="list-style-type: none"> <li>The VGA connector in the meeting room is plugged into your computer.</li> <li>You have enabled VGA (XGA 1024 x 768) output on your computer.</li> </ol> <p>Click <b>OK</b> to close the window.</p>
Caution pop-up: No input received from document camera.	Cables are not connected properly.	<p>Check that all cables are connected and all connectors are plugged in completely.</p> <p>Click <b>OK</b> to close the window.</p>

**Table 4-7** Troubleshooting Presentation Devices

Problem	Possible Cause	Possible Solution
System Status window shows unexpected Document Camera status.	Document camera settings may need to be adjusted in Unified CM.	Cisco recommends setting the Digital Visual Interface (DVI) resolution to XGA/60 at 1024 x 768/60 Hz. See the Optional Hardware section of the <a href="#">Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System</a> for more information.
There is no image and a Bulb icon appears on the CTS main display.  	The projector bulb has burned out.	Replace the projector bulb.

**Tip** Presentation devices automatically shut off when there is no longer a video signal to that presentation device. An on-screen timer counts down the remaining time to shut-down. The amount of time that it takes a device to shut down depends on your Unified CM configuration. Most CTS devices that support PiP shut down in 10 to 15 seconds after the video signal is removed. Devices on the CTS 3000 and CTS 3200 series that have black boxes associated with the auxiliary control take 5 minutes to shut down. See the Product Specific Configuration Layout section of the [Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System](#) for more information about controlling presentation devices and associated displays.

## Related Information

For more information about setting up and testing presentation devices, see the [Cisco TelePresence System 500 Assembly, Use & Care, and Field Replacement Unit Guide](#).

For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

## Testing Other Devices

Use the **Other Devices** Tab to check the following additional devices:

- [Auxiliary Control Unit, page 4-34](#)
- [Auxiliary LCD Displays, page 4-35](#)
- [Shroud Light, page 4-35](#)
- [Digital Media Player, page 4-36](#)
- [Troubleshooting Other Devices, page 4-38](#)
- [Related Information, page 4-39](#)

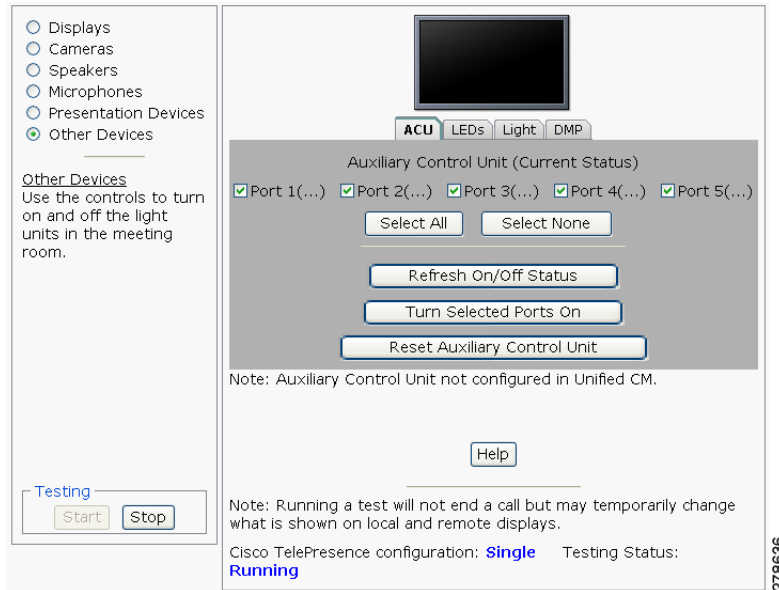
## Auxiliary Control Unit

The auxiliary control unit (ACU) controls the individual light units surrounding the displays in CTS conference rooms, which allows the CTS to receive projector or alternate display status information and restore projector or alternate display defaults.

To test the ACU:

- Step 1** Log in to the Cisco TelePresence System Administration interface.
- Step 2** Choose **Troubleshooting > Hardware Setup**.
- Step 3** Click the **Other Devices** radio button.
- Step 4** Click **Start** in the Testing box. The Auxiliary Control Unit (Current Status) is displayed by default. Individual light units correspond to the five port numbers of the Auxiliary Control Unit, Ports 1 through 5, as shown in [Figure 4-15](#).

**Figure 4-15 CTS 500 ACU Testing**



- Step 5** Check a box to select a specific port number.
- Or
- Step 6** Click **Select All** to select all ports (and all light units) or **Select None**.
- Step 7** Click the **Refresh On/Off Status** button to update the on/off status of each port.
- Step 8** Click the **Turn Selected Ports On** button.
- Step 9** Click the **Reset Auxiliary Control Unit** to power cycle the Auxiliary Control Unit.
- Step 10** Click **Stop** to end the test.



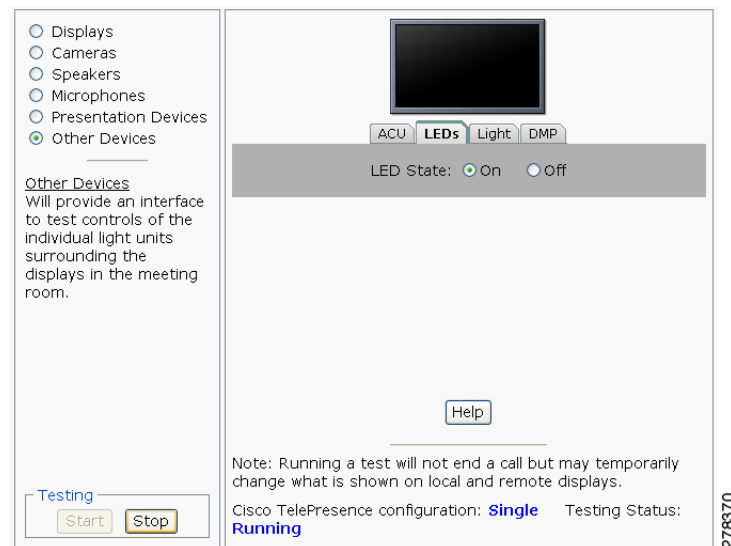
## Auxiliary LCD Displays

Each CTS 500 has five **LEDs** located around the outside edges of the screen. If the user can see these LEDs, the user is not sitting directly in front of the camera. This troubleshooting feature lets you view and change the current state of the LEDs.

To test the LEDs:

- 
- Step 1** Log in to the Cisco TelePresence System Administration interface.
  - Step 2** Choose **Troubleshooting > Hardware Setup**.
  - Step 3** Click the **Other Devices** radio button.
  - Step 4** Select the **LEDs** tab.
  - Step 5** Click **Start** in the Testing box. The LED status is displayed, as shown in [Figure 4-16](#).

**Figure 4-16 CTS 500 LED Status**



- If the LED feature is enabled, the **LED State On** button is highlighted.
- If the LED feature is disabled, the **LED State Off** button is highlighted.

- Step 6** Click the **LED State On** or **Off** button to change the current state of the LEDs.
  - Step 7** Click **Stop** to end the test.
- 

## Shroud Light

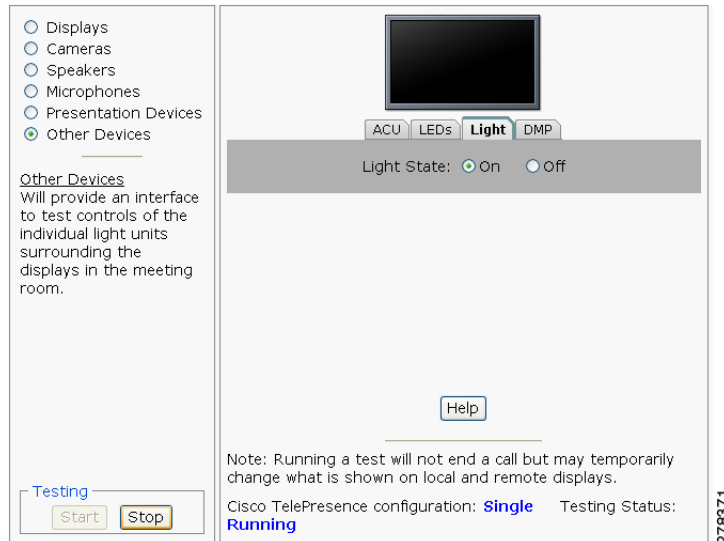
Each CTS 500 has a separate shroud light. This troubleshooting feature lets you view or change the status of the shroud light.

To test the shroud light:

- 
- Step 1** Log in to the Cisco TelePresence System Administration interface.

- Step 2** Choose **Troubleshooting > Hardware Setup**.
- Step 3** Click the **Other Devices** radio button.
- Step 4** Select the **Light** tab.
- Step 5** Click **Start** in the Testing box. The CTS 500 light status is displayed, as shown in [Figure 4-17](#).

**Figure 4-17 CTS 500 Light Status**



- If the shroud light feature is enabled, the Light State On button will be highlighted.
  - If the shroud light feature is disabled, the Light State Off button will be highlighted.
- Step 6** Click the **Light State On** or **Light State Off** button to change the current state of the shroud light.
  - Step 7** Click **Stop** to end the test. The state of the light reverts to its default setting as it was configured in the Unified CM.

## Digital Media Player

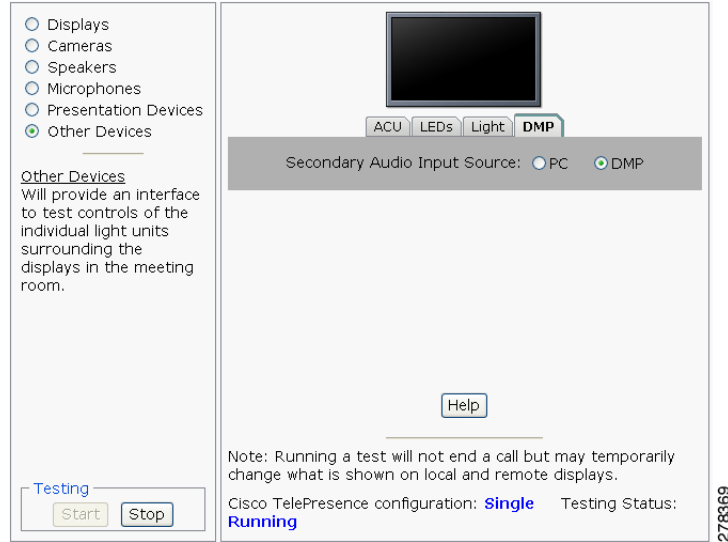
The Digital Media Player (DMP) feature lets you select a secondary audio input source when you are not in a TelePresence call.

For more information about the DMP, see the [Cisco Digital Media Players](#) home page on Cisco.com.

To test the DMP:

- Step 1** Log in to the Cisco TelePresence System Administration interface.
- Step 2** Choose **Troubleshooting > Hardware Setup**.
- Step 3** Select the **DMP** tab.
- Step 4** Click **Start** in the Testing box to begin testing the secondary audio input. The DMP status is displayed, as shown in [Figure 4-18](#).

Figure 4-18 CTS 500 DMP Status



- If you have a PC attached, the **Secondary Audio Input Source PC** button is highlighted. When **Secondary Audio Input Source** is set to **PC**, the audio input is active while the presentation source is active, both in and out of a call.
- If you have a DMP attached, the **Secondary Audio Input Source DMP** button is highlighted. When set to **DMP**, audio input is only active outside of a call if DMP is active (during business hours defined by Unified CM).

**Note**

The DMP settings should match how the secondary auxiliary audio input is physically connected to the codec.

**Step 5**

Click **Stop** to end the test.

## Troubleshooting Other Devices

Use the information in [Table 4-8](#) to troubleshoot Other Devices.

**Table 4-8** Troubleshooting Other Devices

Problem	Possible Cause	Possible Solution
<b>Digital Media Player</b> DMP audio is playing during a call.	The <b>Secondary Audio Input Source</b> setting may be wrong.	<ul style="list-style-type: none"> <li>Check to see that the <b>Secondary Audio Input Source</b> setting matches the physical cabling.</li> <li>When set to PC, the audio input is active while the presentation source is active, both in and out of a call.</li> </ul>
Local presentation audio is not playing during a call.	The <b>Secondary Audio Input Source</b> setting may be wrong.	<ul style="list-style-type: none"> <li>Check to see that the <b>Secondary Audio Input Source</b> setting matches the physical cabling.</li> <li>When set to DMP, audio input is only active outside of a call if DMP is active (during Cisco Unified Communications Manager-defined business hours).</li> </ul>
Presentation fails to display in some resume scenarios.	This is expected behavior.	<p>In early CTS software releases, a CTS with its presentation device plugged in would always ask to present when it did a resume.</p> <p>Presentation device functionality is changed. When a CTS goes on hold, the presentation device takes note whether or not it was the active presenter:</p> <ul style="list-style-type: none"> <li>If the presentation device was the active presenter when it went on hold, it will ask to present again when taken off hold and the presentation will be shown when the meeting resumes.</li> <li>If it was not the active presenter, it will not ask to present and the presentation will not be shown when the meeting resumes.</li> </ul>
Administration login can be slow when presenting during point-to-point secure calls.	This is expected behavior.	Administration CLI login can take as much as 60 seconds during point-to-point secure calls when a hold/resume is performed while presenting.
CTS 500 shroud light does not function properly.	The Auxiliary Control Unit option is not checked in the Optional Hardware Devices box of the Cisco Unified Communications Manager configuration interface.	The Auxiliary Control Unit check-box must be selected for the lights to function. See the Optional Hardware section of the <a href="#">Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System</a> for more information.

**Tip** Other devices automatically shut off when there is no longer a video signal to that device. An on-screen timer counts down the remaining time to shut-down. The amount of time that it takes a device to shut down depends on your Unified CM configuration. Most CTS devices that support PiP shut down in 10 to 15 seconds after the video signal is removed. Devices on the CTS 3000 and CTS 3200 series that have black boxes associated with the auxiliary control take 5 minutes to shut down. See the Product Specific Configuration Layout section of the [Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System](#) for more information about controlling presentation devices and associated displays.

## Related Information

For more information about setting up and testing other devices, see the *Cisco TelePresence System 500 Assembly, Use & Care, and Field Replacement Unit Guide*.

For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.

# Managing Log Files

**Tip**

---

If you are using Internet Explorer, remember to turn off Pop-up Blocker or configure Pop-up Blocker to allow the IP address before capturing system log files.

---

Use Log Files to view system operation (sysop) log files, Session Initiation Protocol (SIP) messages and log files from the Cisco TelePresence system. Click the appropriate tab at the top of the window to view the following information:

- [Sysop Log, page 4-39](#)
- [Log Files, page 4-40](#)
- [SIP Messages, page 4-41](#)

## Sysop Log

To manage System Operation ([Sysop](#)) Log messages:

- 
- Step 1** Choose **Troubleshooting > Log Files**.
- Step 2** Select the **Sysop Files** tab to view system operation messages, including call information, call statistics, and call errors for the Cisco TelePresence system. There can be up to 20 individual files saved on the CTS, and each file can contain up to 100,000 characters.
- Step 3** Click the **Download Sysop Files** button at the bottom of the page to download the sysop log files. CTS Administration software then prompts you to do one of the following:
- a. Open to view the sysop log files—The last 100,000 bytes of the log are shown. When you download Sysop Files, all available Sysop files will be downloaded.
- Or
- b. Save the sysop log files.
-

## Log Files

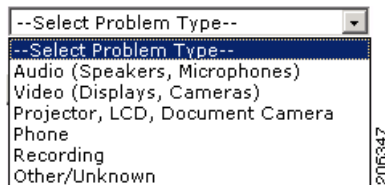
Use Log Files to retrieve log files from the Cisco TelePresence system. Log files can be retrieved from the CTS or from the phone.

To manage log files:

- 
- Step 1** Choose **Troubleshooting > Log Files**.
- Step 2** Select the **Log Files** tab. The following fields are displayed:
- **Log Status**—Shows the status of the log capture, including the percentage completed.
  - **Time Generated**—Shows the time of the most recent log file capture.
  - **Problem Type**—Drop-down menu contains the following:
    - Audio (speakers, microphones)
    - Video (displays, cameras)
    - Projector (or alternate display), **LCD**, document camera
    - Phone
    - Recording
    - Other/Unknown

Figure 4-19 shows the problem types that you can select when downloading log files.

**Figure 4-19** Select Problem Type Drop-Down Menu



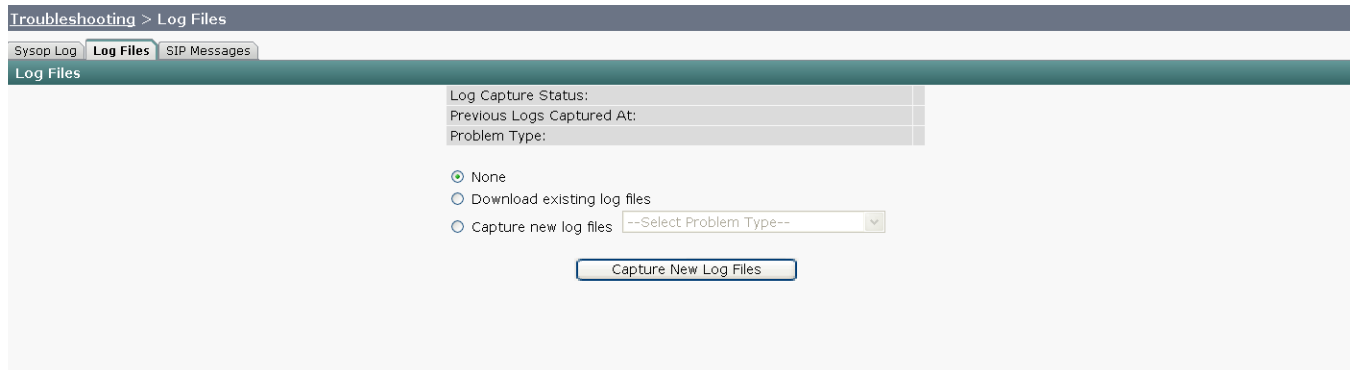
- Step 3** Choose from one of the following options:
- **None** —Default. No log files will be captured unless a download option is selected. Figure 4-20 shows the log download radio button options.
  - **Download existing log files**—You must select this radio button to download logs.
  - **Capture New Log Files**—The system will capture but not download the log files.



**Note** You must disable Internet Explorer Pop-up Blocker to capture new log files with the Capture New Log Files button.

---

Figure 4-20 Downloading Log Files



278653

**Step 4** Select the “Download existing log files” radio button and then select a problem from the Select Problem Type drop-down menu:

- Audio (speakers, microphones)
- Video (displays, cameras)
- Projector, alternate display, [LCD](#), document camera
- Phone
- Recording
- Other/Unknown

**Step 5** Click the **Download Existing Log Files** button. The following message appears:

“A WinZip download will start within several minutes.  
Please wait...”

The File Download window appears prompting you to open or save the file. Click **Save** to send the [gzip](#) file to Cisco technicians to help solve the problem.

Or

**Step 6** Select the “Capture new log files” radio button and then click the **Capture New Log Files** button. The following message appears:

“Collecting Cisco TelePresence system log files. This may take several minutes.  
Please wait...”

The File Download window appears prompting you to open or save the file. Click **Save** to send the [gzip](#) file to Cisco technicians to help solve the problem.

## SIP Messages

Use SIP Messages to view the current Session Initiation Protocol (SIP) messages log file. SIP request and response methods are used to establish communications between components in the network and ultimately to establish a call or session between two or more endpoints. [Table 4-9](#) and [Table 4-10](#) describe the SIP requests and message types.

To manage SIP messages:

- 
- Step 1** Choose **Troubleshooting > Log Files**.
- Step 2** Select the **SIP Messages** tab. The SIP Messages window appears.
- Step 3** View a specific type of message in the SIP log file by doing the following:
- a. Enter the filter where the SIP Message Type is by typing the name in the field provided. The Filter button is activated.
  - Or
  - b. Select the message type from the drop-down menu. The Filter button is activated.
  - c. Click the **Filter** button to view the SIP messages of the type you specified.
- Step 4** Choose the number of messages to view at one time from the Rows Per Page drop-down menu. You can use the First, Previous, Next, and Last buttons to navigate through the message list with the [Navigating Long Lists](#) option. You can also [Generate Detailed Message Reports](#).
- 

## Generate Detailed Message Reports

To see additional details associated with a SIP message:

- 
- Step 1** Double-click on a SIP message from the list to open the SIP Message Details dialog box. The SIP Message Details dialog box opens containing the message details and [Related SIP Messages](#).
- Or
- Step 2** Highlight the SIP message and click the **Details** button. The SIP Message Details dialog box opens containing the message details and [Related SIP Messages](#).
- 

## Related SIP Messages

The bottom portion of the SIP Message Details window lists SIP messages that are related to the SIP message that was selected at the top of the window.

To view related SIP message details:

- 
- Step 1** Double-click a message in the [Related SIP Messages](#) window to see details for that message. [SIP Requests and Methods](#) and [SIP Response Categories](#) are explained below.
- Step 2** Click **Close** to dismiss this window.
- 

Use the information in the following sections to initiate SIP requests and responses:

- [SIP Requests and Methods, page 4-42](#)
- [SIP Response Categories, page 4-43](#)

### SIP Requests and Methods

[Table 4-9](#) summarizes the SIP requests and methods supported by the Cisco TelePresence System Administration software. The first column lists the RFC that describes the SIP request messages or method.



**Table 4-9** Supported SIP Requests and Methods

RFC	Request/Method	Description
3261	ACK	Confirms that the client has received a final response to an INVITE request.
3261	BYE	Terminates a call. Can be sent by either the caller or the called party.
3261	CANCEL	Cancels any pending searches but does not terminate any call currently in progress.
2976	INFO	Allows session-related control information generated during a session to be carried along the SIP signaling path.
3261	INVITE	Indicates that a user or service is being invited to participate in a call session.
3265	NOTIFY	Immediately upon successful accepting or refreshing of a subscription, a NOTIFY message is sent to communicate the current resource state to the subscriber. This NOTIFY message is sent in the same dialog as that created by the SUBSCRIBE message.
3261	OPTIONS	Queries the capabilities of servers.
3262	PRACK	Provides reliability for 1xx type messages; see <a href="#">Table 4-9</a> .
3515	REFER	Provides a mechanism allowing the party sending the REFER message to be notified of the outcome of the referenced request.
3261	REGISTER	Registers the address listed in the To header field with a SIP server.
3265	SUBSCRIBE	Requests current state and state updates from a remote node.
3311	UPDATE	Allows a client to update parameters of a session, but has no impact on the state of a dialog. This request can be sent before the initial INVITE has been completed, thereby making it useful for updating session parameters within early dialogs.

**SIP Response Categories**

SIP replies to the requests in [Table 4-9](#) using the response categories described in [Table 4-10](#).

**Table 4-10** SIP Response Categories

Response Category	Response Type
1xx	Informational messages
2xx	Successful responses
3xx	Redirection responses
4xx	Request failure responses
5xx	Server failure responses
6xx	General failure responses

**Navigating Long Lists**

The log file can hold up to 2 MB worth of SIP messages. To navigate long lists:

- Step 1** Choose the number of rows that you wish to see on one page from the Rows Per Page drop-down menu.
- Step 2** Double click to select and open single message details. The SIP Message Details window appears.

- Step 3** If there are multiple pages listing log files, click the **First**, **Previous**, **Next**, or **Last** button to navigate to the desired page.
- Step 4** Click the radio button to the left of the table entry, and then click **Clear** to delete a single error message.
- Step 5** Click **Clear All** to delete all error messages displayed.
- 

## Related Information

For more information, see the following documentation:

- [Session Initiation Protocol \(SIP\) home page on Cisco.com.](#)
- [Cisco TelePresence System Message Guide](#)

## Testing Audio

You can test the system audio in your meeting room and send the results to Cisco Systems technical support for analysis.



### Note

Audio recordings can be made only while the CTS system is in a call.

---

To record audio:

---

- Step 1** Choose **Troubleshooting > Audio**.
- Step 2** Click **Start Recording Audio** to start recording all audio in the local meeting room including audio from remote meeting rooms. Recording will continue up to a maximum of two minutes unless you manually stop recording.



### Note

Both endpoints will beep periodically during the recording process and when audio add-in participants join the call.

---

- Step 3** Click **Stop Audio Recording** to stop recording.
- Step 4** After you complete the recording and download the results, send the results to Cisco Systems technical support.
- 

## Related Information

For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

## Testing the Network Connection

Use the Network Connection window to view and modify the duplex and automatic negotiation settings for the Cisco TelePresence system Ethernet connection. Auto negotiation is set to Off by default.

You can change the following network connection settings:

- Auto Negotiation on
- Auto Negotiation off

To manage Auto Negotiation:

- 
- Step 1** Choose **Troubleshooting > Network Connection**.
- Step 2** Click the **On** or **Off** radio button to enable or disable auto negotiation. The **Apply** and **Reset** buttons are activated, as shown in [Figure 4-21](#).

**Figure 4-21** Auto Negotiate On

The screenshot shows the 'Troubleshooting > Network Connection' window. It contains a table with the following settings:

Auto Negotiation:	<input checked="" type="radio"/> On <input type="radio"/> Off
Duplex:	Full
Speed:	1000

At the bottom right of the window, there are two buttons: 'Apply' and 'Reset'. A vertical label '278660' is visible on the right side of the window.



**Note** When Auto Negotiation is enabled, the Duplex and Speed settings are read-only.

- 
- Step 3** Click **Apply** to save your settings or click **Reset** to restore the original settings.
- 

### Related Information

For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

## Managing Configuration Issues

Use the Configuration Issues window to view hardware and software versions and to reset the system to use the factory default software image and the default configuration.

To view hardware and software versions and active images, choose **Troubleshooting > Configuration Issues**. The Hardware/Software Versions page appears listing the current hardware and software versions and active images.

## Resetting the System



### Caution

Once the system is reset, you will have to reconfigure the system. You will be asked twice to confirm your choice to revert to the factory image before software will carry out this request.

Resetting the system can take over two hours to complete.

A system reset results in the following:

- The CTS is reset to the software image as originally shipped.
- All configuration settings are reset to the factory defaults.

If you select to reset the system to use factory defaults, check the Cisco IP telephone for messages during the reset procedure:

- Data in bold **blue** text indicates where the current system image is located for each codec in the system.
- Locations of the factory image are listed.

To reset the system image to the factory default:

**Step 1** Choose **Troubleshooting > Configuration Issues**. The Hardware/Software Versions page appears listing the current hardware and software versions and active images.

**Step 2** Click the **Reset to Factory Image and Factory Configuration...and Restart Cisco TelePresence System...** button. The system image location is changed and the system restarted.



### Note

If a Cisco TelePresence call is in progress, the changes will be made after the call ends.

## Related Information

For more system troubleshooting information, see the [Cisco TelePresence System Troubleshooting Guide](#) on Cisco.com.

# Initiating System Restart


**Caution**

The system will restart immediately, even when a Cisco TelePresence call is in progress.

To restart the system:

- Step 1** Choose **Troubleshooting > System Restart**. The System Restart page appears and the current call status is displayed.
- Step 2** Click the **Restart Cisco TelePresence System** button. The system immediately restarts.

# Troubleshooting Video Quality Settings

Use the information in [Table 4-11](#) to troubleshoot the video picture on the displays.

**Table 4-11** Troubleshooting Cisco TelePresence Screen Resolution

Problem	Possible Cause	Action
Video picture is good but experiences repeated interruptions.	Video quality setting is set too high.	<ol style="list-style-type: none"> <li>1. Log into the Cisco Unified CM Administration interface.</li> <li>2. Verify that the required settings have been made for configuring the video quality. See the <i>Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System</i>.</li> </ol> <p><b>Note</b> Higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted.</p>

**Note** See the *Cisco TelePresence Network Systems 2.0 Design Guide* for more information about CTS video quality.

For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.

# Troubleshooting Network Cabling

For all Cisco TelePresence systems, the Cisco Unified IP phone is connected to the primary codec using an Ethernet cable (RJ-45 connector). An RJ-45 connector is also required for the following additional network connections:

- An Ethernet cable (RJ-45) connects the primary codec to the user network.

For detailed cabling information, see the Routing Power and Signal Cables section in the Cisco TelePresence System Assembly, Use & Care, and Field Replacement Unit Guide for your system on Cisco.com:

- **Product Support > TelePresence > TelePresence Immersive Endpoints**
  - Cisco TelePresence System 3200 Series
  - Cisco TelePresence System 3000 Series
  - Cisco TelePresence System 1300 Series
  - Cisco TelePresence System T Series
- **Products > TelePresence > TelePresence Personal Endpoints > TelePresence Office**
  - Cisco TelePresence System 1100
  - Cisco TelePresence System 1000
  - Cisco TelePresence System 500 Series

Table 4-12 contains problem scenarios and troubleshooting solutions for network cabling.

**Table 4-12** Troubleshooting Cisco TelePresence Network Cabling

Problem	Possible Cause	Actions
Cisco Unified IP Phone is off.	<ul style="list-style-type: none"> <li>• Power to the primary unit is off.</li> <li>• Phone is not connected to the phone port on the primary unit.</li> <li>• The system does not recognize the phone or it is unregistered.</li> <li>• The network is down.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the power connection to the Cisco TelePresence System, and verify that the system is turned on.</li> <li>• Check the cable connection from the primary unit to the Cisco Unified IP Phone. See the assembly guide for your Cisco TelePresence system for correct cabling.</li> <li>• Log into the Cisco Unified Communications Manager administration interface. Click on the IP address and verify phone registration. Restore network operation. See the <i>Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System</i> for more information.</li> </ul>
Cisco IP Phone does not register with the IP network.	<ul style="list-style-type: none"> <li>• The network cable is not connected to the primary unit.</li> <li>• The network configuration has not been done or has been done incorrectly.</li> </ul>	<ul style="list-style-type: none"> <li>• Log into the Cisco Unified Communications Manager administration interface and verify that the required settings have been made for configuring the Cisco TelePresence system and Cisco Unified IP Phone.</li> </ul>

**Table 4-12** Troubleshooting Cisco TelePresence Network Cabling (continued)

Problem	Possible Cause	Actions
Cisco IP Phone does not register with the IP network.	<ul style="list-style-type: none"> <li>• Cisco Unified Communications Manager is down or disabled.</li> <li>• The network is down.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the cable connection from the primary unit to the network. See the assembly guide for your Cisco TelePresence system for correct cabling.</li> <li>• Restart Cisco Unified Communications Manager. See the <i>Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System</i> for Cisco Unified Communications Manager configuration instructions.</li> <li>• Restart the network.</li> </ul>
Cisco Telepresence phone idle screen does not appear.	Device configuration has not been done or has been done incorrectly.	<ul style="list-style-type: none"> <li>• Log into the Cisco Unified Communications Manager administration interface.</li> <li>• Verify that the required settings have been made for configuring the Cisco TelePresence system and Cisco Unified IP Phone. See the <i>Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System</i>.</li> </ul>

**Note** For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.

## CTS 500 32" Troubleshooting

Because the CTS 500 32" uses a first-time setup wizard, configuring and troubleshooting tasks are somewhat different than other CTS models. Refer to [Troubleshooting the CTS 500-32 and CTS 500-37](#) in this guide and to the following support documentation on Cisco.com:

- [Cisco TelePresence System 500 32" Assembly, Use & Care, and Field-Replaceable Unit Guide](#)

## Where to Go Next

See the [Chapter 12, "Monitoring the Cisco TelePresence System."](#)

For information about system messages that may appear on the Cisco TelePresence system, see the *Cisco TelePresence System Message Guide* on the [Cisco TelePresence Administration Software Error and System Messages](#) home page on Cisco.com.







