



Troubleshooting Touch Device Installation Issues

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The following chapter describes troubleshooting steps for the installation and upgrade of your Touch device and includes the following sections:

- [Retrieving Log Files for Your Device, page 4-1](#)
- [Troubleshooting Installation and Upgrade Issues, page 4-2](#)
- [Determining the Cause of the Error By System Check Number During Bootup, page 4-2](#)
- [Troubleshooting “Establishing Connection” Errors on the Touch Panel, page 4-5](#)



Caution

The display used in this product contains mercury. Dispose of according to local, state, and federal laws.

Retrieving Log Files for Your Device

If your software does not install or upgrade successfully, a good way to begin troubleshooting is to obtain the log files for the Cisco TelePresence system that you are attempting to upgrade. To do so, complete the following steps:

- Step 1** Log into the Cisco TelePresence system that you are attempting to upgrade by entering the IP address for the system.
- Step 2** Enter the user name and password for your device.
By default, the user name is **admin** and the password is **cisco**.
- Step 3** Navigate to **Troubleshooting > Log Files**.
- Step 4** Check the log files under the **Sysop Log** tab.

Troubleshooting Installation and Upgrade Issues

Most installation issues involve problems that occur during the software upgrade process. Check the log files as shown in the [“Retrieving Log Files for Your Device”](#) section on page 4-1 and attempt to troubleshoot the problem.

The following procedures might help you to find a solution for your problem:

- You attempted to upgrade directly from an image prior to 1.7.4 to an image that is 1.8.0 or greater. To upgrade from pre-1.7.4 images, see the [“Upgrading the CTS Software for Systems That Are Running Cisco TelePresence Software Versions Prior to 1.7.4”](#) section on page 3-5.

For additional troubleshooting steps, continue to the [“Determining the Cause of the Error By System Check Number During Bootup”](#) section on page 4-2 and review the problems based on the system check number. If you still cannot determine the cause of the problem, review the installation and upgrade sections in this document and make sure that you did not omit any steps.

Determining the Cause of the Error By System Check Number During Bootup

Occasionally, the Touch device will stop during the bootup process. You can attempt to determine the error by looking at the check marks on the lower left of the screen. There are seven check marks, numbered one to seven. The numbers change into check marks as the bootup continues [Figure 4-1](#) shows the Touch device having completed six of the seven internal checks.

Figure 4-1 Touch Screen During Bootup—Six of Seven Checks Completed



Table 4-1 provides you with an explanation of the numbers and possible reason for the failure.

Table 4-1 System Check Number and Explanation/Troubleshooting Steps

System Check Number	Explanation and Troubleshooting Steps
1	Power-on self test. If the device fails during this check mark, contact your Cisco technical support representative for a replacement.
2	<p>UBoot (universal boot loader) loads the boot image on to the RAM.</p> <p>Issues that could occur during this check include a power outage, or the user/installer unplugging the Power over Ethernet (PoE) cable. To attempt to fix this problem, disconnect the PoE cable and then reconnect it.</p>
3	<p>UBoot performs a cyclical redundancy check (CRC) on the boot image. If the CRC check fails, this number will be crossed out. If the Touch device is being booted on the active slot, the UBoot program attempts to switch to the backup slot and reset the Touch. If the Touch device is being booted on the backup slot, then UBoot will not switch and sit at the UBoot prompt.</p> <p>If this problem continues, it indicates that the image on both the active and backup Flash slots are corrupted. You can attempt to disconnect the Ethernet cable from the system, reload a new software image on the codec, then reconnect the system. For more information, see Chapter 2, “Installing the Cisco TelePresence Touch 12 That Ships With a New Product.”</p>
4	<p>The system acquires an IP address, either using the dynamic host configuration protocol (DHCP) in your network or using a manual address you set on the system. If the system cannot obtain an IP address, the number is crossed out and an error message “Unable to communicate with the codec” is displayed.</p> <p>If you see the “Unable to communicate with the codec” message, a possible reason is that a VLAN is set up as both an access VLAN and a voice VLAN. To fix this problem, configure separate VLANs for access and voice.</p> <p>To specify a static IP address for your device, log in to the Cisco TelePresence Administration system as the admin user, navigate to Configuration > IP Settings, change the DHCP Enabled setting to No, and specify a static IP address, subnet mask, gateway and DNS server. You must reboot your codec after you configure a static IP address.</p> <p>Note You must use a DHCP-enabled computer to specify an IP address, and you must connect the computer to the correct port on the codec. For more information, refer to the “First-Time Setup” chapter for your system. For example, for a TX9000 or TX9200 system, refer to the “Setting Up a TX9000 or TX9200 System That Uses a Static Network Address” section of the “First-Time Setup” chapter of the <i>Cisco TelePresence System TX9000 and TX9200 Assembly, First-Time Setup, and Field-Replaceable Unit Guide</i>.</p> <p>You might receive the following message on the Cisco TelePresence Administration console during this stage of the bootup process: “Room Phone (not connected)”. You can ignore this message. At the early stages of Touch initialization, the Cisco TelePresence system cannot detect the Touch device, and this message is received. Once the system recognizes the Touch device, you will receive a system message “Touch Screen (connected / status)”.</p>

Table 4-1 System Check Number and Explanation/Troubleshooting Steps (continued)

System Check Number	Explanation and Troubleshooting Steps
5	<p>The system loads the system image from Unified CM through the codec and onto the Touch device.</p> <ul style="list-style-type: none"> • If the system cannot retrieve the image within 2 minutes, 5 is crossed out and the message “Unable to retrieve the boot image” is displayed on the device and in the system error logs. If you find this error, check the following issues: <ul style="list-style-type: none"> – The system has not yet been registered to Unified CM. The system receives its image from Unified CM, and you must register your system to download the image. – The file has not yet been loaded on the Unified CM server. – The file is loaded, but the TFTP server has not been restarted. – You did not specify the correct file name in the Cisco Unified Communications Manager (Unified CM) administrative GUI. – The file existed on the Unified CM server, but has been deleted. The Touch device gets its image directly from the Unified CM server via the codec. See Figure 1-1 in Chapter 1, “Understanding COP and Loads Files for the Cisco TelePresence System.” – You specified an invalid file name for your system. Generally, the CTS-500-37, CTS-1000, CTS-1100, CTS-1300-65, CTS-3010, and CTS-3210 use the COP file with a name ending in P1, while the CTS-500-32, CTS-1300 47, TX1310 65, TX9000, and TX9200 use the COP file with a name ending P2. – For all releases before 1.7.4: You did not specify the file type after the file name, or you specified an invalid file type. The CTS-500-37, CTS-1000, CTS-1100, CTS-1300-65, CTS-3010, and CTS-3210 use a file extension of .sbn, while the CTS-500-32 and CTS-1300-47 use a file extension of .SPA. – For all releases after and including 1.7.4: When you specified the file name, you entered a file type (extension) along with the file name. Enter the file name with no extension in the Unified CM GUI. – You directly uploaded the files by using the Software Upgrades > TFTP File Management > Upload File choice in Unified CM. This method is unsupported. – If the system retrieves the image, but the image is corrupted or unsigned, 5 is crossed out and the message “Boot image corrupted” is displayed. To fix this problem, reload the COP file on the Unified CM server, or upload a different file on the server, as this error indicates a corrupted COP file on the codec. • If the kernel image is corrupted due to some software packaging issue, 5 is crossed out and the message “Unable to extract the boot image” will be shown. There is no workaround. • If the image cannot be copied to the flash device, 5 is crossed out and the message “Unable to update flash” is displayed. There is no workaround.
6	<p>The file system has completed extracting and the Touch device moves its active slot to the slot of the extracted image. If there is a problem extracting the file system contents, then 6 is crossed out and the message “Unable to extract the boot image” is displayed.</p> <p>The only workaround is to wait 90 seconds for the system to re-attempt a reboot.</p>
7	<p>The user interface becomes active on the Touch screen. There is no workaround if this box does not become checked.</p>

Troubleshooting “Establishing Connection” Errors on the Touch Panel

If your touch panel displays text “Establishing Connection” after it boots up successfully, there could be an issue with the Manufacturing Installed Certificate (MIC). The full error that displays is the following text:

```
Establishing Connection Attempting to connect with the system. Please wait a moment.
```

To verify this error, log in to the system codec using a secure terminal session, such as SSH Secure Shell, and enter the CLI command `show cert mic`. The output should return an error that there is no certificate.

You can also check the Log Files section of the GUI. The following error should appear at the top of the syslog log files:

```
*****WARNING= No valid Manufacturing Installed Certificate foundSecure mode operation may not be possible*****
```

If you are attempting to register to a secure device profile, the registration fails, because the MIC is not available.

To resolve this problem, perform a factory initialization or a factory reset as shown in the following procedure.

Troubleshooting “Establishing Connection” Errors on the Touch Panel: Summary Steps

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- | | |
|---------------|---|
| Step 1 | Log in to the system via a secure terminal session such as Secure Shell SSH, then enter the show the <code>show cert mic</code> command. |
| Step 2 | If the command output indicates that the MIC certificate could not be found, enter the <code>utils system factory init</code> command.
The system reboots several times during this process. |
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Troubleshooting “Establishing Connection” Errors on the Touch Panel: Detailed Steps

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- | | |
|---------------|--|
| Step 1 | Log in to the system via a secure terminal session such as Secure Shell SSH, then enter the show the <code>show cert mic</code> command. |
| Step 2 | If the command output indicates that the MIC could not be found, complete the following steps to perform either a factory initialization or a factory reset.
The following differences exist between a factory initialization or a factory reset: <ul style="list-style-type: none">• A factory initialization of your system reboots your system using that image that the system finds in Unified CM and regenerates the necessary certificate. It is suggested that you use this method. |

Your Unified CM server must use Option 150 of the Dynamic Host Configuration Protocol (DHCP), specifying the IP address of the Unified CM server as the TFTP server address. If your system does not use DHCP, you must specify the server location after the system reboots.

- A factory reset of your system reboots your system using the image that was loaded on the codec at the factory, clears all configuration (including all IP and Cisco Unified Communications Manager (Unified CM) configuration, the camera white balance, and microphone calibration) and regenerates the necessary certificate.

To factory reset your system, you require access to the system GUI or access to the system console using a secure CLI or web GUI of the codec, as well as access to the system, so that you can directly connect an Ethernet cable to the system codec. An Ethernet cable and a laptop running DHCP are also required.

Step 3 Make a note of the IP and Unified CM configuration by completing the following actions:



Note

While this step is required only if you do a factory reset of your system, it is good practice to make a note of all settings, in case there are any problems with the reset procedure.

- Log in to the Cisco TelePresence System Administration GUI. By default, the user ID is **admin** and the password is **cisco**.
- Navigate to **Configuration > IP settings** and make a note of the IP settings.
- Navigate to **Configuration > Unified CM settings** and make a note of the Unified CM settings. The IP address under TFTP server 1 is the IP address of the Unified CM server.



Note

Make sure to note whether DHCP is turned on or off for both the IP and the Unified CM settings.

Figure 4-2 IP and Unified CM Information in the Cisco TelePresence Administration GUI

Phone: 86011

Device Information

Configuration

- IP Settings
- Network Settings
- Unified CM Settings
- Address Book
- Telephony Settings
- SNMP Settings
- System Settings

Troubleshooting

- Hardware Setup
- Log Files
- Audio
- Network Connection

Device Information

Configuration

- IP Settings

MAC Address: 1C:DF:DF:76:FE:A6

Host Name: SEP1CDFDF76FEA6

DHCP Enabled: Yes No

Domain Name:

Use Static IP Address: Yes

IP Address: 14.80.76.31

Subnet Mask: 255.255.255.0

Default Gateway: 14.80.76.1

DNS Server 1: 14.80.75.11

DNS Server 2:

Use Configuration TFTP Servers: Automatic Static

TFTP Server 1: 14.80.97.130

TFTP Server 2:

TFTP Server 3:

TFTP Server 4:

TFTP Server 5:

Cisco Unified Communications Manager 1: FStojanoCUCM

Cisco Unified Communications Manager 2: FStojanoCUCMSUB

Cisco Unified Communications Manager 3: Not Available

Cisco Unified Communications Manager 4: Not Available

Cisco Unified Communications Manager 5: Not Available

CAPF Authentication String: 1234567890

Step 4 Perform either a factory initialization or a factory reset of your system by completing the following steps:

- To perform a factory initialization, which reboots your system from the image that is found in Unified CM, complete one of the following actions:
 - Log in to the system via a secure CLI session, such as SSH Secure Shell, and enter the **utils system factory init** command. Type **yes** when you are prompted.
The system reboots and loads the image that is specified in Unified CM.
 - In the Cisco TelePresence Administration GUI, navigate to the **Configuration > Configuration Issues** window and click the **Revert to Factory Configuration...** button. Click **OK** when you are prompted.

This completes the procedure for a factory initialization. If you have any problems with the reboot, continue to the [Step 5](#) to verify the IP settings, Unified CM settings, white balance, and microphone calibration.

- To reset your system, which causes the system to reboot with the factory image instead of the image that is specified in Unified CM, enter the **utils system factory reset** command at the command prompt. Type **yes** when you are prompted. Continue to [Step 5](#).

The system reboots and loads the image that was loaded on the codec from the factory.

Step 5 After the system reboots, manually re-enter the IP settings by completing the following steps:

- a. Directly connect a DHCP-enabled PC to the codec using an Ethernet cable.
 - If your codec looks like the codec in [Figure 4-4](#), connect the Ethernet cable to the auxiliary camera port of the primary codec. The connection on the port is the Ethernet port labeled “Aux” with a camera icon next to it. The port is on the far lower right in [Figure 4-4](#). The following systems use this codec:
 - Cisco TelePresence System 500-32 (PID: CTS-500-32)
 - Cisco TelePresence System 1300-47 (PID: CTS-1300-47)
 - Cisco TelePresence System TX1310-65 (PID: CTS-TX1310-65)
 - Cisco TelePresence System TX9000 (PID: CTS-TX9000)
 - Cisco TelePresence System TX9200 (PID: CTS-TX9200)



Note

For the Cisco TelePresence Systems TX9000 and TX9200, connect the cable to the TS1 codec. The location of TS1 is the second codec from the left after you open the cabinets under the displays. For an example, refer to the following URL:
http://www.cisco.com/en/US/docs/telepresence/tx9000/assembly_guide/tx9000_installing_the_electronic_equipment_and_camera.html#wp1122096

- If your codec looks like the codec in [Figure 4-3](#), connect the Ethernet cable to the secondary camera port of the primary codec. This connection is listed as the auxiliary network port in [Figure 4-3](#). The following systems use this codec:
 - Cisco TelePresence System 500-37 (PID: CTS-500-37)
 - Cisco TelePresence System 1000 (PID: CTS-1000)
 - Cisco TelePresence System 1100 (PID: CTS-1100)
 - Cisco TelePresence System 1300-65 (PID: CTS-1300)
 - Cisco TelePresence System 3000 (PID: CTS-3000)

Cisco TelePresence System 3010 (PID: CTS-3010)

Cisco TelePresence System 3200 (PID: CTS-3200)

Cisco TelePresence System 3210 (PID: CTS-3210)



Tip

If any cables are connected to the port, you can unplug the cable, as long as you reconnect it after you complete these steps.

Figure 4-3 Codec CTS-CODEC-SING-G1 or CTS-CODEC-PRI-G2R

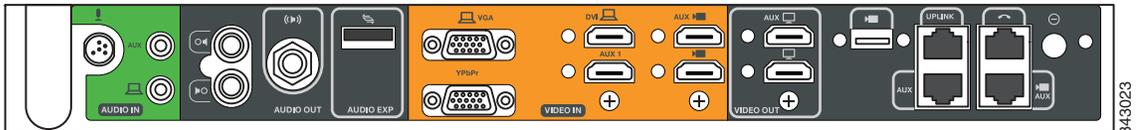
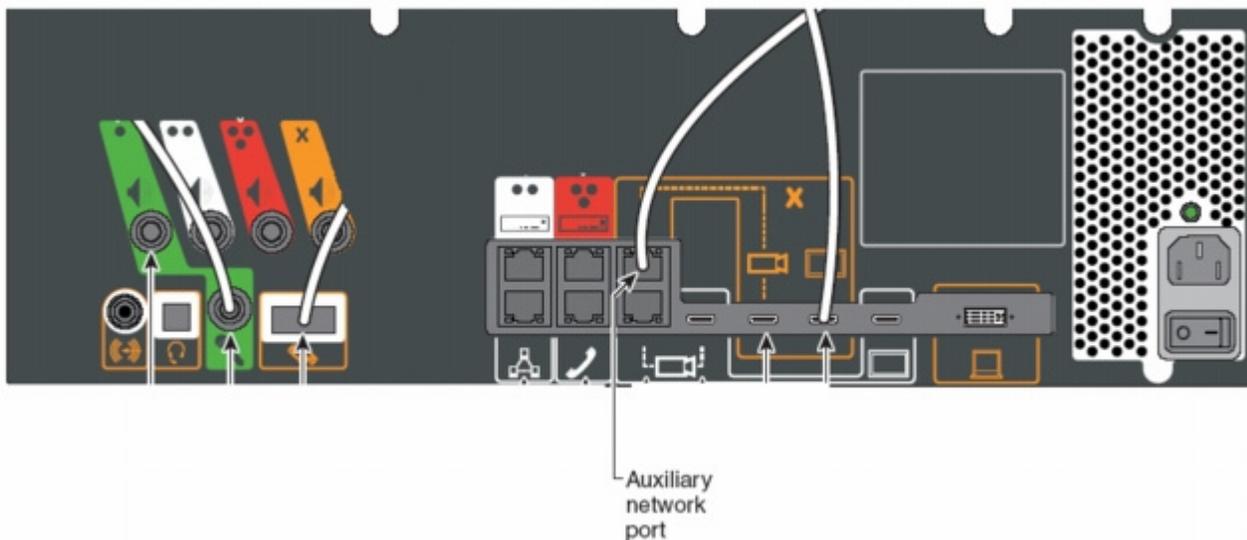


Figure 4-4 Codec CTS-CODEC-PRI-G2 or CTS-CODEC-PRIM



- b. Ensure that your local network interface is set to DHCP so that the codec assigns an IP address to your laptop.
On Windows 7, set your DHCP settings under **Control Panel > Network and Internet > Network Connections**. Right-click your wired interface and select **Properties**. Then click **Internet Protocol Version 4** and click the **Properties** button. Make sure that the **Obtain an IP Address Automatically** radio button is selected.
- c. Open a command prompt and type **ipconfig**.
- d. Make a note of the IP address for your wired connection in the command output.

- e. In a web browser, enter `xxx.xxx.xxx.1` where the first three octets match your local IP address. The codec will assign you an address such as 192.168.2.2. In that case, open a browser and enter 192.168.2.1 to open the Cisco TelePresence Administration GUI. The codec can also assign 10.x.x.x addresses.
- f. From the Cisco TelePresence Administration GUI, navigate to **Configuration > IP Settings** and **Configuration > Unified CM Settings** and restore the IP and Unified CM values to their previous values.



Note Be sure to specify the correct DHCP settings (either Yes or No).

The system reboots and either upgrades its image to the version that is specified in Unified CM, or initializes with the factory image, depending on what you specified in [Step 3](#). The system might reboot multiple times during this process.

Step 6 If you reset your system with the factory image, reload the current image onto your system

Step 7 Reset the camera white balance by following the procedure in the “Setting Up the Cameras” section of the “First-Time Setup” chapter for your system.

For first-time setup instructions, refer to the Cisco TelePresence System Assembly Guide for your system on Cisco.com:

Cisco TelePresence System 500-32 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_500/cts_500_32/assembly/guide/cts_500_32_guide.html

Cisco TelePresence System 500-37 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_500/500_assembly_guide/500_first_time_setup.html

Cisco TelePresence 1000 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_1000/assembly/guide/t1hwch06.html

Cisco TelePresence System 1100 Assembly, First-Time Setup, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_1100/cts_1100_assembly_guide/1100_first_time_setup.html

Cisco TelePresence System TX1300 47 Installation, First-Time Setup, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_1300/cts_1300_47/assembly/guide/1300_47_assembly_guide.html

Cisco TelePresence System 1300-65 Assembly, First-Time Setup, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_1300/cts_1300_assembly_guide/1300_first_time_setup.html

Cisco TelePresence System TX1310 65 Assembly, First-Time Setup, and Field Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_1300/cts_1310/assembly/guide/1310_assembly_guide.html

Cisco TelePresence System 3000 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_3000/guide/3000_First_Time_Setup.html

Cisco TelePresence System 3010 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_3010/assembly_guide/3010_first_time_setup.html

Cisco TelePresence System 3200 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_3200/assembly_guide/3200_First_Time_Setup.html

Cisco TelePresence System 3210 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_3210/assembly_guide/3210_first_time_setup.html

Cisco TelePresence System TX9000 and TX9200 Assembly, First-Time Setup, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/tx9000/assembly_guide/tx9000_9200_assembly_guide.html

- Step 8** If you have a Cisco TelePresence System TX1300 47, TX1310 65, TX9000 or TX9200, re-calibrate the microphones as shown in the “Setting Up the Microphones” section of the *Cisco TelePresence System TX9000 and TX9200 Assembly, First-Time Setup, and Field-Replaceable Unit Guide*. The calibration procedure is the same for all systems.
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